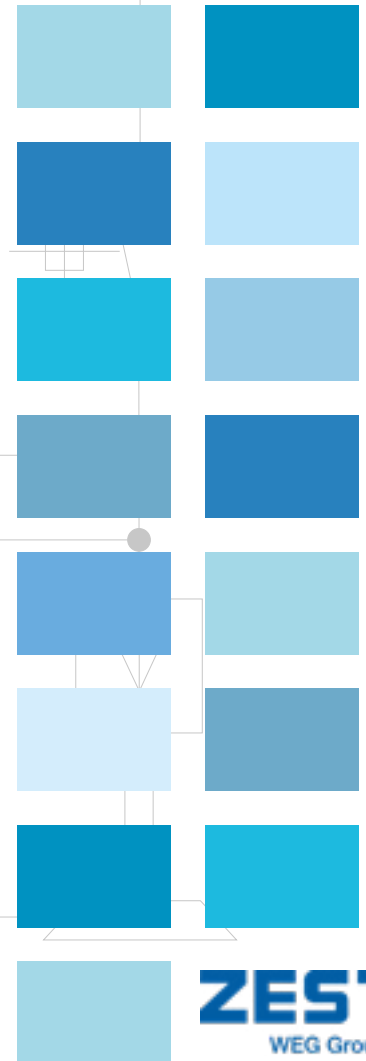
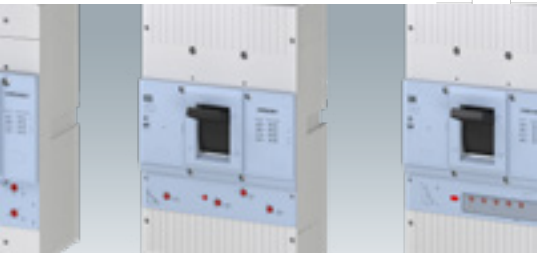
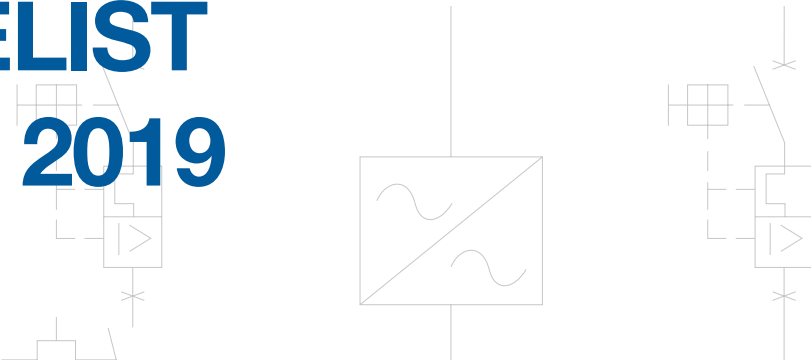


# AUTOMATION

LOW VOLTAGE SWITCH & CONTROL GEAR

## PRICELIST 2018 - 2019



# Automation

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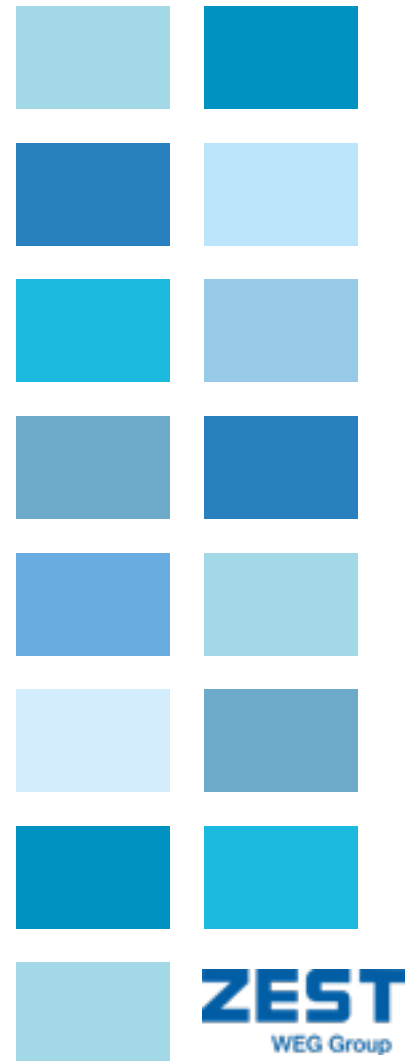
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Due to continuous product development, item product codes & descriptions may vary and must be confirmed when placing orders.



# Automation

## Book 1 - Motor Starters and Protection



## 3-POLE COMPACT CONTACTORS - TECHNICAL DATA

### POWER CIRCUIT

Reference code		CWC07	CWC09	CWC012	CWC016	CWC025
Rated operational current $I_e$	AC-3 ( $U_e \leq 440$ V) (A)	7	9	12	16	22
	AC-4 ( $U_e \leq 440$ V) (A)	2.8	3.5	4.5	5	9
	AC-1 ( $\theta \leq 55$ °C, $U_e \leq 690$ V) (A)	18	20	22	22	32
Rated operational voltage $U_e$	IEC/EN 60947-4-1, VDE 0660 (V)	690				
	UL, CSA <sup>1)</sup> (V)	600				
Rated thermal current $I_{th}$ ( $\theta \leq 55$ °C)	(A)	18	20	22	22	32
Making capacity - IEC/EN 60947	(A)	70	90	120	160	250
Breaking capacity IEC/EN 60947	( $U_e \leq 400$ V) (A)	50	72	96	128	200
	( $U_e = 500$ V) (A)	50	72	96	128	200
	( $U_e = 690$ V) (A)	35	54	72	96	150
Short-time current (no current flowing during recovery time of 10 min and $\theta \leq 40$ °C)	1 seg (A)	250	250	250	250	-
	5 seg (A)	125	125	125	125	-
	10 seg (A)	95	95	95	95	-
	30 seg (A)	70	70	70	70	-
	1 min (A)	50	50	50	50	-
	3 min (A)	40	40	40	40	-
Protection against short-circuits with fuses (gL/gG)	@600 V - UL/CSA <sup>1)</sup> (kA)	5				
	Coordination type 1 (A)	35	35	35	35	50
	Coordination type 2 (A)	20	20	25	25	35
Average impedance per pole	(m $\Omega$ )	6	6	5	5	6
Average power dissipation per pole	AC-1 (W)	1.9	2.4	2.4	2.4	6.1
	AC-3 (W)	0.3	0.5	0.7	1.3	3.8
<b>Utilization category AC-3</b>						
Rated operational current $I_e$ ( $\theta \leq 55$ °C)	$U_e \leq 440$ V (A)	7	9	12	16	22
	$U_e \leq 500$ V (A)	6.2	7.5	8.8	13	16
	$U_e \leq 690$ V (A)	4.5	5.5	6.6	10	13
	$U_e \leq 1,000$ V (A)	Not available				
Rated operational power <sup>1)</sup>	220 / 230 V (kW)	1.5	2.2	3	3.7	5.5
	(cv)	2	3	4	5	7.5
	380 / V (kW)	3	3.7	5.5	7.5	11
	(cv)	4	5	7.5	10	15
	400 / 415 V (kW)	3	3.7	5.5	7.5	11
	(cv)	4	5	7.5	10	15
	440 V (kW)	3.7	4.5	5.5	7.5	11
	(cv)	5	6	7.5	10	15
	500 V (kW)	3.7	4.5	5.5	7.5	11
	(cv)	5	6	7.5	10	15
	660 / 690 V (kW)	3	3.7	5.5	7.5	11
	(cv)	4	5	7.5	10	15
Max. electrical operational per hour	600 ops./h (%)	100	100	100	100	100
	1,200 ops./h (%)	75	75	75	75	75
	3,000 ops./h (%)	50	50	50	50	50
<b>Utilization category AC-4</b>						
Rated operational current $I_e$ AC-4 ( $U_e \leq 440$ V)	(A)	2.8	3.5	4.5	5	9
Rated operational power <sup>1)</sup> (200,000 operations)	220 / 230 V (kW)	0.55	0.75	0.75	1.1	2.2
	(cv)	0.7	1	1	1.5	2.9
	380 / 400 V (kW)	1.1	1.1	1.8	2.2	4
	(cv)	1.5	1.5	2.4	2.9	5.4
	415 V (kW)	1.1	1.5	2.2	2.2	4.5
	(cv)	1.5	2	2.9	2.9	6
	440 V (kW)	1.1	1.5	2.2	2.2	4.5
	(cv)	1.5	2	2.9	2.9	6
	500 V (kW)	1.1	1.5	2.2	2.2	4.5
	(cv)	1.5	2	2.9	2.9	6
	660 / 690 V (kW)	1.1	1.5	2.2	2.2	4.5
	(cv)	1.5	2	2.9	2.9	6

Note: 1) For 50/60 Hz three-phase, 4 poles WEG standard motors. These values are only for reference and may change on the number of poles and motor design.



## 3-POLE COMPACT CONTACTORS - TECHNICAL DATA

### POWER CIRCUIT

Reference code			CWC07	CWC09	CWC012	CWC016	CWC025
	Utilization category AC-1						
	3P (NO) or 4P (4NO)						3P (NO)
Rated thermal current $I_{th}$ ( $\theta \leq 55^\circ\text{C}$ )	(A)		18	20	22	22	32
Maximum operational current (up to 690 V)	$\theta \leq 40^\circ\text{C}$	(A)	18	20	22	22	32
	$\theta \leq 55^\circ\text{C}$	(A)	18	20	22	22	32
	$\theta \leq 70^\circ\text{C}$	(A)	14.4	16	17.6	17.6	25.6
Maximum operational power $\theta \leq 55^\circ\text{C}$ 3-phase resistors	220 / 230 V	(kW)	6.8	7.5	8.3	8.3	12
	380 / 400 V	(kW)	11.5	13	14.5	14.5	21
	415 / 440 V	(kW)	13	14.5	16	16	23
	500 V	(kW)	14.8	16.5	18	18	26
	660 / 690 V	(kW)	20	22	25	25	36
Current values for connection of	2 poles in parallel		$I_e \times 1.7$				
	3 poles in parallel		$I_e \times 2.4$				
	4 poles in parallel		$I_e \times 3.2$				
Percentage of the max. operational current at	600 ops./h	(%)	100				
	1,200 ops./h	(%)					
	3,000 ops./h	(%)					
			2P (NO/NC) or 4P (2NO + 2NC)				2P (NO/NC)
Maximum operational power $\theta \leq 55^\circ\text{C}$ (resistive load)	220 / 230 V	(kW)	3.9	4.4	4.8	4.8	6.6
	380 / 400 V	(kW)	6.8	7.6	8.4	8.4	11.4
	415 / 440 V	(kW)	7.5	8.4	9.2	9.2	12.5
	500 V	(kW)	8.6	9.5	10.5	10.5	14.5
	660 / 690 V	(kW)	11.8	13.1	14.4	14.4	19.5

### UL POWER RATINGS

Reference code		CWC07	CWC09	CWC012	CWC016	CWC025
General purpose current	(600 V) (A)	18	20	22	22	30
1-phase	110 / 120 V (HP)	1/3	1/3	1/2	1	1 1/2
	208 V (HP)	3/4	1/2	1/2	2	3
	220 / 240 V (HP)	3/4	1/2	2	2	3
3-phase	110 / 120 V (HP)	3/4	1	1 1/2	2	3
	200 V (HP)	1 1/2	2	3	3	5
	220 / 240 V (HP)	1 1/2	3	3	5	7 1/2
	440 / 480 V (HP)	5	5	7 1/2	10	15
	550 / 600 V (HP)	5	7 1/2	7 1/2	10	15

### BUILT-IN AUXILIARY CONTACTS

Reference code		CWC07...16	CWCA0
Standards		IEC/EN 60947-5-1, IEC/EN 60947-4-1	
Rated insulation voltage $U_i$ (pollution degree 3)	IEC/EN, VDE 0660 (V) UL, CSA (V)	690 600	
Rated operational voltage $U_e$	IEC/EN, VDE 0660 (V) UL, CSA (V)	690 600	
Rated thermal current $I_{th}$ ( $\theta \leq 55^\circ\text{C}$ )	(A)	10	
Rated operational current $I_e$			
AC-15 (IEC/EN 60947-5-1)	$U_e \leq 240\text{ V}$ (A)	10	
	380-400 V (A)	6	
	415-440 V (A)	5	
	500 V (A)	4	
	660-690 V (A)	2	
UL, CSA		A600	
DC-13 (IEC/EN 60947-5-1)	24 V (A)	6	
	48 V (A)	4	
	110 V (A)	2	
	220 V (A)	0.7	
UL, CSA		Q600	
Making capacity (rms)	$U_e \leq 400\text{ V } 50/60\text{ Hz - AC-15}$ (A)	$10 \times I_e$ (AC-15)	
Breaking capacity (rms)	$U_e \leq 400\text{ V } 50/60\text{ Hz - AC-15}$ (A)	$10 \times I_e$ (AC-15)	
Max.fuse class gL-gG without welding (short-circuit protection) gL/gG	(A)	10	
Control circuit reliability	(V / mA)	17 / 5	
Electrical endurance	(millions operations)	1	
Mechanical endurance	(millions operations)	10	



## 3-POLE COMPACT CONTACTORS

### COMPACT CONTACTORS CWC0 - SCREW TYPE



### COMPACT CONTACTORS CWC0 - 7 UP TO 22 A - AC COIL

TYPE	RATED POWER	RATED CURRENT		AUX . CONTACTS	STOCK CODE				PRICE EACH (ZAR)
	AC-3 / 400 V (kW)	Ie AC-3	Ith AC-1		D02 (24 V)	D13 (110 V)	D24 (230 V)	D34 (400 V)	
CWC07-10-30 ▲	3	7	18	1NO	12487293	12487364	12487288	12679737	252.00
CWC07-01-30 ▲	3	7	18	1NC	12487294	12487314	12487297	12679758	252.00
CWC09-10-30 ▲	4	9	20	1NO	12487235	12487382	12487295	12679759	272.00
CWC09-01-30 ▲	4	9	20	1NC	12487310	12679730	12487343	12679760	272.00
CWC012-10-30 ▲	5.5	12	22	1NO	12487313	12679731	12487234	12679761	281.00
CWC012-01-30 ▲	5.5	12	22	1NC	12487233	12679732	12487361	12679762	281.00
CWC016-10-30 ▲	7.5	16	22	1NO	12487346	12679734	12487340	12679763	292.00
CWC016-01-30 ▲	7.5	16	22	1NC	12487344	12679735	12487389	12679764	292.00
CWC025-00-30 ▲	11	22	32	-	12487309	12679736	12487342	12679765	368.00

### COMPACT CONTACTORS CWC0 - 7 UP TO 16 A - DC COIL - STANDARD CONSUMPTION

TYPE	RATED POWER	RATED CURRENT		AUX . CONTACTS	STOCK CODE			PRICE EACH (ZAR)
	AC-3 / 400 V (kW)	Ie AC-3	Ith AC-1		C03 (24 VDC)	C12 (110 VDC)	C15 (220 VDC)	
CWC07-10-30 ▲	3	7	18	1NO	12486689	12486698	Upon request 1)	316.00
CWC07-01-30 ▲	3	7	18	1NC	12486690	12486699	Upon request 1)	316.00
CWC09-10-30 ▲	3.7	9	20	1NO	12486691	12486700	Upon request 1)	349.00
CWC09-01-30 ▲	3.7	9	20	1NC	12486692	12486702	Upon request 1)	349.00
CWC012-10-30 ▲	5.5	12	22	1NO	12486694	12486703	Upon request 1)	351.00
CWC012-01-30 ▲	5.5	12	22	1NC	12486695	12486704	Upon request 1)	351.00
CWC016-10-30 ▲	7.5	16	22	1NO	12486696	12486705	Upon request 1)	373.00
CWC016-01-30 ▲	7.5	16	22	1NC	12486697	12486706	Upon request 1)	373.00



## 3-POLE COMPACT CONTACTORS

### COMPACT CONTACTORS CWC0 - SCREW TYPE



### COMPACT CONTACTORS CWC0 - 7 UP TO 16 A - DC COIL - LOW CONSUMPTION<sup>1)</sup>

TYPE	RATED POWER	RATED CURRENT		AUX. CONTACTS	STOCK CODE			PRICE EACH (ZAR)
	AC-3 / 400 V (kW)	Ie AC-3	Ith AC-1		L03 (24 VDC)	L12 (110 VDC)	L15 (220 V dc/cc)	
CWC07-10-30 ▲	3	7	18	1NO	12486719	Upon request	Upon request	322.00
CWC07-01-30 ▲	3	7	18	1NC	12486720	Upon request	Upon request	322.00
CWC09-10-30 ▲	4	9	20	1NO	12486722	Upon request	Upon request	356.00
CWC09-01-30 ▲	4	9	20	1NC	12486723	Upon request	Upon request	356.00
CWC012-10-30 ▲	5.5	12	22	1NO	12486725	Upon request	Upon request	358.00
CWC012-01-30 ▲	5.5	12	22	1NC	12486726	Upon request	Upon request	358.00
CWC016-10-30 ▲	7.5	16	22	1NO	12486727	Upon request	13419246	381.00
CWC016-01-30 ▲	7.5	16	22	1NC	12486729	Upon request	Upon request	381.00

### COMPACT CONTACTORS CWC0 - 7 UP TO 16 A - 0,75 X UC DC COIL - STANDARD CONSUMPTION

TYPE	RATED POWER	RATED CURRENT		AUX. CONTACTS	STOCK CODE			PRICE EACH (ZAR)
	AC-3 / 400 V (kW)	Ie AC-3	Ith AC-1		L03 (24 VDC)	L12 (110 VDC)	L15 (220 V dc/cc)	
CWC07-10-30 ▲	3	7	18	1NO	12950255	Upon request	Upon request	331.00
CWC07-01-30 ▲	3	7	18	1NC	13271239	Upon request	Upon request	331.00
CWC09-10-30 ▲	4	9	20	1NO	13271244	Upon request	Upon request	366.00
CWC09-01-30 ▲	4	9	20	1NC	13271243	Upon request	Upon request	366.00
CWC012-10-30 ▲	5.5	12	22	1NO	13271124	Upon request	Upon request	368.00
CWC012-01-30 ▲	5.5	12	22	1NC	Upon request	Upon request	Upon request	Upon request
CWC016-10-30 ▲	7.5	16	22	1NO	13271126	Upon request	Upon request	392.00
CWC016-01-30 ▲	7.5	16	22	1NC	Upon request	Upon request	Upon request	Upon request



## 3-POLE COMPACT CONTACTORS

### COMPACT CONTACTORS CWC10 - SCREW TYPE



### COMPACT CONTACTORS CWC10 WITH MECHANICAL INTERLOCK - 7 UP TO 16 A - AC COIL

TYPE	AUX. CONTACTS	RATED CURRENT I <sub>e</sub> AC-3	STOCK CODE				PRICE EACH (ZAR)
			D02 (24 V)	D13 (110 V)	D24 (230 V)	D34 (400 V)	
CWC107-10-30 ▲	1NO	7	Upon request 1)	Upon request 1)	12680851	Upon request 1)	567.00
CWC107-01-30 ▲	1NC	7	Upon request 1)	Upon request 1)	12680852	Upon request 1)	567.00
CWC109-10-30 ▲	1NO	9	Upon request 1)	Upon request 1)	12680853	Upon request 1)	607.00
CWC109-01-30 ▲	1NC	9	Upon request 1)	Upon request 1)	12680854	Upon request 1)	607.00
CWC1012-10-30 ▲	1NO	12	Upon request 1)	Upon request 1)	12680856	Upon request 1)	624.00
CWC1012-01-30 ▲	1NC	12	Upon request 1)	Upon request 1)	12680857	Upon request 1)	624.00
CWC1016-10-30 ▲	1NO	16	Upon request 1)	Upon request 1)	12680868	Upon request 1)	646.00
CWC1016-01-30 ▲	1NC	16	Upon request 1)	Upon request 1)	12680869	Upon request 1)	646.00



### COMPACT CONTACTORS CWC10 WITH MECHANICAL INTERLOCK - 7 UP TO 16 A - DC COIL

TYPE	AUX. CONTACTS	RATED CURRENT I <sub>e</sub> AC-3	STOCK CODE			PRICE EACH (ZAR)
			C03 (24 VDC)	C12 (110 VDC)	C15 (220 VDC)	
CWC107-10-30 ▲	1NO	7	12680889	Upon request 1)	Upon request 1)	707.00
CWC107-01-30 ▲	1NC	7	12680890	Upon request 1)	Upon request 1)	707.00
CWC109-10-30 ▲	1NO	9	12680891	Upon request 1)	Upon request 1)	775.00
CWC109-01-30 ▲	1NC	9	12680892	Upon request 1)	Upon request 1)	775.00
CWC1012-10-30 ▲	1NO	12	12680893	Upon request 1)	Upon request 1)	779.00
CWC1012-01-30 ▲	1NC	12	12680894	Upon request 1)	Upon request 1)	779.00
CWC1016-10-30 ▲	1NO	16	12680895	Upon request 1)	Upon request 1)	825.00
CWC1016-01-30 ▲	1NC	16	12680896	Upon request 1)	Upon request 1)	825.00

Note: ▲ - Smart code of the rated voltage.



## 3-POLE CWB CONTACTORS - TECHNICAL DATA

### GENERAL DATA

Reference code		CWB9	CWB12	CWB18	CWB25	CWB32	CWB38	CWB40	CWB50	CWB65	CWB80
Compliance with the standards		IEC/EN 60947-1, IEC/EN 60947-4-1, IEC/EN 60947-5-1, UL 508									
Rated insulation voltage $U_i$ (pollution degree 3)	IEC/EN 60947-4-1 (V)	690 V					1,000 V				
	UL, CSA (V)	600 V									
Rated impulse-withstand voltage $U_{imp}$	IEC/EN 60947-1 (kV)	6 kV									
Frequency limits		25...400									
Mechanical lifespan	AC coil (million cycles)	10					6				
	DC coil (million cycles)	10					6				
Electrical lifespan	$I_g$ AC-3 (million cycles)	2.0	2.0	1.8	1.6	1.6	1.2	1.6	1.6	1.6	1.2
Degree of protection (IEC/EN 60529)	Main terminals	IP10 (front)									
	Coil and auxiliary contacts	IP20 (front)									
Mounting		By screws or DIN 35 mm rail (EN 50022)									
Coil connection points	Contactors with AC coil	2									
	Contactors with DC coil	2									
Vibration resistance (IEC/EN 60068-2-6)	Open contactor (g)	4									
	Closed contactor (g)	4									
Resistance to mechanical shocks (½ sine wave = 11ms - IEC/EN 60068-2-27)	Open contactor (g)	10									
	Closed contactor (g)	15									
Ambient temperature	Operating	-25 °C...+55 °C									
	Storage	-55 °C...+80 °C									
Maximum operation altitude without modification in the rated values <sup>1)</sup>		3,000 m									

### CONTROL CIRCUIT - ALTERNATING CURRENT (AC)

Reference code		CWB9...38			CWB40...80	
Rated insulation voltage $U_i$ (pollution degree 3)	IEC/EN 60947-4-1 (V)	690			1,000	
	UL, CSA (V)	600			600	
Standard voltages at 50/60 Hz	(V)	12...600			24...600	
Coil operating limits	(xUs)	0.8...1.1			0.8...1.1	
Coil 50/60 Hz	Pick up (xUs)	0.5...0.8			0.5...0.8	
	Drop out (xUs)	0.2...0.6			0.2...0.6	
Average consumption		Operating at 60 Hz	Operating at 50 Hz	Operating at 60 Hz	Operating at 50 Hz	
	Magnetic circuit closed (VA)	7.5	9	17.2	27	
Coil 50/60 Hz	Power factor switching on (cos $\varphi$ )	0.7	0.8	0.55	0.56	
	Power factor switched on	0.27	0.24	0.28	0.25	
	Thermal power dissipation (W)	5...7	5...7	3.7...6.3	3.7...6.3	
	Closing of the magnetic circuit (VA)	75	90	185	202	
Operation average time	Closing of the NO contacts (ms)	15...25			10...15	
	Opening of the NO contacts (ms)	8...12				

### CONTROL CIRCUIT - DIRECT CURRENT (DC)

Reference code		CWB9...38		CWB40...80	
Rated insulation voltage $U_i$ (pollution degree 3)	IEC/EN 60947-4-1 (V)	690		1,000	
	UL, CSA (V)	600		600	
Standard voltages	(V)	12...500		12...500	
Coil operating limits	(xUs)	0.8...1.1		0.8...1.1	
	Pick up (xUs)	0.5...0.8		0.5...0.8	
	Drop out (xUs)	0.1...0.4		0.1...0.4	
Average consumption		1.0 x use the coil cold		1.0 x use the coil cold	
	Magnetic circuit closed (W)	5.8		14.5	
	Closing of the magnetic circuit (W)	5.8		105	
Operation average time	Closing of the NO contacts (ms)	35...45		20...30	
	Opening of the NO contacts (ms)	8...12		4...8	
Thermal power dissipation	(W)	5...7		12...16	

Note: 1) For altitudes of 3,000...4,000 m ( $0.90 \times I_g$  and  $0.80 \times U_i$ ) and of 4,000...5,000 m ( $0.80 \times I_g$  and  $0.75 \times U_i$ ).



## 3-POLE CWB CONTACTORS - TECHNICAL DATA

### MAIN CONTACTS

Reference code		CWB9	CWB12	CWB18	CWB25	CWB32	CWB38	CWB40	CWB50	CWB65	CWB80	
Rated operational current $I_e$	AC-3 ( $U_e \leq 440$ V) (A)	9	12	18	25	32	38	40	50	65	80	
	AC-4 ( $U_e \leq 440$ V) (A)	4.4	5.8	8.5	10.4	13.7	13.7	18.5	18.5	26	32	
	AC-1 ( $\theta \leq 55$ °C, $U_e \leq 690$ V) (A)	25	25	32	40	50	50	60	90	110	110	
Rated operational voltage $U_e$	IEC/EN 60947-4-1 (V)	690 V						1,000 V				
	UL, CSA (V)	600 V										
Conventional thermal current $I_{th}$ ( $\theta \leq 55$ °C)	(A)	25	25	32	40	50	50	60	90	110	110	
Making capacity - IEC/EN 60947	(A)	250	250	300	450	550	550	550	1,000	1,000	1,000	
Breaking capacity IEC/EN 60947	( $U_e \leq 400$ V) (A)	250	250	300	450	550	550	550	1,000	1,000	1,000	
	( $U_e = 500$ V) (A)	220	220	250	350	450	450	480	880	880	880	
	( $U_e = 690$ V) (A)	150	150	180	250	350	350	350	640	640	640	
Acceptable short-time current (no current flowing during recovery time of 15min and $\theta \leq 40$ °C)	1s (A)	210	210	240	380	400	430	720	820	900	900	
	10s (A)	105	105	145	240	260	310	320	400	520	640	
	1min (A)	60	60	80	120	130	150	165	230	340	360	
	10min (A)	30	30	40	50	60	60	85	110	130	130	
Short circuit protection of the main contacts Fuse (gL/gG)	@600 V - UL/CSA (kA)	5										
	Coordination type 1 (A)	25	40	50	63	63	63	80	100	125	160	
	Coordination type 2 (A)	20	20	25	35	50	50	63	80	100	125	
Impedance per pole	(m $\Omega$ )	2.5	2.5	2.5	2	2	2	1.6	1.6	1.6	1.6	
Average power dissipation per pole	AC-1 (W)	1.5	1.5	2.5	3.2	5	5	6	13	19	19	
	AC-3 (W)	0.2	0.4	0.8	1.2	2	3	3	4	7	10	
<b>Utilization category AC-3</b>												
Rated operational current $I_e$ ( $\theta \leq 55$ °C)	$U_e \leq 440$ V (A)	9	12	18	25	32	38	40	50	65	80	
	$U_e \leq 500$ V (A)	9	12	15.8	23	28.5	28.5	35	45	55	75	
	$U_e \leq 690$ V (A)	7	9	12.8	16.5	21	21	32	35	40	50	
Orientative rated operational power Three-phase induction motors (50/60 Hz) IV poles - 1,800 rpm	220/240 V (kW)	2.2	3	4.5	6.5	7.5	9.2	11	15	18.5	22	
		(cv)	3	4	6	8.7	10	12.5	15	20	25	29
	380/400 V (kW)	4	5.5	7.5	12.5	15	18.5	18.5	22	30	37	
		(cv)	5.5	7.5	10	16.8	20	25	25	29	40	50
	415/440 V (kW)	4.5	6.5	9.2	12.5	15	18.5	22	30	37	45	
		(cv)	6	8.7	12.5	16.8	20	25	29	40	50	60
	500 V (kW)	5.5	7.5	10	15	18.5	18.5	22	30	37	55	
		(cv)	7.5	10	13.4	20	25	25	29	40	50	74
	660/690 V (kW)	5.5	7.5	11	15	18.5	18.5	30	33	37	45	
		(cv)	7.5	10	15	20	25	25	40	44	50	60
	Maximum percentage	600 ops./h (%)	100	100	100	100	100	100	100	100	100	100
	<b>Utilization category AC-4</b>											
Rated operational current $I_e$	( $U_e \leq 440$ V) (A)	4.4	5.8	8.5	10.4	13.7	13.7	18.5	18.5	26	32	
	( $U_e \leq 500$ V) (A)	3.9	5.1	7.5	12	13.9	13.9	17.5	23.5	28.5	33	
	( $U_e \leq 690$ V) (A)	2.8	3.7	5.4	12	12.8	12.8	14	18	22	26	
Orientative rated operational power Three-phase induction motors (50/60 Hz) IV poles - 1,800 rpm (200,000 operations)	220/240 V (kW)	1.5	1.5	2.2	3	4	4	4.5	5.5	7.5	11	
		(cv)	2.0	2.0	2.9	4.0	5.4	5.4	6.0	7.4	10.1	14.7
	380/400 V (kW)	2.2	3.7	4	5.5	7.5	7.5	9.2	11	15	18.5	
		(cv)	2.9	5.0	5.4	7.4	10.1	10.1	12.3	14.7	20.1	24.8
	415/440 V (kW)	2.2	3	3.7	5.5	7.5	7.5	11	11	15	22	
		(cv)	2.9	4.0	5.0	7.4	10.1	10.1	14.7	14.7	20.1	29.5
	500 V (kW)	2.2	3	5	7.5	9	9	11	15	18.5	22	
		(cv)	2.9	4.0	6.7	10.1	12.1	12.1	14.7	20.1	24.8	29.5
	660/690 V (kW)	2.2	3	5	10	11	11	12.5	15	20	25	
		(cv)	2.9	4.0	6.7	13.4	14.7	14.7	16.8	20.1	26.8	33.5



## 3-POLE CWB CONTACTORS - TECHNICAL DATA

### MAIN CONTACTS

Reference code		CWB9	CWB12	CWB18	CWB25	CWB32	CWB38	CWB40	CWB50	CWB65	CWB80
		Utilization category AC-1									
		3P (NO)									
Conventional thermal current I <sub>th</sub> (θ ≤ 55 °C)	(A)	25	25	32	40	50	50	60	90	110	110
Maximum orientative operational current according to the ambient temperature	θ ≤ 60 °C (U <sub>e</sub> ≤ 690 V) (A)	25	25	32	40	50	50	60	90	110	110
Max. operational power θ ≤ 55 °C (three-phase resistors)	220/230 V (kW)	9.5	9.5	12	15	19	19	22.5	34	42	42
	380/400 V (kW)	16.5	16.5	21	26	33	33	39.5	59	72.5	72.5
	415/440 V (kW)	19	19	24.5	30.5	38	38	45.5	68.5	84	84
	500 V (kW)	21.5	21.5	27.5	34.5	43	43	52	77	95	95
	660/690 V (kW)	28.5	28.5	36.5	45.5	57	57	66	100	125	125
Current values for connection	2 poles in parallel	I <sub>e</sub> x 1.7									
	3 poles in parallel	I <sub>e</sub> x 2.4									
	4 poles in parallel	-									
Percentage of maximum operational current	600 ops./h (%)	100	100	100	100	100	100	100	100	100	100

### AUXILIARY CONTACTS

Reference code		CWB9...38 (built-in)	BFB (front mounted)	BLB (side mounted)
Compliance with the standards		IEC/EN 60947-5-1		
Rated insulation voltage U <sub>i</sub> (pollution degree 3)	IEC/EN 60947-4-1, VDE 0660 (V)	690		
	UL, CSA (V)	600		
Rated operational voltage U <sub>e</sub>	IEC/EN 60947-4-1, VDE 0660 (V)	690		
	UL, CSA (V)	600		
Conventional thermal current I <sub>th</sub> (θ ≤ 55 °C)	(A)	10		
Rated operational current I <sub>e</sub>				
AC-15 (IEC/EN 60947-5-1)	220/230 V (A)	10		
	380/440 V (A)	4		
	500 V (A)	2.5		
	660/690 V (A)	1.5		
DC-13 (IEC/EN 60947-5-1)	24 V (A)	4		
	48 V (A)	2		
	110 V (A)	0.7		
	220 V (A)	0.3		
	440 V (A)	0.15		
Making capacity	U <sub>e</sub> ≤ 690 V 50/60 Hz - AC-15 (A)	10 x I <sub>e</sub>		
Breaking capacity	U <sub>e</sub> ≤ 400 V 50/60 Hz - AC-15 (A)	1 x I <sub>e</sub>		
Short circuit protection with fuse (gL/gG)	(A)	10		
Control circuit reliability	(V / mA)	17 / 5		
Electrical lifespan	(million cycles)	1		
Mechanical lifespan	(million cycles)	10		
Non-overlapping time between NO and NC contacts	(ms)	1.5		
Impedance of the contacts	(mΩ)	2.5		



## 3-POLE CWB CONTACTORS - TECHNICAL DATA

### TERMINAL CAPACITY AND TIGHTENING TORQUE

		Conductor cross-section		
<b>Power circuit</b>				
Model		CWB9...18	CWB25...38	CWB40...80
Mounting system screw type		Phillips number 2	Phillips number 2	ALLEN 4 mm
Flexible conductor without terminal (mm <sup>2</sup> )		1 x 1...6 2 x 1...6	1 x 2.5...10 2 x 2.5...10	1 x 2.5...30 2 x 2.5...30
Flexible conductor with terminal (mm <sup>2</sup> )		1 x 1...6 2 x 1...4	1 x 1.5...10 2 x 1.5...6	1 x 2.5...30 2 x 2.5...30
Solid wire (mm <sup>2</sup> )		1 x 1...6 2 x 1...6	1 x 2.5...10 2 x 2.5...10	1 x 2.5...30 2 x 2.5...30
Tightening torque (Nm)		1.7	2.5	5.0
<b>Control and auxiliary circuit</b>				
Models		CWB9...38		CWB40...80
Mounting system screw type		Phillips number 2		Phillips number 2
Flexible conductor without terminal (mm <sup>2</sup> )		1 x 1...4 2 x 1...4		1 x 1...4 2 x 1...4
Flexible conductor with terminal (mm <sup>2</sup> )		1 x 1...4 2 x 1...2.5		1 x 1...4 2 x 1...2.5
Solid wire (mm <sup>2</sup> )		1 x 1...4 2 x 1...4		1 x 1...4 2 x 1...4
Tightening torque (Nm)		1.0		1.0
<b>Auxiliary contact blocks</b>				
Models		BFB (front)	BLB (side)	
Mounting system screw type		Phillips number 2		
<b>Conductor cross-section</b>				
Flexible conductor without terminal (mm <sup>2</sup> )		1 x 1...2.5 2 x 1...2.5		
Flexible conductor with terminal (mm <sup>2</sup> )		1 x 1...2.5 2 x 1...2.5		
Solid wire (mm <sup>2</sup> )		1 x 1...2.5 2 x 1...2.5		
Tightening torque (Nm)		1.0		



## 3-POLE CWB CONTACTORS



### CONTACTORS CWB - 9 UP TO 80 A - AC COIL - SCREW TYPE

TYPE	RATED POWER AC-3 / 400 V (Kw)	RATED CURRENT		AUX. CONTACTS	STOCK CODE					PRICE EACH (ZAR)
		le AC-3	lth AC-1		D02 (24 V)	D13 (110 V)	D24 (230 V)	D34 (400 V)	D43 (550V)	
CWB9-11-30 ▲	3.7	9	25	1NO + 1NC	12660800	12660801	12772076	12679490	13360097	340.00
CWB12-11-30 ▲	5.5	12	25	1NO + 1NC	12660803	12660804	12772148	12679492	13360158	358.00
CWB18-11-30 ▲	7.5	18	32	1NO + 1NC	12660806	12660807	12772150	12679493	13360160	384.00
CWB25-11-30 ▲	12.5	25	40	1NO + 1NC	12232934	12232934	12527889	12679494	13360161	525.00
CWB32-11-30 ▲	15	32	50	1NO + 1NC	12240777	12240798	12527893	12679495	13360163	724.00
CWB38-11-30 ▲	18.5	38	50	1NO + 1NC	12232937	12233028	12527895	12679496	13360164	841.00
CWB50-11-30 ▲	22	50	90	1NO + 1NC	13851363	13851365	13860289	13860347	14162035	1310.00
CWB65-11-30 ▲	30	65	110	1NO + 1NC	13851366	13851367	13860290	13860408	14162036	1498.00
CWB80-11-30 ▲	37	80	110	1NO + 1NC	13860240	13851448	13860291	13860409	14162037	1597.00



### CONTACTORS CWB - 9 UP TO 80 A - DC COIL - SCREW TYPE

TYPE	RATED POWER AC-3 / 400 V (Kw)	RATED CURRENT		AUX. CONTACTS	STOCK CODE			PRICE EACH (ZAR)
		le AC-3	lth AC-1		C03 (24 VDC)	C12 (110 VDC)	C15 (220 VDC)	
CWB9-11-30 ▲	3.7	9	25	1NO + 1NC	12542197	12542262	12542264	515.00
CWB12-11-30 ▲	5.5	12	25	1NO + 1NC	12542260	12542263	12542265	557.00
CWB18-11-30 ▲	7.5	18	32	1NO + 1NC	12542266	12542267	12542268	633.00
CWB25-11-30 ▲	12.5	25	40	1NO + 1NC	12240635	12240636	12240637	840.00
CWB32-11-30 ▲	15	32	50	1NO + 1NC	12240801	12240802	12240803	1158.00
CWB38-11-30 ▲	18.5	38	50	1NO + 1NC	12240668	12240669	12240671	1245.00
CWB50-11-30 ▲	22	50	90	1NO + 1NC	13539286	Under request	13860492	2030.00
CWB65-11-30 ▲	30	65	110	1NO + 1NC	13539299	Under request	13860493	2325.00
CWB80-11-30 ▲	37	80	110	1NO + 1NC	13428645	Under request	13860494	2554.00

Note: Article numbers for other rated voltages and frequencies upon request.

▲ - Smart code of the rated voltage.



## 3-POLE CWM CONTACTORS - TECHNICAL DATA

### GENERAL DATA

Reference code	CWM9	CWM12	CWM18	CWM25	CWM32	CWM40	CWM50	CWM65	CWM80	CWM95	CWM105	CWM112	CWM150	CWM180	CWM250	CWM300
Standards	IEC 60947 / UL 508															
Rated insulation voltage $U_i$ IEC 60947 UL / CSA	1,000 V 600 V															
Rated impulse withstand voltage $U_{imp}$	6 kV						8 kV									
Rated operational frequency	25 - 400 Hz															
Degree of protection	Protection against direct contact from the front when operated by a perpendicular test finger (IEC 536)															
Main circuits	IP20			IP10						IP00						
Control circuits and auxiliary contacts	IP20															
Ambient temperature	-25 °C to +55 °C -55 °C to +80 °C															
Operating temperature																
Storage temperature																
Altitude	Up to 3,000 m 3,000 to 4,000 m 4,000 to 5,000 m															
Normal values																
90% $I_e$ / 80% $U_e$ 80% $I_e$ / 75% $U_e$																
Overvoltage category / Pollution degree	III / 3															
Climatic proofing	Acc. IEC 60680-2															
Pole numbers of main circuits	3															
Rated operation voltage $U_e$	690 V						1,000 V									
Mechanical lifespan Ops x 10 <sup>6</sup>	10															
Electrical lifespan (AC - 3) Ops x 10 <sup>6</sup>	1.5			1.2			1.1						1.0			
Mounting	Screw or 35 mm DIN Rail												Screw			

### CONTROL CIRCUIT

Reference code	CWM9	CWM12	CWM18	CWM25	CWM32	CWM40	CWM50	CWM65	CWM80	CWM95	CWM105	CWM112	CWM150	CWM180	CWM250	CWM300		
Rated insulation voltage $U_i$	IEC																	
	UL, CSA																	
Rated voltages (standard coil) Us 50/60 Hz	12...660 V										12...550 V		-		24...690		-	
	-										24...500 V							
Rated voltages (electronic module) Us 50/60 Hz	-																	
	24...500 V																	
Rated voltages Us dc	-																	
	24...240 V																	
Operation time <sup>1)</sup>	Closing/Opening (AC) ms			8...20 / 6...13			10...19 / 5...25			15...30 / 9...15			60...70 / 13...17					
	Closing/Opening (DC) ms			-			50...60 / 55...60			60...70 / 13...17			60...70 / 15...25					
Power consumption of the AC coil 50/60 Hz <sup>1)</sup>																		
Pick-up	(VA)																	
	69.5      98      255      213      214      229																	
Sealing	cos φ																	
	0.85      0.69      0.32      0.71      0.68      0.73																	
Coil operation limits 50/60 Hz <sup>1)</sup>	(VA)																	
	4...7.2      6.6...12.3      13.1...19.1      14.8      14.1      14.1																	
Bifrequency coils <sup>1)</sup>	cos φ																	
	0.28      0.34      0.54      0.26      0.27      0.26																	
Coil operation limits 50/60 Hz <sup>1)</sup>																		
Pick-up	0.85...1.1 x $U_s$																	
	0.65...1.1 x $U_s$																	
Bifrequency coils <sup>1)</sup>	Pick-up			0.5...0.8			0.5...0.8			0.5...0.8			0.7...0.85		0.7...0.85		0.7...0.85	
	Sealing			0.2...0.6			0.2...0.6			0.25...0.6			0.4...0.6		0.4...0.6		0.4...0.6	
Power consumption of the coil - DC coils																		
Pick-up	(W)																	
Sealing	(W)																	
Number of terminals	-																	
	AC coil			4			4			3			2					
DC coil			-			4			3			2						

Note: 1) Values applicable for contactors CWM112...300 with electronic module. For contactors with standard coil only on request.



# 3-POLE CWM CONTACTORS - TECHNICAL DATA

## MAIN CONTACTS

Reference code		CWM9	CWM12	CWM18	CWM25	CWM32	CWM40	CWM50	CWM65	CWM80	CWM95	CWM105	CWM112	CWM150	CWM180	CWM250	CWM300		
Rated operational current I <sub>e</sub>	AC-3 (U <sub>e</sub> ≤ 440 V)	(A)	9	12	18	25	32	40	50	65	80	95	105	112	150	180	250	300	
	AC-4 (U <sub>e</sub> ≤ 440 V)	(A)	5	7	8	12	16	18.5	23	30	37	44	50	63	69	73	110	145	
	AC-1 (θ ≤ 55 °C, U <sub>e</sub> ≤ 690 V)	(A)	25	25	32	45	60	60	90	110	110	140	140	180	225	225	350	410	
Rated operational voltage U <sub>e</sub>	IEC/EN 60947-4-1, VDE 0660	(V)	690						1,000										
	UL, CSA	(V)	600																
Rated thermal current I <sub>m</sub> (θ ≤ 55 °C)	(A)	25	25	32	45	60	60	90	110	110	140	140	180	225	225	350	410		
Making capacity - IEC/EN 60947	(A)	300	300	300	450	550	550	1,000	1,000	1,000	1,280	1,280	1,430	1,820	2,100	2,600	3,000		
Breaking capacity IEC/EN 60947	(U <sub>e</sub> ≤ 400 V)	(A)	250	250	250	350	450	450	920	920	920	1,050	1,050	1,290	1,350	1,400	2,000	-	
	(U <sub>e</sub> = 500 V)	(A)	250	250	250	320	450	450	920	920	920	1,050	1,050	1,290	1,350	1,400	2,000	-	
	(U <sub>e</sub> = 690 V)	(A)	130	130	130	170	205	205	780	780	780	950	950	-	-	-	-	-	
Short-time current No current flowing during recovery time	1 sec	(A)	455	455	570	630	1,010	1,265	1,580	2,530	2,530	3,300	3,300	3,165	3,763	4,649	4,427	-	
	5 sec	(A)	205	205	254	280	450	450	710	1,130	1,130	1,485	1,485	1,820	2,164	2,673	2,546	-	
	10 sec	(A)	144	144	180	200	320	400	500	800	800	1,050	1,050	1,430	1,700	2,100	2,000	-	
	30 sec	(A)	85	85	104	115	185	230	290	460	460	600	600	826	980	1,212	1,155	-	
	10 min. and	(A)	60	60	74	80	130	165	205	325	325	430	430	584	694	857	816	-	
	3 min	(A)	35	35	46	50	90	100	120	185	185	250	250	337	401	495	471	-	
Protection against short-circuits with fuses(gL/gG)	@600 V - UL/CSA	(kA)	5						10						18				
	Coordination type 1	(A)	50	50	63	63	100	125	200	200	200	250	250	-	355	355	500	630	
	Coordination type 2	(A)	25	35	35	50	63	80	100	125	125	160	200	224	250	250	400	500	
Impedance per pole	(mΩ)	2.4	2.4	2.4	1.7	1.3	1.0	0.9	0.9	0.9	0.8	0.8	0.5	0.5	0.45	0.3	0.3		
Power dissipation per pole	AC-1	(W)	1.5	1.5	2.5	3.3	4.6	3.4	6.7	10.4	10.4	14.9	14.9	16	25	21.6	35	45.7	
	AC-3	(W)	0.2	0.3	0.8	1.0	1.3	1.5	2.1	3.6	5.5	6.9	8.4	6.2	11.1	13.8	17.9	25.7	
<b>Utilization category AC-3</b>																			
Rated operational current I <sub>e</sub> (θ ≤ 55 °C)	U <sub>e</sub> ≤ 440 V	(A)	9	12	18	25	32	40	50	65	80	95	105	112	150	180	250	300	
	U <sub>e</sub> ≤ 500 V	(A)	7.5	10.5	14	19	24	32	38	55	63	79	85	95	130	155	220	265	
	U <sub>e</sub> ≤ 690 V	(A)	7	9	13	15	22	25	34	44	48	60	67	82	110	135	185	220	
	U <sub>e</sub> ≤ 1,000 V	(A)	Not available						19	25	30	37	40	42	48	68	103	126	
Rated operational power	220 / 230 V	(kW)	2.2	3	4.5	5.5	9.2	11	15	18.5	22	22	30	30	45	55	75	90	
		(HP)	3	4	6	7.5	12.5	15	20	25	30	30	40	40	60	75	100	125	
	380 / V	(kW)	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55	55	75	90	132	150	
		(HP)	5	7.5	10	15	20	25	30	40	50	60	75	75	100	125	175	200	
	400 / 415 V	(kW)	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55	55	75	110	132	150	
		(HP)	5	7.5	10	15	20	25	30	40	50	60	75	75	100	150	175	200	
	440 V	(kW)	4.5	5.5	9.2	11	15	22	30	37	45	55	55	55	90	110	150	185	
		(HP)	6	7.5	12.5	15	20	30	40	50	60	75	75	75	125	150	200	250	
	500 V	(kW)	4.5	5.5	9.2	11	15	22	30	37	45	55	55	55	90	110	150	185	
		(HP)	6	7.5	12.5	15	20	30	40	50	60	75	75	75	125	150	200	250	
	660 / 690 V	(kW)	5.5	7.5	11	11	18.5	22	30	37	45	55	55	75	110	110	150	185	
		(HP)	7.5	10	15	15	25	30	40	50	60	75	75	100	150	150	200	250	
Percentage of the maximum operational current at	600 ops./h	(%)	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100		
	1,200 ops./h	(%)	100	100	100	100	100	100	100	100	100	75	75	75	75	75	75		
	3,000 ops./h	(%)	35	35	35	35	35	35	35	35	35	25	25	25	25	25	25		
<b>Utilization category AC-4</b>																			
Rated operational current I <sub>e</sub> AC-4 (U <sub>e</sub> ≤ 690 V)	(A)	5	7	8	12	16	18.5	23	30	37	44	50	50	55	58	88	116		
Rated operational power	220 / 230 V	(kW)	1.1	1.5	1.5	3	3.7	4.5	5.5	7.5	9.2	11	11	18.5	18.5	22	37	45	
		(HP)	1.5	2	2	4	5	6	7.5	10	12.5	15	15	25	25	30	50	60	
	380 / 400 V	(kW)	2.2	3	3.7	5.5	7.5	9.2	11	15	18.5	22	22	30	30	37	55	75	
		(HP)	3	4	5	7.5	10	12.5	15	20	25	30	30	40	40	50	75	100	
	415 V	(kW)	2.2	3.7	4.5	5.5	9.2	11	11	15	22	22	30	37	37	45	55	75	
		(HP)	3	5	6	7.5	12.5	15	15	20	30	30	40	50	50	60	75	100	
	440 V	(kW)	2.2	3.7	4.5	5.5	9.2	11	11	15	22	22	30	37	37	45	55	75	
		(HP)	3	5	6	7.5	12.5	15	15	20	30	30	40	50	50	60	75	100	
	500 V	(kW)	3	3.7	5.5	7.5	9.2	11	15	18.5	22	22	30	37	45	45	75	90	
		(cv)	4	5	7.5	10	12.5	15	20	25	30	30	40	50	60	60	100	125	
	660 / 690 V	(kW)	3	4.5	5.5	7.5	11	11	15	18.5	22	30	30	45	45	55	90	90	
		(cv)	4	6	7.5	10	15	15	20	25	30	40	40	60	60	75	125	125	

## 3-POLE CWM CONTACTORS

### CONTACTORS CWM - 9 UP TO 250 A - AC COIL - SCREW TYPE

TYPE	RATED POWER AC-3 / 400 V (kW)	RATED CURRENT		AUX . CONTACTS	STOCK CODE					PRICE EACH (ZAR)
		le AC - 3	lth AC - 1		D02 (24 V)	D13 (110 V)	D24 (230 V)	D34 (400 V)	D43 = 550V 50/60 Hz	
CWM9-10-30 ▲	4	9	25	1NO	10045468	10045459	10046166	10046175	14161705	340.00
CWM9-01-30 ▲				1NC	10045483	10185991	10186234	10071244	14161707	340.00
CWM9-11-30 ▲				1NO + 1NC	10648078	10045509	10410284	10652786	14161720	381.00
CWM9-22-30 ▲				2NO + 2NC	10211705	10409964	10072177	10867018	14161723	463.00
CWM12-10-30 ▲	5.5	12	25	1NO	10409944	10045467	10046176	10046189	14161724	358.00
CWM12-01-30 ▲				1NC	10046186	10045473	10645190	10071245	14161726	358.00
CWM12-11-30 ▲				1NO + 1NC	10046218	10045520	10647919	10647951	14161798	399.00
CWM12-22-30 ▲				2NO + 2NC	11783516	10072699	10211632	10867019	14161799	481.00
CWM18-10-30 ▲	9.2	18	32	1NO	10409943	10045478	10046177	10046211	14161800	386.00
CWM18-01-30 ▲				1NC	10045482	10045477	10186235	10071246	14161801	386.00
CWM18-11-30 ▲				1NO + 1NC	10073302	10045532	10646073	10648667	14161802	426.00
CWM18-22-30 ▲				2NO + 2NC	10648695	10045612	10072178	10867021	14161803	508.00
CWM25-00-30 ▲	11	25	45	-	10045488	10045491	10046195	10046233	14161804	551.00
CWM25-10-30 ▲				1NO	10045494	10045627	10046178	10186339	14161806	592.00
CWM25-01-30 ▲				1NC	10046151	10646660	10646728	10071247	14161805	592.00
CWM25-11-30 ▲				1NO + 1NC	10071289	10045444	10647030	10647160	14161858	633.00
CWM25-22-30 ▲				2NO + 2NC	10186429	10045614	10647212	10867022	14161859	714.00
CWM32-00-30 ▲	15	32	60	-	10045502	10045503	10071613	10647991	14161861	824.00
CWM32-10-30 ▲				1NO	10045629	10186030	10046281	10211634	14161862	864.00
CWM32-01-30 ▲				1NC	10072056	10045497	10648041	10073651	14161863	864.00
CWM32-11-30 ▲				1NO + 1NC	10071647	10045540	10072179	10867024	14161864	905.00
CWM32-22-30 ▲				2NO + 2NC	10848056	10186022	10072180	10867025	14161866	987.00
CWM40-00-30 ▲	18.5	40	60	-	10045549	10045546	10046196	10648637	14161867	920.00
CWM40-11-30 ▲				1NO + 1NC	10045507	10185998	10046204	10186379	14161898	1001.00
CWM40-22-30 ▲				2NO + 2NC	10076717	10045616	10648838	10867026	14161899	1083.00
CWM50 T2-00-30 ▲	22	50	90	-	13877950	13667414	13667628	13667633	14161900	1555.00
CWM50 T2-11-30 ▲				1NO + 1NC	13877955	13667648	13667652	13667655	14161901	1637.00
CWM50 T2-22-30 ▲				2NO + 2NC	13914025	13914026	13667679	13878017	14161971	1718.00
CWM65 T2-00-30 ▲	30	65	110	-	13877952	13667731	13667734	13877598	14161972	1790.00
CWM65 T2-11-30 ▲				1NO + 1NC	13914069	13667760	13667762	13667767	14161973	1872.00
CWM65 T2-22-30 ▲				2NO + 2NC	13914070	13667779	13877602	13878012	14161974	1953.00
CWM80 T2-00-30 ▲	37	80	110	-	13668240	13668244	13668248	13877992	14161975	1887.00
CWM80 T2-11-30 ▲				1NO + 1NC	13877988	13668251	13668253	13668256	14161976	1969.00
CWM80 T2-22-30 ▲				2NO + 2NC	13914074	13877669	13668269	13877993	14161977	2050.00
CWM95 T2-00-30 ▲	45	90	140	-	13914076	13668270	13668272	13668273	14162028	2563.00
CWM95 T2-11-30 ▲				1NO + 1NC	13914089	13914090	13668276	13668277	14162029	2645.00
CWM95 T2-22-30 ▲				2NO + 2NC	13914091	13877998	13877668	13877989	14162030	2726.00
CWM105 T2-00-30 ▲	55	105	140	-	13914092	13668289	13668290	13668291	14162031	2809.00
CWM105 T2-11-30 ▲				1NO + 1NC	13914093	13668293	13668296	13668319	14162032	2890.00
CWM105 T2-22-30 ▲				2NO + 2NC	13914095	13914096	13878005	13914152	14162033	2972.00
CWM112-22-30 ▲	55	112	180	2NO + 2NC	10789753	10046220	10211191	10071251	10075365	3879.00
CWM180-22-30 ▲	90	180	225	2NO + 2NC	10076716	10045397	10046234	10071252	1075366	6153.00
CWM250-22-30 ▲	132	250	350	2NO + 2NC	11498681	10046280	10046235	10071253	10075367	9604.00

Note: ▲ - Smart code of the rated voltage.



## 3-POLE CWM CONTACTORS

### CONTACTORS CWM (WITH ELECTRONIC MODULE) - 112 UP TO 800 A<sup>1)</sup> - SCREW TYPE

TYPE	RATED POWER AC-3 / 400 V (kW)	RATED CURRENT		AUX . CONTACTS	STOCK CODE				PRICE EACH (ZAR)
		Ie AC - 3	Ith AC - 1		E02 (24-28 V)	E10 (110-130 V)	E13 (208-250 V)	E16 (360-415 V)	
CWM112-22-30 ▲	55	112	180	2NO + 2NC	10535725	10535740	10535745	10535750	5024.00
CWM150-22-30 ▲	75	150	225	2NO + 2NC	10535726	10535741	10535746	10535751	5826.00
CWM180-22-30 ▲	90	180	350	2NO + 2NC	10535727	10535742	10535747	10535752	7648.00
CWM250-22-30 ▲	132	250	350	2NO + 2NC	10535728	10535743	10535748	10535753	10935.00
CWM300-22-30 ▲	160	300	410	2NO + 2NC	10535729	10535744	10535749	10535754	12333.00

TYPE	RATED POWER AC-3 / 400 V (kW)	RATED CURRENT		AUX . CONTACTS	STOCK CODE		PRICE EACH (ZAR)
		Ie AC - 3	Ith AC - 1		E36 (100-240 VAC / 100-220 VDC)	D81 (380-450 VAC)	
CWM400-22-30 ▲	200	400	450	2NO + 2NC	11747363	11747367	17835.00

TYPE	RATED POWER AC-3 / 400 V (kW)	RATED CURRENT		AUX . CONTACTS	STOCK CODE				PRICE EACH (ZAR)
		Ie AC - 3	Ith AC - 1		E35 (100-127 VAC 100-110 VDC)	E39 (200-240 VAC 200-220 VDC)	D81 (380-450 VAC)	D82 (440-575 VAC)	
CWM630-22-30 ▲	250	400	450	2NO + 2NC	11747430	11747434	11860886	12122025	26795.00
CWM800-22-30 ▲	300	800	900	2NO + 2NC	11747431	11747436	11860928	12317737	39218.00

### CONTACTORS CWM - 40 UP TO 105 A - DC COIL - SCREW TYPE

TYPE	RATED POWER AC-3 / 400 V (kW)	RATED CURRENT		AUX . CONTACTS	STOCK CODE			PRICE EACH (ZAR)
		Ie AC - 3	Ith AC - 1		C34 (24-28 V dc)	C40 (110-130 V dc)	C44 (208-240 V dc)	
CWM40-11-30 ▲	18.5	40	60	1NO + 1NC	10535694	10535715	10647675	1947.00
CWM50 T2-11-30 ▲	22	50	90	1NO + 1NC	10261727	10535717	10647840	5073.00
CWM65 T2-11-30 ▲	30	65	110	1NO + 1NC	10261728	10535719	10649108	5535.00
CWM80 T2-11-30 ▲	37	80	110	1NO + 1NC	10535698	10535721	10649403	5676.00
CWM95 T2-11-30 ▲	45	90	140	1NO + 1NC	10535699	10535723	10648557	5815.00
CWM105 T2-11-30 ▲	55	105	140	1NO + 1NC	10535701	10261730	10656159	5888.00

Note: 1) Contactor with electronic module works in alternating (50/60 Hz) and direct current.  
▲ - Smart code of the rated voltage.



## CONTROL RELAYS

### CONTROL RELAYS CWCA0 - SCREW TYPE

#### CONTROL RELAYS CWCA0 - AC COIL

TYPE	lth	Ie AC-15 / 220 V	AUX .	STOCK CODE				PRICE EACH (ZAR)
			CONTACTS	D02 (24 V)	D13 (110 V)	D24 (230 V)	D34 (400 V)	
CWCA0-22-00 ▲	10	10	2NO + 2NC	12487308	12487317	12487358	12680436	252.00
CWCA0-31-00 ▲			3NO + 1NC	12487312	12487365	12680433	12680437	252.00
CWCA0-13-00 ▲			1NO + 3NC	12680317	12680430	12680434	12680438	252.00
CWCA0-40-00 ▲			4NO	12680428	12680431	12487236	12680439	252.00
CWCA0-04-00 ▲			4NC	12680429	12680432	12680435	12680440	252.00

#### CONTROL RELAYS CWCA0 - DC COIL - STANDARD CONSUMPTION

TYPE	lth	Ie AC-15 / 220 V	AUX .	STOCK CODE			PRICE EACH (ZAR)
			CONTACTS	C03 (24 VDC)	C12 (110 VDC)	C15 (220 VDC)	
CWCA0-22-00 ▲	10	10	2NO + 2NC	12486869	12486874	Upon request	316.00
CWCA0-31-00 ▲			3NO + 1NC	12486870	12486875	Upon request	316.00
CWCA0-13-00 ▲			1NO + 3NC	12486871	12486876	Upon request	316.00
CWCA0-40-00 ▲			4NO	12486872	12486877	Upon request	316.00
CWCA0-04-00 ▲			4NC	12486873	12486878	Upon request	316.00

Note: 1) Auxiliary block front mounting available at a maximum of 2 contacts.  
Article numbers for other rated voltages and frequencies upon request.  
▲ - Smart code of the rated voltage.

### CONTROL RELAYS CWCA0 - SCREW TYPE

#### CONTROL RELAYS CWCA0 - DC COIL - LOW CONSUMPTION<sup>1)</sup>

TYPE	lth	Ie AC-15 / 220 V	AUX .	STOCK CODE			PRICE EACH (ZAR)
			CONTACTS	L03 (24 VDC)	L12 (110 VDC)	L15 (220 VDC)	
CWCA0-22-00 ▲	10	10	2NO + 2NC	12486879	Upon request	Upon request	322.00
CWCA0-31-00 ▲			3NO + 1NC	12486880	Upon request	Upon request	322.00
CWCA0-13-00 ▲			1NO + 3NC	12486881	Upon request	Upon request	322.00
CWCA0-40-00 ▲			4NO	12486882	Upon request	Upon request	322.00
CWCA0-04-00 ▲			4NC	12486883	Upon request	Upon request	322.00

#### CONTROL RELAYS CWCA0 - 0,75 X UC DC COIL - STANDARD CONSUMPTION

TYPE	lth	Ie AC-15 / 220 V	AUX .	STOCK CODE			PRICE EACH (ZAR)
			CONTACTS	R03 (24 VDC)	R12 (110 VDC)	R15 (220 VDC)	
CWCA0-22-00 ▲	10	10	2NO + 2NC	13271290	13332720	13271291	331.00
CWCA0-31-00 ▲			3NO + 1NC	13271293	Upon request	Upon request	331.00
CWCA0-13-00 ▲			1NO + 3NC	13271245	Upon request	Upon request	331.00
CWCA0-40-00 ▲			4NO	12719270	Upon request	Upon request	331.00
CWCA0-04-00 ▲			4NC	12719271	Upon request	Upon request	331.00



## 2-POLE CONTACTORS

### 2-POLE COMPACT CONTACTORS CWC0 - AC COIL - SCREW TYPE

TYPE	RATED POWER AC-3 / 400 V (kW)	RATED CURRENT		MAIN CONTACTS	STOCK CODE			PRICE EACH (ZAR)
		Ie AC - 3	Ith AC - 1		D13 (110 V)	D24 (230 V)	D34 (400 V)	
CWC07-00-20 ▲	3	7	18	2NO	Upon request	12683320	Upon request	214.00
CWC07-00-02 ▲	3	7	18	2NC	Upon request	12683322	Upon request	214.00
CWC09-00-20 ▲	4	9	20	2NO	Upon request	12683323	Upon request	231.00
CWC09-00-02 ▲	4	9	20	2NC	Upon request	12683325	Upon request	231.00
CWC012-00-20 ▲	5.5	12	22	2NO	Upon request	12683326	Upon request	238.00
CWC012-00-02 ▲	5.5	12	22	2NC	Upon request	12683327	Upon request	238.00
CWC016-00-20 ▲	7.5	16	22	2NO	Upon request	12683328	Upon request	248.00
CWC016-00-02 ▲	7.5	16	22	2NC	Upon request	12683329	Upon request	248.00
CWC025-00-20 ▲	11	22	32	2NO	Upon request	12683330	Upon request	312.00

TYPE	RATED POWER AC-3 / 400 V (kW)	RATED CURRENT		MAIN CONTACTS	STOCK CODE			PRICE EACH (ZAR)
		Ie AC - 3	Ith AC - 1		D13 (110 V)	D24 (230 V)	D34 (400 V)	
CWC07-00-20 ▲ S	3	7	18	2NO	Upon request	12683366	Upon request	236.00
CWC07-00-02 ▲ S	3	7	18	2NC	Upon request	12683367	Upon request	236.00
CWC09-00-20 ▲ S	4	9	20	2NO	Upon request	12683388	Upon request	255.00
CWC09-00-02 ▲ S	4	9	20	2NC	Upon request	12683389	Upon request	255.00
CWC012-00-20 ▲ S	5.5	12	22	2NO	Upon request	12683390	Upon request	262.00
CWC012-00-02 ▲ S	5.5	12	22	2NC	Upon request	12683391	Upon request	262.00

### 2-POLE CONTACTORS CWM - AC COIL - SCREW TYPE

TYPE	RATED POWER AC-3 / 400 V (kW)	RATED CURRENT		MAIN CONTACTS	STOCK CODE			PRICE EACH (ZAR)
		Ie AC - 3	Ith AC - 1		D13 (110 V)	D24 (230 V)	D34 (400 V)	
CWM9-00-20 ▲	3.7	9	25	2NO	10652833	10867206	10867218	289.00
CWM9-00-02 ▲	3.7	9	25	2NC	Upon request 1)	10867220	10867221	289.00
CWM12-00-20 ▲	5.5	12	25	2NO	10647989	10867222	10867224	305.00
CWM12-00-02 ▲	5.5	12	25	2NC	Upon request 1)	10867226	10867227	305.00
CWM18-00-20 ▲	7.5	18	32	2NO	10650330	10669711	10867238	327.00
CWM18-00-02 ▲	7.5	18	32	2NC	Upon request 1)	10867239	10867240	327.00
CWM25-00-20 ▲	11	25	45	2NO	10071587	10668523	10867242	468.00
CWM25-00-02 ▲	11	25	45	2NC	Upon request 1)	10076888	10867243	468.00
CWM32-00-20 ▲	15	32	60	2NO	10073495	10867244	10867245	700.00
CWM40-00-20 ▲	70.5	40	60	2NO	10073501	10867246	10867247	781.00
CWM50-00-20 ▲	22	50	90	2NO	10073507	10867248	10867249	1321.00
CWM65-00-20 ▲	30	65	110	2NO	10073513	10867250	10867251	1521.00
CWM80-00-20 ▲	37	80	110	2NO	10073519	10867252	10867253	1603.00
CWM95-00-20 ▲	45	95	140	2NO	10073524	10867254	10867255	2177.00
CWM105-00-20 ▲	55	105	140	2NO	10073530	10867256	10867257	2386.00



## 4-POLE COMPACT CONTACTORS

### 4-POLE COMPACT CONTACTORS CWC0 - SCREW TYPE

#### 4-POLE COMPACT CONTACTORS - AC COIL

TYPE	RATED POWER AC-3 / 400 V (kW)	RATED CURRENT		MAIN CONTACTS	STOCK CODE				PRICE EACH (ZAR)
		le AC - 3	lth AC - 1		D02 (24 V)	D13 (110 V)	D24 (230 V)	D34 (400 V)	
CWC07-00-40 ▲	3	7	18	4NO	13271238	Upon request	12683627	Upon request	262.00
CWC09-00-40 ▲	4	9	20	4NO	Upon request	12867956	12683688	Upon request	285.00
CWC012-00-40 ▲	5.5	12	22	4NO	13667447	Upon request	12683690	Upon request	297.00
CWC016-00-40 ▲	7.5	16	22	4NO	13428501	13674994	12683691	Upon request	310.00
CWC07-00-22 ▲	3	7	18	2NO + 2NC	13271127	Upon request	12683692	Upon request	262.00
CWC09-00-22 ▲	4	9	20	2NO + 2NC	Upon request	13315568	12683693	Upon request	285.00
CWC012-00-22 ▲	5.5	12	22	2NO + 2NC	Upon request	Upon request	12683694	Upon request	297.00
CWC016-00-22 ▲	7.5	16	22	2NO + 2NC	Upon request	Upon request	12683695	Upon request	310.00

#### 4-POLE CONTACTORS - DC COIL - STANDARD CONSUMPTION

TYPE	RATED POWER AC-3 / 400 V (kW)	RATED CURRENT		MAIN CONTACTS	STOCK CODE			PRICE EACH (ZAR)
		le AC - 3	lth AC - 1		C03 (24 VDC )	C12 (110 VDC)	C15 (220 VDC)	
CWC07-00-40 ▲	3	7	18	4NO	13247833	13560642	13560647	261.00
CWC09-00-40 ▲	4	9	20	4NO	13390491	13560643	13560708	289.00
CWC012-00-40 ▲	5.5	12	22	4NO	13390489	13560644	13560709	295.00
CWC016-00-40 ▲	7.5	12	22	4NO	13390490	13560646	13560710	316.00

#### 4-POLE CONTACTORS - 75% DC COIL - STANDARD CONSUMPTION

TYPE	RATED POWER AC-3 / 400 V (kW)	RATED CURRENT		MAIN CONTACTS	STOCK CODE			PRICE EACH (ZAR)
		le AC - 3	lth AC - 1		R03 (24 VDC)	R12 (110 VDC)	R15 (220 VDC)	
CWC07-00-22 ▲	3	7	18	2NO + 2NC	13181129	13297477	13560713	328.00
CWC09-00-22 ▲	4	9	20	2NO + 2NC	13181186	13560711	13560714	365.00
CWC012-00-22 ▲	5.5	12	22	2NO + 2NC	13390488	13560712	13560715	372.00
CWC016-00-22 ▲	7.5	16	22	2NO + 2NC	13181249	13394978	13560716	398.00

Note: for applications where there is a significant reduction on the rated voltage, sometimes due to long distances or network problems.

#### 4-POLE COMPACT CONTACTORS - DC COIL - LOW CONSUMPTION<sup>1)</sup>

TYPE	RATED POWER AC-3 / 400 V (kW)	RATED CURRENT		MAIN CONTACTS	STOCK CODE			PRICE EACH (ZAR)
		le AC - 3	lth AC - 1		L03 (24 VDC)	L12 (110 VDC)	L15 (220 VDC)	
CWC07-00-40 ▲	3	7	18	4NO	13181136	Upon request	Upon request	335.00
CWC09-00-40 ▲	4	9	20	4NO	13181229	Upon request	Upon request	372.00
CWC012-00-40 ▲	5.5	12	22	4NO	Upon request	Upon request	Upon request	Upon request
CWC016-00-40 ▲	7.5	16	22	4NO	13181256	Upon request	Upon request	406.00



## 4-POLE CONTACTORS

### 4-POLE CONTACTORS CWM - SCREW TYPE

#### 4-POLE CONTACTORS - AC COIL

TYPE	RATED POWER	RATED CURRENT		MAIN CONTACTS	STOCK CODE		PRICE EACH (ZAR)
	AC-3 / 400 V (kW)	Ie AC - 3	Ith AC - 1		D24 (230 V)	D34 (400 V)	
CWM9-00-40 ▲	3.7	9	25	4NO	10073258	10073259	356.00
CWM12-00-40 ▲	5.5	12	25	4NO	10072159	10867261	373.00
CWM18-00-40 ▲	7.5	18	32	4NO	10046300	10867262	410.00
CWM9-00-22 ▲	3.7	9	25	2NO + 2NC	10653526	10867263	356.00
CWM12-00-22 ▲	5.5	12	25	2NO + 2NC	10648247	10867264	373.00
CWM18-00-22 ▲	7.5	18	32	2NO + 2NC	10075457	10867265	410.00

#### 4-POLE CONTACTORS - DC COIL

TYPE	RATED POWER	RATED CURRENT		MAIN CONTACTS	STOCK CODE		PRICE EACH (ZAR)
	AC-3 / 400 V (kW)	Ie AC - 3	Ith AC - 1		C03 (24 VDC)	C15 (220 VDC)	
CWM9-00-40 ▲	3.7	9	25	4NO	10046963	10075282	500.00
CWM12-00-40 ▲	5.5	12	25	4NO	10071459	10072086	543.00
CWM18-00-40 ▲	7.5	18	32	4NO	10045595	10186215	1041.00
CWM9-00-22 ▲	3.7	9	25	2NO + 2NC	10073333	10075283	500.00
CWM12-00-22 ▲	5.5	12	25	2NO + 2NC	10045600	10648221	543.00
CWM18-00-22 ▲	7.5	18	32	2NO + 2NC	10071504	11030460	1041.00

#### 4-POLE CONTACTORS CWM (WITH ELECTRONIC MODULE) - 400 UP TO 800 A

TYPE	RATED POWER	RATED CURRENT		MAIN CONTACTS	STOCK CODE		PRICE EACH (ZAR)
	AC-3 / 400 V (kW)	Ie AC - 3	Ith AC - 1		D24 (230 V)	D34 (400 V)	
CWM400-22-40 ▲	20	400		2NO + 2NC	11931204	11931205	23722.00

TYPE	RATED POWER	RATED CURRENT		MAIN CONTACTS	STOCK CODE			PRICE EACH (ZAR)
	AC-3 / 400 V (kW)	Ie AC - 3	Ith AC - 1		"E35 (100-127 VAC / 100-110 VDC)"	"E39 (200-240 VAC / 200-220 VDC)"	"D81 (380-450 VAC)"	
CWM500-22-40 ▲	265	500		2NO + 2NC	11931206	11931207	Upon request 1)	30826.00
CWM630-22-40 ▲	330	660	660	2NO + 2NC	11931258	11931259	Upon request 1)	35637.00
CWM800-22-40 ▲	800	800	900	2NO + 2NC	11931260	11931261	Upon request 1)	50986.00



# CONTACTORS FOR SWITCHING OF CAPACITORS

**Modular Design**  
For 35 mm DIN rail or screw fixing.

**Damping Resistors**  
Avoids high in-rush current.

**Contactor Data and Certifications**  
Shows all necessary information of CWMC.

**Early Make Contact Block**  
Connects damping resistors and switches off after 5ms.

**Auxiliary Contact**  
CWMC allows use of standard contact blocks, the same used in CWM line, being either NO or NC.



## New Models

CWMC contactors are available in 7 different models in 4 different frames. All contactors are available with AC coils with a large variety of voltage ranges for 50 or 60 Hz. For DC coils and further information, please contact a WEG representative.

## CWMC CONTACTOR FOR SWITCHING OF CAPACITORS (AC-6B)

AC coil		CWMC9	CWMC18	CWMC25	CWMC32	CWMC50	CWMC65	CWMC80
Reactive power AC-6b @ 55 °C	220-230 V	6	8	11	15	25	30	35
	380-415 V	10	15	20	25	40	50	61
	440 V	12	16	23	30	45	60	71
	480 V	12.5	17	25	33	50	65	77
	660-690 V	17.5	25	34	45	65	87	106
AC-6b current (I <sub>n</sub> ) (55 °C)	A	16	21	30	40	60	77	93
Thermal current (I <sub>th</sub> ) (55 °C)		25	32	45	60	90	110	140
AC-6b current (I <sub>e</sub> ) (70 °C)		10	15	22	34	50	62	67
Max fuse (gL/gG)		25	35	50	63	100	125	160
Cable cross section		mm <sup>2</sup>	6	6	2 x 10	16 + 16	35 + 35	35 + 35
	AWG	10	10	2 x 7	6 + 6	2 + 2	2 + 2	2
Tightening torque	N.m	1...1.7		1.6...3	2.5...4	4...6	4...6	5...6.5
Max. operation per hour	ops/h.	120						
Max. number of auxiliary contacts		1		3	5			
Electrical lifespan	Ops x 10 <sup>3</sup>	100						
Coil consumption (AC) pick-up/sealing	VA	75 / 9.3			123 / 12.5		308 / 25	
Weight	kg	0.619		0.670	1.370	1.389	1.7	

Notes: One auxiliary contact 1NO included in CWMC contactors.

Examples of reference code: - CWMC25-10-30♦; - CWMC32-10-30♦; - CWMC50-10-30♦; - CWMC-65-10-30♦.

## TO COMPLETE REFERENCE CODE, REPLACE “♦” WITH APPROPRIATE COIL VOLTAGE CODE <sup>1)</sup>

Coil voltage codes	X06	X18	X32	X37	X42	X47	X50	X56
50 Hz	24 V	110 V	220 V	230-240 V	380 V	400-415 V	440 V	500 V

Coil voltage codes	X04	X15	X26	X28	X30	X41	X42	X47
60 Hz	24 V	110 V	220 V	230 V	240 V	380 V	440 V	480 V

Coil voltage codes (CWMC9...25)	C02	C03	C07	C09	C12	C15
V dc	12	24	48	60	110	220

Coil voltage codes (CWMC32...80)	C34	C37	C40	C44
V dc	24-28	42-50	110-130	208-240

Note: 1) Other voltages on request.



# CONTACTORS FOR CAPACITOR SWITCHING - CWMC



## CONTACTORS FOR CAPACITOR SWITCHING CWMC - 75% AC COIL - SCREW TYPE

TYPE	RATED POWER (kVar)		STOCK CODE					PRICE EACH (ZAR)
	220/230 V	380/415 V	X15 (95 V 50 Hz / 110 V 60 Hz)	X18 (110 V 50 Hz / 120 V 60 Hz)	X23 (180 V 50 Hz / 208 V 60 Hz)	X26 (190 V 50 Hz / 220 V 60 Hz)	X30 (208 V 50 Hz / 240 V 60 Hz)	
CWMC9-10-30 ▲	6	10	12712997	12713058	12713059	12713060	12713061	643.00
CWMC18-10-30 ▲	8	15	12554137	12387955	12615375	12387956	12615376	804.00
CWMC25-10-30 ▲	10	15	11486202	11486203	11486205	11471428	11486207	965.00
CWMC32-10-30 ▲	15	25	11486216	11486217	11486219	11471896	11486221	1256.00
CWMC50-10-30 ▲	25	40	11486232	11486233	11486236	11486237	11486239	2274.00
CWMC65-10-30 ▲	30	50	11486250	11486251	11486253	11486254	11486255	2615.00
CWMC80-10-30 ▲	35	61	12256267	12615603	12615604	12256299	12615605	3007.00

TYPE	RATED POWER (kVar)		STOCK CODE					PRICE EACH (ZAR)	
	220/230 V	380/415 V	X32 (220 V 50 Hz / 255 V 60 Hz)	X36 (230 V 50 Hz / 266 V 60 Hz)	X37 (230-240 V 50 Hz / 277 V 60 Hz)	X41 (325 V 50 Hz / 380 V 60 Hz)	X42 (380 V 50 Hz / 440 V 60 Hz)		X47 (400-415 V 50 Hz / 480 V 60 Hz)
CWMC9-10-30 ▲	6	10	12713062	12713063	12713065	12713066	12713067	12713088	643.00
CWMC18-10-30 ▲	8	15	12615377	12615598	12615599	12615600	12615601	12615602	804.00
CWMC25-10-30 ▲	10	15	11486208	11786525	11486209	11486210	11486211	11486212	965.00
CWMC32-10-30 ▲	15	25	11486224	11921713	11486225	11486226	11486227	11486228	1256.00
CWMC50-10-30 ▲	25	40	11486241	11938936	11486242	11486244	11486245	11486246	2274.00
CWMC65-10-30 ▲	30	50	11486257	11938988	11486269	11486270	11486270	11486271	2615.00
CWMC80-10-30 ▲	35	61	12615606	12615607	12380355	12256300	12615609	12615610	3007.00



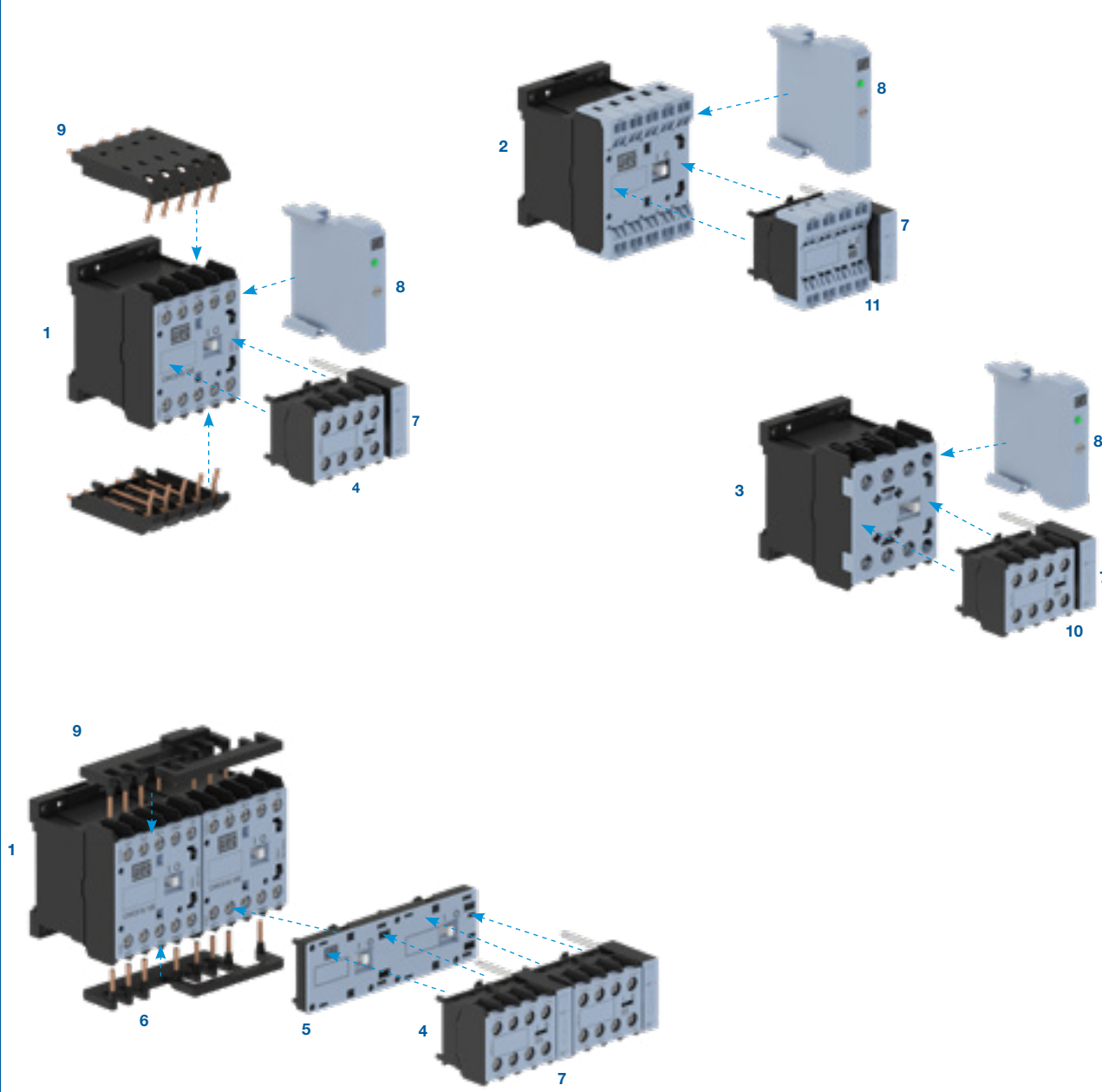
## CONTACTORS FOR CAPACITOR SWITCHING CWMC - DC COIL - SCREW TYPE

TYPE	RATED POWER (kVar)			STOCK CODE			PRICE EACH (ZAR)
	220/230 V	380/415 V		C03 (24 VDC)	C34 (24-28 VDC)	C40 (110-130 VDC)	
CWMC32-10-30 ▲	15	25	25	-	11109983	10867356	2004.00
CWMC50-10-30 ▲	25	40	40	-	12436588	11916385	5809.00
CWMC65-10-30 ▲	30	50	50	-	11896819	11916386	6383.00
CWMC80-10-30 ▲	35	61	61	-	12296403	12415463	6766.00

Note: ▲ - Smart code of the rated voltage.



## CWC0 COMPACT CONTACTORS - ACCESSORIES OVERVIEW



- 1** - Compact contactors CWC07...16 and CWCA0 (screw terminal)
- 2** - Compact contactors CWC07...12\_S and CWCA0\_S (spring terminal)
- 3** - Compact contactor CWC025 (screw terminal)
- 4** - Auxiliary contact block BFC (screw terminal)
- 5** - Mechanical interlock block BICO or latch block RMC0
- 6** - Easy connection busbars
- 7** - Surge supressor blocks RCC0 (RC), VRC0 (varistor), DIC0 (diode), RCAC0 (RC), DIZC0 (diode+zener)
- 8** - Electronic timers TEC0, TDC0 and TETC0
- 9** - Block module for printed circuit board CIC0
- 10** - Auxiliary contact block BFC025 (screw terminal)
- 11** - Auxiliary contact block BFC\_S (spring terminal)

## ACCESSORIES FOR COMPACT CONTACTORS

### ACCESSORIES FOR COMPACT CONTACTORS CWC0

#### ON-DELAY ELECTRONIC TIMER BLOCK

TYPE	SUPPLY VOLTAGE	TIMMING	STOCK CODE	PRICE EACH (ZAR)
TECO-U003S-E05	E05 24-240 VAC / VDC	0.3s...3s	12499386	929.00
TECO-U010S-E05		1s...10s	12499398	929.00
TECO-U030S-E05		3s...30s	12499445	929.00
TECO-U060S-E05		6s...60s	12499447	929.00
TECO-U100S-E05		10s...100s	12499399	929.00
TECO-U300S-E05		30s...300s	12499400	929.00
TECO-U030M-E05		3min...30min	12499461	929.00

#### OFF-DELAY ELECTRONIC TIMER BLOCK

TYPE	SUPPLY VOLTAGE	TIMMING	STOCK CODE	PRICE EACH (ZAR)
TDC0-U003S-E04	E04 24-60 VAC / VDC	0.3s...3s	12499401	1203.00
TDC0-U010S-E04		1s...10s	12499402	1203.00
TDC0-U030S-E04		3s...30s	12499403	1203.00
TDC0-U060S-E04		6s...60s	12499407	1203.00
TDC0-U100S-E04		10s...100s	12499404	1203.00
TDC0-U300S-E04		30s...300s	12499405	1203.00
TDC0-U030M-E04		3min...30min	12499438	1203.00

#### OFF-DELAY ELECTRONIC TIMER BLOCK

TYPE	SUPPLY VOLTAGE	TIMMING	STOCK CODE	PRICE EACH (ZAR)
TDC0-U003S-E09	E09 100-240 VAC / VDC	0.3s...3s	12499462	1203.00
TDC0-U010S-E09		1s...10s	12499439	1203.00
TDC0-U030S-E09		3s...30s	12499463	1203.00
TDC0-U060S-E09		6s...60s	12499440	1203.00
TDC0-U100S-E09		10s...100s	12499441	1203.00
TDC0-U300S-E09		30s...300s	12499442	1203.00
TDC0-U030M-E09		3min...30min	12499464	1203.00

#### STAR-DELTA ELECTRONIC TIMER BLOCK

TYPE	SUPPLY VOLTAGE	TIMMING	STOCK CODE	PRICE EACH (ZAR)
TETCO-U030S-D52	24-28 VAC	3s...30s	12499443	962.00
TETCO-U030S-D61	110-130 VAC	3s...30s	12499459	962.00
TETCO-U030S-D66	220-240 VAC	3s...30s	12499387	962.00



## ACCESSORIES FOR COMPACT CONTACTORS

### ACCESSORIES FOR COMPACT CONTACTORS CWC0

#### AUXILIARY CONTACT BLOCK - SCREW TYPE

TYPE	MOUNTING	TO USE WITH	AUX. CONTACTS	STOCK CODE	PRICE EACH (ZAR)
BFC0-20	Frontal	CWC0 3-Pole 2-Pole	2NO	12499352	111.00
BFC0-11			1NO + 1NC	12499350	111.00
BFC0-02			2NC	12499348	111.00
BFC0-40			4NO	12499359	176.00
BFC0-22			2NO + 2NC	12499353	176.00
BFC0-04 1)			4NC	12499349	176.00
BFC0-31			3NO + 1NC	12499358	176.00
BFC0-13 1)			1NO + 3NC	12499351	176.00
BFC025-20			Frontal	CWC025 3-Pole 2-Pole	2NO
BFC025-11	1NO + 1NC	12499355			111.00
BFC025-02	2NC	12499354			111.00
BFC025-22Z	2NO + 2NC	12499357			176.00
BFC4-20	Frontal	CWC0 4-Pole	2NO	12499364	111.00
BFC4-11			1NO + 1NC	12499362	111.00
BFC4-02			2NC	12499360	111.00
BFC4-40			4NO	12499367	176.00
BFC4-22			2NO + 2NC	12499365	176.00
BFC4-04 1)			4NC	12499361	176.00
BFC4-31			3NO + 1NC	12499366	176.00
BFC4-13 1)			1NO + 3NC	12499363	176.00
BFCA-20			Frontal	CWCA0 Relay / Auxiliar	2NO
BFCA-11	1NO + 1NC	12499380			111.00
BFCA-02	2NC	12499378			111.00
BFCA-40	4NO	12499385			176.00
BFCA-22	2NO + 2NC	12499383			176.00
BFCA-04 1)	4NC	12499379			176.00
BFCA-31	3NO + 1NC	12499384			176.00
BFCA-13 1)	1NO + 3NC	12499381			176.00

Note: 1) The auxiliary contact blocks with configurations "-13" or "-04" must be used only in compact contactors with AC coil or 0,75xUc DC coil.



## ACCESSORIES FOR COMPACT CONTACTORS

### ACCESSORIES FOR COMPACT CONTACTORS CWC0

#### SURGE SUPPRESSOR BLOCK - FRONT MOUNTING WITH CLIP SYSTEM

TYPE	MOUNTING	RATED VOLTAGE	STOCK CODE	PRICE EACH (ZAR)
RCC0-1 D49	Frontal	12-24 V 50/60 Hz	12500583	105.00
RCC0-2 D53		24-48 V 50/60 Hz	12500584	105.00
RCC0-3 D55		48-127 V 50/60 Hz	12500585	105.00
RCC0-4 D63		127-250 V 50/60 Hz	12500586	105.00
RCC0-5 D84		250-380 V 50/60 Hz	12500587	105.00
RCC0-6 D73		380-510 V 50/60 Hz	12500628	105.00
RCACO D87		180-230 V 50/60 Hz	12500629	105.00
VRC0-1 E49		12-48 V ac/ca / 12-60 V dc/cc	12500630	105.00
VRC0-2 E34		50-127 V ac/ca / 60-180 V dc/cc	12500632	105.00
VRC0-3 E50		130-275 V ac/ca / 180-300 V dc/cc	12500633	105.00
VRC0-4 E41		277-380 V ac/ca / 300-510 V dc/cc	12500634	105.00
VRC0-5 D73		400-510 V ac/ca 50/60 Hz	12500636	105.00
DICO-1 C33		12-600 V dc/cc	12500637	105.00
DIZCO C26		12-250 V dc/cc	12500649	105.00

#### PRINTED CIRCUIT BOARD CONNECTOR

TYPE	STOCK CODE	PRICE EACH (ZAR)
CICO	10075988	109.00



#### LATCH BLOCK

TYPE	STOCK CODE	PRICE EACH (ZAR)
RMC0	12499467	70.00

#### MECHANICAL INTERLOCK BLOCK

TYPE	TO USE WITH	MOUNTING	STOCK CODE	PRICE EACH (ZAR)
BICO	CWC07-016	Front/Frontal	12499466	68.00

#### BUS BAR SYSTEM - EASY CONNECTION KIT

TYPE	TO USE WITH	STOCK CODE	PRICE EACH (ZAR)
ECC0-R	Reversing power and control circuits	10047150	294.00
ECC0-RNI	Reversing - power circuit	11788681	288.00
ECC0-SD	Star-delta power and control	10047151	329.00



## ACCESSORIES FOR COMPACT CONTACTORS

### ACCESSORIES FOR MINI CONTACTORS CW07 AND CAW04



#### SURGE SUPPRESSOR BLOCK

TYPE	RATED VOLTAGE	STOCK CODE	PRICE EACH (ZAR)
RC01 D53	24-28 V 50/60 Hz	10045670	100.00
RC06 D62	110-220 V 50/60 Hz	10045672	100.00



#### BASE FOR MOUNTING OF CW07 + RW17

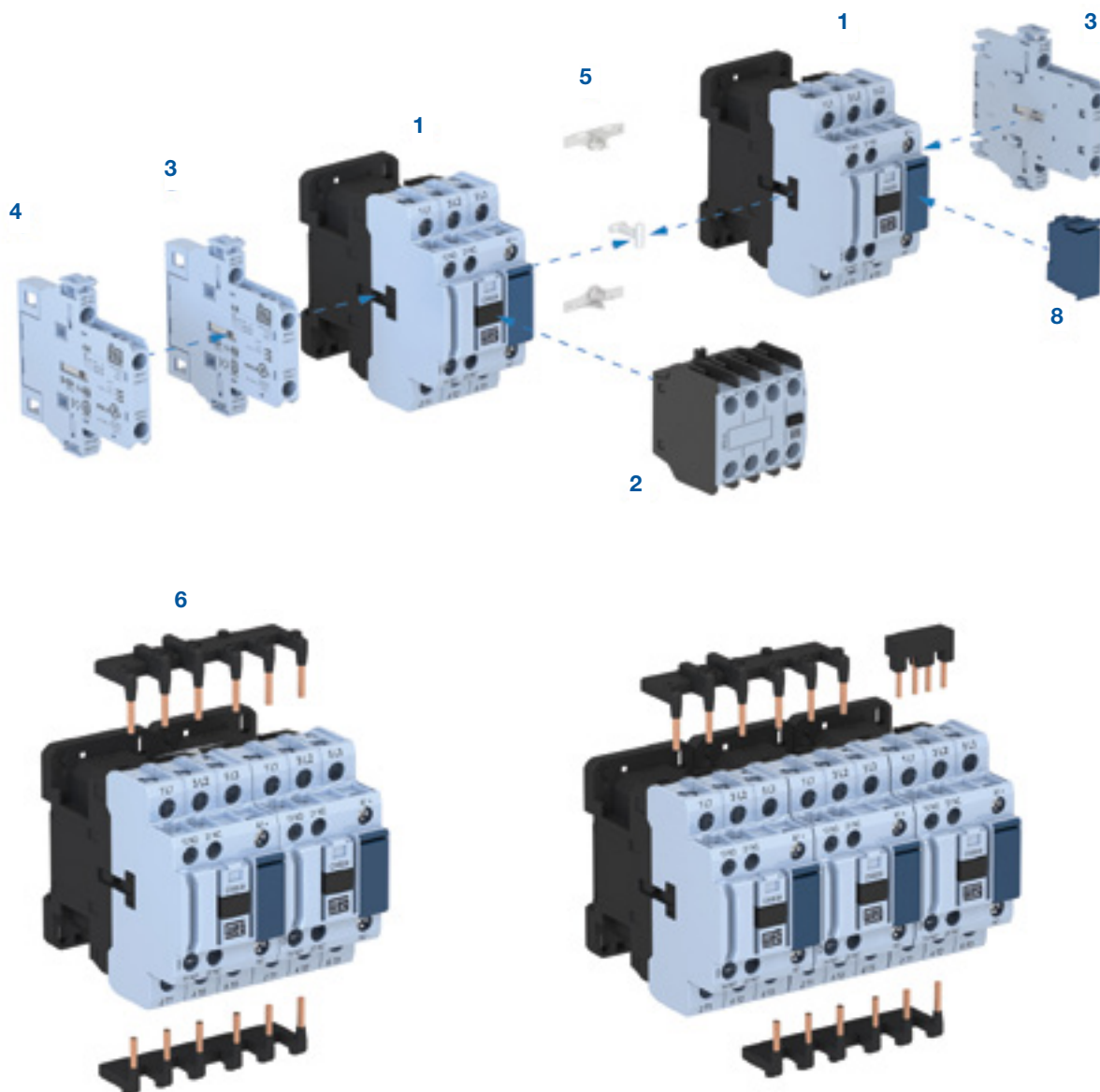
TYPE	STOCK CODE	PRICE EACH (ZAR)
A17	10045695	21.00

#### PRINTED CIRCUIT BOARD CONNECTOR

TYPE	STOCK CODE	PRICE EACH (ZAR)
CIC	10073301	109.00



## CWB CONTACTORS - ACCESSORIES OVERVIEW



- 1 - Contactors CWB9...38
- 2 - Front mounted auxiliary contact blocks BFB
- 3 - Side mounted auxiliary contact blocks BLB
- 4 - Side mounted auxiliary contact blocks BLRB
- 5 - Mechanical interlock kit IM1
- 6 - Easy connection for reversing starters EC-R1
- 7 - Easy connection for star-delta starters EC-SD1
- 8 - Surge suppressor blocks RCB, VRB, DIB and DIZB



## ACCESSORIES FOR CWB CONTACTORS

### AUXILIARY CONTACT BLOCKS - FRONTAL MOUNTING



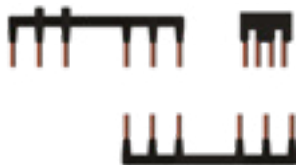
TYPE	MOUNTING	TO USE WITH	AUX. CONTACTS	STOCK CODE	PRICE EACH (ZAR)
BFB-20	FRONTAL	CWB9...CWB38	2NO	12122434	78.00
BFB-11		CWB9...CWB38	1NO + 1NC	12123053	78.00
BFB-02		CWB9...CWB38	2NC	12122946	78.00
BFB-40		CWB9...CWB38	4NO	12122947	156.00
BFB-22		CWB9...CWB38	2NO + 2NC	12123051	156.00
BFB-04		CWB9...CWB38	4NC	12123048	156.00
BFB-31		CWB9...CWB38	3NO + 1NC	12123049	156.00
BFB-13		CWB9...CWB38	1NO + 3NC	12123052	156.00

### AUXILIARY CONTACT BLOCKS - SIDE MOUNTING



TYPE	MOUNTING	TO USE WITH	AUX. CONTACTS	STOCK CODE	PRICE EACH (ZAR)
BLB-11	SIDE	CWB9...CWB38	1NO + 1NC	12187899	107.00
BLB-20		CWB9...CWB38	2NO	12187334	107.00
BLB-02		CWB9...CWB38	2NC	12187898	107.00
BLRB-11		CWB9...CWB38	1NO + 1NC	12230321	121.00
BLRB-20		CWB9...CWB38	2NO	12230319	121.00
BLRB-02		CWB9...CWB38	2NC	12230320	121.00

### BUSBARS STAR-DELTA STARTER / EC-SD - EASY CONNECTION<sup>1)</sup>



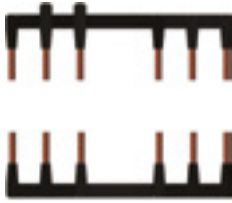
TYPE	DESCRIPTION	RATED POWER - ORIENTATIVE VALUES				COMPONENTS		STOCK CODE	PRICE EACH (ZAR)
		WEG Motor W22 IE3 / 50 Hz / 4-pole / Standard Frame / S.F. = 1							
		230 V		400 V					
		kW	Ie AC-3	kW	Ie AC-3				
EC-SD1	Star-delta starter bus-bar	4	14.3	7.5	14.2	CWB9	CWB9	12241230	412.00
		5.5	18.1	11	20.9	CWB12	CWB9	12241230	412.00
		7.5	24.7	-	-	CWB18	CWB9	12241230	412.00
		9.2	30.3	15	27.9	CWB18	CWB12	12241230	412.00
		11	36.3	18.5	35.1	CWB25	CWB12	12241230	412.00
		-	-	22	41.0	CWB25	CWB18	12241230	412.00
		15	48.5	-	-	CWB32	CWB18	12241230	412.00
		18.5	61.0	30	57.1	CWB38	CWB25	12241230	412.00
EC-SD2	Star-delta starter bus-bar	-	-	37	66.8	CWB40	CWB40	13619635	470.00
		22	71.3	45	80.9	CWB50	CWB40	13619635	470.00
		30	99.3	55	98.6	CWB65	CWB40	13619635	470.00
		-	116.0	-	-	CWB80	CWB40	13619635	470.00
		45	141.0	75	134.0	CWB80	CWB50	13619635	470.00

Note: 1) Contactors and mechanical interlock kits must be bought separately.



## ACCESSORIES FOR CWB CONTACTORS

### BUSBARS REVERSING STARTER / EC-R - EASY CONNECTION<sup>1)</sup>



TYPE	DESCRIPTION	COMPONENTS		STOCK CODE	PRICE EACH (ZAR)
		k1 = k2	MECHANICAL INTERLOCK		
EC-R1	Reversing starter busbar	CWB9...38	IM1	12241229	307.00
EC-R2		CWB40...80	IM2	13619637	374.00

### STAR-DELTA BRIDGE CONNECTOR



TYPE	DESCRIPTION	CONTACTORS	STOCK CODE	PRICE EACH (ZAR)
SBCB9-18	Bridge connector for K3 contactor in star-delta starter	CWB9...38 CWBS9...38	13454331	62.00
SBCB40-80		CWB40...80	13913428	97.00

Note: 1) Contactors and mechanical interlock kits must be bought separately.



## ACCESSORIES FOR CWB CONTACTORS

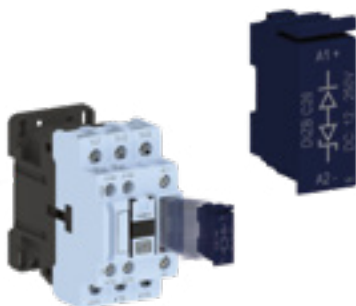
### MECHANICAL INTERLOCK



TYPE	TO USE WITH	STOCK CODE	PRICE EACH (ZAR)
IM1	CWB9...CWB38 1)	12244300	40.00

Note: 1) For interlocking two contactors with AC coils or two contactors with DC coils.  
The interlocking of one contactor with AC coil with another with DC coil is not possible.

### SURGE SUPPRESSOR BLOCK



TYPE	TO USE WITH	RATED VOLTAGE	STOCK CODE	PRICE EACH (ZAR)
RCB D53	CWB9...38 (AC COIL)	24...48 V 50/60 Hz	12242511	125.00
RCB D55		50...127 V 50/60 Hz	12242512	125.00
RCB D63		130...250 V 50/60 Hz	12242513	125.00
RCB D49		12...24 V 50/60 Hz	12260887	125.00
RCB D68		270...380 V 50/60 Hz	12260948	125.00
RCB D73		400...510 V 50/60 Hz	12260949	125.00
VRB D73		400...510 V 50/60 Hz	12242558	125.00
		"12...48 V 50/60 Hz 12...60 VDC"	12242514	125.00
VRB E34	CWB9...38 (AC /or DC COIL)	"50...127 V 50/60 Hz / 60...180 VDC"	12242515	125.00
VRB E50		"130...250 V 50/60 Hz / 180...300 VDC"	12242516	125.00
VRB E41		"277...380 V 50/60 Hz / 300...510 VDC "	12242517	125.00
DIB C33	CWB9...38	12...600 V (dc / cc)	12242560	125.00
DIZB C26	(DC COIL)	12...250 V (dc / cc)	12242561	125.00

### SPARE AC COILS

TYPE	TO USE WITH	STOCK CODE						PRICE EACH (ZAR)
		D02 (24 V)	D07 (48 V)	D13 (110 V)	D25 (240 V)	D34 (400 V)	D43 (550 V)	
BRB-38 ▲	CWB9...38 / CWBS9...38	12243117	12657821	12243218	12679440	12657822	13361465	99.00
BRB-80 ▲	CWB40...80	13909651	Under request	13909653	13909674	13909677	14205805	136.00

### SPARE DC COILS<sup>1)</sup>

TYPE	TO USE WITH	STOCK CODE				PRICE EACH (ZAR)
		C03 (24 V dc)	C07 (48 V dc)	C12 (110 V dc)	C15 (220 V dc)	
BRB-80 ▲	CWB40...80	13909696	Under request	Under request	13909719	613.00

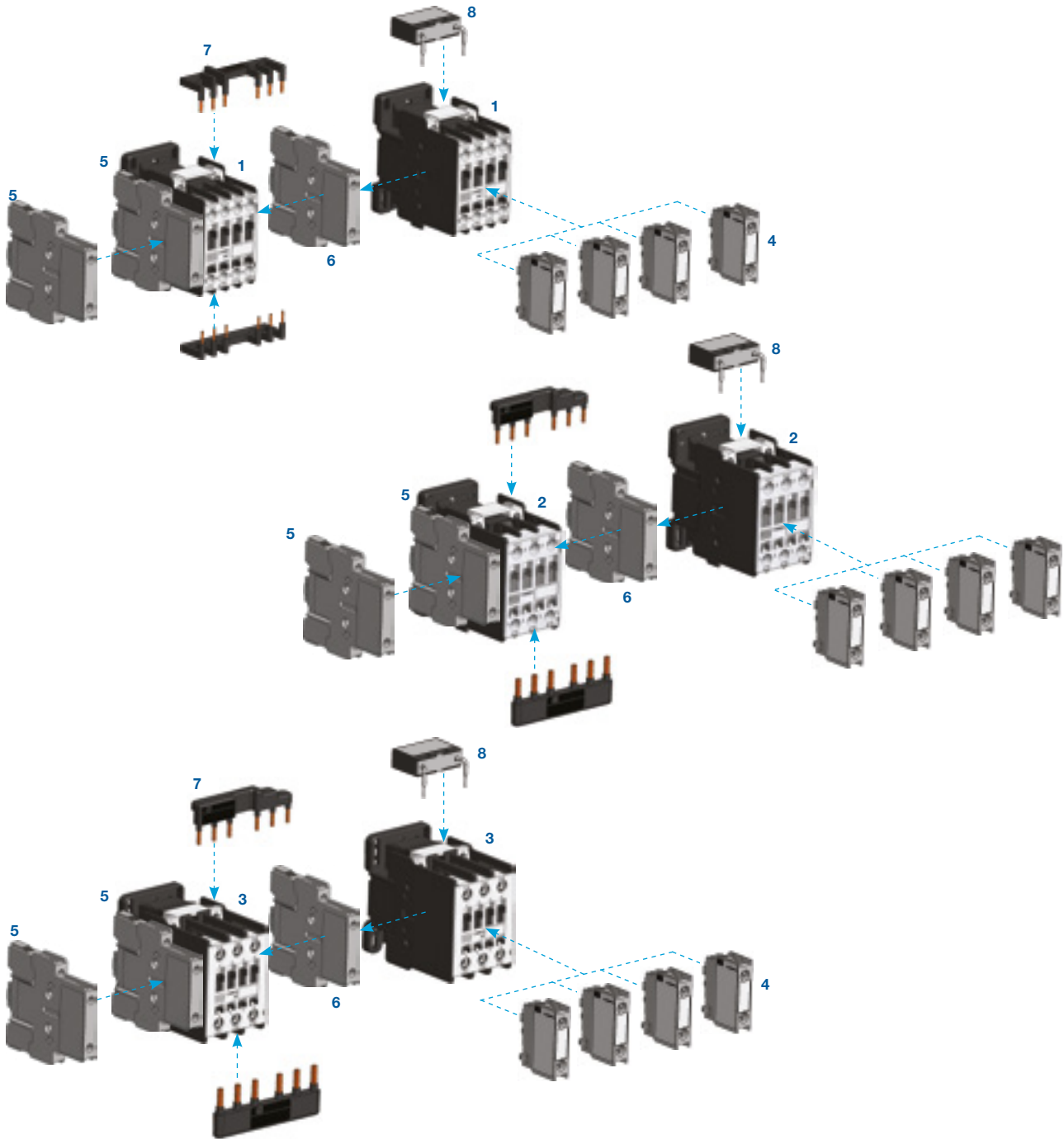
Notes: 1) Spare DC coils not available to CWB9...38.

Article numbers for other rated voltages and frequencies upon request.

▲ - Smart code of the rated voltage.



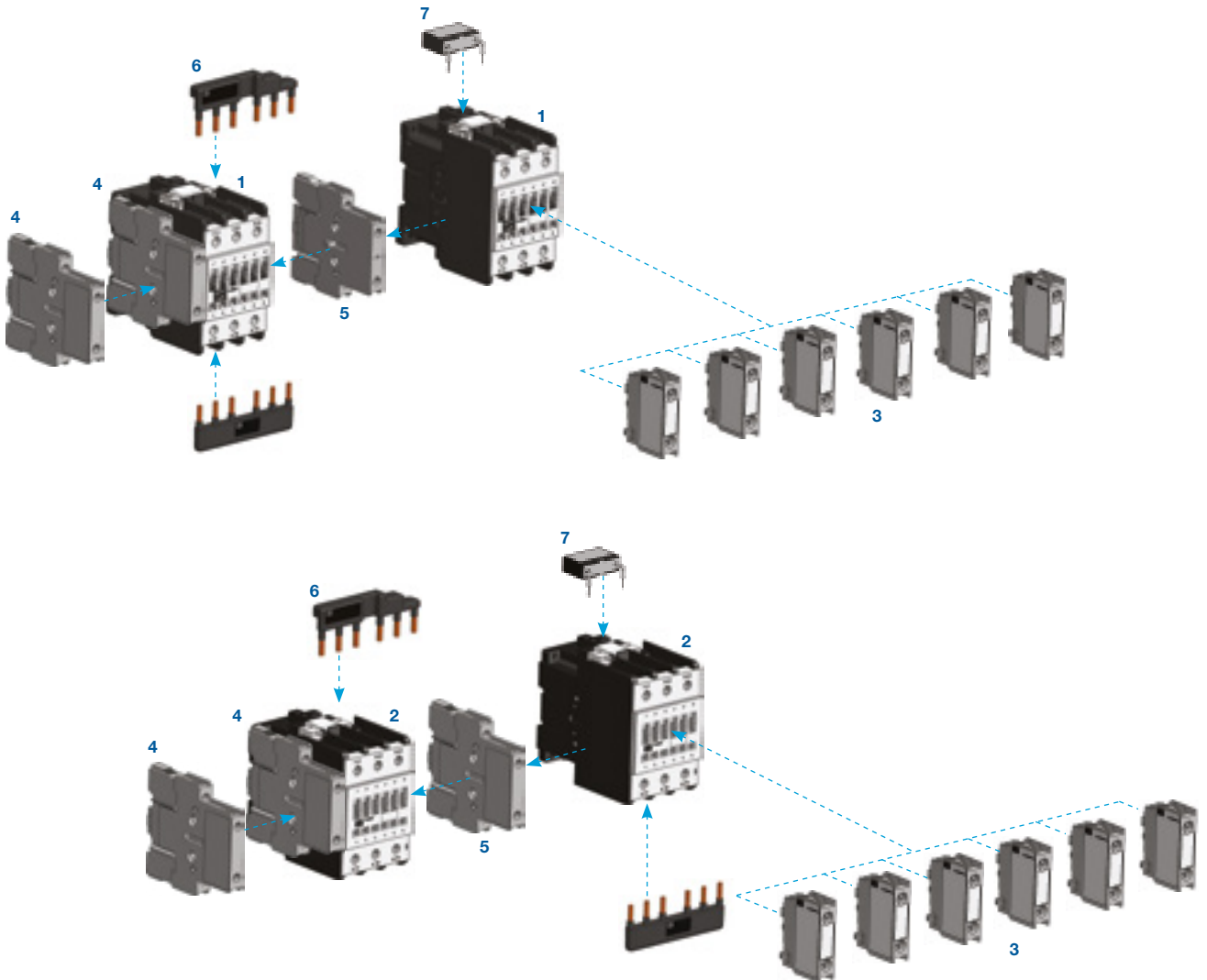
## CWM CONTACTORS FROM 9 UP TO 40 A (AC-3) - ACCESSORIES OVERVIEW



- 1 - Contactors CWM9...18
- 2 - Contactors CWM25
- 3 - Contactors CWM32/40
- 4 - Front mounting auxiliary contact block BCXMF
- 5 - Side mounting auxiliary contact block BCXML
- 6 - Mechanical interlock block BLIM
- 7 - Easy connection busbar
- 8 - Surge suppressor blocks BAM



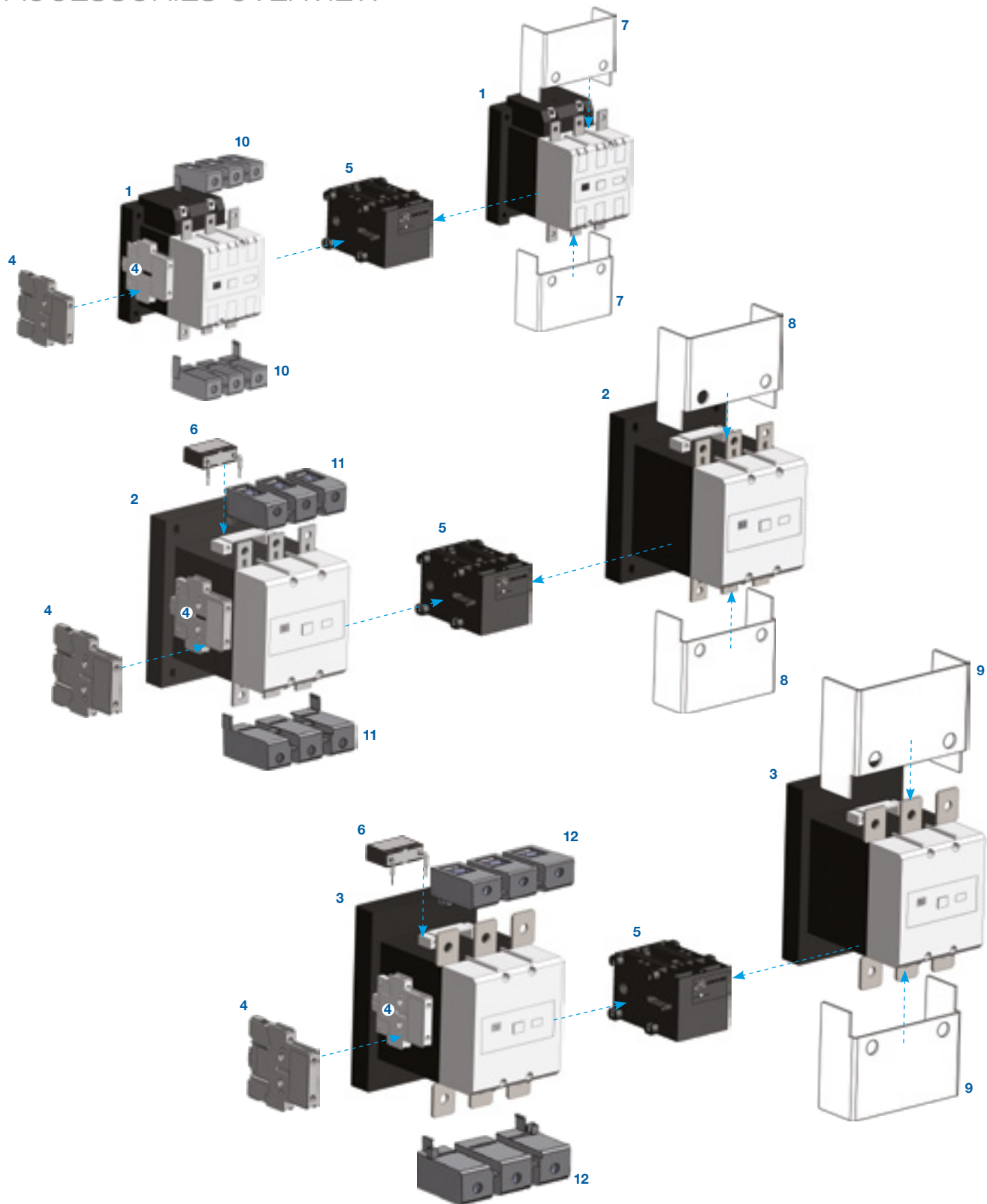
## CWM CONTACTORS FROM 50 UP TO 105 A (AC-3) - ACCESSORIES OVERVIEW



- 1 - Contactors CWM50...80
- 2 - Contactors CWM95/105
- 3 - Front mounting auxiliary contact block BCXMF
- 4 - Side mounting auxiliary contact block BCXML
- 5 - Mechanical interlock block BLIM
- 6 - Easy connection busbar
- 7 - Surge suppressor blocks BAM



## CWM CONTACTORS FROM 112 UP TO 300 A (AC-3) - ACCESSORIES OVERVIEW



1 - Contactors CWM112/150

2 - Contactors CWM180

3 - Contactors CWM250/300

4 - Side mounting auxiliary contact block BCXML

5 - Mechanical interlock BLIM1 12-300

6 - Surge suppressor block BAMV

7 - Terminal cover BMP CWM150

8 - Terminal cover BMP CWM180

9 - Terminal cover BMP CWM300

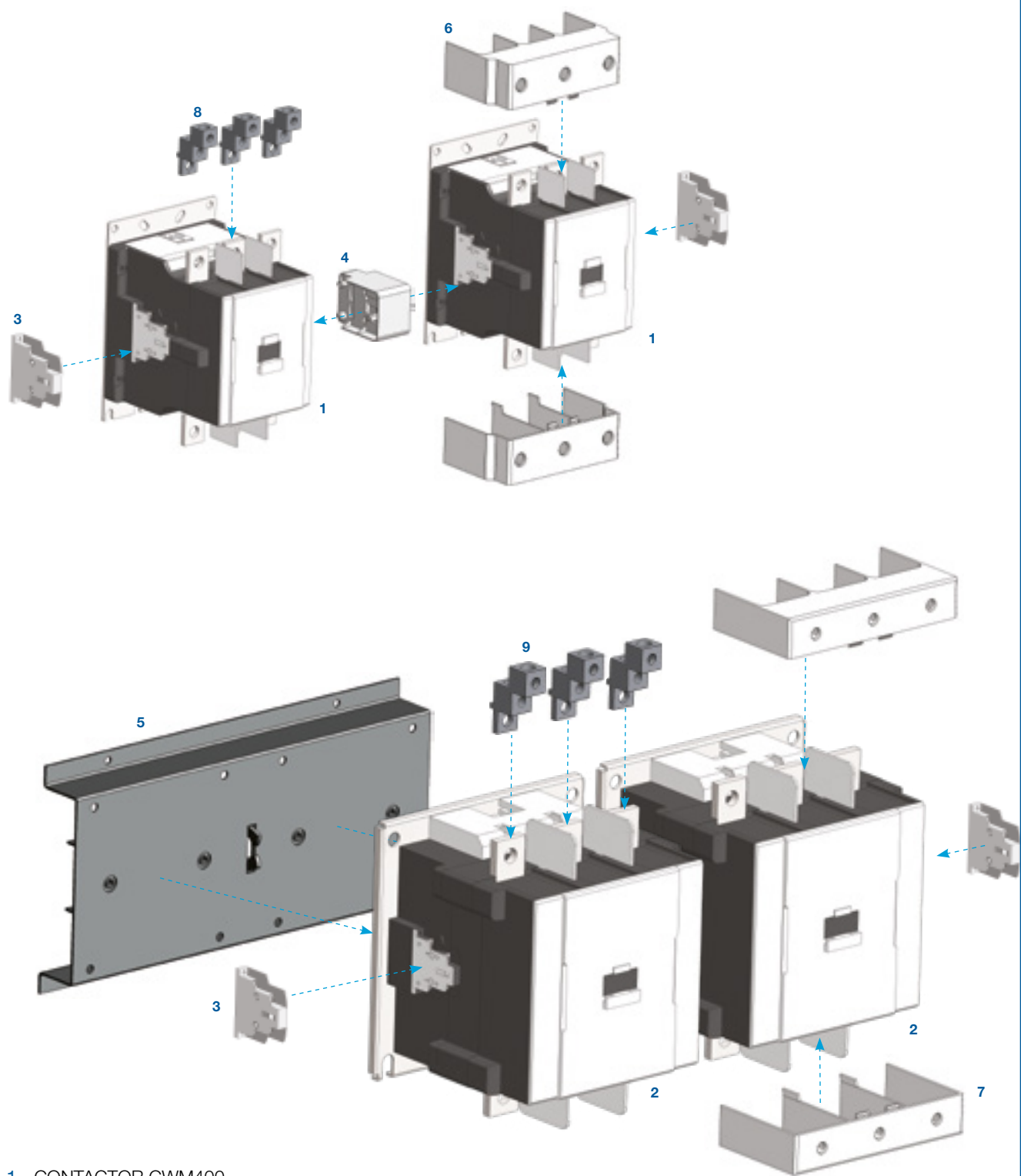
10 - TB150 terminal block for CWM112-150

11 - TB180 terminal block for CWM180

12 - TB300 terminal block for CWM250-300



# CWM CONTACTORS FROM 400 UP TO 800 A (AC-3) - ACCESSORIES OVERVIEW



- 1 - CONTACTOR CWM400
- 2 - CONTACTORS CWM500...800
- 3 - AUXILIARY CONTACTS BLOCK BCXMRL CWM800
- 4 - MECHANICAL INTERLOCK BLIM CWM400
- 5 - MECHANICAL INTERLOCK BLIM CWM800
- 6 - TERMINAL COVER BMP CWM400
- 7 - TERMINAL COVER BMP CWM800
- 8 - LUGS BMJ CWM400
- 9 - LUGS BMJ CWM800



## ACCESSORIES FOR CWM CONTACTORS

### ACCESSORIES FOR CONTACTORS CWM



#### AUXILIARY CONTACT BLOCKS - FRONTAL MOUNTING

TYPE	CONTACTORS	AUX. CONTACTS	STOCK CODE	PRICE EACH (ZAR)
BCXMF 10	CWM9...105	1NO	10356473	39.00
BCXMF 01		1NC	10356494	39.00
BCXMFA 10		1NO E.M. 1)	10186059	61.00
BCXMFR 01		1NC L.B. 2)	10045713	61.00
BCXMF10-AU3)		1NO - (1 mA / 17 V)	12521624	109.00
BCXMF01-AU3)		1 NC - (1 mA / 17 V)	12521625	109.00

#### AUXILIARY CONTACT BLOCKS - SIDE MOUNTING

TYPE	CONTACTORS	AUX. CONTACTS	STOCK CODE	PRICE EACH (ZAR)
BCXML 20	CWM9...105 CWM112...300	2NO	10045714	107.00
BCXML 11		1NO + 1NC	10459053	107.00
BCXMRL 20		2NO	10186060	121.00
BCXMRL 11		1NO + 1NC	10045715	121.00
BCXML11 CWM800	CWM400 / 500 / 630 / 800	1NO + 1NC	10186852	395.00
BCXMRL11 CWM800	CWM400 / 500 / 630 / 800	1NO + 1NC	10766850	395.00

NOTE: 1) EM = EARLY MAKE CONTACT.  
 2) LB = LATE BREAK CONTACT.



# ACCESSORIES FOR CWM CONTACTORS

## ACCESSORIES FOR CONTACTORS CWM



### BUS BAR STAR-DELTA STARTER / EC-SD - EASY CONNECTION<sup>1)</sup>

TYPE	DESCRIPTION	RATED POWER		COMPONENTS		STOCK CODE	PRICE EACH (ZAR)
		220-240 V (kW)	380-415 V (kW)	k1 = k2	k3		
EC-SD-15	Star-delta starter EC-SD - 15	5.5	11	CWM18	CWM9	10045347	277.00
EC-SD-15	Star-delta starter EC-SD - 15	7.5	15	CWM18	CWM12	10045347	277.00
EC-SD-22	Star-delta starter EC-SD - 22	7.5	18.5	CWM25	CWM18	10045323	363.00
EC-SD-22	Star-delta starter EC-SD - 22	11	22	CWM25	CWM18	10045323	363.00
EC-SD-25	Star-delta starter EC-SD - 25	15	22	CWM32	CWM18	10074592	377.00
EC-SD-30	Star-delta starter EC-SD - 30	15	30	CWM40	CWM25	10045324	454.00
EC-SD-37	Star-delta starter EC-SD - 37	18.5	37	CWM50	CWM25	10045325	505.00
EC-SD-55	Star-delta starter EC-SD - 55	22	45	CWM50	CWM32	10185928	508.00
EC-SD-55	Star-delta starter EC-SD - 55	30	55	CWM65	CWM40	10185928	508.00
EC-SD-75	Star-delta starter EC-SD - 75	37	75	CWM80	CWM50	11134959	558.00
EC-SD-90	Star-delta starter EC-SD - 90	37	75	CWM95	CWM50	10045326	558.00
EC-SD-90	Star-delta starter EC-SD - 90	45	90	CWM105	CWM65	10045326	558.00

### BUS BAR STAR-DELTA STARTER FOR USE WITH MECHANICAL INTERLOCK BLOCK BLIM / EC-SDI - EASY CONNECTION<sup>1)</sup>

TYPE	DESCRIPTION	RATED POWER		COMPONENTS			STOCK CODE	PRICE EACH (ZAR)
		220-240 V (kW)	380-415 V (kW)	k1 = k2	k3	MECHANICAL INTERLOCK		
EC-SDI-15	Star-delta starter EC-SDI - 15	5,5	11	CWM18	CWM9	BLIM9-105 / BLIM.02	12820053	291.00
EC-SDI-15	Star-delta starter EC-SDI - 15	7,5	15	CWM18	CWM12		12820053	291.00
EC-SDI-22	Star-delta starter EC-SDI - 22	11	18,5	CWM25	CWM25		12153075	381.00
EC-SDI-30	Star-delta starter EC-SDI - 30	15	30	CWM40	CWM25		12153076	476.00
EC-SDI-37	Star-delta starter EC-SDI - 37	18,5	37	CWM50	CWM25		12153077	530.00
EC-SDI-75	Star-delta starter EC-SDI - 75	37	55	CWM80	CWM50		12153089	586.00
EC-SDI-90	Star-delta starter EC-SDI - 90	45	90	CWM105	CWM65		12153090	586.00



### BUS BAR REVERSING STARTER / EC-R - EASY CONNECTION<sup>1)</sup>

TYPE	DESCRIPTION	RATED POWER		COMPONENTS		STOCK CODE	PRICE EACH (ZAR)
		220-240 V (kW)	380-415 V (kW)	k1 = k2	MECHANICAL INTERLOCK		
EC-R-7.5	Reversing starter EC-R - 7.5	2.2	3.7	CWM9	BLIM 9-105	10071342	212.00
EC-R-7.5	Reversing starter EC-R - 7.5	3.7	5.5	CWM12		10071342	212.00
EC-R-7.5	Reversing starter EC-R - 7.5	4.5	7.5	CWM18		10071342	212.00
EC-R-11	Reversing starter EC-R - 11	5.5	11	CWM25	BLIM 9-105	10185926	307.00
EC-R-18.5	Reversing starter EC-R - 18.5	9.2	15	CWM32	BLIM 9-105	10071340	365.00
EC-R-18.5	Reversing starter EC-R - 18.5	11	18.5	CWM40		10071340	365.00
EC-R-37	Reversing starter EC-R - 37	15	22	CWM50	BLIM 9-105	10185927	458.00
EC-R-37	Reversing starter EC-R - 37	18.5	30	CWM65		10185927	458.00
EC-R-37	Reversing starter EC-R - 37	22	45	CWM80		10185927	458.00

Note: 1) Contactors and Mechanical Interlock Block must be bought separately.



# ACCESSORIES FOR CWM CONTACTORS

## ACCESSORIES FOR CONTACTORS CWM



### MECHANICAL INTERLOCK BLOCK

TYPE	CONTACTORS	STOCK CODE	PRICE EACH (ZAR)
BLIM9-105	CWM9...CWM105	10410084	132.00
BLIM.02 CWM9-105 1)	CWM9...CWM105	10046839	171.00
BLIM112-300	CWM112...CWM300	10045676	408.00
BLIM CWM400	CWM400 3P/4P	10186853	394.00
BLIM CWM800	CWM500/630/800 3P	10047279	11834.00
BLIM CWM800-4P	CWM500/630/800 4P	11308440	15915.00

### SPARE CONTACT SET<sup>2)</sup>

TYPE	CONTACTORS	STOCK CODE	PRICE EACH (ZAR)
JC CWM9-3P	CWM 9	10410069	95.00
JC CWM12-3P	CWM 12	10410070	101.00
JC CWM18-3P	CWM 18	10410071	108.00
JC CWM25-3P	CWM 25	10410072	240.00
JC CWM32-3P	CWM 32	10410073	293.00
JC CWM40-3P	CWM 40	10410074	328.00
JC CWM50-3P	CWM 50	10410075	651.00
JC CWM65-3P	CWM 65	10410076	698.00
JC CWM80-3P	CWM 80	10410077	733.00
JC CWM95-3P	CWM 95	10410078	1028.00
JC CWM105-3P	CWM 105	10410079	1196.00
JC CWM112-3P	CWM 112	10410050	2621.00
JC CWM150E-3P	CWM 150	10186245	2872.00
JC CWM180-3P	CWM 180	10410051	3591.00
JC CWM250-3P	CWM 250	10186043	5279.00
JC CWM300-3P	CWM 300	10187066	5954.00
JC CWM400-3P	CWM400	10213097	3314.00
JC CWM500-3P	CWM500	10213097	3314.00
JC CWM630-3P	CWM630	10213098	4142.00
JC CWM800-3P	CWM800	10213099	4931.00

Note: 1) Allows mechanical and electrical interlock through the 2 built-in NC contacts.

2) Quantity per packing: 3 units of fixed contacts.



# ACCESSORIES FOR CWM CONTACTORS

## ACCESSORIES FOR CONTACTORS CWM



### SURGE SUPPRESSOR BLOCK

TYPE	CONTACTORS	VOLTAGE	STOCK CODE	PRICE EACH (ZAR)
BAMRC4 D53	CWM9...40	24-48 V ac/ca	10045301	125.00
BAMRC5 D55		50-127 V ac/ca	10045302	125.00
BAMRC6 D63		130-250 V ac/ca	10409766	125.00
BAMRC7 D53	CWM50...105	24-48 V ac/ca	10045303	125.00
BAMRC8 D55		50-127 V ac/ca	10045304	125.00
BAMRC9 D63		130-250 V ac/ca	10409767	125.00
BAMD10 C33	CWM9...25	12-600 V dc/cc	10045305	125.00
BAMRC13 D53	CWM112, CWM180	24-48 V ac/ca	10046242	125.00
BAMRC14 D56	CWM250	50-250 V ac/ca	10046243	125.00
BAMV1 D68	CWM9...105	270-380 V ac/ca	10664749	125.00
BAMV2 D73		400-510 V ac/ca	10046382	125.00
BAMV3 D68	CWM112, CWM180	270-380 V ac/ca	10046383	125.00
BAMV4 D73		CWM250	400-510 V ac/ca	10046384

### AC COILS

TYPE	CONTACTORS	STOCK CODE					PRICE EACH (ZAR)
		D02 (24 V)	D07 (48 V)	D13 (110 V)	D24 (230 V)	D34 (400 V)	
BCA4-25 ▲	CWM9...25	10045705	10045706	10045707	10046301	10211186	100.00
BCA4-40 ▲	CWM32...40	10047474	10047477	10047475	10656650	10187589	145.00
BCA-105 ▲	CWM50...105	10045696	10046298	10045692	10046324	10656781	194.00
BCA-112 ▲	CWM112	10656888	10071616	10656867	10071750	10071259	301.00
BCA-180 ▲	CWM180	10046202	10071617	10656895	10071751	10071735	485.00
BCA-250 ▲	CWM250	10072870	11782491	10657695	10071752	10071734	585.00

TYPE	CONTACTORS	Article nr.			PRICE EACH (ZAR)
		D80 (265-347 V ac)	D81 (380-450 V ac)	D82 (440-575 V ac)	
BCE-400	CWM400	11746769	11746772	11746774	4856.00
TYPE	CONTACTORS	D80 (265-347 V ac)	D81 (380-450 V ac)	D82 (440-575 V ac)	PRICE EACH (ZAR)
BCE-800	CWM500/630/800	10076528	11746779	10076529	6106.00

NOTE: ARTICLE NUMBERS FOR OTHER RATED VOLTAGES AND FREQUENCIES UPON REQUEST.

▲ - SMART CODE OF THE RATED VOLTAGE.



## ACCESSORIES FOR CWM CONTACTORS

### ACCESSORIES FOR CONTACTORS CWM

#### DC COILS

TYPE	CONTACTORS	STOCK CODE			PRICE EACH (ZAR)
		C03 (24 V dc)	C12 (110 V dc)	C15 (220 V dc)	
BCC-25 ▲	CWM9...CWM25	10045694	10186053	10071533	332.00
TYPE	CONTACTORS	STOCK CODE			PRICE EACH (ZAR)
		C34 (24-28 V dc)	C40 (110-130 V dc)	C44 (208-240 V dc)	
BECC4-40 ▲	CWM32/40 / CWMC32	10213264	10685151	10685178	698.00
BECC-105 ▲	CWM50...105 / CWMC50...80	10685182	10685200	10685205	786.00

#### CWM COILS (AC-DC)

TYPE	CONTACTORS	STOCK CODE			PRICE EACH (ZAR)
		E10 (110-130 V)	E13 (208-250 V)	E16 (360-415 V)	
BCE-150 ▲	CWM112/150	10071579	10071580	10046378	322.00
BCE-215 ▲	CWM180	10071581	10071582	10076211	510.00
BCE-300 ▲	CWM250/300	10071583	10071584	10076212	646.00
TYPE	CONTACTORS	STOCK CODE			PRICE EACH (ZAR)
		E36 (100-240 V ac / 100-220 V dc)			
BCE-400 ▲	CWM400	11746768			4856.00
TYPE	CONTACTORS	E35 (100-127 V ac / 100-110 V dc)	E39 (200-240 V ac / 200-220 V dc)		PRICE EACH (ZAR)
BCE-800 ▲	CWM500/630/800	11746776	10047277		

#### ELECTRONIC MODULE

TYPE	CONTACTORS	Article nr.			PRICE EACH (ZAR)
		E10 (110-130 V)	E13 (208-250 V)	E16 (360-415 V)	
ME-300 ▲	CWM112/150/180/250/300	10046223	10046264	10072133	1555.00

#### CWMC AC COILS - (0.75...1.1 X UC)

TYPE	CONTACTORS	Rated freq. (Hz)	X18 (110 V)	X37 (230-240 V)	X47 (400-415 V)	PRICE EACH (ZAR)
BCA4-25 ▲	CWMC9/18/25	50	11703672	11703596	11703597	124.00
BCA4-40 ▲	CWMC32/40	50	11703701	11703595	11703702	181.00
BCA-105 ▲	CWMC50/65/80	50	11703699	11703594	11703698	242.00

NOTE: ARTICLE NUMBERS FOR OTHER RATED VOLTAGES AND FREQUENCIES UPON REQUEST.

▲ - SMART CODE OF THE RATED VOLTAGE.



## ACCESSORIES FOR CWM CONTACTORS

### ACCESSORIES FOR CONTACTORS CWM

#### ADAPTERS FOR EYE BOLT TERMINALS

TYPE	CONTACTORS	STOCK CODE	PRICE EACH (ZAR)
ATO 50/65/80	CWM50/65/80	10070852	150.00
ATO 95/105	CWM95/105	10045716	696.00

#### PARALLEL CONNECTION BAR

TYPE	CONTACTORS	STOCK CODE	PRICE EACH (ZAR)
BCP-CWM50-105	CWM50...105	10070853	109.00

#### EXTINGUISH CHAMBERS

TYPE	CONTACTORS	STOCK CODE	PRICE EACH (ZAR)
CE112	CWM112	10045675	638.00
CE150	CWM150	10071711	665.00
CE180	CWM180	10071515	991.00
CE250	CWM250	10071516	1235.00
CE300	CWM300	10657219	1378.00

#### TERMINAL COVERS

TYPE	CONTACTORS	PACKING (UNITS)	STOCK CODE	PRICE EACH (ZAR)
BMP CWM150	CWM112/150	2 terminal covers	11762172	644.00
BMP CWM180	CWM180	2 terminal covers	11762174	644.00
BMP CWM300	CWM250/300	2 terminal covers	11762177	644.00
BMP CWM400	CWM400 - 3P	2 terminal covers	10047280	356.00
BMP CWM800	CWM500/ 630/800 - 3P	2 terminal covers	10047281	710.00

Note: each set comes with 2 terminal covers, one for incoming terminals and other for outgoing terminals.

TYPE	CONTACTORS	PACKING (UNITS)	STOCK CODE	PRICE EACH (ZAR)
BMP1 CWM150	CWM112/150	1 terminal cover	11898596	322.00
BMP1 CWM180	CWM180	1 terminal cover	11898597	322.00
BMP1 CWM300	CWM250/300	1 terminal cover	11898638	327.00

#### ROUND CABLE TERMINAL

TYPE	CONTACTORS	PACKING (UNITS)	STOCK CODE	PRICE EACH (ZAR)
BMJ CWM400	CWM400 - 3P	3	10186854	1062.00
BMJ CWM800	CWM500/630/800 - 3P	3	10186855	2247.00

#### STAR-DELTA BRIDGE CONNECTOR

TYPE	DESCRIPTION	CONTACTORS	STOCK CODE	PRICE EACH (ZAR)
SBCM9-18	Bridge connector for K3 contactor in star-delta starter	CWM9...18	11856299	65.00
SBCM25		CWM25	11879830	72.00
SBCM32-40		CWM32/40	11856300	109.00
SBCM50-65		CWM50/65	11856302	120.00

### ACCESSORIES FOR 4-POLE CONTACTORS CWM

#### SPARE CONTACT SET

TYPE	CONTACTORS	STOCK CODE	PRICE EACH (ZAR)
JC CWM12-2P/2R	CWM12-2P/2R	10186063	145.00
JC CWM18-2P/2R	CWM18-2P/2R	10682151	156.00
JC CWM12-4P	CWM12-4P	10662915	126.00
JC CWM18-4P	CWM18-4P	10662916	142.00



# THERMAL OVERLOADS - TECHNICAL DATA

## GENERAL DATA AND MAIN CONTACTS

Reference code	RW17	RW27	RW67	RW117	RW317	RW407
Standards	IEC/EN 60947 / UL 508 / UL 60947					
Setting current (A)	0.28...17	0.28...32	25...80	75...112	100...420	400...840
Tripping class	10					
Temperature compensation	Continuous					
Rated insulation voltage U <sub>i</sub> (pollution degree 3)	IEC/EN 60947 (V) UL/CSA (V)			690		1,000
Rated impulse withstand voltage U <sub>imp</sub> (kV)	6			8		
Rated operational frequency (Hz)	0...400					
Degree of protection Protection against direct contact from the front when actuated by a perpendicular test finger (IEC/EN 60536)	IP 20 Finger and back-of-hand proof					
Ambient temperature Operating temperature Storage temperature	-25 °C to +60 °C -40 °C to +70 °C					
Climating proof IEC/EN 60 068-2-3 IEC/EN 60 068-2-30	Damp heat. constant Damp heat. constant					
Current heat loss Lower value of setting range (W) Higher value of setting range (W)	0.9 1.4	0.9 1.7	1.5 4.7	2.3 4.7	1 1.9	

## AUXILIARY CONTACTS

Models	RW17	RW27	RW67	RW117	RW317	RW407
Standards	IEC/EN 60 947-4-1 and UL 508					
Rated insulation voltage U <sub>i</sub> (pollution degree 3)	IEC/EN (V) UL, CSA (V)			690 600		
Rated operational voltage U <sub>e</sub>	IEC/EN (V) UL, CSA (V)			690 600		
Rated thermal current I <sub>th</sub> (θ ≤55 °C) (A)	6					
Rated operational current I <sub>e</sub>						
AC-14 / AC-15 (IEC/EN 60947-5-1)	24 V (A)					4
	60 V (A)					3.5
	125 V (A)					3
	230 V (A)					2
	400 V (A)					1.5
	500 V (A)					0.5
UL, CSA	690 V (A)					0.3
	C600					
	24 V (A)					1
	60 V (A)					0.5
DC-13 / DC-14 (IEC/EN 60947-5-1)	110 V (A)					0.25
	220 V (A)					0.1
	R300					
Short-circuit protection with fuse (g/L/gG) (A)	6					
Minimum voltage / admissible current (IEC/EN 60947-5-4)	17 V / 5 mA					

## TERMINAL CAPACITY AND TIGHTENING TORQUE - MAIN CONTACTS

Reference	RW17	RW27	RW67	RW117	RW317	RW407
Current setting (A)	0.28...17	0.28...32	25...80	75...112	100...215	200...420
Cable size (75 °C / Cu cable)						
Flexible cable	1 cable (mm <sup>2</sup> )	1.5...10	6,0...35	25...35	35...120	95...150
	2 cables (mm <sup>2</sup> )		-	-		
Cable with terminal or rigid cable	1 cable (mm <sup>2</sup> )	1.5...6,0	6,0...35	25...35	35...120	95...150
	2 cables (mm <sup>2</sup> )		-	-		
Busbar (mm <sup>2</sup> )	-		Max 2x (25x5)			Max 2x (60x10)
Tightening torque (N.m)	2,3		4,0	6,0	16,0	26,0
UL cable size (75 °C - Cu cable) AWG	16...8		10...3	6...1/0	3-300 kcmil	3/0 - 600 kcmil
Tightening torque (UL) (lb.in)	20		35	53	141	230

## TERMINAL CAPACITY AND TIGHTENING TORQUE - AUXILIARY CONTACTS

Models	RW17	RW27	RW67	RW117	RW317	RW407
Type of screws	M3.5 x 10 Philips					
Cable size (75 °C / Cu cable)						
Cable with or without terminal (mm <sup>2</sup> )			2 x 1...2.5			
AWG-wire			16...12			
Tightening torque (N.m / lb.in)			1.5 / 13			



# THERMAL OVERLOADS - TECHNICAL DATA

## GENERAL DATA

Product model	RWM40E / RWB40E	RWM112E	RWM420E	RWM840E
Standards	IEC 60947-4-1, IEC 60947-5-1, IEC 60947-1, UL 60947-1, UL 60947-4-1A and UL 508			
Rated insulation voltage $U_i$ (pollution degree 3)	IEC 60947-4-1 (V)	690		100
	UL, CSA (V)	600		
Rated impulse withstand voltage $U_{imp}$ (IEC 60947-1)	(kV)	6		8
Rated operational frequency (sinusoidal networks)	(Hz)	50/60		
Suitable for use	Three phase loads	Yes		
	Single phase / two phase loads	No		
	DC current loads	No		
Trip class (IEC 60947-4-1)	10, 20 or 30 - selectable			
Additional featured protections	Phase loss	Yes / less than <5s		
	Phase unbalance	Yes / >40%		
Reset	Manual / minimum downtime for reset	Yes / instantaneous		
	Automatic / minimum downtime for reset	Yes / $\geq 90s$		
Maximum operation per hour	(ops./h)	30		
Protection degree (IEC 60529)	Main contacts	IP10		IP00
	Auxiliary contacts	IP20		
Mounting		1)	2)	
Mechanical shock resistance - 1/2 sinusoid	15 g / 11ms			
Vibration resistance (IEC 60068-2-6)	6 g / 30...300 Hz			
Ambient temperature	Transport and storage	-50 °C...+80 °C		
	Operating	-20 °C...+60 °C		
	Temperature compensation	-20 °C...+60 °C		
Altitude	2,000 m			

Notes: 1) Direct mounting on contactor or directly on the panel via screws or 35 mm DIN rail when using the mounting kit accessory (BF27D and BF112);  
2) Direct mounting on contactor when using the Connector Link GA117 / GA317 accessory or directly on the panel via screws.

## MAIN CONTACTS

Product model	RWM40E / RWB40E	RWM112E	RWM420E	RWM840E	
Rated operational voltage $U_e$	IEC 60947-4-1 (V)	690		100	
	UL, CSA (V)	600			
Current setting / max fuse (gL/gG)	(A)	0.4...2 / 16 1.6...8 / 32 5...25 / 63 8...40 / 125	14...56 / 160 28...112 / 250	50...250 / 500 85...420 / 710	170...840 / 1,250
Setting current / average power dissipation per pole	(W)	0.4...2 / 0.07 1.6...8 / 0.06 5...25 / 0.38 8...40 / 1.5	14...56 / 2 28...112 / 2.6	50...250 / 12 85...420 / 12	170...840 / 14.5

Notes: 1) Direct mounting on contactor or directly on the panel via screws or 35 mm DIN rail when using the mounting kit accessory (BF27D and BF112);  
2) Direct mounting on contactor when using the Connector Link GA117 / GA317 accessory or directly on the panel via screws.

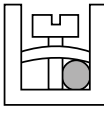
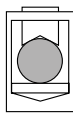
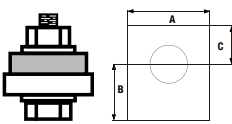


## THERMAL OVERLOADS - TECHNICAL DATA

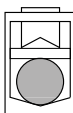
### AUXILIARY CONTACTS

Product model			RWM40...840E / RWB40E
Rated insulation voltage $U_i$ (pollution degree 3)	IEC 60947-4-1	(V)	250
	UL, CSA	(V)	600
Rated impulse withstand voltage $U_{imp}$ (IEC 60947-1)		(kV)	4
Rated operational voltage $U_o$	IEC 60947-4-1	(V)	250
	UL, CSA	(V)	600
Rated thermal current $I_{th}$ ( $\theta \leq 60$ °C)		(A)	5
Rated operational current $I_o$			
AC-14/AC-15 (IEC 60947-5-1)	24 V	(A)	3
	120 V	(A)	3
	250 V	(A)	1.5
DC-13 (IEC 60947-5-1)	24 V	(A)	2
	60 V	(A)	0.4
	110 V	(A)	0.22
	125 V	(A)	0.22
	250 V	(A)	0.1
NEMA control circuit ratings	UL, CSA		C300 / R300
Short-circuit protection with fuse		(A)	6
Minimum voltage / admissible current (IEC 60947-5-4)			12 V / 10 mA

### TERMINAL CAPACITY AND TIGHTENING TORQUE - MAIN CONTACTS

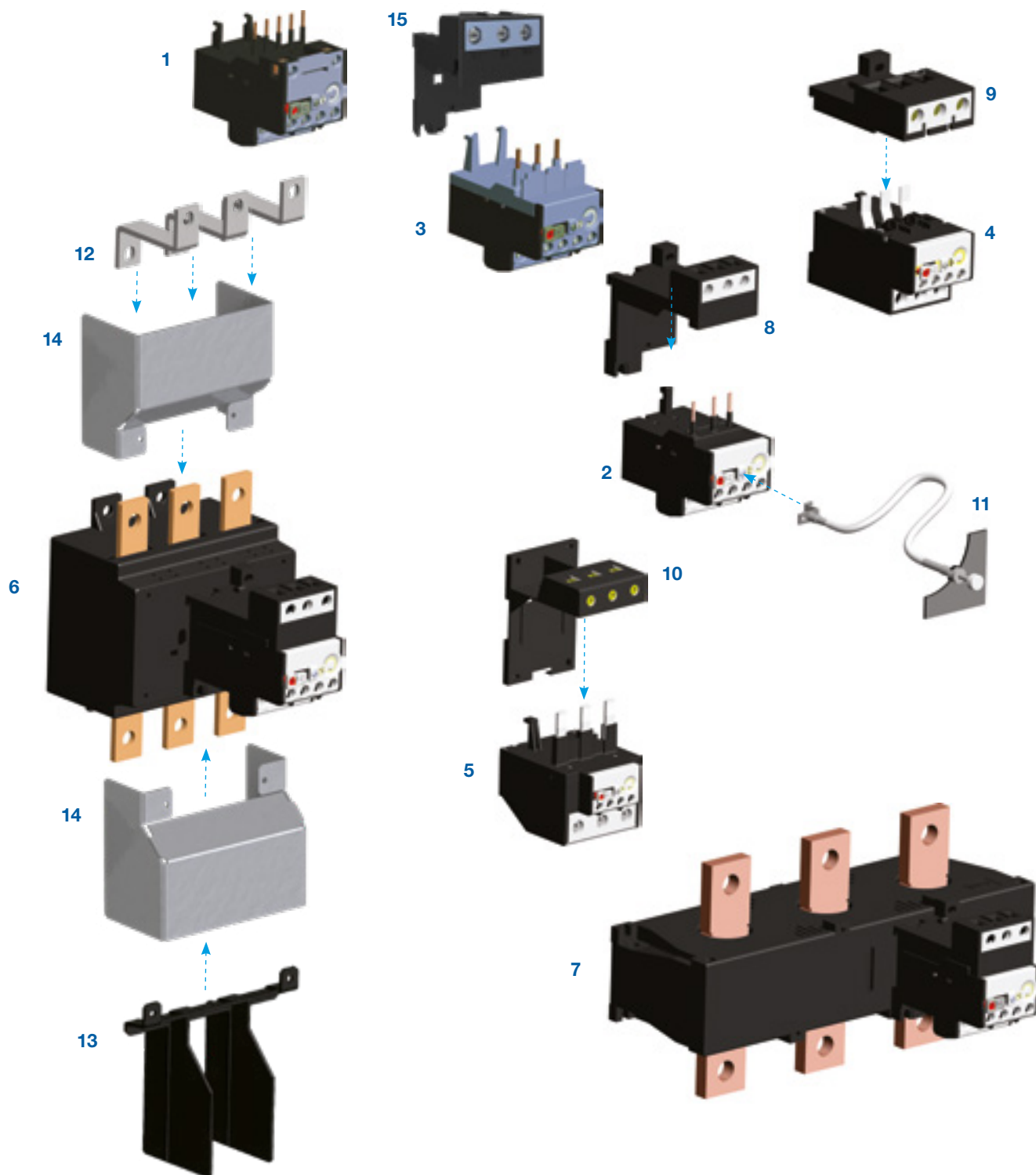
Product model		BF27D	RWM40E / RWB40E	RW112E	BF112
Type of screw		M4 Flat / Phillips #2	M3.5 Flat / Phillips #2	M10 Allen #4	M10 Allen #4
<b>Cable size</b>					
Flexible cable	(mm <sup>2</sup> )		1.5...10	-	-
Cable with terminal / rigid cable	(mm <sup>2</sup> )		1.5...6	-	-
AWG wire			16...10	-	-
Tightening torque	(Nm)		2.3	-	-
Flexible cable	(mm <sup>2</sup> )		-	1...10	2.5...35
Cable with terminal / rigid cable	(mm <sup>2</sup> )		-	1...10	2.5...35
AWG wire			-	16...8	14...2
Tightening torque	(Nm)		-	1.7	6
Product model			RWM420E	RWM840E	
Type of screw			M10 Hexagon Head	M12 Hexagon Head	
Cable with terminal	(mm <sup>2</sup> )		2 x (25...150)	2 x (60 x 10)	
Busbar (A x B x C)	(mm)		25 x 18.5 x 12.5	31.7 x 28.3 x 15	
Tightening torque	(Nm)		26	26	

### TERMINAL CAPACITY AND TIGHTENING TORQUE - AUXILIARY CONTACTS

Product model		RWM40...840E / RWB40E	
Type of screw		Flat / Phillips #1	
<b>Cable size</b>			
Cable with or without terminal	(mm <sup>2</sup> )		
AWG wire			1 x 1...2.5
Tightening torque	(Nm)		16...12
		0.8	



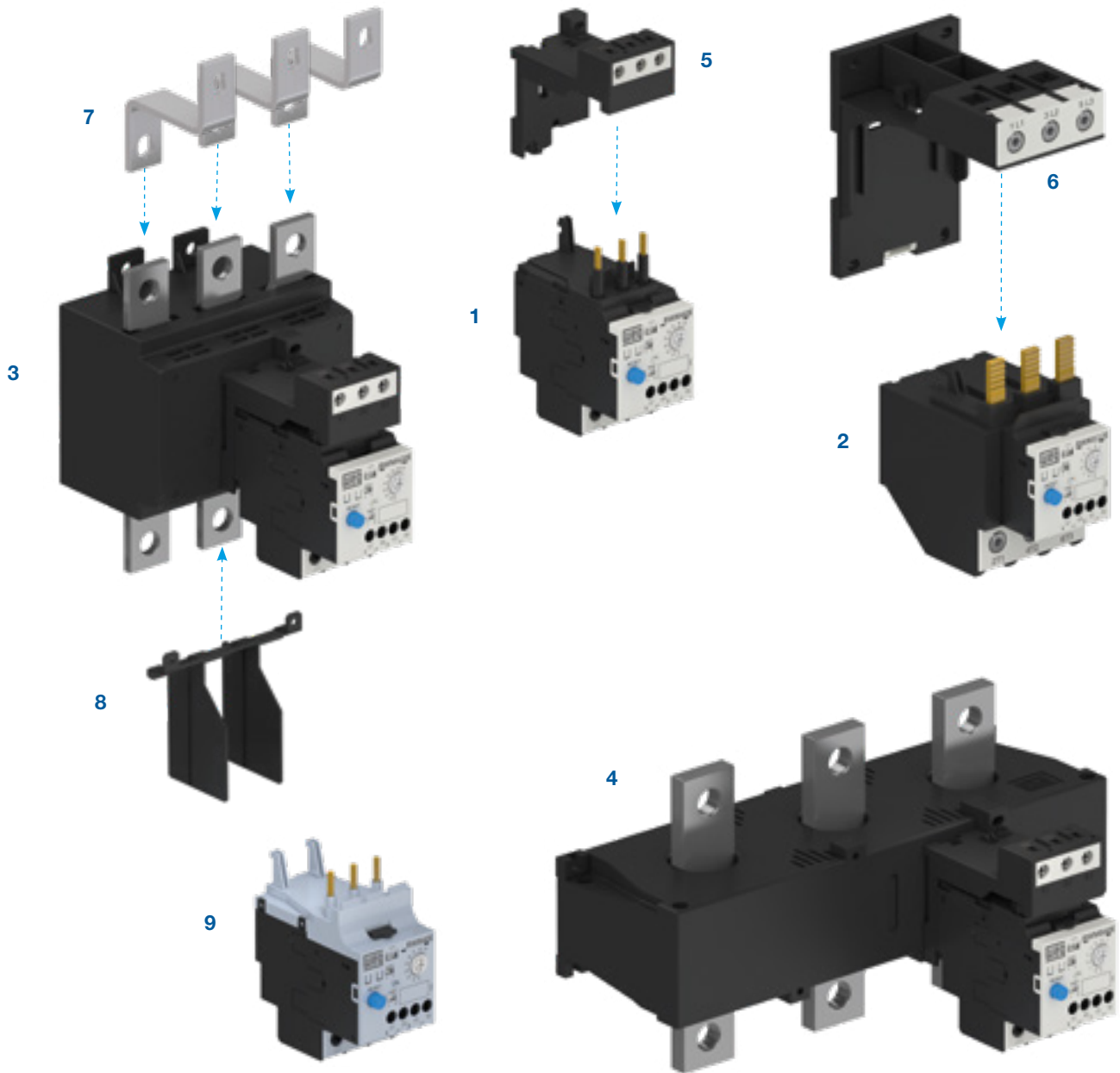
## THERMAL OVERLOAD RELAYS RW17...RW407 - OVERVIEW



- 1 - RW17-1D (direct mounting on CWC07...16 contactors) and RW17-2D (direct mounting on CWC025 contactor)
- 2 - RW27-1D (direct mounting on CWM9...40 contactors)
- 3 - RW27-2D (direct mounting on CWB9...38 contactors)
- 4 - RW67 (direct mounting on CWM40...80 contactors)
- 5 - RW117-1D (direct mounting on CWM95/105 contactors)
- 6 - RW317 (for CWM112...300 and CWM400 contactors)
- 7 - RW407 (for CWM500...800 contactors)
- 8 - BF27 kit for separate mounting of RW27-1D on DIN 35 mm rail
- 9 - BF67 kit for separate mounting of RW6 on DIN 35 mm rail
- 10 - BF117D kit for separate mounting of RW117-1D on DIN 35 mm rail
- 11 - Cable for external reset of overload relays ERC\_RW (RW17...407)
- 12 - GA connector links for connection between CWM contactors and RW overload relays
- 13 - Phase barrier IBRW317 (RW317)
- 14 - Terminal covers BMP (RW317)
- 15 - BF27-2D kit for separate mounting of RW27-2D on DIN 35 mm rail



## SOLID-STATE OVERLOAD RELAYS RW\_40...840E - OVERVIEW



- 1 - RWM40E solid-state overload relay (direct mounting on CWM9...40 contactors)
- 2 - RWM112E solid-state overload relay (direct mounting on CWM50...105 contactors)
- 3 - RWM420E solid-state overload relay (for use with CWM112...500 contactors)
- 4 - RWM840E solid-state overload relay (for use with CWM400...800 contactors)
- 5 - BF27 mounting kit for direct panel mounting by screws or 35 mm DIN rail (for RWM40E)
- 6 - BF112 mounting kit for direct panel mounting by screws or 35 mm DIN rail (for RWM112E)
- 7 - GA Connector Links for direct mounting of overload relay on contactor
- 8 - IBRW317 phase barriers (for RWM420E)
- 9 - RWB40E solid-state overload relay (direct mounting on CWB9...38 contactors)



## 3-POLE THERMAL OVERLOAD RELAYS FOR CW07/CWC0 CONTACTORS

### 3-POLE THERMAL OVERLOAD RELAY



RW17-2D

TYPE	RATED CURRENT (A)	DIRECT MOUNTING ON	STOCK CODE	PRICE EACH (ZAR)
RW17-1D3-D004	0,28...0,4	CW07, CWC07...16 (screw)	12450892	366.00
RW17-1D3-C063	0,4...0,63	CW07, CWC07...16 (screw)	12450895	366.00
RW17-1D3-D008	0,56...0,8	CW07, CWC07...16 (screw)	12450896	366.00
RW17-1D3-D012	0,8...1,2	CW07, CWC07...16 (screw)	12450897	366.00
RW17-1D3-D018	1,2...1,8	CW07, CWC07...16 (screw)	12450898	366.00
RW17-1D3-D028	1,8...2,8	CW07, CWC07...16 (screw)	12450899	366.00
RW17-1D3-U004	2,8...4	CW07, CWC07...16 (screw)	12450900	366.00
RW17-1D3-D063	4...6,3	CW07, CWC07...16 (screw)	12450901	366.00
RW17-1D3-U008	5,6...8	CW07, CWC07...16 (screw)	12450903	366.00
RW17-1D3-U010	7...10	CW07, CWC07...16 (screw)	12450905	366.00
RW17-1D3-D125	8...12,5	CWC07...16 (screw)	12450906	366.00
RW17-1D3-U015	10...15	CWC07...16 (screw)	12450907	366.00
RW17-1D3-U017	11...17	CWC07...16 (screw)	12450908	366.00
RW17-2D3-U010	7...10	CWC025	12450909	366.00
RW17-2D3-D125	8...12,5	CWC025	12450910	366.00
RW17-2D3-U015	10...15	CWC025	12450911	366.00
RW17-2D3-U017	11...17	CWC025	12450912	366.00
RW17-2D3-U023	15...23	CWC025	12450913	380.00
RW17-2D3-U032	22...32	CWC025	12450914	380.00

Note: other accessories for 4-Pole contactors, see 3-Pole contactor's accessories.



## 3-POLE THERMAL OVERLOAD RELAYS FOR CWB CONTACTORS

### 3-POLE THERMAL OVERLOAD RELAY



RW27-2D

TYPE	RATED CURRENT (A)	DIRECT MOUNTING ON	STOCK CODE	PRICE EACH (ZAR)
RW27-2D3-D004	0,28...0,4	CWB9...38, CWBS9...38	12140441	481.00
RW27-2D3-C063	0,43...0,63	CWB9...38, CWBS9...38	12140442	481.00
RW27-2D3-D008	0,56...0,8	CWB9...38, CWBS9...38	12140443	481.00
RW27-2D3-D012	0,8...1,2	CWB9...38, CWBS9...38	12140444	481.00
RW27-2D3-D018	1,2...1,8	CWB9...38, CWBS9...38	12140445	481.00
RW27-2D3-D028	1,8...2,8	CWB9...38, CWBS9...38	12140446	481.00
RW27-2D3-U004	2,8...4	CWB9...38, CWBS9...38	12140447	481.00
RW27-2D3-D063	4...6,3	CWB9...38, CWBS9...38	12140448	481.00
RW27-2D3-U008	5,6...8	CWB9...38, CWBS9...38	12140449	481.00
RW27-2D3-U010	7...10	CWB9...38, CWBS9...38	12140450	481.00
RW27-2D3-D125	8...12,5	CWB9...38, CWBS9...38	12140451	481.00
RW27-2D3-U015	10...15	CWB9...38, CWBS9...38	12140452	481.00
RW27-2D3-U017	11...17	CWB9...38, CWBS9...38	12140453	499.00
RW27-2D3-U023	15...23	CWB9...38, CWBS9...38	12140454	499.00
RW27-2D3-U032	22...32	CWB9...38, CWBS9...38	12140455	549.00
RW27-2D3-U040	32...40	CWB9...38, CWBS9...38	12140456	631.00
RW67-5D3-U040	25...40	CWB40...80	13368960	946.00
RW67-5D3-U050	32...50	CWB40...80	13368961	1021.00
RW67-5D3-U057	40...57	CWB40...80	13368962	1021.00
RW67-5D3-U063	50...63	CWB40...80	13368963	1021.00
RW67-5D3-U070	57...70	CWB40...80	13368964	1219.00
RW67-5D3-U080	63...80	CWB40...80	13368965	1219.00

## SOLID STATE OVERLOAD RELAY FOR CWB CONTACTORS

### 3-POLE SOLID STATE OVERLOAD RELAYS - ADJUSTABLE TRIPPING CLASS 10, 20 AND 30



RWB40E

TYPE	RATED CURRENT (A)	DIRECT MOUNTING ON	STOCK CODE	PRICE EACH (ZAR)
RWB40E-3-A4U002	0,4...2 A	CWB9...38, CWBS9...38	12786062	1718.00
RWB40E-3-A4U008	1,6...8 A		12786061	1718.00
RWB40E-3-A4U025	5...25 A		12786060	1718.00
RWB40E-3-A4U040	8...40 A		12786059	1718.00



## 3-POLE THERMAL OVERLOAD RELAYS FOR CWM CONTACTORS

### 3-POLE THERMAL OVERLOAD RELAY



RW27-1D



RW67



RW117



RW317

TYPE	RATED CURRENT (A)	DIRECT MOUNTING ON	SEPARATE MOUNTING ON	STOCK CODE	PRICE EACH (ZAR)
RW27-1D3-D004	0,28...0,4	CWM9...40	-	10045630	481.00
RW27-1D3-C063	0,43...0,63	CWM9...40	-	10186032	481.00
RW27-1D3-D008	0,56...0,8	CWM9...40	-	10186033	481.00
RW27-1D3-D012	0,8...1,2	CWM9...40	-	10045631	481.00
RW27-1D3-D018	1,2...1,8	CWM9...40	-	10045632	481.00
RW27-1D3-D028	1,8...2,8	CWM9...40	-	10452548	481.00
RW27-1D3-U004	2,8...4	CWM9...40	-	10452213	481.00
RW27-1D3-D063	4...6,3	CWM9...40	-	10045633	481.00
RW27-1D3-U008	5,6...8	CWM9...40	-	10452197	481.00
RW27-1D3-U010	7...10	CWM9...40	-	10045634	481.00
RW27-1D3-D125	8...12,5	CWM9...40	-	10452967	481.00
RW27-1D3-U015	10...15	CWM9...40	-	10452384	481.00
RW27-1D3-U017	11...17	CWM9...40	-	10452204	499.00
RW27-1D3-U023	15...23	CWM9...40	-	10452205	499.00
RW27-1D3-U032	22...32	CWM9...40	-	10452382	549.00
RW67-1D3-U040	25...40	CWM32...40	-	10452216	946.00
RW67-1D3-U050	32...50	CWM32...40	-	10452217	1021.00
RW67-2D3-U040	25...40	CWM50...80	-	10844133	1021.00
RW67-2D3-U050	32...50	CWM50...80	-	10186035	1021.00
RW67-2D3-U057	40...57	CWM50...80	-	10452201	1021.00
RW67-2D3-U063	50...63	CWM50...80	-	10452218	1021.00
RW67-2D3-U070	57...70	CWM50...80	-	10045635	1219.00
RW67-2D3-U080	63...80	CWM50...80	-	10045636	1219.00
RW117-1D3-U080	63...80	CWM95...105	-	10186370	1551.00
RW117-1D3-U097	75...97	CWM95...105	-	10410002	1551.00
RW117-1D3-U112	90...112	CWM95...105	-	10410003	1551.00
RW117-2D3-U097	75...97	-	CWM112	10045646	1876.00
RW117-2D3-U112	90...112	-	CWM112	10410004	1876.00
RW317-1D3-U150	100...150	-	-	10045647	2620.00
RW317-1D3-U215	140...215	-	CWM112/150/180/250/ 300/400/500	10410005	2620.00
RW317-1D3-U310	200...310	-		10410006	2866.00
RW317-1D3-U420	275...420	-		10410007	2866.00
RW407-1D3-U600	400...600	-	CWM500/630	10452250	4524.00
RW407-1D3-U840	560...840	-	CWM630/800	10045637	4900.00

## SOLID STATE OVERLOAD RELAY FOR CWM CONTACTORS

### 3-POLE SOLID STATE OVERLOAD RELAYS - ADJUSTABLE TRIPPING CLASS 10, 20 AND 30



RWM40E

TYPE	RATED CURRENT (A)	DIRECT MOUNTING ON	STOCK CODE	PRICE EACH (ZAR)
RWM40E-3-A4U002	0,4...2 A	CWM9-40	11454460	1875.00
RWM40E-3-A4U008	1,6...8 A		11454459	1875.00
RWM40E-3-A4U025	5...25 A		11454417	1875.00
RWM40E-3-A4U040	8...40 A		11373597	1875.00
RWM112E-3-A4U056	14...56 A		11114728	2010.00
RWM112E-3-A4U112	28...112 A	CWM50...105	11114729	2010.00
RWM420E-3-A4U250	50...250 A	-	12802652	4528.00
RWM420E-3-A4U420	112...420 A	CWM112...4001)	11455846	4981.00

Note: 1) Separate mounting on.



## 2-POLE THERMAL OVERLOAD RELAYS CWO7/CWC0 CONTACTORS

### 2-POLE THERMAL OVERLOAD RELAY



RW17

TYPE	RATED CURRENT	DIRECT MOUNTING ON	STOCK CODE	PRICE EACH (ZAR)
RW17-1D2-D004	0,28...0,4	CW07, CWC07...16 (screw)	12515117	344.00
RW17-1D2-C063	0,4...0,63	CW07, CWC07...16 (screw)	12515189	344.00
RW17-1D2-D008	0,56...0,8	CW07, CWC07...16 (screw)	12515190	344.00
RW17-1D2-D012	0,8...1,2	CW07, CWC07...16 (screw)	12515192	344.00
RW17-1D2-D018	1,2...1,8	CW07, CWC07...16 (screw)	12515193	344.00
RW17-1D2-D028	1,8...2,8	CW07, CWC07...16 (screw)	12515194	344.00
RW17-1D2-U004	2,8...4	CW07, CWC07...16 (screw)	12515211	344.00
RW17-1D2-D063	4...6,3	CW07, CWC07...16 (screw)	12515213	344.00
RW17-1D2-U008	5,6...8	CW07, CWC07...16 (screw)	12515214	344.00
RW17-1D2-U010	7...10	CW07, CWC07...16 (screw)	12515215	344.00
RW17-1D2-D125	8...12,5	CW07, CWC07...16 (screw)	12515217	344.00
RW17-1D2-U015	10...15	CW07, CWC07...16 (screw)	12515195	344.00
RW17-1D2-U017	11...17	CW07, CWC07...16 (screw)	12515208	344.00
RW17-2D2-U010	7...10	CWC025	12515216	344.00
RW17-2D2-D125	8...12,5	CWC025	12515228	344.00
RW17-2D2-U015	10...15	CWC025	12515196	344.00
RW17-2D2-U017	11...17	CWC025	12515209	344.00
RW17-2D2-U023	15...23	CWC025	12515210	357.00
RW17-2D2-U032	22...32	CWC025	12515212	357.00

TYPE	RATED CURRENT	DIRECT MOUNTING ON	STOCK CODE	PRICE EACH (ZAR)
RW27-2D2-D004	0,28...0,43	CWB9...38	12140369	452.00
RW27-2D2-C063	0,43...0,63	CWB9...38	12140370	452.00
RW27-2D2-D008	0,56...0,8	CWB9...38	12140372	452.00
RW27-2D2-D012	0,8...1,2	CWB9...38	12140373	452.00
RW27-2D2-D018	1,2...1,8	CWB9...38	12140375	452.00
RW27-2D2-D028	1,8...2,8	CWB9...38	12140377	452.00
RW27-2D2-U004	2,8...4	CWB9...38	12140409	452.00
RW27-2D2-D063	4...6,3	CWB9...38	12140410	452.00
RW27-2D2-U008	5,6...8	CWB9...38	12140411	452.00
RW27-2D2-U010	7...10	CWB9...38	12140412	452.00
RW27-2D2-D125	8...12,5	CWB9...38	12140413	452.00
RW27-2D2-U015	10...15	CWB9...38	12140414	452.00
RW27-2D2-U017	11...17	CWB9...38	12140415	469.00
RW27-2D2-U023	15...23	CWB9...38	12140416	469.00
RW27-2D2-U032	22...32	CWB9...38	12140438	516.00
RW27-2D2-U040	32...40	CWB9...38	12140439	594.00
RW67-5D2-U040	25...40	CWB40...80	13368966	890.00
RW67-5D2-U050	32...50	CWB40...80	13368967	960.00
RW67-5D2-U057	40...57	CWB40...80	13369068	960.00
RW67-5D2-U063	50...63	CWB40...80	13369069	960.00
RW67-5D2-U070	57...70	CWB40...80	13369070	1146.00
RW67-5D2-U080	63...80	CWB40...80	13369071	1146.00



## 2-POLE THERMAL OVERLOAD RELAYS FOR CWM CONTACTORS

### 2-POLE THERMAL OVERLOAD RELAY



RW27



RW67

TYPE	RATED CURRENT	DIRECT MOUNTING ON	STOCK CODE	PRICE EACH (ZAR)
RW27-1D2-D004	0,28...0,43	CWM9...25	10076079	452.00
RW27-1D2-C063	0,43...0,63	CWM9...25	10076080	452.00
RW27-1D2-D008	0,56...0,8	CWM9...25	10076081	452.00
RW27-1D2-D012	0,8...1,2	CWM9...25	10076082	452.00
RW27-1D2-D018	1,2...1,8	CWM9...25	10047199	452.00
RW27-1D2-D028	1,8...2,8	CWM9...25	10047200	452.00
RW27-1D2-U004	2,8...4	CWM9...25	10076083	452.00
RW27-1D2-D063	4...6,3	CWM9...25	10047201	452.00
RW27-1D2-U008	5,6...8	CWM9...25	10047202	452.00
RW27-1D2-U010	7...10	CWM9...25	10186773	452.00
RW27-1D2-D125	8...12,5	CWM9...25	10047203	452.00
RW27-1D2-U015	10...15	CWM9...25	10047204	452.00
RW27-1D2-U017	11...17	CWM9...25	10047205	469.00
RW27-1D2-U023	15...23	CWM9...25	10047206	469.00
RW27-1D2-U032	22...32	CWM9...32	10047207	516.00
RW67-1D2-U040	25...40	CWM32...40	10047208	890.00
RW67-1D2-U050	32...50	CWM32...40	10047209	960.00
RW67-2D2-U057	40...57	CWM50...80	10047210	960.00
RW67-2D2-U063	50...63	CWM50...80	10047211	960.00
RW67-2D2-U070	57...70	CWM50...80	10047212	1146.00
RW67-2D2-U080	63...80	CWM50...80	10647542	1146.00



## ACCESSORIES FOR OVERLOAD RELAYS - RW AND RW\_E

### SET OF TERMINALS FOR CONNECTION

TYPE	TO USE WITH	FOR CONNECTION WITH CONTACTORS	STOCK CODE	PRICE EACH (ZAR)
GA67-B80	RW67-1D / RW67-2D	CWB40...80	13557165	445.00
GA 67-1D	RW67-2D3	CWM32/40	10186061	424.00
GA 67-2D	RW67-1D3	CWM50...80	10186062	424.00
GA117D	RW117-2D / RWM112E+BF112	CWM112	10185899	522.00
GA-317-1D	RW317 / RW420E	CWM112/150	10185904	379.00
GA-317-2D	RW317 / RW420E	CWM180	10185900	379.00
GA-317-3D	RW317 / RW420E	CWM250/300	10185901	687.00
GA-317-10D	RW317 / RW420E	CWM400	10187159	916.00

### BASE FOR SEPARATE MOUNTING

TYPE	TO USE WITH	STOCK CODE	PRICE EACH (ZAR)
BF27-2D	RW27-2D / RWB40	13598034	84.00
BF27D	RW27-1D / RWM40	10410085	84.00
BF67-1D	RW67-1D	10410086	190.00
BF67-2D	RW67-2D	10046505	190.00
BF67-5D	RW67-5D	13369075	190.00
BF117	RW117-1D	10045719	219.00
BF112	RWM112E	10806502	286.00

### INSULATOR BARRIER

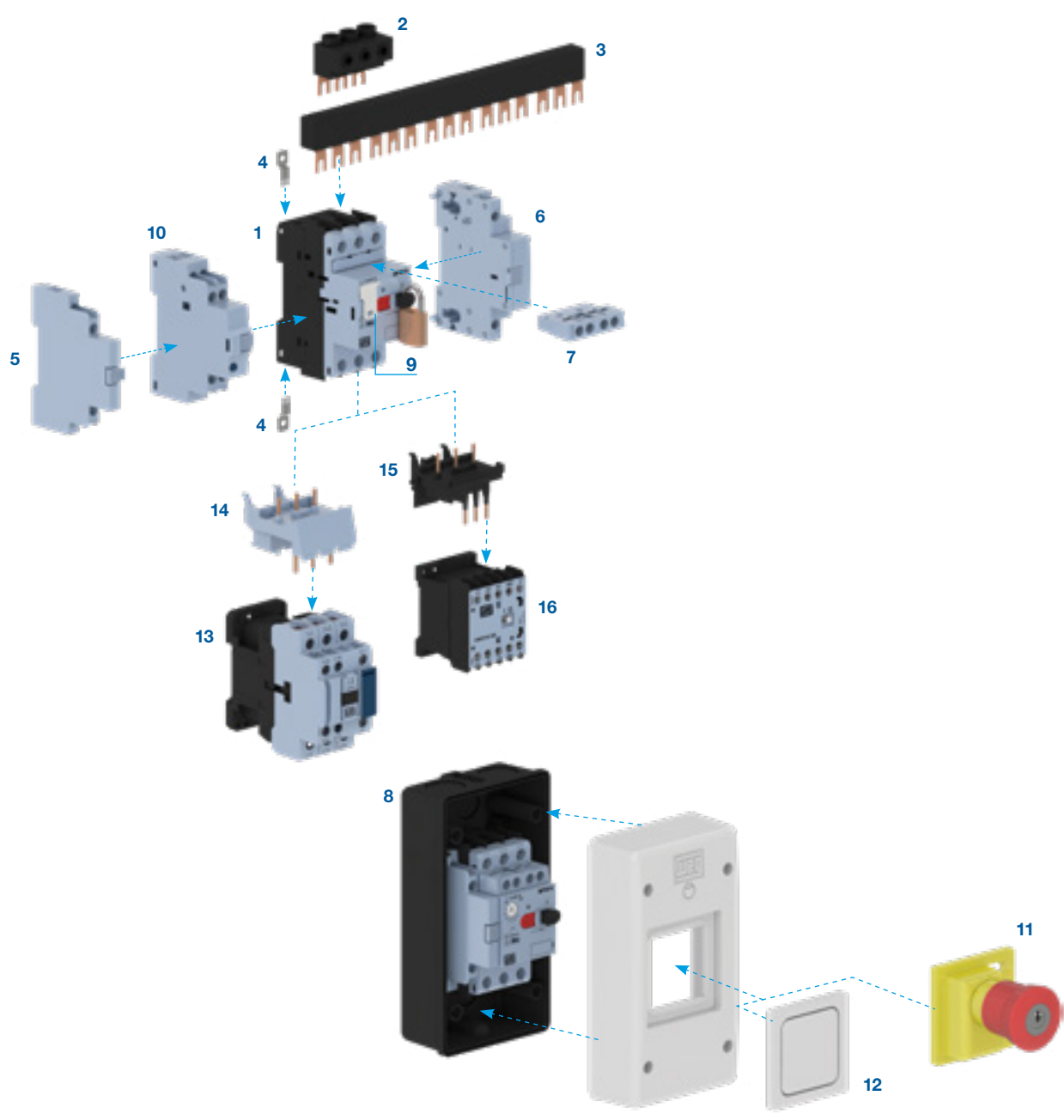
TYPE	DESCRIPTION	TO USE WITH	PACKAGING (UNITS)	STOCK CODE	PRICE EACH (ZAR)
IBRW317	3Ø insulator barrier	RW317 / RWM420E	1 piece	11558425	88.00
BMPRW317	Cover protection	CWM400+RW317 / CWM400+RWM420E	2 pieces	13072101	565.00
BMP1RW317-CWM400			1 piece	13072317	377.00

### ADAPTERS FOR EYE BOLT TERMINALS

TYPE	OVERLOAD RELAY	STOCK CODE	PRICE EACH (ZAR)
ATO 117D	RW117-2D	10045717	339.00



# MPW18 MOTOR PROTECTIVE CIRCUIT BREAKER - OVERVIEW



- 1 - MPW18 motor protective circuit breaker (screw terminal)
- 2 - Feeder terminal FTBBS
- 3 - Three-phase busbars BBS
- 4 - Push-in-lugs PLMP
- 5 - Side mounted auxiliary contact block ACBS (screw terminal)
- 6 - Undervoltage release URMP or shunt release SRMP (screw terminal)
- 7 - Front mounted auxiliary contact block ACBF (screw terminal)

- 8 - Insulated enclosure
- 9 - Scale cover SCMP
- 10 - Trip signaling block TSB
- 11 - Emergency pushbutton for insulated enclosure
- 12 - MPE41 cover for IP66
- 13 - CWB9...38 contactors
- 14 - Link module ECCMP-18B38 (MPW18+CWB9...38)
- 15 - Link module ECCMP-C016 (MPW18+CWC07...16)
- 16 - Compact contactors CWC07...16



## MOTOR PROTECTIVE CIRCUIT-BREAKER MPW18 - SCREW TYPE

### MPW18 - THERMAL-MAGNETIC PROTECTION

TYPE	RATED CURRENT	STOCK CODE	PRICE EACH (ZAR)
MPW18-3-C016	0,10 - 0,16	12429311	518.00
MPW18-3-C025	0,16 - 0,25	12429312	518.00
MPW18-3-D004	0,25 - 0,40	12429313	518.00
MPW18-3-C063	0,40 - 0,63	12429315	528.00
MPW18-3-U001	0,63 - 1,0	12429317	534.00
MPW18-3-D016	1,0 - 1,6	12429368	534.00
MPW18-3-D025	1,6 - 2,5	12429369	534.00
MPW18-3-U004	2,5 - 4,0	12429370	534.00
MPW18-3-D063	4,0 - 6,3	12429371	534.00
MPW18-3-U010	6,3 - 10	12429372	621.00
MPW18-3-U016	10 - 16	12429373	621.00
MPW18-3-U018	12 - 18	12429374	714.00

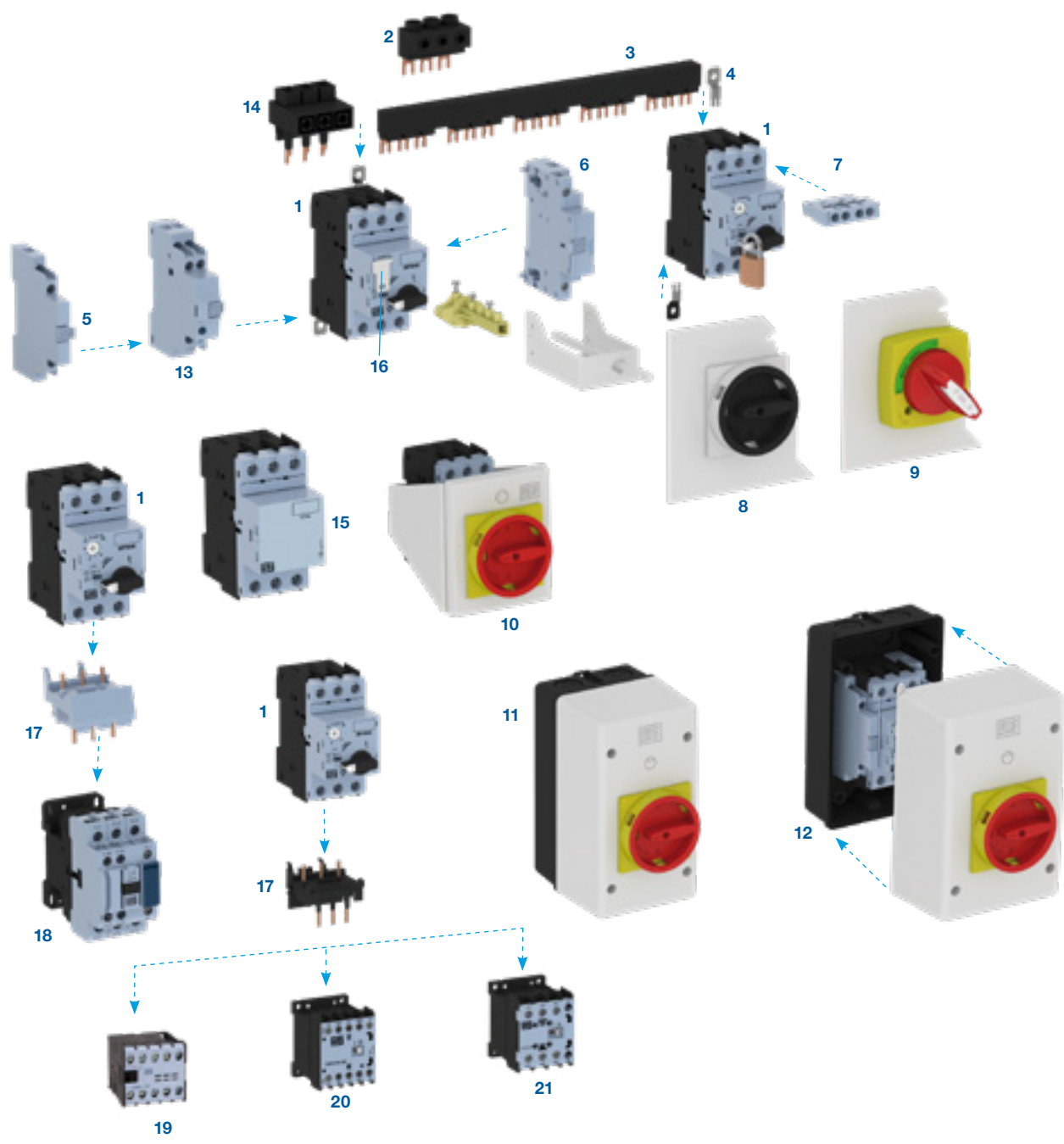


### MPW18i - MAGNETIC PROTECTION

TYPE	RATED CURRENT	STOCK CODE	PRICE EACH (ZAR)
MPW18i-3-C016	0,16	12429375	502.00
MPW18i-3-C025	0,25	12429376	502.00
MPW18i-3-D004	0,4	12429377	502.00
MPW18i-3-C063	0,63	12429388	504.00
MPW18i-3-U001	1	12429389	520.00
MPW18i-3-D016	1,6	12429391	520.00
MPW18i-3-D025	2,5	12429392	520.00
MPW18i-3-U004	4	12429393	520.00
MPW18i-3-D063	6,3	12429394	520.00
MPW18i-3-U010	10	12429395	621.00
MPW18i-3-U016	16	12429396	621.00
MPW18i-3-U018	18	12429397	714.00



# MPW40 MOTOR PROTECTIVE CIRCUIT BREAKER - OVERVIEW



- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>1 - MPW40 motor protective circuit breaker (screw terminal)</li> <li>2 - Feeder terminal FTBBS</li> <li>3 - Three-phase busbars BBS</li> <li>4 - Push-in-lugs PLMP</li> <li>5 - Side mounted auxiliary contact block ACBS (screw terminal)</li> <li>6 - Undervoltage release URMP or shunt release SRMP (screw terminal)</li> <li>7 - Front mounted auxiliary contact block ACBF (screw terminal)</li> <li>8 - Door coupling rotary handle RMMP</li> <li>9 - Door coupling rotary handle MRX</li> <li>10 - Front plate FME55</li> <li>11 - Standard insulated enclosure MPE55</li> </ul> | <ul style="list-style-type: none"> <li>12 - Large insulated enclosure MLPE55</li> <li>13 - Trip signaling block TSB</li> <li>14 - LST25 - Feeder terminal for "Type E" motor starter according to UL</li> <li>15 - Current limiter CLT32</li> <li>16 - Scale cover SCMP</li> <li>17 - Link modules ECCMP</li> <li>18 - CWB9...38 contactors</li> <li>19 - CW07 miniature contactor</li> <li>20 - CWC07...16 compact contactor</li> <li>21 - CWC025 compact contactor</li> </ul> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

# MOTOR PROTECTIVE CIRCUIT-BREAKER MPW40 - SCREW TYPE

## MPW40 - THERMAL-MAGNETIC PROTECTION

TYPE	RATED CURRENT	STOCK CODE	PRICE EACH (ZAR)
MPW40-3-C016	0,10 - 0,16	12428084	609.00
MPW40-3-C025	0,16 - 0,25	12428085	609.00
MPW40-3-D004	0,25 - 0,40	12428086	609.00
MPW40-3-C063	0,40 - 0,63	12428087	621.00
MPW40-3-U001	0,63 - 1,0	12429239	628.00
MPW40-3-D016	1,0 - 1,6	12428108	628.00
MPW40-3-D025	1,6 - 2,5	12428110	628.00
MPW40-3-U004	2,5 - 4,0	12428112	628.00
MPW40-3-D063	4,0 - 6,3	12428115	628.00
MPW40-3-U010	6,3 - 10	12428117	730.00
MPW40-3-U016	10 - 16	12428128	730.00
MPW40-3-U020	16 - 20	12428129	786.00
MPW40-3-U025	20 - 25	12428133	931.00
MPW40-3-U032	25 - 32	12428131	1000.00
MPW40-3-U040	32 - 40	12382551	1150.00

## MPW40I - MAGNETIC PROTECTION



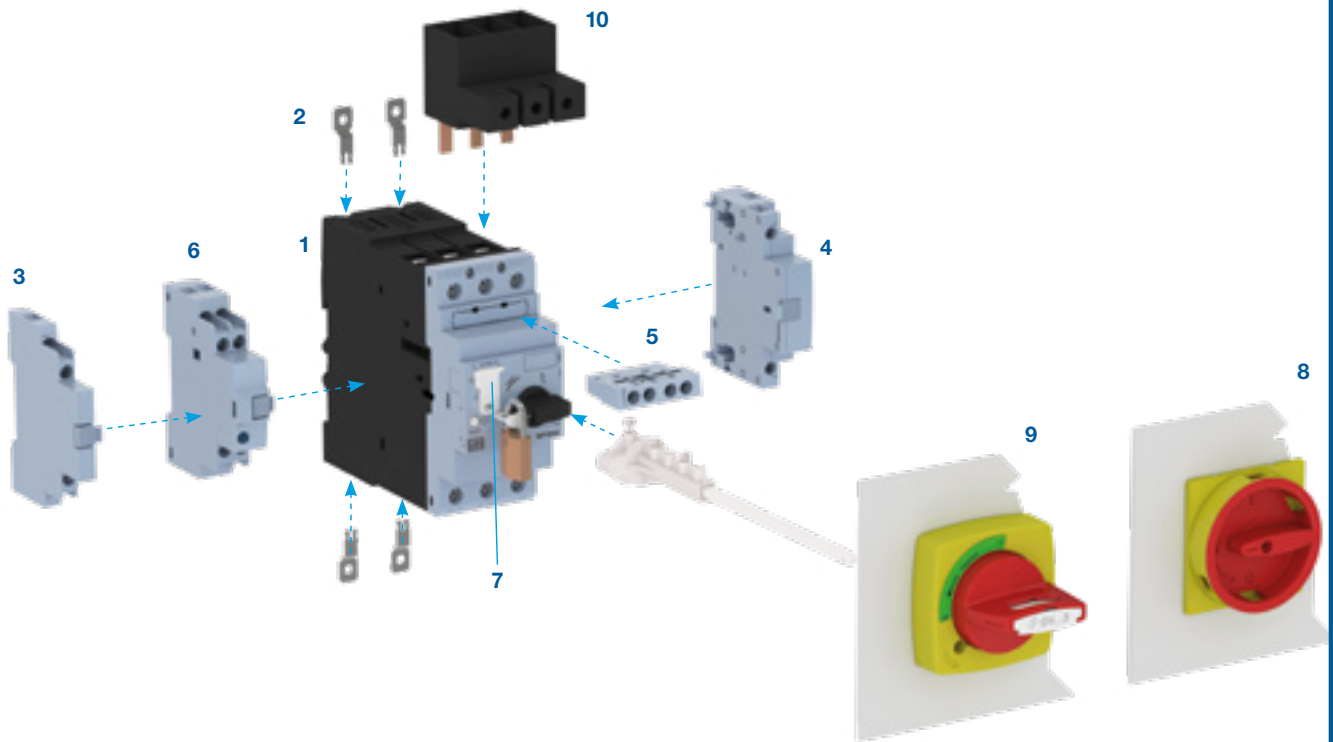
TYPE	RATED CURRENT	STOCK CODE	PRICE EACH (ZAR)
MPW40i-3-C016	0,16	12428137	590.00
MPW40i-3-C025	0,25	12428148	590.00
MPW40i-3-D004	0,4	12428149	590.00
MPW40i-3-C063	0,63	12428150	593.00
MPW40i-3-U001	1	12428153	612.00
MPW40i-3-D016	1,6	12428154	612.00
MPW40i-3-D025	2,5	12428156	612.00
MPW40i-3-U004	4	12428157	612.00
MPW40i-3-D063	6,3	12428178	612.00
MPW40i-3-U010	10	12428179	710.00
MPW40i-3-U016	16	12428180	710.00
MPW40i-3-U020	20	12428181	750.00
MPW40i-3-U025	25	12428182	893.00
MPW40i-3-U032	32	12428183	960.00
MPW40i-3-U040	40	12382552	1104.00

## MPW40T - THERMAL-MAGNETIC PROTECTION ( $I_M = 19X I_N$ )

TYPE	RATED CURRENT	STOCK CODE	PRICE EACH (ZAR)
MPW40t-3-C016	0,10 - 0,16	12428358	852.00
MPW40t-3-C025	0,16 - 0,25	12428359	852.00
MPW40t-3-D004	0,25 - 0,40	12428360	852.00
MPW40t-3-C063	0,40 - 0,63	12428361	869.00
MPW40t-3-U001	0,63 - 1,0	12429308	878.00
MPW40t-3-D016	1,0 - 1,6	12428362	878.00
MPW40t-3-D025	1,6 - 2,5	12428363	878.00
MPW40t-3-U004	2,5 - 4,0	12428364	878.00
MPW40t-3-D063	4,0 - 6,3	12428365	878.00
MPW40t-3-U010	6,3 - 10	12428366	1022.00
MPW40t-3-U016	10 - 16	12428367	1022.00
MPW40t-3-U020	16 - 20	12428378	1100.00



## MPW80 MOTOR PROTECTIVE CIRCUIT BREAKER - OVERVIEW

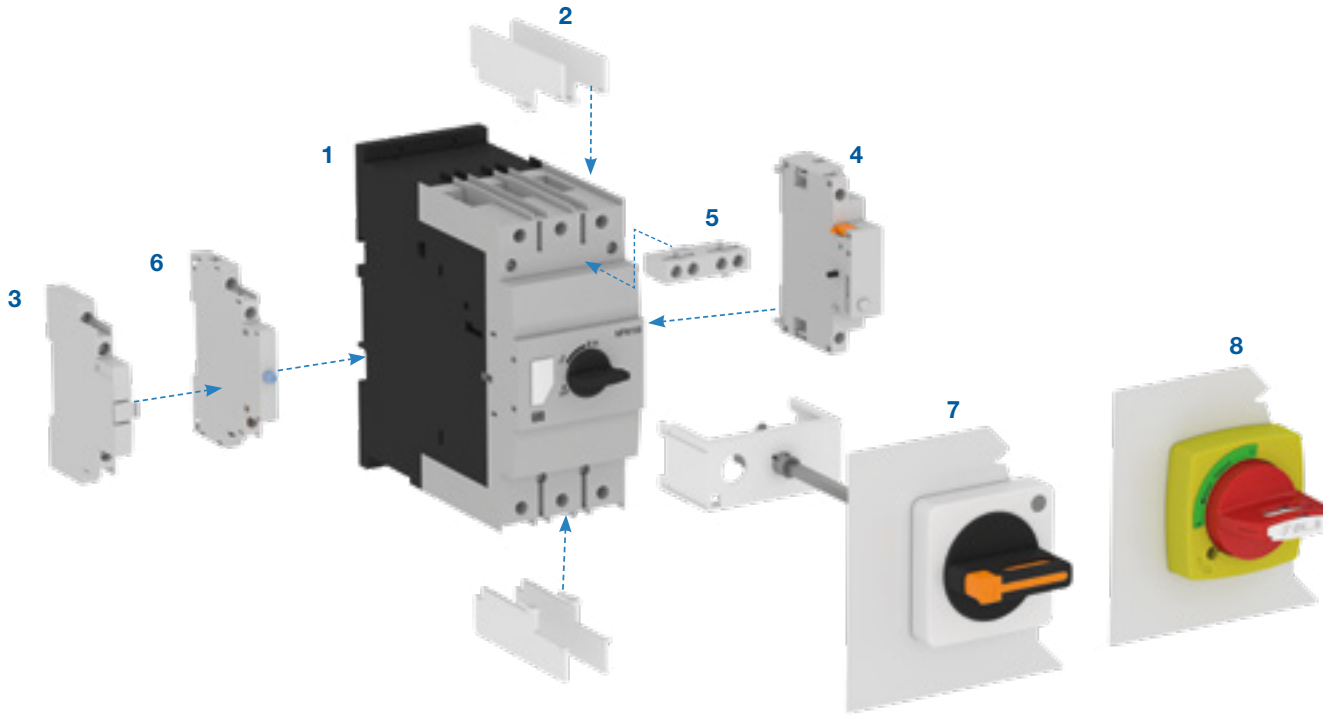


- 1 - Motor protective circuit breaker MPW80
- 2 - Push-in-lugs PLMP
- 3 - Side auxiliary contact block ACBS
- 4 - Undervoltage release URMP or shunt release SRMP
- 5 - Frontal auxiliary contact block ACBF
- 6 - Trip signalling block TSB

- 7 - Scale cover SCMP
- 8 - Door coupling rotary handle RMMP65
- 9 - Door coupling rotary handle MRX65
- 10 - Feeder terminal for "Type E" motor starter according to UL LST65



## MPW100 MOTOR PROTECTIVE CIRCUIT BREAKER - OVERVIEW



- 1 - Frontal auxiliary contact block ACBF
- 2 - IB insulators
- 3 - Side auxiliary contact block ACBS\_ MPW100
- 4 - Undervoltage release URMP\_ MPW100 or shunt release SRMP\_ MPW100

- 5 - Frontal auxiliary contact block ACBF\_ MPW100
- 6 - Trip signalling block TSB\_ MPW100
- 7 - Door coupling rotary handle MR MPW100
- 8 - Door coupling rotary handle MRX100



## MOTOR PROTECTIVE CIRCUIT-BREAKER MPW80 - SCREW TYPE

### MPW80 - THERMAL-MAGNETIC PROTECTION

TYPE	RATED CURRENT	STOCK CODE	PRICE EACH (ZAR)
MPW80-3-U040	32-40	12425347	2295.00
MPW80-3-U050	40-50	12425428	2390.00
MPW80-3-U065	50-65	12425429	2390.00
MPW80-3-U080	65-80	12501063	2700.00



### MPW80I - MAGNETIC PROTECTION

TYPE	RATED CURRENT	STOCK CODE	PRICE EACH (ZAR)
MPW80i-3-U040	40	12425431	2226.00
MPW80i-3-U050	50	12425432	2318.00
MPW80i-3-U065	65	12425434	2318.00
MPW80i-3-U080	80	12501066	2619.00

## MOTOR PROTECTIVE CIRCUIT-BREAKER MPW65 - SCREW TYPE<sup>1)</sup>

### MPW65 - THERMAL-MAGNETIC PROTECTION

TYPE	RATED CURRENT	STOCK CODE	PRICE EACH (ZAR)
MPW65-3-U040	32-40	10583780	2295.00
MPW65-3-U050	40-50	10583781	2390.00
MPW65-3-U065	50-65	10306746	2390.00



### MPW65I - MAGNETIC PROTECTION

TYPE	RATED CURRENT	STOCK CODE	PRICE EACH (ZAR)
MPW65i-3-U040	40	10583761	2226.00
MPW65i-3-U050	50	10583762	2318.00
MPW65i-3-U065	65	10583763	2318.00

## MOTOR PROTECTIVE CIRCUIT-BREAKER MPW100 - SCREW TYPE

### MPW100 - THERMAL-MAGNETIC PROTECTION

TYPE	RATED CURRENT	STOCK CODE	PRICE EACH (ZAR)
MPW100-3-U075	55-75	10076551	3949.00
MPW100-3-U090	70-90	10076552	4247.00
MPW100-3-U100	80-100	10047295	4247.00



Note: 1) Replace MPW65 by new MPW80 where is possible. After UL certification of the MPW80, MPW65 will be discontinued.



## ACCESSORIES - MPW12, MPW18, MPW40 AND MPW80



### BLOCKS, BUSBARS ADAPTERS AND LINKS

DESCRIPTION	TERMINAL TYPE	CIRCUIT-BREAKER	TYPE	STOCK CODE	PRICE EACH (ZAR)
Front mount auxiliary contact block (1NO + 1NC)	Spring	MPW12_S	ACBF-11S	12463910	99.00
	Screw	MPW18, MPW40, MPW80	ACBF-11	12463886	90.00
Side mount auxiliary contact block (1NO + 1NC)	Spring	MPW12_S	ACBS-11S	12463908	106.00
	Screw	MPW18, MPW40, MPW80	ACBS-11	12463909	96.00
Side mount auxiliary contact block (2NO)	Spring	MPW12_S	ACBS-20S	12463913	106.00
	Screw	MPW18, MPW40, MPW80	ACBS-20	12463912	96.00
Side mount auxiliary contact block (2NC)	Spring	MPW12_S	ACBS-02S	12463915	106.00
	Screw	MPW18, MPW40, MPW80	ACBS-02	12463914	96.00
Trip signalling block	Screw	MPW18, MPW40, MPW80	TSB	12463916	282.00
Current limiter <sup>1)</sup>	Screw	MPW40	CLT32	12462918	477.00
Busbar adapter 45 mm	-	MPW18, MPW40	BBS45-2	13451023	157.00
	-	MPW18, MPW40	BBS45-3	13451024	179.00
	-	MPW18, MPW40	BBS45-4	13451025	179.00
	-	MPW18, MPW40	BBS45-5	13451026	238.00
Busbar adapter 54 mm	-	MPW18, MPW40	BBS54-2	13451027	164.00
	-	MPW18, MPW40	BBS54-3	13451168	188.00
	-	MPW18, MPW40	BBS54-4	13451169	197.00
	-	MPW18, MPW40	BBS54-5	13451170	250.00
Feeder terminal 3Ø	-	MPW18, MPW40	FTBBS	13451171	113.00
Starter type "E"	-	MPW40	LST25	10047102	301.00

Note: 1) For use with MPW40 up to 32 A.

### UNDERVOLTAGE RELEASE - SCREW TYPE



RATED VOLTAGE (V)	CIRCUIT-BREAKER	TYPE	STOCK CODE	PRICE EACH (ZAR)
110 V 50 Hz / 120 V 60 Hz	MPW18 MPW40 MPW80	URMP V18	12463874	278.00
110-115 V 50 Hz / 127 V 60 Hz		URMP V19	12463875	278.00
180 V 50 Hz / 208 V 60 Hz		URMP V23	12463876	278.00
190 V 50 Hz / 220 V 60 Hz		URMP V26	12463877	278.00
220 V 50 Hz / 255 V 60 Hz		URMP V32	12463878	278.00
208 V 50 Hz / 240 V 60 Hz		URMP V30	12463879	278.00
230-240 V 50 Hz / 277 V 60 Hz		URMP V37	12463880	278.00
325 V 50 Hz / 380 V 60 Hz		URMP V41	12463881	278.00
380 V 50 Hz / 440 V 60 Hz		URMP V42	12463882	278.00
400-415 V 50 Hz / 480 V 60 Hz		URMP V47	12463883	278.00
24 V 50/60 Hz		URMP D02	12463884	278.00
220 V 50/60 Hz		URMP D23	12463885	278.00



## ACCESSORIES - MPW12, MPW18, MPW40 AND MPW80

### REMOTE SHUNT RELEASE - SCREW TYPE

RATED VOLTAGE (V)	CIRCUIT-BREAKER	TYPE	STOCK CODE	PRICE EACH (ZAR)
20-24 V 50/60 Hz	MPW18 MPW40 MPW80	SRMP D51	12463869	278.00
40-48 V 50/60 Hz		SRMP D54	12463870	278.00
100-127 V 50/60 Hz		SRMP D59	12463871	278.00
200-240 V 50/60 Hz		SRMP D65	12463872	278.00
365-440 V 50/60 Hz		SRMP D69	12463873	278.00

### DOOR-COUPLING ROTARY HANDLE

DESCRIPTION	CIRCUIT-BREAKER	TYPE	SHAFT SIZE	HANDLE COLOUR	STOCK CODE	PRICE EACH (ZAR)
Door-coupling rotary handle	MPW40	RMMP-130	130 mm	Black	10185921	342.00
		RMMP-130E		Red	10185923	385.00
		RMMP-330	330 mm	Black	10185922	400.00
		RMMP-330E		Red	10185924	444.00
		MRX-130	130 mm	Black	11051796	370.00
		MRX-130E		Red	10857691	416.00
		MRX-330	330 mm	Black	11051797	432.00
		MRX-330E		Red	10857692	479.00

### INSULATED ENCLOSURE - IP55



KNOCKOUTS	DESCRIPTION	CIRCUIT-BREAKER	TYPE	PROTECTION DEGREES	HANDLE COLOUR	STOCK CODE	PRICE EACH (ZAR)
M25	No lugs (M25) - knockout	MPW18	MPE41	IP41	-	11146211	125.00
			MPE66	IP66	-	11065621	174.00
		MPW40	MPE55	IP55	Black	10211804	151.00
			MPE55-E	IP55	Red	10211805	155.00
	With ground terminals (M25) - knockout	MPW18	MPE41G	IP41	-	10831702	133.00
			MPE66G	IP66	-	10831703	182.00
		MPW40	MPE55G	IP55	Black	10649171	159.00
			MPE55G-E	IP55	Red	10186289	163.00
	With ground and neutral lugs (PG16) - knockout	MPW18	MPE41GN	IP41	-	11146214	142.00
			MPE66GN	IP66	-	11065622	190.00
		MPW40	MPE55GN	IP55	Black	10211953	167.00
			MPE55GN-E	IP55	Red	10211954	171.00
PG16	No lugs (PG16) - knockout	MPW18	PE41	IP41	-	10831536	125.00
			PE66	IP66	-	10831535	174.00
		MPW40	PE55	IP55	Black	10185915	151.00
			PE55-E	IP55	Red	10185916	155.00
	With ground terminals (PG16) - knockout	MPW18	PE41G	IP41	-	10831606	133.00
			PE66G	IP66	-	10831643	182.00
		MPW40	PE55G	IP55	Black	10185917	159.00
			PE55G-E	IP55	Red	10185918	163.00
	With ground and neutral lugs (PG16) - knockout	MPW18	PE41GN	IP41	-	10831607	142.00
			PE66GN	IP66	-	10831700	190.00
		MPW40	PE55GN	IP55	Black	10185919	167.00
			PE55GN-E	IP55	Red	10185920	171.00
-	Increases protection degree of MPE41 to IP66	MPW18	KIT66PE	IP66	-	10853867	49.00
	E-STOP - twist to release	MPW18	FESTPE	-	Red	11659180	157.00
	E-STOP - key to release		FESYPE	-	Red	11659178	391.00
	E-STOP - pull to release		FESPPE	-	Red	11941110	157.00



## ACCESSORIES - MPW12, MPW18, MPW40, MPW65 AND MPW80

### INSULATED ENCLOSURE SIZE "L"

KNOCKOUTS	DESCRIPTION	CIRCUIT-BREAKER	TYPE	HANDLE COLOUR	STOCK CODE	PRICE EACH (ZAR)
M25	No lugs	MPW40	MLPE55	Black	10212325	234.00
			MLPE55-E	Red	10212326	241.00
	With ground terminals	MPW40	MLPE55G	Black	10211362	251.00
			MLPE55G-E	Red	10211363	259.00
	With ground and neutral lugs	MPW40	MLPE55GN	Black	10211955	258.00
			MLPE55GN-E	Red	10211956	266.00
PG16	No lugs	MPW40	LPE55	Black	10211364	234.00
			LPE55-E	Red	10666515	241.00
	With ground terminals	MPW40	LPE55G	Black	10651171	251.00
			LPE55G-E	Red	10666538	259.00
	With ground and neutral lugs	MPW40	LPE55GN	Black	10211368	258.00
			LPE55GN-E	Red	10666540	266.00

Note: allows the installation of undervoltage or remote shunt release (SRMP or URMP).

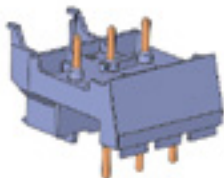
### FRONTAL PLATE



DESCRIPTION	CIRCUIT-BREAKER	TYPE	HANDLE COLOUR	STOCK CODE	PRICE EACH (ZAR)
IP55	MPW40	FME55	Black	10186425	492.00
IP55		FME55E	Red	10186426	507.00

### PUSH-IN-LUGS - CONTACTOR LINK MODULE AND SCALE COVER

### CIRCUIT-BREAKER - CONTACTOR LINK MODULE AND MOUNTING ADAPTERS



DESCRIPTION	CIRCUIT-BREAKER	TYPE	STOCK CODE	PRICE EACH (ZAR)
Push-in-lugs <sup>1)</sup>	MPW12, MPW18, MPW40, MPW80, MPW65	PLMP	10185925	3.00
Link module CWC07...16 (AC/DC coil)	MPW18	ECCMP-C016	10867179	72.00
Link module for contactor CWB9...38 (AC coil)	MPW18	ECCMP-18B38	12462672	72.00
Link module for contactor CWB9...38 (AC coil)	MPW40	ECCMP-40B38	12462673	72.00
Link module for contactor CWB9...38 (DC coil)	MPW40	ECCMP-40B38DC	12462674	72.00
Link module CWB40...80 (AC/DC coil)	MPW80	ECCMP-80B80	13520507	215.00
Link module for contactor CW07 (AC coil)	MPW40	ECCMP-07	10046506	72.00
Link module CWC07...16 (AC/DC coil)	MPW40	ECCMP-C0	10047217	72.00
Link module CWC025 (AC coil)	MPW40	ECCMP-C025	10689937	72.00
Link module CWM9...25 (AC coil)	MPW40	ECCMP-25	10409822	72.00
Link module for contactor CWM32 (AC coil)	MPW40	ECCMP-32	10075736	72.00
Scale cover	MPW12, MPW18, MPW40, MPW65, MPW80	SCMP	10186290	9.00
Protection cover for BBS	-	CSD	10073627	58.00
Mounting adapter for direct-on-line starters	MPW12, MPW18, MPW40	MA45DOL MPW	10073629	248.00
Mounting adapter for reversing starters	MPW12, MPW18, MPW40	MA90RVS MPW	10073628	316.00
Mounting adapter for star-delta starters	MPW12, MPW18, MPW40	MA90SDS MPW	10073630	525.00

Note: 1) Quantity per packing: 2 units. For MPW65/80 use 2 kits or 4 pieces.

## ACCESSORIES - MPW65 AND MPW100



### BLOCKS / BUSBARS ADAPTERS / LINKS

DESCRIPTION	TERMINAL TYPE	CIRCUIT-BREAKER	TYPE	STOCK CODE	PRICE EACH (ZAR)
Front mount auxiliary contact block (1NO+1NC)	Screw	MPW65	ACBF-11	10353835	85.00
	Screw	MPW100	ACBF-11 MPW100	10047296	182.00
Side mount auxiliary contact block (1NO+1NC)	Screw	MPW65	ACBS-11	10409821	91.00
	Screw	MPW100	ACBS 11-MPW100	10047297	275.00
Side mount auxiliary contact block (2NO)	Screw	MPW65	ACBS-20	10045322	91.00
	Screw	MPW100	ACBS 20-MPW100	10076555	275.00
Side mount auxiliary contact block (2NC)	Screw	MPW65	ACBS-02	10076989	91.00
	Screw	MPW100	ACBS-02-MPW100	10076556	275.00
Trip signalling block	Screw	MPW65	TSB	10561996	301.00
	Screw	MPW100	TSB AT-11 MPW100	10047298	307.00
	Screw	MPW100	TSB SC-11 MPW100	10076559	307.00
Starter type "E"	-	MPW65	LST65	11112690	471.00
Starter type "E"	-	MPW100	IB MPW100	10213096	104.00



### UNDERVOLTAGE RELEASE - SCREW TYPE

RATED VOLTAGE (V)	CIRCUIT-BREAKER	TYPE	STOCK CODE	PRICE EACH (ZAR)	
110 V 50 Hz / 120 V 60 Hz	MPW65	URMP V18	10657748	277.00	
110-115 V 50 Hz / 127 V 60 Hz		URMP V19	10186280	263.00	
180 V 50 Hz / 208 V 60 Hz		URMP V23	10212439	263.00	
190 V 50 Hz / 220 V 60 Hz		URMP V26	10186281	277.00	
220 V 50 Hz / 255 V 60 Hz		URMP V32	10186309	277.00	
208 V 50 Hz / 240 V 60 Hz		URMP V30	10212440	263.00	
230-240 V 50 Hz / 277 V 60 Hz		URMP V37	10186285	277.00	
325 V 50 Hz / 380 V 60 Hz		URMP V41	10211171	277.00	
380 V 50 Hz / 440 V 60 Hz		URMP V42	10657758	277.00	
400-415 V 50 Hz / 480 V 60 Hz		URMP V47	10657829	277.00	
24 V 50/60 Hz		URMP D02	10666333	277.00	
220 V 50/60 Hz		URMP D23	10657830	263.00	
110 V 50 Hz / 120 V 60 Hz		MPW100	URMP V18 MPW100	10186875	478.00
220-230 V 50 Hz / 240-260 V 60 Hz			URMP V33 MPW100	10186876	478.00
380-400 V 50 Hz / 440-460 V 60 Hz	URMP V43 MPW100		10186877	478.00	



## ACCESSORIES - MPW65, MPW80 AND MPW100

### REMOTE SHUNT RELEASE - SCREW TYPE

RATED VOLTAGE (V)	CIRCUIT-BREAKER	TYPE	STOCK CODE	PRICE EACH (ZAR)
20-24 V 50/60 Hz	MPW65	SRMP D51	10186283	277.00
40-48 V 50/60 Hz		SRMP D54	10211173	277.00
100-127 V 50/60 Hz		SRMP D59	10186284	277.00
200-240 V 50/60 Hz		SRMP D65	10186275	277.00
365-440 V 50/60 Hz		SRMP D69	10211174	277.00
110 V 50 Hz / 120 V 60 Hz	MPW100	SRMP V18 MPW100	10186872	478.00
220-230 V 50 Hz / 240-260 V 60 Hz		SRMP V33 MPW100	10186873	478.00
380-400 V 50 Hz / 440-460 V 60 Hz		SRMP V43 MPW100	10186874	478.00



### DOOR-COUPLING ROTARY HANDLE

DESCRIPTION	CIRCUIT-BREAKER	TYPE	SHAFT SIZE	HANDLE COLOUR	STOCK CODE	PRICE EACH (ZAR)
Door-coupling rotary handle	MPW65 MPW80	RMMP65-130	130 mm	Black	11068497	342.00
		RMMP65-130E		Red	11068518	385.00
		RMMP65-330	330 mm	Black	11068519	400.00
		RMMP65-330E		Red	11068520	444.00
		MRX65-130	130 mm	Black	11068521	370.00
		MRX65-130E		Red	11068522	416.00
		MRX65-330	330 mm	Black	11068523	432.00
	MRX65-330E	Red		11068525	479.00	
	MPW100	MR MPW100-115	115 mm	Gray	10609710	478.00
		MR MPW100-315	315 mm	Gray	10609711	478.00
		MRX100-130	130 mm	Black	11152799	548.00
		MRX100-130E		Red	11152800	616.00



### INDICATOR LIGHT

RATED VOLTAGE (V)	TYPE	COLOUR	STOCK CODE	PRICE EACH (ZAR)
24 V ac	PL24-E26	Red	10046226	110.00
	PL24G-E26	Green	10046228	110.00
	PL24W-E26	White	10046230	110.00
110-130 V ac	PL130-D61	Red	10045246	110.00
	PL130G-D61	Green	10046229	110.00
	PL130W-D61	White	10046231	110.00
210-230 V ac	PL230-D78	Red	10045247	110.00
	PL230G-D78	Green	10186288	110.00
	PL230W-D78	White	10211181	110.00
400-560 V ac	PL560D-D79	Red	10046227	129.00
	PL560G-D79	Green	10211180	129.00
	PL560W-D79	White	10046232	129.00



# ENCLOSED DIRECT-ON-LINE STARTER - DLW (IP65 - 50 HZ)



## ENCLOSED DIRECT-ON-LINE STARTER THREE PHASE - DLW INCLUDING OVERLOAD RELAY

RATED POWER AC-3 / 230V 50 Hz kW	RATED POWER AC-3 / 400V 50 Hz kW	RATED POWER AC-3 / 550V 50 Hz kW	RANGE OF OVERLOAD RELAY (A)	MAX. RATED CURRENT I <sub>e</sub> (A)	CONTACTOR	TYPE	STOCK CODE CONTROL VOLTAGE 230VAC	STOCK CODE CONTROL VOLTAGE 400VAC	STOCK CODE & CONTROL VOLTAGE 550VAC	PRICE EACH (ZAR)
Size 02 - Enclosure dimensions: H = 155mm x W = 90mm x D = 98mm										
	0,12	N/A	0,28...0,4	0,4	CW07	DLW-7■■■■P65-R01	10073251	10072767	N/A	943.00
	0,18	N/A	0,4...0,63	0,63	CW07	DLW-7■■■■P65-R02	10073252	10071275	N/A	943.00
0,12	0,25	N/A	0,56...0,8	0,8	CW07	DLW-7■■■■P65-R03	10867909	10071276	N/A	943.00
0,18	0,37	N/A	0,8...1,2	1,2	CW07	DLW-7■■■■P65-R04	10867910	10682988	N/A	943.00
0,25	0,75	N/A	1,2...1,8	1,8	CW07	DLW-7■■■■P65-R05	10071281	10071277	N/A	943.00
0,37	1,1	N/A	1,8...2,8	2,8	CW07	DLW-7■■■■P65-R06	10071282	10186296	N/A	943.00
0,75	1,5	N/A	2,8...4	4	CW07	DLW-7■■■■P65-R07	10867911	10046219	N/A	943.00
1,1	2,2	N/A	4,0...6,3	6,3	CW07	DLW-7■■■■P65-R08	10689890	10046239	N/A	943.00
1,5	3,0	N/A	5,6...8	7	CW07	DLW-7■■■■P65-R09	10867915	10689892	N/A	943.00
Size 04 - Enclosure dimensions: 185 x 105 x 111 mm (HxWxD)										
2,2	4	4	-	7...10	CW07	DLW-09■■■■P65-R10	11991852	11991856	N/A	1118.00
3,0	5,5	5,5	5,5	8...12,5	CW07	DLW-012■■■■P65-R11	11991854	13567394	N/A	1128.00
-	7,5	-	9,2	11...17	CW07	DLW-016■■■■P65-R13	11991855	11991889	N/A	1197.00
Size 05 - Enclosure dimensions: H = 217mm x W = 114mm x D = 117.5mm										
-	0,18	0,18	0,4...0,63	0,63	CWB9	DLW-B9■■■■P66-R55	UPON REQUEST	UPON RE- QUEST	14207460	UPON REQUEST
0,12	0,25	0,25	0,56...0,8	0,8	CWB9	DLW-B9■■■■P66-R56	UPON REQUEST	UPON RE- QUEST	14207461	UPON REQUEST
0,18	0,37	0,55	0,8...1,2	1,2	CWB9	DLW-B9■■■■P66-R57	13716048	13716057	14207463	1147.00
0,25	0,55 , 0,75	0,75	1,2...1,8	1,8	CWB9	DLW-B9■■■■P66-R58	13716049	13716056	14207344	1147.00
0,37 , 0,55	1,1	1,5	1,8...2,8	2,8	CWB9	DLW-B9■■■■P66-R59	13716051	13339039	14207345	1147.00
0,75	1,5	2,2	2,8...4	4	CWB9	DLW-B9■■■■P66-R60	13716052	13716054	14207346	1147.00
1,1	2,2	3	4,0...6,3	6,3	CWB9	DLW-B9■■■■P66-R61	13601146	13601176	14207347	1147.00
1,5	3	4	5,6...8	8	CWB9	DLW-B9■■■■P66-R62	13601145	13601177	14207399	1147.00
2,2	4		7...10	9	CWB9	DLW-B9■■■■P66-R63	13601147	13339045	14207400	1147.00
3	5,5	5,5	8...12,5	12	CWB12	DLW-B12■■■■P66-R64	13601168	13338985	14207402	1165.00
4	7,5	7,5	10...15	15	CWB18	DLW-B18■■■■P66-R65	13601169	13601190	14207403	1191.00
-	9,2	9,2	11...17	17	CWB18	DLW-B18■■■■P66-R66	13601170	13601191	14207404	1209.00
5,5	11	11	15...23	23	CWB25	DLW-B25■■■■P66-R67	13601172	13601193	14207405	1353.00
-	-	11	22...32	25	CWB25	DLW-B25■■■■P66-R68	UPON REQUEST	UPON RE- QUEST	14207406	UPON REQUEST
7,5	15	15	22...32	32	CWB32	DLW-B32■■■■P66-R68	13601173	13601194	14207458	1783.00
9,2 , 11	18,5	18,5	32...40	38	CWB38	DLW-B38■■■■P66-R69	13517132	13601195	14207459	2008.00



## ENCLOSED DIRECT-ON-LINE STARTER - DLW (IP65 - 50 HZ)



### ENCLOSED DIRECT-ON-LINE STARTER THREE PHASE - DLW OVERLOAD RELAY NOT INCLUDED

RATED POWER AC-3 / 230V 50 Hz Kw	RATED POWER AC-3 / 400V 50 Hz Kw	RATED POWER AC-3 / 550V 50 Hz Kw	RANGE OF OVERLOAD RELAY (A)	CONTACTOR	TYPE	STOCK CODE CONTROL VOLTAGE 230VAC	STOCK CODE CONTROL VOLTAGE 400VAC	STOCK CODE & CONTROL VOLTAGE 550VAC	PRICE EACH (ZAR)
<b>FOR ASSEMBLY OF ENCLOSED THREE-PHASE DIRECT-ON-LINE STARTERS - SIZE 02</b>									
0,06...1.5	0,09...3		(1,28...8)	CW07	DLW-7■■■P65	10076575	10076577	N/A	531.00
<b>FOR ASSEMBLY OF ENCLOSED THREE-PHASE DIRECT-ON-LINE STARTERS - Size 05</b>									
	4	4	(7 ... 10)	CWB9	DLW-B9■■■P66	13539183	13539222		566.00
3	5.5	5.5	(8 ... 12,5)	CWB12	DLW-B12■■■P66	13539219	13539224	14207466	583.00
4	7,5 ... 9,2	7,5 ... 9,2	(11 ... 17)	CWB18	DLW-B18■■■P66	13539221	13539227	14207478	588.00
5.5	11	11	(15 ... 23)	CWB25	DLW-B25■■■P66	UPON REQUEST	UPON REQUEST	14207479	UPON REQUEST
7.5	15	18.5	(22 ... 32)	CWB32	DLW-B32■■■P66	UPON REQUEST	UPON REQUEST	14207482	UPON REQUEST
9.2	18.5	22	(32...40)	CWB38	DLW-B38■■■P66	UPON REQUEST	UPON REQUEST	14207483	UPON REQUEST
<b>FOR ASSEMBLY OF ENCLOSED THREE-PHASE DIRECT-ON-LINE STARTERS - Size 08</b>									
11	22	30	(40...57)	CWM50	DLW-50■■■P65	UPON REQUEST	UPON REQUEST	14207521	2450.00
18.5	30	37	(50...63) / (57...70)	CWM65	DLW-65■■■P65	UPON REQUEST	UPON REQUEST	14207523	2560.00

### ENCLOSED DIRECT-ON-LINE STARTER SINGLE PHASE - DLWM INCLUDING OVERLOAD RELAY

RATED POWER AC-3 / 230V 50 Hz Kw	RANGE OF OVERLOAD RELAY (A)	CONTACTOR	TYPE	STOCK CODE CONTROL VOLTAGE 230VAC	PRICE EACH (ZAR)
0.25	(1,8 ... 2,8)	CW07	DLWM-7D24P65-RM06	10868043	973.00
0.37	(2,8 ... 4)	CW07	DLWM-7D24P65-RM07	10868040	973.00
0,55...0,75	(4 ... 6,3)	CW07	DLWM-7D24P65-RM08	10186427	973.00
1.1	(5.6 ... 8)	CW07	DLWM-7D24P65-RM09	10868042	973.00
<b>ENCLOSED DIRECT-ON-LINE STARTER SINGLE-PHASE DLWM - SIZE 04 (50/60Hz)</b>					
1.5	(7...10)	CWB9	DLWM-B9D24P66-RM63	13601259	1193.00
2.2	(8...12,5)	CWB12	DLWM-B12D24P66-RM64	13601260	1211.00
3	(11...17)	CWB18	DLWM-B18D24P66-RM66	13601263	1257.00
3.7	(15...23)	CWB25	DLWM-B25D24P66-RM67	13601264	1421.00
5.5	(22...32)	CWB32	DLWM-B32D24P66-RM68	13601265	1854.00
7.5	(32...40)	CWB38	DLWM-B38D24P66-RM69	13601266	2088.00
<b>ENCLOSED DIRECT-ON-LINE STARTER SINGLE-PHASE - DLWM - SIZE 06 (50/60Hz)</b>					
9.2	(32...50)	CWM50	DLWM-50D24P65-RM38	14207589	4120.00
11	(57...70)	CWM65	DLWM-65D24P65-RM41	14207590	4414.00



## ENCLOSED DIRECT-ON-LINE DLW ACCESSORIES

TYPE	USE WITH	SIZE	STOCK CODE	PRICE EACH (ZAR)
EB02P-IP65	CW07 + RW17-1D	2	10211370	292.00
EB04CP-IP65	CWC07...16 + RW17-1D	4	10726769	327.00
EB04P-IP65	CWM9...25 + RW27-1D	4	10686097	327.00
EB05P-IP66	CWB9...38+RW27-2D	5	13517385	327.00
EB06AP-IP65	CWM32/40 + RW27-1D	6	10686096	390.00
EB06BP-IP65	CWM32/40 + RW67-1D	6	10211941	390.00
EB08P-IP65	CWM50...80 + RW67-2D	8	13522896	974.00
EB10P-IP65	CWM95/105 + RW117-1D	10	13522897	1694.00

### Start + Stop/Reset (Standard)

Example: DLW-7D24P-R09



# TIMING RELAYS - CONNECTION DIAGRAMS

## TIMING RELAYS RTW - SINGLE TIMING AND SINGLE VOLTAGE

Reference	RTW-RE		RTW-ET	RTW-RD
Contacts	01		02	01
Terminal positions				
Diagram				
<b>RTW single timing and single voltage</b>				
Circuit	A1-A2 Supply voltage <sup>1)</sup>	24 V ac, 110-130 V ac, 220-240 V ac, 380-440 V ac		24 V ac, 24 V dc, 110-130 V ac, 220-240 V ac
	A3-A2 Supply voltage <sup>1)</sup>	24 V dc		-
	A2-B1 Control voltage <sup>2)</sup>	-		24 V ac, 24 V dc, 110-130 V ac, 220-240 V ac
Terminals	15-16-18	Output contact 1		Output contact 1
	25-26-28	-	Output contact 2	-

## TIMING RELAYS RTW - SINGLE TIMING AND WIDE VOLTAGE RANGE

Reference	RTW-CI / CIR		RTW-RDI	
Contacts	01	02	01	02
Terminal positions				
Diagram				
<b>RTW single timing and wide voltage range</b>				
Circuit	A1-A2 Supply voltage	24-240 V ac (50/60 Hz) / V dc		24-240 V ac (50/60 Hz) / V dc
Terminals	15-16-18	Output contact 1		Output contact 1
	25-26-28	Output contact 2		Output contact 2

Notes: 1) For the versions with two operational voltages, just one must be connected.  
2) The same potential must be applied to A1 and B1, polarized.



# TIMING RELAYS - CONNECTION DIAGRAMS

## TIMING RELAYS RTW - MULTI TIMING AND WIDE VOLTAGE RANGE

Reference		RTW-RE		RTW-PE	
Contacts		01	02	01	02
Terminal positions					
		RTW-RE	RTW-RE	RTW-PE	RTW-PE
Diagram					
<b>RTW multi timing and wide voltage range</b>					
Circuit	A1-A2 Supply voltage	24-240 V ac (50/60 Hz) / V dc		24-240 V ac (50/60 Hz) / V dc	
Terminals	15-16-18	Output contact 1		Output contact 1	
	25-26-28	-	Output contact 2	-	Output contact 2

Reference		RTW-CID / CIL		RTW-RD		RTW-ET
Contacts		01	02	01	02	02
Terminal positions						
		RTW-CID	RTW-CID	RTW-RD	RTW-RD	RTW-ET
Diagram						
<b>RTW - Multi Timing and Wide Voltage Range</b>						
Circuit	A1-A2 Supply voltage	24-240 V ac (50/60 Hz) / V dc		24-240 V ac (50/60 Hz) / V dc		24-240 V ac (50/60 Hz) / V dc
	A2-B1 Control voltage	-		24-240 V ac (50/60 Hz) / V dc		-
Terminals	15-16-18	Output contact 1		Output contact 1		Output contact 1
	25-26-28	-	Output contact 2	-	Output contact 2	Output contact 2

## ERTW MULTIFUNCTION TIMING RELAYS

	ERTW-MF1 / MF2	Supply voltage	Diagram	Control voltage
Functions		A1-A2 24-240 V ac / V dc		B1-A2 24-240 V ac / V dc
			15-16-18 - output contact 1	
			25-26-28 - output contact 2	

Note: The same potential must be applied to A1 and B1, polarized.



## MULTIFUNCTION ELECTRONIC TIMING RELAYS



FUNCTION	CONTACTS	VOLTAGE	TIME RANGE	TYPE	SAP CODE	PRICE EACH (ZAR)
On-delay (A) Off-delay with control signal (Ba) On- and Off-delay with control signal (Ca) Symmetrical flasher, starts with pulse on (Da) Symmetrical flasher, starts with pulse off (Db) Interval (E) Retriggerable interval with control signal off (Fa) Star-Delta (G)	2NOC	24-240 V 50/60 Hz 24-240 V dc	0,1s...10 d	ERWT-MF1-02MT1E05	11593741	1167.00
ON and OFF delay with control signal (Cb) Asymmetrical flasher, starts with pulse OFF (Dd) Percentage fasher, starts with pulse OFF (Df) Delayed adjustable-length pulse (Ia) Asymmetrical flasher, starts with pulse ON (Dc) Percentage fasher, starts with pulse ON (De) Flasher to reversing motor (Dg) Bistable (J)	2NOC	24-240 V 50/60 Hz 24-240 V dc	0,1s...10 d	ERWT-MF2-02MT1E05	12074471	1167.00

## MULTIFUNCTION THREE-PHASE MONITORING RELAYS



FUNCTION	CONTACTS	VOLTAGE	TIME RANGE	TYPE	SAP CODE	PRICE EACH (ZAR)
Phase loss (PF) Overvoltage (>Un) Unbalance (Asy) Phase Sequence (PS) Undervoltage (<Un) Neutral detection (ND)	1NOC	208-480 V 50/60 Hz	0(OFF)...30s	ERWM-VM1-01D90	12337266	1664.00
Phase loss (PF) Overvoltage (>Un) Unbalance (Asy) Undervoltage (<Un) Neutral detection (ND)	1NOC	208-480 V 50/60 Hz	0(OFF)...30s	ERWM-VM2-01D90	12074470	1664.00



## ELECTRONIC TIMING RELAYS



### RTW RE - ON DELAY

CONTACTS	RATED VOLTAGE (V)	TIME RANGE	TYPE	STOCK CODE	PRICE EACH (ZAR)
1NOC	"24-240V50/60Hz 24-240VDC"	0,1s ... 10m	RTW-RE01-MATE05	10753278	652.00
		0,2s...150h	RTW-RE01-MBT-E05	10753335	652.00
2NOC	24-240 V 50/60 Hz 24-240 V dc	0,1s...10min	RTW-RE02-MAT-E05	10753285	696.00
		0,2s...150h	RTW-RE02-MBT-E05	10753337	696.00

### RTW PE - IMPULSE-ON

CONTACTS	RATED VOLTAGE (V)	TIME RANGE	TYPE	STOCK CODE	PRICE EACH (ZAR)
1NOC	24-240 V 50/60 Hz 24-240 V dc	0,1s...10min	RTW-PE01-MAT-E05	10753298	652.00
		0,2s...150h	RTW-PE01-MBT-E05	10753358	652.00
2NOC	24-240 V 50/60 Hz 24-240 V dc	0,1s...10min	RTW-PE02-MAT-E05	10753300	696.00
		0,2s...150h	RTW-PE02-MBT-E05	10753359	696.00

### RTW CI - PULSE FLASHER - START ON

CONTACTS	RATED VOLTAGE (V)	TIME RANGE	TYPE	STOCK CODE	PRICE EACH (ZAR)
1NOC	24-240 V 50/60 Hz 24-240 V dc	0,3s...3s	RTW-CI01-U003SE05	10118415	652.00
		1s...10s	RTW-CI01-U010SE05	10118416	652.00
		3s...30s	RTW-CI01-U030SE05	10118417	652.00
		6s...60s	RTW-CI01-U060SE05	10118418	652.00
		10s...100s	RTW-CI01-U100SE05	10118419	652.00
		30s...300s	RTW-CI01-U300SE05	10118420	652.00
		3min...30min	RTW-CI01-U030ME05	10118421	652.00
2NOC	24-240 V 50/60 Hz 24-240 V dc	0,3s...3s	RTW-CI02-U003SE05	10118422	696.00
		1s...10s	RTW-CI02-U010SE05	10118423	696.00
		3s...30s	RTW-CI02-U030SE05	10118424	696.00
		6s...60s	RTW-CI02-U060SE05	10117808	696.00
		10s...100s	RTW-CI02-U100SE05	10117809	696.00
		30s...300s	RTW-CI02-U300SE05	10117810	696.00
		3min...30min	RTW-CI02-U030ME05	10117811	696.00

### RTW CIR - PULSE FLASHER - START OFF

CONTACTS	RATED VOLTAGE (V)	TIME RANGE	TYPE	STOCK CODE	PRICE EACH (ZAR)
1NOC	24-240 V 50/60 Hz 24-240 V dc	0,3s...3s	RTW-CIR01-U003SE05	10117826	652.00
		1s...10s	RTW-CIR01-U010SE05	10117827	652.00
		3s...30s	RTW-CIR01-U030SE05	10117828	652.00
		6s...60s	RTW-CIR01-U060SE05	10117829	652.00
		10s...100s	RTW-CIR01-U100SE05	10117830	652.00
		30s...300s	RTW-CIR01-U300SE05	10117831	652.00
		3min...30min	RTW-CIR01-U030ME05	10117832	652.00
2NOC	24-240 V 50/60 Hz 24-240 V dc	0,3s...3s	RTW-CIR02-U003SE05	10117833	696.00
		1s...10s	RTW-CIR02-U010SE05	10117834	696.00
		3s...30s	RTW-CIR02-U030SE05	10117835	696.00
		6s...60s	RTW-CIR02-U060SE05	10117836	696.00
		10s...100s	RTW-CIR02-U100SE05	10117837	696.00
		30s...300s	RTW-CIR02-U300SE05	10117838	696.00
		3min...30min	RTW-CIR02-U030ME05	10117839	696.00



## ELECTRONIC TIMING RELAYS

### RTW CIL - SYMMETRIC FLASHER - START ON

CONTACTS	RATED VOLTAGE (V)	TIME RANGE	TYPE	STOCK CODE	PRICE EACH (ZAR)
1NOC	24-240V50/60Hz 24-240VDC	0,1s ... 10m	RTW-CIL01-MAT-E05	10753331	652.00
		0,2s ... 150h	RTW-CIL01-MBT-E05	10753364	652.00
2NOC	24-240 V 50/60 Hz 24-240 V dc	0,1s ... 10m	RTW-CIL02-MAT-E05	10753332	696.00
		0,2s ... 150h	RTW-CIL02-MBT-E05	10753366	696.00

### RTW CID - SYMMETRIC FLASHER - START OFF

CONTACTS	RATED VOLTAGE (V)	TIME RANGE	TYPE	STOCK CODE	PRICE EACH (ZAR)
1NOC	24-240 V 50/60 Hz 24-240 V dc	0,1s...10min	RTW-CID01-MAT-E05	10753328	652.00
		0,2s...150h	RTW-CID01-MBT-E05	10753361	652.00
2NOC	24-240 V 50/60 Hz 24-240 V dc	0,1s...10min	RTW-CID02-MAT-E05	10753329	696.00
		0,2s...150h	RTW-CID02-MBT-E05	10753363	696.00

### RTW RD - OFF-DELAY

CONTACTS	RATED VOLTAGE (V)	TIME RANGE	TYPE	STOCK CODE	PRICE EACH (ZAR)
1NOC	24-240 V 50/60 Hz 24-240 V dc	0,1s...10min	RTW-RD01-MAT-E05	10753333	652.00
		0,2s...150h	RTW-RD01-MBT-E05	10753388	652.00
2NOC	24-240 V 50/60 Hz 24-240 V dc	0,1s...10min	RTW-RD02-MAT-E05	10753334	696.00
		0,2s...150h	RTW-RD02-MBT-E05	10753396	696.00

### RTW RDI - OFF-DELAY NO CONTROL

CONTACTS	RATED VOLTAGE (V)	TIME RANGE	TYPE	STOCK CODE	PRICE EACH (ZAR)
1NOC	24-240 V 50/60 Hz 24-240 V dc	0,3s...3s	RTW-RDI01-U003SE05	10666337	652.00
		1s...10s	RTW-RDI01-U010SE05	10666358	652.00
		3s...30s	RTW-RDI01-U030SE05	10075553	652.00
		6s...60s	RTW-RDI01-U060SE05	10666359	652.00
		10s...100s	RTW-RDI01-U100SE05	10666361	652.00
		30s...300s	RTW-RDI01-U300SE05	10666362	652.00
		60s...600s	RTW-RDI01-U010ME05	10666365	652.00
2NOC	24-240 V 50/60 Hz 24-240 V dc	0,3s...3s	RTW-RDI02-U003SE05	10075554	696.00
		1s...10s	RTW-RDI02-U010SE05	10075555	696.00
		3s...30s	RTW-RDI02-U030SE05	10075556	696.00
		6s...60s	RTW-RDI02-U060SE05	10075557	696.00
		10s...100s	RTW-RDI02-U100SE05	10075558	696.00
		30s...300s	RTW-RDI02-U300SE05	10075559	696.00
		60s...600s	RTW-RDI02-U010ME05	10075560	696.00

### RTW ET - STAR-DELTA

CONTACTS	RATED VOLTAGE (V)	TIME RANGE	TYPE	STOCK CODE	PRICE EACH (ZAR)
2NOC	24-240 V 50/60 Hz 24-240 V dc	0,1s...10min	RTW-ET02-MATE05	10753244	696.00



## ELECTRONIC TIMING RELAYS - SINGLE TIMING

### RTW RE - ON DELAY

CONTACTS	RATED VOLTAGE (V)	TIME RANGE	TYPE	STOCK CODE	PRICE EACH (ZAR)
1NOC	24VAC/DC		RTW-RE01-U030SE26	10047116	493.00
		6s...60s	RTW-RE01-U060SE26	10075134	493.00
		30s...300s	RTW-RE01-U300SE26	10186733	493.00
	110-130 V ac 24 V dc	3s...30s	RTW-RE01-U030SE37	10452215	493.00
		6s...60s	RTW-RE01-U060SE37	10046611	493.00
		30s...300s	RTW-RE01-U300SE37	10046613	493.00
	220-240 V ac 24 V dc	3s...30s	RTW-RE01-U030SE40	10046610	493.00
		6s...60s	RTW-RE01-U060SE40	10354331	493.00
		30s...300s	RTW-RE01-U300SE40	10561995	493.00
	380-440 V ac	3s...30s	RTW-RE01-U030SD71	10261478	599.00
		6s...60s	RTW-RE01-U060SD71	10667359	599.00
		30s...300s	RTW-RE01-U300SD71	10667361	599.00

### RTW RD - OFF-DELAY

CONTACTS	RATED VOLTAGE (V)	TIME RANGE	TYPE	STOCK CODE	PRICE EACH (ZAR)
1NOC	24 V ac	3s...30s	RTW-RD01-U030SD02	10666274	493.00
		6s...60s	RTW-RD01-U060SD02	10666275	493.00
		30s...300s	RTW-RD01-U300SD02	10075145	493.00
	110-130 V ac	3s...30s	RTW-RD01-U030SD61	10046619	493.00
		6s...60s	RTW-RD01-U060SD61	10046621	493.00
		30s...300s	RTW-RD01-U300SD61	10046624	493.00
	220-240 V ac	3s...30s	RTW-RD01-U030SD66	10046620	493.00
		6s...60s	RTW-RD01-U060SD66	10046622	493.00
		30s...300s	RTW-RD01-U300SD66	10046625	493.00
	24 V dc	3s...30s	RTW-RD01-U030SC03	10186469	493.00
		6s...60s	RTW-RD01-U060SC03	10073657	493.00
		30s...300s	RTW-RD01-U300SC03	10046628	493.00

### RTW ET - STAR-DELTA

CONTACTS	RATED VOLTAGE (V)	TIME RANGE	TYPE	STOCK CODE	PRICE EACH (ZAR)
2NOC	24 V ac / dc/cc	3s...30s	RTW-ET02-U030SE26	10074345	570.00
	110-130 V ac 24 V dc	3s...30s	RTW-ET02-U030SE37	10410345	570.00
	220-240 V ac 24 V dc	3s...30s	RTW-ET02-U030SE40	10046635	570.00
	380-440 V ac	3s...30s	RTW-ET02-U030SD71	10118275	696.00

Note: the timing relays on this page are single supply voltage and single timing.



## ELECTRONIC MONITORING RELAYS



### RPW - FF - PHASE LOSS PROTECTOR

RATED VOLTAGE (V)	TYPE	STOCK CODE	PRICE EACH (ZAR)
220-240 V ac 50/60 Hz	RPW-FFD66	10047121	760.00
380-415 V ac 50/60 Hz	RPW-FFD70	10047122	760.00
440-480 V ac 50/60 Hz	RPW-FFD74	10047123	760.00

### RPW - FSF - PHASE LOSS AND PHASE SEQUENCE PROTECTOR

RATED VOLTAGE (V)	TYPE	STOCK CODE	PRICE EACH (ZAR)
220-240 V ac 50/60 Hz	RPW-FSFD66	10047119	773.00
380-415 V ac 50/60 Hz	RPW-FSFD70	10047120	773.00
440-480 V ac 50/60 Hz	RPW-FSFD74	10074363	773.00

### RPW - SF - PHASE SEQUENCE PROTECTOR

RATED VOLTAGE (V)	TYPE	STOCK CODE	PRICE EACH (ZAR)
220-240 V ac 50/60 Hz	RPW-SFD66	10047124	681.00
380-415 V ac 50/60 Hz	RPW-SFD70	10186742	681.00
440-480 V ac 50/60 Hz	RPW-SFD74	10410424	681.00

### RPW - SS - UNDER VOLTAGE AND OVERVOLTAGE PROTECTOR

RATED VOLTAGE (V)	TYPE	STOCK CODE	PRICE EACH (ZAR)
208 V ac 50/60 Hz	RPW-SSD77	10583789	809.00
220 V ac 50/60 Hz	RPW-SSD23	10075631	809.00
230 V ac 50/60 Hz	RPW-SSD24	10583790	809.00
240 V ac 50/60 Hz	RPW-SSD25	10583791	809.00
380 V ac 50/60 Hz	RPW-SSD33	10075632	809.00
400 V ac 50/60 Hz	RPW-SSD34	10583792	809.00
415 V ac 50/60 Hz	RPW-SSD35	10583793	809.00
440 V ac 50/60 Hz	RPW-SSD36	10075633	809.00
460 V ac 50/60 Hz	RPW-SSD38	10583794	809.00
480 V ac 50/60 Hz	RPW-SSD39	10075634	809.00

### RPW - PTC - PTC PROTECTOR

RATED VOLTAGE (V)	TYPE	STOCK CODE	PRICE EACH (ZAR)
24-240 V 50/60 Hz / dc	RPW-PTCE05	10075636	921.00



# ELECTRONIC LEVEL CONTROL RELAY - RNW

## ELECTRONIC LEVEL CONTROL RELAY - RNW



### RNW ES - DRAINING

VOLTAGE (V)	TYPE	STOCK CODE	PRICE EACH (ZAR)
100-240 V ac 50/60 Hz	RNW-ESE09	10318025	847.00

### RNW EN - FILLING

VOLTAGE (V)	TYPE	STOCK CODE	PRICE EACH (ZAR)
100-240 V ac 50/60 Hz	RNW-ENE09	10318026	847.00

## ACCESSORIES FOR ELECTRONIC LEVEL CONTROL RELAY



*Pendulum electrode*



*Shaft electrode*



*Push-in-lugs*

VOLTAGE (V)	DESCRIPTION	STOCK CODE	PRICE EACH (ZAR)
EPW	Pendulum electrode	10583739	108.00
EHW	Stem electrode	10583740	590.00
PLMP <sup>1)</sup>	Push-in-lugs	10185925	3.00

Note: 1) Quantity per packing: 2 units.



# TIMING RELAY - WIRING DIAGRAM

## RTW TIMING RELAY - ONE TIMING AND ONE VOLTAGE

Reference	RTW17-A		RTW17-E		RTW17-G
Contacts	1NO	2NO	1NO	2NO	2NO
Terminal position					
Diagram					
RTW one timing range and one voltage					
Circuit	A1-A2 Power supply	110-130 V ac, 220-240 V ac			110-130 V ac, 220-240 V ac
	A3-A2 Power supply	24 V dc			24 V dc
Terminals	15-16-18	Output 1			Output 1
	25-26-28	-	Output 2	-	Output 2



# ELECTRONIC TIMING RELAYS (17.5 MM WIDE) - SINGLE TIMING



## RTW17-A ON DELAY

AUXILIARY CONTACT	RATED VOLTAGE (V)	TIME RANGE	TYPE	STOCK CODE	PRICE EACH (ZAR)
1 NOC	110-130 V ac 50/60 Hz (A1-A2) 24 V dc (A3-A2)	0,1...1s	RTW17-A01U001SE37	12740942	493.00
		0,3...3s	RTW17-A01U003SE37	12740943	493.00
		1...10s	RTW17-A01U010SE37	12740944	493.00
		3...30s	RTW17-A01U030SE37	12740945	493.00
		6...60s	RTW17-A01U060SE37	12740946	493.00
		10...100s	RTW17-A01U100SE37	12740947	493.00
		30...300s	RTW17-A01U300SE37	12740988	493.00
		1...10min	RTW17-A01U010ME37	12740989	493.00
		3...30min	RTW17-A01U030ME37	12740990	493.00
	6...60min	RTW17-A01U060ME37	12740991	493.00	
	220-240 V ac 50/60 Hz (A1-A2) 24 V dc (A3-A2)	0,1...1s	RTW17-A01U001SE40	12735286	493.00
		0,3...3s	RTW17-A01U003SE40	12735287	493.00
		1...10s	RTW17-A01U010SE40	12735382	493.00
		3...30s	RTW17-A01U030SE40	12590261	493.00
		6...60s	RTW17-A01U060SE40	12738206	493.00
		10...100s	RTW17-A01U100SE40	12738207	493.00
		30...300s	RTW17-A01U300SE40	12738238	493.00
		1...10min	RTW17-A01U010ME40	12738205	493.00
3...30min		RTW17-A01U030ME40	12738239	493.00	
6...60min	RTW17-A01U060ME40	12738241	493.00		
2 NOC	110-130 V ac 50/60 Hz (A1-A2) 24 V dc (A3-A2)	0,1...1s	RTW17-A02U001SE37	12740992	570.00
		0,3...3s	RTW17-A02U003SE37	12740993	570.00
		1...10s	RTW17-A02U010SE37	12740994	570.00
		3...30s	RTW17-A02U030SE37	12740995	570.00
		6...60s	RTW17-A02U060SE37	12740996	570.00
		10...100s	RTW17-A02U100SE37	12740997	570.00
		30...300s	RTW17-A02U300SE37	12741028	570.00
		1...10min	RTW17-A02U010ME37	12741029	570.00
		1...10min	RTW17-A02U030ME37	12741030	570.00
	6...60min	RTW17-A02U060ME37	12741031	570.00	
	220-240 V ac 50/60 Hz (A1-A2) 24 V dc (A3-A2)	0,1...1s	RTW17-A02U001SE40	12738242	570.00
		0,3...3s	RTW17-A02U003SE40	12738243	570.00
		1...10s	RTW17-A02U010SE40	12738244	570.00
		3...30s	RTW17-A02U030SE40	12738245	570.00
		6...60s	RTW17-A02U060SE40	12738246	570.00
		10...100s	RTW17-A02U100SE40	12738258	570.00
		30...300s	RTW17-A02U300SE40	12738259	570.00
		1...10min	RTW17-A02U010ME40	12738260	570.00
1...10min		RTW17-A02U030ME40	12738261	570.00	
6...60min	RTW17-A02U060ME40	12735384	570.00		





# ELECTRONIC TIMING RELAYS (17.5 MM WIDE) - SINGLE TIMING

## RTW17-E IMPLUSE ON

AUXILIARY CONTACT	RATED VOLTAGE (V)	TIME RANGE	TYPE	STOCK CODE	PRICE EACH (ZAR)
1 NOC	110-130 V ac 50/60 Hz (A1-A2) 24 V dc (A3-A2)	0,1...1s	RTW17-E01U001SE37	12752292	493.00
		0,3...3s	RTW17-E01U003SE37	12752293	493.00
		1...10s	RTW17-E01U010SE37	12752294	493.00
		3...30s	RTW17-E01U030SE37	12752295	493.00
		6...60s	RTW17-E01U060SE37	12752296	493.00
		10...100s	RTW17-E01U100SE37	12752297	493.00
		30...300s	RTW17-E01U300SE37	12752298	493.00
		1...10min	RTW17-E01U010ME37	12752299	493.00
		3...30min	RTW17-E01U030ME37	12752300	493.00
	6...60min	RTW17-E01U060ME37	12752301	493.00	
	220-240 V ac 50/60 Hz (A1-A2) 24 V dc (A3-A2)	0,1...1s	RTW17-E01U001SE40	12750622	493.00
		0,3...3s	RTW17-E01U003SE40	12750623	493.00
		1...10s	RTW17-E01U010SE40	12750624	493.00
		3...30s	RTW17-E01U030SE40	12750625	493.00
		6...60s	RTW17-E01U060SE40	12750626	493.00
		10...100s	RTW17-E01U100SE40	12750627	493.00
		30...300s	RTW17-E01U300SE40	12750639	493.00
		1...10min	RTW17-E01U010ME40	12750640	493.00
3...30min		RTW17-E01U030ME40	12750641	493.00	
6...60min	RTW17-E01U060ME40	12750621	493.00		
2 NOC	110-130 V ac 50/60 Hz (A1-A2) 24 V dc (A3-A2)	0,1...1s	RTW17-E02U001SE37	12756203	570.00
		0,3...3s	RTW17-E02U003SE37	12756204	570.00
		1...10s	RTW17-E02U010SE37	12756205	570.00
		3...30s	RTW17-E02U030SE37	12756206	570.00
		6...60s	RTW17-E02U060SE37	12756207	570.00
		10...100s	RTW17-E02U100SE37	12756228	570.00
		30...300s	RTW17-E02U300SE37	12756230	570.00
		1...10min	RTW17-E02U010ME37	12756231	570.00
		1...10min	RTW17-E02U030ME37	12756232	570.00
	6...60min	RTW17-E02U060ME37	12756233	570.00	
	220-240 V ac 50/60 Hz (A1-A2) 24 V dc (A3-A2)	0,1...1s	RTW17-E02U001SE40	12750642	570.00
		0,3...3s	RTW17-E02U003SE40	12750643	570.00
		1...10s	RTW17-E02U010SE40	12750644	570.00
		3...30s	RTW17-E02U030SE40	12750646	570.00
		6...60s	RTW17-E02U060SE40	12750647	570.00
		10...100s	RTW17-E02U100SE40	12750658	570.00
		30...300s	RTW17-E02U300SE40	12751121	570.00
		1...10min	RTW17-E02U010ME40	12752302	570.00
1...10min		RTW17-E02U030ME40	12752303	570.00	
6...60min	RTW17-E02U060ME40	12752304	570.00		

## RTW17-G STAR-DELTA

AUXILIARY CONTACT	RATED VOLTAGE (V)	TIME RANGE	TYPE	STOCK CODE	PRICE EACH (ZAR)
2NOC	110-130 V ac 50/60 Hz (A1-A2) 24 V dc (A3-A2)	3...30s	RTW17-G02U030SE37	12740940	570.00
	220-240 V ac 50/60 Hz (A1-A2) 24 V dc (A3-A2)	3...30s	RTW17-G02U030SE40	12740939	570.00



## SMART RELAY - TECHNICAL CHARACTERISTICS

General data	Mounting position	Any	
	Pollution degree	2	
	Protection degree (IEC 60529)	- Control Unit (UC): IP20 - Current Measuring Unit (UMC): - Without busbar: IP20 - With busbar: IP00 - Current and voltage measuring unit (UMCT): - Without busbar: IP20 - With busbar: IP00 - Digital expansion unit (EDU): IP20 - Human machine interface (HMI): IP54 - Earth leakage sensor (ELS): IP20	
	Allowed ambient temperature	- Operation: According IEC: 0...+55 °C According UL: 0...+40 °C - Storage and transport: -25...+80 °C	
	Short-circuit ratings (UL) <sup>1)</sup>	Control Unit (UC): 200,000 A Current Measuring Unit (UMC) and Current/voltage Measuring Unit (UMCT): 200,000 A	
	Tripping class (UL)	- Control Unit (UC): classes 10/20/30 - Current Measuring Unit (UMC): classes 10/20/30	
Control Unit (UC)	Isolation rated voltage Ui	300 V	
	Supply rated voltage	110 - 240 V ac/V dc @ 50/60 Hz	24 V ac/V dc @ 50/60 Hz
	Operation range	0.85 Us - 1.10 Us	0.80 Us - 1.20 Us
	Consumption (typical) <sup>2)</sup>	6 W	5 W
	Number of digital inputs	4 optically isolated inputs (24 V dc or 240 V ac)	
	Digital inputs supply	24 V dc	110 V ac
	Digital inputs power source	Internal 24 V dc isolated power source or external	External 110 V ac power
	Digital inputs current	11 mA @ 24 V dc	5 mA @ 110 V ac
	Digital inputs isolation	3 kV	
	Number of digital outputs	4 relay outputs	
	Contacts grouping	- 2 SPST outputs - 2 common shared SPST outputs	
	Maximum operation voltage	250 V dc, 240 V ac	
	Smallest operation power	1 W or 1 VA	
	Switching capacity per relay contacts	- UL 508: C300, R300 - AC-15 (IEC 60947-5-1): 1.5 A ac / 120 V ac 0.75 A ac / 240 V ac - DC-13 (IEC 60947-5-1): 0.22 A dc / 125 V dc 0.1 A dc / 250 V dc	
	Contacts capacity (resistive load)	3 A, 30 V dc / 250 V ac	
	External protection against short-circuit	6 A gL/gG fuse	
	Motor protection VIA - PTC	- TRIP value: > 3.4 kΩ - Rearm value: < 1.6 kΩ	
Terminals (connectors)	- Torque: 0.5 Nm - 4.5 lb.in - Conductors section: - Rigid and bare: 1 x (0.2 ... 2.5 mm <sup>2</sup> ); 1 x (2 ... 12 AWG) - Flexible with/without terminals: 1x (0.2 ... 2.5 mm <sup>2</sup> ); 1 x (26 ... 12 AWG) - Screws: M3		
Reset button	- Error or fault reset - system - TRIP or alarm reset - protections - TRIP test		

Notes: 1) Consult the user's manual;

2) Considering the Control Unit (UC) and Current Measuring Unit (UMC) or current/voltage measuring unit (UMCT) consumption.



# SMART RELAY - TECHNICAL CHARACTERISTICS

Current Measuring Unit (UMC)	Current range	0.25 - 840 A ac	
	Isolation degree $U_i$	690 V ac	
	Rated operational voltage $U_e$	- IEC 60947-4-1: 690 V ac - UL 508: 600 V ac	
	Impulse voltage $U_{imp}$	6 kV	
	Frequency range	50/60 Hz	
	Application	Three-phase, single-phase	
	Cable hole diameter	- UMC 1, 2 and 3: 8 mm - UMC 4: 15 mm - UMC 5: busbar - UMC 6: 32 mm or busbar	
Current and Voltage Measuring Unit (UMCT)	Current range	0.25 - 840 A ac	
	Voltage range	35 - 690 V ac	
	Isolation degree $U_i$	690 V ac	
	Rated operational voltage - $U_e$	IEC 60947-4-1: 690 V ac UL 508: 600 V ac	
	Impulse voltage $U_{imp}$	6 kV	
	Frequency range	50/60 Hz	
	Application	Three-phase, single-phase	
	Cable hole diameter	UMCT 1, 2 and 3: 8 mm UMCT 4: 15 mm UMCT 5: busbar UMCT 6: 32 mm or busbar	
Terminals (connectors)	- Torque tightening: 0.5 Nm - 4.5 lb.in - Maximum conductos section: - Rigid and bare: 1 x (0.2 ... 2.5 mm <sup>2</sup> ); 1 x (26 ... 12 AWG) - Flexible with/without terminals: 1 x (0.2 ... 2.5 mm <sup>2</sup> ); 1 x (26 ... 12 AWG) - Screws: M3		
Earth Leakage Sensor (ELS)	Current range	0.3 - 5 A ac	
	Isolation degree $U_i$	690 V ac	
	Rated operation voltage	- IEC 60947-4-1: 690 V ac - UL 508: 600 V ac	
	Impulse voltage $U_{imp}$	6 kV	
	Frequency range	50/60 Hz	
	Application	Monophasic and triphasic	
	Window internal diameter	- EL1: 35 mm - EL1: 70 mm - EL1: 120 mm - EL1: 210 mm	
Terminals (connectors)	- Torque: 0.29 Nm - 2.6 lb.in - Maximum conductos section: - Rigid and bare: 1 x (0.2 ... 2.5 mm <sup>2</sup> ); 1 x (22 ... 14 AWG) - lexible with/without terminals: 1 x (0.2 ... 1.5 mm <sup>2</sup> ); 1 x (22 ... 14 AWG) - Screws: M3		
Digital Expansion Unit (EDU)	Rated isolation voltage $U_i$	300 V	
	Number of digital inputs	6 optically isolated inputs (24 V dc or 110 V ac)	
	Digital inputs supply	24 V dc	110 V ac
	Digital inputs power source	External 24 V dc power source	External 110 V ac power source
	Digital inputs current	11 mA @ 24 V dc	5 mA @ 110 V ac
	Digital inputs isolation	3 kV	
	Number of digital outputs	4 relay outputs	
	Contacts grouping	4 SPST outputs	
	Maximum operation voltage	250 V dc, 240 V ac	
	Smallest operation power	1 W or 1 VA	
	Switching capacity per relay contact	- UL 508: C300, R300 - AC-15 (IEC 60947-5-1): 1.5 A ac / 120 V ac 0.75 A ac / 240 V ac - DC-13 (IEC 60947-5-1): 0.22 A dc / 125 V dc 0.1 A dc / 250 V dc	
	Contacts capacity (resistive load)	3 A, 30 V dc / 250 V ac	
	Short-circuit external capacity	6 A gl/gG fuse	
	Terminals (connectors)	- Torque: 0.5 Nm - 4.5 lb.in - Conductors section: - Rigid and bare: 1 x (0.2 ... 2.5 mm <sup>2</sup> ); 1 x (26 ... 12 AWG) - Flexible with/without terminals: 1 x (0.2 ... 2.5 mm <sup>2</sup> ); 1 x (26 ... 12 AWG) - Screws: M3	



# SMART RELAY

## SMART RELAY WEG - SRW01



### CONTROL UNIT - UC

TYPE	FUNCTION S1- S2	RATED VOLTAGE (V)	COMMUNICATION PROTOCOL	INPUT RATED VOLTAGE (V)	STOCK CODE	PRICE EACH (ZAR)
SRW01-UCBE1E47	EARTH LEAKAGE	100-240V50/60Hz-DC	NOT AVAILABLE	24VDC	11072584	6427.00
SRW01-UCBE1E26	EARTH LEAKAGE	24V50/60Hz-DC		24VDC	11364681	7198.00
SRW01-UCBE2E47	EARTH LEAKAGE	100-240V50/60Hz-DC		110VAC	11072586	6427.00
SRW01-UCBE2E26	EARTH LEAKAGE	24V50/60Hz-DC		110VAC	11364680	7198.00
SRW01-UCBT1E47	PTC	100-240V50/60Hz-DC		24VDC	10558177	5848.00
SRW01-UCBT1E26	PTC	24V50/60Hz-DC		24VDC	11364685	6545.00
SRW01-UCBT2E47	PTC	100-240V50/60Hz-DC		110VAC	10673330	5848.00
SRW01-UCBT2E26	PTC	24V50/60Hz-DC		110VAC	11364684	6545.00
SRW01-UCPE1E47	EARTH LEAKAGE	100-240V50/60Hz-DC	PROFIBUS	24VDC	11072136	8712.00
SRW01-UCPE1E26	EARTH LEAKAGE	24V50/60Hz-DC		24VDC	11364664	9766.00
SRW01-UCPE2E47	EARTH LEAKAGE	100-240V50/60Hz-DC		110VAC	11072137	8712.00
SRW01-UCPE2E26	EARTH LEAKAGE	24V50/60Hz-DC		110VAC	11364663	9766.00
SRW01-UCPT1E47	PTC	100-240V50/60Hz-DC		24VDC	10673417	8118.00
SRW01-UCPT1E26	PTC	24V50/60Hz-DC		24VDC	11364658	9098.00
SRW01-UCPT2E47	PTC	100-240V50/60Hz-DC		110VAC	10673414	8118.00
SRW01-UCPT2E26	PTC	24V50/60Hz-DC		110VAC	11364617	9098.00
SRW01-UCME1E47	EARTH LEAKAGE	100-240V50/60Hz-DC	MODBUS	24VDC	11072133	8044.00
SRW01-UCME1E26	EARTH LEAKAGE	24V50/60Hz-DC		24VDC	11364666	9009.00
SRW01-UCME2E47	EARTH LEAKAGE	100-240V50/60Hz-DC		110VAC	11072135	8044.00
SRW01-UCME2E26	EARTH LEAKAGE	24V50/60Hz-DC		110VAC	11364665	9009.00
SRW01-UCMT1E47	PTC	100-240V50/60Hz-DC		24VDC	10675557	7465.00
SRW01-UCMT1E26	PTC	24V50/60Hz-DC		24VDC	11364683	8356.00
SRW01-UCMT2E47	PTC	100-240V50/60Hz-DC		110VAC	10673440	7465.00
SRW01-UCMT1E26	PTC	24V50/60Hz-DC		110VAC	11364682	8356.00
SRW01-UCDE1E47	EARTH LEAKAGE	100-240V50/60Hz-DC	DEVICENET	24VDC	11072131	7183.00
SRW01-UCDE1E26	EARTH LEAKAGE	24V50/60Hz-DC		24VDC	11364678	8044.00
SRW01-UCDE2E47	EARTH LEAKAGE	100-240V50/60Hz-DC		110VAC	11072132	7183.00
SRW01-UCDE2E26	EARTH LEAKAGE	24V50/60Hz-DC		110VAC	11364667	8044.00
SRW01-UCDT1E47	PTC	100-240V50/60Hz-DC		24VDC	10673500	6605.00
SRW01-UCDT1E26	PTC	24V50/60Hz-DC		24VDC	11364632	7406.00
SRW01-UCDT2E47	PTC	100-240V50/60Hz-DC		110VAC	10673498	6605.00
SRW01-UCDT2E26	PTC	24V50/60Hz-DC		110VAC	11364688	7406.00
SRW01-UCCE1TE1E47	Earth Leakage and PTC	110-240 V 50/60 Hz-DC	MODBUS -TCP	24VDC	12105800	8712.00
SRW01-UCCE1TE1E47	Earth Leakage and PTC	110-240 V 50/60 Hz-DC	PROFINET IO	24VDC	13628772	10907.00
SRW01-UCCE1TE1E47	Earth Leakage and PTC	110-240 V 50/60 Hz-DC	ETHERNET/IP	24VDC	13628769	10907.00



## SMART RELAY - ACCESSORIES

### ACCESSORIES



#### I/O EXPANSION MODULE - EDU

TYPE	DIGITAL INPUTS	DIGITAL OUTPUTS	RATED VOLTAGE (V)	STOCK CODE	PRICE EACH (ZAR)
SRW01-EDU1	6	4	24 V dc	11367104	2936.00
SRW01-EDU2	6	4	110 V ac	11367106	2936.00



#### CURRENT MEASURE UNIT - UMC

TYPE	CURRENT RANGE (A)	STOCK CODE	PRICE EACH (ZAR)
SRW01-UMC1	0,5...5	10558179	2449.00
SRW01-UMC2	1,25...12,5	10558180	2509.00
SRW01-UMC3	2,5...25	10558181	2612.00
SRW01-UMC4	12,5...125	10558182	3829.00
SRW01-UMC5	42...420	10561132	5224.00
SRW01-UMC6	84...840	10561133	7005.00



#### CURRENT AND VOLTAGE MEASURE UNIT - UMCT

TYPE	CURRENT RANGE (A)	VOLTAGE RANGE (V ac)	STOCK CODE	PRICE EACH (ZAR)
SRW01-UMCT1	0,5...5	35...690 V ac	11751275	5631.00
SRW01-UMCT2	1,25...12,5	35...690 V ac	11751274	5699.00
SRW01-UMCT3	2,5...25	35...690 V ac	11751276	5818.00
SRW01-UMCT4	12,5...125	35...690 V ac	11739009	7209.00
SRW01-UMCT5	42...420	35...690 V ac	11751277	8803.00
SRW01-UMCT6	84...840	35...690 V ac	11751328	10838.00



## SMART RELAY - ACCESSORIES

### ACCESSORIES



#### UC-UMC OR UC-EDU CONNECTION CABLE

TYPE	LENGTH (mm)	STOCK CODE	PRICE EACH (ZAR)
SRW01-CB0	60	11332922	98.00
SRW01-CB1	120	10558183	98.00
SRW01-CB2	500	10938235	114.00
SRW01-CB3	2.000	10558185	131.00
SRW01-CB4	1.000	11332919	131.00

#### USB CONNECTION CABLE

TYPE	LENGTH (mm)	STOCK CODE	PRICE EACH (ZAR)
SRW01-USB	2.000	10561134	293.00



#### USB CABLE FOR PANEL DOOR WITH PROTECTIVE COVER IP68

TYPE	LENGTH (mm)	STOCK CODE	PRICE EACH (ZAR)
SRW01-AUSB1	250	12171479	1032.00
SRW01-AUSB2	500	12171480	1470.00

#### UC-IHM CONNECTION CABLE

TYPE	LENGTH (mm)	STOCK CODE	PRICE EACH (ZAR)
SRW01-CH1	500	10558187	244.00
SRW01-CH2	1.000	10558188	261.00
SRW01-CH3	1.500	10558189	261.00
SRW01-CH4	2.000	11332397	326.00

#### EXTENSION CABLE IHM

TYPE	LENGTH (mm)	STOCK CODE	PRICE EACH (ZAR)
COM CABLE	1.500	10624678	244.00

#### HUMAN MACHINE INTERFACE

TYPE	LENGTH (mm)	STOCK CODE	PRICE EACH (ZAR)
SRW01-HMI	HMI (vertical)	10558186	1885.00
SRW01-HMI2	HMI (horizontal)	11578238	3176.00



## SMART RELAY - ACCESSORIES

### ACCESSORIES



### COMMUNICATION MODULE

TYPE	COMMUNICATION PROTOCOL	STOCK CODE	PRICE EACH (ZAR)
SRW01-MCD	DeviceNet	10575286	757.00
SRW01-MCM	Modbus	10675582	1618.00
SRW01-MCP	Profibus	10675585	2286.00

### PUSH-IN-LUGS

TYPE	DESCRIPTION	STOCK CODE	PRICE EACH (ZAR)
PLMP	Push-in-lugs	10185925	3.00

### BUSBAR FOR UMC 6

TYPE	DESCRIPTION	STOCK CODE	PRICE EACH (ZAR)
JBL RW407D	Busbar for UMC	10045718	2904.00



### EARTH LEAKAGE OR RESIDUAL CURRENT SENSOR

TYPE	DIAMETER (mm)	FOR USE WITH	STOCK CODE	PRICE EACH (ZAR)
SRW01-EL1	35	UMC1, UMC2, UMC3	10997169	1851.00
SRW01-EL2	70	UMC4	10997170	3219.00
SRW01-EL3	120	UMC5	10997173	5800.00
SRW01-EL4	210	UMC6	10997174	11754.00

### PROTECTION COVERS

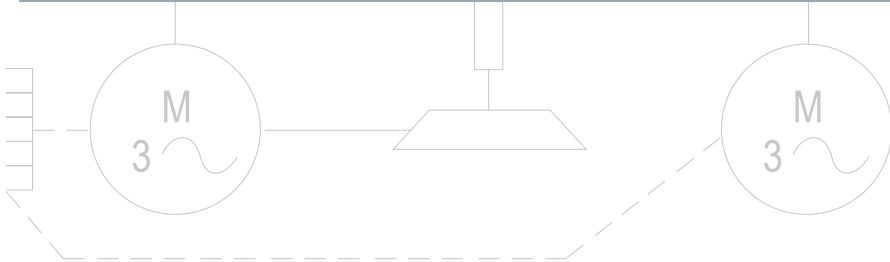
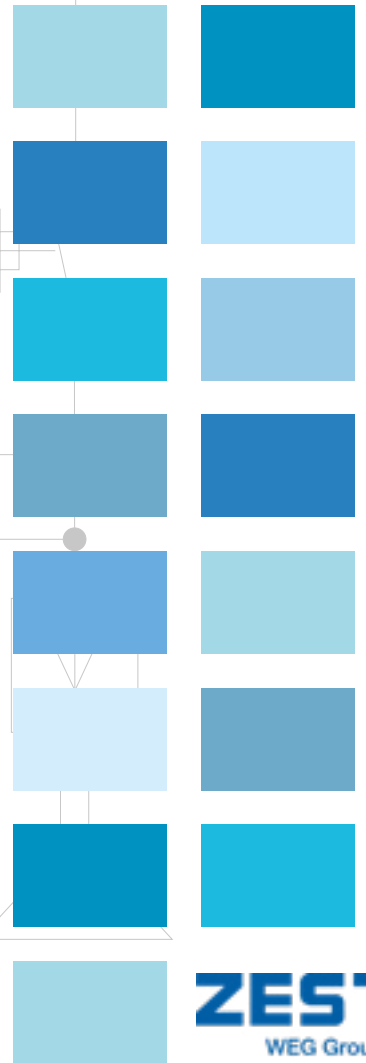
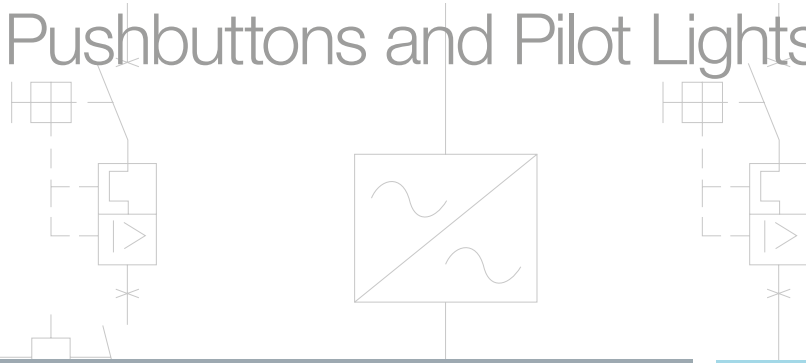
TYPE	DESCRIPTION	STOCK CODE	PRICE EACH (ZAR)
SRW01-CDB <sup>1)</sup>	Plastic cover for DB9 protection	11080360	51.00
SRW01-CMU <sup>1)</sup>	Plastic cover for mini USB connector	11080361	68.00

Note: 1) Quantity per packing: 10 units.



# Automation

## Book 2 - Pushbuttons and Pilot Lights



# PUSHBUTTONS AND PILOT LIGHTS - TECHNICAL DATA

## BUTTONS, SELECTOR SWITCHES AND SIGNAL LIGHTS

Applicable standards	IEC 60947-5-1, VDE 0660, UL 508, CENELEC EN 50007, ISO 13850 (EN 418), IEC 60947-5-5
Certifications	CE, cULus, BV, IRAM, PCT, RCC, ICONTEC
Degree of protection	IP66 and IP40 (CSW-BD) according to IEC 60529 NEMA1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 12K and 13 according to UL 508
Materials of the frontal parts	Polyamide (PA66) or Polycarbonate (PC)
<b>Mechanical life</b>	
Pushbuttons	3 x 10 <sup>6</sup> operations
CSW2-BD e CSW2-BT pushbuttons	2 x 10 <sup>6</sup> operations
CSW-BEG/EY/CT/CY pushbuttons	3 x 10 <sup>5</sup> operations
CSW-BESG/P/Y emergency-stop pushbuttons	1 x 10 <sup>5</sup> operations
Selector switches	1 x 10 <sup>6</sup> operations
Use in environments	Outdoors (UV rays) or indoors

## CONTACT BLOCKS

Applicable standards	IEC 60947-5-1, VDE 0660, UL 508, CENELEC EN 50007, ISO 13850 (EN 418), IEC 60947-5-5			
Certifications	CE, cULus, BV, IRAM, PCT, RCC, ICONTEC			
Rated insulation voltage U <sub>i</sub>	690 V			
Rated impulse withstand voltage U <sub>imp</sub>	4 kV			
Degree of protection (IEC 60529)	IP20			
Conventional thermal current I <sub>th</sub>	10 A			
<b>Electrical performance according to IEC 60947-5-1</b>				
Utilization category AC-15	BC...-CSW		BCM01-CSW	
	U <sub>e</sub> (V ac)	I <sub>e</sub> (A)	U <sub>e</sub> (V ac)	I <sub>e</sub> (A)
	24	10	24	6
	48	10	48	6
	60	10	60	6
	110	6	110	6
	220	3	220	3
	380	2	380	2
Utilization category DC-13	BC...-CSW		BCM01-CSW	
	U <sub>e</sub> (V dc)	I <sub>e</sub> (A)	U <sub>e</sub> (V dc)	I <sub>e</sub> (A)
	24	2.5	24	2.5
	48	1.4	48	1.4
	60	1	60	1
	110	0.55	110	0.55
	220	0.27	220	0.27
	300	0.2	300	0.2
600	0.1	600	0.1	
Performance according to UL and CSA	AC / Heavy Duty (A600) e DC / Standard Duty (Q600)		-	
Resistance of the contacts (IEC 60255)	≤ 25m Ω			
Protection against short circuit (IEC 60269-1 / IEC 60269-3)	BC...-CSW: Fuse of 16 A / 690 V gL/gG (1 kA) Mini-circuit breaker of 16 A (MDW-B16) BC...F-CSW (Front-back) and BC...B-CSW (Control Stations): Fuse of 10 A / 690 V gL/gG (1 kA) Mini-circuit breaker of 10 A (MDW-B10)		Fuse of 6 A / 500 V gL/gG (0.5 kA) Mini-circuit breaker of 6 A (MDW-B6)	
Protection against electric shock (IEC 61140)	Class II			
Section of the conductors (wire/cable with or without terminal)	Minimum (1 x 0.5 mm <sup>2</sup> ) and maximum (2 x 2.5 mm <sup>2</sup> )			
Tightening torque	0.8 N.m			
Working temperature range	-25 °C...+70 °C			
Resistance to mechanical shock	Without damages or disassembly 100 g (1/2 sinusoidal 11ms, according to MIL 202 B method 202 A)			
Resistance to vibration (IEC 60068-2-6)	16 g for a frequency range from 40 to 500 Hz. Maximum displacement 0.75 mm (peak to peak)			
Mechanical endurance of contact blocks BC10F / BC01F / BCA10F / BCR01F	1 x 10 <sup>6</sup> operating cycles			



## PUSHBUTTONS AND PILOT LIGHTS - TECHNICAL DATA

### ILLUMINATION BLOCKS WITH INTEGRATED LED BIDLF

Applicable standards	IEC 60947-5-1, UL 508
Voltage range for operation	0.85...1.10 x U <sub>e</sub>
Degree of protection (IEC 60529)	IP20
Consumption (V ac/ V dc)	10 mA
Rated impulse withstand voltage U <sub>i</sub> (IEC 60947-1)	2.5 kV
Working temperature range	- 25 °C...+70 °C
Average useful life	100.000 hours
Brightness	Red 70 mcd
	Yellow 115 mcd
	White 275 mcd
	Blue 64 mcd
	Green 150 mcd
Section of the conductors (wire/cable with or without terminal)	Minimum (1 x 0.5 mm <sup>2</sup> ) and maximum (2 x 2.5 mm <sup>2</sup> )
Tightening torque	0.8 N.m

### SPECIAL BLOCKS (ILLUMINATION, SOCKETS, VOLTAGE REDUCTION)

Applicable standards	IEC 60947-5-1, UL 508
Degree of protection (IEC 60529)	IP20
Rated impulse withstand voltage U <sub>i</sub> (IEC 60947-1)	4 kV
Working temperature range	- 25 °C...+70 °C
Section of the conductors (wire/cable with or without terminal)	Minimum (1 x 0.5 mm <sup>2</sup> ) and maximum (2 x 2.5 mm <sup>2</sup> )
Tightening torque	0.8 N.m

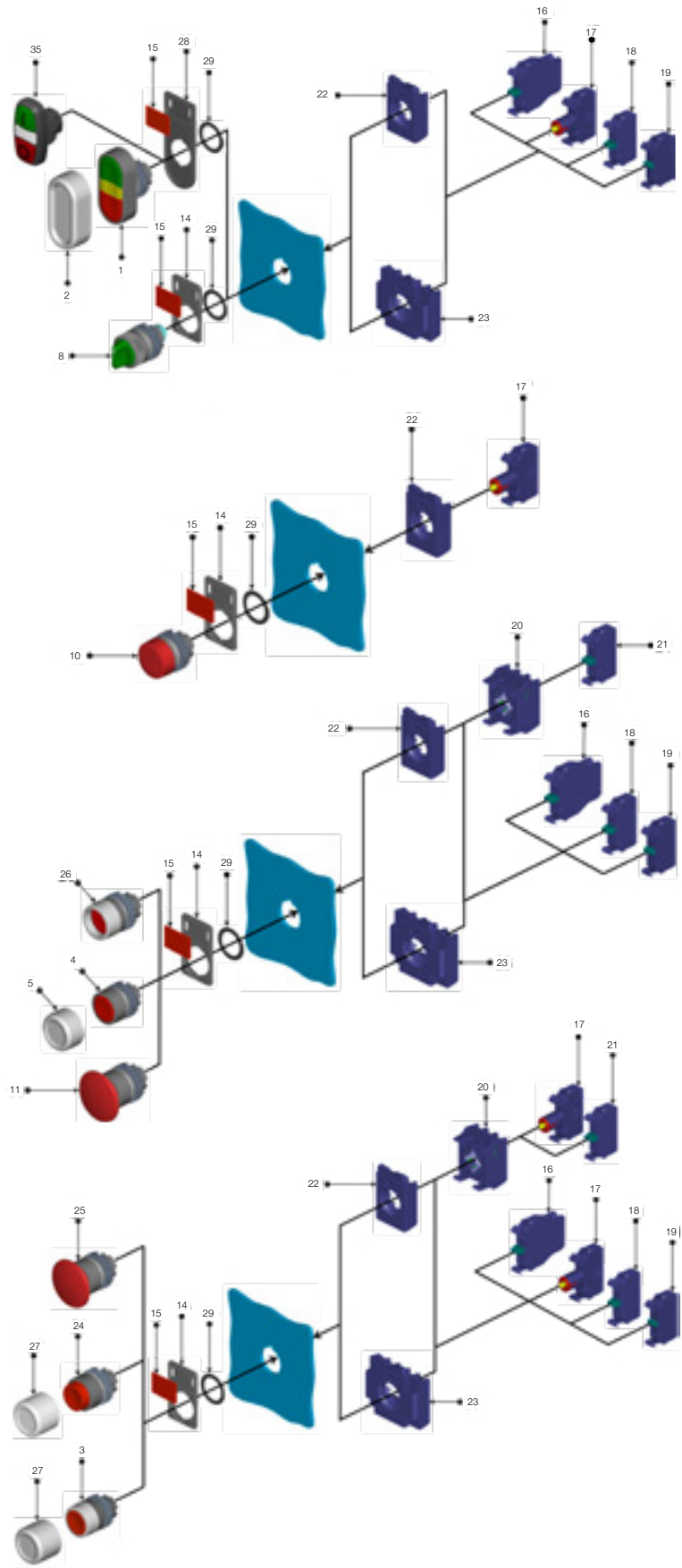
### EMPTY PLASTIC CONTROL STATION

Applicable standards	IEC 60947-5-1, IEC 50102, IEC 60529, UL 508, UL 50
Certifications	CE
Degree of protection (IEC 60529)	IP66 (NEMA 4X)
Working temperature range	-25 °C...+70 °C
Material	Polycarbonate (cover and base)
Color of the cover	Grey (RAL 7035) or yellow (RAL 1003)
Color of the base	Black (RAL 9005)
Cable gland inputs	ØM20 / PG13.5 / 1/2" e ØM16 / 3/8"
Use in environments	Outdoors (UV rays) or indoors

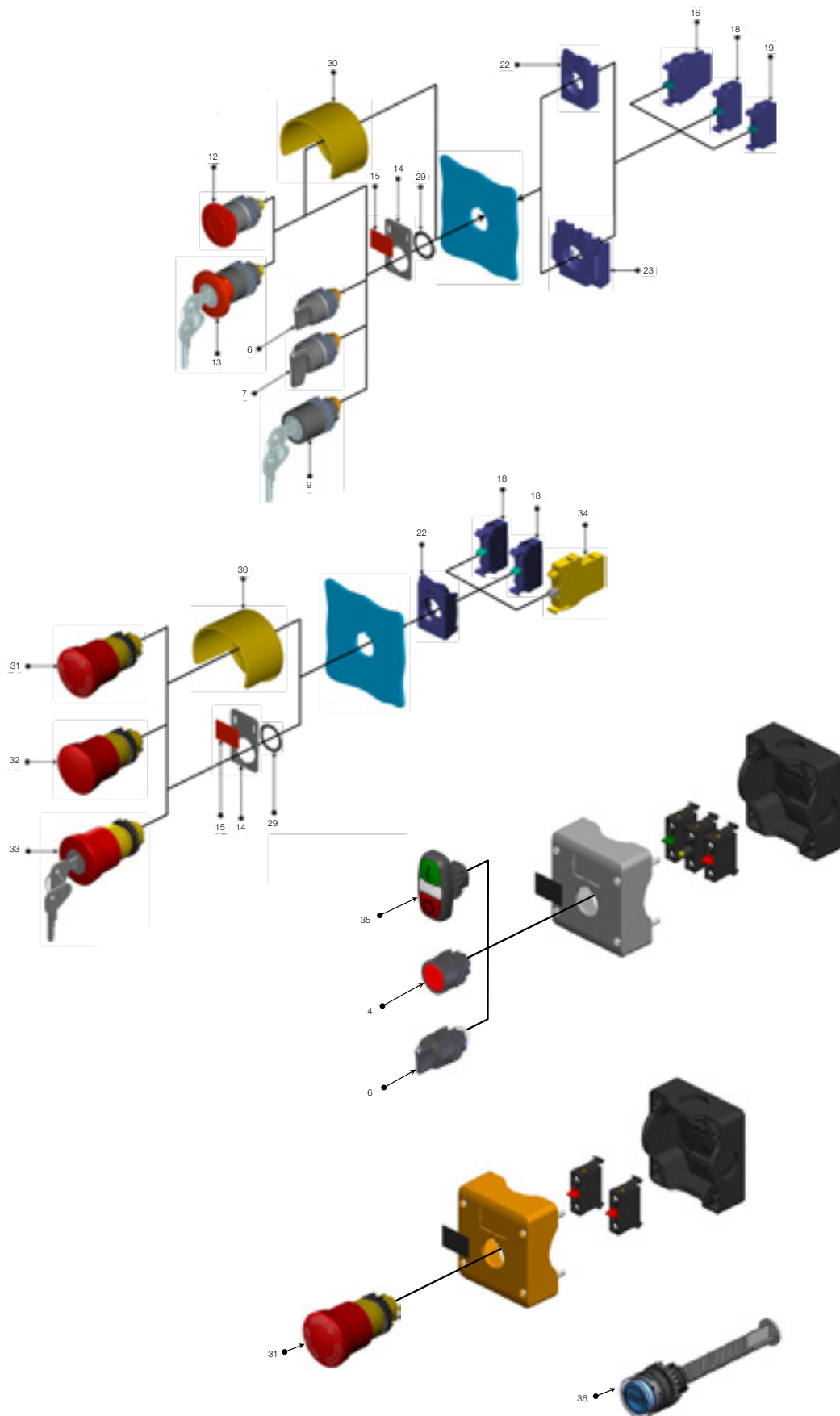


## PUSHBUTTONS AND PILOT LIGHTS - OVERVIEW

N°	Description
1	Double pushbutton
2	Protection cover for double pushbutton
3	Illuminated single pushbutton
4	Single pushbutton
5	Protection cover for single pushbutton
6	Selector switch knob
7	Lever selector switch
8	Illuminated selector switch
9	Selector switch - key release
10	Pilot light
11	Mushroom selector switch
12	Emergency - stop button - twist release
13	Emergency - stop button - key release
14	Plate holder
15	Plate
16	Double contact block
17	Illumination block
18	Single contact block
19	NC late - break single contact block
20	Push-on/push-off block
21	NO early - make single contact block
22	3 - position flange
23	5 - position flange
24	Illuminated extended pushbutton
25	Illuminated mushroom selector switch
26	Guarded pushbutton
27	Protection cover for the single pushbutton illumination and extended
28	Plate holder double pushbutton
29	Sealing ring
30	Protection
31	Emergency- stop - twist release (BESG)
32	Emergency - stop pull release (BESP)
33	Emergency - stop key release (BESY)
34	Self - monitoring block
35	Double pushbutton IP66
36	Reset pushbutton with shaft BH



# PUSHBUTTONS AND PILOT LIGHTS - OVERVIEW



# PUSHBUTTONS AND PILOT LIGHTS - CSW

## PUSHBUTTONS - IP66



DESCRIPTION	COLOUR	LABEL	TYPE	STOCK CODE	PRICE EACH (ZAR)
Flush	White	Without	CSW-BF0 WH	12880559	29.00
	Red	Without	CSW-BF1 WH	12881927	29.00
	Green	Without	CSW-BF2 WH	12882149	29.00
	Yellow	Without	CSW-BF3 WH	12882150	29.00
	Blue	Without	CSW-BF4 WH	12882151	29.00
Recessed	Black	Without	CSW-BF5 WH	12882152	29.00
	White	Without	CSW-BGA0 WH	12882154	35.00
	Red	Without	CSW-BGA1 WH	12882155	35.00
	Green	Without	CSW-BGA2 WH	12882156	35.00
	Yellow	Without	CSW-BGA3 WH	12882157	35.00
Extended	Blue	Without	CSW-BGA4 WH	12882158	35.00
	Black	Without	CSW-BGA5 WH	12882159	35.00
	White	Without	CSW-BS0 WH	12882167	39.00
	Red	Without	CSW-BS1 WH	12882208	39.00
	Green	Without	CSW-BS2 WH	12882210	39.00
	Yellow	Without	CSW-BS3 WH	12882211	39.00
Mushroom 40 mm	Blue	Without	CSW-BS4 WH	12882212	39.00
	Black	Without	CSW-BS5 WH	12882213	39.00
	White	Without	CSW-BC0 WH	12882160	53.00
	Red	Without	CSW-BC1 WH	12882161	53.00
	Green	Without	CSW-BC2 WH	12882162	53.00
	Yellow	Without	CSW-BC3 WH	12882163	53.00
Double (IP66)	Blue	Without	CSW-BC4 WH	12882164	53.00
	Black	Without	CSW-BC5 WH	12882166	53.00
	Green-red	I / O	CSW2-BDF2110 WH	12724261	109.00
	Green-red	Start/Stop	CSW2-BDF21SS WH	12905152	109.00
	Green-red	Without	CSW2-BDF21 WH	12905153	109.00
	White-black	I / O	CSW2-BDF0510 WH	12905154	109.00
	White-black	Start/Stop	CSW2-BDF05SS WH	12905156	109.00
	White-black	Without	CSW2-BDF05 WH	12905157	109.00
Extended double (IP66)	Black-black	+ / -	CSW2-BDF55PN WH	12905179	109.00
	Black-black	↑ / ↓	CSW2-BDF55FR WH	12905181	109.00
	Green-red	I / O	CSW2-BDS2110 WH	12724178	109.00
	Green-red	Start/Stop	CSW2-BDS21SS WH	12905187	109.00
	Green-red	Without	CSW2-BDS21 WH	12905208	109.00
	White-black	I / O	CSW2-BDS0510 WH	12905209	109.00
	White-black	Start/Stop	CSW2-BDS05SS WH	12905210	109.00
	White-black	Without	CSW2-BDS05 WH	12905211	109.00



DESCRIPTION	COLOUR	LABEL	TYPE	STOCK CODE	PRICE EACH (ZAR)
Triple (IP66)	Green-blue-red	I / RESET / O	CSW2-BTF241I0R WH	13120530	126.00
	Black-blue-white	I / RESET / O	CSW2-BTF540I0R WH	13120531	126.00
	Black-blue-white	START / RESET / STOP	CSW2-BTF540SSR WH	13120532	126.00
	Green-red-green	I / STOP / II	CSW2-BTF212IIS WH	13120276	126.00
	Green-red-green	+ / STOP / -	CSW2-BTF212PNS WH	13120366	126.00
	Black-red-black	+ / STOP / -	CSW2-BTF515PNS WH	13120367	126.00
	Green-red-green	t / STOP /	CSW2-BTF212FRS WH	13120359	126.00
	Black-red-black	t / STOP /	CSW2-BTF515FRS WH	13120360	126.00
	White-red-black	t / STOP /	CSW2-BTF015FRS WH	13120362	126.00
	Green-red-green	☐ ‡ ☒ ^ ☓ ☐ ☐ ‡	CSW2-BTF212RLS WH	13120358	126.00
	White-red-black	☐ ‡ ☒ ^ ☓ ☐ ☐ ‡	CSW2-BTF015RLS WH	13120365	126.00
Extended triple (IP66)	Green-blue-red	I / RESET / O	CSW2-BTS241I0R WH	13120537	126.00



## PUSHBUTTONS AND PILOT LIGHTS - CSW

### EMERGENCY STOP PUSHBUTTON WITH LATCH - IP66

#### BES RANGE (IEC 60947-5-5 & EN 418)



Pull to release

DESCRIPTION	FUNCTION	FLAP FOR SEL MONITORING	TYPE	STOCK CODE	PRICE EACH (ZAR)
Pushbutton 42 mm	Turn to release	No	CSW-BESG WH	12882447	85.00
Pushbutton 42 mm	Pull to release	No	CSW-BESP WH	12882459	85.00
Pushbutton 42 mm	Key to release	No	CSW-BESY WH	12882461	337.00
Pushbutton 42 mm	Turn to release	Yes	CSW-BESGM WH	13268381	85.00
Pushbutton 42 mm	Pull to release	Yes	CSW-BESPM WH	13268409	85.00
Pushbutton 42 mm	Key to release	Yes	CSW-BESYM WH	13274097	337.00

#### BES RANGE (IEC 60947-5-5 & EN 418) WITH GREEN POSITION INDICATOR



Turn to release

DESCRIPTION	FUNCTION	FLAP FOR SEL MONITORING	TYPE	STOCK CODE	PRICE EACH (ZAR)
Pushbutton 42 mm	Turn to release	No	CSW-BESGS WH	12882462	100.00
Pushbutton 42 mm	Pull to release	No	CSW-BESPS WH	12882463	100.00
Pushbutton 42 mm	Key to release	No	CSW-BESYS WH	12882464	352.00
Pushbutton 42 mm	Turn to release	Yes	CSW-BESGSM WH	13277423	100.00
Pushbutton 42 mm	Pull to release	Yes	CSW-BESPSM WH	13277427	100.00
Pushbutton 42 mm	Key to release	Yes	CSW-BESYSM WH	13277425	352.00

### MUSHROOM WITH LATCH - IP66



DESCRIPTION	COLOUR	TYPE	STOCK CODE	PRICE EACH (ZAR)
Mushroom 40 mm - turn to release	White	CSW-BCT0 WH	12882214	77.00
	Red	CSW-BCT1 WH	12882215	77.00
	Green	CSW-BCT2 WH	12882216	77.00
	Yellow	CSW-BCT3 WH	12882217	77.00
	Blue	CSW-BCT4 WH	12882249	77.00
	Black	CSW-BCT5 WH	12882250	77.00
Mushroom 40 mm - key to release	White	CSW-BCY0 WH	12882251	309.00
	Red	CSW-BCY1 WH	12882252	309.00
	Green	CSW-BCY2 WH	12882253	309.00
	Yellow	CSW-BCY3 WH	12882255	309.00
	Blue	CSW-BCY4 WH	12882256	309.00
	Black	CSW-BCY5 WH	12882257	309.00



# PUSHBUTTONS AND PILOT LIGHTS - CSW

## ILLUMINATED PUSHBUTTONS - IP66



DESCRIPTION	COLOUR	LABEL	TYPE	STOCK CODE	PRICE EACH (ZAR)
Illuminated flush	White	Without	CSW-BF10 WH	12882258	62.00
	Red	Without	CSW-BF11 WH	12882259	62.00
	Green	Without	CSW-BF12 WH	12882260	62.00
	Yellow	Without	CSW-BF13 WH	12882261	62.00
	Blue	Without	CSW-BF14 WH	12882262	62.00
	Orange	Without	CSW-BF16 WH	12882264	62.00
Illuminated extended	White	Without	CSW-BS10 WH	12882265	77.00
	Red	Without	CSW-BS11 WH	12882266	77.00
	Green	Without	CSW-BS12 WH	12882267	77.00
	Yellow	Without	CSW-BS13 WH	12882298	77.00
	Blue	Without	CSW-BS14 WH	12882299	77.00
	Orange	Without	CSW-BS16 WH	12882300	77.00
Illuminated mushroom	White	Without	CSW-BC10 WH	12882301	100.00
	Red	Without	CSW-BC11 WH	12882302	100.00
	Green	Without	CSW-BC12 WH	12882303	100.00
	Yellow	Without	CSW-BC13 WH	12882304	100.00
	Blue	Without	CSW-BC14 WH	12882305	100.00
	Orange	Without	CSW-BC16 WH	12882306	100.00
Illuminated double (IP66)	Green-red	I / O	CSW2-BDFI2110 WH	12756258	109.00
	Green-red	START/STOP	CSW2-BDFI21SS- WH	12904803	109.00
	Green-red	Without	CSW2-BDFI21- WH	12904818	109.00
	White-black	I / O	CSW2-BDFI0510- WH	12904819	109.00
	White-black	START/STOP	CSW2-BDFI05SS- WH	12904822	109.00
	White-black	Without	CSW2-BDFI05- WH	12904824	109.00
	Black-black	+ / -	CSW2-BDFI55PN- WH	12904825	109.00
	Black-black	↑ / ↓	CSW2-BDFI55FR- WH	12904827	109.00
Extended illuminated double (IP66)	Green-red	I / O	CSW2-BDSI2110- WH	12904828	109.00
	Green-red	START/STOP	CSW2-BDSI21SS- WH	12904831	109.00
	Green-red	Without	CSW2-BDSI21- WH	12904834	109.00
	White-black	I / O	CSW2-BDSI0510- WH	12904837	109.00
	White-black	START/STOP	CSW2-BDSI05SS- WH	12904848	109.00
	White-black	Without	CSW2-BDSI05- WH	12904850	109.00
Double (IP40)	Green-red	I / O	CSW-BD WH	12884105	90.00
	Green-red	START/STOP	CSW-BD21SS WH	12884106	90.00
	Green-red	Without	CSW-BD21 WH	12884108	90.00
	White-black	I / O	CSW-BD0510 WH	12884109	90.00
	White-black	START/STOP	CSW-BD05SS WH	12884110	90.00
	White-black	Without	CSW-BD05 WH	12884112	90.00
	Black-black	+ / -	CSW-BD55PN WH	12884114	90.00
	Black-black	↑ / ↓	CSW-BD55FR WH	12884115	90.00



## PUSHBUTTONS AND PILOT LIGHTS - CSW

### SELECTOR SWITCHES - IP66



DESCRIPTION	POSITION	TYPE	STOCK CODE	PRICE EACH (ZAR)
Knob	2 fixed (45°)	CSW-CK2F45 WH	12882307	65.00
	2 fixed (90°)	CSW-CK2F90 WH	12882308	65.00
	2 w/ return (45°)	CSW-CK2R45 WH	12882309	65.00
	2 w/ return (90°)	CSW-CK2R90 WH	12882310	65.00
	3 fixed	CSW-CK3F45 WH	12882311	65.00
	3 w/ return	CSW-CK3R45 WH	12882312	65.00
	3 ret. left	CSW-CK3RE45 WH	12882314	65.00
Lever	3 ret. right	CSW-CK3RD45 WH	12882315	65.00
	2 fixed (45°)	CSW-CA2F45 WH	12882316	77.00
	2 fixed (90°)	CSW-CA2F90 WH	12882317	77.00
	2 w/ return (45°)	CSW-CA2R45 WH	12882338	77.00
	2 w/ return (90°)	CSW-CA2R90 WH	12882339	77.00
	3 fixed	CSW-CA3F45 WH	12882340	77.00
	3 w/ return	CSW-CA3R45 WH	12882341	77.00
3 ret. left	CSW-CA3RE45 WH	12882342	77.00	
3 ret. right	CSW-CA3RD45 WH	12882343	77.00	

### SELECTOR SWITCHES WITH KEY - IP66



DESCRIPTION	KEY WITHDRAWAL POSITION	TYPE	STOCK CODE	PRICE EACH (ZAR)
2 fixed (45°)	All	CSW-CY2F45 WH	12882344	500.00
2 w/ return	All	CSW-CY2R45 WH	12882346	500.00
3 fixed (E)	All	CSW-CY3F45 WH	12882347	500.00
3 w/ return	All	CSW-CY3R45 WH	12882368	500.00
2 fixed (90°)	All	CSW-CY2F90 WH	12882369	500.00
2 w/ return	All	CSW-CY2R90 WH	12882370	500.00
3 ret. left	All	CSW-CY3RE45 WH	12882372	500.00
3 ret. right	All	CSW-CY3RD45 WH	12882373	500.00
2 fixed (45°)	Left	CSW-CYE2F45 WH	13366551	500.00
2 fixed (45°)	Right	CSW-CYD2F45 WH	13835956	500.00
3 fixed (E)	Left	CSW-CYE3F45 WH	13356492	500.00
3 fixed (E)	Right	CSW-CYD3F45 WH	13836032	500.00
3 fixed (E)	Center	CSW-CYC3F45 WH	13476049	500.00
2 fixed (90°)	Right	CSW-CYD2F90 WH	13836029	500.00
2 fixed (90°)	Left	CSW-CYE2F90 WH	13546069	500.00
3 ret. right	Center	CSW-CYC3RD45 WH	13341925	500.00
3 ret. right	Left	CSW-CYE3RD45 WH	13302285	500.00



## PUSHBUTTONS AND PILOT LIGHTS - CSW

### ILLUMINATED SELECTOR SWITCHES - IP66



DESCRIPTION	COLOUR	TYPE	STOCK CODE	PRICE EACH (ZAR)
2 fixed positions	White	CSW-CKI2F900 WH	12882374	169.00
	Red	CSW-CKI2F901 WH	12882375	169.00
	Green	CSW-CKI2F902 WH	12882376	169.00
	Yellow	CSW-CKI2F903 WH	12882377	169.00
	Blue	CSW-CKI2F904 WH	12882388	169.00
	Orange	CSW-CKI2F906 WH	12882389	169.00
3 fixed positions	White	CSW-CKI3F450 WH	12882391	169.00
	Red	CSW-CKI3F451 WH	12882392	169.00
	Green	CSW-CKI3F452 WH	12882393	169.00
	Yellow	CSW-CKI3F453 WH	12882394	169.00
	Blue	CSW-CKI3F454 WH	12882395	169.00
	Orange	CSW-CKI3F456 WH	12882396	169.00
3 positions with return	White	CSW-CKI3R450 WH	12882397	169.00
	Red	CSW-CKI3R451 WH	12882408	169.00
	Green	CSW-CKI3R452 WH	12882409	169.00
	Yellow	CSW-CKI3R453 WH	12882410	169.00
	Blue	CSW-CKI3R454 WH	12882411	169.00
	Orange	CSW-CKI3R456 WH	12882412	169.00
3 positions with return from right	White	CSW-CKI 3RD450 WH	12882413	169.00
	Red	CSW-CKI3RD451 WH	12882414	169.00
	Green	CSW-CKI3RD452 WH	12882415	169.00
	Yellow	CSW-CKI3RD453 WH	12882416	169.00
	Blue	CSW-CKI 3RD454 WH	12882417	169.00
	Orange	CSW-CKI3RD456 WH	12882438	169.00
3 positions with return from left	White	CSW-CKI3RE450 WH	12882439	169.00
	Red	CSW-CKI3RE451 WH	12882440	169.00
	Green	CSW-CKI3RE452 WH	12882441	169.00
	Yellow	CSW-CKI3RE453 WH	12882442	169.00
	Blue	CSW-CKI3RE454 WH	12882443	169.00
	Orange	CSW-CKI3RE456 WH	12882444	169.00

### SIGNALLING



DESCRIPTION	COLOUR	TYPE	STOCK CODE	PRICE EACH (ZAR)
Diffused	White	CSW-SD0 WH	12882465	33.00
	Red	CSW-SD1 WH	12882466	33.00
	Green	CSW-SD2 WH	12882467	33.00
	Yellow	CSW-SD3 WH	12882478	33.00
	Blue	CSW-SD4 WH	12882479	33.00
	Orange	CSW-SD6 WH	12882480	33.00
Diffused	Red	CSW-SD1-IP42 WH <sup>1)</sup>	13770217	29.00
	Green	CSW-SD2-IP42 WH <sup>1)</sup>	13770298	29.00
	Yellow	CSW-SD3-IP42 WH <sup>1)</sup>	13770299	29.00
	Blue	CSW-SD4-IP42 WH <sup>1)</sup>	13770301	29.00
	White	CSW-SD0-IP42 WH <sup>1)</sup>	13770300	29.00

### RESET PUSHBUTTON WITH SHAFT



DESCRIPTION	COLOUR	TYPE	STOCK CODE	PRICE EACH (ZAR)
Flush pushbutton	Min: 22,5 mm Max: 250 mm	CSW-BHF437	12471376	90.00

Note: 1) UL pending.



# PUSHBUTTONS AND PILOT LIGHTS - CSW

## BLUE FLANGE AND ACCESSORIES

### BLUE FLANGE



DESCRIPTION	PACKING (un)	TYPE	STOCK CODE	PRICE EACH (ZAR)
Flange (3 pos)	1	AF3F	12670264	15.00
Flange (5 pos)	1	AF5F	13268324	43.00

### CONTACT BLOCKS



DESCRIPTION	PACKING (un)	TYPE	STOCK CODE	PRICE EACH (ZAR)
Single (1NO)	1	BC10F-CSW	12891184	31.00
Single (1NC)	1	BC01F-CSW	12891186	31.00

### INTEGRATED LED BLOCK



VOLTAGE	COLOUR	TYPE	STOCK CODE	PRICE EACH (ZAR)
12 V ac/dc	White	CSW-BIDLF-0E25	12640012	87.00
	Red	CSW-BIDLF-1E25	12640013	87.00
	Green	CSW-BIDLF-2E25	12640014	87.00
	Yellow	CSW-BIDLF-3E25	12640015	87.00
	Blue	CSW-BIDLF-4E25	12640016	87.00
24 V ac/dc	White	CSW-BIDLF-0E26	12640017	87.00
	Red	CSW-BIDLF-1E26	12640038	87.00
	Green	CSW-BIDLF-2E26	12640039	87.00
	Yellow	CSW-BIDLF-3E26	12640040	87.00
	Blue	CSW-BIDLF-4E26	12640041	87.00
48 V ac/dc	White	CSW-BIDLF-0E27	12640042	87.00
	Red	CSW-BIDLF-1E27	12640043	87.00
	Green	CSW-BIDLF-2E27	12640044	87.00
	Yellow	CSW-BIDLF-3E27	12640046	87.00
	Blue	CSW-BIDLF-4E27	12640047	87.00
110-130 V ac/dc	White	CSW-BIDLF-0E10	13899138	98.00
	Red	CSW-BIDLF-1E10	13899139	98.00
	Green	CSW-BIDLF-2E10	13899140	98.00
	Yellow	CSW-BIDLF-3E10	13899141	98.00
	Blue	CSW-BIDLF-4E10	13899142	98.00
220-240 V ac	White	CSW-BIDLF-0D66	12640053	87.00
	Red	CSW-BIDLF-1D66	12640054	87.00
	Green	CSW-BIDLF-2D66	12640055	87.00
	Yellow	CSW-BIDLF-3D66	12640056	87.00
	Blue	CSW-BIDLF-4D66	12640057	87.00



## PUSHBUTTONS AND PILOT LIGHTS - CSW

### ACCESSORIES FOR BLUE FLANGE

#### CONTACT BLOCKS WITH SPECIAL FUNCTIONS

DESCRIPTION	PACKING (un)	TYPE	STOCK CODE	PRICE EACH (ZAR)
(1NO early make)	1	BCA10F-CSW	13261897	38.00
(1NC late brake)	1	BCR01F-CSW	13262008	38.00
Self-monitoring (1NC)	1	BCM01F-CSW	13262011	99.00

#### BLOCK FOR LAMP


 Full voltage  
AC/DC

 Resistor  
+ Diode

DESCRIPTION	PACKING (un)	TYPE	STOCK CODE	PRICE EACH (ZAR)
Full voltage ac/dc	1	CSW-BIDF	13262009	32.00
Res + diode (230 V)		CSW-BIRDF-D66 <sup>1)</sup>	13262010	116.00

#### INCANDESCENT LAMPS



DESCRIPTION	PACKING (un)	TYPE	STOCK CODE	PRICE EACH (ZAR)
6 V ac/dc (Ba9s)	25	L6VI-E48-0,6W	10045241	49.00
12 V ac/dc (Ba9s)		L12VI-E25-1,8W	10046387	49.00
24 V ac/dc (Ba9s)		L24VI-E26-2W	10045243	49.00
48 V ac/dc (Ba9s)		L48VI-E27-2W	10046462	49.00
60 V ac/dc (Ba9s)		L60VI-E28-1,2W	10045244	49.00
130 V ac/dc (Ba9s)		L130VI-E30-2W	10409537	49.00
220 V ac/dc - Neon (Ba9s)		L220VI-E31-2W	10409538	49.00

#### TRANSFORMER BLOCK - BRT

BIDL	SUPPLY VOLTAGE	PACKING (un)	TYPE	STOCK CODE	PRICE EACH (ZAR)
BIDL 125 VDC	220 V dc	1	CSW-BRT2F	13275624	60.00
BIDL 220-240 VAC	380-460 V ac		CSW-BRT4F	13275625	60.00

#### MISCELLANEOUS

DESCRIPTION	PACKING (un)	TYPE	STOCK CODE	PRICE EACH (ZAR)
Lamp. extractor	1	ACEF <sup>2)</sup>	10046256	57.00
Latch	1	BR-3PF-CSW	13270966	60.00
Reduct. ring (30 -> 22 mm)	5	AR30	10187807	27.00
E-stop pushb prot.	1	APEG	10213180	52.00
DIN rail adaptor	1	DRCSWA CSW	12846896	71.00

Notes: 1) Incandescent lamp 120 V included.

2) UL pending.



## PUSHBUTTONS AND PILOT LIGHTS - CSW

### ACCESSORIES FOR BLUE FLANGE

#### PLATE HOLDER WITH INSCRIPTION PLATE

SIZE	PLATE COLOUR DESCRIPTION	PACKING (un)	TYPE	STOCK CODE	PRICE EACH (ZAR)
(30x50) Holder (27x18) Plate	Red-black (single pushbutton)	5	APP30	10185880	40.00
	Transparent (single pushbutton)		APP30T	10185886	40.00
(34x83) Holder (27x18) Plate	Red-black (double pushbutton)		APP60	10643837	40.00
	Transparent (double pushbutton)		APP60T	10583832	40.00

#### PLATE HOLDER WITHOUT INSCRIPTION PLATE



SIZE	PACKING (un)	TYPE	STOCK CODE	PRICE EACH (ZAR)
30x50	5	PP30	11427388	33.00
34x83		PP60	11427391	33.00

#### OTHER PLATES



Emergency plate

SIZE	PACKING (un)	TYPE	STOCK CODE	PRICE EACH (ZAR)
Portuguese-english	5	APE	10045238	65.00
English		APE-02-ENG	11315980	65.00
English-spanish		APE-03-ENG-SPA	10077414	65.00

#### SHAFT TO RESET PUSHBUTTON



SHAFT LENGTH	TYPE	STOCK CODE	PRICE EACH (ZAR)
Min: 22,5 mm Max: 250 mm	SH250	12470467	24.00



## PUSHBUTTONS AND PILOT LIGHTS - CSW

### CONTROL STATIONS PBW



HOLES	COVER COLOUR	TYPE	STOCK CODE	PRICE EACH (ZAR)
1	Yellow	PBW-1Y	12204334	183.00
1	Gray	PBW-1	12204335	183.00
2	Gray	PBW-2	12204336	214.00
3	Gray	PBW-3	12204337	246.00
4	Gray	PBW-4	12204388	295.00
6	Gray	PBW-6	12204389	425.00

### PBW LINE ACCESSORIES

#### CONTACT BLOCKS



DESCRIPTION	PACKING (un)	TYPE	STOCK CODE	PRICE EACH (ZAR)
Single (1N0)	10	BC10B-CSW X10	13163057	30.00
	1	BC10B-CSW	12174856	31.00
Single (1NC)	10	BC01B-CSW X10	13163056	30.00
	1	BC01B-CSW	12174857	31.00

#### INTEGRATED LED BLOCK



HOLES	COLOUR	TYPE	STOCK CODE	PRICE EACH (ZAR)
12 V ac/dc	White	CSW-BIDL-0E25	12195732	92.00
	Red	CSW-BIDL-1E25	12195737	92.00
	Green	CSW-BIDL-2E25	12195839	92.00
	Yellow	CSW-BIDL-3E25	12195840	92.00
	Blue	CSW-BIDL-4E25	12195842	92.00
24 V ac/dc	White	CSW-BIDL-0E26	12195847	92.00
	Red	CSW-BIDL-1E26	12195918	92.00
	Green	CSW-BIDL-2E26	12195919	92.00
	Yellow	CSW-BIDL-3E26	12195920	92.00
48 V ac/dc	Blue	CSW-BIDL-4E26	12195921	92.00
	White	CSW-BIDL-0E27	12195922	92.00
	Red	CSW-BIDL-1E27	12195923	92.00
	Green	CSW-BIDL-2E27	12195924	92.00
110-130 V ac/dc	Yellow	CSW-BIDL-3E27	12195926	92.00
	Blue	CSW-BIDL-4E27	12195948	92.00
	White	CSW-BIDL-0E10	13899143	103.00
	Red	CSW-BIDL-1E10	13899144	103.00
	Green	CSW-BIDL-2E10	13899146	103.00
220-240 V ac	Yellow	CSW-BIDL-3E10	13899147	103.00
	Blue	CSW-BIDL-4E10	13899190	103.00
	White	CSW-BIDL-0D66	12196008	92.00
	Red	CSW-BIDL-1D66	12196009	92.00
	Green	CSW-BIDL-2D66	12196010	92.00
	Yellow	CSW-BIDL-3D66	12196011	92.00
	Blue	CSW-BIDL-4D66	12196012	92.00



## PUSHBUTTONS AND PILOT LIGHTS - CSW

### ACCESSORIES FOR FLANGES AND CONTROL STATIONS

#### PLATE WITHOUT TEXT



SIZE	COLOUR DESCRIPTION	PACKING (un)	TYPE	STOCK CODE	PRICE EACH (ZAR)
27x18	Red-black single plate	5	AP30	10045237	14.00
	Transparent single plate		AP30T	10045240	14.00
	Set with 10 white plates	15	CAP30	12439346	43.00

#### OTHER PLATES



Emergency plate

IDIOM	PACKING (un)	TYPE	STOCK CODE	PRICE EACH (ZAR)
Portuguese	5	APEC	13050396	54.00
English		APEC-02	13050413	54.00
Spanish		APEC-03	13050408	54.00

#### PUSHBUTTON PROTECTION



For double pushbutton



For flush pushbutton

DESCRIPTION	PACKING (un)	TYPE	STOCK CODE	PRICE EACH (ZAR)
For flush pushbutton	5	APBF	10185879	60.00
For double pushbutton		APBD	10046217	113.00
For Pushb BFI & BSI		APBI	10075605	70.00
For double pushbutton CSW2-BD		AP2BD	13253639	113.00
For triple pushbutton CSW2-BT		AP2BT	13253640	113.00

#### MISCELLANEOUS



DESCRIPTION	PACKING (un)	TYPE	STOCK CODE	PRICE EACH (ZAR)
Plug (round)	5	ATR	10185878	14.00
Locking ring toll	1	CAF22	13218642	23.00
Spare key for CSW line	1	CSW-CY	13153191	50.00
E-stop pushb prot.	1	GBES	13263711	43.00
Contact blocks tie	1	CBCSW	13275381	16.00

Note: 1) UL pending.



## PUSHBUTTONS AND PILOT LIGHTS - CSW

### ACCESSORIES FOR FLANGES AND CONTROL STATIONS

#### CAPS FOR PUSHBUTTONS (COLOUR CHANGING)

DESCRIPTION	COLOUR	PACKING (un)	TYPE	STOCK CODE	PRICE EACH (ZAR)
Flush pushbutton	Black	5	ACB5	10045226	5.00
	Red		ACB1	10045227	5.00
	Green		ACB2	10045228	5.00
	Yellow		ACB3	10045229	5.00
	Blue		ACB4	10045230	5.00
	White		ACB0	10071881	5.00
Mushroom 40 mm	Red		ACBC1	10071882	18.00
	Green	ACBC2	10071883	18.00	

#### CAPS TO PUSHBUTTONS FOR SIGNALLING WITH SPECIFIC SYMBOL FUNCTIONS

DESCRIPTION	CAP - SYMBOL COLOUR	FUNCTION	PACKING (un)	TYPE	STOCK CODE	PRICE EACH (ZAR)
Flush pushbutton	Red-white	Stop	5	ACB1-30	10045231	9.00
	Black-white	Start		ACB5-31	10045232	9.00
	Black-white	Rect motion		ACB5-32	10045233	9.00
	Black-white	Rot. to right		ACB5-33	10045234	9.00
	Black-white	Rot. to left		ACB5-34	10045235	9.00
	Black-white	Feeder		ACB5-35	10045236	9.00

#### CAPS TO PUSHBUTTONS FOR SIGNALLING WITH SPECIFIC SYMBOL FUNCTIONS

DESCRIPTION	CAP - SYMBOL COLOUR	FUNCTION	PACKING (un)	TYPE	STOCK CODE	PRICE EACH (ZAR)
Illuminated pushbutton	Black-white	Stop	5	ALBI-30	10211962	10.00
	Black-white	Start		ALBI-31	10211963	10.00
	Black-white	Rect motion		ALBI-32	10211964	10.00
	Black-white	Rot. to right		ALBI-33	10211965	10.00
	Black-white	Rot. to left		ALBI-34	10211966	10.00
	Black-white	Feeder		ALBI-35	10211967	10.00

#### DIFFUSED LENS FOR SIGNALLING



APPLICATION	DESCRIPTION	COLOUR	PACKING (un)	TYPE	STOCK CODE	PRICE EACH (ZAR)
For pilot lights	Diffused	Red	5	ALSD1	10185881	7.00
		Green		ALSD2	10185882	7.00
		Yellow		ALSD3	10185883	7.00
		Blue		ALSD4	10185884	7.00
		White		ALSD0	10185885	7.00



## PUSHBUTTONS AND PILOT LIGHTS - CSW

### COMMON SETS - CSW SERIES<sup>1)</sup>

#### PUSHBUTTONS

DESCRIPTION	TYPE	STOCK CODE	PRICE EACH (ZAR)
Flush ON (black - 1NO)	CSW-BF5-10000000-3VF	12923176	78.00
Flush (blue marked "RESET" - 1NO)	CSW-BF437-10000000-3VF	12922280	81.00
Flush (blue - 1NO)	CSW-BF4-10000000-3VF	12923199	78.00
Flush (yellow - 1NO)	CSW-BF3-10000000-3VF	12930986	78.00
Flush (green - 1NO)	CSW-BF2-10000000-3VF	12923177	78.00
Flush OFF (red - 1NC)	CSW-BF1-01000000-3VF	12922955	78.00
Mushroom ON (green - 1NO)	CSW-BC2-10000000-3VF	12930987	102.00
Mushroom OFF (red - 1NC)	CSW-BC1-01000000-3VF	12931019	102.00
Emergency stop turn to reset + 3NC self-monitoring	CSW-BESG-00000003-3VF	13312574	441.00
Emergency stop turn to reset + 2NC self-monitoring	CSW-BESG-00000002-3VF	13312575	327.00
Emergency stop turn to reset + 1NC self-monitoring	CSW-BESG-00000001-3VF	13278311	213.00
Emergency stop pull to reset + 1NC self-monitoring	CSW-BESP-00000001-3VF	13278309	213.00
Double IP40 (green marked "I" / red marked "O" - 1NO + 1NC)	CSW-BD-11000000-3VF	12923175	172.00
Double IP66 (green marked "I" / red marked "O" - 1NO + 1NC)	CSW2-BDF2110-11000000-3VF	12756198	192.00
Emergency stop turn to reset + 1NC	CSW-BESG-01000000-3VF	12922954	134.00
Emergency stop pull to reset + 1NC	CSW-BESP-01000000-3VF	12931118	134.00

#### PUSHBUTTONS WITH CONTROL STATION

PBW CONTROL STATION	PUSHBUTTON	CONTACT BLOCK	PLATE	TYPE	STOCK CODE	PRICE EACH (ZAR)
Yellow - 1 hole	Emergency stop CSW-BESG	1NO + 1NC	Red engraved "emergency stop"	PBW1Y-G11 V03	12979191	351.00
Yellow - 1 hole	Emergency stop CSW-BESGS	1NC	Black engraved "parada de emergencia"	PBW1Y-GS01 P222	12824904	333.00
Yellow - 1 hole	Emergency stop CSW-BESGM	1NO + 1NC	Black engraved "emergency stop"	PBW1Y-GM11V03	13232101	369.00
Yellow - 1 hole	Emergency stop CSW-BESGM	1NO + 2NC	Black engraved "emergency stop"	PBW1Y-GM12V03	13232498	403.00

Note: 1) Other configurations on request.



## PUSHBUTTONS AND PILOT LIGHTS - CSW

### COMMON SETS - CSW SERIES<sup>1)</sup>

#### ILLUMINATED PUSHBUTTON

DESCRIPTION	TYPE	STOCK CODE	PRICE EACH (ZAR)
Double IP40 (green marked "I" / red marked "O" - 1NO+1NC- LED 220-240 V ac)	CSW-BD-11000000-FD661-3VF	12923174	272.00
Double IP40 (green marked "I" / red marked "O" - 1NO+1NC- LED 110-130 V ac)	CSW-BD-11000000-FE101-3VF	12931024	272.00
Double IP40 (green marked "I" / red marked "O" - 1NO+1NC- LED 24 V ac / V dc)	CSW-BD-11000000-FE261-3VF	12931058	272.00
Double IP66 (green marked "I" / red marked "O" - 1NO+1NC- LED 220-240 V ac)	CSW2-BDFI21I0-11000000-FD661-3VF	12931201	292.00
Flush red with LED 220-240 V ac (1NC)	CSW-BFI1-01000000-FD66-3VF	12931064	211.00
Flush red with LED 24 V cc / V ac (1NC)	CSW-BFI1-01000000-FE26-3VF	12931066	211.00
Flush green with LED 220-240 V ac (1NO)	CSW-BFI2-10000000-FD66-3VF	12931067	211.00
Flush green with LED 24 V dc / V ac (1NO)	CSW-BFI2-10000000-FE26-3VF	12931090	211.00
Flush yellow with LED 24 V dc / V ac (1NO)	CSW-BFI3-10000000-FE26-3VF	12931092	211.00
Flush blue with LED 24 V dc / V ac (1NO)	CSW-BFI4-10000000-FE26-3VF	12931093	211.00
Extended green with LED 220-240 V ac (1NO)	CSW-BSI2-10000000-FD66-3VF	12931094	225.00

#### SELECTOR SWITCHES

DESCRIPTION	TYPE	STOCK CODE	PRICE EACH (ZAR)
Knob switch 2 fixed positions 45° - (1NO)	CSW-CK2F45-10000000-3VF	12923170	114.00
Knob switch 2 fixed positions 90° - (1NO + 1NC)	CSW-CK2F90-11000000-3VF	12923198	147.00
Knob switch 2 fixed positions 90° - (1NO)	CSW-CK2F90-10000000-3VF	12923253	114.00
Knob switch 2 fixed positions 90° - (2NO)	CSW-CK2F90-20000000-3VF	12931095	147.00
Knob switch 2 fixed positions 45° - (1NO + 1NC)	CSW-CK2F45-11000000-3VF	12931096	147.00
Knob 3 positions 45° with return - (2NO)	CSW-CK3R45-20000000-3VF	12923020	147.00
Knob 3 fixed positions 45° - (2NO)	CSW-CK3F45-20000000-3VF	12923168	147.00
Lever switch 2 fixed positions 45° - (1NO)	CSW-CA2F45-10000000-3VF	12931119	126.00
Lever switch 3 fixed positions 45° - (2NO)	CSW-CA3F45-20000000-3VF	12931120	160.00

Note: 1) Other configurations on request.



## PUSHBUTTONS AND PILOT LIGHTS - CSW

### COMMON SETS - CSW SERIES<sup>1)</sup>

#### ILLUMINATED SELECTOR SWITCHES

DESCRIPTION	TYPE	STOCK CODE	PRICE EACH (ZAR)
Red knob 2 fixed pos with LED 220-240 V ac (1NO)	CSW-CKI2F901-10000000-FD66-3VF	12930906	318.00
Green knob 2 fixed pos with LED 220-240 V ac (1NO)	CSW-CKI2F902-10000000-FD66-3VF	12930907	318.00
Green knob 2 fixed pos with LED 110-130 V ac (1NO)	CSW-CKI2F902-10000000-FE10-3VF	12930958	318.00
Red knob 2 fixed pos with LED 110-130 V ac (1NO)	CSW-CKI2F901-10000000-FE10-3VF	12930960	318.00
Red knob 2 fixed pos with LED 220-240 V ac (2NO)	CSW-CKI2F901-20000000-FD66-3VF	12930961	351.00
Red knob 2 fixed pos with LED 24 V ac/dc (1NO)	CSW-CKI2F901-10000000-FE26-3VF	12930962	318.00
Red knob 2 fixed pos with LED 220-240 V ac (1NC)	CSW-CKI2F901-01000000-FD66-3VF	12930964	318.00
Green knob 2 fixed pos with LED 24 V ac/dc (1NO)	CSW-CKI2F902-10000000-FE26-3VF	12930965	318.00
Red knob 3 fixed pos with LED 110-130 V ac (2NO)	CSW-CKI3F451-20000000-FE10-3VF	12930980	351.00
Green knob 3 fixed pos with LED 110-130 V ac (2NO)	CSW-CKI3F452-20000000-FE10-3VF	12930981	351.00
Green knob 3 fixed pos with LED 24 V ac/dc (2NO)	CSW-CKI3F452-20000000-FE26-3VF	12930982	351.00
Red knob 3 fixed pos with LED 220-240 V ac (1NO + 1NC)	CSW-CKI3R451-11000000-FD66-3VF	12930983	351.00
Red knob 3 fixed pos with LED 220-240 V ac (2NO)	CSW-CKI3F451-20000000-FD66-3VF	12930984	351.00
Green knob 3 fixed pos with LED 220-240 V ac (2NO)	CSW-CKI3F452-20000000-FD66-3VF	12930985	351.00

#### SIGNALLING

DESCRIPTION	TYPE	STOCK CODE	PRICE EACH (ZAR)
Diffused white with LED 24 V ac/dc	CSW-SD0-FE26-3VF	12930828	134.00
Diffused red with LED 24 V ac/dc	CSW-SD1-FE26-3VF	12930829	134.00
Diffused green with LED 24 V ac/dc	CSW-SD2-FE26-3VF	12930830	134.00
Diffused yellow with LED 24 V ac/dc	CSW-SD3-FE26-3VF	12930831	134.00
Diffused blue with LED 24 V ac/dc	CSW-SD4-FE26-3VF	12930832	134.00
Diffused orange with LED 24 V ac/dc	CSW-SD6-FE26-3VF	12930833	134.00
Diffused white with LED 48 V ac/dc	CSW-SD0-FE27-3VF	12930834	134.00
Diffused red with LED 48 V ac/dc	CSW-SD1-FE27-3VF	12930835	134.00
Diffused green with LED 48 V ac/dc	CSW-SD2-FE27-3VF	12930836	134.00
Diffused yellow with LED 48 V ac/dc	CSW-SD3-FE27-3VF	12930837	134.00
Diffused blue with LED 48 V ac/dc	CSW-SD4-FE27-3VF	12930878	134.00
Diffused orange with LED 48 V ac/dc	CSW-SD6-FE27-3VF	12930879	134.00
Diffused white with LED 110-130 V ac/dc	CSW-SD0-FE10-3VF	12930880	134.00
Diffused red with LED 110-130 V ac/dc	CSW-SD1-FE10-3VF	12930881	134.00
Diffused green with LED 110-130 V ac/dc	CSW-SD2-FE10-3VF	12930882	134.00
Diffused yellow with LED 110-130 V ac/dc	CSW-SD3-FE10-3VF	12930883	134.00
Diffused blue with LED 110-130 V ac/dc	CSW-SD4-FE10-3VF	12930884	134.00
Diffused orange with LED 110-130 V ac/dc	CSW-SD6-FE10-3VF	12930885	134.00
Diffused white with LED 220-240 V ac	CSW-SD0-FD66-3VF	12930902	134.00
Diffused red with LED 220-240 V ac	CSW-SD1-FD66-3VF	12923060	134.00
Diffused green with LED 220-240 V ac	CSW-SD2-FD66-3VF	12923059	134.00
Diffused yellow with LED 220-240 V ac	CSW-SD3-FD66-3VF	12930903	134.00
Diffused blue with LED 220-240 V ac	CSW-SD4-FD66-3VF	12930904	134.00
Diffused orange with LED 220-240 V ac	CSW-SD6-FD66-3VF	12930905	134.00

Note: 1) Other configurations on request.



# PUSHBUTTONS AND PILOT LIGHTS - CSW

## SIGNALLING

### PILOT LIGHT WITH INTEGRATED LED (MONOBLOCK)

VOLTAGE	COLOUR	PACKING (un)	TYPE	STOCK CODE	PRICE EACH (ZAR)
12 V ac/dc	Red	10	CEW-SM1-E25 <sup>1)</sup>	10046535	50.00
24 V ac/dc		10	CEW-SM1-E26 <sup>1)</sup>	10046540	50.00
110-130 V dc		10	CEW-SM1-C14 <sup>1)</sup>	10046545	50.00
110 V ac		10	CEW-SM1-D13 <sup>1)</sup>	10046525	50.00
220 V ac		10	CEW-SM1-D23 <sup>1)</sup>	10046530	50.00
12 V ac/dc	Green	10	CEW-SM2-E25 <sup>1)</sup>	10046536	50.00
24 V ac/dc		10	CEW-SM2-E26 <sup>1)</sup>	10046541	50.00
110-130 V dc		10	CEW-SM2-C14 <sup>1)</sup>	10046546	50.00
110 V ac		10	CEW-SM2-D13 <sup>1)</sup>	10046526	50.00
220 V ac		10	CEW-SM2-D23 <sup>1)</sup>	10046531	50.00
12 V ac/dc	Yellow	10	CEW-SM3-E25 <sup>1)</sup>	10046537	50.00
24 V ac/dc		10	CEW-SM3-E26 <sup>1)</sup>	10046542	50.00
110-130 V dc		10	CEW-SM3-C14 <sup>1)</sup>	10046547	50.00
110 V ac		10	CEW-SM3-D13 <sup>1)</sup>	10046527	50.00
220 V ac		10	CEW-SM3-D23 <sup>1)</sup>	10046532	50.00
12 V ac/dc	Blue	10	CEW-SM4-E25 <sup>1)</sup>	10046538	98.00
24 V ac/dc		10	CEW-SM4-E26 <sup>1)</sup>	10046543	98.00
110-130 V dc		10	CEW-SM4-C14 <sup>1)</sup>	10046548	98.00
110 V ac		10	CEW-SM4-D13 <sup>1)</sup>	10046528	98.00
220 V ac		10	CEW-SM4-D23 <sup>1)</sup>	10046533	98.00
12 V ac/dc	White	10	CEW-SM0-E25 <sup>1)</sup>	10046539	98.00
24 V ac/dc		10	CEW-SM0-E26 <sup>1)</sup>	10046544	98.00
110-130 V dc		10	CEW-SM0-C14 <sup>1)</sup>	10046549	98.00
110 V ac		10	CEW-SM0-D13 <sup>1)</sup>	10046529	98.00
220 V ac		10	CEW-SM0-D23 <sup>1)</sup>	10046534	98.00

Note: 1) UL pending.



# Automation

## Book 3 - Circuit Protection

The image displays a variety of electrical protection equipment. On the left, there are three rows of components: two rows of smaller circuit breakers and one row of three fuses. In the center is a large, vertical circuit breaker unit with a blue handle and a digital display. On the right, there is a vertical stack of colored rectangular blocks, likely representing different models or specifications of the equipment. At the bottom, there are two motor symbols labeled 'M' with a '3' and a wavy line, connected to a central busbar. Above the components are schematic diagrams showing circuit connections and a transformer symbol.



# GENERAL CHARACTERISTICS



Frame			DWB160	DWB250					
Standard			IEC 60947-2	IEC 60947-2					
Number of poles			2 <sup>1)</sup> , 3, 4 <sup>14)</sup>	2 <sup>1)</sup> , 3, 4 <sup>14)</sup>					
Rated operational voltage	U <sub>e</sub>	V ac	690 <sup>7)</sup>	690 <sup>7)</sup>					
		V dc	500	500					
Insulation voltage	U <sub>i</sub>	V	800	800					
Rated impulse withstand voltage	U <sub>imp</sub>	kV	8	8					
Utilization category	-	-	A	A					
Reference temperature	T	°C	45	45					
Pollution degree	-	-	3	3					
Breaking capacity level									
Rated ultimate short-circuit breaking capacity - I <sub>cu</sub>		kA	B	N	L <sup>2)</sup>	B	N	L <sup>2)</sup>	
		240 V~	25	50	120	40	80	120	
		380 V~	18	30 <sup>3)</sup>	80	18	35	80	
		415 V~	16	30 <sup>3)</sup>	80	16	35	80	
		440 V~	10	20 <sup>4)</sup>	80	15	30	80	
		500 V~	5	8	65	5	8	65	
		550 V~	4	6	25	4	7	25	
		690 V~	3	4	10	3	6	15	
		1 pole	125 V dc	35	65	-	35	65	-
		2 poles in series	250 V dc	35	65	-	35	65	-
3 poles in series	500 V dc	25	50	-	25	50	-		
Rated service short-circuit breaking capacity - I <sub>cs</sub>		kA	B	N	L <sup>2)</sup>	B	N	L <sup>2)</sup>	
		240 V~	25	25	80	40	40	80	
		380 / 400 V~	16	16	60	16	17	60	
		415 V~	16	16	60	16	17	60	
		440 V~	10	10	60	15	15	60	
		500 V~	5	5	50	5	5	50	
		550 V~	4	4	20	4	4	20	
		690 V~	3	3	8	3	3	8	
Type of protection and application <sup>8)12)</sup>									
Thermomagnetic for distribution	Fixed thermal and fixed magnetic	I <sub>n</sub>	A	16, 20, 25, 32, 40, 50, 63, 70, 80, 90, 100, 110, 125, 150, 160	16, 20, 25, 32, 40, 50, 63, 70, 80, 90, 100, 110, 125	Not applicable			
	Adjustable thermal and fixed magnetic	I <sub>n</sub>	A	40, 50, 63, 80, 100, 125, 160	-	100, 125, 160, 200, 250	100, 125, 160, 200		
	Adjustable thermal and adjustable magnetic	I <sub>n</sub>	A	Not applicable		Not applicable			
Thermomagnetic for generator	Fixed thermal and fixed magnetic	I <sub>n</sub>	A	55, 75, 85, 105, 125, 140, 160	Not applicable		Not applicable		
	Adjustable thermal and fixed magnetic	I <sub>n</sub>	A	Not applicable		105, 125, 160, 200, 250	Not applicable		
	Adjustable thermal and adjustable magnetic	I <sub>n</sub>	A	Not applicable		Not applicable			
Magnetic for motor	Fixed magnetic	I <sub>n</sub>	A	Not applicable	25, 32, 40, 50, 65, 80, 95	Not applicable	80, 105, 150, 185, 200		
	Adjustable magnetic	I <sub>n</sub>	A	Not applicable		Not applicable			
Electronic (LSI) for distribution and generator			A	Not applicable		Not applicable			
Switch-disconnector - without thermal and magnetic protection		I <sub>n</sub>	A	125, 160		250			
Mechanical lifespan - C-O cycle				Number of operations/operations per hour		8000 / 120			
Electrical lifespan - C-O cycle (I <sub>n</sub> @ 690 V)				Number of operations/operations per hour		1000 / 120			
Degree of protection				Terminals	IP10		IP10		
				Accessory cover	IP20		IP20		
Maximum air relative humidity				95%		95%			
Connection with cable <sup>11)13)</sup>	Recommended	mm <sup>2</sup>	See the Connection to Terminals section			See the Connection to Terminals section			
	Tightening torque	Nm	6			25 <sup>5)</sup>			
Connection with bar	Recommended cross section (width x thickness)	mm x mm	See the Connection to Terminals section			See the Connection to Terminals section			
	Tightening torque	Nm	6			8			
Resistance to vibration (IEC 60068-2-6)				2 a 13.2 Hz: amplitude ±1 mm 13.2 a 100 Hz: constant of acceleration 0.7 g		2 a 13.2 Hz: amplitude ±1 mm 13.2 a 100 Hz: constant of acceleration 0.7 g			
Resistance to mechanical shocks (IEC 60068-2-27 - 1/2 sine)				12 g for 11ms		12 g for 11ms			
Dimensions (Width x Depth x Height)		mm x mm x mm	2 poles: 78 x 71 x 122 3 poles: 78 x 71 x 122 4 poles: 102.5 x 71 x 122		3 poles: 78 x 136 x 143	2 poles: 105 x 78 x 162 3 poles: 105 x 78 x 162 4 poles: 141 x 75 x 162		3 poles: 105 x 137 x 191	
Net weight		kg	2 poles: 0.79 / 3 poles: 0.9 / 4 poles: 1.24		3 poles: 1.84	2 poles: 1.42 / 3 poles: 1.85 / 4 poles: 2.5		3 poles: 3.75	

Notes: 1) 2 poles on the 3-pole frame, only available with fixed release and breaking capacity level B.

2) Only available on 3-pole frame; not available with protection for generator.

3) For I<sub>n</sub> ≤ 32 A: I<sub>cu</sub> = 20 kA @ 380 V / 415 V.

4) For I<sub>n</sub> ≤ 32 A: I<sub>cu</sub> = 15 kA @ 440 V.

5) Recommended torque for the terminal lugs accessory - PC (sold separately). If lug terminal is used directly on the circuit breaker terminal, consider the recommended torque for connection with bar.

6) Product height without terminal cover.

7) For applications above 2000 m of altitude, consider the derating indicated in the table of page 31.

8) I<sub>n</sub> = rated current (fixed thermal release) or maximum setting value (adjustable thermal release).



# GENERAL CHARACTERISTICS



DWB400		DWB800		DWB1000		DWB1600	
IEC 60947-2		IEC 60947-2		IEC 60947-2		IEC 60947-2	
3, 4 <sup>14)</sup>		3, 4 <sup>14)</sup>		3, 4		3, 4	
690 <sup>7)</sup>		690 <sup>7)</sup>		690 <sup>7)</sup>		415 <sup>7)</sup>	
500		500		-		-	
800		800		800		690	
8		8		8		8	
A		A		A		A	
45		45		45		45	
3		3		3		3	
N	H	S	H	S	H	kA	N
40	80	65	80	65	80	240 V ~	80
35	65	50	65	50	65	380 V ~	35
35	50	50	65	50	65	415 V ~	35
35	50	42	50	42	50	440 V ~	-
20	25	22	25	22	25	500 V ~	-
10	15	12	15	12	15	550 V ~	-
8	10	8	10	8	10	690 V ~	-
35	65	50	65	-	-	125 V dc	-
35	65	50	65	-	-	250 V dc	-
25	50	35	50	-	-	500 V dc	-
N	H	S	H	S	H	kA	N
40	40	40	40	40	40	240 V ~	40
35	35	35	35	35	35	380 V / 400 V ~	20
35	35	35	35	35	35	415 V ~	20
25	25	35	35	35	35	440 V ~	-
12	12	20	20	20	20	500 V ~	-
10	10	10	10	10	10	550 V ~	-
8	8	8	8	8	8	690 V ~	-
Not applicable		Not applicable		Not applicable		Not applicable	
Not applicable		Not applicable		Not applicable		Not applicable	
200, 250, 320, 400		320, 400, 500, 630, 800		Not applicable		Not applicable	
Not applicable		Not applicable		Not applicable		Not applicable	
Not applicable		Not applicable		Not applicable		Not applicable	
200, 250, 320, 400	Not applicable	Not applicable		500, 630, 800, 1000	Not applicable	Not applicable	
Not applicable		Not applicable		Not applicable		Not applicable	
Not applicable	150, 185, 250, 320	Not applicable	420, 500	Not applicable		Not applicable	
Not applicable		Not applicable		500, 630, 800, 1000		1250, 1600	
400		630, 800		1000		1250, 1600	
5000 / 120		3000 / 60		3000 / 60		3000 / 60	
1000 / 120		I <sub>n</sub> =630 A: 1000 / 120 I <sub>n</sub> =800 A: 500 / 60		I <sub>n</sub> =1000 A: 500 / 60		500 / 60	
IP10		IP10		IP10		IP10	
IP20		IP20		IP20		IP20	
95%		95%		95%		95%	
See the Connection to Terminals section		See the Connection to Terminals section		See the Connection to Terminals section		See the Connection to Terminals section	
30 <sup>9)</sup>		50 <sup>9)</sup>		50 <sup>9)</sup>		50 <sup>9)</sup>	
See the Connection to Terminals section		See the Connection to Terminals section		See the Connection to Terminals section		See the Connection to Terminals section	
20		20		20		30 (M10) / 50 (M12)	
2 a 13.2 Hz: amplitude ±1 mm 13.2 a 100 Hz: constant of acceleration 0.7 g 12 g for 11ms		2 a 13.2 Hz: amplitude ±1 mm 13.2 a 100 Hz: constant of acceleration 0.7 g 12 g for 11ms		2 a 13.2 Hz: amplitude ±1 mm 13.2 a 100 Hz: constant of acceleration 0.7 g 12 g for 11ms		2 a 13.2 Hz: amplitude ±1 mm 13.2 a 100 Hz: constant of acceleration 0.7 g 12 g for 11ms	
3 poles: 107 x 99 x 256 4 poles: 141 x 99 x 256		3 poles: 210 x 99 x 256 <sup>9)</sup> 4 poles: 280 x 99 x 256 <sup>9)</sup>		3 poles: 210 x 99 x 256 <sup>9)</sup> 4 poles: 280 x 99 x 256 <sup>9)</sup>		3 poles: 210 x 146 x 345 <sup>9)</sup> 4 poles: 280 x 146 x 345 <sup>9)</sup>	
3 poles: 3.56 / 4 poles: 4.6		3 poles: 7.4 / 4 poles: 9.2		3 poles: 7.4 / 4 poles: 9.2		3 poles: 16.4 / 4 poles: 19.9	

9) Information on thermal dissipation of the circuit breakers available on page 32.

10) Thermal and magnetic operation range available on the Time x Current characteristic curves.

11) See the Installation section. "Connection of cables and bars to terminals", "Direct connection of cables by means of round terminal lugs" and "Direct connection of bar to circuit breaker" tables.

12) For ambient temperature different from 45 °C, consider the deratings of the "Temperature Derating" Table.

13) It is recommended to use terminal lugs accessories - PC (optional accessory for the circuit breakers, except for DWB160, which is supplied with terminal lugs) or BE straight extension bar.

14) DWB160 and DWB250 circuit breakers are available in the four-pole versions with protection on the four poles and 3P+N version with protection on three poles and disconnection on the fourth pole. DWB400 and DWB800 circuit breakers are available in the four-pole versions with protections on three poles and disconnection on the fourth pole.



## PROTECTIONS AND SETTINGS

### PROTECTIONS

In order to meet the different requirements of the different types of load of an electrical circuit, DWB has special versions for each type of load, as shown below.

- ■ **Circuit breakers for distribution:** thermal and magnetic protection for electric circuits in general; setting of the short circuit protection from 5 to 10 times the circuit breaker rated current, with tripping curve according to the criteria of IEC 60947-2 standard.
- ■ **Circuit breakers for motors:** magnetic protection only. The short circuit tripping curve is set from 7.5 to 15 times the circuit breaker rated current. Such setting allows starting the motor without premature trip of the protection system. It is necessary to add an overcurrent relay for protection against motor overload.
- ■ **Circuit breakers for generators:** the protection against short circuit is set to trip up to five times the circuit breaker rated current, protecting the generator against current surges that may damage its electronics and compromise its regulation.

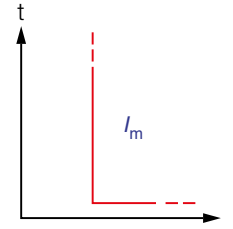
### SETTING FOR CIRCUIT BREAKERS (MOTORS)

#### DWB160 AND DWB250

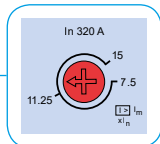


##### Fixed Magnetic Protection

- ■ The circuit breaker tripping curve is fixed

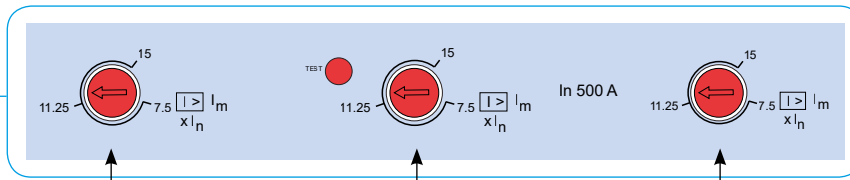
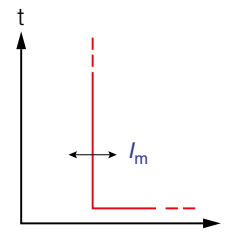


#### DWB400 AND DWB800



##### Adjustable Magnetic Protection

- ■ 7.5 to 15 x I<sub>n</sub> for motors



##### Adjustable Magnetic Protection per Phase

- ■ 7.5 to 15 x I<sub>n</sub> for motors



# PROTECTIONS AND SETTINGS

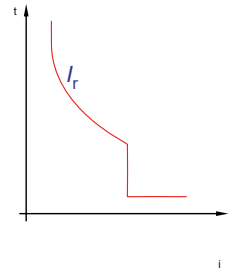
## SETTINGS FOR CIRCUIT BREAKERS (DISTRIBUTION AND GENERATORS)

### DWB160

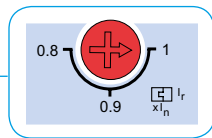
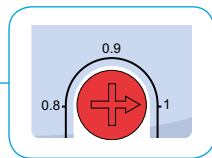
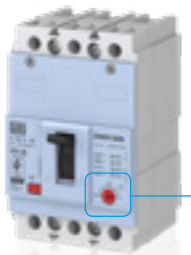


#### Fixed Thermal and Fixed Magnetic

- ■ The circuit breaker tripping curve is fixed

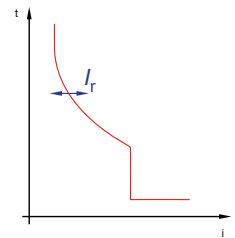


### DWB160 and DWB250

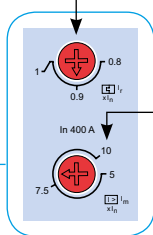


#### Adjustable Thermal and Fixed Magnetic

- ■ The thermal protection curve allows setting the thermal element from 0.8 to 1 x I<sub>n</sub>



### DWB400 and DWB800



#### Adjustable Thermal Protection

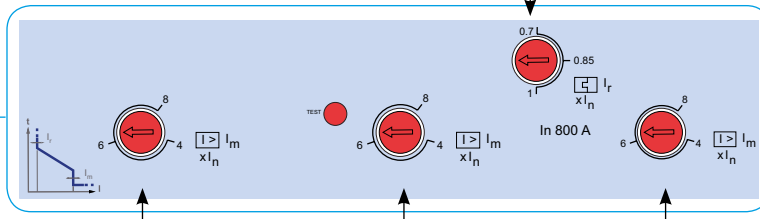
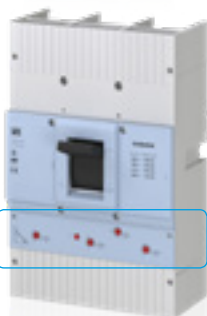
- ■ The thermal protection curve allows setting the thermal element from 0.8 to 1 x I<sub>n</sub>

#### Adjustable Thermal Protection

- ■ 5 to 10 x I<sub>n</sub> for distribution
- ■ 2 to 5 x I<sub>n</sub> for generators

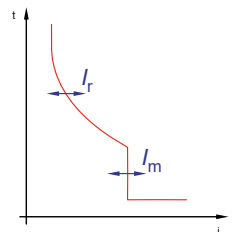
#### Adjustable Thermal Protection

- ■ The thermal protection curve allows setting the thermal element from 0.7 to 1 x I<sub>n</sub>



#### Adjustable Magnetic Protection per Phase<sup>1)</sup>

- ■ 5 to 10 x I<sub>n</sub> for distribution
- ■ 2 to 5 x I<sub>n</sub> for generators



Note: 1) Valid range up to nominal current 630 A. For nominal current 800 A: 4 to 8 x I<sub>n</sub> for distribution.



# MOULDED CASE CIRCUIT-BREAKERS - DWB DISTRIBUTION - 3-POLE

## FIXED THERMAL AND MAGNETIC RELEASES - DWB160-D



### LOW BREAKING CAPACITY DWB160B - 3-POLE

TYPE	In (A)	IEC 60947-2 - I <sub>cu</sub> (kA)			STOCK CODE	PRICE EACH (ZAR)
		220-240 V	380-415 V	440 V		
DWB160B16-3DX	16	25	16	10	11339625	1461.00
DWB160B20-3DX	20	25	16	10	11339626	1461.00
DWB160B25-3DX	25	25	16	10	11339627	1461.00
DWB160B32-3DX	32	25	16	10	11339638	1461.00
DWB160B40-3DX	40	25	16	10	11339640	1461.00
DWB160B50-3DX	50	25	16	10	11339641	1461.00
DWB160B63-3DX	63	25	16	10	11339642	1461.00
DWB160B70-3DX	70	25	16	10	11339643	1461.00
DWB160B80-3DX	80	25	16	10	11339644	1461.00
DWB160B90-3DX	90	25	16	10	11339645	1461.00
DWB160B100-3DX	100	25	16	10	11322258	1461.00
DWB160B110-3DX	110	25	16	10	11339646	1534.00
DWB160B125-3DX	125	25	16	10	11339647	1534.00
DWB160B150-3DX	150	25	16	10	11339658	1534.00
DWB160B160-3DX	160	25	16	10	11339659	1534.00

### NORMAL BREAKING CAPACITY DWB160N - 3-POLE

TYPE	In (A)	IEC 60947-2 - I <sub>cu</sub> (kA)			STOCK CODE	PRICE EACH (ZAR)
		220-240 V	380-415 V	440 V		
DWB160N16-3DX	16	50	25	20	11339663	1608.00
DWB160N20-3DX	20	50	25	20	11339664	1608.00
DWB160N25-3DX	25	50	25	20	11339665	1608.00
DWB160N32-3DX	32	50	25	20	11339667	1608.00
DWB160N40-3DX	40	50	30	25	11339698	1608.00
DWB160N50-3DX	50	50	30	25	11339699	1608.00
DWB160N63-3DX	63	50	30	25	11339700	1608.00
DWB160N70-3DX	70	50	30	25	11339701	1608.00
DWB160N80-3DX	80	50	30	25	11339702	1608.00
DWB160N90-3DX	90	50	30	25	11339703	1608.00
DWB160N100-3DX	100	50	30	25	11339704	1608.00
DWB160N110-3DX	110	50	30	25	11339705	1681.00
DWB160N125-3DX	125	50	30	25	11339706	1681.00
DWB160N150-3DX	150	50	30	25	11339707	1681.00
DWB160N160-3DX	160	50	30	25	11339718	1681.00

Note: Article numbers for 2-Pole MCCBs upon request. For prices, consider the 2-Pole MCCB 15% cheaper than its respective 3-Pole version.



## MOULDED CASE CIRCUIT-BREAKERS - DWB DISTRIBUTION - 3-POLE

### FIXED THERMAL AND MAGNETIC RELEASES - DWB160-D

### HIGH BREAKING CAPACITY DWB160L - 3-POLE

TYPE	In (A)	IEC 60947-2 - I <sub>cu</sub> (kA)			STOCK CODE	PRICE EACH (ZAR)
		220-240 V	380-415 V	440 V		
DWB160L16-3DX	16	120	80	80	11339721	3361.00
DWB160L20-3DX	20	120	80	80	11339722	3361.00
DWB160L25-3DX	25	120	80	80	11339723	3361.00
DWB160L32-3DX	32	120	80	80	11339724	3361.00
DWB160L40-3DX	40	120	80	80	11339725	3361.00
DWB160L50-3DX	50	120	80	80	11339726	3361.00
DWB160L63-3DX	63	120	80	80	11339727	3361.00
DWB160L70-3DX	70	120	80	80	11339748	3361.00
DWB160L80-3DX	80	120	80	80	11339749	3361.00
DWB160L90-3DX	90	120	80	80	11339750	3361.00
DWB160L100-3DX	100	120	80	80	11339751	3361.00
DWB160L110-3DX	110	120	80	80	11339753	3507.00
DWB160L125-3DX	125	120	80	80	11339754	3507.00

Note: Article numbers for 2-Pole MCCBs upon request. For prices, consider the 2-Pole MCCB 15% cheaper than its respective 3-Pole version.



# MOULDED CASE CIRCUIT-BREAKERS - DWB DISTRIBUTION - 3-POLE

## ADJUSTABLE THERMAL AND FIXED MAGNETIC RELEASES - DWB160-D



### LOW BREAKING CAPACITY DWB160B - 3-POLE

TYPE	In (A)	IEC 60947-2 - I <sub>cu</sub> (kA)			STOCK CODE	PRICE EACH (ZAR)
		220-240 V	380-415 V	440 V		
DWB160B40-3DF	32...40	25	16	10	11631355	1534.00
DWB160B50-3DF	40...50	25	16	10	11631358	1534.00
DWB160B63-3DF	50...63	25	16	10	11631361	1534.00
DWB160B80-3DF	64...80	25	16	10	11631364	1534.00
DWB160B100-3DF	80...100	25	16	10	11631367	1534.00
DWB160B125-3DF	100...125	25	16	10	11631380	1681.00
DWB160B160-3DF	128...160	25	16	10	11631383	1681.00

### NORMAL BREAKING CAPACITY DWB160N - 3-POLE

TYPE	In (A)	IEC 60947-2 - I <sub>cu</sub> (kA)			STOCK CODE	PRICE EACH (ZAR)
		220-240 V	380-415 V	440 V		
DWB160N40-3DF	32...40	50	30	25	11631362	1681.00
DWB160N50-3DF	40...50	50	30	25	11631363	1681.00
DWB160N63-3DF	50...63	50	30	25	11631365	1681.00
DWB160N80-3DF	64...80	50	30	25	11631366	1681.00
DWB160N100-3DF	80...100	50	30	25	11631378	1681.00
DWB160N125-3DF	100...125	50	30	25	11631379	1754.00
DWB160N160-3DF	128...160	50	30	25	11631381	1754.00

### HIGH BREAKING CAPACITY DWB160L - 3 POLE

TYPE	In (A)	IEC 60947-2 - I <sub>cu</sub> (kA)			STOCK CODE	PRICE EACH (ZAR)
		220-240 V	380-415 V	440 V		
DWB160L40-3DF	32...40	120	80	80	11631340	3653.00
DWB160L50-3DF	40...50	120	80	80	11631342	3653.00
DWB160L63-3DF	50...63	120	80	80	11631343	3653.00
DWB160L80-3DF	64...80	120	80	80	11631344	3653.00
DWB160L100-3DF	80...100	120	80	80	11631346	3653.00

Note: Article numbers for 2-Pole MCCBs upon request. For prices, consider the 2-Pole MCCB 15% cheaper than its respective 3-Pole version.



# MOULDED CASE CIRCUIT-BREAKERS - DWB DISTRIBUTION - 3-POLE

## ADJUSTABLE THERMAL AND FIXED MAGNETIC RELEASES - DWB250-D



### LOW BREAKING CAPACITY DWB250B - 3-POLE

TYPE	In (A)	IEC 60947-2 - I <sub>cu</sub> (kA)			STOCK CODE	PRICE EACH (ZAR)
		220-240 V	380-415 V	440 V		
DWB250B100-3DF	80...100	42	16	15	11339768	2601.00
DWB250B125-3DF	100...125	42	16	15	11339769	2601.00
DWB250B160-3DF	125...160	42	16	15	11339770	2601.00
DWB250B200-3DF	160...200	42	16	15	11339772	2764.00
DWB250B250-3DF	200...250	42	16	15	11339773	2764.00

### NORMAL BREAKING CAPACITY DWB250N - 3-POLE

TYPE	In (A)	IEC 60947-2 - I <sub>cu</sub> (kA)			STOCK CODE	PRICE EACH (ZAR)
		220-240 V	380-415 V	440 V		
DWB250N100-3DF	80...100	85	35	30	11339775	2861.00
DWB250N125-3DF	100...125	85	35	30	11339776	2861.00
DWB250N160-3DF	125...160	85	35	30	11339777	2861.00
DWB250N200-3DF	160...200	85	35	30	11339798	3040.00
DWB250N250-3DF	200...250	85	35	30	11339799	3040.00

### HIGH BREAKING CAPACITY DWB250L - 3-POLE

TYPE	In (A)	IEC 60947-2 - I <sub>cu</sub> (kA)			STOCK CODE	PRICE EACH (ZAR)
		220-240 V	380-415 V	440 V		
DWB250L100-3DF	80...100	120	80	80	11339801	7315.00
DWB250L125-3DF	100...125	120	80	80	11339802	7315.00
DWB250L160-3DF	125...160	120	80	80	11339803	7315.00
DWB250L200-3DF	160...200	120	80	80	11339804	7477.00

Note: Article numbers for 2-Pole MCCBs upon request. For prices, consider the 2-Pole MCCB 15% cheaper than its respective 3-Pole version.



# MOULDED CASE CIRCUIT-BREAKERS - DWB DISTRIBUTION - 3-POLE

## ADJUSTABLE THERMAL AND MAGNETIC RELEASES - DWB400



### NORMAL BREAKING CAPACITY DWB400N - 3-POLE

TYPE	RATED CURRENT (A)	$I_m$ (A)	IEC 60947-2 - $I_{cu}$ (kA)			STOCK CODE	PRICE EACH (ZAR)
			220-240 V	380-415 V	440 V		
DWB400N200-3DA	160...200	1.000...2.000	65	35	35	12534150	4750.00
DWB400N250-3DA	200...250	1.250...2.500	65	35	35	12534149	4750.00
DWB400N320-3DA	250...320	1.600...3.200	65	35	35	12534148	5429.00
DWB400N400-3DA	320...400	2.000...4.000	65	35	35	12534127	5429.00

### HIGH BREAKING CAPACITY DWB400H - 3-POLE

TYPE	RATED CURRENT (A)	$I_m$ (A)	IEC 60947-2 - $I_{cu}$ (kA)			STOCK CODE	PRICE EACH (ZAR)
			220-240 V	380-415 V	440 V		
DWB400H200-3DA	160...200	1.000...2.000	80	65	65	12534122	5429.00
DWB400H250-3DA	200...250	1.250...2.500	80	65	65	12534121	5429.00
DWB400H320-3DA	250...320	1.600...3.200	80	65	65	12534120	5836.00
DWB400H400-3DA	320...400	2.000...4.000	80	65	65	12534106	5836.00

Note: Article numbers for 2-Pole MCCBs upon request. For prices, consider the 2-Pole MCCB 15% cheaper than its respective 3-Pole version.



## MOULDED CASE CIRCUIT-BREAKERS - DWB DISTRIBUTION - 3-POLE

### ADJUSTABLE THERMAL AND MAGNETIC RELEASES - DWB800



#### NORMAL BREAKING CAPACITY DWB800S - 3-POLE

TYPE	RATED CURRENT (A)	$I_m$ (A)	IEC 60947-2 - $I_{cu}$ (kA)			STOCK CODE	PRICE EACH (ZAR)
			220-240 V	380 V	440 V		
DWB800S320-3DA	256...320	2.560...3.200	65	50	42	13467830	9022.00
DWB800S400-3DA	320...400	3.200...4.000	65	50	42	13467831	9022.00
DWB800S500-3DA	350...500	3.500...5.000	65	50	42	13467833	9022.00
DWB800S630-3DA	440...630	4.400...6.300	65	50	42	13467879	10224.00
DWB800S800-3DA	560...800	5.600...8.000	65	50	42	13467880	17344.00

#### HIGH BREAKING CAPACITY DWB800H - 3-POLE

TYPE	RATED CURRENT (A)	$I_m$ (A)	IEC 60947-2 - $I_{cu}$ (kA)			STOCK CODE	PRICE EACH (ZAR)
			220-240 V	380 V	440 V		
DWB800H320-3DA	256...320	2.560...3.200	80	65	50	13467899	9338.00
DWB800H400-3DA	320...400	3.200...4.000	80	65	50	13467902	9338.00
DWB800H500-3DA	350...500	3.500...5.000	80	65	50	13467904	9338.00
DWB800H630-3DA	440...630	4.400...6.300	80	65	50	13467905	10584.00
DWB800H800-3DA	560...800	5.600...8.000	80	65	50	13467906	18676.00

## MOULDED CASE CIRCUIT-BREAKERS - DWB DISTRIBUTION AND GENERATOR PROTECTION - 3-POLE

### ELECTRONIC TRIP UNIT LSI - DWB1000



#### NORMAL BREAKING CAPACITY DWB1000S - 3-POLE

TYPE	RATED CURRENT (A)	$I_m$ (A)	IEC 60947-2 - $I_{cu}$ (kA)			STOCK CODE	PRICE EACH (ZAR)
			220-240 V	380 V	440 V		
DWB1000S500-3ET	200...500	2.500...5.000	65	50	42	13468912	19275.00
DWB1000S630-3ET	252...630	3.150...6.300	65	50	42	13468913	19275.00
DWB1000S800-3ET	320...800	4.000...8.000	65	50	42	13468914	19275.00
DWB1000S1000-3ET	400...1.000	5.000...10.000	65	50	42	13468915	19275.00

#### HIGH BREAKING CAPACITY DWB1000H - 3-POLE

TYPE	RATED CURRENT (A)	$I_m$ (A)	IEC 60947-2 - $I_{cu}$ (kA)			STOCK CODE	PRICE EACH (ZAR)
			220-240 V	380 V	440 V		
DWB1000H500-3ET	200...500	2.500...5.000	80	65	50	13468930	20756.00
DWB1000H630-3ET	252...630	3.150...6.300	80	65	50	13468931	20756.00
DWB1000H800-3ET	320...800	4.000...8.000	80	65	50	13468932	20756.00
DWB1000H1000-3ET	400...1.000	5.000...10.000	80	65	50	13468934	20756.00

Note: Article numbers for 2-Pole MCCBs upon request. For prices, consider the 2-Pole MCCB 15% cheaper than its respective 3-Pole version.



## MOULDED CASE CIRCUIT-BREAKERS - DWA DISTRIBUTION AND GENERATOR PROTECTION - 3-POLE

### ELECTRONIC TRIP UNIT LSI - DWA1600-E



### NORMAL BREAKING CAPACITY DWA1600S - 3-POLE

TYPE	$I_n$ (A)	$I_m$ (A)	IEC 60947-2 - $I_{cu}$ (kA)			STOCK CODE	PRICE EACH (ZAR)
			220-240 V	380-415 V	440 V		
DWA1600S-E1250-3	500...1.250	6.250...12.500	80	50	50	12282712	25678.00
DWA1600S-E1600-3	640...1.600	8.000...16.000	80	50	50	11968153	31075.00

### HIGH BREAKING CAPACITY DWA1600H - 3-POLE

TYPE	$I_n$ (A)	$I_m$ (A)	IEC 60947-2 - $I_{cu}$ (kA)			STOCK CODE	PRICE EACH (ZAR)
			220-240 V	380-415 V	440 V		
DWA1600H-E1250-3	500...1.250	6.250...12.500	100	65	65	12282714	30584.00
DWA1600H-E1600-3	640...1.600	8.000...16.000	100	65	65	12282713	32792.00

## MOULDED CASE CIRCUIT-BREAKERS - DWB M MOTOR CIRCUIT PROTECTION - 3-POLE

### FIXED MAGNETIC RELEASE ONLY - DWB160-M



### LOW BREAKING CAPACITY DWB160N - 3-POLE

TYPE	$I_n$ (A)	$I_m$ (A)	IEC 60947-2 - $I_{cu}$ (kA)			STOCK CODE	PRICE EACH (ZAR)
			220-240 V	380-415 V	440 V		
DWB160N25-3MF	25	300	50	25	15	11339864	1754.00
DWB160N32-3MF	32	385	50	25	15	11339865	1754.00
DWB160N40-3MF	40	480	50	30	20	11339866	1754.00
DWB160N50-3MF	50	600	50	30	20	11339867	1841.00
DWB160N65-3MF	65	780	50	30	20	11339928	1841.00
DWB160N80-3MF	80	960	50	30	20	11339929	1841.00
DWB160N95-3MF	95	1.140	50	30	20	11339930	1841.00

### HIGH BREAKING CAPACITY DWB160L - 3-POLE

TYPE	$I_n$ (A)	$I_m$ (A)	IEC 60947-2 - $I_{cu}$ (kA)			STOCK CODE	PRICE EACH (ZAR)
			220-240 V	380-415 V	440 V		
DWB160L25-3MF	25	300	120	80	80	11339936	3653.00
DWB160L32-3MF	32	385	120	80	80	11339937	3653.00
DWB160L40-3MF	40	480	120	80	80	11339948	3653.00
DWB160L50-3MF	50	600	120	80	80	11339950	3799.00
DWB160L65-3MF	65	780	120	80	80	11339951	3799.00
DWB160L80-3MF	80	960	120	80	80	11339952	3799.00
DWB160L95-3MF	95	1.140	120	80	80	11339953	3799.00

Note: Article numbers for 2-Pole MCCBs upon request. For prices, consider the 2-Pole MCCB 15% cheaper than its respective 3-Pole version.



## MOULDED CASE CIRCUIT-BREAKERS - DWB M MOTOR BRANCH CIRCUIT PROTECTION - 3-POLE

### FIXED MAGNETIC RELEASE ONLY - DWB250-M



### NORMAL BREAKING CAPACITY DWB250N - 3-POLE

TYPE	I <sub>n</sub> (A)	I <sub>m</sub> (A)	IEC 60947-2 - I <sub>cu</sub> (kA)			STOCK CODE	PRICE EACH (ZAR)
			220-240 V	380-415 V	440 V		
DWB250N80-3MF	80	960	85	35	30	11340029	3008.00
DWB250N105-3MF	105	1.260	85	35	30	11340031	3008.00
DWB250N150-3MF	150	1.800	85	35	30	11340032	3008.00
DWB250N185-3MF	185	2.220	85	35	30	11340033	3008.00
DWB250N200-3MF	200	2.400	85	35	30	11631304	3170.00

### HIGH BREAKING CAPACITY DWB250L - 3-POLE

TYPE	I <sub>n</sub> (A)	I <sub>m</sub> (A)	IEC 60947-2 - I <sub>cu</sub> (kA)			STOCK CODE	PRICE EACH (ZAR)
			220-240 V	380-415 V	440 V		
DWB250L80-3MF	80	960	120	80	80	11340035	7559.00
DWB250L105-3MF	105	1.260	120	80	80	11340037	7559.00
DWB250L150-3MF	150	1.800	120	80	80	11340058	7559.00
DWB250L185-3MF	185	2.220	120	80	80	11340059	7559.00
DWB250L200-3MF	200	2.400	120	80	80	11631305	7802.00

### ADJUSTABLE MAGNETIC RELEASE ONLY - DWB400-M



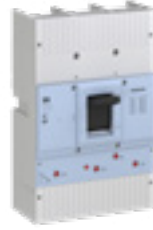
### NORMAL BREAKING CAPACITY DWB400H - 3-POLE

TYPE	I <sub>n</sub> (A)	I <sub>m</sub> (A)	IEC 60947-2 - I <sub>cu</sub> (kA)			STOCK CODE	PRICE EACH (ZAR)
			220-240 V	380-415 V	440 V		
DWB400H150-3MA	150	1.125...2.250	80	65	65	12534076	5700.00
DWB400H185-3MA	185	1.400...2.775	80	65	65	12534075	5700.00
DWB400H250-3MA	250	1.900...3.750	80	65	65	12534074	5700.00
DWB400H320-3MA	320	2.400...4.800	80	65	65	12534073	6107.00



## MOULDED CASE CIRCUIT-BREAKERS - DWB M MOTOR BRANCH CIRCUIT PROTECTION - 3-POLE

### ADJUSTABLE MAGNETIC RELEASE ONLY - DWB800-M



### HIGH BREAKING CAPACITY DWM800H - 3-POLE

TYPE	I <sub>n</sub> (A)	I <sub>m</sub> (A)	IEC 60947-2 - I <sub>cu</sub> (kA)			STOCK CODE	PRICE EACH (ZAR)
			220-240 V	380-415 V	440 V		
DWB800H420-3MA	420	3.150...6.300	80	65	50	13467997	13004.00
DWB800H500-3MA	500	3.750...7.500	80	65	50	13468019	14954.00

## MOULDED CASE CIRCUIT-BREAKERS - DWM MOTOR BRANCH CIRCUIT PROTECTION - 3-POLE

### ADJUSTABLE MAGNETIC RELEASE ONLY - DWM1600



### HIGH BREAKING CAPACITY DWM1600H - 3-POLE

TYPE	I <sub>n</sub> (A)	I <sub>m</sub> (A)	IEC 60947-2 - I <sub>cu</sub> (kA)			STOCK CODE	PRICE EACH (ZAR)
			220-240 V	380-415 V	440 V		
DWM1600H-700-3	700	5.250...10.500	100	65	65	10046955	23322.00
DWM1600H-800-3	800	6.000...12.000	100	65	65	10046956	23322.00
DWM1600H-1000-3	1.000	7.500...15.000	100	65	65	10046957	25442.00

Note: DWM and DWG use the same accessories of DWA range.

Article numbers for 2-Pole MCCBs upon request. For prices, consider the 2-Pole MCCB 15% cheaper than its respective 3-Pole version.



# MOULDED CASE CIRCUIT-BREAKERS - DWB DISTRIBUTION - 4-POLE - NEUTRAL - NOT PROTECTED

## FIXED THERMAL AND MAGNETIC RELEASES - DWB160-D



## LOW BREAKING CAPACITY DWB160B - 4-POLE

TYPE	I <sub>n</sub> (A)	IEC 60947-2 - I <sub>cu</sub> (kA)			STOCK CODE	PRICE EACH (ZAR)
		220-240 V	380-415 V	440 V		
DWB160B16-4DX	16	25	16	10	12318372	1900.00
DWB160B20-4DX	20	25	16	10	12318373	1900.00
DWB160B25-4DX	25	25	16	10	12318374	1900.00
DWB160B32-4DX	32	25	16	10	12318375	1900.00
DWB160B40-4DX	40	25	16	10	12318376	1900.00
DWB160B50-4DX	50	25	16	10	12318377	1900.00
DWB160B63-4DX	63	25	16	10	12318458	1900.00
DWB160B70-4DX	70	25	16	10	12318459	1900.00
DWB160B80-4DX	80	25	16	10	12318460	1900.00
DWB160B90-4DX	90	25	16	10	12318461	1900.00
DWB160B100-4DX	100	25	16	10	12318462	1900.00
DWB160B110-4DX	110	25	16	10	12318463	1995.00
DWB160B125-4DX	125	25	16	10	12318464	1995.00
DWB160B150-4DX	150	25	16	10	12318465	1995.00
DWB160B160-4DX	160	25	16	10	12318466	1995.00



## MOULDED CASE CIRCUIT-BREAKERS - DWB DISTRIBUTION - 4-POLE - NEUTRAL - NOT PROTECTED

### FIXED THERMAL AND MAGNETIC RELEASES - DWB160-D



#### NORMAL BREAKING CAPACITY DWB160N - 4-POLE

TYPE	I <sub>n</sub> (A)	IEC 60947-2 - I <sub>cu</sub> (kA)			STOCK CODE	PRICE EACH (ZAR)
		220-240 V	380-415 V	440 V		
DWB160N16-4DX	16	50	25	20	12318568	2090.00
DWB160N20-4DX	20	50	25	20	12318569	2090.00
DWB160N25-4DX	25	50	25	20	12318570	2090.00
DWB160N32-4DX	32	50	25	20	12318571	2090.00
DWB160N40-4DX	40	50	30	25	12318572	2090.00
DWB160N50-4DX	50	50	30	25	12318573	2090.00
DWB160N63-4DX	63	50	30	25	12318574	2090.00
DWB160N70-4DX	70	50	30	25	12318575	2090.00
DWB160N80-4DX	80	50	30	25	12318577	2090.00
DWB160N90-4DX	90	50	30	25	12318631	2090.00
DWB160N100-4DX	100	50	30	25	12318632	2090.00
DWB160N110-4DX	110	50	30	25	12318633	2185.00
DWB160N125-4DX	125	50	30	25	12318634	2185.00
DWB160N150-4DX	150	50	30	25	12318635	2185.00
DWB160N160-4DX	160	50	30	25	12318636	2185.00

## MOULDED CASE CIRCUIT-BREAKERS - DWB DISTRIBUTION - 4-POLE - NEUTRAL - NOT PROTECTED

### ADJUSTABLE THERMAL AND FIXED MAGNETIC RELEASES - DWB250-D



#### LOW BREAKING CAPACITY DWB250B - 4-POLE

TYPE	I <sub>n</sub> (A)	IEC 60947-2 - I <sub>cu</sub> (kA)			STOCK CODE	PRICE EACH (ZAR)
		220-240 V	380-415 V	440 V		
DWB160B150-4DXP	150	25	16	10	12318467	1995.00
DWB160B160-4DXP	160	25	16	10	12318468	1995.00

#### NORMAL BREAKING CAPACITY DWB250N - 4-POLE

TYPE	I <sub>n</sub> (A)	IEC 60947-2 - I <sub>cu</sub> (kA)			STOCK CODE	PRICE EACH (ZAR)
		220-240 V	380-415 V	440 V		
DWB160N150-4DXP	150	50	30	20	12318637	2185.00
DWB160N160-4DXP	160	50	30	20	12318658	2185.00



# MOULDED CASE CIRCUIT-BREAKERS - DWB DISTRIBUTION - 4-POLE - NEUTRAL - NOT PROTECTED

## ADJUSTABLE THERMAL AND MAGNETIC RELEASES - DWB400-D



TYPE	I <sub>r</sub> (A)	IEC 60947-2 - I <sub>cu</sub> (kA)			STOCK CODE	PRICE EACH (ZAR)
		220-240 V	380-415 V	440 V		
DWB250B100-4DFT	80...100	42	16	15	12318954	3381.00
DWB250B125-4DFT	100...125	42	16	15	12318955	3381.00
DWB250B160-4DFT	125...160	42	16	15	12318956	3381.00
DWB250B200-4DFT	160...200	42	16	15	12318957	3593.00
DWB250B250-4DFT	200...250	42	16	15	12318958	3593.00

TYPE	I <sub>r</sub> (A)	IEC 60947-2 - I <sub>cu</sub> (kA)			STOCK CODE	PRICE EACH (ZAR)
		220-240 V	380-415 V	440 V		
DWB250N100-4DFT	80...100	85	35	30	12319508	3723.00
DWB250N125-4DFT	100...125	85	35	30	12319509	3723.00
DWB250N160-4DFT	125...160	85	35	30	12319510	3723.00
DWB250N200-4DFT	160...200	85	35	30	12319511	3958.00
DWB250N250-4DFT	200...250	85	35	30	12319512	3958.00

## NORMAL BREAKING CAPACITY DWB400N - 4-POLE

TYPE	I <sub>r</sub> (A)	I <sub>m</sub> (A)	IEC 60947-2 - I <sub>cu</sub> (kA)			STOCK CODE	PRICE EACH (ZAR)
			220-240 V	380-415 V	440 V		
DWB400N200-4DA	160...200	1.000...2.000	65	35	35	12534010	6175.00
DWB400N250-4DA	200...250	1.250...2.500	65	35	35	12534011	6175.00
DWB400N320-4DA	250...320	1.600...3.200	65	35	35	12534012	7057.00
DWB400N400-4DA	320...400	2.000...4.000	65	35	35	12534013	7057.00

## HIGH BREAKING CAPACITY DWB400H - 4-POLE

TYPE	I <sub>r</sub> (A)	I <sub>m</sub> (A)	IEC 60947-2 - I <sub>cu</sub> (kA)			STOCK CODE	PRICE EACH (ZAR)
			220-240 V	380-415 V	440 V		
DWB400H200-4DA	160...200	1.000...2.000	80	65	65	12534068	7057.00
DWB400H250-4DA	200...250	1.250...2.500	80	65	65	12534069	7057.00
DWB400H320-4DA	250...320	1.600...3.200	80	65	65	12534070	7587.00
DWB400H400-4DA	320...400	2.000...4.000	80	65	65	12534071	7587.00



# MOULDED CASE CIRCUIT-BREAKERS - DWB DISTRIBUTION - 4-POLE - NEUTRAL - NOT PROTECTED

## ADJUSTABLE THERMAL AND MAGNETIC RELEASES - DWB800



### NORMAL BREAKING CAPACITY DWB800S - 4-POLE

TYPE	RATED CURRENT (A)	$I_m$ (A)	IEC 60947-2 - $I_{cu}$ (kA)			STOCK CODE	PRICE EACH (ZAR)
			220-240 V	380-415 V	440 V		
DWB800S320-4DA	256...320	2.560...3.200	65	50	42	13467882	11728.00
DWB800S400-4DA	320...400	3.200...4.000	65	50	42	13467883	11728.00
DWB800S500-4DA	350...500	3.500...5.000	65	50	42	13467885	11728.00
DWB800S630-4DA	440...630	4.400...6.300	65	50	42	13467886	13291.00
DWB800S800-4DA	560...800	5.600...8.000	65	50	42	13467887	22545.00

### HIGH BREAKING CAPACITY DWB800H - 4-POLE

TYPE	RATED CURRENT (A)	$I_m$ (A)	IEC 60947-2 - $I_{cu}$ (kA)			STOCK CODE	PRICE EACH (ZAR)
			220-240 V	380-415 V	440 V		
DWB800H320-4DA	256...320	2.560...3.200	80	65	50	13467960	12140.00
DWB800H400-4DA	320...400	3.200...4.000	80	65	50	13467961	12140.00
DWB800H500-4DA	350...500	3.500...5.000	80	65	50	13467962	12140.00
DWB800H630-4DA	440...630	4.400...6.300	80	65	50	13467963	13758.00
DWB800H800-4DA	560...800	5.600...8.000	80	65	50	13467964	24279.00

## ELECTRONIC TRIP UNIT LSI - DWB1000



### NORMAL BREAKING CAPACITY DWB1000S - 4-POLE

TYPE	RATED CURRENT (A)	$I_m$ (A)	IEC 60947-2 - $I_{cu}$ (kA)			STOCK CODE	PRICE EACH (ZAR)
			220-240 V	380 V	440 V		
DWB1000S500-4ET	200...500	2.500...5.000	65	50	42	13468916	25058.00
DWB1000S630-4ET	252...630	3.150...6.300	65	50	42	13468917	25058.00
DWB1000S800-4ET	320...800	4.000...8.000	65	50	42	13468928	25058.00
DWB1000S1000-4ET	400...1.000	5.000...10.000	65	50	42	13468929	25058.00

### HIGH BREAKING CAPACITY DWB1000H - 4-POLE

TYPE	RATED CURRENT (A)	$I_m$ (A)	IEC 60947-2 - $I_{cu}$ (kA)			STOCK CODE	PRICE EACH (ZAR)
			220-240 V	380 V	440 V		
DWB1000H500-4ET	200...500	2.500...5.000	80	65	50	13468936	27056.00
DWB1000H630-4ET	252...630	3.150...6.300	80	65	50	13468937	27056.00
DWB1000H800-4ET	320...800	4.000...8.000	80	65	50	13468968	27056.00
DWB1000H1000-4ET	400...1.000	5.000...10.000	80	65	50	13468969	27056.00



## MOULDED CASE CIRCUIT-BREAKERS - DWA DISTRIBUTION - 4-POLE

### ELECTRONIC TRIP UNIT LSI - DWA1600-E<sup>1)</sup>



### NORMAL BREAKING CAPACITY DWA1600S - 4-POLE

TYPE	I <sub>r</sub> (A)	I <sub>m</sub> (A)	IEC 60947-2 - I <sub>cu</sub> (kA)			STOCK CODE	PRICE EACH (ZAR)
			220-240 V	380-415 V	440 V		
DWA1600S-E1250-4	500...1.250	6.250...12.500	80	50	50	12736311	34665.00
DWA1600S-E1600-4	640...1.600	8.000...16.000	80	50	50	12524259	36254.00

### HIGH BREAKING CAPACITY DWA1600H - 4-POLE

TYPE	I <sub>r</sub> (A)	I <sub>m</sub> (A)	IEC 60947-2 - I <sub>cu</sub> (kA)			STOCK CODE	PRICE EACH (ZAR)
			220-240 V	380-415 V	440 V		
DWA1600H-E1250-4	500...1.250	6.250...12.500	100	65	65	12736312	38683.00
DWA1600H-E1600-4	640...1.600	8.000...16.000	100	65	65	12524258	38162.00



# ACCESSORIES

## OVERVIEW

Description	Reference	DWB160	DWB250	DWB400	DWB800	DWB 1000	DWB1600
Auxiliary/alarm contact <sup>1)2)</sup>	BC1-NOC	√	√	√	√	√	√
	BC2-NOC	√	√	√	√	√	√
	BC3-NOC	-	-	-	-	-	√
	AL1-NOC	√	√	√	√	√	√
	BC/AL2-NOC	√	√	√	√	√	√
	BC/AL3-NOC	-	-	-	-	-	√
Undervoltage release BS <sup>2)</sup>	110/127 V ac	-	-	√	√	√	√
	220/240 V ac	-	-	√	√	√	√
	380-415 V ac	-	-	√	√	√	√
	440-480 V ac	-	-	√	√	√	√
	24 V dc	-	-	√	√	√	√
	48 V dc	-	-	√	√	√	√
	125 V dc	-	-	-	√	√	√
	24 V ac / V dc	√	√	-	-	-	-
	48 V ac / V dc	√	√	-	-	-	-
	60 V ac / V dc	√	√	-	-	-	-
	110/130 V ac / V dc	√	√	-	-	-	-
220/250 V ac / V dc	√	√	-	-	-	-	
Shunt trip BD <sup>2)</sup>	24 V ac / V dc	√	√	√	√	√	√
	48 V ac / V dc	√	√	√	√	√	√
	60 V ac / V dc	√	√	-	-	-	-
	110/130 V ac / V dc	√	√	√	√	√	√
	220/250 V ac / V dc	√	√	√	√	√	√
Panel door rotary operating handle	MR / MRX	√	√	√	√	√	√
	MRXS	√	√	-	-	-	-
	MRXL	√	√	√	√	√	√
Internal rotary handle	MRI	-	-	√	√	√	√
Din rail base	BFR	√	√	-	-	-	-
Front mechanical interlock	BLIM	√	√	√	√	√	√
Padlocking device	PLW	√	√	√	√	√	√
90° connection extension bars	CT	√	√	√	√	√	√
Straight extension bars	BE	√	√	√	√	√	√
Terminal lugs	PC	√ <sup>3)</sup>	√	√	√	√	√
Escutcheon	MP	√	√	√	√	√	√
Motor operator	AM	-	-	√	√	√	√
Phase barrier	PB	√	√	√	-	-	-
90° connection extension bars protection cover	CP	√	√	√	√	√	-

Notes: 1) For combination of BC + AL, always consider the BC/AL block. It is not possible to assemble individual blocks on the circuit breaker.

For example: BC1 + AL1. Replace this combination by the BC/AL2 block.

2) DWB circuit breakers are supplied without accessories. The accessories must be purchased separately and assembled at the customer's.

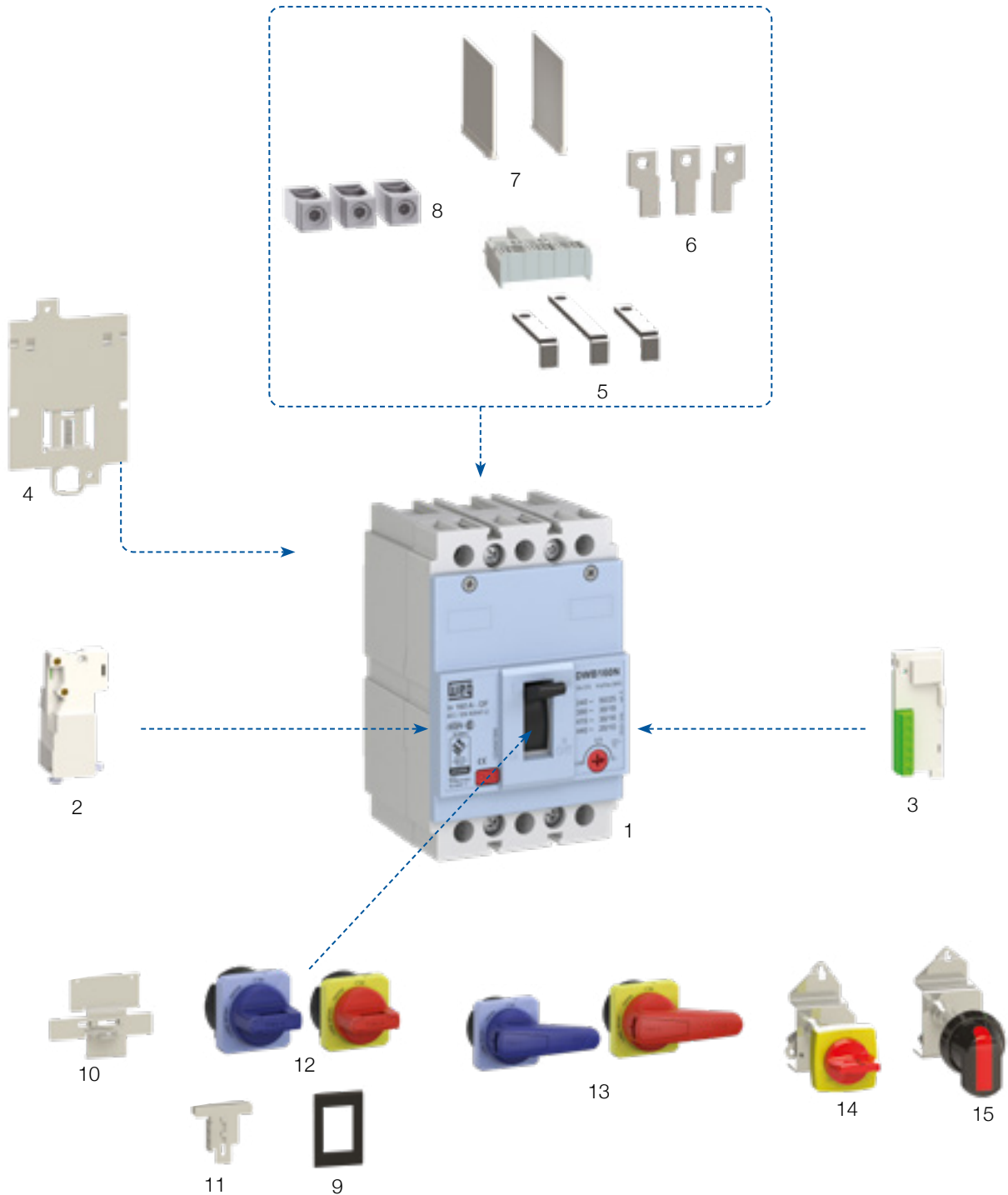
3) Included in the product.

4) All accessories indicated can also be used on IWB switch disconnectors.



# ACCESSORIES

## OVERVIEW - DWB160

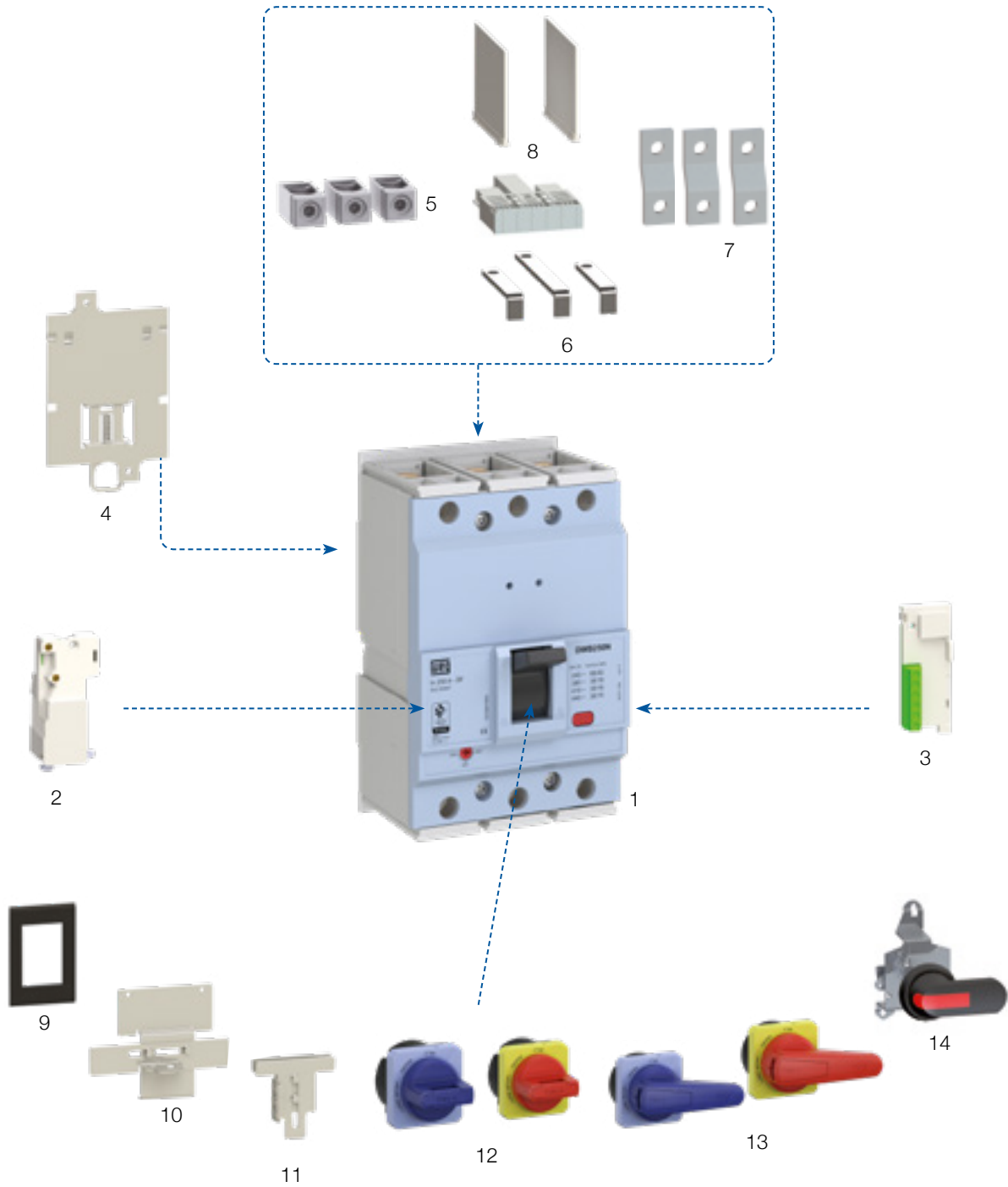


- |                                                                                                     |                                                                          |
|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| 1 - DWB160 circuit breaker                                                                          | 9 - MP - escutcheon                                                      |
| 2 - BS or BD - undervoltage release or shunt release                                                | 10 - BLIM - mechanical interlock                                         |
| 3 - BC - auxiliary contact block                                                                    | 11 - PLW - padlocking device                                             |
| 4 - BFR - DIN rail base                                                                             | 12 - MRXS - panel door rotary operating handle                           |
| 5 - CT - 90° connection extension bars (CP 90° connection extension bars protection cover included) | 13 - MRXL - panel door rotary operating handle (length of handle 105 mm) |
| 6 - BE - straight extension bar                                                                     | 14 - MRX - panel door rotary operating handle                            |
| 7 - PB - phase barrier                                                                              | 15 - MR - panel door rotary operating handle (length of handle 45 mm)    |
| 8 - PC - terminal lugs (included in the circuit breaker)                                            |                                                                          |



# ACCESSORIES

## OVERVIEW - DWB250



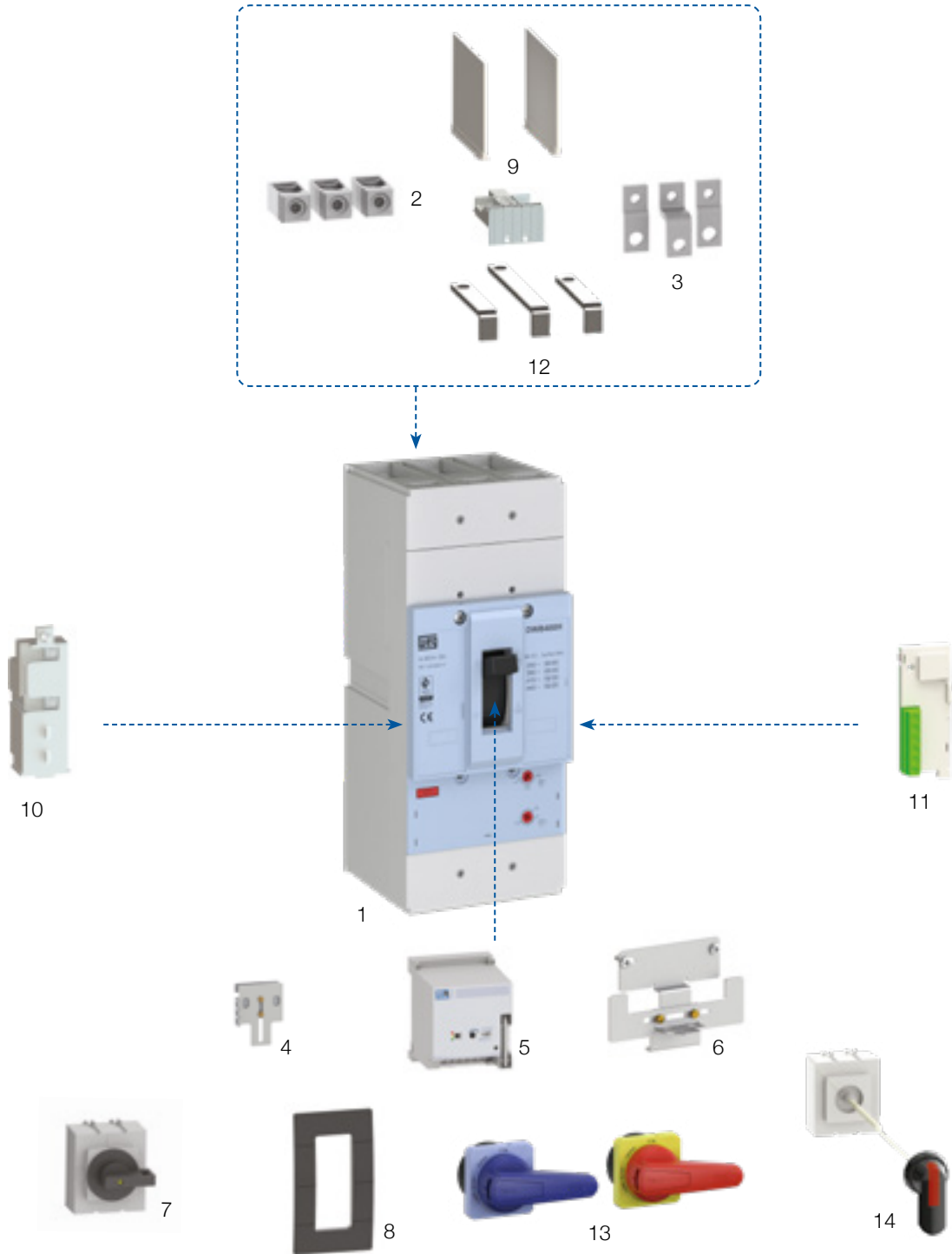
- 1 - DWB250 circuit breaker
- 2 - BS or BD - undervoltage release or shunt release
- 3 - BC - auxiliary contact block
- 4 - BFR - DIN rail base
- 5 - PC - terminal lugs
- 6 - CT - 90° connection extension bars (CP 90° connection extension bars protection cover included)
- 7 - BE - straight extension bar
- 8 - PB - phase barrier

- 9 - MP - escutcheon
- 10 - BLIM - mechanical interlock
- 11 - PLW - padlocking device
- 12 - MRXS - panel door rotary operating handle
- 13 - MRXL - panel door rotary operating handle (length of handle 105 mm)
- 14 - MR - panel door rotary operating handle (length of handle 80 mm)



# ACCESSORIES

## OVERVIEW - DWB400



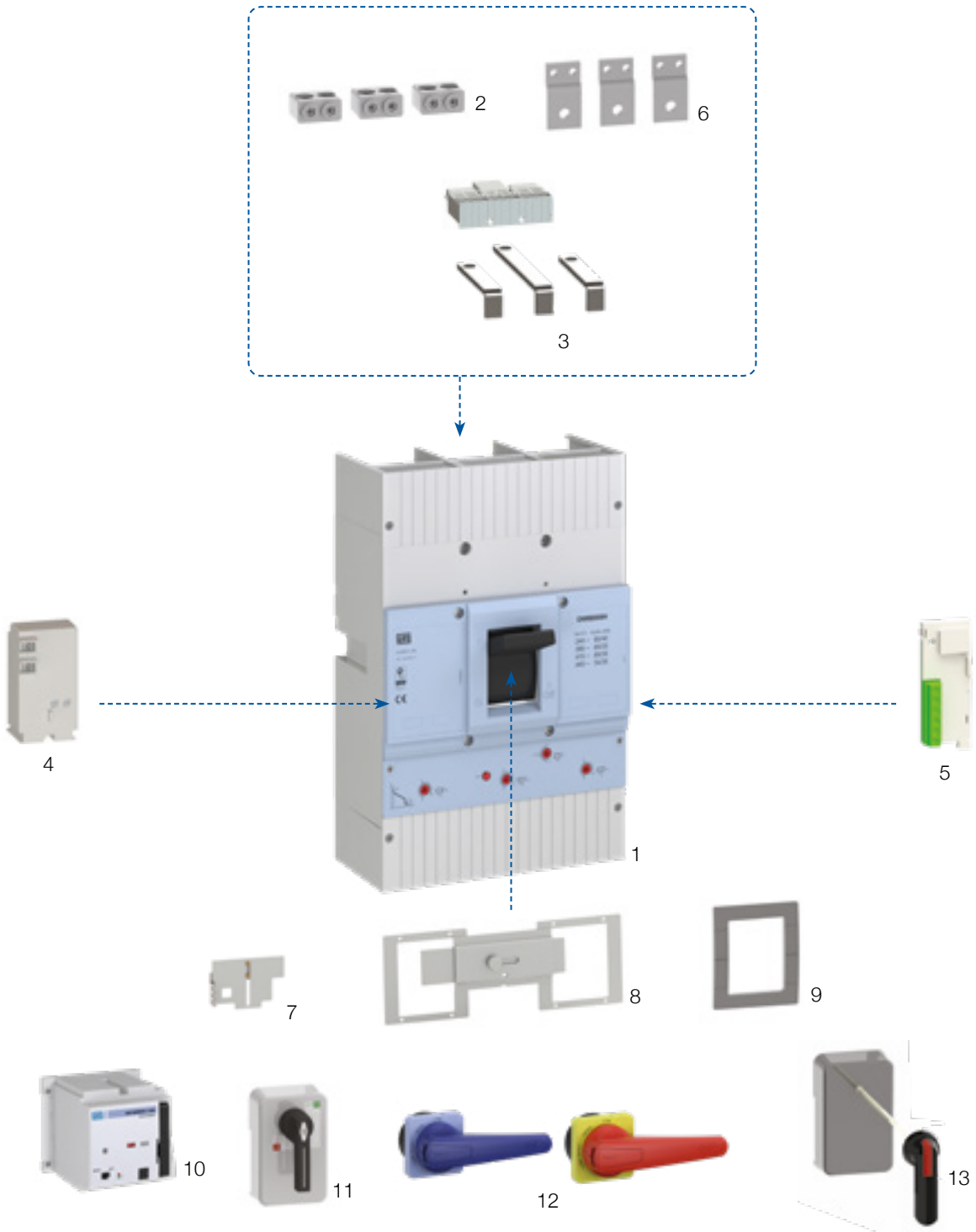
- 1 - DWB400 circuit breaker
- 2 - PC - terminal lugs
- 3 - BE - straight extension bar
- 4 - PLW - padlocking device
- 5 - AM - motor operator
- 6 - BLIM - mechanical interlock
- 7 - MRI - internal rotary operating handle

- 8 - MP - escutcheon
- 9 - PB - phase barrier
- 10 - BS or BD - undervoltage release or shunt release
- 11 - BC - auxiliary contact block
- 12 - CT - 90° connection extension bars (CP 90° connection extension bars protection cover included)
- 13 - MRXL - panel door rotary operating handle (length of handle 105 mm)
- 14 - MR - panel door rotary operating handle (length of handle 80 mm)



# ACCESSORIES

## OVERVIEW - DWB800

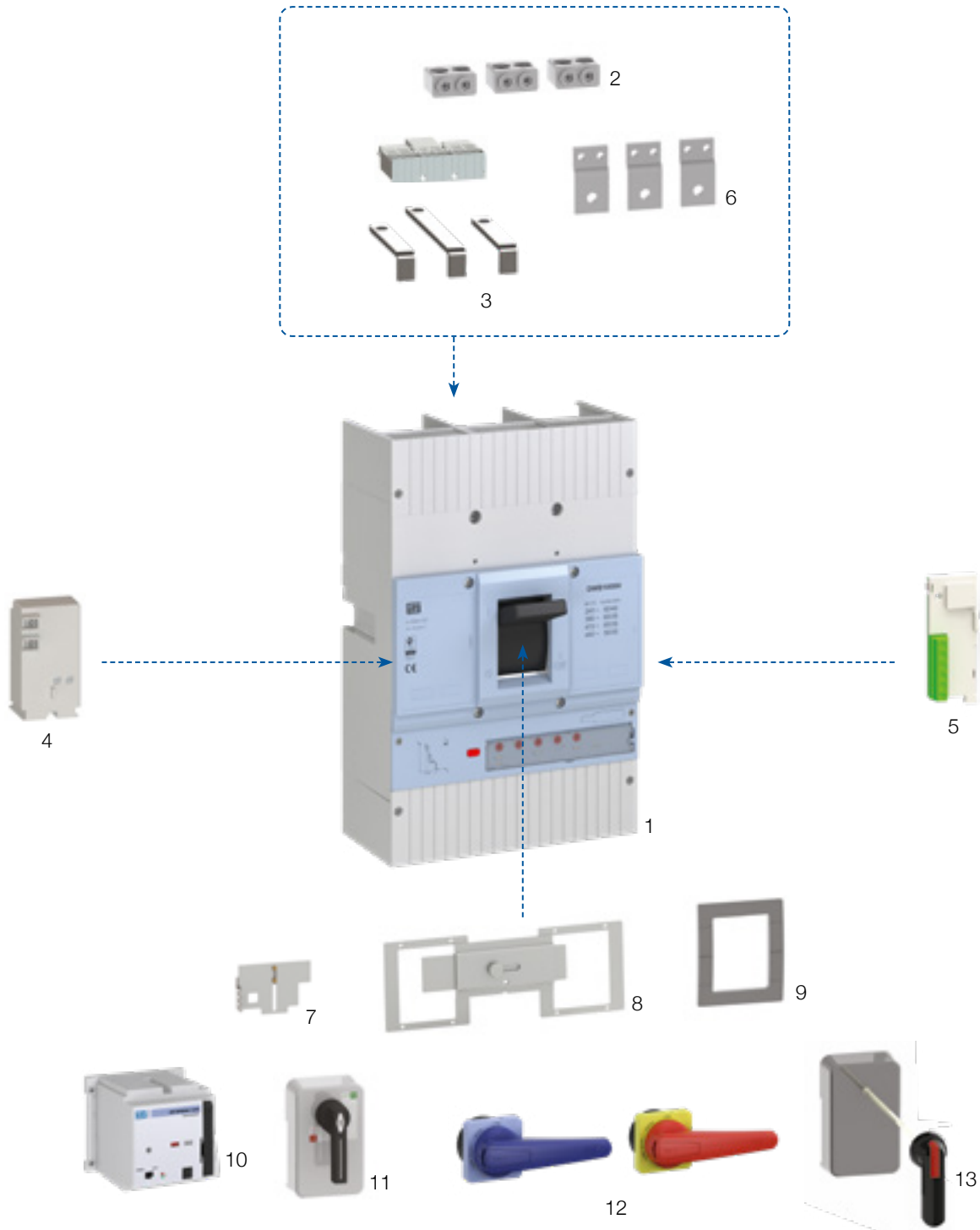


- |                                                                                                     |                                                                          |
|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| 1 - DWB800 circuit breaker                                                                          | 8 - BLIM - mechanical interlock                                          |
| 2 - PC - terminal lugs                                                                              | 9 - MP - escutcheon                                                      |
| 3 - CT - 90° connection extension bars (CP 90° connection extension bars protection cover included) | 10 - AM - motor operator                                                 |
| 4 - BS or BD - undervoltage release or shunt release                                                | 11 - MRI - internal rotary operating handle                              |
| 5 - BC/AL - alarm/contact block                                                                     | 12 - MRXL - panel door rotary operating handle (length of handle 158 mm) |
| 6 - BE - straight extension bar                                                                     | 13 - MR - panel door rotary operating handle (length of handle 125 mm)   |
| 7 - PLW - padlocking device                                                                         |                                                                          |



# ACCESSORIES

## OVERVIEW - DWB1000

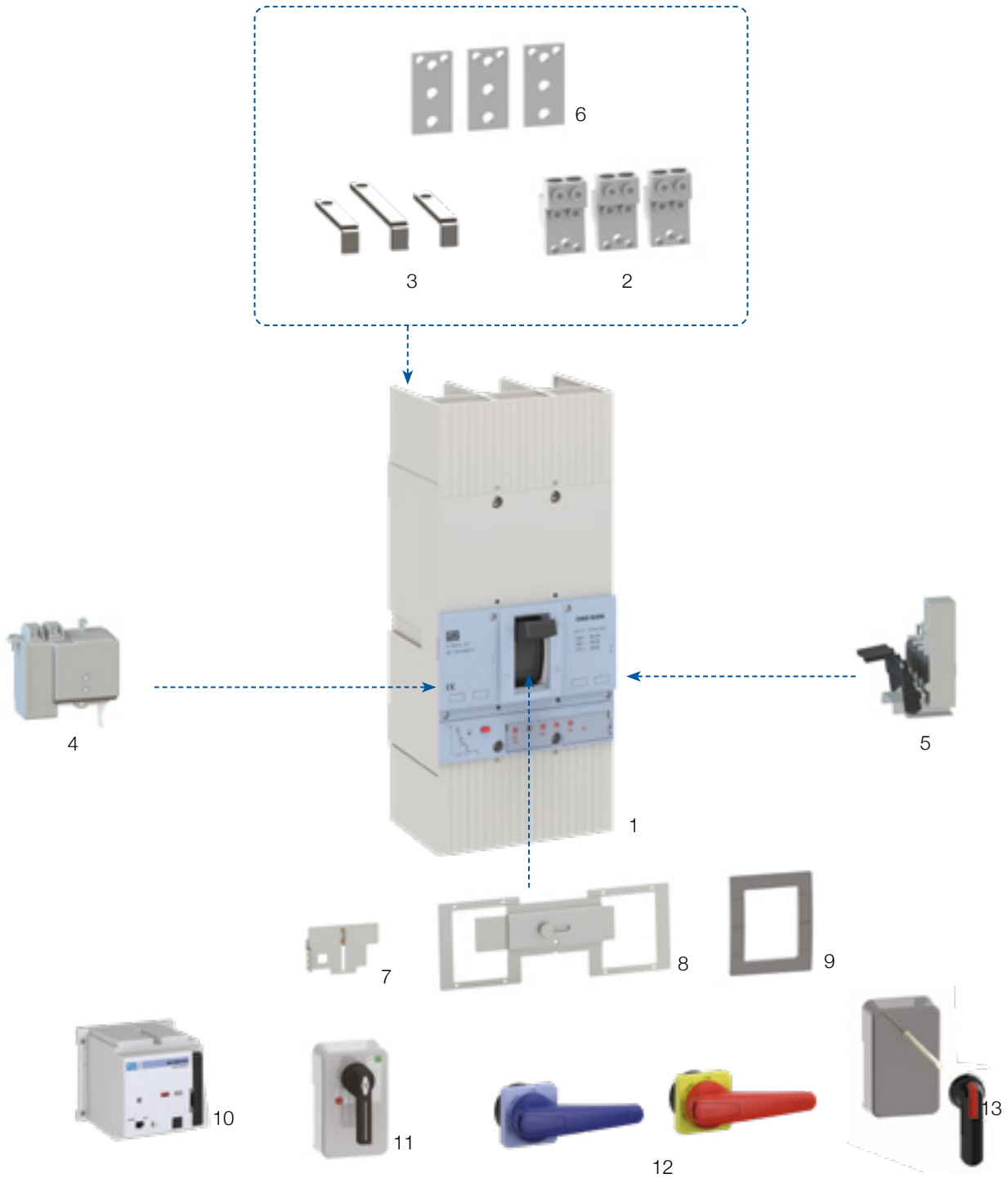


- |                                                                                                     |                                                                          |
|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| 1 - DWB1000 circuit breaker                                                                         | 8 - BLIM - mechanical interlock                                          |
| 2 - PC - terminal lugs                                                                              | 9 - MP - escutcheon                                                      |
| 3 - CT - 90° connection extension bars (CP 90° connection extension bars protection cover included) | 10 - AM - motor operator                                                 |
| 4 - BS or BD - undervoltage release or shunt release                                                | 11 - MRI - internal rotary operating handle                              |
| 5 - BC/AL - alarm/contact block                                                                     | 12 - MRXL - panel door rotary operating handle (length of handle 158 mm) |
| 6 - BE - straight extension bar                                                                     | 13 - MR - panel door rotary operating handle (length of handle 125 mm)   |
| 7 - PLW - padlocking device                                                                         |                                                                          |



# ACCESSORIES

## OVERVIEW - DWB1600



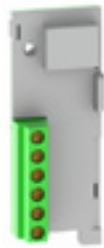
- |                                                      |                                                                          |
|------------------------------------------------------|--------------------------------------------------------------------------|
| 1 - DWB1600 circuit breaker                          | 9 - MP - escutcheon                                                      |
| 2 - PC - terminal lugs                               | 10 - AM - motor operator                                                 |
| 3 - CT - 90° connection extension bars               | 11 - MRI - internal rotary operating handle                              |
| 4 - BS or BD - undervoltage release or shunt release | 12 - MRXL - panel door rotary operating handle (length of handle 158 mm) |
| 5 - BC/AL - alarm/contact block                      | 13 - MR - panel door rotary operating handle (length of handle 125 mm)   |
| 6 - BE - straight extension bar                      |                                                                          |
| 7 - PLW - padlocking device                          |                                                                          |
| 8 - BLIM - mechanical interlock                      |                                                                          |

Note: The DWB1600 circuit breaker does not have the CP 90° connection extension bars protection cover.



## ACCESSORIES FOR MOULDED CASE CIRCUIT-BREAKERS DWB

### INTERNAL ACCESSORIES



### AUXILIARY CONTACT

TYPE	CONTACT	CIRCUIT BREAKER	STOCK CODE	PRICE EACH (ZAR)
BC-1 DWB	1NO/NC	DWB160/250/400/800/1000 - 3P / 4P	10848664	566.00
BC-2 DWB	2NO/NC	DWB160/250/400/800/1000 - 3P / 4P	11026395	707.00



### ALARM CONTACT

TYPE	CONTACT	CIRCUIT BREAKER	STOCK CODE	PRICE EACH (ZAR)
AL-1 DWB	1NO/NC	DWB160/250/400/800/1000 - 3P / 4P	11026397	495.00



### AUXILIARY CONTACT + ALARM CONTACT

TYPE	CONTACT	CIRCUIT BREAKER	STOCK CODE	PRICE EACH (ZAR)
BCAL-2 DWB	1NO/NC (BC)	DWB160/250/400/800/1000 - 3P / 4P	11026396	1273.00



# ACCESSORIES FOR MOULDED CASE CIRCUIT-BREAKERS DWB

## INTERNAL ACCESSORIES



### UNDERVOLTAGE RELEASE

TYPE	CIRCUIT BREAKER	STOCK CODE. 50/60 Hz/dc				PRICE EACH (ZAR)
		E26 (24 V)	E27 (48 V)	E10 (110-130 V)	E15 (220-250 V)	
BS DWB160-250 ▲	DWB160 / DWB250 - 3P / 4P	11338330	11338318	11338324	10853866	919.00

TYPE	CIRCUIT BREAKER	STOCK CODE. 50/60 Hz/dc				PRICE EACH (ZAR)
		E26 (24 V)	E27 (48 V)	E10 (110-130 V)	E15 (220-250 V)	
BS DWB400 ▲	DWB400 - 3P / 4P	12687427	12687479	12687480	12687481	1078.00
BS DWB800-1000 ▲	DWB800 / DWB1000 - 3P / 4P	13421493	13421489	13421495	13421496	1132.00

TYPE	CIRCUIT BREAKER	STOCK CODE. 50/60 Hz/dc				PRICE EACH (ZAR)
		E26 (24 V)	E27 (48 V)	E10 (110-130 V)	E15 (220-250 V)	
BS DWB400 ▲	DWB400 - 3P / 4P	12687424	12687425	12687426	Under request	1078.00
BS DWB800-1000 ▲	DWB800 / DWB1000 - 3P / 4P	Under request	13421490	13421491	13421492	1132.00

### SHUNT TRIP

TYPE	CIRCUIT BREAKER	STOCK CODE. 50/60 Hz/dc				PRICE EACH (ZAR)
		E26 (24 V)	E27 (48 V)	E10 (110-130 V)	E15 (220-250 V)	
BD DWB160-250 ▲	DWB160 / DWB250 - 3P / 4P	11338271	11338248	11338254	10850989	849.00
BD DWB400 ▲	DWB400 - 3P / 4P	12687485	12687486	12687482	12687483	1034.00
BD DWB800-1000 ▲	DWB800 / DWB1000 - 3P / 4P	13421393	13421394	13421391	13421392	1034.00

Note: Article numbers for other rated voltages and frequencies upon request.

3P means 3-Pole MCCB. / 4P means 4-Pole MCCB.

▲ - Smart code of the rated voltage.



## ACCESSORIES FOR MOULDED CASE CIRCUIT-BREAKERS DWA

### INTERNAL ACCESSORIES

#### AUXILIARY CONTACT

TYPE	CONTACT	CIRCUIT BREAKER	STOCK CODE	PRICE EACH (ZAR)
BC-1 DWA1600	1NO/NC	DWA1600 3P / 4P	10046832	612.00
BC-2 DWA1600	2NO/NC	DWA1600 3P / 4P	10046833	929.00
BC-3 DWA1600	3NO/NC	DWA1600 3P / 4P	10046834	1121.00

#### ALARM CONTACT

TYPE	CONTACT	CIRCUIT BREAKER	STOCK CODE	PRICE EACH (ZAR)
AL-1 DWA1600	1NO/NC	DWA1600 - 3P / 4P	10186511	657.00

Note: It is not possible to install both BC and AL blocks individually into the circuit-breaker. Consider using BCAL blocks below.

#### AUXILIARY CONTACT + ALARM CONTACT

TYPE	CONTACT	CIRCUIT BREAKER	STOCK CODE	PRICE EACH (ZAR)
BCAL-2 DWA1600	1NO/NC (BC) + 1NO/NC (AL)	DWA1600 3P / 4P	11648561	2285.00
BCAL-3 DWA1600	2NO/NC (BC) + 1NO/NC (AL)	DWA1600 3P / 4P	11648787	3188.00

#### UNDERVOLTAGE RELEASE

TYPE	CIRCUIT BREAKER	STOCK CODE 50/60Hz				PRICE EACH (ZAR)
		D60 (110-127 V)	D66 (220-240 V)	D70 (380-415 V)	D74 (440-480 V)	
BS ▲ DWA1600	DWA1600 3P / 4P	10046787	10046727	10046726	10046762	1132.00

TYPE	CIRCUIT BREAKER	STOCK CODE 50/60Hz			PRICE EACH (ZAR)
		C03 (24 V)	C07 (48 V)	C13 (125 V)	
BS ▲ DWA1600	DWA1600 3P / 4P	10046785	10046786	10212462	1132.00

#### SHUNT TRIP

TYPE	CIRCUIT BREAKER	STOCK CODE 50/60Hz				PRICE EACH (ZAR)
		E26 (24 V)	E27 (48 V)	E10 (110-130 V)	E15 (220-250 V)	
BD ▲ DWA1600	DWA1600 3P / 4P	10046782	10046783	10046725	10046724	1102.00

Note: Article numbers for other rated voltages and frequencies upon request.

▲ - Smart code of the rated voltage.



# ACCESSORIES FOR MOULDED CASE CIRCUIT-BREAKERS DWA & DWB

## EXTERNAL ACCESSORIES

### PHASE BARRIERS

TYPE	CIRCUIT BREAKER	STOCK CODE	PRICE EACH (ZAR)
PB DWB160-250 3P	DWB160 3P / DWB250 3P	12403111	64.00
PB DWB160-250 4P	DWB160 4P / DWB250 4P	12403112	96.00
PB DWB400 3P	DWB400 3P	12731651	70.00
PB DWB400 4P	DWB400 4P	12731653	105.00

Note: 3P - 2 pieces for line or load side.  
 4P - 3 pieces for line or load side.



### ESCUTCHEONS

TYPE	CIRCUIT BREAKER	STOCK CODE	PRICE EACH (ZAR)
MP DWB160	DWB160 3P	11338525	25.00
MP DWB250	DWB250 3P	11338526	25.00
MP DWB400	DWB400 3P / 4P	10046728	43.00
MP DWA800-1600	DWA800 / DWA1600 - 3P / 4P	10186520	43.00



### 90° EXTENSION BARS (OR TERMINAL TAGS)

TYPE	CIRCUIT BREAKER	STOCK CODE	PRICE EACH (ZAR)
CT DWB160 3P	DWB160 3P	12730075	294.00
CT DWB160 4P	DWB160 4P	12718529	392.00
CT DWB250 3P	DWB250 3P	12288234	806.00
CT DWB250 4P	DWB250 4P	12288235	1075.00
CT DWB400 3P	DWB400 3P	12730076	2862.00
CT DWB400 4P	DWB400 4P	12730088	3815.00
CT DWB800-1000 3P	DWB800 / DWB1000	13471874	3528.00
CT DWB800-1000 4P	DWB800 / DWB1000	13471875	4692.00
CT DWA1600	DWA1600 3P / 4P	10046808	5890.00



# ACCESSORIES FOR MOULDED CASE CIRCUIT-BREAKERS DWA & DWB

## EXTERNAL ACCESSORIES



### STRAIGHT EXTENSION BARS (OR TERMINAL TAGS)

TYPE	CIRCUIT BREAKER	PACKAGING (un)	STOCK CODE	PRICE SET (ZAR)
BE DWB160 3P	DWB160 3P	3	11279346	281.00
BE DWB160 4P	DWB160 4P	4	11780009	365.00
BE DWB250 3P	DWB250 3P	3	11279347	747.00
BE DWB250 4P	DWB250 4P	4	12714046	971.00
BE DWB400 3P	DWB400 3P	3	12730070	1055.00
BE DWB400 4P	DWB400 4P	4	12730072	1371.00
BE DWB800-1000 3P	DWB800 /1000 3P	3	13471872	1309.00
BE DWB800-1000 4P	DWB800 /1000 4P	4	13471873	1701.00
BE DWA1600	DWA1600 3P	3	10046553	1571.00
BE DWA1600-4P	DWA1600 4P	4	11780050	2042.00



### ROUND CABLE TERMINAL (OR LUGS)

TYPE	CIRCUIT BREAKER	PACKAGING (un)	STOCK CODE	PRICE SET (ZAR)
PC DWB250 3P	DWB250 3P	3	11277469	495.00
PC DWB250 4P	DWB250 4P	4	12718386	731.00
PC DWB400 3P	DWB400 3P	3	12730045	760.00
PC DWB400 4P	DWB400 4P	4	12730046	1011.00
PC DWB800-1000	DWB800 / 1000 3P	3	13471871	1075.00
PC DWA1600	DWA/DWB 1600 3P	3	10046555	1175.00



# ACCESSORIES FOR MOULDED CASE CIRCUIT-BREAKERS DWA & DWB

## PANEL DOOR OPERATING HANDLES



Selector type

Pistol type

## COMPLETE SET

TYPE	CIRCUIT BREAKER	HANDLE (mm)	SHAFT (mm)	STOCK CODE	PRICE EACH (ZAR)
MRXS-A-DWB160-BU	DWB160	Selector	460	13624517	990.00
MRXS-A-DWB160-R	DWB160	Selector	460	13624516	990.00
MRXS-A-DWB250-R	DWB250	Selector	460	13624549	1061.00
MRXS-A-DWB250-BU	DWB250	Selector	460	13624550	1061.00
MRXL-A-DWB160-BU	DWB160	Pistol (105)	460	13624553	1273.00
MRXL-A-DWB160-R	DWB160	Pistol (105)	460	13624551	1273.00
MRXL-A-DWB250-BU	DWB250	Pistol (105)	460	13624611	1343.00
MRXL-A-DWB250-R	DWB250	Pistol (105)	460	13624610	1343.00
MRXL-A-DWB400-BU	DWB400	Pistol (105)	460	13624613	1555.00
MRXL-A-DWB400-R	DWB400	Pistol (105)	460	13624612	1555.00
MRXL-A-DWB1000-BU	DWB800 / DWB1000	Pistol (158)	460	13624617	1767.00
MRXL-A-DWB1000-R	DWB800 / DWB1000	Pistol (158)	460	13624616	1767.00
MRXL-A-DWB1600-BU	DWA1600	Pistol (158)	460	13624629	1767.00
MRXL-A-DWB1600-R	DWA1600	Pistol (158)	460	13624628	1767.00



Selector type

Pistol type

## HANDLE + SHAFT

TYPE	CIRCUIT BREAKER	HANDLE (mm)	SHAFT (mm)	STOCK CODE	PRICE EACH (ZAR)
MRXS-B-1-BU	DWB160 / DWB250	Selector	460	13624632	495.00
MRXS-B-1-R	DWB160 / DWB250	Selector	460	13624630	495.00
MRXL-B-2-BU	DWB160 / DWB250	Pistol (105)	460	13624634	778.00
MRXL-B-2-R	DWB160 / DWB250	Pistol (105)	460	13624633	778.00
MRXL-B-3-BU	DWB400	Pistol (105)	460	13624636	919.00
MRXL-B-3-R	DWB400	Pistol (105)	460	13624635	990.00
MRXL-B-4-BU	DWB800 / DWB1000 / DWA1600	Pistol (158)	460	13624661	990.00
MRXL-B-4-R	DWB800 / DWB1000 / DWA1600	Pistol (158)	460	13624660	990.00



## MECHANISM

TYPE	CIRCUIT BREAKER	STOCK CODE	PRICE EACH (ZAR)
MRH DWB160	DWB160	13624244	495.00
MRH DWB250	DWB250	13624246	566.00
MRH DWB400	DWB400	13624247	637.00
MRH DWB1000	DWB800 / DWB1000	13624278	778.00



## ACCESSORIES FOR MOULDED CASE CIRCUIT-BREAKERS DWA & DWB

### EXTERNAL ACCESSORIES



### PANEL DOOR ROTARY OPERATING HANDLES

TYPE	CIRCUIT BREAKER	HANDLE (mm)	SHAFT (mm)	STOCK CODE	PRICE EACH (ZAR)
MR DWB160 130	DWB160 3P / 4P	45	130	12729389	1485.00
MR DWB160 130 E	DWB160 3P / 4P	45	130	12249312	2177.00
MR DWB160 430	DWB160 3P / 4P	45	430	12729390	1626.00
MR DWB160 430 E	DWB160 3P / 4P	45	430	12249313	2333.00
MR DWB250 130	DWB250 3P / 4P	80	130	11650006	1555.00
MR DWB250 130 E	DWB250 3P / 4P	80	130	12249314	2612.00
MR DWB250 430	DWB250 3P / 4P	80	430	11650161	1979.00
MR DWB250 430 E	DWB250 3P / 4P	80	430	12249315	3141.00
MR DWB400 130	DWB400 3P / 4P	80	130	12729392	1697.00
MR DWB400 130 E	DWB400 3P / 4P	80	130	12729394	2721.00
MR DWB400 430	DWB400 3P / 4P	80	430	12729393	1838.00
MR DWB400 430 E	DWB400 3P / 4P	80	430	12729395	3188.00
MR DWB800-1000 166	DWB800 / 1000 3P / 4P	125	166	13471817	2050.00
MR DWB800-1000 465	DWB800 / 1000 3P / 4P	125	465	13471868	2191.00
MR166 DWA1600	DWA1600 3P / 4P	125	166	10186522	2050.00
MR465 DWA1600	DWA1600 3P / 4P	125	465	10186523	2191.00



# ACCESSORIES FOR MOULDED CASE CIRCUIT-BREAKERS DWA & DWB

## EXTERNAL ACCESSORIES



### DIRECT ROTARY OPERATING HANDLES

TYPE	CIRCUIT BREAKER	STOCK CODE	PRICE EACH (ZAR)
MRI DWB400	DWB400 3P / 4P	12729396	980.00
MRI DWB800-1000	DWB800 / 1000 3P / 4P	13471816	1903.00
MRI DWA1600	DWA1600 3P / 4P	10046795	1903.00

### DIN RAIL BASE

TYPE	CIRCUIT BREAKER	STOCK CODE	PRICE EACH (ZAR)
BFR DWB160 3P	DWB160 3P / 4P	12730039	96.00
BFR DWB250 3P	DWB250 3P / 4P	12139063	96.00



### MECHANICAL INTERLOCK

TYPE	CIRCUIT BREAKER	STOCK CODE	PRICE EACH (ZAR)
BLIM DWB160 3P	DWB160 3P	11639815	931.00
BLIM DWB160 4P	DWB160 4P	12729994	1174.00
BLIM DWB250 3P	DWB250 3P	11639817	931.00
BLIM DWB250 4P	DWB250 4P	12729995	1163.00
BLIM DWB400 3P	DWB400 3P	12729996	931.00
BLIM DWB400 4P	DWB400 4P	12729997	1174.00
BLIM DWB800-1600 3P	DWB800 / 1000 3P	13471814	931.00
BLIM DWB800-1600 4P	DWB800 / 1000 4P	13471815	1174.00
BLIM DWA1600 3P	DWA1600 3P	10046798	931.00
BLIM DWA1600 4P	DWA1600 4P	11800074	1174.00



## ACCESSORIES FOR MOULDED CASE CIRCUIT-BREAKERS DWA & DWB

### EXTERNAL ACCESSORIES



### PADLOCKING DEVICE

TYPE	CIRCUIT BREAKER	STOCK CODE	PRICE EACH (ZAR)
PL DWB160 3P	DWB160 3P	11217445	310.00
PL DWB160 4P	DWB160 4P	12729993	310.00
PL DWB250	DWB250 3P	11640142	310.00
PL DWB400	DWB400 3P / 4P	11217482	535.00
PL DWB800-1600	DWB800 / 1000 3P / 4P	13471813	535.00
PLW1600	DWA1600 3P/4P	11640144	535.00

## ACCESSORIES FOR MOULDED CASE CIRCUIT-BREAKERS DWB

### MOTOR OPERATOR

TYPE	CIRCUIT BREAKER	STOCK CODE. (▲)				PRICE EACH (ZAR)
		C03 (24 V dc)	C25 (48-60 V dc)	E51 (110 V ac/dc)	E46 (230 V ac/ 220 V dc)	
AM DWB400 ▲	DWB400 - 3P/4P	10835559	10835721	10835719	10835720	8588.00
AM DWB800-1000 ▲	DWB800 / DWB1000 - 3P/4P	13179383	13179384	13179386	13179385	13867.00
AM DWB1600 ▲	DWA1600E / DWB1600 <sup>1)</sup> - 3P/4P	13178913	13178914	13178916	13178915	15254.00

Note: 1) Valid for DWA1600E. DWB1600 will be available in a near future.

▲ Must be replaced by the control voltage code.



# ACCESSORIES FOR MOULDED CASE CIRCUIT-BREAKERS DWB

## AUTOMATIC CHANGEOVER<sup>1)</sup>

Type			
Base	CTM	Automatic changeover	CTM
	400	Frame size	400: DWB400 1000: DWB800 / DWB1000 1600: DWA1600E
	-		
Left side MCCB	H	Short-circuit breaking capacity	N: 35 kA / S: 50 kA / H: 65 kA / L: 80 kA
	400	Rated current	200 / 250 / 320 / 400 / 500 / 630 / 800 / 1000 / 1250 / 1600
	DA	Trip unit	DA: Adj. Thermal and magnetic (distribution) GA: Adj. Thermal and magnetic (generator) MA: Adj. Magnetic (motor) E: Electronic trip unit (DWA1600E) ET: Electronic trip unit (DWB1000)
Right side MCCB	N	Short-circuit breaking capacity	N: 35 kA / S: 50 kA / H: 65 kA / L: 80 kA
	320	Rated current	200 / 250 / 320 / 400 / 500 / 630 / 800 / 1000 / 1250 / 1600
	GA	Trip unit	DA: Adj. Thermal and magnetic (distribution) GA: Adj. Thermal and magnetic (generator) MA: Adj. Magnetic (motor) E: Electronic trip unit (DWA1600E) ET: Electronic trip unit (DWB1000)
	3P	Number of poles	3P: 3 Poles 4P: 4 Poles
	-		
Accessories <sup>2)3)</sup>	1	Auxiliary contact	1 2
	1	Alarm contact	0 1
	E15	Shunt trip	0: Without / E26: 24 V ac/dc / E27: 48 V ac/dc E10: 110-130 V ac/dc / E15: 220-250 V ac/dc
	D66	Undervoltage release	0: Without / C02: 12 V dc / C03: 24 V dc / C07: 48 V dc / C13: 125 V dc / 60: 110-127 V ac / D66: 220-240 V ac / D70: 380-415 V ac / D74: 440-480 V ac
	E46	Motor operator	C03: 24 V dc / C25: 48-60 V dc / E51: 110 V ac/dc / E46: 230 V ac / 220 V dc

## MECHANICAL INTERLOCK BASE<sup>4)</sup>

TYPE	CIRCUIT BREAKER	STOCK CODE	PRICE EACH (ZAR)
BTIM400 3P	DWB400 - 3P	Upon Request	Upon Request
BTIM1000 3P	DWB800 / DWB1000 - 3P	Upon Request	Upon Request
BTIM1600 3P	DWA1600E / DWB1600 - 3P	Upon Request	Upon Request
BTIM400 4P	DWB400 - 4P	Upon Request	Upon Request
BTIM1000 4P	DWB800 / DWB1000 - 4P	Upon Request	Upon Request
BTIM1600 4P	DWA1600E / DWB1600 - 4P	Upon Request	Upon Request

Note: 1) Inform your Product Reference in order to get the Article Number.

2) Do not exceed the limitations of each MCCB. For additional technical information, please see the product catalog.

3) The accessories configuration chosen will be valid for both breakers (left and right side).

4) Interlock Base models for reference only, these are not sold separately. For a complete assembly, please find above the product and price composition.

Price Composition: Mechanical Interlock Base + MCCB left side + MCCB right side + Two units of each chosen accessory.



# MOULDED CASE CIRCUIT BREAKERS ACW - TECHNICAL DATA



Models		ACW100	ACW160	ACW101	ACW161	ACW250	ACW400	ACW630	ACW800								
Standard		IEC 60947-2															
Rated current - In (A)		20, 25, 32, 40, 50, 63, 80, 100	125, 160	20 <sup>1)</sup> , 50 <sup>1)</sup> , 100 <sup>1)</sup>	160 <sup>1)</sup>	200, 250, 220 <sup>1)</sup>	400	630	800								
Rated operation voltage - Ue (V)	AC	690															
	DC	500						-									
Rated isolation voltage - Ui (V)		750															
Rated impulse voltage - Uimp (kV)		8															
Frequency (Hz)		50 / 60															
Pole number		3															
Short-circuit maximum breaking capacity - Icu (kA)	Type	H	V	H	V	H	V	H	V	H	V	H	V	H	V	U	
	AC	220/240 V	100	200	100	200	120	200	120	200	120	200	120	200	120	200	120
		380/415 V	85	150	85	150	85	150	85	150	85	150	85	150	85	150	100
		440/460 V	70	130	40	130	70	130	70	130	70	130	70	130	70	130	100
		480/500/525 V	50	65	50	65	65	85	65	85	8	65	85	65	85	65	85
		660/690 V	8	10	8	10	15	20	15	20	15	20	20	35	20	35	20
	DC	250 V	65	100	65	100	85	100	85	100	85	100	-	100	-	100	85
500 V <sup>2)</sup>		65	100	65	100	85	100	85	100	85	100	-	100	-	100	85	
Service short-circuit breaking capacity - Ics (kA)	% Icu	100%			100%				100%				100%				
Short circuit making capacity - Icm (kA)	AC	220/240 V	220	440	220	440	264	440	264	440	264	440	264	440	264	440	264
		380/415 V	187	330	187	330	187	330	187	330	187	330	187	330	187	330	220
		440/460 V	154	286	165	186	154	186	154	286	154	286	154	286	154	286	220
		480/500 V	105	134	105	143	143	187	143	187	143	187	143	187	143	187	187
		660/690 V	14	17	14	17	30	40	30	40	30	40	40	74	40	74	40
Utilization category		A			A				A				A				
Isolation characteristic		•			•				•				•				
Trigger type	Adjustable thermal / fixed magnetic	•			-				-				-				
	Adjustable thermal and magnetic	-			-				•				-				
	LSI electronic	-			-				•				•				
	Adjustable magnetic	-			•		•		• (220 A)		• (320 A, 500 A)				• (630 A)		
Mechanical life	Number of operations	25,000			25,000				20,000				10,000				
Electrical life	Number of operations	10,000			10,000				6,000				3,000				
Ambient temperature		-5...40 °C, with maximum 24h average of 35 °C															
Altitude (m)		≤2,000 m above sea level															
Connection terminals (mm)	Width	23			28				30				50				
Type / screw size		Philips M8			Allen M8				Allen M10				Allen M12				
Tightening torque (Nm)		8			15				50				70				
Conductors section	Cables <sup>3)</sup>	(1x) 2.5...95 mm <sup>2</sup>			(1x) 10...150 mm <sup>2</sup>				(2x) 85...240 mm <sup>2</sup>				(3x) 85...240 mm <sup>2</sup>				
	Bar	20x5 mm			25x5 mm				30x10 mm				50x10 mm				
Weight (kg)		1.5			2.0				5.4				15.1				
Dimensions - WxHxD (mm)		90x140x86			105x160x86				140x260x110				210x320x135				

Notes: 1) Available only with adjustable magnetic trigger.  
2) 2 poles in series.  
3) Using PC2 ACW round cable terminal.



# MOULDED CASE CIRCUIT BREAKERS ACW - CONSTRUCTIVE FEATURES



### Available Releases

- FMU - Adjustable-thermal and fixed-magnetic



Applicable to	Ie (A)	Current setting range (A)
ACW100	20	16...20
	25	20...25
	32	25.6...32
	40	32...40
	50	40...50
	63	50.4...63
	80	64...80
ACW160	125	100...125
	160	125...160

- ATU - Adjustable-thermal and adjustable-magnetic



Applicable to	Ie (A)	Current setting range (A)
ACW250	200	160...200
	250	200...250

- ETS - Electronic LSI



Applicable to	Ie (A)	Current setting range (A)
ACW400	400	160...400
ACW630	630	252...630
ACW800	800	320...800

- MTU - Magnetic only

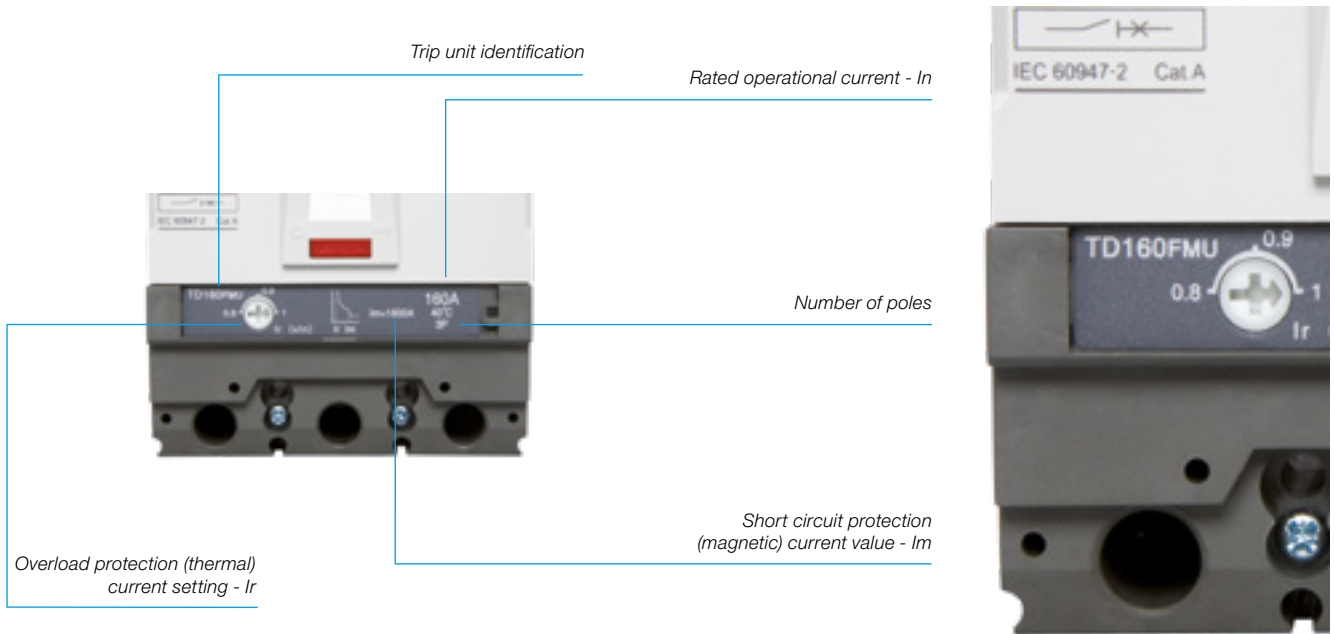


Applicable to	Ie (A)	Current setting range (A)
ACW101	20	$I_m = 6...12 \times I_n$
	50	
	100	
ACW161	160	
ACW250	220	
ACW400	320	
ACW630	500	
ACW800	630	



# MOULDED CASE CIRCUIT BREAKERS ACW - TRIP UNIT FMU

## ADJUSTABLE-THERMAL AND FIXED-MAGNETIC



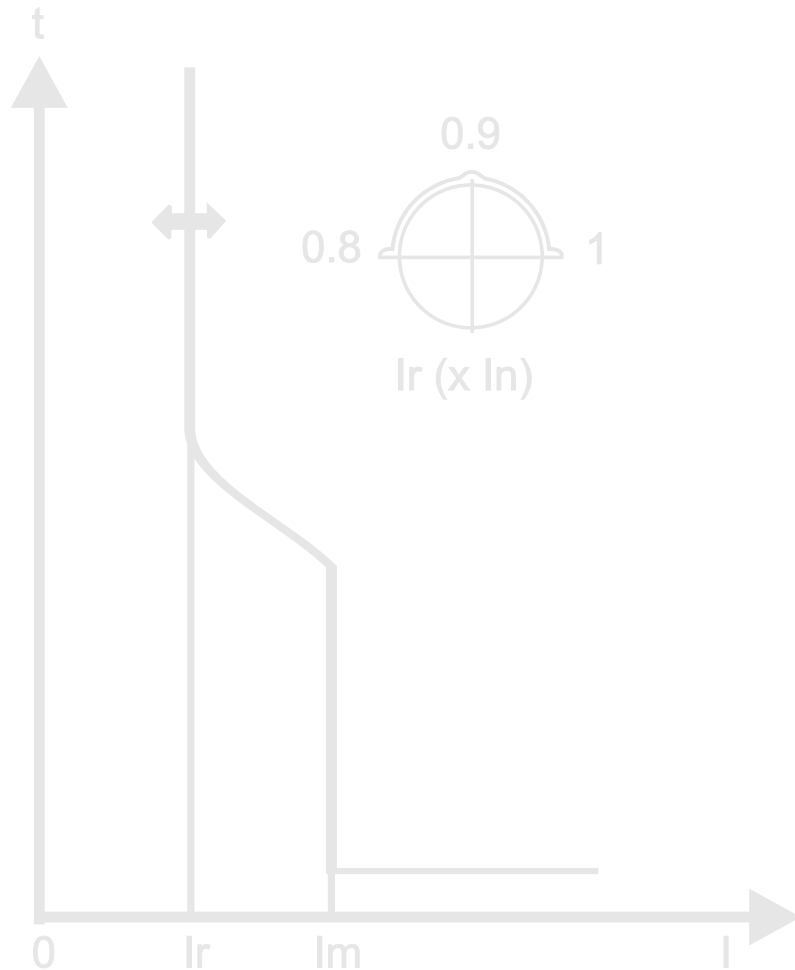
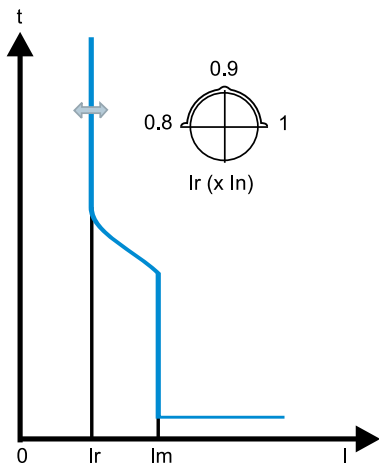
## SETTING RANGES OF TRIP UNITS

### Thermal Trip Unit

Current setting (A) - $I_r$	0.8; 0.9; 1.0 x $I_n$
-----------------------------	-----------------------

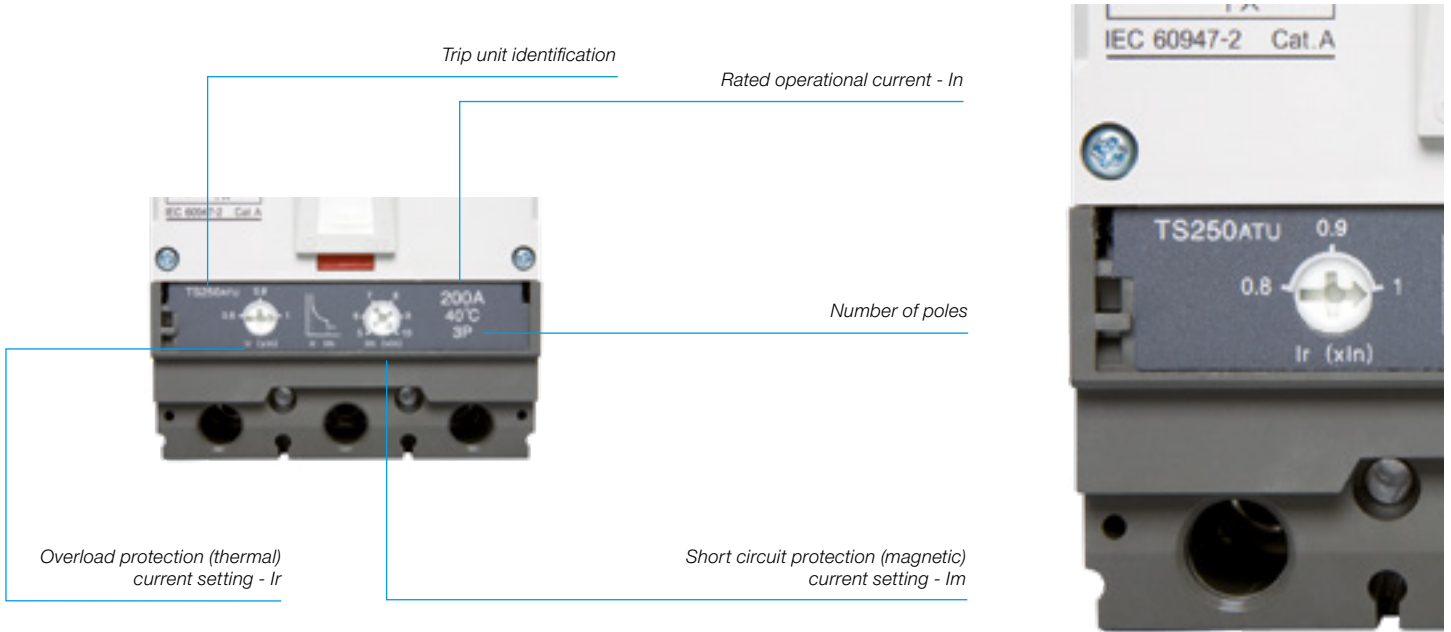
### Magnetic Trip Unit

Current (A) - $I_m$	20~40	50~160
	Fixed at 400 A	Fixed at 10 x $I_n$



# MOULDED CASE CIRCUIT BREAKERS ACW - TRIP UNIT ATU

## ADJUSTABLE-THERMAL AND ADJUSTABLE-MAGNETIC



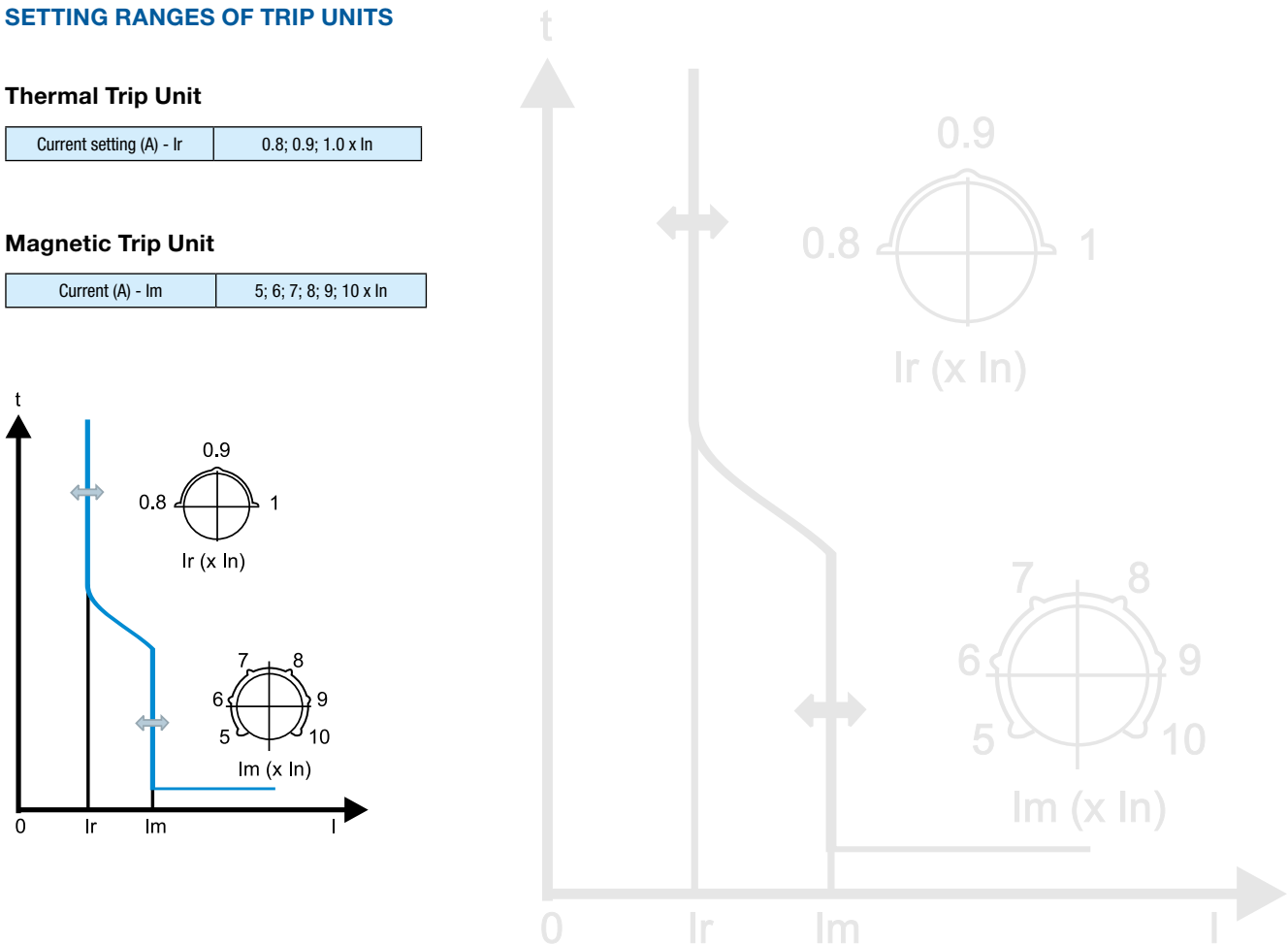
### SETTING RANGES OF TRIP UNITS

#### Thermal Trip Unit

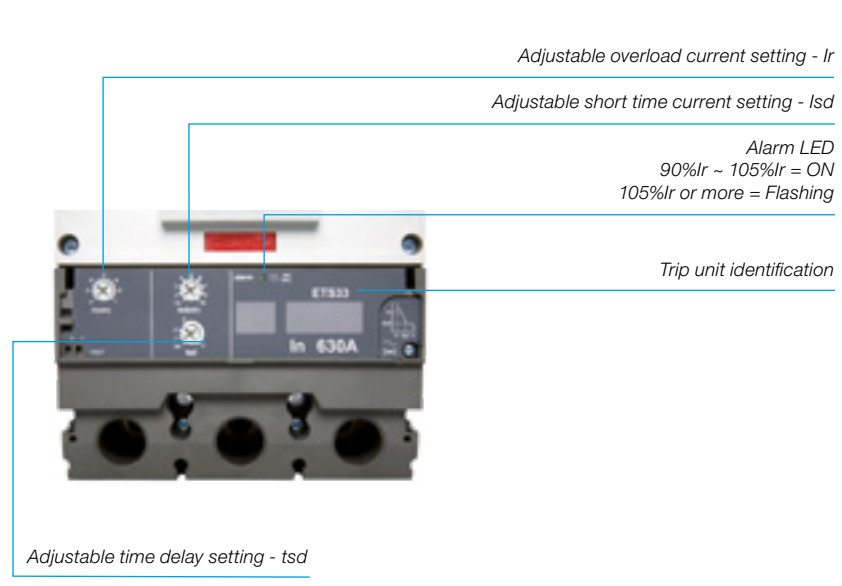
Current setting (A) - $I_r$	0.8; 0.9; 1.0 x $I_n$
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#### Magnetic Trip Unit

Current (A) - $I_m$	5; 6; 7; 8; 9; 10 x $I_n$
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# MOULDED CASE CIRCUIT BREAKERS ACW - TRIP UNIT ETS



## SETTING RANGES OF TRIP UNITS

### Overload Protection L (Long Time)

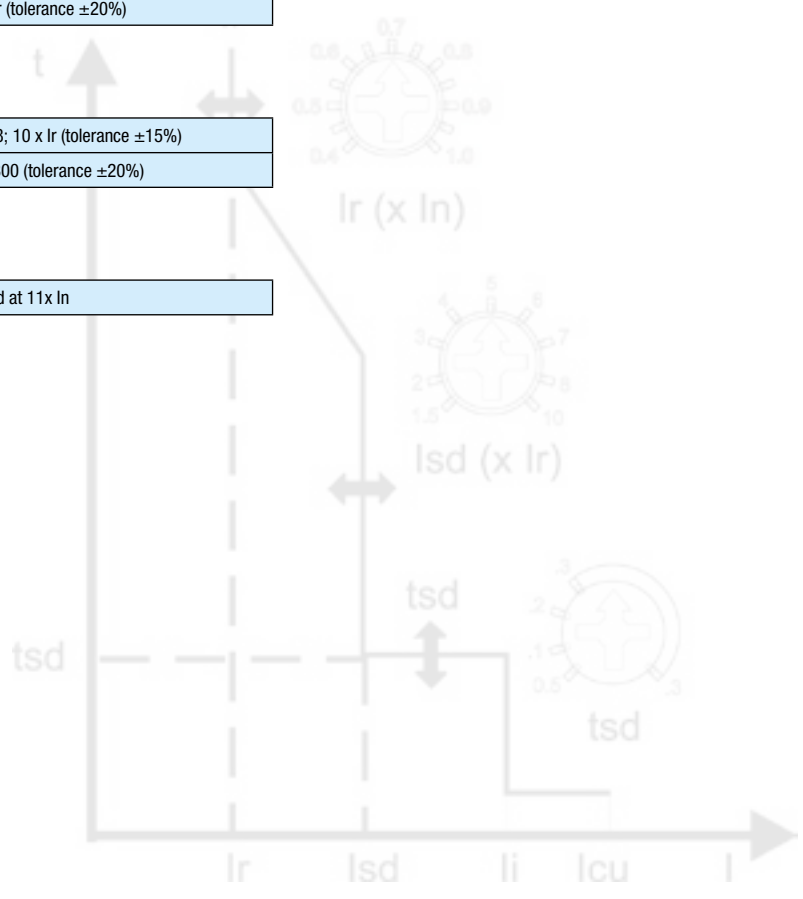
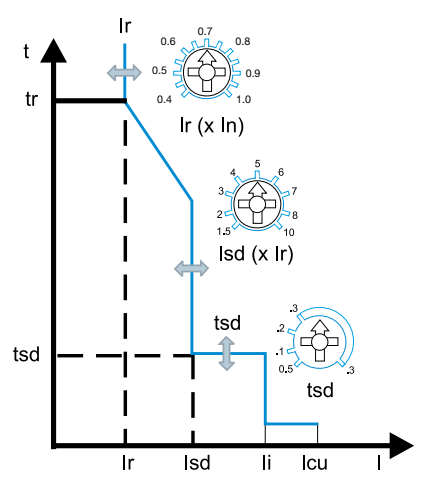
Setting current (A) - $I_r$	0.4; 0.45; 0.5; 0.55; 0.6; 0.65; 0.7; 0.75; 0.8; 0.85; 0.9; 0.95; 1.0 x $I_n$
Tripping time (s)	Fixed @ 6x $I_r$ (tolerance $\pm 20\%$ )

### Short-Circuit Protection S (Short Time)

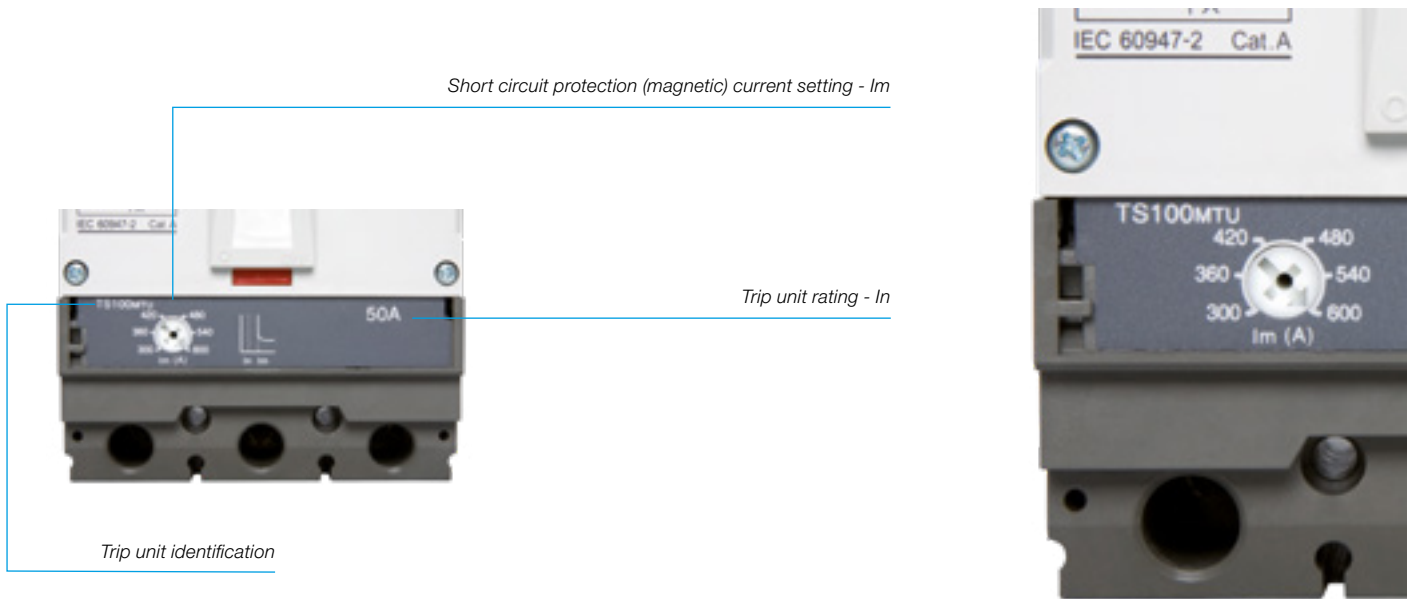
Setting current (A) - $I_{sd}$	1.5; 2; 3; 4; 5; 6; 7; 8; 10 x $I_r$ (tolerance $\pm 15\%$ )
Tripping delay (ms) - $t_{sd}$	50; 100; 200; 300 (tolerance $\pm 20\%$ )

### Short-Circuit Protection I (Instantaneous)

Current (A) - $I_i$	Fixed at 11x $I_n$
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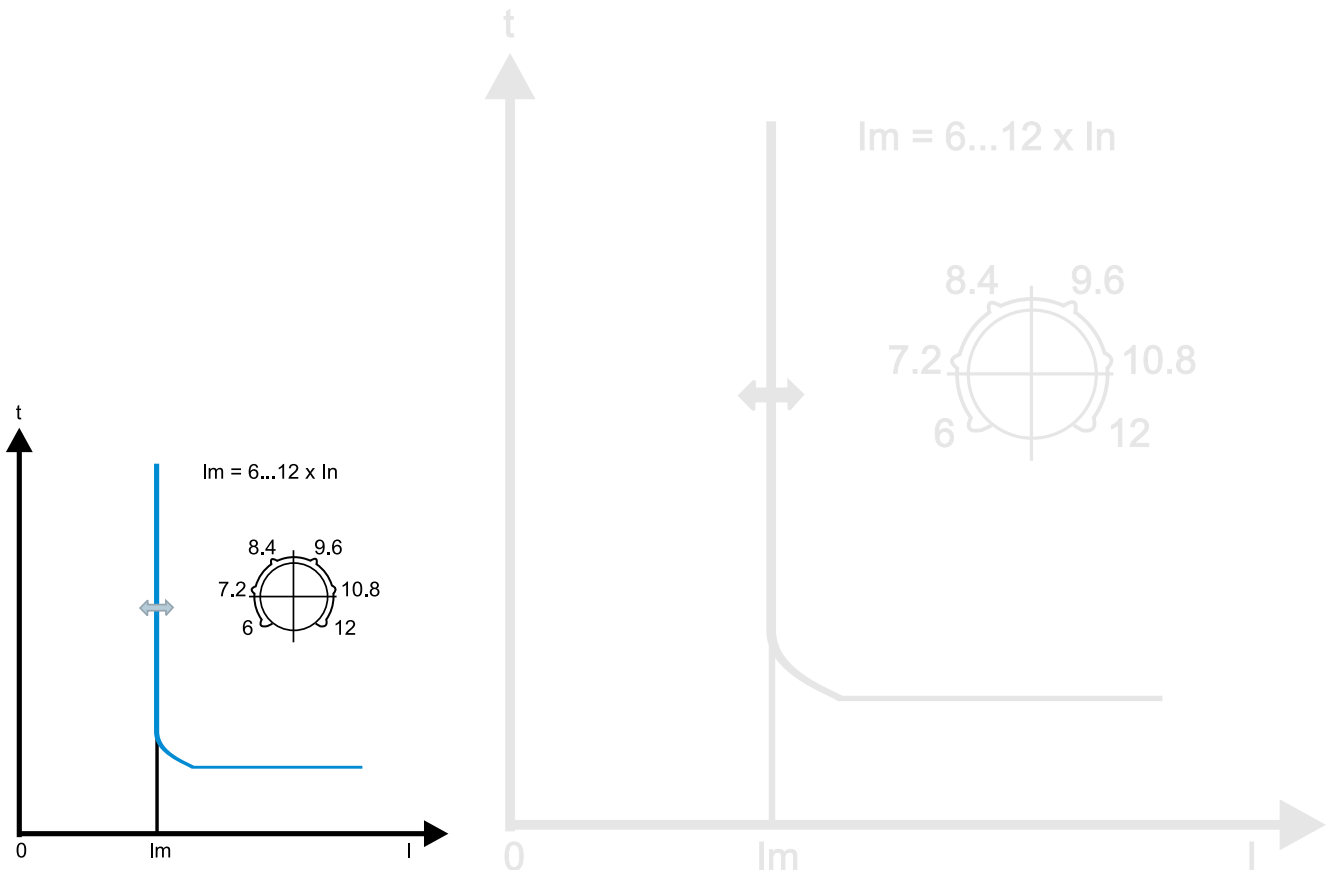
# MOULDED CASE CIRCUIT BREAKERS ACW - TRIP UNIT MTU



## SETTING RANGES OF TRIP UNITS

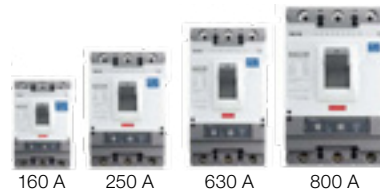
### Magnetic Trip Unit

Current (A) - $I_m$	6; 7.2; 8.4; 9.6; 10.8; 12 x $I_n$
---------------------	------------------------------------



# MOULDED CASE CIRCUIT BREAKER - ACW

## CIRCUIT BREAKERS FOR ELECTRICAL CIRCUIT PROTECTION



### HIGH BREAKING CAPACITY ACW - 20 TO 800 A - 3-POLE

TYPE	I <sub>n</sub> (A)	IEC 60947-2 - I <sub>cu</sub> = I <sub>cs</sub> (kA)			STOCK CODE	PRICE EACH (ZAR)
		220-240 V	380-415 V	440-460 V		
ACW100H-FMU20-3	20	100	85	70	11111144	3815.00
ACW100H-FMU25-3	25	100	85	70	11111170	3815.00
ACW100H-FMU32-3	32	100	85	70	11111172	3815.00
ACW100H-FMU40-3	40	100	85	70	11111173	3815.00
ACW100H-FMU50-3	50	100	85	70	11111174	3815.00
ACW100H-FMU63-3	63	100	85	70	11111175	3815.00
ACW100H-FMU80-3	80	100	85	70	11111176	3815.00
ACW100H-FMU100-3	100	100	85	70	11111177	3815.00
ACW160H-FMU125-3	125	100	85	70	11111219	6031.00
ACW160H-FMU160-3	160	100	85	70	11111221	6031.00
ACW250H-ATU200-3	200	120	85	70	11111344	9924.00
ACW250H-ATU250-3	250	120	85	70	11111342	10689.00
ACW400H-ETS400-3	400	120	85	70	11111394	18223.00
ACW630H-ETS630-3	630	120	85	70	11111408	21815.00
ACW800U-ETS800-3	800	120	100	100	10583696	34158.00
ACW1600H-AG1800-3	800	75	70	65	12733275	31178.00
ACW1600H-AG11000-3	1.000	75	70	65	12733276	33830.00
ACW1600H-AG11250-3	1.250	75	70	65	12733277	38099.00
ACW1600H-AG11600-3	1.600	75	70	65	12733328	40104.00

### VERY HIGH BREAKING CAPACITY ACW - 20 TO 630 A - 3-POLE<sup>1)</sup>

TYPE	I <sub>n</sub> (A)	IEC 60947-2 - I <sub>cu</sub> = I <sub>cs</sub> (kA)			STOCK CODE	PRICE EACH (ZAR)
		220-240 V	380-415 V	440-460 V		
ACW100V-FMU20-3	20	200	150	130	10583682	5216.00
ACW100V-FMU25-3	25	200	150	130	10583683	5216.00
ACW100V-FMU32-3	32	200	150	130	10583684	5216.00
ACW100V-FMU40-3	40	200	150	130	10583691	5216.00
ACW100V-FMU50-3	50	200	150	130	10583685	5216.00
ACW100V-FMU63-3	63	200	150	130	10583686	5216.00
ACW100V-FMU80-3	80	200	150	130	10583687	5216.00
ACW100V-FMU100-3	100	200	150	130	10583688	5216.00
ACW160V-FMU125-3	125	200	150	130	10583689	8245.00
ACW160V-FMU160-3	160	200	150	130	10583690	8245.00
ACW250V-ATU200-3	200	200	150	130	10583692	13568.00
ACW250V-ATU250-3	250	200	150	130	10583693	14613.00
ACW400V-ETS400-3	400	200	150	130	10583694	24912.00
ACW630V-ETS630-3	630	200	150	130	10583695	29823.00
ACW1600V-AG1800-3	800	200	150	130	12733329	42368.00
ACW1600V-AG11000-3	1.000	200	150	130	12733330	43726.00

Note: 1) Availability upon request.  
ACW UL Listed upon request.



# MOULDED CASE CIRCUIT BREAKER - ACW

## CIRCUIT BREAKERS FOR MOTOR BRANCH CIRCUIT PROTECTION

### HIGH BREAKING CAPACITY ACW - 20 TO 500 A - 3-POLE

TYPE	I <sub>n</sub> (A)	IEC 60947-2 - I <sub>cu</sub> = I <sub>cs</sub> (kA)			STOCK CODE	PRICE EACH (ZAR)
		220-240 V	380-415 V	440-460 V		
ACW101H-MTU20-3	20	120	85	70	11111283	5867.00
ACW101H-MTU50-3	50	120	85	70	11111306	5867.00
ACW101H-MTU100-3	100	120	85	70	11111301	5867.00
ACW161H-MTU160-3	160	120	85	70	11111266	9046.00
ACW250H-MTU220-3	220	120	85	70	11111388	10689.00
ACW400H-MTU320-3	320	120	85	70	11111396	16690.00
ACW630H-MTU500-3	500	120	85	70	11111406	22545.00
ACW800U-MTU630-3	630	120	100	100	10940149	33846.00

### VERY HIGH BREAKING CAPACITY ACW 20 TO 220 A - 3-POLE<sup>1)</sup>

TYPE	I <sub>n</sub> (A)	IEC 60947-2 - I <sub>cu</sub> = I <sub>cs</sub> (kA)			STOCK CODE	PRICE EACH (ZAR)
		220-240 V	380-415 V	440-460 V		
ACW101V-MTU20-3	20	200	150	130	10583697	6546.00
ACW101V-MTU50-3	50	200	150	130	10583699	6546.00
ACW101V-MTU100-3	100	200	150	130	10583701	6546.00
ACW161V-MTU160-3	160	200	150	130	10583702	12366.00
ACW250V-MTU220-3	220	200	150	130	10583703	14613.00
ACW400V-MTU320-3	320	200	150	130	10940133	33015.00
ACW630V-MTU500-3	500	200	150	130	10940135	33846.00

Note: 1) Availability upon request.



## ACCESSORIES FOR MOULDED CASE CIRCUIT BREAKER - ACW

### ACCESSORIES

#### PLUG-IN KIT

TYPE	CIRCUIT BREAKER	STOCK CODE	PRICE EACH (ZAR)
PI ACW100-160	ACW100-160	11111776	4153.00
PI ACW250	ACW250	11111777	4876.00
PI ACW400-630	ACW400-630	11111841	8938.00
PI ACW800	ACW800	11111843	24015.00

#### AUXILIARY CONTACT

TYPE	CONTACT	CIRCUIT BREAKER	STOCK CODE	PRICE EACH (ZAR)
BC-1 ACW100-800	1 REV	ACW100-800	10583677	379.00
BC-1 ACW1600	1 REV	ACW1600	12733489	379.00

#### ALARM CONTACT

TYPE	CONTACT	CIRCUIT BREAKER	STOCK CODE	PRICE EACH (ZAR)
AL-1 ACW100-800	1 REV	ACW100-800	10583678	379.00
AL-1 ACW1600	1 REV	ACW1600	12733490	379.00

#### SHUNT RELEASE

TYPE	CIRCUIT BREAKER	VOLTAGE	STOCK CODE	PRICE EACH (ZAR)
BD E10 ACW100-800	ACW100-800	110-130 V ac/dc	10583679	862.00
BD E44 ACW100-800	ACW100-800	200-240 V ac / 250 V dc	10583680	862.00
BD ACW100-800 E26	ACW100-800	24 V ac/dc	10692976	862.00
BD ACW1600 C28	ACW1600	24-30 V dc	12733492	862.00
BD ACW1600 E58	ACW1600	48 V ac / 48-60 V dc	12733494	862.00
BD ACW1600 E10	ACW1600	110-130 V ac/dc	12733495	862.00
BD ACW1600 E12	ACW1600	200-240 V ac/dc	12733496	862.00
BD ACW1600 D85	ACW1600	380-460 V ac	12733497	862.00

#### UNDERVOLTAGE RELEASE

TYPE	CIRCUIT BREAKER	VOLTAGE	STOCK CODE	PRICE EACH (ZAR)
BS ACW100-800 E10	ACW100-800	110-130 V ac/dc	10583681	1216.00
BS ACW100-800 E44	ACW100-800	200-240 V ac / 250 V dc	10583660	1216.00
BS ACW100-800 D71	ACW100-800	380-440 V ac	10583654	1216.00
BS ACW100-800 D74	ACW100-800	440-480 V ac	10583655	1216.00
BS ACW1600 C28	ACW1600	24-30 V dc	12733528	1216.00
BS ACW1600 E58	ACW1600	48 V ac / 48-60 V dc	12733529	1216.00
BS ACW1600 E10	ACW1600	110-130 V ac/dc	12733530	1216.00
BS ACW1600 E12	ACW1600	200-240 V ac/dc	12733531	1216.00
BS ACW1600 D85	ACW1600	380-460 V ac	12733532	1216.00



## ACCESSORIES FOR MOULDED CASE CIRCUIT BREAKER - ACW

### ACCESSORIES

#### MOTOR OPERATOR

TYPE	CIRCUIT BREAKER	VOLTAGE	STOCK CODE	PRICE EACH (ZAR)
AM ACW100-160 E36	ACW100-160	100-240 V ac / 100-220 V dc	10583656	6062.00
AM ACW100-160 C03	ACW100-160	24 V dc	10692992	6062.00
AM ACW250 E29	ACW101-161-250	110 V ac/dc	10583657	6494.00
AM ACW250 E46	ACW101-161-250	230 V ac / 220 V dc	10583658	6494.00
AM ACW250 C03	ACW101-161-250	24 V dc	10692993	6494.00
AM ACW400-630 E29	ACW400-630	110 V ac/dc	10583659	11573.00
AM ACW400-630 E46	ACW400-630	230 V ac / 220 V dc	10583661	11573.00
AM ACW400-630 C03	ACW400-630	24 V dc	10692994	10063.00
AM ACW800 E29	ACW800	110 V ac/dc	10583662	12660.00
AM ACW800 E46	ACW800	230 V ac / 220 V dc	10583663	12660.00
AM ACW800 C03	ACW800	24 V dc	10692995	12660.00

#### EXTENSION BARS OR TERMINAL TAGS

TYPE	CIRCUIT BREAKER	PACKING (un)	STOCK CODE	PRICE EACH (ZAR)
BE-ACW100-160	ACW100-160	3	10583665	156.00
BE-ACW250	ACW101-161-250	3	10583666	179.00
BE-ACW400-630	ACW400-630	3	10583667	680.00
BE-ACW800	ACW800	3	10583664	1141.00
BE ACW1600	ACW1600	3	12733549	1379.00



## ACCESSORIES FOR MOULDED CASE CIRCUIT BREAKER - ACW

### ACCESSORIES

#### ROUND CABLE TERMINAL

TYPE	CIRCUIT BREAKER	PACKAGING (un)	STOCK CODE	PRICE EACH (ZAR)
PC2 ACW100-160	ACW100-160	3	10583668	526.00
PC2 ACW250	ACW101-161-250	3	10583669	632.00
PC2 ACW400-630	ACW400-630	3	10583671	1600.00
PC2 ACW800	ACW800	3	10583672	2979.00
PC2 ACW1600	ACW1600	3	12733552	2979.00

#### TERMINAL COVER

TYPE	CIRCUIT BREAKER	PACKAGING (un)	STOCK CODE	PRICE EACH (ZAR)
CP ACW100-160	ACW100-160	2	10583673	100.00
CP ACW250	ACW101-161-250	2	10583674	100.00
CP ACW400-630	ACW400-630	2	10583675	185.00
CP ACW800	ACW800	2	10583676	291.00
CP ACW1600	ACW1600	2	12733553	386.00

#### DOOR COUPLING ROTARY HANDLE

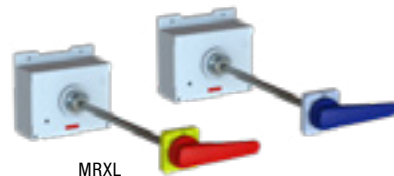
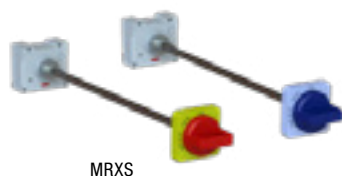
TYPE	CIRCUIT BREAKER	STOCK CODE	PRICE EACH (ZAR)
MRI ACW100-160	ACW100-160	10583652	624.00
MRI ACW250	ACW101-161-250	10583653	691.00
MRI ACW400-630	ACW400-630	10583903	1328.00
MRI ACW800	ACW800	10583904	1566.00
MRI ACW1600	ACW1600	12733533	4344.00



## ACCESSORIES FOR MOULDED CASE CIRCUIT BREAKER - ACW

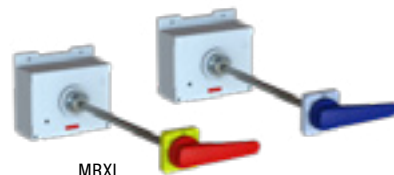
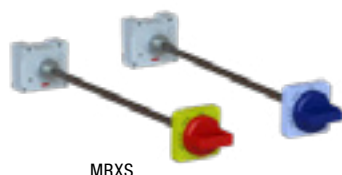
### PANEL DOOR OPERATING HANDLES

#### COMPLETE SET



TYPE	CIRCUIT BREAKER	HANDLE (mm)	SHAFT (mm)	STOCK CODE	PRICE EACH (ZAR)
MRXS-A-ACW160-BU	ACW100 / ACW160	Selector	460	13624663	919.00
MRXS-A-ACW160-R	ACW100 / ACW160	Selector	460	13624662	919.00
MRXS-A-ACW250-BU	ACW101 / ACW161 / ACW250	Selector	460	13993764	990.00
MRXS-A-ACW250-R	ACW101 / ACW161 / ACW250	Selector	460	13993766	990.00
MRXL-A-ACW160-BU	ACW100 / ACW160	Pistol (105)	460	13993848	1202.00
MRXL-A-ACW160-R	ACW100 / ACW160	Pistol (105)	460	13993849	1202.00
MRXL-A-ACW250-BU	ACW101 / ACW161 / ACW250	Pistol (105)	460	13993853	1273.00
MRXL-A-ACW250-R	ACW101 / ACW161 / ACW250	Pistol (105)	460	13993870	1273.00
MRXL-A-ACW630-BU	ACW400 / ACW630	Pistol (158)	460	13993877	1838.00
MRXL-A-ACW630-R	ACW400 / ACW630	Pistol (158)	460	13993928	1838.00
MRXL-A-ACW800-BU	ACW800	Pistol (158)	460	13993929	2121.00
MRXL-A-ACW800-R	ACW800	Pistol (158)	460	13993930	2121.00

#### HANDLE + SHAFT



TYPE	CIRCUIT BREAKER	HANDLE (mm)	SHAFT (mm)	STOCK CODE	PRICE EACH (ZAR)
MRXS-B-1-BU	ACW100 / ACW160 / ACW101 / ACW161 / ACW250	Selector	460	13624632	495.00
MRXS-B-1-R	ACW100 / ACW160 / ACW101 / ACW161 / ACW250	Selector	460	13624630	495.00
MRXL-B-2-BU	ACW100 / ACW160 / ACW101 / ACW161 / ACW250	Pistol (105)	460	13624634	778.00
MRXL-B-2-R	ACW100 / ACW160 / ACW101 / ACW161 / ACW250	Pistol (105)	460	13624633	778.00
MRXL-B-5-BU	ACW400 / ACW630 / ACW800	Pistol (158)	460	13624659	990.00
MRXL-B-5-R	ACW400 / ACW630 / ACW800	Pistol (158)	460	13624637	990.00

#### MECHANISM

TYPE	CIRCUIT BREAKER	STOCK CODE	PRICE EACH (ZAR)
MRH ACW160	ACW100 / ACW160	11591602	425.00
MRH ACW250	ACW101 / ACW161 / ACW250	11591601	495.00
MRH ACW630	ACW400 / ACW630	11591599	849.00
MRH ACW800	ACW800	11591598	1131.00



## ACCESSORIES FOR MOULDED CASE CIRCUIT BREAKER - ACW

### ACCESSORIES

#### REAR CONNECTION

TYPE	CIRCUIT BREAKER	TERMINAL	STOCK CODE	PRICE EACH (ZAR)
TTF ACW100-160	ACW100-160	Flat	11591643	5711.00
TTR ACW100-160	ACW100-160	Rounded	11591644	5201.00
TTF ACW250	ACW101-161-250	Flat	11591645	7213.00
TTR ACW250	ACW101-161-250	Rounded	11591646	5332.00
TTF ACW400-630	ACW400-630	Flat	11591647	12888.00
TTF ACW800	ACW800	Flat	11591658	29881.00

#### EARTH LEAKAGE PROTECTION MODULE

TYPE	CIRCUIT BREAKER	VOLTAGE (50/60 Hz)	STOCK CODE	PRICE EACH (ZAR)
FT ACW101-161 D88	ACW101-161	220-460 V	11424574	6771.00
FT ACW101-161 D89	ACW101-161	460-690 V	11591541	6771.00
FT ACW250 D88	ACW250	220-460 V	11424575	6771.00
FT ACW250 D89	ACW250	460-690 V	11591542	6771.00
FT ACW400 D88	ACW400	220-460 V	11424577	10601.00
FT ACW400 D89	ACW400	460-690 V	11591544	10601.00
FT ACW630 D88	ACW630	220-460 V	11424598	10601.00
FT ACW630 D89	ACW630	460-690 V	11591546	10601.00
FT ACW800 D88	ACW800	220-460 V	11424567	13513.00
FT ACW800 D89	ACW800	460-690 V	11591547	13513.00

#### MECHANICAL INTERLOCK

TYPE	CIRCUIT BREAKER	STOCK CODE	PRICE EACH (ZAR)
MI ACW100-160	ACW100-160	11799916	1569.00
MI ACW250	ACW101-161-250	11799917	1682.00
MI ACW400-630	ACW400-630	11800018	1880.00
MI ACW800	ACW800	11800019	2078.00
MI ACW1600	ACW1600	12733548	2205.00

#### PADLOCKING DEVICE

TYPE	CIRCUIT BREAKER	STOCK CODE	PRICE EACH (ZAR)
TR ACW100-160	ACW100-160	11799916	1569.00
TR ACW250	ACW250	11799917	1682.00
TR ACW400-630	ACW400-630	11800018	1880.00
TR ACW800	ACW800	11800019	2078.00
TR ACW1600	ACW1600	12733548	2205.00



# TECHNICAL DATA

Circuit breaker		ABW08	ABW16	ABW20	ABW25	ABW32	ABW40	ABW50	ABW63
Maximum rated current (40 °C) - In max. (A)		800	1,600	2,000	2,500	3,200	4,000	5,000	6,300
Current setting		(0.4 ~1.0) x In max							
Rated operational voltage - Ue (V)		690							
Rated insulation voltage - Ui (V)		1,000							
Impulse voltage - Uimp (kV)		12							
Frequency (Hz)		50 / 60							
Number of poles		3 and 4							
Versions		Fixed - withdrawable							
Protection units		Electronics							
Rated ultimate short-circuit breaking capacity - Icu (kA)	220 / 380 / 415 V	65		85		100		120	
	440 / 480 / 500 V	65		85		100		120	
	600 / 690 V	50		85		85		100	
Rated service short-circuit breaking capacity - Ics (kA)	220 / 380 / 415 V	65		85		100		120	
	440 / 480 / 500 V	65		85		100		120	
	600 / 690 V	50		85		85		100	
Rated short-time withstand current - Icw (1s)	1s	50		85		85		100	
	2s	42		75		75		90	
	3s	36		65		65		85	
Rated making capacity - Icm (kA peak)	220 / 380 / 415 V	143		187		220		264	
	440 / 480 / 500 V	143		187		220		264	
	600 / 690 V	105		187		187		220	
Utilization categories		B							
Operating time (ms)	Max. total breaking time	40							
	Max. closing time	80							
Mechanical lifespan (number of operations)	Without maintenance	20,000		15,000		10,000		10,000	
	With maintenance <sup>1)</sup>	30,000		20,000		15,000		15,000	
Electrical lifespan	Without maintenance	5,000		5,000		2,000		2,000	
	With maintenance <sup>1)</sup>	10,000		10,000		5,000		5,000	
Altitude (m)		≤2,000 <sup>2)</sup>							
Ambient temperature	Operation	-5...40 °C <sup>3)</sup>							
	Storage	-20...60 °C							
Weight (kg) <sup>4)</sup>	Withdrawable <sup>5)</sup>	61		85		143		184	
	Fixed	32		42		74		96	
Connection terminals - withdrawable/fixed	Horizontal	Standard		Standard		Optional		Optional	
	Vertical	Optional		Optional		Standard		Standard	
External dimensions H x W x D (mm)	Withdrawable	430 x 334 x 375		430 x 412 x 375		460 x 629 x 375		760 x 785 x 375	
	Fixed	300 x 300 x 295		300 x 378 x 295		300 x 597 x 295		300 x 751 x 295	

Notes: 1) According to the maintenance routines indicated in the manual.

2) For installation above 2,000 m from sea level, please consider the voltage and current derating factors, as shown in the chart below.

3) For ambient temperature above 40 °C, check maximum rated current values in the chart below.

4) It may vary according to the configuration of optional accessories.

5) It includes withdrawable rack.



# AIR CIRCUIT BREAKER - ABW

## 3-POLE CIRCUIT BREAKERS



### FIXED 3-POLE + OPENING AND CLOSING COILS 200...250 V AC/DC<sup>1)</sup>

TYPE	I <sub>n</sub> (A) OVERLOAD RANGE (A)	PROTECTION TYPE	FRAME SIZE	I <sub>cs</sub> (kA) 480 V	STOCK CODE	PRICE EACH (ZAR)
					50 Hz	
ABW08DN3-08AZ ▲ F-A0220	320 - 800	LSIG	08-16	65	Upon request	Upon request
ABW16DN3-16AZ ▲ F-A0220	640 - 1.600	LSIG	08-16	65	11403391	47339.00
ABW20ES3-20AZ ▲ F-A0220	800 - 2.000	LSIG	20-32	85	11447021	57483.00
ABW25ES3-25AZ ▲ F-A0220	1.000 - 2.500	LSIG	20-32	85	11447024	71009.00
ABW32ES3-32AZ ▲ F-A0220	1.280 - 3.200	LSIG	20-32	85	11399003	91297.00
ABW40FS3-40AZ ▲ F-A0220	1.600 - 4.000	LSIG	40-50	100	11384055	135254.00
ABW50FS3-50AZ ▲ F-A0220	2.000 - 5.000	LSIG	40-50	100	11447034	182593.00
ABW63GS3-63AZ ▲ F-A0220	2.520 - 6.300	LSIG	63	120	11447036	253601.00



### WITHDRAWABLE 3-POLE + OPENING AND CLOSING COILS 200...250 V AC/DC<sup>1) 2)</sup>

TYPE	I <sub>n</sub> (A) OVERLOAD RANGE (A)	PROTECTION TYPE	FRAME SIZE	I <sub>cs</sub> (kA) 480 V	STOCK CODE	PRICE EACH (ZAR)
					50 Hz	
ABW08DN3-08AZ ▲ E-A0220	320 - 800	LSIG	08-16	65	Upon request	Upon request
ABW16DN3-16AZ ▲ E-A0220	640 - 1.600	LSIG	08-16	65	11447018	76081.00
ABW20ES3-20AZ ▲ E-A0220	800 - 2.000	LSIG	20-32	85	11447023	87915.00
ABW25ES3-25AZ ▲ E-A0220	1.000 - 2.500	LSIG	20-32	85	11447025	104822.00
ABW32ES3-32AZ ▲ E-A0220	1.280 - 3.200	LSIG	20-32	85	11447027	131873.00
ABW40FS3-40AZ ▲ E-A0220	1.600 - 4.000	LSIG	40-50	100	11447028	223169.00
ABW50FS3-50AZ ▲ E-A0220	2.000 - 5.000	LSIG	40-50	100	11447035	273889.00
ABW63GS3-63AZ ▲ E-A0220	2.520 - 6.300	LSIG	63	120	11447037	422667.00

Note: 1) Standard accessories:

Protection unit ABW-AZ...

Input voltage 100...250 V ac/dc.

Current measurement per phase.

Chronologic register of 10 faults.

Auxiliary contacts (5NO + 5NC).

Alarm contacts (3NO).

Operations counter.

2) Standard accessories (withdrawable):

Keylock position lock.

Position indicator (Connected / Test / Disconnected).

◆ - Fill in with the motorized operation voltage code (automatic spring charge).

■ - Fill in with the closing and opening coil voltage code.

▲ - Fill in with the power input frequency - 6 = 50 Hz; 1 = 60 Hz.

◆ Motor operation	■ Coil
Code	Code
0 - W/o Mot. Op.	0 - Without coil
1 - 100...130 V ac/dc	1 - 100...130 V ac/dc
2 - 200...250 V ac/dc	2 - 200...250 V ac/dc
3 - 24...30 V dc	3 - 24...30 V dc
4 - 48...60 V ac/dc	
5 - 480 V ac	



# AIR CIRCUIT BREAKER - ABW

## 4-POLE CIRCUIT BREAKERS



### FIXED 4-POLE + OPENING AND CLOSING COILS 200...250 V AC/DC<sup>1)</sup>

TYPE	I <sub>n</sub> (A) OVERLOAD RANGE (A)	PROTECTION TYPE	FRAME SIZE	I <sub>cs</sub> (kA) 480 V	STOCK CODE	PRICE EACH (ZAR)
					50 Hz	
ABW08DN4-08AZ ▲ F-A0220	320 - 800	LSIG	08-16	65	Upon request	Upon request
ABW16DN4-16AZ ▲ F-A0220	640 - 1.600	LSIG	08-16	65	Upon request	Upon request
ABW20ES4-20AZ ▲ F-A0220	800 - 2.000	LSIG	20-32	85	Upon request	Upon request
ABW25ES4-25AZ ▲ F-A0220	1.000 - 2.500	LSIG	20-32	85	Upon request	Upon request
ABW32ES4-32AZ ▲ F-A0220	1.280 - 3.200	LSIG	20-32	85	Upon request	Upon request
ABW40FS4-40AZ ▲ F-A0220	1.600 - 4.000	LSIG	40-50	100	Upon request	Upon request
ABW50FS4-50AZ ▲ F-A0220	2.000 - 5.000	LSIG	40-50	100	Upon request	Upon request
ABW63GS4-63AZ ▲ F-A0220	2.520 - 6.300	LSIG	63	120	Upon request	Upon request



### WITHDRAWABLE 4-POLE + OPENING AND CLOSING COILS 200...250 V AC/DC<sup>1) 2)</sup>

TYPE	I <sub>n</sub> (A) OVERLOAD RANGE (A)	PROTECTION TYPE	FRAME SIZE	I <sub>cs</sub> (kA) 480 V	STOCK CODE	PRICE EACH (ZAR)
					50 Hz	
ABW08DN4-08AZ ▲ E-A0220	320 - 800	LSIG	08-16	65	Upon request	Upon request
ABW16DN4-16AZ ▲ E-A0220	640 - 1.600	LSIG	08-16	65	Upon request	Upon request
ABW20ES4-20AZ ▲ E-A0220	800 - 2.000	LSIG	20-32	85	Upon request	Upon request
ABW25ES4-25AZ ▲ E-A0220	1.000 - 2.500	LSIG	20-32	85	Upon request	Upon request
ABW32ES4-32AZ ▲ E-A0220	1.280 - 3.200	LSIG	20-32	85	Upon request	Upon request
ABW40FS4-40AZ ▲ E-A0220	1.600 - 4.000	LSIG	40-50	100	Upon request	Upon request
ABW50FS4-50AZ ▲ E-A0220	2.000 - 5.000	LSIG	40-50	100	Upon request	Upon request
ABW63GS4-63AZ ▲ E-A0220	2.520 - 6.300	LSIG	63	120	Upon request	Upon request

Note: 1) Standard accessories:

- Protection unit ABW-AZ...
- Input voltage 100...250 V ac/dc.
- Current measurement per phase.
- Chronologic register of 10 faults.
- Auxiliary contacts (5NO + 5NC).
- Alarm contacts (3NO).
- Operations counter.

2) Standard accessories (withdrawable):

- Keylock position lock.
- Position indicator (Connected / Test / Disconnected).
- ◆ - Fill in with the motorized operation voltage code (automatic spring charge).
- - Fill in with the closing and opening coil voltage code.
- ▲ - Fill in with the power input frequency - 6 = 50 Hz; 1 = 60 Hz.

◆ Motor operation	■ Coil
Code	Code
0 - W/o Mot. Op.	0 - Without coil
1 - 100...130 V ac/dc	1 - 100...130 V ac/dc
2 - 200...250 V ac/dc	2 - 200...250 V ac/dc
3 - 24...30 V dc	3 - 24...30 V dc
4 - 48...60 V ac/dc	
5 - 480 V ac	



## AIR CIRCUIT BREAKER ACCESSORIES - ABW

### FACTORY-ASSEMBLED ACCESSORIES



### PROTECTION AND MEASUREMENT UNITS<sup>1)</sup>

TYPE	ACB	FREQUENCY	VOLTAGE	CODE	PRICE EACH (ZAR)
ABW-AF1	ABW16-63	60	100-250 V ac/dc	AF1	Upon request
ABW-AF6	ABW16-63	50	100-250 V ac/dc	AF6	Upon request
ABW-AC1	ABW16-63	60	100-250 V ac/dc	AC1	Upon request
ABW-AC6	ABW16-63	50	100-250 V ac/dc	AC6	Upon request
ABW-AC2	ABW16-63	N/A	24-60 V dc	AC2	Upon request
ABW-PC1	ABW16-63	60	100-250 V ac/dc	PC1 <sup>2)</sup>	Upon request
ABW-PC6	ABW16-63	50	100-250 V ac/dc	PC6 <sup>2)</sup>	Upon request
ABW-PC2	ABW16-63	N/A	24-60 V dc	PC2 <sup>2)</sup>	Upon request
ABW-AZ2	ABW16-63	N/A	24-60 V dc	AZ2 <sup>2)</sup>	Upon request

- Protection unit ABW-AF\_.
- Standard AZ\_ unit characteristics + Earth leakage protection possibility (no communication).
- Protection unit ABW-AC\_.
- Standard AZ\_ unit characteristics + MODBUS communication (monitoring and diagnosis) and communication possibility Profibus (including ABW-CP module).
- To connect/disconnect the circuit breaker through communication it is necessary to include the ABW-CM or ABW-CP module (accessory).
- Protection unit ABW-PC\_.
- Standard AC\_ characteristics + Maximum and minimum current and voltage protections, current unbalance and out of range frequency.
- Current, voltage, power, frequency, power factor and phase angle measurement.
- 256 fault event log.

- Example: To describe the circuit breaker, substitute the standard AZ\_ code for the chosen unit code:
  - Standard AZ1 circuit breaker unit AZ1: ABW16DN4-16**AZ1**E-A0220
  - Chosen AC1 circuit breaker unit AC1: ABW16DN4-16**AC1**E-A0220

Note: 1) These acc. are assembled in the factory. Include the price in the ACB's price and request the ACB's code with the assembled acc.  
2) Requires VDW voltage measurement module.



## AIR CIRCUIT BREAKER ACCESSORIES - ABW

### FACTORY-ASSEMBLED ACCESSORIES



#### UNDER VOLTAGE COIL<sup>1)</sup>

TYPE	CIRCUIT BREAKER	VOLTAGE (V)	CODE	STOCK CODE	PRICE EACH (ZAR)
ABW-UVT C34	ABW08-63	24-30 V dc	3	11193882	1767.00
ABW-UVT E27	ABW08-63	48 V ac/dc	4	11193884	1767.00
ABW-UVT E10	ABW08-63	110-130 V ac/dc	1	11193888	1767.00
ABW-UVT E12	ABW08-63	200-250 V ac/dc	2	11193854	1767.00
ABW-UVT E55	ABW08-63	380-480 V ac/dc	5	11193883	1767.00

Note: Example: Circuit breaker with instantaneous under voltage coil @ 200...250 V ac/dc: ABW16DN4-16AZ1E-A022**2**



#### POSITION AUXILIARY CONTACTS (WITHDRAWABLE CIRCUIT BREAKERS)<sup>1)</sup>

TYPE	CIRCUIT BREAKER	CODE	STOCK CODE	PRICE EACH (ZAR)
ABW-BC4	ABW08-63	B	11194966	3286.00

Note: Example: Withdrawable circuit breaker with position auxiliary contacts: ABW16DN4-16AZ1E-**B**0220



#### MECHANICAL INTERLOCK<sup>1)</sup>

TYPE	CIRCUIT BREAKER	CODE	STOCK CODE	PRICE EACH (ZAR)
ABW-IM1 2D/F	ABW08, 16, 40 and 50	M	11194710	16569.00
ABW-IM2 2E/G	ABW20, 25, 32, and 63	M	11194711	16569.00
ABW-IM1 3D/F	ABW08, 16, 40 and 50	M3	11194713	36749.00
ABW-IM2 3E/G	ABW20, 25, 32, and 63	M3	11194717	36749.00

Note: Example: Changeover using 2 withdrawable ACBs with mechanical interlock: ABW16DN4-16AZ1E-A0220**M**



#### DOOR INTERLOCK<sup>1)</sup>

TYPE	CIRCUIT BREAKER	CODE	STOCK CODE	PRICE EACH (ZAR)
ABW-DI	ABW08-63	D	11195050	1644.00

Note: Example: Circuit breaker with door interlock: ABW16DN4-16AZ1E-A0220**D**

Note: 1) These acc. are assembled in the factory. Include the price in the ACB's price and request the ACB's code with the assembled acc.



## AIR CIRCUIT BREAKER ACCESSORIES - ABW

### MOTOR OPERATOR

TYPE	CIRCUIT BREAKER	VOLTAGE (V)	STOCK CODE	PRICE EACH (ZAR)
ABW-AM E10	ABW16-63	100-130 Vac/dc	11193480	3286.00
ABW-AM E12	ABW16-63	200...250 Vac/dc	11193484	3286.00
ABW-AM C34	ABW16-63	24...30 Vdc	11193457	3286.00
ABW-AM D33	ABW16-63	380 Vac	11193486	3286.00
ABW-AM D74	ABW16-63	440...480 Vac	11193487	3286.00
ABW-AM E27	ABW16-63	48...60 Vdc	11193478	3286.00

### CLOSING COIL

TYPE	CIRCUIT BREAKER	VOLTAGE (V)	STOCK CODE	PRICE EACH (ZAR)
ABW-BF C34	ABW16-63	24...30 Vdc	11193568	2516.00
ABW-BF E10	ABW16-63	110...130 Vac/Vdc	11193789	2516.00
ABW-BF E12	ABW16-63	200...250 Vac/Vdc	11193790	2516.00
ABW-BF E27	ABW16-63	48...60 Vdc	11193767	2516.00

### OPENING COIL (SHUNT TRIP)

TYPE	CIRCUIT BREAKER	VOLTAGE (V)	STOCK CODE	PRICE EACH (ZAR)
ABW-BF C34	ABW16-63	24...30 Vdc	11193796	2516.00
ABW-BF E10	ABW16-63	110...130 Vac/Vdc	11193879	2516.00
ABW-BF E12	ABW16-63	200...250 Vac/Vdc	11193880	2516.00
ABW-BF E27	ABW16-63	48...60 Vdc	11193875	2516.00



## AIR CIRCUIT BREAKER ACCESSORIES - ABW

### FIELD-ASSEMBLED ACCESSORIES



#### MODBUS COMMUNICATION MODULE

TYPE	CIRCUIT BREAKER	PROTOCOL	STOCK CODE	PRICE EACH (ZAR)
ABW-CM <sup>1)</sup>	ABW08-63	Modbus	11193398	34120.00



#### PROFIBUS COMMUNICATION MODULE<sup>2)</sup>

TYPE	CIRCUIT BREAKER	PROTOCOL	STOCK CODE	PRICE EACH (ZAR)
ABW-CP	ABW08-63	Profibus	11193400	56819.00



#### UNDERVOLTAGE MODULE WITH TIMER 3S<sup>3)</sup>

TYPE	ACB	VOLTAGE (V)	STOCK CODE	PRICE EACH (ZAR)
ABW-UDC E27	ABW08-63	48 V ac/dc	11193478	3286.00
ABW-UDC E10	ABW08-63	110-130 V ac/dc	11193451	3286.00
ABW-UDC E12	ABW08-63	200-250 V ac/dc	11193452	3286.00
ABW-UDC E55	ABW08-63	380-480 V ac/dc	11193453	3286.00

Note: 1) It is only possible to use the ABW-CM with the ABW circuit-breaker with AC\_ or PC\_ protection units, which already have MODBUS communication for monitoring and diagnosis. The ABW-CM module allows the operatio (connection/disconnection) of the circuit-breaker via communication.

2) It is only possible to use with ACBs with AC\_ or PC\_ protection units.

3) It is only possible to use with ACBs that have ABW-UVT under voltage coil.



## AIR CIRCUIT BREAKER ACCESSORIES - ABW

### FIELD-ASSEMBLED ACCESSORIES



#### CONDENSER TRIPPING DEVICE

TYPE	ACB	VOLTAGE (V)	STOCK CODE	PRICE EACH (ZAR)
ABW-UC D58	ABW08-63	100-110 V ac	11193370	3958.00
ABW UC D64	ABW08-63	200-220 V ac	11193376	3958.00



#### DOOR FRAME

TYPE	ACB	VOLTAGE (V)	STOCK CODE	PRICE EACH (ZAR)
ABW-DFE	ABW08-63	Fixed	11321382	1230.00
ABW-DFE	ABW08-63	Withdrawable	11195048	1230.00



#### TRANSPARENT COVER

TYPE	ACB	STOCK CODE	PRICE EACH (ZAR)
ABW-DC	ABW08-63	11195053	4888.00



#### KEY LOCK

TYPE	ACB	DESCRIPTION	STOCK CODE	PRICE EACH (ZAR)
ABW-BK1	ABW08-63	Key lock	11194682	2559.00
ABW-IK2	ABW08-63	Key interlock	11194685	7393.00
ABW-BB	ABW08-63	Pushbutton lock	11194681	382.00



## AIR CIRCUIT BREAKER ACCESSORIES - ABW

### FIELD-ASSEMBLED ACCESSORIES



#### EARTH LEAKAGE PROTECTION CT

TYPE	ACB	INTERNAL DIAMETER (mm)	RATED CURRENT	STOCK CODE	PRICE EACH (ZAR)
ABW-ZCT-120	ABW08-63	120	1.000 A	11195018	6361.00
ABW-ZCT-200	ABW08-63	200	2.000 A	11195019	11449.00

#### CONTROL TERMINAL (REMOVABLE)

TYPE	ACB	PACKAGING (un)	STOCK CODE	PRICE EACH (ZAR)
ABW-UJ	ABW08-63	3	11406758	269.00

#### PHASE BARRIERS

TYPE	ACB	PACKAGING (un)	STOCK CODE	PRICE EACH (ZAR)
ABW-IB	ABW08-63	2	11194726	467.00

#### VOLTAGE MODULE OF PC\_TRIP UNIT

TYPE	ACB	VOLTAGE (50/60 Hz)	STOCK CODE	PRICE EACH (ZAR)
ABW-VDM	ABW08-63	60-690 V ac	11506529	3647.00

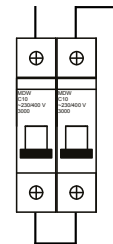


## TECHNICAL DATA - MDW LINE

Maximum operating voltage $U_e$		440 V ac/250 V dc	
Rated insulating voltage $U_i$		500 V ac	
Frequency		50/60 Hz	
Rated currents $I_n$		2 to 125 A	
Short-circuit breaking capacity	NBR NM 60898	127/220 V ac	(2 to 4 A) 1.5 kA, (6 to 125 A) 5 kA
		230/400 V ac	(2 to 4 A) 1.5 kA, (6 to 125 A) 3 kA
	IEC 60947-2	127/220 V ac	(2 to 4 A) 3 kA, (6 to 125 A) 5 kA
		230/400 V ac	(2 to 4 A) 3 kA, (6 to 125 A) 5 kA
Short circuit breaking capacity in direct current $I_{cu}$ , according to NBR IEC 60947-2	48 V dc		(6 to 63 A) 10 kA <sup>1)</sup>
	60 V dc		(6 to 63 A) 10 kA <sup>1)</sup>
	125 V dc		(6 to 63 A) 5 kA <sup>1)</sup> and 16 kA <sup>2)</sup>
	250 V dc		(6 to 63 A) 10 kA <sup>2)</sup>
Tripping characteristic curves		B (3 to 5 times $I_n$ ) C (5 to 10 times $I_n$ )	
Number of poles		1, 2, 3 and 4P	
Electrical lifespan		4,000 operations	
Ambient temperature		-25 to 45 °C	
Degree of protection		IP20	
Connection capacity	MDW (2 A - 63 A)		1 to 25 mm <sup>2</sup>
	MDW (70 A - 125 A)		10 to 35 mm <sup>2</sup>
Mounting position		No restriction	
Tightening torque on the terminals	MDW (2 A - 63 A)		2.5 N.m
	MDW (70 A - 125 A)		3.5 N.m
Fixation		DIN rail 35 mm	
Weight (kg)	Single-pole		0.105 (2 to 63 A); 0.155 (80 A, 125 A)
	Two-pole		0.210 (2 to 63 A); 0.315 (80 A, 125 A)
	Three-pole		0.315 (2 to 63 A); 0.475 (80 A, 125 A)
	Four-pole		0.420 (2 to 63 A); 0.630 (80 A, 125 A)



1- Single-pole connection



2- Two-pole connection in series

Notes: 1) Single-pole connection.  
2) Two-pole connection in series.

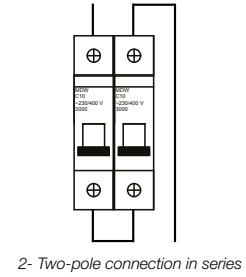
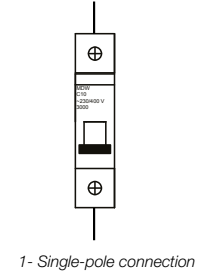
### MDW POWER DISSIPATION (STANDARD NBR NM 60898)

Rated current range $I_n$ (A)	Maximum dissipated active power per pole (W)
$I_n \leq 10$	3
$10 < I_n \leq 16$	3.5
$16 < I_n \leq 25$	4.5
$25 < I_n \leq 32$	6
$32 < I_n \leq 40$	7.5
$40 < I_n \leq 50$	9
$50 < I_n \leq 63$	13
$63 < I_n \leq 100$	15
$100 < I_n \leq 125$	20



## TECHNICAL DATA - MDWH LINE

Maximum operating voltage $U_e$		440 V ac/250 V dc	
Rated insulating voltage $U_i$		500 V ac	
Frequency		50/60 Hz	
Rated currents $I_n$		6 to 63 A	
Short-circuit breaking capacity	NBR NM 60898	127/220 V ac	10 kA
		230/400 V ac	$I_{cs}$ 10 kA / $I_{sc}$ 7.5 kA
	NBR IEC 60947-2	127/220 V ac	20 kA
		230/400 V ac	10 kA
440 V ac		7.5 kA	
Short circuit breaking capacity in direct current $I_{cu}$ , according to NBR IEC 60947-2	48 V dc		(6 to 63 A) 16 kA <sup>1)</sup>
	60 V dc		(6 to 63 A) 15 kA <sup>1)</sup>
	125 V dc		(6 to 63 A) 10 kA <sup>1)</sup> and 15 kA <sup>2)</sup>
	250 V dc		(6 to 63 A) 5 kA <sup>1)</sup> and 10 kA <sup>2)</sup>
Tripping characteristic curves		B (3 a 5 times $I_n$ ) C (5 a 10 times $I_n$ )	
Number of poles		1, 2, 3 and 4P	
Electrical lifespan		4,000 operations	
Ambient temperature		-25 to 45 °C	
Degree of protection		IP20	
Connection capacity		MDWH (6 A - 63 A)	
Mounting position		No restriction	
Tightening torque on the terminals		2.5 N.m	
Fixation		DIN rail 35 mm	
Weight (kg)	Single-pole		0.130 (6 to 63 A)
	Two-pole		0.260 (6 to 63 A)
	Three-pole		0.390 (6 to 63 A)
	Four-pole		0.520 (6 to 63 A)



Notes: 1) Single-pole connection.  
2) Two-pole connection in series.

### MDWH POWER DISSIPATION (STANDARD NBR NM 60898)

Rated current range $I_n$ (A)	Maximum dissipated active power per pole (W)
$I_n \leq 10$	3
$10 < I_n \leq 16$	3.5
$16 < I_n \leq 25$	4.5
$25 < I_n \leq 32$	6
$32 < I_n \leq 40$	7.5
$40 < I_n \leq 50$	9
$50 < I_n \leq 63$	13



# MINIATURE CIRCUIT-BREAKERS

## 1-POLE MCB



### CURVE B, $I_M = 3 \text{ TO } 5I_N$

TYPE	$I_n$ (A)	IEC 898 230/400 V $I_{cn}$ (kA)	IEC 947-2 230/400 V $I_{cu}$ (kA)	PACKAGING (un)	STOCK CODE	PRICE EACH (ZAR)
MDW-B6	6	3	5	12	10076396	53.00
MDW-B10	10	3	5	12	10076404	47.00
MDW-B16	16	3	5	12	10076412	47.00
MDW-B20	20	3	5	12	10076420	47.00
MDW-B25	25	3	5	12	10076428	47.00
MDW-B32	32	3	5	12	10076436	47.00
MDW-B40	40	3	5	12	10076444	47.00
MDW-B50	50	3	5	12	10076452	59.00
MDW-B63	63	3	5	12	10076460	59.00
MDW-B70	70	3	5	6	11134694	180.00
MDW-B80	80	3	5	6	10076468	180.00
MDW-B100	100	3	5	6	10075742	180.00
MDW-B125	125	3	5	6	11807321	180.00

### CURVE C, $I_M = 5 \text{ TO } 10I_N$

TYPE	$I_n$ (A)	IEC 898 230/400 V $I_{cn}$ (kA)	IEC 947-2 230/400 V $I_{cu}$ (kA)	PACKAGING (un)	STOCK CODE	PRICE EACH (ZAR)
MDW-C2	2	1,5	3	12	10076381	64.00
MDW-C4	4	1,5	3	12	10076389	64.00
MDW-C6	6	3	5	12	10076397	54.00
MDW-C10	10	3	5	12	10076405	48.00
MDW-C16	16	3	5	12	10076413	48.00
MDW-C20	20	3	5	12	10076421	48.00
MDW-C25	25	3	5	12	10076429	48.00
MDW-C32	32	3	5	12	10076437	48.00
MDW-C40	40	3	5	12	10076445	48.00
MDW-C50	50	3	5	12	10076453	60.00
MDW-C63	63	3	5	12	10076461	60.00
MDW-C70	70	3	5	6	11134789	183.00
MDW-C80	80	3	5	6	10076469	183.00
MDW-C100	100	3	5	6	10075743	183.00
MDW-C125	125	3	5	6	11807325	183.00



# MINIATURE CIRCUIT-BREAKERS

## 2-POLE MCB



### CURVE B, $I_M = 3 \text{ TO } 5I_N$

TYPE	$I_n$ (A)	IEC 898 230/400 V $I_{cn}$ (kA)	IEC 947-2 230/400 V $I_{cu}$ (kA)	PACKAGING (un)	STOCK CODE	PRICE EACH (ZAR)
MDW-B6-2	6	3	5	6	10076398	111.00
MDW-B10-2	10	3	5	6	10076406	98.00
MDW-B16-2	16	3	5	6	10076414	98.00
MDW-B20-2	20	3	5	6	10076422	98.00
MDW-B25-2	25	3	5	6	10076430	98.00
MDW-B32-2	32	3	5	6	10076438	98.00
MDW-B40-2	40	3	5	6	10076446	98.00
MDW-B50-2	50	3	5	6	10076454	123.00
MDW-B63-2	63	3	5	6	10076462	123.00
MDW-B70-2	70	3	5	3	11134696	362.00
MDW-B80-2	80	3	5	3	10076470	362.00
MDW-B100-2	100	3	5	3	10075744	362.00

### CURVE C, $I_M = 5 \text{ TO } 10I_N$

TYPE	$I_n$ (A)	IEC 898 230/400 V $I_{cn}$ (kA)	IEC 947-2 230/400 V $I_{cu}$ (kA)	PACKAGING (un)	STOCK CODE	PRICE EACH (ZAR)
MDW-C2-2	2	1,5	3	6	10076383	133.00
MDW-C4-2	4	1,5	3	6	10076391	133.00
MDW-C6-2	6	3	5	6	10076399	114.00
MDW-C10-2	10	3	5	6	10076407	101.00
MDW-C16-2	16	3	5	6	10076415	101.00
MDW-C20-2	20	3	5	6	10076423	101.00
MDW-C25-2	25	3	5	6	10076431	101.00
MDW-C32-2	32	3	5	6	10076439	101.00
MDW-C40-2	40	3	5	6	10076447	101.00
MDW-C50-2	50	3	5	6	10076455	127.00
MDW-C63-2	63	3	5	6	10076463	127.00
MDW-C70-2	70	3	5	3	11134790	373.00
MDW-C80-2	80	3	5	3	10076471	373.00
MDW-C100-2	100	3	5	3	10075745	373.00
MDW-C125-2	125	3	5	3	11807327	373.00



# MINIATURE CIRCUIT-BREAKERS

## 3-POLE MCB



### CURVE B, $I_M = 3 \text{ TO } 5I_N$

TYPE	$I_n$ (A)	IEC 898 230/400 V $I_{cn}$ (kA)	IEC 947-2 230/400 V $I_{cu}$ (kA)	PACKAGING (un)	STOCK CODE	PRICE EACH (ZAR)
MDW-B6-3	6	3	5	4	10076400	166.00
MDW-B10-3	10	3	5	4	10076408	147.00
MDW-B16-3	16	3	5	4	10076416	147.00
MDW-B20-3	20	3	5	4	10076424	147.00
MDW-B25-3	25	3	5	4	10076432	147.00
MDW-B32-3	32	3	5	4	10076440	147.00
MDW-B40-3	40	3	5	4	10076448	147.00
MDW-B50-3	50	3	5	4	10076456	184.00
MDW-B63-3	63	3	5	4	10076464	184.00
MDW-B70-3	70	3	5	2	11134697	542.00
MDW-B80-3	80	3	5	2	10077877	542.00
MDW-B100-3	100	3	5	2	10075746	542.00
MDW-B125-3	125	3	5	2	11807323	542.00

### CURVE C, $I_M = 5 \text{ TO } 10I_N$

TYPE	$I_n$ (A)	IEC 898 230/400 V $I_{cn}$ (kA)	IEC 947-2 230/400 V $I_{cu}$ (kA)	PACKAGING (un)	STOCK CODE	PRICE EACH (ZAR)
MDW-C2-3	2	1,5	3	4	10076385	199.00
MDW-C4-3	4	1,5	3	4	10076393	199.00
MDW-C6-3	6	3	5	4	10076401	171.00
MDW-C10-3	10	3	5	4	10076409	152.00
MDW-C16-3	16	3	5	4	10076417	152.00
MDW-C20-3	20	3	5	4	10076425	152.00
MDW-C25-3	25	3	5	4	10076433	152.00
MDW-C32-3	32	3	5	4	10076441	152.00
MDW-C40-3	40	3	5	4	10076449	152.00
MDW-C50-3	50	3	5	4	10076457	190.00
MDW-C63-3	63	3	5	4	10076465	190.00
MDW-C70-3	70	3	5	2	11134791	558.00
MDW-C80-3	80	3	5	2	10075739	558.00
MDW-C100-3	100	3	5	2	10075747	558.00
MDW-C125-3	125	3	5	2	11807348	558.00



# MINIATURE CIRCUIT-BREAKERS

## 4-POLE MCB

### CURVE C, $I_M = 5 \text{ TO } 10I_N$

TYPE	$I_n$ (A)	IEC 898 230/400 V $I_{cn}$ (kA)	IEC 947-2 230/400 V $I_{cu}$ (kA)	PACKAGING (un)	STOCK CODE	PRICE EACH (ZAR)
MDW-C6-4	6	3	5	3	10076403	227.00
MDW-C10-4	10	3	5	3	10076411	202.00
MDW-C16-4	16	3	5	3	10076419	202.00
MDW-C20-4	20	3	5	3	10076427	202.00
MDW-C25-4	25	3	5	3	10076435	202.00
MDW-C32-4	32	3	5	3	10076443	202.00
MDW-C40-4	40	3	5	3	10076451	202.00
MDW-C50-4	50	3	5	3	10076459	253.00
MDW-C63-4	63	3	5	3	10076467	253.00
MDW-C70-4	70	3	5	1	11134792	744.00
MDW-C80-4	80	3	5	1	10075741	744.00
MDW-C100-4	100	3	5	1	10075749	744.00
MDW-C125-4	125	3	5	1	11807349	744.00

## ACCESSORIES FOR MINIATURE CIRCUIT BREAKERS



### AUXILIARY CONTACT

TYPE	CONTACT	FOR USE WITH	STOCK CODE	PRICE EACH (ZAR)
MDW-BC1	1 SPDT	MDW (2 A-63 A)	10261573	76.00
MDW-BC2	1 SPDT	MDW (70 A-100 A)	10261574	76.00

### PADLOCKING DEVICE

TYPE	CONTACT	FOR USE WITH	PACKAGING (un)	STOCK CODE	PRICE EACH (ZAR)
MDW-PLW63	1 SPDT	MDW (2 A-63 A)	50	11373980	32.00
MDW-PLW100	1 SPDT	MDW (70 A-100 A)	50	11373981	35.00

Note: Padlock is not supplied.

### BUS BARS

TYPE	CURRENT $I_b$	N° MCBS	MCB	PACKAGING (un)	STOCK CODE	PRICE EACH (ZAR)
BR1 12 <sup>1)</sup>	63	12	MDW ((2 A-63 A)	10	11402519	61.00
BR1 54 <sup>1)</sup>	63	54	MDW (2 A-63 A)	1 m bar	11156854	206.00
BR2 6 <sup>2)</sup>	63	6	MDW (2 A-63 A)	10	11402518	115.00
BR2 27 <sup>2)</sup>	63	27	MDW (2 A-63 A)	1 m bar	11156855	418.00
BR3 4 <sup>3)</sup>	63	4	MDW (2 A-63 A)	10	11402457	156.00
BR3 18 <sup>3)</sup>	63	18	MDW (2 A-63 A)	1 m bar	11156857	548.00
AL-BR	63	-	MDW (2 A-63 A)	20	11156853	21.00

Note: 1) For single-pole breakers.

2) For 2-pole breakers.

3) For 3-pole breakers.

### BUS BAR ISOLATOR

TYPE	MATERIAL	APPLICATION	N° of poles MCB	PACKAGING (un)	STOCK CODE	PRICE EACH (ZAR)
IS1	Plastic	Bar side	1	50	11402911	1010.00
IS2	Plastic	Bar side	2	50	11402910	1010.00
IS3	Plastic	Bar side	3	50	11402909	1010.00
IPB	Plastic	Bar pin	Per pin	10	11863723	311.00



# MINIATURE CIRCUIT-BREAKERS

## 1-POLE MCB - HIGH CAPACITY



### CURVE B, $I_M = 3 \text{ TO } 5I_N$

TYPE	$I_n$ (A)	IEC 898 230/400 V $I_{cn}$ (kA)	IEC 947-2 230/400 V $I_{cu}$ (kA)	PACKAGING (un)	STOCK CODE	PRICE EACH (ZAR)
MDWH-B6	6	10	10	12	11422529	115.00
MDWH-B10	10	10	10	12	11422579	115.00
MDWH-B16	16	10	10	12	11422583	115.00
MDWH-B20	20	10	10	12	11422587	115.00
MDWH-B25	25	10	10	12	11422631	115.00
MDWH-B32	32	10	10	12	11422636	115.00
MDWH-B40	40	10	10	12	11422640	128.00
MDWH-B50	50	10	10	12	11422644	128.00
MDWH-B63	63	10	10	12	11422658	128.00

### CURVE C, $I_M = 5 \text{ TO } 10I_N$

TYPE	$I_n$ (A)	IEC 898 230/400 V $I_{cn}$ (kA)	IEC 947-2 230/400 V $I_{cu}$ (kA)	PACKAGING (un)	STOCK CODE	PRICE EACH (ZAR)
MDWH-C6	6	10	10	12	11422662	117.00
MDWH-C10	10	10	10	12	11422666	117.00
MDWH-C16	16	10	10	12	11422690	117.00
MDWH-C20	20	10	10	12	11422694	117.00
MDWH-C25	25	10	10	12	11422708	117.00
MDWH-C32	32	10	10	12	11422713	117.00
MDWH-C40	40	10	10	12	11422717	130.00
MDWH-C50	50	10	10	12	11422722	130.00
MDWH-C63	63	10	10	12	11422727	130.00



# MINIATURE CIRCUIT-BREAKERS

## 2-POLE MCB - HIGH CAPACITY

### CURVE B, $I_M = 3 \text{ TO } 5I_N$

TYPE	$I_n$ (A)	IEC 898 230/400 V $I_{cu}$ (kA)	IEC 947-2 230/400 V $I_{cu}$ (kA)	PACKAGING (un)	STOCK CODE	PRICE EACH (ZAR)
MDWH-B6-2	6	10	10	6	11422543	234.00
MDWH-B10-2	10	10	10	6	11422580	234.00
MDWH-B16-2	16	10	10	6	11422584	234.00
MDWH-B20-2	20	10	10	6	11422628	234.00
MDWH-B25-2	25	10	10	6	11422632	234.00
MDWH-B32-2	32	10	10	6	11422637	234.00
MDWH-B40-2	40	10	10	6	11422641	259.00
MDWH-B50-2	50	10	10	6	11422645	259.00
MDWH-B63-2	63	10	10	6	11422659	259.00

### CURVE C, $I_M = 5 \text{ TO } 10I_N$

TYPE	$I_n$ (A)	IEC 898 230/400 V $I_{cu}$ (kA)	IEC 947-2 230/400 V $I_{cu}$ (kA)	PACKAGING (un)	STOCK CODE	PRICE EACH (ZAR)
MDWH-C6-2	6	10	10	6	11422663	239.00
MDWH-C10-2	10	10	10	6	11422667	239.00
MDWH-C16-2	16	10	10	6	11422691	239.00
MDWH-C20-2	20	10	10	6	11422695	239.00
MDWH-C25-2	25	10	10	6	11422709	239.00
MDWH-C32-2	32	10	10	6	11422714	239.00
MDWH-C40-2	40	10	10	6	11422719	265.00
MDWH-C50-2	50	10	10	6	11422723	265.00
MDWH-C63-2	63	10	10	6	11422728	265.00



# MINIATURE CIRCUIT-BREAKERS

## 3-POLE MCB - HIGH CAPACITY

### CURVE B, $I_M = 3 \text{ TO } 5X I_N$

TYPE	$I_n$ (A)	IEC 898 230/400 V $I_{cn}$ (kA)	IEC 947-2 230/400 V $I_{cu}$ (kA)	PACKAGING (un)	STOCK CODE	PRICE EACH (ZAR)
MDWH-B6-3	6	10	10	4	11422546	353.00
MDWH-B10-3	10	10	10	4	11422581	353.00
MDWH-B16-3	16	10	10	4	11422585	353.00
MDWH-B20-3	20	10	10	4	11422629	353.00
MDWH-B25-3	25	10	10	4	11422634	353.00
MDWH-B32-3	32	10	10	4	11422638	353.00
MDWH-B40-3	40	10	10	4	11422642	391.00
MDWH-B50-3	50	10	10	4	11422646	391.00
MDWH-B63-3	63	10	10	4	11422660	391.00

### CURVE C, $I_M = 5 \text{ TO } 10X I_N$

TYPE	$I_n$ (A)	IEC 898 230/400 V $I_{cn}$ (kA)	IEC 947-2 230/400 V $I_{cu}$ (kA)	PACKAGING (un)	STOCK CODE	PRICE EACH (ZAR)
MDWH-C6-3	6	10	10	4	11422664	360.00
MDWH-C10-3	10	10	10	4	11422688	360.00
MDWH-C16-3	16	10	10	4	11422692	360.00
MDWH-C20-3	20	10	10	4	11422696	360.00
MDWH-C25-3	25	10	10	4	11422710	360.00
MDWH-C32-3	32	10	10	4	11422715	360.00
MDWH-C40-3	40	10	10	4	11422720	399.00
MDWH-C50-3	50	10	10	4	11422725	399.00
MDWH-C63-3	63	10	10	4	11422729	399.00

## 4-POLE MCB - HIGH CAPACITY

### CURVE C, $I_M = 5 \text{ TO } 10X I_N$

TYPE	$I_n$ (A)	IEC 898 230/400 V $I_{cn}$ (kA)	IEC 947-2 230/400 V $I_{cu}$ (kA)	PACKAGING (un)	STOCK CODE	PRICE EACH (ZAR)
MDWH-C6-4	6	10	10	3	11422665	481.00
MDWH-C10-4	10	10	10	3	11422689	481.00
MDWH-C16-4	16	10	10	3	11422693	481.00
MDWH-C20-4	20	10	10	3	11422697	481.00
MDWH-C25-4	25	10	10	3	11422711	481.00
MDWH-C32-4	32	10	10	3	11422716	481.00
MDWH-C40-4	40	10	10	3	11422721	534.00
MDWH-C50-4	50	10	10	3	11422726	534.00
MDWH-C63-4	63	10	10	3	11422730	534.00



## MINIATURE CIRCUIT-BREAKERS

### ACCESSORIES FOR MINIATURE CIRCUIT BREAKERS - HIGH CAPACITY

#### AUXILIARY CONTACT

TYPE	CONTACT	MCB	PACKAGING (un)	STOCK CODE	PRICE EACH (ZAR)
MDWH-BC1	1 SPDT	MDWH (6 A-63 A)	1	11882693	140.00

#### ALARM CONTACT

TYPE	CONTACT	MCB	PACKAGING (un)	STOCK CODE	PRICE EACH (ZAR)
MDWH-AL-1	1 SPDT	MDWH (6 A-63 A)	1	11894565	171.00

#### AUXILIARY CONTACT + ALARM CONTACT

TYPE	CONTACT	MCB	PACKAGING (un)	STOCK CODE	PRICE EACH (ZAR)
MDWH-AX-1	1 SPDT	MDWH (6 A-63 A)	1	11894566	249.00

#### PADLOCKING DEVICE

TYPE	CONTACT	MCB	PACKAGING (un)	STOCK CODE	PRICE EACH (ZAR)
MDW-PLW63	1 SPDT	MDWH (6 A-63 A)	50	11373980	32.00

#### UNDervOLTAGE RELEASE

Type	Rated voltage (V)	MCB	Packing (un)	Article nr.	Price (USD)
BS E25 MDWH6-63A	12 V ac/dc	MDWH (6 A-63 A)	1	11894563	777.00
BS E31 MDWH6-63A	220 V ac/dc	MDWH (6 A-63 A)	1	11894564	777.00



## SWITCHES



### EARTH LEAKAGE SWITCHES OR RESIDUAL CURRENT CIRCUIT BREAKERS - DRS

TYPE	$I_n$ (A)	$I\Delta n$ (mA)	POLES	STOCK CODE	PRICE EACH (ZAR)
RDW30-25-2	25	30	2	12276010	510.00
RDW30-40-2	40	30	2	12276012	510.00
RDW30-63-2	63	30	2	12276014	570.00
RDW30-80-2	80	30	2	10261527	891.00
RDW30-100-2	100	30	2	10075762	891.00
RDW30-25-4	25	30	4	12276041	788.00
RDW30-40-4	40	30	4	12276044	788.00
RDW30-63-4	63	30	4	12276046	863.00
RDW30-80-4	80	30	4	10261529	1012.00
RDW30-100-4	100	30	4	10075764	1025.00
RDW300-25-2	25	300	2	12276011	510.00
RDW300-40-2	40	300	2	12276013	510.00
RDW300-63-2	63	300	2	12276015	570.00
RDW300-80-2	80	300	2	10261528	891.00
RDW300-100-2	100	300	2	10075763	891.00
RDW300-25-4	25	300	4	12276042	788.00
RDW300-40-4	40	300	4	12276045	788.00
RDW300-63-4	63	300	4	12276047	709.00
RDW300-80-4	80	300	4	10261530	1012.00
RDW300-100-4	100	300	4	10075765	1025.00



### SWITCH DISCONNECTORS

TYPE	$I_n$ (A)	POLES	STOCK CODE	PRICE EACH (ZAR)
SIW-40-2	40	2	10075767	81.00
SIW-63-2	63	2	10075770	81.00
SIW-80-2	80	2	10075773	261.00
SIW-100-2	100	2	10075776	261.00
SIW-40-3	40	3	10075768	122.00
SIW-63-3	63	3	10075771	122.00
SIW-80-3	80	3	10075774	391.00
SIW-100-3	100	3	10075777	391.00
SIW-40-4	40	4	10075769	162.00
SIW-63-4	63	4	10075772	162.00
SIW-80-4	80	4	10075775	521.00
SIW-100-4	100	4	10075778	521.00







## AR HIGH SPEED FUSES - NH BLADE CONTACT TYPE

The aR high speed NH fuse with blade contact allows easy installation and maintenance, by being installed in bases or switch-disconnectors. This last point also brings space savings to the application.

### GENERAL DATA

#### 100 kA / 690 V ac

	Technical characteristics					
	Reference	Size	Current (A)	I <sup>2</sup> t pre-arc (during ts) <sup>1)</sup>	I <sup>2</sup> t total arc (for ts + tt) <sup>1)2)</sup>	Dissipated power (W) 0,8I <sub>n</sub>
				690 V ca (A <sup>2</sup> s)		
	FNH00-20K-A	00	20	16	240	3.2
	FNH00-25K-A		25	19	255	3.5
	FNH00-35K-A		35	23	430	5
	FNH00-40K-A		40	56	580	7
	FNH00-50K-A		50	130	1,430	9
	FNH00-63K-A		63	180	2,170	10.5
	FNH00-80K-A		80	270	2,710	13.5
	FNH00-100K-A		100	400	4,530	14
	FNH00-125K-A		125	810	6,350	16.5
	FNH00-160K-A		160	2,100	15,270	22.5
	FNH00-200K-A		200	2,900	25,870	26.5
FNH00-250K-A	250	6,200	43,980	30.5		
	FNH1-63K-A	1	63	63	770	15
	FNH1-80K-A		80	175	1,610	19
	FNH1-100K-A		100	320	3,050	21
	FNH1-125K-A		125	695	6,360	25
	FNH1-160K-A		160	1,460	13,090	29.5
	FNH1-200K-A		200	2,420	16,380	34.5
	FNH1-250K-A		250	4,920	29,810	40.5
	FNH1-315K-A		315	7,310	39,590	48
	FNH1-350K-A		350	11,430	64,870	52
FNH1-400K-A	400	16,950	98,860	59		
	FNH2-250K-A	2	250	3,390	24,370	45.5
	FNH2-315K-A		315	4,760	32,780	57.5
	FNH2-350K-A		350	7,990	60,150	66.5
	FNH2-400K-A		400	14,850	92,060	77
	FNH2-450K-A		450	18,420	132,990	91
	FNH2-500K-A		500	23,040	146,250	103
	FNH2-630K-A		630	49,130	298,820	127
FNH2-710K-A	710	57,910	378,450	137.5		
	FNH3-400K-A	3	400	6,520	66,830	70
	FNH3-450K-A		450	15,090	105,220	74.5
	FNH3-500K-A		500	18,770	107,200	79.5
	FNH3-630K-A		630	32,500	222,540	94
	FNH3-710K-A		710	56,620	308,900	105
	FNH3-800K-A		800	87,390	420,500	117
	FNH3-900K-A		900	129,380	636,150	130
	FNH3-1000K-A		1,000	197,890	893,350	150

I <sup>2</sup> t reduction factors for voltages under 690 V ac	
Voltage V ac	Applied factor
127	0.43
220	0.43
254	0.45
266	0.46
277	0.48
300	0.50
345	0.53
400	0.58
440	0.62
460	0.64
480	0.68

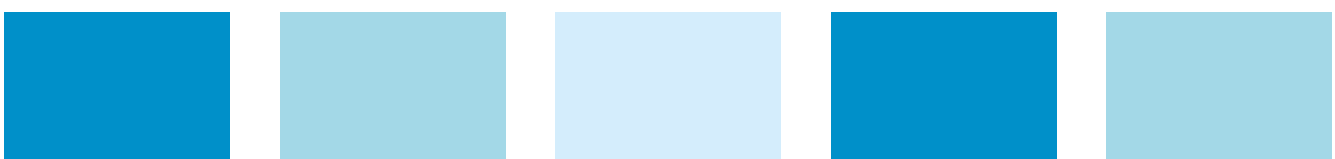


# AR FUSE TYPE “NH” BLADE CONTACT

## SEMICONDUCTOR SHORT-CIRCUIT PROTECTION FUSE - AR FUSE TYPE “NH” BLADE CONTACT



TYPE	SIZE	CURRENT (A)	PACKAGING (un)	STOCK CODE	PRICE EACH (ZAR)
FNH00-20K-A	00	20	3	10687494	206.00
FNH00-25K-A	00	25	3	10701722	206.00
FNH00-35K-A	00	35	3	10701721	206.00
FNH00-40K-A	00	40	3	10702117	206.00
FNH00-50K-A	00	50	3	10701718	206.00
FNH00-63K-A	00	63	3	10705764	274.00
FNH00-80K-A	00	80	3	10705995	274.00
FNH00-100K-A	00	100	3	10707110	274.00
FNH00-125K-A	00	125	3	10707231	274.00
FNH00-160K-A	00	160	3	10701724	315.00
FNH00-200K-A	00	200	3	10710732	315.00
FNH00-250K-A	00	250	3	10711445	315.00
FNH1-63K-A	1	63	3	10806688	553.00
FNH1-80K-A	1	80	3	10807549	553.00
FNH1-100K-A	1	100	3	10807553	553.00
FNH1-125K-A	1	125	3	10807554	553.00
FNH1-160K-A	1	160	3	10808545	620.00
FNH1-200K-A	1	200	3	10809133	620.00
FNH1-250K-A	1	250	3	10809489	620.00
FNH1-315K-A	1	315	3	10809575	620.00
FNH1-350K-A	1	350	3	10814896	740.00
FNH1-400K-A	1	400	3	10815073	740.00
FNH2-250K-A	2	250	3	10823581	927.00
FNH2-315K-A	2	315	3	10823936	927.00
FNH2-350K-A	2	350	3	10823996	1206.00
FNH2-400K-A	2	400	3	10824053	1206.00
FNH2-450K-A	2	450	3	10824055	1206.00
FNH2-500K-A	2	500	3	10824109	1287.00
FNH2-630K-A	2	630	3	10824110	1287.00
FNH2-710K-A	2	710	3	11393547	1287.00
FNH3-400K-A	3	400	3	10831217	1341.00
FNH3-450K-A	3	450	3	10832962	1341.00
FNH3-500K-A	3	500	3	10833056	1341.00
FNH3-630K-A	3	630	3	10833101	1469.00
FNH3-710K-A	3	710	3	10833591	1469.00
FNH3-800K-A	3	800	3	10833726	1784.00
FNH3-900K-A	3	900	3	11393564	1784.00
FNH3-1000K-A	3	1.000	3	11393565	1784.00



## GL/GG FUSE TYPE "NH" BLADE CONTACT



### ELECTRICAL CIRCUIT PROTECTION FUSE - GL/GG FUSE TYPE "NH" BLADE CONTACT

TYPE	SIZE	CURRENT (A)	PACKING (un)	STOCK CODE	PRICE EACH (ZAR)
FNH000-4U	000	4	3	10891504	198.00
FNH000-6U	000	6	3	10891107	198.00
FNH000-10U	000	10	3	10890978	198.00
FNH000-16U	000	16	3	10890945	198.00
FNH000-20U	000	20	3	10889723	198.00
FNH000-25U	000	25	3	10889565	198.00
FNH000-35U	000	35	3	10889349	198.00
FNH000-50U	000	50	3	10888901	198.00
FNH000-63U	000	63	3	10888698	198.00
FNH000-80U	000	80	3	10887824	233.00
FNH00-4U	00	4	3	10185934	212.00
FNH00-6U	00	6	3	10045369	212.00
FNH00-10U	00	10	3	10409880	212.00
FNH00-16U	00	16	3	10409881	212.00
FNH00-20U	00	20	3	10409882	212.00
FNH00-25U	00	25	3	10409883	212.00
FNH00-35U	00	35	3	10409884	212.00
FNH00-50U	00	50	3	10409885	212.00
FNH00-63U	00	63	3	10409886	212.00
FNH00-80U	00	80	3	10409887	233.00
FNH00-100U	00	100	3	10409888	233.00
FNH00-125U	00	125	3	10409889	233.00
FNH00-160U	00	160	3	10045370	256.00
FNH1-50U	1	50	3	10045371	472.00
FNH1-63U	1	63	3	10185935	472.00
FNH1-80U	1	80	3	10409890	472.00
FNH1-100U	1	100	3	10409891	472.00
FNH1-125U	1	125	3	10185936	495.00
FNH1-160U	1	160	3	10409892	495.00
FNH1-200U	1	200	3	10409893	592.00
FNH1-224U	1	224	3	10409894	592.00
FNH1-250U	1	250	3	10045372	592.00
FNH2-125U	2	125	3	10045373	688.00
FNH2-160U	2	160	3	10409895	688.00
FNH2-200U	2	200	3	10045374	688.00
FNH2-224U	2	224	3	10045375	688.00
FNH2-250U	2	250	3	10409896	688.00
FNH2-300U	2	300	3	10409897	834.00
FNH2-315U	2	315	3	10185937	834.00
FNH2-355U	2	355	3	10409898	834.00
FNH2-400U	2	400	3	10045376	1041.00
FNH3-315U	3	315	3	10409899	1041.00
FNH3-355U	3	355	3	10409900	1041.00
FNH3-400U	3	400	3	10409901	1041.00
FNH3-425U	3	425	3	10409902	1041.00
FNH3-500U	3	500	3	10409903	1041.00
FNH3-630U	3	630	3	10045377	1268.00



## FUSE TYPE “NH” BLADE CONTACT AND ACCESSORIES



### FUSE EXTRACTOR HANDLE “NH” BLADE CONTACT

TYPE	PACKING (un)	STOCK CODE	PRICE EACH (ZAR)
PSFNH	1	10185944	943.00



### FUSE BASE “NH” BLADE CONTACT

TYPE	SIZE	CURRENT (A)	PACKING (un)	STOCK CODE	PRICE EACH (ZAR)
BNH00-160	0	4-160	3	10409904	113.00
BNH1-250	1	50-250	3	10409905	465.00
BNH2-400	2	125-400	3	10185938	717.00
BNH3-630	3	315-630	3	10185939	1000.00



### PARTITION WALLS FOR “NH” BLADE CONTACT FUSES

TYPE	SIZE	PACKING (un)	STOCK CODE	PRICE EACH (ZAR)
PDNH00	00	2	10185940	40.00
PDNH1	1	4	10185941	149.00
PDNH2	2	4	10185942	161.00
PDNH3	3	4	10185943	315.00



## AR FUSES TYPE "NH" FLUSH-END



### SEMICONDUCTOR SHORT-CIRCUIT PROTECTION FUSE - AR FUSE TYPE FLUSH-END

TYPE	SIZE	CURRENT (A)	PACKING (un)	STOCK CODE	PRICE EACH (ZAR)
FNH3FEM-450Y-A	3	450	3	12644962	1508.00
FNH3FEM-500Y-A	3	500	3	12645317	1508.00
FNH3FEM-550Y-A	3	550	3	12660187	1508.00
FNH3FEM-630Y-A	3	630	3	12660583	1577.00
FNH3FEM-700Y-A	3	700	3	12660657	1577.00
FNH3FEM-800Y-A	3	800	3	12661660	1577.00
FNH3FEM-900Y-A	3	900	3	12661662	1892.00
FNH3FEM-1000Y-A	3	1.000	3	12661663	1892.00
FNH3FEM-1100Y-A	3	1.100	3	12661664	1892.00
FNH3FEM-1250Y-A	3	1.250	3	12661665	2673.00
FNH3FEM-1400Y-A	3	1.400	3	12661666	2673.00
FNH23FEA-1000Y-A	23 <sup>1)</sup>	1.000	1	12644745	4372.00
FNH23FEA-1250Y-A	23 <sup>1)</sup>	1.250	1	12661667	4661.00
FNH23FEA-1400Y-A	23 <sup>1)</sup>	1.400	1	12661688	4315.00
FNH23FEA-1600Y-A	23 <sup>1)</sup>	1.600	1	12661689	4542.00
FNH23FEA-1800Y-A	23 <sup>1)</sup>	1.800	1	12661690	4761.00
FNH23FEA-2000Y-A	23 <sup>1)</sup>	2.000	1	12661692	4919.00

Note: 1) Two flush end fuses, size 3, assembled in parallel.

### AR FUSES TYPE FLUSH-END - ACCESSORIES

DESCRIPTION	TYPE	APPLICATION	PACKING (un)	STOCK CODE	PRICE EACH (ZAR)
MICROSWITCH 1NO+NC	MS11FE	FNH3FEM / FNH23FEA	1	12626734	302.00



# PANEL DOOR MOUNTING SWITCH-DISCONNECTORS AND ACCESSORIES - MSW

## STANDARD CONFIGURATION



### SWITCH-DISCONNECTORS WITH RED-YELLOW HANDLE

TYPE	I <sub>th</sub> (A)	I <sub>e</sub> 690 V (A)			POLES	STOCK CODE	PRICE EACH (ZAR)
		AC21	AC22	AC23			
MSW 12 P-2 H	16	12	12	10	2	12258395	309.00
MSW 12 P-3 H	16	12	12	10	3	12258388	391.00
MSW 16 P-2 H	20	16	16	14	2	12258397	326.00
MSW 16 P-3 H	20	16	16	14	3	12258389	423.00
MSW 20 P-2 H	25	20	20	16	2	12258438	358.00
MSW 20 P-3 H	25	20	20	16	3	12258390	439.00
MSW 25 P-3 H	32	32	25	16	3	11898918	381.00
MSW 40 P-3 H	40	40	32	20	3	11898886	406.00
MSW 63 P-3 H	63	63	63	26	3	11898922	628.00
MSW 80 P-3 H	80	80	80	32	3	11898923	729.00
MSW 100 P-3 H	100	100	86	38	3	11898945	909.00

### SWITCH-DISCONNECTORS AND ACCESSORIES



### SWITCH-DISCONNECTORS WITHOUT HANDLE

TYPE	I <sub>th</sub> (A)	I <sub>e</sub> 690 V (A)			POLES	STOCK CODE	PRICE EACH (ZAR)
		AC21	AC22	AC23			
MSW 12 P-2	16	12	12	10	2	12258391	168.00
MSW 12 P-3	16	12	12	10	3	12258305	249.00
MSW 16 P-2	20	16	16	14	2	12258392	184.00
MSW 16 P-3	20	16	16	14	3	12258306	282.00
MSW 20 P-2	25	20	20	16	2	12258394	217.00
MSW 20 P-3	25	20	20	16	3	12258307	298.00
MSW 25 P-3	32	32	25	16	3	11898714	253.00
MSW 40 P-3	40	40	32	20	3	11898883	279.00
MSW 63 P-3	63	63	63	26	3	11898884	501.00
MSW 80 P-3	80	80	80	32	3	11898885	601.00
MSW 100 P-3	100	100	86	38	3	11898887	781.00



### ROTARY HANDLE

TYPE	SWITCH - DISCONNECTOR	COLOUR	STOCK CODE	PRICE EACH (ZAR)
MSW H 20 P	MSW12/MSW16/MSW20	Red-yellow	12258462	167.00
MSW H 40 P	MSW25/MSW40		11899507	109.00
MSW H 100 P	MSW63/MSW80/MSW100		11899509	109.00
MSW H 40-P-B	MSW25/MSW40	Black-grey	12746822	109.00
MSW H 100-P-B	MSW63/MSW80/MSW100		12746825	109.00



# PANEL DOOR MOUNTING SWITCH-DISCONNECTORS AND ACCESSORIES - MSW

## SWITCH-DISCONNECTORS AND ACCESSORIES

### NEUTRAL POLE

TYPE	SWITCH-DISCONNECTOR	CONTACT	STOCK CODE	PRICE EACH (ZAR)
MSW AP 25-P-1 NA	MSW25	NO early make	12727286	142.00
MSW AP 40-P-1 NA	MSW40		12727287	142.00
MSW AP 63-P-1 NA	MSW63		12727300	168.00
MSW AP 80-P-1 NA	MSW80		12727301	168.00



### AUXILIARY CONTACT

TYPE	SWITCH-DISCONNECTOR	CONTACT	STOCK CODE	PRICE EACH (ZAR)
MSW AC-40 P 1NC	MSW25/MSW40	1NC	11899468	129.00
MSW AC-40 P 1NO		1NO	11899469	129.00
MSW AC-80 P 1NC	MSW63/MSW80	1NC	11899472	129.00
MSW AC-80 P 1NO		1NO	11899476	129.00



### TERMINAL COVER

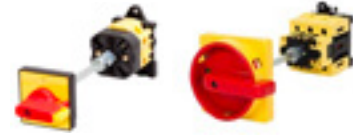
TYPE	SWITCH-DISCONNECTOR	POLES	STOCK CODE	PRICE EACH (ZAR)
MSW TS-40 P	MSW25/MSW40	3	11899502	52.00
MSW TS 40-B/P-1		1	13164767	29.00
MSW TS-80 B/P	MSW63/MSW80	3	11899504	103.00
MSW TS 80-B/P-1		1	13164788	50.00
MSW TS-100 P	MSW100	3	11899505	103.00

Note: Necessary 2x MSW TS-100P for cover 3 poles.



## BASE MOUNTING SWITCH-DISCONNECTORS AND ACCESSORIES - MSW

### STANDARD CONFIGURATION



### SWITCH-DISCONNECTORS WITH RED-YELLOW HANDLE + SHAFT

TYPE	I <sub>th</sub> (A)	I <sub>s</sub> 690 V (A)			POLES	SHAFT (mm)	STOCK CODE	PRICE EACH (ZAR)
		AC21	AC22	AC23				
MSW 12 B-2 H	16	12	12	10	2	85	12258459	358.00
MSW 12 B-3 H	16	12	12	10	3	85	12258443	439.00
MSW 16 B-2 H	20	16	16	14	2	85	12258460	391.00
MSW 16 B-3 H	20	16	16	14	3	85	12258444	472.00
MSW 20 B-2 H	25	20	20	16	2	85	12258461	423.00
MSW 20 B-3 H	25	20	20	16	3	85	12258445	488.00
MSW 25 B-3 H	32	32	25	16	3	85	11898938	448.00
MSW 40 B-3 H	40	40	32	20	3	85	11898925	473.00
MSW 63 B-3 H	63	63	63	26	3	85	11898942	695.00
MSW 80 B-3 H	80	80	80	32	3	85	11898941	796.00
MSW 125 B-3 H	125	125	125	80	3	300	11898943	1626.00
MSW 160 B-3 H	160	160	160	100	3	300	11898944	1758.00

### SWITCH-DISCONNECTORS AND ACCESSORIES



### SWITCH-DISCONNECTORS WITHOUT HANDLE

TYPE	I <sub>th</sub> (A)	I <sub>s</sub> 690 V (A)			POLES	STOCK CODE	PRICE EACH (ZAR)
		AC21	AC22	AC23			
MSW 12 B-2	16	12	12	10	2	12258446	217.00
MSW 12 B-3	16	12	12	10	3	12258440	277.00
MSW 16 B-2	20	16	16	14	2	12258447	249.00
MSW 16 B-3	20	16	16	14	3	12258441	293.00
MSW 20 B-2	25	20	20	16	2	12258458	249.00
MSW 20 B-3	25	20	20	16	3	12258442	309.00
MSW 25 B-3	32	32	25	16	3	11898940	253.00
MSW 40 B-3	40	40	32	20	3	11898946	279.00
MSW 63 B-3	63	63	63	26	3	11898924	501.00
MSW 80 B-3	80	80	80	32	3	11898926	601.00
MSW 125 B-3	125	125	125	80	3	11898939	1322.00
MSW 160 B-3	160	160	160	100	3	11898927	1454.00



### ROTARY HANDLE + SHAFT

TYPE	SWITCH-DISCONNECTOR	COLOUR	SHAFT (mm)	STOCK CODE	PRICE EACH (ZAR)
MSW H 20 B	MSW12/MSW16/MSW20	Red-yellow	85	12258463	167.00
MSW H 40 B	MSW25/MSW40		85	11899512	164.00
MSW H 80 B	MSW63/MSW80		85	11966588	164.00
MSW H 160 B	MSW125/MSW160		300	11899515	257.00
MSW H 40-B-B	MSW25/MSW40	Black-gray	85	12746823	164.00
MSW H 80-B-B	MSW63/MSW80		85	12746824	164.00
MSW H 160-B-B	MSW125/MSW160		300	12746826	257.00



# BASE MOUNTING SWITCH-DISCONNECTORS AND ACCESSORIES - MSW

## SWITCH-DISCONNECTORS AND ACCESSORIES

### SHAFT

TYPE	SWITCH-DISCONNECTOR	LENGTH (mm)	STOCK CODE	PRICE EACH (ZAR)
MSW HS 185-40	MSW25/MSW40	185	12030688	37.00
MSW HS 300-40	MSW25/MSW40	300	12030689	60.00
MSW HS 185-160	MSW63/MSW80/MSW125	185	12030690	75.00
MSW HS 300-160	MSW63/MSW80/MSW125	300	12030691	98.00



### NEUTRAL POLE

TYPE	SWITCH-DISCONNECTOR	CONTACT	STOCK CODE	PRICE EACH (ZAR)
MSW AP 25-B-1 NA	MSW25	NO early make	12727284	142.00
MSW AP 40-B-1 NA	MSW40		12727285	142.00
MSW AP 63-B-1 NA	MSW63		12727298	168.00
MSW AP 80-B-1 NA	MSW80		12727299	168.00
MSW AP 160-B-1 NA	MSW125/MSW160		13052847	255.00

### AUXILIARY CONTACT

TYPE	SWITCH-DISCONNECTOR	CONTACT	STOCK CODE	PRICE EACH (ZAR)
MSW AC-40 B 1NC	MSW25/MSW40	1NC	11899456	129.00
MSW AC-40 B 1NO		1NO	11899457	129.00
MSW AC-80 B 1NC	MSW63/MSW80	1NC	11899470	129.00
MSW AC-80 B 1NO		1NO	11899471	129.00
MSW AC-160 B 1NC	MSW125/MSW160	1NC	13233893	328.00
MSW AC-160 B 1NO		1NO	13233894	328.00



### TERMINAL COVER

TYPE	SWITCH-DISCONNECTOR	Poles	STOCK CODE	PRICE EACH (ZAR)
MSW TS-40 B	MSW25/MSW40	3	11899501	52.00
MSW TS 40-B/P-1		1	13164767	29.00
MSW TS-80 B/P	MSW63/MSW80	3	11899504	103.00
MSW TS 80-B/P-1		1	13164788	50.00
MSW TS-160 B	MSW125/MSW160	3	13164789	156.00
MSW TS 160-B-1		1	13164790	64.00



### HANDLE LOCKING RING TOOL

TYPE	SWITCH-DISCONNECTOR	STOCK CODE	PRICE EACH (ZAR)
MSW FK	MSW25/MSW40/MSW63/MSW80/MSW100	12187331	71.00



## BASE MOUNTING SWITCH-DISCONNECTORS AND ACCESSORIES - MSW



### MSWD - DIRECT COMMAND SWITCH

TYPE	I <sub>n</sub> (A)	I <sub>e</sub> 690 V (A)			POLES	HANDLE COLOUR	STOCK CODE	PRICE EACH (ZAR)
		AC21	AC22	AC23				
MSWD 12 B3 HB	16	12	12	10	3	Black	12736260	504.00
MSWD 16 B3 HB	20	16	16	14	3	Black	12736261	504.00
MSWD 20 B3 HB	25	20	20	16	3	Black	12736262	504.00
MSWD 25 B3 HB	32	32	25	16	3	Black	12736263	569.00
MSWD 40 B3 HB	40	40	32	20	3	Black	12736264	618.00
MSWD 63 B3 HB	63	63	63	26	3	Black	12736265	1138.00
MSWD 80 B3 HB	80	80	80	32	3	Black	12736266	1301.00

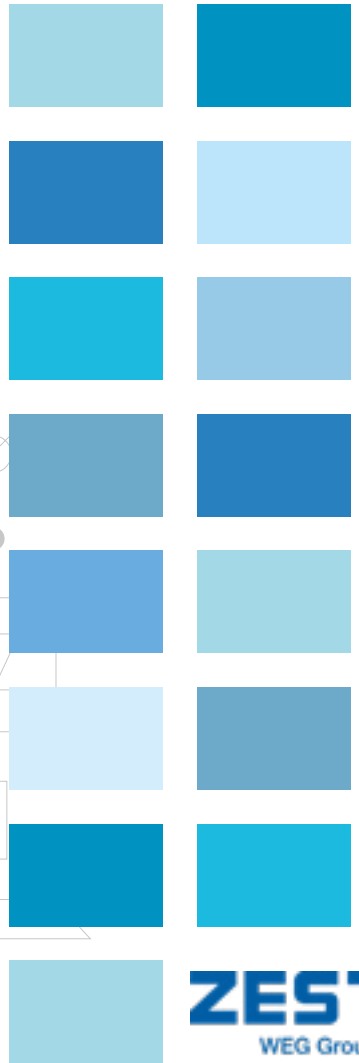
Note: The neutral pole and auxiliary contacts accessories are the same ones applied to the standard base mounting MSW model.



# Automation

## Book 4 - Capacitors

**NEW STOCK**  
AVAILABILITY  
UPON REQUEST



# CAPACITORS FOR POWER FACTOR CORRECTION



## UCW - SINGLE PHASE CAPACITOR UNIT

VOLTAGE	50 Hz	60 Hz	CAPACITANCE (uF)	SERIES	TYPE	DIMENSIONS ØxH (mm)	DISCHARGE RESISTOR	STOCK CODE	PRICE EACH (ZAR)
	kVar	kVar							
208	0.62	0.74	45.5	B	UCW0.83V25 J4	53x85	Not included	11488457	237.00
	0.62	0.74	45.5	B	UCW0.83V25 L6	60x105	Not included	10045809	247.00
	1.24	1.49	91.5	B	UCW1.67V25 L6	60x105	Not included	10045802	329.00
	1.86	2.23	137.0	B	UCW2.5V25 L10	60x156	Not included	10045950	379.00
	2.48	2.98	182.5	B	UCW3.33V25 L10	60x156	Not included	10046652	470.00
	3.72	4.47	274.0	C	UCW5V25 N14	75x205	Included	11449885	1044.00
	4.97	5.96	365.6	C	UCW6.67V25 N14	75x205	Included	11507565	1299.00
220	0.69	0.83	45.5	B	UCW0.83V25 J4	53x85	Not included	11488457	237.00
	0.69	0.83	45.5	B	UCW0.83V25 L6	60x105	Not included	10045809	247.00
	1.39	1.67	91.5	B	UCW1.67V25 L6	60x105	Not included	10045802	329.00
	2.08	2.50	137.0	B	UCW2.5V25 L10	60x156	Not included	10045950	379.00
	2.78	3.33	182.5	B	UCW3.33V25 L10	60x156	Not included	10046652	470.00
	4.17	5.00	274.0	C	UCW5V25 N14	75x205	Included	11449885	1044.00
	5.56	6.67	365.6	C	UCW6.67V25 N14	75x205	Included	11507565	1299.00
230	0.83	1.00	49.9	B	UCW0.83V34 L6	60x105	Not included	10072341	245.00
	1.67	2.00	100.5	B	UCW1.67V34 L8	60x141	Not included	10046044	333.00
	2.50	3.00	150.4	B	UCW2.5V34 L10	60x156	Not included	10046045	393.00
	3.33	4.00	200.4	B	UCW3.33V34 L10	60x156	Not included	11559336	441.00
	5.00	6.00	300.9	C	UCW5V34 N14	75x205	Included	11507589	1077.00
240	0.69	0.83	38.2	B	UCW0.83V29 L6	60x105	Not included	10048213	322.00
	1.39	1.67	76.9	B	UCW1.67V29 L6	60x105	Not included	10048211	329.00
	2.08	2.50	115.1	B	UCW2.5V29 L8	60x141	Not included	10045988	379.00
	2.78	3.33	153.4	B	UCW3.33V29 L10	60x156	Not included	10076158	470.00
	4.17	5.00	230.3	C	UCW5V29 N14	75x205	Included	12573706	1044.00
380	0.69	0.83	15.2	A	UCW0.83V40 G4	40x85	Not included	11509005	193.00
	0.69	0.83	15.2	B	UCW0.83V40 J2	53x68	Not included	11488508	224.00
	1.39	1.67	30.7	B	UCW1.67V40 J4	53x85	Not included	11488510	262.00
	2.08	2.50	45.9	B	UCW2.5V40 J6	53x105	Not included	13497628	280.00
	2.78	3.33	61.2	B	UCW3.33V40 J8	53x141	Not included	11488809	335.00
	4.17	5.00	91.8	B	UCW5V40 L10	60x156	Not included	10045951	408.00
	5.56	6.67	122.5	B	UCW6.67V40 M10	70x156	Not included	10630797	490.00
	6.25	7.50	137.8	C	UCW7.5V40 N14	75x205	Included	11449886	981.00
	6.94	8.33	153.0	C	UCW8.33V40 N14	75x205	Included	11449950	1004.00
	7.64	9.17	168.5	C	UCW9.17V40 N14	75x205	Included	11449951	1036.00
8.33	10.00	183.7	C	UCW10V40 N14	75x205	Included	11449887	1082.00	

Note: UCW are supplied in standard packing with 9 units each.



# CAPACITORS FOR POWER FACTOR CORRECTION

## UCW - SINGLE PHASE CAPACITOR UNIT

VOLTAGE	50 Hz	60 Hz	CAPACITANCE (uF)	SERIES	TYPE	DIMENSIONS ØxH (mm)	DISCHARGE RESISTOR	STOCK CODE	PRICE EACH (ZAR)
	kVAr	kVAr							
400	0.83	-	16.5	A	UCW0.83V44 G6	40x105	Not included	11509029	185.00
	0.83	1.00	16.5	B	UCW0.83V44 J2	53x68	Not included	11488815	209.00
	0.83	1.00	16.5	B	UCW0.83V44 L4	60x85	Not included	10072342	221.00
	1.67	2.00	33.2	B	UCW1.67V44 J6	53x105	Not included	11488820	268.00
	1.67	2.00	33.2	B	UCW1.67V44 L4	60x85	Not included	10046046	245.00
	2.50	3.00	49.7	B	UCW2.5V44 J8	53x141	Not included	11488822	329.00
	2.50	3.00	49.7	B	UCW2.5V44 L6	60x105	Not included	10046047	294.00
	3.33	4.00	66.2	B	UCW3.33V44 L8	60x141	Not included	10046048	330.00
	5.00	-	99.5	B	UCW5V44 L10	60x156	Not included	10046049	409.00
	6.67	-	132.7	B	UCW6.67V44 M10	70x156	Not included	10872824	491.00
	7.50	9.00	149.2	C	UCW7.5V44 N14	75x205	Included	11507590	990.00
	8.33	10.00	165.7	C	UCW8.33V44 N14	75x205	Included	11507591	1018.00
9.17	-	182.4	C	UCW9.17V44 N14	75x205	Included	11507593	1058.00	
415	0.62	0.74	11.4	A	UCW0.83V49 G4	40x85	Not included	11509007	184.00
	0.62	0.74	11.4	B	UCW0.83V49 J2	53x68	Not included	11488824	214.00
	0.74	0.89	13.6	B	UCW0.83V48 L4	60x85	Not included	10072343	221.00
	1.24	1.49	22.9	B	UCW1.67V49 J4	53x85	Not included	11488825	257.00
	1.49	1.78	27.5	B	UCW1.67V48 L4	60x85	Not included	10046050	245.00
	1.85	2.22	34.3	B	UCW2.5V49 J6	53x105	Not included	13497629	280.00
	2.22	2.67	41.1	B	UCW2.5V48 L6	60x105	Not included	10072344	294.00
	2.47	2.96	45.6	B	UCW3.33V49 J8	53x141	Not included	11488827	330.00
	2.96	3.55	54.8	B	UCW3.33V48 L8	60x141	Not included	10046051	330.00
	3.71	4.45	68.5	B	UCW5V49 L10	60x156	Not included	10186125	357.00
	4.45	-	82.2	B	UCW5V48 L10	60x156	Not included	10046722	409.00
	4.94	5.93	91.4	B	UCW6.67V49 M10	70x156	Not included	10630798	490.00
	5.56	6.67	102.8	C	UCW7.5V49 N14	75x205	Included	11449911	990.00
	6.18	7.41	114.1	C	UCW8.33V49 N14	75x205	Included	11449952	1018.00
6.80	8.16	125.6	C	UCW9.17V49 N14	75x205	Included	11449953	1058.00	
7.41	8.90	137.0	C	UCW10V49 N14	75x205	Included	11449915	1114.00	

Note: UCW are supplied in standard packing with 9 units each.



# CAPACITORS FOR POWER FACTOR CORRECTION



## UCW - SINGLE PHASE CAPACITOR UNIT

VOLTAGE	50 Hz	60 Hz	CAPACITANCE (uF)	SERIES	TYPE	DIMENSIONS ØxH (mm)	DISCHARGE RESISTOR	STOCK CODE	PRICE EACH (ZAR)
	kVar	kVar							
440	0.69	0.83	11.4	A	UCW0.83V49 G4	40x85	Not included	11509007	184.00
	0.69	0.83	11.4	B	UCW0.83V49 J2	53x68	Not included	11488824	214.00
	0.83	1.00	13.6	B	UCW0.83V48 L4	60x85	Not included	10072343	221.00
	1.39	1.67	22.9	B	UCW1.67V49 J4	53x85	Not included	11488825	257.00
	1.67	2.00	27.5	B	UCW1.67V48 L4	60x85	Not included	10046050	245.00
	2.08	2.50	34.3	B	UCW2.5V49 J6	53x105	Not included	13497629	280.00
	2.50	3.00	41.1	B	UCW2.5V48 L6	60x105	Not included	10072344	294.00
	2.78	3.33	45.6	B	UCW3.33V49 J8	53x141	Not included	11488827	330.00
	3.33	4.00	54.8	B	UCW3.33V48 L8	60x141	Not included	10046051	330.00
	4.17	5.00	68.5	B	UCW5V49 L10	60x156	Not included	10186125	357.00
	5.00	-	82.2	B	UCW5V48 L10	60x156	Not included	10046722	409.00
	5.56	6.67	91.4	B	UCW6.67V49 M10	70x156	Not included	10630798	490.00
	6.25	7.50	102.8	C	UCW7.5V49 N14	75x205	Included	11449911	990.00
	6.94	8.33	114.1	C	UCW8.33V49 N14	75x205	Included	11449952	1018.00
7.64	9.17	125.6	C	UCW9.17V49 N14	75x205	Included	11449953	1058.00	
8.33	10.00	137.0	C	UCW10V49 N14	75x205	Included	11449915	1114.00	
480	0.69	0.83	9.6	A	UCW0.83V53 G4	40x85	Not included	11509028	196.00
	0.69	0.83	9.6	B	UCW0.83V53 J2	53x68	Not included	11488839	227.00
	0.83	1.00	11.5	B	UCW0.83V52 L6	60x105	Not included	10072476	232.00
	1.39	1.67	19.2	B	UCW1.67V53 J6	53x105	Not included	11488841	274.00
	1.67	2.00	23.1	B	UCW1.67V52 L6	60x105	Not included	10072477	257.00
	2.08	2.50	28.8	B	UCW2.5V53 J6	53x105	Not included	13497630	294.00
	2.50	3.00	34.5	B	UCW2.5V52 L6	60x105	Not included	10072345	309.00
	2.78	3.33	38.3	B	UCW3.33V53 J8	53x141	Not included	11488845	347.00
	3.33	4.00	46.0	B	UCW3.33V52 L8	60x141	Not included	10046053	347.00
	4.17	5.00	57.6	B	UCW5V53 L10	60x156	Not included	10045952	429.00
	5.00	-	69.1	B	UCW5V52 L10	60x156	Not included	10046255	430.00
	5.56	6.67	76.8	B	UCW6.67V53 M10	70x156	Not included	10630800	514.00
	6.25	7.50	86.3	C	UCW7.5V53 N14	75x205	Included	11449916	1037.00
	6.94	8.33	95.9	C	UCW8.33V53 N14	75x205	Included	11449954	1059.00
7.64	9.17	105.6	C	UCW9.17V53 N14	75x205	Included	11449955	1071.00	
8.33	10.00	115.1	C	UCW10V53 N14	75x205	Included	11449928	1114.00	
535	0.69	0.83	7.7	B	UCW0.83V57 L6	60x105	Not included	10046599	230.00
	1.39	1.67	15.5	B	UCW1.67V57 L6	60x105	Not included	10046600	257.00
	2.08	2.50	23.2	B	UCW2.5V57 L6	60x105	Not included	10046215	298.00
	2.78	3.33	30.9	B	UCW3.33V57 L6	60x105	Not included	10046362	341.00
	4.17	5.00	46.3	B	UCW5V57 L10	60x156	Not included	10045866	429.00
	5.56	6.67	61.8	C	UCW6.67V57 N14	75x205	Included	13270094	1027.00
	6.25	7.50	69.5	C	UCW7.5V57 N14	75x205	Included	11449930	1052.00
	6.94	8.33	77.2	C	UCW8.33V57 N14	75x205	Included	11449957	1056.00
	7.64	9.17	85.0	C	UCW9.17V57 N14	75x205	Included	11449959	1071.00
8.33	10.00	92.7	C	UCW10V57 N14	75x205	Included	11449931	1129.00	

Note: UCW are supplied in standard packing with 9 units each.



# CAPACITORS FOR POWER FACTOR CORRECTION



## UCWT - THREE-PHASE CAPACITOR UNIT

VOLTAGE	50 Hz	60 Hz	CAPACITANCE (uF)	SERIES	TYPE	DIMENSIONS ØxH (mm)	STOCK CODE	PRICE EACH (ZAR)
	kVA <sub>r</sub>	kVA <sub>r</sub>						
208	0.37	0.45	9.1x3	D	UCWT0.5V25 L10	60x156	10045998	421.00
	0.56	0.67	13.7x3	D	UCWT0.75V25 L10	60x156	10045999	453.00
	0.74	0.89	18.3x3	D	UCWT1V25 L10	60x156	10046000	482.00
	1.12	1.34	27.4x3	D	UCWT1.5V25 L10	60x156	10046001	541.00
	1.49	1.79	36.5x3	D	UCWT2V25 L10	60x156	10046002	618.00
	1.86	2.23	45.7x3	D	UCWT2.5V25 L16	60x211	10046003	668.00
	2.23	2.68	54.8x3	D	UCWT3V25 L16	60x211	10046004	722.00
	3.72	4.47	91.3x3	E	UCWT5V25 N20	75x225	11313760	1324.00
	5.59	6.70	137x3	E	UCWT7.5V25 N22	75x285	11313783	1554.00
	7.45	8.94	182.7x3	E	UCWT10V25 N22	75x285	11313782	1800.00
	7.45	8.94	182.7x3	F	UCWT10V25 Q26	100x230	11914849	1979.00
	9.31	11.17	228.4x3	F	UCWT12.5V25 Q26	100x230	11914851	2220.00
	11.17	13.41	274x3	F	UCWT15V25 S26	116x230	11914853	2337.00
	13.04	15.64	319.7x3	F	UCWT17.5V25 S28	116x290	12271622	2916.00
	14.90	17.88	365.4x3	F	UCWT20V25 S28	116x290	12271626	3154.00
18.62	22.35	456.7x3	F	UCWT25V25 U28	136x290	13365111	3795.00	
22.35	26.82	548.1x3	F	UCWT30V25 U28	136x290	13365631	4072.00	
220	0.42	0.50	9.1x3	D	UCWT0.5V25 L10	60x156	10045998	421.00
	0.63	0.75	13.7x3	D	UCWT0.75V25 L10	60x156	10045999	453.00
	0.83	1.00	18.3x3	D	UCWT1V25 L10	60x156	10046000	482.00
	1.25	1.50	27.4x3	D	UCWT1.5V25 L10	60x156	10046001	541.00
	1.67	2.00	36.5x3	D	UCWT2V25 L10	60x156	10046002	618.00
	2.08	2.50	45.7x3	D	UCWT2.5V25 L16	60x211	10046003	668.00
	2.50	3.00	54.8x3	D	UCWT3V25 L16	60x211	10046004	722.00
	4.17	5.00	91.3x3	E	UCWT5V25 N20	75x225	11313760	1324.00
	6.25	7.50	137x3	E	UCWT7.5V25 N22	75x285	11313783	1554.00
	8.33	10.00	182.7x3	E	UCWT10V25 N22	75x285	11313782	1800.00
	8.33	10.00	182.7x3	F	UCWT10V25 Q26	100x230	11914849	1979.00
	10.42	12.50	228.4x3	F	UCWT12.5V25 Q26	100x230	11914851	2220.00
	12.50	15.00	274x3	F	UCWT15V25 S26	116x230	11914853	2337.00
	14.58	17.50	319.7x3	F	UCWT17.5V25 S28	116x290	12271622	2916.00
	16.67	20.00	365.4x3	F	UCWT20V25 S28	116x290	12271626	3154.00
20.83	25.00	456.7x3	F	UCWT25V25 U28	136x290	13365111	3795.00	
25.00	30.00	548.1x3	F	UCWT30V25 U28	136x290	13365631	4072.00	

Notes: Discharge resistors already incorporated.  
Supplied in single quantity with nut and washer for fixing.



# CAPACITORS FOR POWER FACTOR CORRECTION



## UCWT - THREE-PHASE CAPACITOR UNIT

VOLTAGE	50 Hz	60 Hz	CAPACITANCE (uF)	SERIES	TYPE	DIMENSIONS ØxH (mm)	STOCK CODE	PRICE EACH (ZAR)
	kVAr	kVAr						
230	0.50	0.60	10x3	D	UCWT0.5V34 L10	60x156	10862201	421.00
	0.75	0.90	15x3	D	UCWT0.75V34 L10	60x156	10072544	453.00
	1.00	1.20	20.1x3	D	UCWT1V34 L10	60x156	10074467	482.00
	1.50	1.80	30.1x3	D	UCWT1.5V34 L10	60x156	10862180	541.00
	2.00	2.40	40.1x3	D	UCWT2V34 L10	60x156	10862184	618.00
	2.50	3.00	50.1x3	D	UCWT2.5V34 L16	60x211	10072346	668.00
	3.00	-	60.2x3	D	UCWT3V34 L16	60x211	10046055	722.00
	5.00	6.00	100.3x3	E	UCWT5V34 N20	75x225	11871789	1324.00
	7.50	9.00	150.4x3	E	UCWT7.5V34 N22	75x285	11758922	1554.00
	10.00	12.00	200.6x3	F	UCWT10V34 Q26	100x230	11914855	1979.00
	12.50	15.00	250.7x3	F	UCWT12.5V34 Q26	100x230	11914856	2220.00
	15.00	-	300.9x3	F	UCWT15V34 S26	116x230	11914888	2571.00
17.50	-	351x3	F	UCWT17.5V34 S28	116x290	12271566	2916.00	
20.00	-	401.1x3	F	UCWT20V34 S28	116x290	12271567	3154.00	
240	0.42	0.50	7.7x3	D	UCWT0.5V29 L10	60x156	10072607	421.00
	0.63	0.75	11.5x3	D	UCWT0.75V29 L10	60x156	10072608	453.00
	0.83	1.00	15.4x3	D	UCWT1V29 L10	60x156	10046265	482.00
	1.25	1.50	23x3	D	UCWT1.5V29 L10	60x156	10072303	541.00
	1.67	2.00	30.7x3	D	UCWT2V29 L10	60x156	10046266	618.00
	2.08	2.50	38.4x3	D	UCWT2.5V29 L16	60x211	10748190	668.00
	2.50	3.00	46.1x3	D	UCWT3V29 L16	60x211	10748194	722.00
	4.17	5.00	76.8x3	E	UCWT5V29 N20	75x225	11983248	1324.00
	6.25	7.50	115.1x3	E	UCWT7.5V29 N22	75x285	11758813	1554.00
	8.33	10.00	153.5x3	E	UCWT10V29 N22	75x285	11758287	1800.00
	8.33	10.00	153.5x3	F	UCWT10V29 Q26	100x230	12029202	1979.00
	10.42	12.50	191.9x3	F	UCWT12.5V29 Q26	100x230	12029203	2441.00
	12.50	15.00	230.3x3	F	UCWT15V29 S26	116x230	12029204	2571.00
	14.58	17.50	268.6x3	F	UCWT17.5V29 S28	116x290	12271869	2916.00
16.67	20.00	307x3	F	UCWT20V29 S28	116x290	12272006	3154.00	

Notes: Discharge resistors already incorporated.  
Supplied in single quantity with nut and washer for fixing.



# CAPACITORS FOR POWER FACTOR CORRECTION

## UCWT - THREE-PHASE CAPACITOR UNIT

VOLTAGE	50 Hz	60 Hz	CAPACITANCE (uF)	SERIES	TYPE	DIMENSIONS ØxH (mm)	STOCK CODE	PRICE EACH (ZAR)
	kVar	kVar						
380	0.42	0.50	3.1x3	D	UCWT0.5V40 L10	60x156	10046005	387.00
	0.63	0.75	4.6x3	D	UCWT0.75V40 L10	60x156	10046006	401.00
	0.83	1.00	6.1x3	D	UCWT1V40 L10	60x156	10046007	413.00
	1.25	1.50	9.2x3	D	UCWT1.5V40 L10	60x156	10046008	439.00
	1.67	2.00	12.2x3	D	UCWT2V40 L10	60x156	10046009	468.00
	2.08	2.50	15.3x3	D	UCWT2.5V40 L10	60x156	10046010	493.00
	2.50	3.00	18.4x3	D	UCWT3V40 L10	60x156	10046011	510.00
	4.17	5.00	30.6x3	D	UCWT5V40 L16	60x211	10046012	632.00
	6.25	7.50	45.9x3	E	UCWT7.5V40 N20	75x225	11313784	916.00
	8.33	10.00	61.2x3	E	UCWT10V40 N20	75x225	11313787	1043.00
	10.42	12.50	76.5x3	E	UCWT12.5V40 N22	75x285	11313820	1164.00
	12.50	15.00	91.8x3	E	UCWT15V40 N22	75x285	11313821	1282.00
	12.50	15.00	91.8x3	F	UCWT15V40 Q26	100x230	11916878	1410.00
	14.58	17.50	107.2x3	F	UCWT17.5V40 Q26	100x230	11916880	1572.00
	16.67	20.00	122.5x3	F	UCWT20V40 Q26	100x230	11916901	1669.00
	18.75	22.50	137.8x3	F	UCWT22.5V40 S26	116x230	11916903	1765.00
	20.83	25.00	153.1x3	F	UCWT25V40 S26	116x230	11916924	1862.00
	25.00	30.00	183.7x3	F	UCWT30V40 S28	116x290	12272194	2735.00
	29.17	35.00	214.3x3	F	UCWT35V40 S28	116x290	12267042	3181.00
	33.33	40.00	244.9x3	F	UCWT40V40 U28	136x290	13365634	1865.00
37.50	45.00	275.5x3	F	UCWT45V40 U28	136x290	13365636	1921.00	
41.67	50.00	306.2x3	F	UCWT50V40 U28	136x290	13365637	1998.00	
400	0.50	0.60	3.3x3	D	UCWT0.5V44 L10	60x156	10046056	389.00
	0.75	0.90	5x3	D	UCWT0.75V44 L10	60x156	10046057	405.00
	1.00	1.20	6.6x3	D	UCWT1V44 L10	60x156	10046058	419.00
	1.50	1.80	9.9x3	D	UCWT1.5V44 L10	60x156	10046059	447.00
	2.00	2.40	13.3x3	D	UCWT2V44 L10	60x156	10046060	473.00
	2.50	3.00	16.6x3	D	UCWT2.5V44 L10	60x156	10046061	500.00
	3.00	3.60	19.9x3	D	UCWT3V44 L10	60x156	10046062	531.00
	5.00	-	33.2x3	D	UCWT5V44 L16	60x211	10046063	646.00
	7.50	9.00	49.7x3	E	UCWT7.5V44 N20	75x225	11313822	1189.00
	10.00	12.00	66.3x3	E	UCWT10V44 N20	75x225	11313824	1334.00
	12.50	15.00	82.9x3	E	UCWT12.5V44 N22	75x285	11314662	1469.00
	15.00	-	99.5x3	E	UCWT15V44 N22	75x285	11758282	1609.00
	15.00	18.00	99.5x3	F	UCWT15V44 Q26	100x230	11894312	1770.00
	17.50	-	116.1x3	F	UCWT17.5V44 Q26	100x230	11916969	2171.00
	20.00	-	132.6x3	F	UCWT20V44 Q26	100x230	11916999	2096.00
	22.50	-	149.2x3	F	UCWT22.5V44 S26	116x230	11917000	2437.00
	25.00	-	165.8x3	F	UCWT25V44 S26	116x230	11894313	2338.00
	30.00	-	198.9x3	F	UCWT30V44 S28	116x290	12272688	2771.00
	35.00	-	232.1x3	F	UCWT35V44 S28	116x290	12272697	3208.00
	40.00	48.00	265.3x3	F	UCWT40V44 U28	136x290	13365669	3850.00
45.00	-	298.4x3	F	UCWT45V44 U28	136x290	13365670	3965.00	

NOTES: DISCHARGE RESISTORS ALREADY INCORPORATED.  
 SUPPLIED IN SINGLE QUANTITY WITH NUT AND WASHER FOR FIXING.



# CAPACITORS FOR POWER FACTOR CORRECTION



## UCWT - THREE-PHASE CAPACITOR UNIT

VOLTAGE	50 Hz	60 Hz	CAPACITANCE (uF)	SERIES	TYPE	DIMENSIONS ØxH (mm)	STOCK CODE	PRICE EACH (ZAR)
	kVar	kVar						
415	0.37	0.44	2.3x3	D	UCWT0.5V49 L10	60x156	10046013	396.00
	0.44	0.53	2.7x3	D	UCWT0.5V48 L10	60x156	10072545	403.00
	0.56	0.67	3.4x3	D	UCWT0.75V49 L10	60x156	10046014	412.00
	0.67	0.80	4.1x3	D	UCWT0.75V48 L10	60x156	10072546	421.00
	0.74	0.89	4.6x3	D	UCWT1V49 L10	60x156	10046015	429.00
	0.89	1.07	5.5x3	D	UCWT1V48 L10	60x156	10072547	439.00
	1.11	1.33	6.9x3	D	UCWT1.5V49 L10	60x156	10046016	460.00
	1.33	1.60	8.2x3	D	UCWT1.5V48 L10	60x156	10046254	475.00
	1.48	1.78	9.1x3	D	UCWT2V49 L10	60x156	10046017	494.00
	1.78	2.14	11x3	D	UCWT2V48 L10	60x156	10072548	509.00
	1.85	2.22	11.4x3	D	UCWT2.5V49 L10	60x156	10046018	527.00
	2.22	2.67	13.7x3	D	UCWT3V49 L10	60x156	10046019	553.00
	2.67	3.20	16.4x3	D	UCWT3V48 L16	60x211	10072549	574.00
	3.71	4.45	22.8x3	D	UCWT5V49 L16	60x211	10046020	683.00
	4.45	-	27.4x3	D	UCWT5V48 L16	60x211	10046258	732.00
	5.56	6.67	34.3x3	E	UCWT7.5V49 N20	75x225	11314663	939.00
	6.67	8.01	41.1x3	E	UCWT7.5V48 N20	75x225	11758619	1168.00
	7.41	8.90	45.7x3	E	UCWT10V49 N20	75x225	11758279	1231.00
	8.90	10.68	54.8x3	E	UCWT10V48 N22	75x285	11758624	1262.00
	9.27	11.12	57.1x3	E	UCWT12.5V49 N22	75x285	11314665	1398.00
	11.12	13.34	68.5x3	E	UCWT12.5V48 N22	75x285	11758675	1433.00
	11.12	13.34	68.5x3	E	UCWT15V49 N22	75x285	11314666	1540.00
	11.12	13.34	68.5x3	F	UCWT15V49 Q26	100x230	11917005	1694.00
	12.97	15.57	79.9x3	F	UCWT17.5V49 Q26	100x230	11917006	1888.00
	13.34	16.01	82.2x3	F	UCWT15V48 Q26	100x230	11917040	1702.00
	14.83	17.79	91.3x3	F	UCWT20V49 Q26	100x230	11917007	1787.00
	15.57	18.68	95.9x3	F	UCWT17.5V48 Q26	100x230	11917041	2087.00
	16.68	20.02	102.8x3	F	UCWT22.5V49 S26	116x230	11917018	1890.00
	17.79	21.35	109.6x3	F	UCWT20V48 S26	116x230	11917043	2015.00
	18.53	22.24	114.2x3	F	UCWT25V49 S26	116x230	11917021	1994.00
	20.02	24.02	123.3x3	F	UCWT22.5V48 S26	116x230	11917045	2344.00
	18.53	-	114.2x3	F	UCWT25V48 S26	116x230	11917058	2386.00
22.24	26.69	137x3	F	UCWT30V49 S28	116x290	12272719	2791.00	
25.95	31.14	159.8x3	F	UCWT35V49 S28	116x290	12272780	3224.00	
29.65	35.58	182.7x3	F	UCWT40V49 U28	136x290	13365671	3868.00	
33.36	40.03	205.5x3	F	UCWT45V49 U28	136x290	13365672	3984.00	
37.07	44.48	228.4x3	F	UCWT50V49 U28	136x290	13365673	4104.00	

NOTES: DISCHARGE RESISTORS ALREADY INCORPORATED.  
SUPPLIED IN SINGLE QUANTITY WITH NUT AND WASHER FOR FIXING.



# CAPACITORS FOR POWER FACTOR CORRECTION

## UCWT - THREE-PHASE CAPACITOR UNIT

VOLTAGE	50 Hz	60 Hz	CAPACITANCE (uF)	SERIES	TYPE	DIMENSIONS ØxH (mm)	STOCK CODE	PRICE EACH (ZAR)
	kVar	kVar						
440	0.42	0.50	2.3x3	D	UCWT0.5V49 L10	60x156	10046013	396.00
	0.50	0.60	2.7x3	D	UCWT0.5V48 L10	60x156	10072545	403.00
	0.63	0.75	3.4x3	D	UCWT0.75V49 L10	60x156	10046014	412.00
	0.75	0.90	4.1x3	D	UCWT0.75V48 L10	60x156	10072546	421.00
	0.83	1.00	4.6x3	D	UCWT1V49 L10	60x156	10046015	429.00
	1.00	1.20	5.5x3	D	UCWT1V48 L10	60x156	10072547	439.00
	1.25	1.50	6.9x3	D	UCWT1.5V49 L10	60x156	10046016	460.00
	1.50	1.80	8.2x3	D	UCWT1.5V48 L10	60x156	10046254	475.00
	1.67	2.00	9.1x3	D	UCWT2V49 L10	60x156	10046017	494.00
	2.00	2.40	11x3	D	UCWT2V48 L10	60x156	10072548	509.00
	2.08	2.50	11.4x3	D	UCWT2.5V49 L10	60x156	10046018	527.00
	2.50	3.00	13.7x3	D	UCWT3V49 L10	60x156	10046019	553.00
	3.00	3.60	16.4x3	D	UCWT3V48 L16	60x211	10072549	574.00
	4.17	5.00	22.8x3	D	UCWT5V49 L16	60x211	10046020	683.00
	5.00	-	27.4x3	D	UCWT5V48 L16	60x211	10046258	732.00
	6.25	7.50	34.3x3	E	UCWT7.5V49 N20	75x225	11314663	939.00
	7.50	9.00	41.1x3	E	UCWT7.5V48 N20	75x225	11758619	1168.00
	8.33	10.00	45.7x3	E	UCWT10V49 N20	75x225	11758279	1231.00
	10.00	12.00	54.8x3	E	UCWT10V48 N22	75x285	11758624	1262.00
	10.42	12.50	57.1x3	E	UCWT12.5V49 N22	75x285	11314665	1398.00
	12.50	15.00	68.5x3	E	UCWT12.5V48 N22	75x285	11758675	1433.00
	12.50	15.00	68.5x3	E	UCWT15V49 Q26	75x285	11314666	1540.00
	12.50	15.00	68.5x3	F	UCWT15V49 Q26	100x230	11917005	1694.00
	14.58	17.50	79.9x3	F	UCWT17.5V49 Q26	100x230	11917006	1888.00
	15.00	18.00	82.2x3	F	UCWT15V48 Q26	100x230	11917040	1702.00
	16.67	20.00	91.3x3	F	UCWT20V49 Q26	100x230	11917007	1787.00
	17.50	-	95.9x3	F	UCWT17.5V48 Q26	100x230	11917041	2087.00
	18.75	22.50	102.8x3	F	UCWT22.5V49 S26	116x230	11917018	1890.00
	20.00	24.00	109.6x3	F	UCWT20V48 S26	116x230	11917043	2015.00
	20.83	25.00	114.2x3	F	UCWT25V49 S26	116x230	11917021	1994.00
22.50	-	123.3x3	F	UCWT22.5V48 S26	116x230	11917045	2344.00	
25.00	-	137x3	F	UCWT25V48 S26	116x230	11917058	2386.00	
25.00	30.00	137x3	F	UCWT30V49 S28	116x290	12272719	2791.00	
29.17	35.00	159.8x3	F	UCWT35V49 S28	116x290	12272780	3224.00	
33.33	40.00	182.7x3	F	UCWT40V49 U28	136x290	13365671	3868.00	
37.50	45.00	205.5x3	F	UCWT45V49 U28	136x290	13365672	3984.00	
41.67	50.00	228.4x3	F	UCWT50V49 U28	136x290	13365673	4104.00	

Notes: Discharge resistors already incorporated.  
Supplied in single quantity with nut and washer for fixing.



# CAPACITORS FOR POWER FACTOR CORRECTION



## UCWT - THREE-PHASE CAPACITOR UNIT

VOLTAGE	50 Hz	60 Hz	CAPACITANCE (uF)	SERIES	TYPE	DIMENSIONS ØxH (mm)	STOCK CODE	PRICE EACH (ZAR)
	kVAr	kVAr						
480	0.42	0.50	1.9x3	D	UCWT0.5V53 L10	60x156	10045990	388.00
	0.50	0.60	2.3x3	D	UCWT0.5V52 L10	60x156	10046259	398.00
	0.63	0.75	2.9x3	D	UCWT0.75V53 L10	60x156	10045991	402.00
	0.75	0.90	3.5x3	D	UCWT0.75V52 L10	60x156	10072550	412.00
	0.83	1.00	3.8x3	D	UCWT1V53 L10	60x156	10045992	421.00
	1.00	1.20	4.6x3	D	UCWT1V52 L10	60x156	10072551	432.00
	1.25	1.50	5.8x3	D	UCWT1.5V53 L10	60x156	10045993	460.00
	1.50	1.80	6.9x3	D	UCWT1.5V52 L10	60x156	10072552	471.00
	1.67	2.00	7.7x3	D	UCWT2V53 L10	60x156	10045994	499.00
	2.00	2.40	9.2x3	D	UCWT2V52 L10	60x156	10072553	512.00
	2.08	2.50	9.6x3	D	UCWT2.5V53 L10	60x156	10045995	535.00
	2.50	3.00	11.5x3	D	UCWT2.5V52 L10	60x156	10072554	548.00
	3.00	3.60	13.8x3	D	UCWT3V52 L10	60x156	10072555	579.00
	4.17	5.00	19.2x3	D	UCWT5V53 L16	60x211	10045997	712.00
	5.00	-	23x3	D	UCWT5V52 L16	60x211	10072556	730.00
	6.25	7.50	28.8x3	E	UCWT7.5V53 N20	75x225	11314667	1156.00
	7.50	9.00	34.5x3	E	UCWT7.5V52 N20	75x225	11758740	1185.00
	8.33	10.00	38.4x3	E	UCWT10V53 N20	75x225	11314728	1253.00
	10.00	12.00	46.1x3	E	UCWT10V52 N22	75x285	11758742	1284.00
	10.42	12.50	48x3	E	UCWT12.5V53 N22	75x285	11314729	1445.00
	12.50	15.00	57.6x3	E	UCWT12.5V52 N22	75x285	11758746	1481.00
	12.50	15.00	57.6x3	E	UCWT15V53 N22	75x285	11314730	1481.00
	12.50	15.00	57.6x3	F	UCWT15V53 Q26	100x230	11917060	1629.00
	14.58	17.50	67.2x3	F	UCWT17.5V53 Q26	100x230	11917063	1669.00
	15.00	18.00	69.1x3	F	UCWT15V52 Q26	100x230	11917094	1724.00
	16.67	20.00	76.8x3	F	UCWT20V53 Q26	100x230	11917064	1767.00
	17.50	-	80.6x3	F	UCWT17.5V52 Q26	100x230	11917095	2104.00
	18.75	22.50	86.3x3	F	UCWT22.5V53 S26	116x230	11917065	1854.00
	20.00	24.00	92.1x3	F	UCWT20V52 S26	116x230	11917097	2241.00
	20.83	25.00	95.9x3	F	UCWT25V53 S26	116x230	11917066	1957.00
	22.50	-	103.6x3	F	UCWT22.5V52 S26	116x230	11917128	2362.00
	25.00	-	115.1x3	F	UCWT25V52 S26	116x230	11917129	2534.00
	25.00	30.00	115.1x3	F	UCWT30V53 S28	116x290	12272781	2841.00
29.17	35.00	134.3x3	F	UCWT35V53 S28	116x290	12272784	3250.00	
33.33	40.00	153.5x3	F	UCWT40V53 U28	136x290	13365674	3639.00	
37.50	45.00	172.7x3	F	UCWT45V53 U28	136x290	13365675	4003.00	
41.67	50.00	191.9x3	F	UCWT50V53 U28	136x290	13365677	4203.00	

Notes: Discharge resistors already incorporated.  
Supplied in single quantity with nut and washer for fixing.



# CAPACITORS FOR POWER FACTOR CORRECTION

## UCWT - THREE-PHASE CAPACITOR UNIT

VOLTAGE	50 Hz	60 Hz	CAPACITANCE (uF)	SERIES	TYPE	DIMENSIONS ØxH (mm)	STOCK CODE	PRICE EACH (ZAR)
	kVAr	kVAr						
525	5.00	-	19.2x3	D	UCWT5VD2 L16	60x211	12634786	1020.00
	10.00	12.00	38.5x3	F	UCWT10VD2 Q26	100x230	12634787	1583.00
	15.00	18.00	57.7x3	F	UCWT15VD2 Q26	100x230	12634848	2539.00
	20.00	-	77x3	F	UCWT20VD2 S26	116x230	12634849	2797.00
	25.00	30.00	96.2x3	F	UCWT25VD2 S28	116x290	12634850	3125.00
	30.00	-	115.5x3	F	UCWT30VD2 S28	116x290	12634851	3574.00
	40.00	48.00	154x3	F	UCWT40VD2 U28	136x290	13365679	4289.00
535	0.42	0.50	1.5x3	D	UCWT0.5V57 L10	60x156	10743966	449.00
	0.63	0.75	2.3x3	D	UCWT0.75V57 L10	60x156	10744000	466.00
	0.83	1.00	3.1x3	D	UCWT1V57 L10	60x156	10744001	490.00
	1.25	1.50	4.6x3	D	UCWT1.5V57 L10	60x156	10744036	535.00
	1.67	2.00	6.2x3	D	UCWT2V57 L10	60x156	10748191	582.00
	2.08	2.50	7.7x3	D	UCWT2.5V57 L10	60x156	10748192	622.00
	2.50	3.00	9.3x3	D	UCWT3V57 L10	60x156	10748195	638.00
	4.17	5.00	15.4x3	D	UCWT5V57 L16	60x211	10648884	829.00
	6.25	7.50	23.2x3	E	UCWT7.5V57 N20	75x225	11314731	1238.00
	8.33	10.00	30.9x3	E	UCWT10V57 N20	75x225	11314732	1316.00
	10.42	12.50	38.6x3	E	UCWT12.5V57 N22	75x285	11314733	1440.00
	12.50	15.00	46.3x3	E	UCWT15V57 N22	75x285	11314734	1564.00
	12.50	15.00	46.3x3	F	UCWT15V57 Q26	100x230	11917359	1719.00
	14.58	17.50	54.1x3	F	UCWT17.5V57 Q26	100x230	11917361	1873.00
	16.67	20.00	61.8x3	F	UCWT20V57 Q26	100x230	11917362	2308.00
	18.75	22.50	69.5x3	F	UCWT22.5V57 S26	116x230	11917364	2389.00
	20.83	25.00	77.2x3	F	UCWT25V57 S26	116x230	11917366	2543.00
	25.00	30.00	92.7x3	F	UCWT30V57 S28	116x290	12273233	3125.00
	29.17	35.00	108.1x3	F	UCWT35V57 S28	116x290	12273234	3574.00
	33.33	40.00	123.6x3	F	UCWT40V57 U28	136x290	13365680	3932.00
37.50	45.00	139x3	F	UCWT45V57 U28	136x290	13365682	4128.00	
41.67	50.00	154.5x3	F	UCWT50V57 U28	136x290	13365683	4335.00	

Notes: Discharge resistors already incorporated.  
Supplied in single quantity with nut and washer for fixing.



# CAPACITORS FOR POWER FACTOR CORRECTION



## MCW - THREE-PHASE MODULE CAPACITOR

VOLTAGE (V)	50 Hz	60 Hz	TYPE	COMPOSITION ( $\Delta$ CONNECTION)	DIMENSION (LxWxH) (mm)	STOCK CODE	PRICE EACH (ZAR)
	kVAr	kVAr					
208	1.86	2.23	MCW2.5V25	3xUCW0.83V25 L6	219x78x257	10045851	1260.00
	3.72	4.47	MCW5V25	3xUCW1.67V25 L6	219x78x257	10045799	1473.00
	5.59	6.70	MCW7.5V25	3xUCW2.5V25 L10	219x78x257	10186130	1625.00
	7.45	8.94	MCW10V25	3xUCW3.33V25 L10	219x78x257	10046861	1898.00
220	2.08	2.50	MCW2.5V25	3xUCW0.83V25 L6	219x78x257	10045851	1260.00
	4.17	5.00	MCW5V25	3xUCW1.67V25 L6	219x78x257	10045799	1473.00
	6.25	7.50	MCW7.5V25	3xUCW2.5V25 L10	219x78x257	10186130	1625.00
	8.33	10.00	MCW10V25	3xUCW3.33V25 L10	219x78x257	10046861	1898.00
230	2.50	3.00	MCW2.5V34	3xUCW0.83V34 L6	219x78x257	10072478	1261.00
	5.00	6.00	MCW5V34	3xUCW1.67V34 L6	219x78x257	10211646	1496.00
	7.50	9.00	MCW7.5V34	3xUCW2.5V34 L10	219x78x257	10211647	1674.00
	10.00	-	MCW10V34	3xUCW3.33V34 L10	219x78x257	11559337	2127.00
240	2.08	2.50	MCW2.5V29	3xUCW0.83V29 L4	219x78x257	10072559	1260.00
	4.17	5.00	MCW5V29	3xUCW1.67V29 L6	219x78x257	10045989	1473.00
	6.25	7.50	MCW7.5V29	3xUCW2.5V29 L10	219x78x257	10072302	1625.00
	8.33	10.00	MCW10V29	3xUCW3.33V29 L10	219x78x257	11214119	1898.00
380	2.08	2.50	MCW2.5V40	3xUCW0.83V40 L4	219x78x257	10452269	1172.00
	4.17	5.00	MCW5V40	3xUCW1.67V40 L4	219x78x257	10186090	1252.00
	6.25	7.50	MCW7.5V40	3xUCW2.5V40 L6	219x78x257	10186099	1358.00
	8.33	10.00	MCW10V40	3xUCW3.33V40 L8	219x78x257	10186092	1461.00
	12.50	15.00	MCW15V40	3xUCW5V40 L10	219x78x257	10186131	1712.00
400	2.50	3.00	MCW2.5V44	3xUCW0.83V44 L4	219x78x257	10072333	1176.00
	5.00	6.00	MCW5V44	3xUCW1.67V44 L4	219x78x257	10072334	1260.00
	7.50	9.00	MCW7.5V44	3xUCW2.5V44 L6	219x78x257	10186140	1379.00
	10.00	12.00	MCW10V44	3xUCW3.33V44 L8	219x78x257	10046040	1487.00
	15.00	-	MCW15V44	3xUCW5V44 L10	219x78x257	10046041	1719.00
415	1.85	2.22	MCW2.5V49	3xUCW0.83V49 L4	219x78x257	10045854	1172.00
	2.22	2.67	MCW2.5V48	3xUCW0.83V48 L4	219x78x257	10072479	1176.00
	3.71	4.45	MCW5V49	3xUCW1.67V49 L4	219x78x257	10186091	1252.00
	4.45	5.34	MCW5V48	3xUCW1.67V48 L4	219x78x257	10072480	1260.00
	5.56	6.67	MCW7.5V49	3xUCW2.5V49 L6	219x78x257	10045855	1358.00
	6.67	8.01	MCW7.5V48	3xUCW2.5V48 L6	219x78x257	10072481	1379.00
	7.41	8.90	MCW10V49	3xUCW3.33V49 L8	219x78x257	10186093	1461.00
	8.90	10.68	MCW10V48	3xUCW3.33V48 L8	219x78x257	10072482	1487.00
	11.12	13.34	MCW15V49	3xUCW5V49 L10	219x78x257	10045983	1712.00
13.34	-	MCW15V48	3xUCW5V48 L10	219x78x257	11608707	1820.00	

Note: Discharge resistors already incorporated.



# CAPACITORS FOR POWER FACTOR CORRECTION

## MCW - THREE-PHASE MODULE CAPACITOR

VOLTAGE (V)	50 Hz	60 Hz	TYPE	COMPOSITION (Δ CONNECTION)	DIMENSION (LxWxH) (mm)	STOCK CODE	PRICE EACH (ZAR)
	kVAr	kVAr					
440	2.08	2.50	MCW2.5V49	3xUCW0.83V49 L4	219x78x257	10045854	1172.00
	2.50	3.00	MCW2.5V48	3xUCW0.83V48 L4	219x78x257	10072479	1176.00
	4.17	5.00	MCW5V49	3xUCW1.67V49 L4	219x78x257	10186091	1252.00
	5.00	6.00	MCW5V48	3xUCW1.67V48 L4	219x78x257	10072480	1260.00
	6.25	7.50	MCW7.5V49	3xUCW2.5V49 L6	219x78x257	10045855	1358.00
	7.50	9.00	MCW7.5V48	3xUCW2.5V48 L6	219x78x257	10072481	1379.00
	8.33	10.00	MCW10V49	3xUCW3.33V49 L8	219x78x257	10186093	1461.00
	10.00	12.00	MCW10V48	3xUCW3.33V48 L8	219x78x257	10072482	1487.00
	12.50	15.00	MCW15V49	3xUCW5V49 L10	219x78x257	10045983	1712.00
15.00	-	MCW15V48	3xUCW5V48 L10	219x78x257	11608707	1820.00	
480	2.08	2.50	MCW2.5V53	3xUCW0.83V53 L6	219x78x257	10045856	1231.00
	2.50	3.00	MCW2.5V52	3xUCW0.83V52 L6	219x78x257	10072484	1235.00
	4.17	5.00	MCW5V53	3xUCW1.67V53 L6	219x78x257	10045857	1314.00
	5.00	6.00	MCW5V52	3xUCW1.67V52 L6	219x78x257	10072485	1323.00
	6.25	7.50	MCW7.5V53	3xUCW2.5V53 L6	219x78x257	10186100	1426.00
	7.50	9.00	MCW7.5V52	3xUCW2.5V52 L6	219x78x257	10072486	1447.00
	8.33	10.00	MCW10V53	3xUCW3.33V53 L8	219x78x257	10186101	1534.00
	10.00	12.00	MCW10V52	3xUCW3.33V52 L8	219x78x257	10072487	1561.00
	12.50	15.00	MCW15V53	3xUCW5V53 L10	219x78x257	10045984	1798.00
15.00	-	MCW15V52	3xUCW5V52 L10	219x78x257	10072488	1805.00	
535	2.08	2.50	MCW2.5V57	3xUCW0.83V57 L6	219x78x257	10073617	1235.00
	4.17	5.00	MCW5V57	3xUCW1.67V57 L6	219x78x257	10046601	1322.00
	6.25	7.50	MCW7.5V57	3xUCW2.5V57 L6	219x78x257	10046602	1435.00
	8.33	10.00	MCW10V57	3xUCW3.33V57 L6	219x78x257	10046603	1545.00
	12.50	15.00	MCW15V57	3xUCW5V57 L10	219x78x257	10046604	1803.00

Note: Discharge resistors already incorporated.



## ACCESSORIES FOR CAPACITORS

### BUS BAR FOR THREE-PHASE MODULE CAPACITOR - MCW

TYPE	PACKAGING (un.)	STOCK CODE	PRICE EACH (ZAR)
BI MCW	3	10045985	47.00

### PAC - NUT AND WASHER FOR CAPACITOR FIXING

TYPE	SERIES	PACKAGING (un.)	STOCK CODE	PRICE EACH (ZAR)
PAC M8	A	3	10186133	5.00
PAC M12	B, C, D, E, F	3	10186132	5.00

### RDC - DISCHARGE RESISTOR FOR UCW

TYPE	RESISTOR	SERIES	PACKAGING (un.)	STOCK CODE	PRICE EACH (ZAR)
RDC FIXO 56 kOhm 3 W-UCW	56 kOhm / 3 W	A, B	3	10683543	18.00
RDC FIXO 82 kOhm 3 W-UCW	82 kOhm / 3 W	A, B	3	10668936	18.00
RDC FIXO 120 kOhm 3 W-UCW	120 kOhm / 3 W	A, B	3	10668937	18.00
RDC FIXO 150 kOhm 3 W-UCW	150 kOhm / 3 W	A, B	3	10668968	18.00
RDC FIXO 180 kOhm 3 W-UCW	180 kOhm / 3 W	A, B	3	10668935	18.00
RDC FIXO 270 kOhm 3 W-UCW	270 kOhm / 3 W	A, B	3	10668970	18.00
RDC FIXO 390 kOhm 3 W-UCW	390 kOhm / 3 W	A, B	3	10671279	18.00
RDC FIXO 560 kOhm 3 W-UCW	560 kOhm / 3 W	A, B	3	10668971	18.00
RDC FIXO 1 MOhm 3 W-UCW	1 MOhm / 3 W	A, B	3	10668972	18.00
RDC FIXO 28 kOhm 6 W-UCW	28 kOhm / 6 W	C	3	11456258	35.00
RDC FIXO 41 kOhm 6 W-UCW	41 kOhm / 6 W	C	3	11456226	35.00
RDC FIXO 60 kOhm 6 W-UCW	60 kOhm / 6 W	C	3	11456252	35.00
RDC FIXO 75 kOhm 6 W-UCW	75 kOhm / 6 W	C	3	11456260	35.00
RDC FIXO 135 kOhm 6 W-UCW	135 kOhm / 6 W	C	3	11456259	35.00

### RDC - DISCHARGE RESISTOR FOR UCW-T

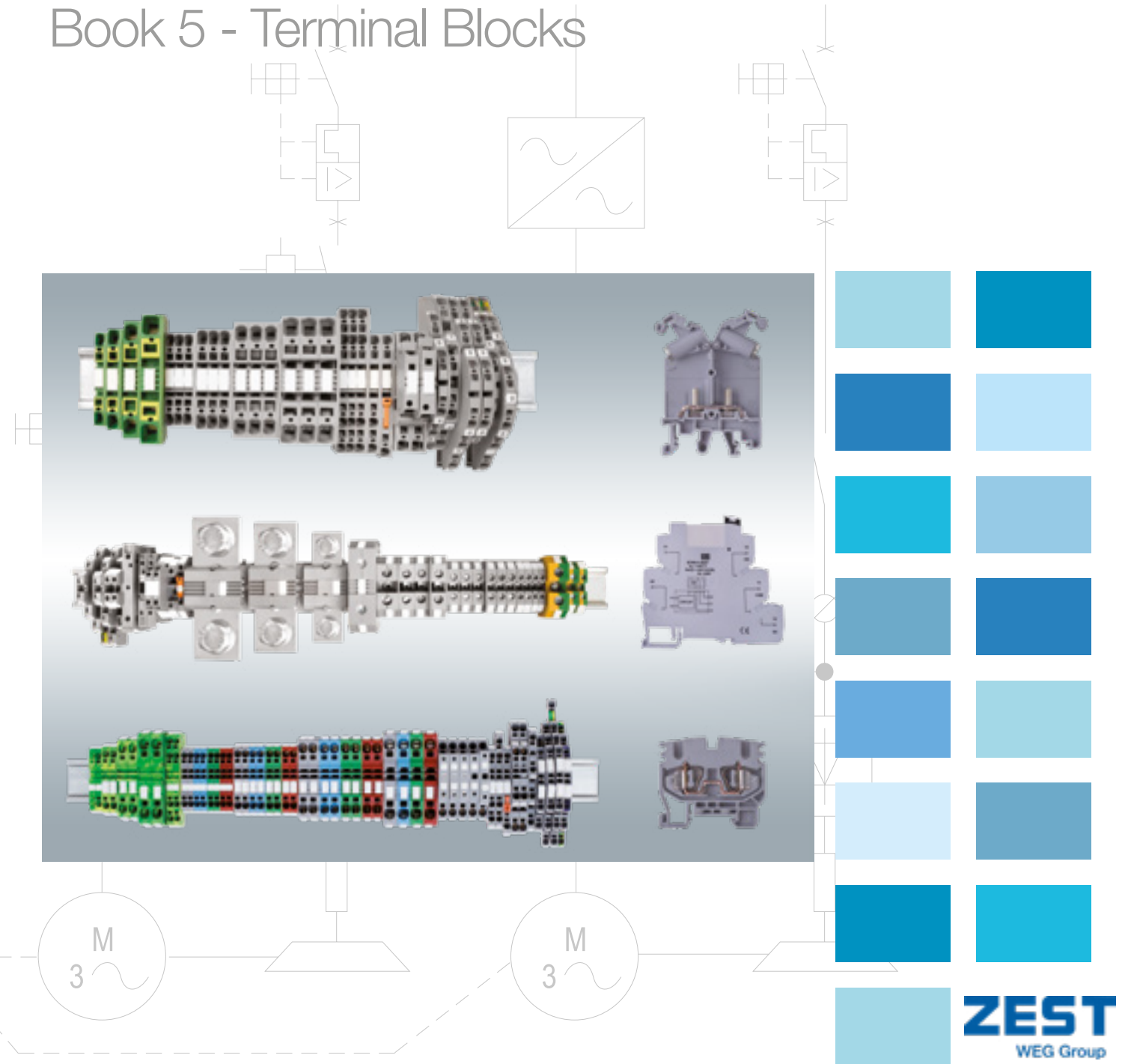
TYPE	RESISTOR	SERIES	PACKAGING (un.)	STOCK CODE	PRICE EACH (ZAR)
RDC FIXO 39 kOhm 3 W-UCW-T	3x39 kOhm / 3 W	E, F	3	11533460	Upon request <sup>1)</sup>
RDC FIXO 56 kOhm 3 W-UCW-T	3x56 kOhm / 3 W	E, F	3	11533414	Upon request <sup>1)</sup>
RDC FIXO 82 kOhm 3 W-UCW-T	3x82 kOhm / 3 W	E, F	3	11533458	Upon request <sup>1)</sup>
RDC FIXO 120 kOhm 3 W-UCW-T	3x120 kOhm / 3 W	E, F	3	11533462	Upon request <sup>1)</sup>
RDC FIXO 150 kOhm 3 W-UCW-T	3x150 kOhm / 3 W	E, F	3	11533468	Upon request <sup>1)</sup>
RDC FIXO 180 kOhm 3 W-UCW-T	3x180 kOhm / 3 W	E, F	3	11533417	Upon request <sup>1)</sup>
RDC FIXO 270 kOhm 3 W-UCW-T	3x270 kOhm / 3 W	E, F	3	11533461	Upon request <sup>1)</sup>
RDC FIXO 390 kOhm 3 W-UCW-T	3x390 kOhm / 3 W	E, F	3	11533415	Upon request <sup>1)</sup>
RDC FIXO 27 kOhm 5 W-UCW-T	3x27 kOhm / 5 W	E, F	3	12436423	Upon request <sup>1)</sup>
RDC FIXO 56 kOhm 5 W-UCW-T	3x56 kOhm / 5 W	E, F	3	12436744	Upon request <sup>1)</sup>
RDC FIXO 82 kOhm 5 W-UCW-T	3x82 kOhm / 5 W	E, F	3	12435787	Upon request <sup>1)</sup>

Notes: 1) Upon request.  
Discharge resistor for 1/10 Un - 30 seconds.




# Automation

## Book 5 - Terminal Blocks



# TERMINAL BLOCKS

## SCREW TYPE TERMINAL BLOCKS - BTWP

TERMINAL BLOCK	DESCRIPTION	CROSS - SECTION (mm <sup>2</sup> )	PACKING (UN)	TYPE	STOCK CODE	PRICE EACH (ZAR)
	Terminal 2,5 mm <sup>2</sup>	2,5	100	BTWP 2,5 <sup>1)</sup>	10261734	9.00
	Terminal 2,5 mm <sup>2</sup> (blue)	2,5	100	BTWP 2,5-AZ <sup>1)</sup>	10289144	9.00
	Terminal 2,5 mm <sup>2</sup> (green)	2,5	100	BTWP 2,5-VD <sup>1)</sup>	10289145	9.00
	Terminal 2,5 mm <sup>2</sup> (red)	2,5	100	BTWP 2,5-VM <sup>1)</sup>	11458086	9.00
	Terminal 4 mm <sup>2</sup>	4	100	BTWP 4 <sup>1)</sup>	10261735	11.00
	Terminal 4 mm <sup>2</sup> (blue)	4	100	BTWP 4-AZ <sup>1)</sup>	10289146	11.00
	Terminal 4 mm <sup>2</sup> (green)	4	100	BTWP 4-VD <sup>1)</sup>	10289147	11.00
	Terminal 4 mm <sup>2</sup> (red)	4	100	BTWP 4-VM <sup>1)</sup>	11458178	11.00
	Terminal 6 mm <sup>2</sup>	6	100	BTWP 6 <sup>1)</sup>	10261736	14.00
	Terminal 6 mm <sup>2</sup> (blue)	6	100	BTWP 6-AZ <sup>1)</sup>	10289148	14.00
	Terminal 6 mm <sup>2</sup> (green)	6	100	BTWP 6-VD <sup>1)</sup>	10289149	14.00
	Terminal 6 mm <sup>2</sup> (red)	6	100	BTWP 6-VM <sup>1)</sup>	11458179	14.00
	Terminal 10 mm <sup>2</sup>	10	100	BTWP 10 <sup>1)</sup>	10261737	17.00
	Terminal 10 mm <sup>2</sup> (blue)	10	100	BTWP 10-AZ <sup>1)</sup>	10289150	17.00
	Terminal 10 mm <sup>2</sup> (green)	10	100	BTWP 10-VD <sup>1)</sup>	10289151	17.00
	Terminal 10 mm <sup>2</sup> (red)	10	100	BTWP 10-VM <sup>1)</sup>	11458180	17.00
	Terminal 16 mm <sup>2</sup>	16	50	BTWP 16 <sup>1)</sup>	10261738	27.00
	Terminal 16 mm <sup>2</sup> (blue)	16	50	BTWP 16-AZ <sup>1)</sup>	10289152	27.00
	Terminal 16 mm <sup>2</sup> (green)	16	50	BTWP 16-VD <sup>1)</sup>	10289461	27.00
	Terminal 16 mm <sup>2</sup> (red)	16	50	BTWP 16-VM <sup>1)</sup>	11458181	27.00
	Terminal 35 mm <sup>2</sup>	35	50	BTWP 35 <sup>1)</sup>	10261739	51.00
	Terminal 35 mm <sup>2</sup> (blue)	35	50	BTWP 35-AZ <sup>1)</sup>	10289462	51.00
	Terminal 35 mm <sup>2</sup> (green)	35	50	BTWP 35-VD <sup>1)</sup>	10289463	51.00
Terminal 35 mm <sup>2</sup> (red)	35	50	BTWP 35-VM <sup>1)</sup>	11458182	51.00	
Terminal 70 mm <sup>2</sup>	70	10	BTWP 70 <sup>1)</sup>	10261740	125.00	
Terminal 70 mm <sup>2</sup> (blue)	70	10	BTWP 70-AZ <sup>1)</sup>	10289464	125.00	
Terminal 70 mm <sup>2</sup> (green)	70	10	BTWP 70-VD <sup>1)</sup>	10289465	125.00	
Terminal 70 mm <sup>2</sup> (red)	70	10	BTWP 70-VM <sup>1)</sup>	11458184	125.00	
High current type	Terminal 95 mm <sup>2</sup>	95	4	BTWP 95B	10261741	280.00
	Terminal 150 mm <sup>2</sup>	150	4	BTWP 150B	10261742	355.00
	Terminal 240 mm <sup>2</sup>	240	4	BTWP 240B	10261743	492.00
Earth type	Earth terminal 2,5/4 mm <sup>2</sup>	4	50	BTWP 2,5/4T-VD/AM <sup>1)</sup>	10261744	38.00
	Earth terminal 6/10 mm <sup>2</sup>	10	25	BTWP 6/10T-VD/AM <sup>1)</sup>	10261745	45.00
	Earth terminal 16 mm <sup>2</sup>	16	50	BTWP 16T-VD/AM <sup>1)</sup>	11716372	45.00
	Earth terminal 35 mm <sup>2</sup>	35	40	BTWP 35T-VD/AM <sup>1)</sup>	11716376	81.00
Double type	Double terminal 2,5 mm <sup>2</sup>	2,5	100	BTWD 2,5N <sup>1)</sup>	10261747	23.00
	Double terminal 4 mm <sup>2</sup>	4	100	BTWD 4N <sup>1)</sup>	10261748	27.00
	Double terminal with jumper 4 mm <sup>2</sup>	4	20	BTWD 4NK <sup>1)</sup>	11031838	68.00
Triple type	Triple terminal 2,5 mm <sup>2</sup>	2,5	25	BTWT 3 D36 <sup>1)</sup>	10261749	48.00
	Terminal 2P+T 2,5 mm <sup>2</sup>	2,5	25	BTWT 2T D36 <sup>1)</sup>	10261750	57.00
	Terminal 3P+T 2,5 mm <sup>2</sup>	2,5	25	BTWT 3T D36 <sup>1)</sup>	10261751	80.00
Sensor type	Sensor terminal 2,5 mm <sup>2</sup>	2,5	20	BTWT 3S <sup>1)</sup>	10261752	47.00
Disconnect	Disconnect terminal 4 mm <sup>2</sup>	4	20	BTWS 3A <sup>1)</sup>	10261753	39.00
Disconnect/test	Disconnect/test terminal 6 mm <sup>2</sup>	6	50	BTWA 3	12641814	99.00
Diode	Diode terminal 4 mm <sup>2</sup>	4	50	BTWD 4D	12692097	108.00
Fuse terminal	Fuse terminal 4 mm <sup>2</sup>	4	30	BTWS 3M <sup>1)</sup>	10261756	67.00
	Fuse terminal 6 mm <sup>2</sup>	6	50	BTWS 2S <sup>1)</sup>	10261754	52.00
	Fuse terminal 6 mm <sup>2</sup>	6	20	BTWS 4S <sup>1)</sup>	10261760	62.00
Fuse terminal w/ LED	Fuse terminal 6 mm <sup>2</sup> (LED - 24 v dc)	6	25	BTWS 2LD C03 <sup>1)</sup>	10261755	93.00
	Fuse terminal 6 mm <sup>2</sup> (LED - 110 v ac)	6	25	BTWS 2LD D13 <sup>1)</sup>	10847567	93.00
	Fuse terminal 6 mm <sup>2</sup> (LED - 220 v ac)	6	25	BTWS 2LD D23 <sup>1)</sup>	10847581	93.00
Special type	Terminal 1IN 2OUT 4 mm <sup>2</sup>	4	50	BTWP 4C <sup>1)</sup>	10261762	29.00

Note: 1) UL listed.



# TERMINAL BLOCKS

## ACCESSORIES FOR SCREW TYPE TERMINAL BLOCKS



ACCESSORIES	DESCRIPTION	PACKING (UN)	TYPE	STOCK CODE	PRICE EACH (ZAR)
End plate	End plate	100	TF-BTWP 2,5-10	10261763	4.00
	End plate (blue)	100	TF-BTWP 2,5-10-AZ	10289466	4.00
	End plate (green)	100	TF-BTWP 2,5-10-VD	10289467	4.00
	End plate (red)	100	TF-BTWP 2,5-10-VM	11461173	4.00
	End plate (yellow)	100	TF-BTWP 2,5-10-AM	11742898	4.00
	End plate	100	TF-BTWP 16	10261764	7.00
	End plate (blue)	100	TF-BTWP 16-AZ	10289468	7.00
	End plate (green)	100	TF-BTWP 16-VD	10261777	7.00
	End plate (red)	100	TF-BTWP 16-VM	11461174	7.00
	End plate	25	TF-BTWD 2,5-4 N	10261765	8.00
	End plate	10	TF-BTWT 3	10261766	8.00
	End plate	10	TF-BTWT 2T	10261767	7.00
	End plate	10	TF-BTWT 3T	10261768	9.00
	End plate	10	TF-BTWT 3S	10261769	8.00
	End plate	10	TF-BTWS 3	10261770	6.00
	End plate	10	TF-BTWS 2	10261771	8.00
	End plate	10	TF-BTWP 4 C	10261772	7.00
	End plate	25	TF-BTWA 10/1A	12641812	12.00
	End plate	25	TF-BTWD 4D 2,5-4	12692096	8.00
Insulation cover	Insulation cover	4	TI-BTWP 95	10261775	67.00
	Insulation cover	4	TI-BTWP 150	10261776	78.00
	Insulation cover	4	TI-BTWP 240	10288979	115.00
Partition	Partition	25	PD-BTWP 2,5-10	10261773	6.00
	Partition	25	PD-BTWP 16	10261774	7.00
	Partition	25	PD-BTW 35 CZ	11546465	13.00
Small partition	Small partition	100	PS1-BTWP	10288980	9.00
Cross- connection	Cross-connection 2,5 mm <sup>2</sup> (2P)	25	PC-BTWP 2,5/2	10288981	12.00
	Cross-connection 2,5 mm <sup>2</sup> (3P)	20	PC-BTWP 2,5/3	10288982	17.00
	Cross-connection 2,5 mm <sup>2</sup> (4P)	15	PC-BTWP 2,5/4	10288983	23.00
	Cross-connection 2,5 mm <sup>2</sup> (10P)	5	PC-BTWP 2,5/10	10288984	54.00
	Cross-connection 4 mm <sup>2</sup> (2P)	25	PC-BTWP 4/2	10288985	15.00
	Cross-connection 4 mm <sup>2</sup> (3P)	20	PC-BTWP 4/3	10288986	21.00
	Cross-connection 4 mm <sup>2</sup> (4P)	15	PC-BTWP 4/4	10288987	27.00
	Cross-connection 4 mm <sup>2</sup> (10P)	5	PC-BTWP 4/10	10288988	65.00
	Cross-connection 6 mm <sup>2</sup> (2P)	25	PC-BTWP 6/2	10288989	15.00
	Cross-connection 6 mm <sup>2</sup> (3P)	20	PC-BTWP 6/3	10288990	21.00
	Cross-connection 6 mm <sup>2</sup> (4P)	15	PC-BTWP 6/4	10288991	28.00
	Cross-connection 6 mm <sup>2</sup> (10P)	5	PC-BTWP 6/10	10288992	67.00
	Cross-connection 10 mm <sup>2</sup> (2P)	25	PC-BTWP 10/2	10288993	16.00
	Cross-connection 10 mm <sup>2</sup> (3P)	20	PC-BTWP 10/3	10288994	23.00
	Cross-connection 10 mm <sup>2</sup> (4P)	15	PC-BTWP 10/4	10288995	30.00
	Cross-connection 10 mm <sup>2</sup> (10P)	5	PC-BTWP 10/10	10288996	72.00
	Cross-connection 16 mm <sup>2</sup> (2P)	25	PC-BTWP 16/2	10288997	21.00
	Cross-connection 16 mm <sup>2</sup> (3P)	20	PC-BTWP 16/3	10288998	31.00
	Cross-connection 16 mm <sup>2</sup> (4P)	15	PC-BTWP 16/4	10288999	41.00
	Cross-connection 16 mm <sup>2</sup> (10P)	5	PC-BTWP 16/10	10289000	100.00
	Cross-connection 35 mm <sup>2</sup> (2P)	25	PC-BTWP 35/2	10289001	41.00
	Cross-connection 35 mm <sup>2</sup> (3P)	20	PC-BTWP 35/3	10289002	62.00
	Cross-connection 35 mm <sup>2</sup> (4P)	15	PC-BTWP 35/4	10289003	75.00
	Cross-connection 35 mm <sup>2</sup> (10P)	5	PC-BTWP 35/10	10289004	156.00
	Cross-connection 2,5 mm <sup>2</sup> (2P)	25	PC-BTWT 2,5/2	10289005	12.00
	Cross-connection 2,5 mm <sup>2</sup> (3P)	20	PC-BTWT 2,5/3	10289006	19.00
	Cross-connection 2,5 mm <sup>2</sup> (4P)	15	PC-BTWT 2,5/4	10289007	25.00
	Cross-connection 2,5 mm <sup>2</sup> (10P)	5	PC-BTWT 2,5/10	10289008	58.00
	Cross-connection 6 mm <sup>2</sup> (2P)	25	PC-BTWA 6/2	12691714	12.00
	Cross-connection 6 mm <sup>2</sup> (3P)	20	PC-BTWA 6/3	12691716	19.00
Cross-connection 6 mm <sup>2</sup> (4P)	15	PC-BTWA 6/4	12691739	23.00	
Cross-connection 6 mm <sup>2</sup> (10P)	5	PC-BTWA 6/10	12691740	54.00	



# TERMINAL BLOCKS

## SPECIAL TERMINAL BLOCKS



### TERMINAL BLOCKS FOR USE WITH FORK AND RING CONNECTORS - BTWO

TERMINAL BLOCK	TYPE OF CABLE CONNECTOR	CROSS - SECTION (mm <sup>2</sup> )	PACKING (UN)	TYPE	STOCK CODE	PRICE EACH (ZAR)
Standard type	Fork	6	50	BTWO 6 <sup>1)</sup>	12603152	23.00
		10	25	BTWO 10 <sup>1)</sup>	12603153	34.00
	Ring	6	40	BTWO 6I <sup>1)</sup>	12603155	80.00
		6	25	BTWO 6G <sup>1)</sup>	12603218	135.00
Earth type		6	40	BTWO 6 IT-VD/AM <sup>1)</sup>	12603156	131.00

Note: 1) UL listed.



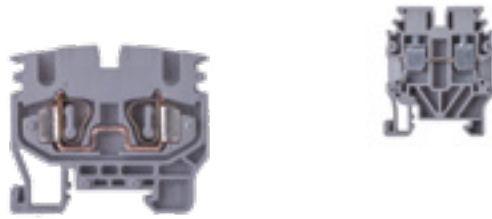
### ACCESSORIES FOR TERMINAL BLOCKS - BTWO

ACCESSORY	FOR USE WITH	DESCRIPTION	PACKING (UN)	TYPE	STOCK CODE	PRICE EACH (ZAR)
End plate	BTWO 6	End plate	50	TF-BTWO 6	12603827	7.00
	BTWO 10		50	TF-BTWO 10	12603898	9.00
	BTWO 6I		50	TF-BTWO 6 I	12603905	9.00
	BTWO 6G		25	TF-BTWO 6 G	12603904	10.00
Cross-connection	BTWO 6	Cross-connection (2P)	25	PC-BTWO 6/2	12603899	33.00
		Cross-connection (10P)	5	PC-BTWO 6/10	12603901	157.00
	BTWO 10	Cross-connection (2P)	25	PC-BTWO 10/2	12603902	46.00
		Cross-connection (10P)	5	PC-BTWO 10/10	12603903	226.00
	BTWO 6I / BTWO 6G	Cross-connection (2P)	25	PC-BTWO 6I/2	12603907	16.00
		Cross-connection (3P)	20	PC-BTWO 6I/3	12603928	29.00
		Cross-connection (4P)	15	PC-BTWO 6I/4	12603929	37.00
Cross-connection (7P)	5	PC-BTWO 6I/7	12603930	63.00		



# TERMINAL BLOCKS

## MINI TERMINAL BLOCKS



### SCREW AND SPRING CLAMP TYPE MINI TERMINAL BLOCKS - BTWK/BTWY

TERMINAL BLOCK	ASSEMBLY ON	DESCRIPTION	CROSS - SECTION (mm <sup>2</sup> )	PACKING (UN)	TYPE	STOCK CODE	PRICE EACH (ZAR)	
Screw type	Terminal block for assembly on DIN rail	Terminal 2,5 mm <sup>2</sup>	2,5	100	BTWK 2,5	12603220	8.00	
		Terminal 4 mm <sup>2</sup>	4	100	BTWK 4	12603222	9.00	
		Earth terminal 2,5 mm <sup>2</sup>	2,5	50	BTWK 2,5T	12603223	29.00	
		Earth terminal 4 mm <sup>2</sup>	4	50	BTWK 4T	12603224	32.00	
Spring clamp type		Terminal block for assembly on mounting plates	Terminal 2,5 mm <sup>2</sup>	2,5	50	BTWY 2,5 <sup>1)</sup>	12603225	11.00
			Earth terminal 2,5 mm <sup>2</sup>	2,5	50	BTWY 2,5T	12603250	32.00
			Terminal 2,5 mm <sup>2</sup>	2,5	100	BTWY 2,5P	12603226	11.00
			Terminal 2,5 mm <sup>2</sup>	2,5	100	BTWY 2,5S	12603249	11.00

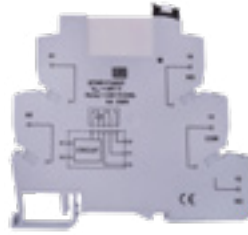
Note: 1) UL listed.

### ACCESSORIES FOR MINI TERMINAL BLOCKS - BTWK/BTWY

ACCESSORY	DESCRIPTION	PACKING (UN)	TYPE	STOCK CODE	PRICE EACH (ZAR)
End plate	End plate	100	TF-BTWK 2,5-4	12603932	4.00
		10	TF-BTWK 2,5-4 T	12603933	4.00
		100	TF-BTWY CZ	10289043	3.00
		100	TF-BTWY 2,5 E	12603937	3.00
		100	TF-BTWY 2,5 D	12603988	3.00
		10	TF-BTWY 2,5 T	12603936	4.00
		100	TFF-BTWY 2,5 E	12635084	5.00
		100	TFF-BTWY 2,5 D	12635086	5.00



## TERMINAL BLOCKS



### INTERFACE RELAY - BTWR

TERMINAL BLOCK	COIL VOLTAGE	CROSS - SECTION (mm <sup>2</sup> )	PACKING (UN)	TYPE	STOCK CODE	PRICE EACH (ZAR)
Interface relay	24 V ac/dc	2,5	10	BTWR P16E26	12604116	204.00
	48 V ac/dc	2,5	10	BTWR P16E27	12635080	272.00
	60 V ac/dc	2,5	10	BTWR P16E28	12635081	278.00
	110 V ac/dc	2,5	10	BTWR P16E29	12604117	291.00
	230 V ac/dc	2,5	10	BTWR P16E31	12604258	310.00

### ACCESSORIES FOR INTERFACE RELAY

ACCESSORY	DESCRIPTION	VOLTAGE	FOR USE WITH	PACKING (UN)	TYPE	STOCK CODE	PRICE EACH (ZAR)
Cross-connection	Cross-connection 2,5 mm <sup>2</sup> (2P)	-	BTWR	25	PC-BTWR 2,5/16R	12635099	84.00
Relay module	Module	24 V dc	BTWR P16E26 / BTWR P16E27	10	RE-BTWR 2,5 R C03	12653916	77.00
		60 V dc	BTWR P16E28 / BTWR P16E29 / BTWR P16E31	10	RE-BTWR 2,5 R C09	12653915	77.00
Relay base	Relay base	24 V ac/dc	RE-BTWR 2,5 R C03	10	BR-BTWR 2,5/1R E26	12635101	167.00
		48 V ac/dc	RE-BTWR 2,5 R C03	10	BR-BTWR 2,5/1R E27	12635102	215.00
		60 V ac/dc	RE-BTWR 2,5 R C09	10	BR-BTWR 2,5/1R E28	12635103	222.00
		110 V ac/dc	RE-BTWR 2,5 R C09	10	BR-BTWR 2,5/1R E29	12635104	236.00
		230 V ac/dc	RE-BTWR 2,5 R C09	10	BR-BTWR 2,5/1R E31	12635106	257.00



# TERMINAL BLOCKS

## GENERAL ACCESSORIES FOR TERMINAL BLOCKS



ACCESSORY	PACKING (UN)	TYPE	STOCK CODE	PRICE EACH (ZAR)
Marking tags for group of terminals	50	IG-BTW G	10289062	8.00
Marking tags for group of terminals	25	IG22-BTW	10290296	12.00
Mounting rail 35 mm (2 m)	1	DIN35 7,5X35X2000	11476763	94.00
Mounting rail 15 mm (1 m)	20	MR- BTW5,5X15X1000	12603990	63.00
Rail support	25	ST-BTW	10290297	21.00
End bracket	100	PF2-BTW	12603989	11.00
End bracket	100	PF3-BTW	10289060	6.00
End bracket	100	PF4-BTW	10289061	8.00
End bracket	100	PF5-BTW	11546461	36.00
Sealing pin	4	PF5-BTW PE	11546535	3.00
Protection cover (1 m)	10	TT-BTW	11546440	253.00
Holding plate for cover	2	STT-BTW	11546464	15.00

## BUSBAR CONNECTORS



ACCESSORY	PACKING (UN)	TYPE	STOCK CODE	PRICE EACH (ZAR)
Connector cross-section 4 mm <sup>2</sup>	200	CB4-BTW	10289075	6.00
Connector cross-section 10 mm <sup>2</sup>	100	CB10-BTW	10289076	9.00
Connector cross-section 35 mm <sup>2</sup>	50	CB35-BTW	10289077	21.00
Connector cross-section 4 mm <sup>2</sup> (blue)	100	CB4N-BTW-AZ	10289078	9.00
Connector cross-section 10 mm <sup>2</sup> (blue)	100	CB10N-BTW-AZ	10289079	12.00
Connector cross-section 35 mm <sup>2</sup> (blue)	50	CB35N-BTW-AZ	10289080	24.00
Connector cross-section 4 mm <sup>2</sup> (green-yellow)	100	CB4PE-BTW-VD/ AM	10289081	9.00
Connector cross-section 10 mm <sup>2</sup> (green-yellow)	100	CB10PE-BTW-VD/ AM	10289082	12.00
Connector cross-section 35 mm <sup>2</sup> (green-yellow)	50	CB35PE-BTW-VD/ AM	10289083	24.00
Busbar 3x10 (1 m)	1	BR 3x10x1000	12927528	588.00
Busbar support block	50	SB-BTW	10289084	9.00

ACCESSORY	PACKING (UN)	TYPE	STOCK CODE	PRICE EACH (ZAR)
Fast action fuse 5x20 mm - 0,25 A	50	RAP 250mA	10744040	6.00
Fast action fuse 5x20 mm - 0,5 A	50	RAP 500mA	10744042	6.00
Fast action fuse 5x20 mm - 1 A	50	RAP 1A	10744144	6.00
Fast action fuse 5x20 mm - 2 A	50	RAP 2A	10744149	6.00
Fast action fuse 5x20 mm - 4 A	50	RAP 4A	10744150	6.00
Fast action fuse 5x20 mm - 6 A	50	RAP 6A	10744179	6.00
Fast action fuse 6,3x31,8 mm - 0,25 A	10	RAP 250mA	10744181	9.00
Fast action fuse 6,3x31,8 mm - 0,5 A	10	RAP 500mA	10744182	9.00
Fast action fuse 6,3x31,8 mm - 1 A	10	RAP 1A	10744184	9.00
Fast action fuse 6,3x31,8 mm - 2 A	10	RAP 2A	10744187	9.00
Fast action fuse 6,3x31,8 mm - 4 A	10	RAP 4A	10744210	9.00
Fast action fuse 6,3x31,8 mm - 6 A	10	RAP 6A	10744212	9.00



# TERMINAL BLOCKS

## GENERAL ACCESSORIES FOR TERMINAL BLOCKS

TAG TYPE	INSCRIPTION	LABELS PER PACK	TYPE	SAP CODE	PACK PRICE (ZAR)
Pack of tags type IDB5-BTW printed at the horizontal position	" A "	50	IDB5-BTWH-A	10872745	23.00
	" B "	50	IDB5-BTWH-B	10872758	23.00
	" C "	50	IDB5-BTWH-C	10872759	23.00
	" D "	50	IDB5-BTWH-D	10872763	23.00
	" E "	50	IDB5-BTWH-E	10872766	23.00
	" F "	50	IDB5-BTWH-F	10872768	23.00
	" G "	50	IDB5-BTWH-G	10872769	23.00
	" H "	50	IDB5-BTWH-H	10872771	23.00
	" I "	50	IDB5-BTWH-I	10872773	23.00
	" J "	50	IDB5-BTWH-J	10872776	23.00
	" K "	50	IDB5-BTWH-K	10872778	23.00
	" L "	50	IDB5-BTWH-L	10872781	23.00
	" M "	50	IDB5-BTWH-M	10872785	23.00
	" N "	50	IDB5-BTWH-N	10872788	23.00
	" O "	50	IDB5-BTWH-O	10872790	23.00
	" P "	50	IDB5-BTWH-P	10872821	23.00
	" Q "	50	IDB5-BTWH-Q	10872822	23.00
	" X "	50	IDB5-BTWH-X	10872823	23.00
	" Y "	50	IDB5-BTWH-Y	10872853	23.00
	" Z "	50	IDB5-BTWH-Z	10883452	23.00
	"A...Z. A...X"	50	DB5-BTWH-A-Z/A-X	10873759	23.00
	" R1 "	50	IDB5-BTWH-R1	10873595	23.00
	" R2 "	50	IDB5-BTWH-R2	10873596	23.00
	" R3 "	50	IDB5-BTWH-R3	10873597	23.00
	" R4 "	50	IDB5-BTWH-R4	10873639	23.00
	" R5 "	50	IDB5-BTWH-R5	10873640	23.00
	" R6 "	50	IDB5-BTWH-R6	10873634	23.00
	" R7 "	50	IDB5-BTWH-R7	10873636	23.00
	" R8 "	50	IDB5-BTWH-R8	10873632	23.00
	" R9 "	50	IDB5-BTWH-R9	10873689	23.00
	" S1 "	50	IDB5-BTWH-S1	10873826	23.00
	" S2 "	50	IDB5-BTWH-S2	10873827	23.00
	" S3 "	50	IDB5-BTWH-S3	10873859	23.00
	" S4 "	50	IDB5-BTWH-S4	10873861	23.00
	" S5 "	50	IDB5-BTWH-S5	10873864	23.00
	" S6 "	50	IDB5-BTWH-S6	10873866	23.00
	" S7 "	50	IDB5-BTWH-S7	10873924	23.00
	" S8 "	50	IDB5-BTWH-S8	10873925	23.00
	" S9 "	50	IDB5-BTWH-S9	10873926	23.00
	" T1 "	50	IDB5-BTWH-T1	10874055	23.00
	" T2 "	50	IDB5-BTWH-T2	10874057	23.00
	" T3 "	50	IDB5-BTWH-T3	10874068	23.00
	" T4 "	50	IDB5-BTWH-T4	10874069	23.00
	" T5 "	50	IDB5-BTWH-T5	10874070	23.00
	" T6 "	50	IDB5-BTWH-T6	10874071	23.00
	" T7 "	50	IDB5-BTWH-T7	10874072	23.00
	" T8 "	50	IDB5-BTWH-T8	10874073	23.00
" T9 "	50	IDB5-BTWH-T9	10874074	23.00	
" U1 "	50	IDB5-BTWH-U1	10874359	23.00	
" U2 "	50	IDB5-BTWH-U2	10874361	23.00	
" U3 "	50	IDB5-BTWH-U3	10874363	23.00	
" U4 "	50	IDB5-BTWH-U4	10874364	23.00	
" U5 "	50	IDB5-BTWH-U5	10874365	23.00	
" U6 "	50	IDB5-BTWH-U6	10874366	23.00	
" U7 "	50	IDB5-BTWH-U7	10874367	23.00	



# TERMINAL BLOCKS

## GENERAL ACCESSORIES FOR TERMINAL BLOCKS

TAG TYPE	INSCRIPTION	LABELS PER PACK	TYPE	SAP CODE	PACK PRICE (ZAR)
Pack of tags type IDB5-BTW printed at the horizontal position	" U8 "	50	IDB5-BTWH U8	10874388	23.00
	" U9 "	50	IDB5-BTWH U9	10874389	23.00
	" V1 "	50	IDB5-BTWH V1	11062052	23.00
	" V2 "	50	IDB5-BTWH V2	11062053	23.00
	" V3 "	50	IDB5-BTWH V3	11062054	23.00
	" V4 "	50	IDB5-BTWH V4	11062101	23.00
	" V5 "	50	IDB5-BTWH V5	10874527	23.00
	" V6 "	50	IDB5-BTWH V6	10874568	23.00
	" V7 "	50	IDB5-BTWH V7	10874569	23.00
	" V8 "	50	IDB5-BTWH V8	10874570	23.00
	" V9 "	50	IDB5-BTWH V9	10874571	23.00
	" W1 "	50	IDB5-BTWH W1	10874731	23.00
	" W2 "	50	IDB5-BTWH W2	10874732	23.00
	" W3 "	50	IDB5-BTWH W3	10874733	23.00
	" W4 "	50	IDB5-BTWH W4	10874734	23.00
	" W5 "	50	IDB5-BTWH W5	10874735	23.00
	" W6 "	50	IDB5-BTWH W6	10874737	23.00
	" W7 "	50	IDB5-BTWH W7	10874748	23.00
	" W8 "	50	IDB5-BTWH W8	10874749	23.00
	" W9 "	50	IDB5-BTWH W9	10874751	23.00
	" 0 "	50	IDB5-BTWH 0	10792234	23.00
	" 1 "	50	IDB5-BTWH 1	10795114	23.00
	" 2 "	50	IDB5-BTWH 2	10795183	23.00
	" 3 "	50	IDB5-BTWH 3	10795196	23.00
	" 4 "	50	IDB5-BTWH 4	10795212	23.00
	" 5 "	50	IDB5-BTWH 5	10795219	23.00
	" 6 "	50	IDB5-BTWH 6	10795250	23.00
	" 7 "	50	IDB5-BTWH 7	10795255	23.00
	" 8 "	50	IDB5-BTWH 8	10795258	23.00
	" 9 "	50	IDB5-BTWH 9	10795267	23.00
	" 10 "	50	IDB5-BTWH 10	10795284	23.00
	"1...10" (5x)	50	IDB5-BTWH 1-10	10795289	23.00
	"11...20" (5x)	50	IDB5-BTWH 11-20	10795291	23.00
	"21...30" (5x)	50	IDB5-BTWH 21-30	10795303	23.00
	"31...40" (5x)	50	IDB5-BTWH 31-40	10795373	23.00
	"41...50" (5x)	50	IDB5-BTWH 41-50	10795411	23.00
	"1...50"	50	IDB5-BTWH 1-50	10795444	23.00
	"51...100"	50	IDB5-BTWH 51-100	10795446	23.00
	" R "	50	IDB5-BTWH R	10795481	23.00
	" S "	50	IDB5-BTWH S	10795483	23.00
	" T "	50	IDB5-BTWH T	10795512	23.00
	" U "	50	IDB5-BTWH U	10795614	23.00
	" V "	50	IDB5-BTWH V	10795616	23.00
	" W "	50	IDB5-BTWH W	10795620	23.00
	" + "	50	IDB5-BTWH +	10795622	23.00
	" - "	50	IDB5-BTWH -	10795624	23.00
	⊕	50	IDB5-BTWH TERRA	10795626	23.00
	101-150	50	IDB5-BTWH-101-150	11070272	23.00
	151-200	50	IDB5-BTWH-151-200	11070512	23.00
	201-250	50	IDB5-BTWH-201-250	11070562	23.00
251-300	50	IDB5-BTWH-251-300	11070514	23.00	
301-350	50	IDB5-BTWH-301-350	11070515	23.00	
351-400	50	IDB5-BTWH-351-400	11070516	23.00	
401-450	50	IDB5-BTWH-401-450	11070559	23.00	
451-500	50	IDB5-BTWH-451-500	11070560	23.00	



# TERMINAL BLOCKS

## GENERAL ACCESSORIES FOR TERMINAL BLOCKS

TAG TYPE	INSCRIPTION	LABELS PER PACK	TYPE	SAP CODE	PACK PRICE (ZAR)
Pack of tags type IDB5-BTW printed at the vertical position	" A "	50	IDB5-BTWV-A	11328896	23.00
	" B "	50	IDB5-BTWV-B	11328949	23.00
	" C "	50	IDB5-BTWV-C	11328951	23.00
	" D "	50	IDB5-BTWV-D	11328956	23.00
	" E "	50	IDB5-BTWV-E	11328957	23.00
	" F "	50	IDB5-BTWV-F	11127470	23.00
	" G "	50	IDB5-BTWV-G	11330749	23.00
	" H "	50	IDB5-BTWV-H	11330751	23.00
	" I "	50	IDB5-BTWV-I	11330752	23.00
	" J "	50	IDB5-BTWV-J	11330753	23.00
	" K "	50	IDB5-BTWV-K	11330755	23.00
	" L "	50	IDB5-BTWV-L	11330756	23.00
	" M "	50	IDB5-BTWV-M	11330789	23.00
	" N "	50	IDB5-BTWV-N	11127471	23.00
	" O "	50	IDB5-BTWV-O	11330791	23.00
	" P "	50	IDB5-BTWV-P	11330793	23.00
	" Q "	50	IDB5-BTWV-Q	11330795	23.00
	" X "	50	IDB5-BTWV-X	11330797	23.00
	" Y "	50	IDB5-BTWV-Y	11330799	23.00
	" Z "	50	IDB5-BTWV-Z	11330801	23.00
	"A...Z. A...X"	50	DB5-BTWV-A-Z/A-X	11330802	23.00
	" R1 "	50	IDB5-BTWV-R1	11331003	23.00
	" R2 "	50	IDB5-BTWV-R2	11331004	23.00
	" R3 "	50	IDB5-BTWV-R3	11331005	23.00
	" R4 "	50	IDB5-BTWV-R4	11331006	23.00
	" R5 "	50	IDB5-BTWV-R5	11331007	23.00
	" R6 "	50	IDB5-BTWV-R6	11331078	23.00
	" R7 "	50	IDB5-BTWV-R7	11331080	23.00
	" R8 "	50	IDB5-BTWV-R8	11331081	23.00
	" R9 "	50	IDB5-BTWV-R9	11332093	23.00
	" S1 "	50	IDB5-BTWV-S1	11331086	23.00
	" S2 "	50	IDB5-BTWV-S2	11331098	23.00
	" S3 "	50	IDB5-BTWV-S3	11331099	23.00
	" S4 "	50	IDB5-BTWV-S4	11331100	23.00
	" S5 "	50	IDB5-BTWV-S5	11331102	23.00
	" S6 "	50	IDB5-BTWV-S6	11331103	23.00
	" S7 "	50	IDB5-BTWV-S7	11331104	23.00
	" S8 "	50	IDB5-BTWV-S8	11331105	23.00
	" S9 "	50	IDB5-BTWV-S9	11331106	23.00
	" T1 "	50	IDB5-BTWV-T1	11331107	23.00
	" T2 "	50	IDB5-BTWV-T2	11331118	23.00
	" T3 "	50	IDB5-BTWV-T3	11331119	23.00
	" T4 "	50	IDB5-BTWV-T4	11331120	23.00
	" T5 "	50	IDB5-BTWV-T5	11331121	23.00
	" T6 "	50	IDB5-BTWV-T6	11331122	23.00
	" T7 "	50	IDB5-BTWV-T7	11331124	23.00
	" T8 "	50	IDB5-BTWV-T8	11331125	23.00
" T9 "	50	IDB5-BTWV-T9	11331126	23.00	
" U1 "	50	IDB5-BTWV-U1	11331142	23.00	
" U2 "	50	IDB5-BTWV-U2	11331143	23.00	
" U3 "	50	IDB5-BTWV-U3	11331144	23.00	
" U4 "	50	IDB5-BTWV-U4	11331145	23.00	
" U5 "	50	IDB5-BTWV-U5	11331146	23.00	
" U6 "	50	IDB5-BTWV-U6	11331188	23.00	
" U7 "	50	IDB5-BTWV-U7	11331189	23.00	



# TERMINAL BLOCKS

## GENERAL ACCESSORIES FOR TERMINAL BLOCKS

TAG TYPE	INSCRIPTION	LABELS PER PACK	TYPE	SAP CODE	PACK PRICE (ZAR)
Pack of tags type IDB5-BTW printed at the vertical position	" U8 "	50	IDB5-BTWV-U8	11331190	23.00
	" U9 "	50	IDB5-BTWV-U9	11331192	23.00
	" V1 "	50	IDB5-BTWV-V1	11331210	23.00
	" V2 "	50	IDB5-BTWV-V2	11331213	23.00
	" V3 "	50	IDB5-BTWV-V3	11331215	23.00
	" V4 "	50	IDB5-BTWV-V4	11331217	23.00
	" V5 "	50	IDB5-BTWV-V5	11331248	23.00
	" V6 "	50	IDB5-BTWV-V6	11331250	23.00
	" V7 "	50	IDB5-BTWV-V7	11331251	23.00
	" V8 "	50	IDB5-BTWV-V8	11331253	23.00
	" V9 "	50	IDB5-BTWV-V9	11331255	23.00
	" W1 "	50	IDB5-BTWV-W1	11331309	23.00
	" W2 "	50	IDB5-BTWV-W2	11331311	23.00
	" W3 "	50	IDB5-BTWV-W3	11331312	23.00
	" W4 "	50	IDB5-BTWV-W4	11331313	23.00
	" W5 "	50	IDB5-BTWV-W5	11331314	23.00
	" W6 "	50	IDB5-BTWV-W6	11331315	23.00
	" W7 "	50	IDB5-BTWV-W7	11331316	23.00
	" W8 "	50	IDB5-BTWV-W8	11331319	23.00
	" W9 "	50	IDB5-BTWV-W9	11331324	23.00
	" 0 "	50	IDB5-BTWV-0	11331326	23.00
	" 1 "	50	IDB5-BTWV-1	11331338	23.00
	" 2 "	50	IDB5-BTWV-2	11331340	23.00
	" 3 "	50	IDB5-BTWV-3	11331341	23.00
	" 4 "	50	IDB5-BTWV-4	11331342	23.00
	" 5 "	50	IDB5-BTWV-5	11331344	23.00
	" 6 "	50	IDB5-BTWV-6	11331345	23.00
	" 7 "	50	IDB5-BTWV-7	11331346	23.00
	" 8 "	50	IDB5-BTWV-8	11331352	23.00
	" 9 "	50	IDB5-BTWV-9	11331353	23.00
	" 10 "	50	IDB5-BTWV-10	11331354	23.00
	"1...10" (5x)	50	IDB5-BTWV-1-10	11127468	23.00
	"11...20" (5x)	50	IDB5-BTWV-11-20	11127766	23.00
	"21...30" (5x)	50	IDB5-BTWV-21-30	11127469	23.00
	"31...40" (5x)	50	IDB5-BTWV-31-40	11127938	23.00
	"41...50" (5x)	50	IDB5-BTWV-41-50	11127939	23.00
	"1...50"	50	IDB5-BTWV-1-50	11091565	23.00
	"51...100"	50	IDB5-BTWV-51-100	11091912	23.00
	" R "	50	IDB5-BTWV-R	11127474	23.00
	" S "	50	IDB5-BTWV-S	11127476	23.00
	" T "	50	IDB5-BTWV-T	11127473	23.00
	" U "	50	IDB5-BTWV-U	11127941	23.00
	" V "	50	IDB5-BTWV-V	11127942	23.00
	" W "	50	IDB5-BTWV-W	11127945	23.00
	" + "	50	IDB5-BTWV- +	11331399	23.00
	" - "	50	IDB5-BTWV- -	11331401	23.00
	⚡	50	IDB5-BTWV-TERRA	11331403	23.00
	101-150	50	IDB5-BTWV-101-150	11331404	23.00
	151-200	50	IDB5-BTWV-151-200	11331405	23.00
	201-250	50	IDB5-BTWV-201-250	11331407	23.00
251-300	50	IDB5-BTWV-251-300	11331409	23.00	
301-350	50	IDB5-BTWV-301-350	11331411	23.00	
351-400	50	IDB5-BTWV-351-400	11331412	23.00	
401-450	50	IDB5-BTWV-401-450	11331415	23.00	
451-500	50	IDB5-BTWV-451-500	11331416	23.00	



# TERMINAL BLOCKS

## GENERAL ACCESSORIES FOR TERMINAL BLOCKS

TAG TYPE	INSCRIPTION	LABELS PER PACK	TYPE	SAP CODE	PACK PRICE (ZAR)
Pack of tags type IDG6/5-BTW printed at the horizontal position	" A "	40	IDG6/5-BTWH-A	10872851	44.00
	" B "	40	IDG6/5-BTWH-B	10872854	44.00
	" C "	40	IDG6/5-BTWH-C	10872856	44.00
	" D "	40	IDG6/5-BTWH-D	10872857	44.00
	" E "	40	IDG6/5-BTWH-E	10872858	44.00
	" F "	40	IDG6/5-BTWH-F	10872889	44.00
	" G "	40	IDG6/5-BTWH-G	10872891	44.00
	" H "	40	IDG6/5-BTWH-H	10872893	44.00
	" I "	40	IDG6/5-BTWH-I	10872894	44.00
	" J "	40	IDG6/5-BTWH-J	10872895	44.00
	" K "	40	IDG6/5-BTWH-K	10872897	44.00
	" L "	40	IDG6/5-BTWH-L	10872975	44.00
	" M "	40	IDG6/5-BTWH-M	10872898	44.00
	" N "	40	IDG6/5-BTWH-N	10872900	44.00
	" O "	40	IDG6/5-BTWH-O	10872902	44.00
	" P "	40	IDG6/5-BTWH-P	10872903	44.00
	" Q "	40	IDG6/5-BTWH-Q	10872919	44.00
	" X "	40	IDG6/5-BTWH-X	10872921	44.00
	" Y "	40	IDG6/5-BTWH-Y	10872922	44.00
	" Z "	40	IDG6/5-BTWH-Z	10883455	44.00
	"A...Z. A...X"	40	IDG6/5-BTWH-A-Z/A-P	10873746	44.00
	" R1 "	40	IDG6/5-BTWH-R1	10873768	44.00
	" R2 "	40	IDG6/5-BTWH-R2	10873769	44.00
	" R3 "	40	IDG6/5-BTWH-R3	10873770	44.00
	" R4 "	40	IDG6/5-BTWH-R4	10873771	44.00
	" R5 "	40	IDG6/5-BTWH-R5	10873772	44.00
	" R6 "	40	IDG6/5-BTWH-R6	10873774	44.00
	" R7 "	40	IDG6/5-BTWH-R7	10873776	44.00
	" R8 "	40	IDG6/5-BTWH-R8	10873778	44.00
	" R9 "	40	IDG6/5-BTWH-R9	10873780	44.00
	" S1 "	40	IDG6/5-BTWH-S1	10873927	44.00
	" S2 "	40	IDG6/5-BTWH-S2	10873939	44.00
	" S3 "	40	IDG6/5-BTWH-S3	10873940	44.00
	" S4 "	40	IDG6/5-BTWH-S4	10873942	44.00
	" S5 "	40	IDG6/5-BTWH-S5	10873943	44.00
	" S6 "	40	IDG6/5-BTWH-S6	10873945	44.00
	" S7 "	40	IDG6/5-BTWH-S7	10873969	44.00
	" S8 "	40	IDG6/5-BTWH-S8	10873998	44.00
	" S9 "	40	IDG6/5-BTWH-S9	10873999	44.00
	" T1 "	40	IDG6/5-BTWH-T1	10874075	44.00
	" T2 "	40	IDG6/5-BTWH-T2	10874076	44.00
	" T3 "	40	IDG6/5-BTWH-T3	10874077	44.00
	" T4 "	40	IDG6/5-BTWH-T4	10874098	44.00
	" T5 "	40	IDG6/5-BTWH-T5	10874099	44.00
	" T6 "	40	IDG6/5-BTWH-T6	10874100	44.00
	" T7 "	40	IDG6/5-BTWH-T7	10874101	44.00
	" T8 "	40	IDG6/5-BTWH-T8	10874102	44.00
	" T9 "	40	IDG6/5-BTWH-T9	10874103	44.00
	" U1 "	40	IDG6/5-BTWH-U1	10874397	44.00
	" U2 "	40	IDG6/5-BTWH-U2	10874413	44.00
" U3 "	40	IDG6/5-BTWH-U3	10874414	44.00	
" U4 "	40	IDG6/5-BTWH-U4	10874415	44.00	
" U5 "	40	IDG6/5-BTWH-U5	10874416	44.00	
" U6 "	40	IDG6/5-BTWH-U6	10874440	44.00	
" U7 "	40	IDG6/5-BTWH-U7	10874442	44.00	



# TERMINAL BLOCKS

## GENERAL ACCESSORIES FOR TERMINAL BLOCKS

TAG TYPE	INSCRIPTION	LABELS PER PACK	TYPE	SAP CODE	PACK PRICE (ZAR)
Pack of tags type IDG6/5-BTW printed at the horizontal position	" U8 "	40	IDG6/5-BTWH-U8	10874443	44.00
	" U9 "	40	IDG6/5-BTWH-U9	10874459	44.00
	" V1 "	40	IDG6/5-BTWH-V1	10874574	44.00
	" V2 "	40	IDG6/5-BTWH-V2	10874575	44.00
	" V3 "	40	IDG6/5-BTWH-V3	10874576	44.00
	" V4 "	40	IDG6/5-BTWH-V4	10874577	44.00
	" V5 "	40	IDG6/5-BTWH-V5	10874599	44.00
	" V6 "	40	IDG6/5-BTWH-V6	10874603	44.00
	" V7 "	40	IDG6/5-BTWH-V7	10874605	44.00
	" V8 "	40	IDG6/5-BTWH-V8	10874606	44.00
	" V9 "	40	IDG6/5-BTWH-V9	10874607	44.00
	" W1 "	40	IDG6/5-BTWH-W1	10874752	44.00
	" W2 "	40	IDG6/5-BTWH-W2	10874753	44.00
	" W3 "	40	IDG6/5-BTWH-W3	10874754	44.00
	" W4 "	40	IDG6/5-BTWH-W4	10874755	44.00
	" W5 "	40	IDG6/5-BTWH-W5	10874756	44.00
	" W6 "	40	IDG6/5-BTWH-W6	10874757	44.00
	" W7 "	40	IDG6/5-BTWH-W7	10874904	44.00
	" W8 "	40	IDG6/5-BTWH-W8	10874905	44.00
	" W9 "	40	IDG6/5-BTWH-W9	10874907	44.00
	" 0 "	40	IDG6/5-BTWH-0	10795627	44.00
	" 1 "	40	IDG6/5-BTWH-1	10795640	44.00
	" 2 "	40	IDG6/5-BTWH-2	10795642	44.00
	" 3 "	40	IDG6/5-BTWH-3	10795660	44.00
	" 4 "	40	IDG6/5-BTWH-4	10795662	44.00
	" 5 "	40	IDG6/5-BTWH-5	10795665	44.00
	" 6 "	40	IDG6/5-BTWH-6	10795667	44.00
	" 7 "	40	IDG6/5-BTWH-7	10795681	44.00
	" 8 "	40	IDG6/5-BTWH-8	10795683	44.00
	" 9 "	40	IDG6/5-BTWH-9	10795685	44.00
	" 10 "	40	IDG6/5-BTWH-10	10795687	44.00
	"1...10" (5x)	40	IDG6/5-BTWH-1-10	10795698	44.00
	"11...20" (5x)	40	IDG6/5-BTWH-11-20	10795700	44.00
	"21...30" (5x)	40	IDG6/5-BTWH-21-30	10795705	44.00
	"31...40" (5x)	40	IDG6/5-BTWH-31-40	10795706	44.00
	"41...50" (5x)	40	IDG6/5-BTWH-41-50	10795707	44.00
	"1...50"	40	IDG6/5-BTWH-1-40	10795708	44.00
	"51...100"	40	IDG6/5-BTWH-41-80	10795711	44.00
	" R "	40	DG6/5-BTWH-81-120	10795712	44.00
	" S "	40	IDG6/5-BTWH-R	10795713	44.00
	" T "	40	IDG6/5-BTWH-S	10795714	44.00
	" U "	40	IDG6/5-BTWH-T	10795716	44.00
	" V "	40	IDG6/5-BTWH-U	10795718	44.00
	" W "	40	IDG6/5-BTWH-V	10795719	44.00
	" + "	40	IDG6/5-BTWH-W	10795720	44.00
	" - "	40	IDG6/5-BTWH- +	10795722	44.00
	$\frac{\square}{\square}$	40	IDG6/5-BTWH- -	10795723	44.00
	101-150	40	IDG6/5-BTWH-TERRA	10795726	44.00
	151-200	40	DG6/5-BTWH-121-160	11071102	44.00
	201-250	40	DG6/5-BTWH-161-200	11071103	44.00
251-300	40	DG6/5-BTWH-201-240	11071544	44.00	
301-350	40	DG6/5-BTWH-241-280	11071545	44.00	
351-400	40	DG6/5-BTWH-281-320	11071546	44.00	
401-450	40	DG6/5-BTWH-321-360	11071547	44.00	
451-500	40	DG6/5-BTWH-361-400	11071568	44.00	



## TERMINAL BLOCKS

### GENERAL ACCESSORIES FOR TERMINAL BLOCKS

TAG TYPE	INSCRIPTION	LABELS PER PACK	TYPE	SAP CODE	PACK PRICE (ZAR)
Pack of tags type IDG6/5-BTW printed at the vertical position	" A "	40	IDG6/5-BTWV-A	11332617	44.00
	" B "	40	IDG6/5-BTWV-B	11332709	44.00
	" C "	40	IDG6/5-BTWV-C	11332710	44.00
	" D "	40	IDG6/5-BTWV-D	11332712	44.00
	" E "	40	IDG6/5-BTWV-E	11332714	44.00
	" F "	40	IDG6/5-BTWV-F	11332715	44.00
	" G "	40	IDG6/5-BTWV-G	11332717	44.00
	" H "	40	IDG6/5-BTWV-H	11332728	44.00
	" I "	40	IDG6/5-BTWV-I	11332730	44.00
	" J "	40	IDG6/5-BTWV-J	11332731	44.00
	" K "	40	IDG6/5-BTWV-K	11332733	44.00
	" L "	40	IDG6/5-BTWV-L	11332734	44.00
	" M "	40	IDG6/5-BTWV-M	11332735	44.00
	" N "	40	IDG6/5-BTWV-N	11332736	44.00
	" O "	40	IDG6/5-BTWV-O	11332737	44.00
	" P "	40	IDG6/5-BTWV-P	11332739	44.00
	" Q "	40	IDG6/5-BTWV-Q	11332740	44.00
	" X "	40	IDG6/5-BTWV-X	11332742	44.00
	" Y "	40	IDG6/5-BTWV-Y	11332743	44.00
	" Z "	40	IDG6/5-BTWV-Z	11332745	44.00
	"A...Z. A...X"	40	IDG6/5-BTWV-A-Z/A-P	11332747	44.00
	" R1 "	40	IDG6/5-BTWV-R1	11332947	44.00
	" R2 "	40	IDG6/5-BTWV-R2	11332948	44.00
	" R3 "	40	IDG6/5-BTWV-R3	11332949	44.00
	" R4 "	40	IDG6/5-BTWV-R4	11332950	44.00
	" R5 "	40	IDG6/5-BTWV-R5	11332951	44.00
	" R6 "	40	IDG6/5-BTWV-R6	11332953	44.00
	" R7 "	40	IDG6/5-BTWV-R7	11332954	44.00
	" R8 "	40	IDG6/5-BTWV-R8	11332955	44.00
	" R9 "	40	IDG6/5-BTWV-R9	11332956	44.00
	" S1 "	40	IDG6/5-BTWV-S1	11332957	44.00
	" S2 "	40	IDG6/5-BTWV-S2	11332978	44.00
	" S3 "	40	IDG6/5-BTWV-S3	11332979	44.00
	" S4 "	40	IDG6/5-BTWV-S4	11333050	44.00
	" S5 "	40	IDG6/5-BTWV-S5	11333053	44.00
	" S6 "	40	IDG6/5-BTWV-S6	11333056	44.00
	" S7 "	40	IDG6/5-BTWV-S7	11333059	44.00
	" S8 "	40	IDG6/5-BTWV-S8	11333060	44.00
	" S9 "	40	IDG6/5-BTWV-S9	11333062	44.00
	" T1 "	40	IDG6/5-BTWV-T1	11333065	44.00
	" T2 "	40	IDG6/5-BTWV-T2	11333066	44.00
	" T3 "	40	IDG6/5-BTWV-T3	11333078	44.00
	" T4 "	40	IDG6/5-BTWV-T4	11333081	44.00
	" T5 "	40	IDG6/5-BTWV-T5	11333082	44.00
	" T6 "	40	IDG6/5-BTWV-T6	11333083	44.00
	" T7 "	40	IDG6/5-BTWV-T7	11333085	44.00
	" T8 "	40	IDG6/5-BTWV-T8	11333102	44.00
" T9 "	40	IDG6/5-BTWV-T9	11333104	44.00	
" U1 "	40	IDG6/5-BTWV-U1	11333106	44.00	
" U2 "	40	IDG6/5-BTWV-U2	11333107	44.00	
" U3 "	40	IDG6/5-BTWV-U3	11333120	44.00	
" U4 "	40	IDG6/5-BTWV-U4	11333121	44.00	
" U5 "	40	IDG6/5-BTWV-U5	11333123	44.00	
" U6 "	40	IDG6/5-BTWV-U6	11333125	44.00	
" U7 "	40	IDG6/5-BTWV-U7	11333127	44.00	



# TERMINAL BLOCKS

## GENERAL ACCESSORIES FOR TERMINAL BLOCKS

TAG TYPE	INSCRIPTION	LABELS PER PACK	TYPE	SAP CODE	PACK PRICE (ZAR)
Pack of tags type IDG6/5-BTW printed at the vertical position	" U8 "	40	IDG6/5-BTWV-U8	11333138	44.00
	" U9 "	40	IDG6/5-BTWV-U9	11333140	44.00
	" V1 "	40	IDG6/5-BTWV-V1	11333142	44.00
	" V2 "	40	IDG6/5-BTWV-V2	11333143	44.00
	" V3 "	40	IDG6/5-BTWV-V3	11333145	44.00
	" V4 "	40	IDG6/5-BTWV-V4	11333146	44.00
	" V5 "	40	IDG6/5-BTWV-V5	11333149	44.00
	" V6 "	40	IDG6/5-BTWV-V6	11333151	44.00
	" V7 "	40	IDG6/5-BTWV-V7	11333152	44.00
	" V8 "	40	IDG6/5-BTWV-V8	11333154	44.00
	" V9 "	40	IDG6/5-BTWV-V9	11333157	44.00
	" W1 "	40	IDG6/5-BTWV-W1	11333159	44.00
	" W2 "	40	IDG6/5-BTWV-W2	11333160	44.00
	" W3 "	40	IDG6/5-BTWV-W3	11333161	44.00
	" W4 "	40	IDG6/5-BTWV-W4	11333162	44.00
	" W5 "	40	IDG6/5-BTWV-W5	11333163	44.00
	" W6 "	40	IDG6/5-BTWV-W6	11333164	44.00
	" W7 "	40	IDG6/5-BTWV-W7	11333166	44.00
	" W8 "	40	IDG6/5-BTWV-W8	11333188	44.00
	" W9 "	40	IDG6/5-BTWV-W9	11333191	44.00
	" 0 "	40	IDG6/5-BTWV-0	11333235	44.00
	" 1 "	40	IDG6/5-BTWV-1	11333237	44.00
	" 2 "	40	IDG6/5-BTWV-2	11333248	44.00
	" 3 "	40	IDG6/5-BTWV-3	11333250	44.00
	" 4 "	40	IDG6/5-BTWV-4	11333252	44.00
	" 5 "	40	IDG6/5-BTWV-5	11333253	44.00
	" 6 "	40	IDG6/5-BTWV-6	11333256	44.00
	" 7 "	40	IDG6/5-BTWV-7	11333278	44.00
	" 8 "	40	IDG6/5-BTWV-8	11333279	44.00
	" 9 "	40	IDG6/5-BTWV-9	11333281	44.00
	" 10 "	40	IDG6/5-BTWV-10	11333283	44.00
	"1...10" (5x)	40	IDG6/5-BTWV-1-10	11333284	44.00
	"11...20" (5x)	40	IDG6/5-BTWV-11-20	11333286	44.00
	"21...30" (5x)	40	IDG6/5-BTWV-21-30	11333287	44.00
	"31...40" (5x)	40	IDG6/5-BTWV-31-40	11333289	44.00
	"41...50" (5x)	40	IDG6/5-BTWV-41-50	11333290	44.00
	"1...50"	40	IDG6/5-BTWV-1-40	11333292	44.00
	"51...100"	40	IDG6/5-BTWV-41-80	11333296	44.00
	" R "	40	IDG6/5-BTWV-81-120	11333297	44.00
	" S "	40	IDG6/5-BTWV-R	11333309	44.00
	" T "	40	IDG6/5-BTWV-S	11333311	44.00
	" U "	40	IDG6/5-BTWV-T	11333313	44.00
	" V "	40	IDG6/5-BTWV-U	11333315	44.00
	" W "	40	IDG6/5-BTWV-V	11333317	44.00
	" + "	40	IDG6/5-BTWV-W	11333329	44.00
" - "	40	IDG6/5-BTWV-+	11333331	44.00	
☐	40	IDG6/5-BTWV- -	11333333	44.00	
101-150	40	IDG6/5-BTWV-TERRA	11333334	44.00	
151-200	40	IDG6/5-BTWV-121-160	11333335	44.00	
201-250	40	IDG6/5-BTWV-161-200	11333336	44.00	
251-300	40	IDG6/5-BTWV-201-240	11333337	44.00	
301-350	40	IDG6/5-BTWV-241-280	11333338	44.00	
351-400	40	IDG6/5-BTWV-281-320	11333339	44.00	
401-450	40	IDG6/5-BTWV-321-360	11333340	44.00	
451-500	40	IDG6/5-BTWV-361-400	11333342	44.00	



# TERMINAL BLOCKS

## GENERAL ACCESSORIES FOR TERMINAL BLOCKS

TAG TYPE	INSCRIPTION	LABELS PER PACK	TYPE	SAP CODE	PACK PRICE (ZAR)
Pack of tags type IDG10/5-BTW printed at the horizontal position	" A "	44	IDG10/5-BTWH-A	10872925	48.00
	" B "	44	IDG10/5-BTWH-B	10872938	48.00
	" C "	44	IDG10/5-BTWH-C	10872940	48.00
	" D "	44	IDG10/5-BTWH-D	10872991	48.00
	" E "	44	IDG10/5-BTWH-E	10872992	48.00
	" F "	44	IDG10/5-BTWH-F	10872988	48.00
	" G "	44	IDG10/5-BTWH-G	10872942	48.00
	" H "	44	IDG10/5-BTWH-H	10872944	48.00
	" I "	44	IDG10/5-BTWH-I	10872945	48.00
	" J "	44	IDG10/5-BTWH-J	10872946	48.00
	" K "	44	IDG10/5-BTWH-K	10872969	48.00
	" L "	44	IDG10/5-BTWH-L	10872989	48.00
	" M "	44	IDG10/5-BTWH-M	10872990	48.00
	" N "	44	IDG10/5-BTWH-N	10872993	48.00
	" O "	44	IDG10/5-BTWH-O	10872995	48.00
	" P "	44	IDG10/5-BTWH-P	10872999	48.00
	" Q "	44	IDG10/5-BTWH-Q	10873000	48.00
	" X "	44	IDG10/5-BTWH-X	10873001	48.00
	" Y "	44	IDG10/5-BTWH-Y	10873002	48.00
	" Z "	44	IDG10/5-BTWH-Z	10883456	48.00
	"A...Z. A...X"	44	IDG10/5-BTWH-A-Z/A-T	10873747	48.00
	" R1 "	44	IDG10/5-BTWH-R1	10873781	48.00
	" R2 "	44	IDG10/5-BTWH-R2	10873783	48.00
	" R3 "	44	IDG10/5-BTWH-R3	10873786	48.00
	" R4 "	44	IDG10/5-BTWH-R4	10873788	48.00
	" R5 "	44	IDG10/5-BTWH-R5	10873791	48.00
	" R6 "	44	IDG10/5-BTWH-R6	10873789	48.00
	" R7 "	44	IDG10/5-BTWH-R7	10873790	48.00
	" R8 "	44	IDG10/5-BTWH-R8	10873792	48.00
	" R9 "	44	IDG10/5-BTWH-R9	10873793	48.00
	" S1 "	44	IDG10/5-BTWH-S1	10873974	48.00
	" S2 "	44	IDG10/5-BTWH-S2	10873971	48.00
	" S3 "	44	IDG10/5-BTWH-S3	10873975	48.00
	" S4 "	44	IDG10/5-BTWH-S4	10873972	48.00
	" S5 "	44	IDG10/5-BTWH-S5	10873976	48.00
	" S6 "	44	IDG10/5-BTWH-S6	10874001	48.00
	" S7 "	44	IDG10/5-BTWH-S7	10873941	48.00
	" S8 "	44	IDG10/5-BTWH-S8	10874002	48.00
	" S9 "	44	IDG10/5-BTWH-S9	10874004	48.00
	" T1 "	44	IDG10/5-BTWH-T1	10874104	48.00
	" T2 "	44	IDG10/5-BTWH-T2	10874107	48.00
	" T3 "	44	IDG10/5-BTWH-T3	10874118	48.00
	" T4 "	44	IDG10/5-BTWH-T4	10874119	48.00
	" T5 "	44	IDG10/5-BTWH-T5	10874122	48.00
	" T6 "	44	IDG10/5-BTWH-T6	10875464	48.00
	" T7 "	44	IDG10/5-BTWH-T7	10874209	48.00
" T8 "	44	IDG10/5-BTWH-T8	10874216	48.00	
" T9 "	44	IDG10/5-BTWH-T9	10874233	48.00	
" U1 "	44	IDG10/5-BTWH-U1	10875434	48.00	
" U2 "	44	IDG10/5-BTWH-U2	10875436	48.00	
" U3 "	44	IDG10/5-BTWH-U3	10875437	48.00	
" U4 "	44	IDG10/5-BTWH-U4	10875458	48.00	
" U5 "	44	IDG10/5-BTWH-U5	10875459	48.00	
" U6 "	44	IDG10/5-BTWH-U6	10875460	48.00	



# TERMINAL BLOCKS

## GENERAL ACCESSORIES FOR TERMINAL BLOCKS

TAG TYPE	INSCRIPTION	LABELS PER PACK	TYPE	SAP CODE	PACK PRICE (ZAR)
Pack of tags type IDG10/5-BTW printed at the horizontal position	" U7 "	44	IDG10/5-BTWH-U7	10875463	48.00
	" U8 "	44	IDG10/5-BTWH-U8	10875461	48.00
	" U9 "	44	IDG10/5-BTWH-U9	10875462	48.00
	" V1 "	44	IDG10/5-BTWH-V1	10874629	48.00
	" V2 "	44	IDG10/5-BTWH-V2	10875467	48.00
	" V3 "	44	IDG10/5-BTWH-V3	10874636	48.00
	" V4 "	44	IDG10/5-BTWH-V4	10874650	48.00
	" V5 "	44	IDG10/5-BTWH-V5	10874651	48.00
	" V6 "	44	IDG10/5-BTWH-V6	10874654	48.00
	" V7 "	44	IDG10/5-BTWH-V7	10874696	48.00
	" V8 "	44	IDG10/5-BTWH-V8	10874708	48.00
	" V9 "	44	IDG10/5-BTWH-V9	10874711	48.00
	" W1 "	44	IDG10/5-BTWH-W1	10874930	48.00
	" W2 "	44	IDG10/5-BTWH-W2	10874941	48.00
	" W3 "	44	IDG10/5-BTWH-W3	10874968	48.00
	" W4 "	44	IDG10/5-BTWH-W4	10874974	48.00
	" W5 "	44	IDG10/5-BTWH-W5	10875037	48.00
	" W6 "	44	IDG10/5-BTWH-W6	10875048	48.00
	" W7 "	44	IDG10/5-BTWH-W7	10875050	48.00
	" W8 "	44	IDG10/5-BTWH-W8	10875051	48.00
	" W9 "	44	IDG10/5-BTWH-W9	10875053	48.00
	" 0 "	44	IDG10/5-BTWH-0	10795739	48.00
	" 1 "	44	IDG10/5-BTWH-1	10795742	48.00
	" 2 "	44	IDG10/5-BTWH-2	10795744	48.00
	" 3 "	44	IDG10/5-BTWH-3	10795747	48.00
	" 4 "	44	IDG10/5-BTWH-4	10795758	48.00
	" 5 "	44	IDG10/5-BTWH-5	10795760	48.00
	" 6 "	44	IDG10/5-BTWH-6	10795899	48.00
	" 7 "	44	IDG10/5-BTWH-7	10795901	48.00
	" 8 "	44	IDG10/5-BTWH-8	10795904	48.00
	" 9 "	44	IDG10/5-BTWH-9	10795905	48.00
	" 10 "	44	IDG10/5-BTWH-10	10795928	48.00
	" 11 "	44	IDG10/5-BTWH-11	10921286	48.00
	1-22	44	IDG10/5-BTWH-1-22	10795931	48.00
	23-44	44	IDG10/5-BTWH-23-44	10795937	48.00
	1-44	44	IDG10/5-BTWH-1-44	10795946	48.00
	45-88	44	IDG10/5-BTWH-45-88	10795948	48.00
	89-132	44	IDG10/5-BTWH-89-132	10795951	48.00
	" R "	44	IDG10/5-BTWH-R	10795953	48.00
	" S "	44	IDG10/5-BTWH-S	10795954	48.00
	" T "	44	IDG10/5-BTWH-T	10795955	48.00
	" U "	44	IDG10/5-BTWH-U	10795956	48.00
	" V "	44	IDG10/5-BTWH-V	10795957	48.00
	" W "	44	IDG10/5-BTWH-W	10795961	48.00
" + "	44	IDG10/5-BTWH- +	10795966	48.00	
" - "	44	IDG10/5-BTWH- -	10795991	48.00	
	44	IDG10/5-BTWH-TERRA	10795994	48.00	
11-20	44	IDG10/5-BTWH-11-20	10965302	48.00	
133-176	44	IDG10/5-BTWH-133-176	11071569	48.00	
177-220	44	IDG10/5-BTWH-177-220	11071570	48.00	
221-264	44	IDG10/5-BTWH-221-264	11071571	48.00	
265-308	44	IDG10/5-BTWH-265-308	11071572	48.00	
309-352	44	IDG10/5-BTWH-309-352	11071573	48.00	
353-396	44	IDG10/5-BTWH-353-396	11071639	48.00	
397-440	44	IDG10/5-BTWH-397-440	11071640	48.00	



# TERMINAL BLOCKS

## GENERAL ACCESSORIES FOR TERMINAL BLOCKS

TAG TYPE	INSCRIPTION	LABELS PER PACK	TYPE	SAP CODE	PACK PRICE (ZAR)
Pack of tags type IDG10/5-BTW printed at the vertical position	" A "	44	IDG10/5-BTWV-A	11335548	48.00
	" B "	44	IDG10/5-BTWV-B	11335549	48.00
	" C "	44	IDG10/5-BTWV-C	11335551	48.00
	" D "	44	IDG10/5-BTWV-D	11335552	48.00
	" E "	44	IDG10/5-BTWV-E	11335554	48.00
	" F "	44	IDG10/5-BTWV-F	11335556	48.00
	" G "	44	IDG10/5-BTWV-G	11335557	48.00
	" H "	44	IDG10/5-BTWV-H	11335559	48.00
	" I "	44	IDG10/5-BTWV-I	11335562	48.00
	" J "	44	IDG10/5-BTWV-J	11335564	48.00
	" K "	44	IDG10/5-BTWV-K	11335567	48.00
	" L "	44	IDG10/5-BTWV-L	11335570	48.00
	" M "	44	IDG10/5-BTWV-M	11335572	48.00
	" N "	44	IDG10/5-BTWH-N	10872993	48.00
	" O "	44	IDG10/5-BTWV-O	11335590	48.00
	" P "	44	IDG10/5-BTWV-P	11335591	48.00
	" Q "	44	IDG10/5-BTWV-Q	11335595	48.00
	" X "	44	IDG10/5-BTWV-X	11335597	48.00
	" Y "	44	IDG10/5-BTWV-Y	11335609	48.00
	" Z "	44	IDG10/5-BTWV-Z	11335610	48.00
	"A...Z. A...X"	44	IDG10/5-BTWV-A-Z/A-T	11335611	48.00
	" R1 "	44	IDG10/5-BTWV-R1	11335616	48.00
	" R2 "	44	IDG10/5-BTWV-R2	11335617	48.00
	" R3 "	44	IDG10/5-BTWV-R3	11335635	48.00
	" R4 "	44	IDG10/5-BTWV-R4	11335636	48.00
	" R5 "	44	IDG10/5-BTWV-R5	11335637	48.00
	" R6 "	44	IDG10/5-BTWV-R6	11335668	48.00
	" R7 "	44	IDG10/5-BTWV-R7	11335669	48.00
	" R8 "	44	IDG10/5-BTWV-R8	11335670	48.00
	" R9 "	44	IDG10/5-BTWV-R9	11335671	48.00
	" S1 "	44	IDG10/5-BTWV-S1	11335675	48.00
	" S2 "	44	IDG10/5-BTWV-S2	11335677	48.00
	" S3 "	44	IDG10/5-BTWV-S3	11335678	48.00
	" S4 "	44	IDG10/5-BTWV-S4	11335679	48.00
	" S5 "	44	IDG10/5-BTWV-S5	11335682	48.00
	" S6 "	44	IDG10/5-BTWV-S6	11335684	48.00
	" S7 "	44	IDG10/5-BTWV-S7	11335686	48.00
	" S8 "	44	IDG10/5-BTWV-S8	11335688	48.00
	" S9 "	44	IDG10/5-BTWV-S9	11335689	48.00
	" T1 "	44	IDG10/5-BTWV-T1	11335693	48.00
	" T2 "	44	IDG10/5-BTWV-T2	11335694	48.00
	" T3 "	44	IDG10/5-BTWV-T3	11335696	48.00
	" T4 "	44	IDG10/5-BTWV-T4	11335718	48.00
	" T5 "	44	IDG10/5-BTWV-T5	11335721	48.00
	" T6 "	44	IDG10/5-BTWV-T6	11335723	48.00
	" T7 "	44	IDG10/5-BTWV-T7	11335724	48.00
	" T8 "	44	IDG10/5-BTWV-T8	11335725	48.00
" T9 "	44	IDG10/5-BTWV-T9	11335727	48.00	
" U1 "	44	IDG10/5-BTWV-U1	11335749	48.00	
" U2 "	44	IDG10/5-BTWV-U2	11335750	48.00	
" U3 "	44	IDG10/5-BTWV-U3	11335755	48.00	
" U4 "	44	IDG10/5-BTWV-U4	11335756	48.00	
" U5 "	44	IDG10/5-BTWV-U5	11335758	48.00	
" U6 "	44	IDG10/5-BTWV-U6	11335759	48.00	
" U7 "	44	IDG10/5-BTWV-U7	11335760	48.00	



# TERMINAL BLOCKS

## GENERAL ACCESSORIES FOR TERMINAL BLOCKS

TAG TYPE	INSCRIPTION	LABELS PER PACK	TYPE	SAP CODE	PACK PRICE (ZAR)
Pack of tags type IDG10/5-BTW printed at the vertical position	" U8 "	44	IDG10/5-BTWV-U8	11335762	48.00
	" U9 "	44	IDG10/5-BTWV-U9	11335763	48.00
	" V1 "	44	IDG10/5-BTWV-V1	11335764	48.00
	" V2 "	44	IDG10/5-BTWV-V2	11335766	48.00
	" V3 "	44	IDG10/5-BTWV-V3	11335767	48.00
	" V4 "	44	IDG10/5-BTWV-V4	11335788	48.00
	" V5 "	44	IDG10/5-BTWV-V5	11335789	48.00
	" V6 "	44	IDG10/5-BTWV-V6	11335790	48.00
	" V7 "	44	IDG10/5-BTWV-V7	11335791	48.00
	" V8 "	44	IDG10/5-BTWV-V8	11335792	48.00
	" V9 "	44	IDG10/5-BTWV-V9	11335793	48.00
	" W1 "	44	IDG10/5-BTWV-W1	11335794	48.00
	" W2 "	44	IDG10/5-BTWV-W2	11335795	48.00
	" W3 "	44	IDG10/5-BTWV-W3	11335796	48.00
	" W4 "	44	IDG10/5-BTWV-W4	11335797	48.00
	" W5 "	44	IDG10/5-BTWV-W5	11335808	48.00
	" W6 "	44	IDG10/5-BTWV-W6	11335809	48.00
	" W7 "	44	IDG10/5-BTWV-W7	11335810	48.00
	" W8 "	44	IDG10/5-BTWV-W8	11335811	48.00
	" W9 "	44	IDG10/5-BTWV-W9	11335812	48.00
	" 0 "	44	IDG10/5-BTWV-0	11335814	48.00
	" 1 "	44	IDG10/5-BTWV-1	11335815	48.00
	" 2 "	44	IDG10/5-BTWV-2	11335816	48.00
	" 3 "	44	IDG10/5-BTWV-3	11335817	48.00
	" 4 "	44	IDG10/5-BTWV-4	11335848	48.00
	" 5 "	44	IDG10/5-BTWV-5	11335850	48.00
	" 6 "	44	IDG10/5-BTWV-6	11335851	48.00
	" 7 "	44	IDG10/5-BTWV-7	11335853	48.00
	" 8 "	44	IDG10/5-BTWV-8	11335855	48.00
	" 9 "	44	IDG10/5-BTWV-9	11335856	48.00
	" 10 "	44	IDG10/5-BTWV-10	11335857	48.00
	" 11 "	44	IDG10/5-BTWV-11	11335878	48.00
	1-22	44	IDG10/5-BTWV-1-22	11335879	48.00
	23-44	44	IDG10/5-BTWV-23-44	11335881	48.00
	1-44	44	IDG10/5-BTWV-1-44	11335882	48.00
	45-88	44	IDG10/5-BTWV-45-88	11335883	48.00
	89-132	44	IDG10/5-BTWV-89-132	11335884	48.00
	" R "	44	IDG10/5-BTWV-R	11163385	48.00
	" S "	44	IDG10/5-BTWV-S	11163386	48.00
	" T "	44	IDG10/5-BTWV-T	11163387	48.00
	" U "	44	IDG10/5-BTWV-U	11163398	48.00
	" V "	44	IDG10/5-BTWV-V	11163400	48.00
	" W "	44	IDG10/5-BTWV-W	11163401	48.00
	" + "	44	IDG10/5-BTWV-+	11335886	48.00
" - "	44	IDG10/5-BTWV-	11335887	48.00	
⚡	44	IDG10/5-BTWV-TERRA	11163382	48.00	
11-20	44	IDG10/5-BTWV-11-20	11163380	48.00	
133-176	44	IDG10/5-BTWV-133-176	11335918	48.00	
177-220	44	IDG10/5-BTWV-177-220	11335919	48.00	
221-264	44	IDG10/5-BTWV-221-264	11335920	48.00	
265-308	44	IDG10/5-BTWV-265-308	11335921	48.00	
309-352	44	IDG10/5-BTWV-309-352	11335922	48.00	
353-396	44	IDG10/5-BTWV-353-396	11335923	48.00	
397-440	44	IDG10/5-BTWV-397-440	11335924	48.00	



# TERMINAL BLOCKS

## GENERAL ACCESSORIES FOR TERMINAL BLOCKS

TAG TYPE	INSCRIPTION	LABELS PER PACK	TYPE	SAP CODE	PACK PRICE (ZAR)
Pack of tags type IDG10/6-BTW printed at the horizontal position	" A "	36	IDG10/6-BTWH-A	10873004	52.00
	" B "	36	IDG10/6-BTWH-B	10873006	52.00
	" C "	36	IDG10/6-BTWH-C	10873008	52.00
	" D "	36	IDG10/6-BTWH-D	10873007	52.00
	" E "	36	IDG10/6-BTWH-E	10873009	52.00
	" F "	36	IDG10/6-BTWH-F	10873010	52.00
	" G "	36	IDG10/6-BTWH-G	10873011	52.00
	" H "	36	IDG10/6-BTWH-H	10873013	52.00
	" I "	36	IDG10/6-BTWH-I	10873019	52.00
	" J "	36	IDG10/6-BTWH-J	10873020	52.00
	" K "	36	IDG10/6-BTWH-K	10873014	52.00
	" L "	36	IDG10/6-BTWH-L	10873021	52.00
	" M "	36	IDG10/6-BTWH-M	10873015	52.00
	" N "	36	IDG10/6-BTWH-N	10873016	52.00
	" O "	36	IDG10/6-BTWH-O	10873017	52.00
	" P "	36	IDG10/6-BTWH-P	10873022	52.00
	" Q "	36	IDG10/6-BTWH-Q	10873023	52.00
	" X "	36	IDG10/6-BTWH-X	10873028	52.00
	" Y "	36	IDG10/6-BTWH-Y	10873029	52.00
	" Z "	36	IDG10/6-BTWH-Z	10883457	52.00
	"A...Z. A...X"	36	IDG10/6-BTWH-A-Z/A-J	10873745	52.00
	" R1 "	36	IDG10/6-BTWH-R1	10873795	52.00
	" R2 "	36	IDG10/6-BTWH-R2	10873799	52.00
	" R3 "	36	IDG10/6-BTWH-R3	10873802	52.00
	" R4 "	36	IDG10/6-BTWH-R4	10873803	52.00
	" R5 "	36	IDG10/6-BTWH-R5	10873804	52.00
	" R6 "	36	IDG10/6-BTWH-R6	10873806	52.00
	" R7 "	36	IDG10/6-BTWH-R7	10873807	52.00
	" R8 "	36	IDG10/6-BTWH-R8	10873818	52.00
	" R9 "	36	IDG10/6-BTWH-R9	10873821	52.00
	" S1 "	36	IDG10/6-BTWH-S1	10874005	52.00
	" S2 "	36	IDG10/6-BTWH-S2	10874006	52.00
	" S3 "	36	IDG10/6-BTWH-S3	10874007	52.00
	" S4 "	36	IDG10/6-BTWH-S4	10874008	52.00
	" S5 "	36	IDG10/6-BTWH-S5	10874011	52.00
	" S6 "	36	IDG10/6-BTWH-S6	10874012	52.00
	" S7 "	36	IDG10/6-BTWH-S7	10874013	52.00
	" S8 "	36	IDG10/6-BTWH-S8	10874014	52.00
	" S9 "	36	IDG10/6-BTWH-S9	10874048	52.00
	" T1 "	36	IDG10/6-BTWH-T1	10874250	52.00
	" T2 "	36	IDG10/6-BTWH-T2	10874255	52.00
	" T3 "	36	IDG10/6-BTWH-T3	10874309	52.00
	" T4 "	36	IDG10/6-BTWH-T4	10874310	52.00
	" T5 "	36	IDG10/6-BTWH-T5	10874312	52.00
	" T6 "	36	IDG10/6-BTWH-T6	10874315	52.00
	" T7 "	36	IDG10/6-BTWH-T7	10874316	52.00
	" T8 "	36	IDG10/6-BTWH-T8	10874317	52.00
" T9 "	36	IDG10/6-BTWH-T9	10874341	52.00	
" U1 "	36	IDG10/6-BTWH-U1	10874498	52.00	
" U2 "	36	IDG10/6-BTWH-U2	10874499	52.00	
" U3 "	36	IDG10/6-BTWH-U3	10874500	52.00	
" U4 "	36	IDG10/6-BTWH-U4	10874501	52.00	
" U5 "	36	IDG10/6-BTWH-U5	10874502	52.00	
" U6 "	36	IDG10/6-BTWH-U6	10874503	52.00	
" U7 "	36	IDG10/6-BTWH-U7	10874504	52.00	



# TERMINAL BLOCKS

## GENERAL ACCESSORIES FOR TERMINAL BLOCKS

TAG TYPE	INSCRIPTION	LABELS PER PACK	TYPE	SAP CODE	PACK PRICE (ZAR)
Pack of tags type IDG10/6-BTW printed at the horizontal position	" U8 "	36	IDG10/6-BTWH-U8	10874505	52.00
	" U9 "	36	IDG10/6-BTWH-U9	10874506	52.00
	" V1 "	36	IDG10/6-BTWH-V1	10874522	52.00
	" V2 "	36	IDG10/6-BTWH-V2	10874523	52.00
	" V3 "	36	IDG10/6-BTWH-V3	10874524	52.00
	" V4 "	36	IDG10/6-BTWH-V4	10874526	52.00
	" V5 "	36	IDG10/6-BTWH-V5	10874716	52.00
	" V6 "	36	IDG10/6-BTWH-V6	10874717	52.00
	" V7 "	36	IDG10/6-BTWH-V7	10874728	52.00
	" V8 "	36	IDG10/6-BTWH-V8	10874729	52.00
	" V9 "	36	IDG10/6-BTWH-V9	10874730	52.00
	" W1 "	36	IDG10/6-BTWH-W1	10875055	52.00
	" W2 "	36	IDG10/6-BTWH-W2	10875056	52.00
	" W3 "	36	IDG10/6-BTWH-W3	10875059	52.00
	" W4 "	36	IDG10/6-BTWH-W4	10875060	52.00
	" W5 "	36	IDG10/6-BTWH-W5	10875061	52.00
	" W6 "	36	IDG10/6-BTWH-W6	10875063	52.00
	" W7 "	36	IDG10/6-BTWH-W7	10875064	52.00
	" W8 "	36	IDG10/6-BTWH-W8	10875066	52.00
	" W9 "	36	IDG10/6-BTWH-W9	10875088	52.00
	" 0 "	36	IDG10/6-BTWH-0	10795997	52.00
	" 1 "	36	IDG10/6-BTWH-1	10795999	52.00
	" 2 "	36	IDG10/6-BTWH-2	10796004	52.00
	" 3 "	36	IDG10/6-BTWH-3	10796008	52.00
	" 4 "	36	IDG10/6-BTWH-4	10796012	52.00
	" 5 "	36	IDG10/6-BTWH-5	10796014	52.00
	" 6 "	36	IDG10/6-BTWH-6	10796016	52.00
	" 7 "	36	IDG10/6-BTWH-7	10796019	52.00
	" 8 "	36	IDG10/6-BTWH-8	10796027	52.00
	" 9 "	36	IDG10/6-BTWH-9	10796041	52.00
	" 10 "	36	IDG10/6-BTWH-10	10796042	52.00
	1-18	36	IDG10/6-BTWH-1-18	10796043	52.00
	19-36	36	IDG10/6-BTWH-19-36	10796044	52.00
	1-36	36	IDG10/6-BTWH-1-36	10796045	52.00
	37-72	36	IDG10/6-BTWH-37-72	10796046	52.00
	73-108	36	IDG10/6-BTWH-73-108	10796047	52.00
	" R "	36	IDG10/6-BTWH-R	10796051	52.00
	" S "	36	IDG10/6-BTWH-S	10796054	52.00
	" T "	36	IDG10/6-BTWH-T	10796056	52.00
	" U "	36	IDG10/6-BTWH-U	10796068	52.00
	" V "	36	IDG10/6-BTWH-V	10796070	52.00
	" W "	36	IDG10/6-BTWH-W	10796072	52.00
	" + "	36	IDG10/6-BTWH- +	10796073	52.00
	" - "	36	IDG10/6-BTWH- -	10796076	52.00
	⚡	36	IDG10/6-BTWH-TERRA	10796090	52.00
	109-144	36	IDG10/6-BTWH-109-144	11071641	52.00
	145-180	36	IDG10/6-BTWH-145-180	11071642	52.00
	181-216	36	IDG10/6-BTWH-181-216	11071576	52.00
217-252	36	IDG10/6-BTWH-217-252	11071588	52.00	
253-288	36	IDG10/6-BTWH-253-288	11071591	52.00	
289-324	36	IDG10/6-BTWH-289-324	11071593	52.00	
325-360	36	IDG10/6-BTWH-325-360	11071540	52.00	
361-396	36	IDG10/6-BTWH-361-396	11071541	52.00	
397-432	36	IDG10/6-BTWH-397-432	11071542	52.00	



# TERMINAL BLOCKS

## GENERAL ACCESSORIES FOR TERMINAL BLOCKS

TAG TYPE	INSCRIPTION	LABELS PER PACK	TYPE	SAP CODE	PACK PRICE (ZAR)
Pack of tags type IDG10/6-BTW printed at the vertical position	" A "	36	IDG10/6-BTWV-A	11337949	52.00
	" B "	36	IDG10/6-BTWV-B	11337971	52.00
	" C "	36	IDG10/6-BTWV-C	11337974	52.00
	" D "	36	IDG10/6-BTWV-D	11337975	52.00
	" E "	36	IDG10/6-BTWV-E	11337988	52.00
	" F "	36	IDG10/6-BTWV-F	11328979	52.00
	" G "	36	IDG10/6-BTWV-G	11328981	52.00
	" H "	36	IDG10/6-BTWV-H	11337990	52.00
	" I "	36	IDG10/6-BTWV-I	11337991	52.00
	" J "	36	IDG10/6-BTWV-J	11337992	52.00
	" K "	36	IDG10/6-BTWV-K	11337993	52.00
	" L "	36	IDG10/6-BTWV-L	11337995	52.00
	" M "	36	IDG10/6-BTWV-M	11337996	52.00
	" N "	36	IDG10/6-BTWV-N	11337997	52.00
	" O "	36	IDG10/6-BTWV-O	11337999	52.00
	" P "	36	IDG10/6-BTWV-P	11338001	52.00
	" Q "	36	IDG10/6-BTWV-Q	11338002	52.00
	" X "	36	IDG10/6-BTWV-X	11338003	52.00
	" Y "	36	IDG10/6-BTWV-Y	11338004	52.00
	" Z "	36	IDG10/6-BTWV-Z	11338005	52.00
	"A...Z. A...X"	36	IDG10/6-BTWV-A-Z/A-J	11338006	52.00
	" R1 "	36	IDG10/6-BTWV-R1	11338007	52.00
	" R2 "	36	IDG10/6-BTWV-R2	11338029	52.00
	" R3 "	36	IDG10/6-BTWV-R3	11338030	52.00
	" R4 "	36	IDG10/6-BTWV-R4	11338031	52.00
	" R5 "	36	IDG10/6-BTWV-R5	11338033	52.00
	" R6 "	36	IDG10/6-BTWV-R6	11338034	52.00
	" R7 "	36	IDG10/6-BTWV-R7	11338035	52.00
	" R8 "	36	IDG10/6-BTWV-R8	11338036	52.00
	" R9 "	36	IDG10/6-BTWV-R9	11338037	52.00
	" S1 "	36	IDG10/6-BTWV-S1	11338056	52.00
	" S2 "	36	IDG10/6-BTWV-S2	11338113	52.00
	" S3 "	36	IDG10/6-BTWV-S3	11338114	52.00
	" S4 "	36	IDG10/6-BTWV-S4	11338117	52.00
	" S5 "	36	IDG10/6-BTWV-S5	11338148	52.00
	" S6 "	36	IDG10/6-BTWV-S6	11338151	52.00
	" S7 "	36	IDG10/6-BTWV-S7	11338153	52.00
	" S8 "	36	IDG10/6-BTWV-S8	11338155	52.00
	" S9 "	36	IDG10/6-BTWV-S9	11338157	52.00
	" T1 "	36	IDG10/6-BTWV-T1	11338159	52.00
	" T2 "	36	IDG10/6-BTWV-T2	11338161	52.00
	" T3 "	36	IDG10/6-BTWV-T3	11338163	52.00
	" T4 "	36	IDG10/6-BTWV-T4	11338166	52.00
	" T5 "	36	IDG10/6-BTWV-T5	11338167	52.00
	" T6 "	36	IDG10/6-BTWV-T6	11338178	52.00
	" T7 "	36	IDG10/6-BTWV-T7	11338180	52.00
	" T8 "	36	IDG10/6-BTWV-T8	11338182	52.00
" T9 "	36	IDG10/6-BTWV-T9	11338183	52.00	
" U1 "	36	IDG10/6-BTWV-U1	11338185	52.00	
" U2 "	36	IDG10/6-BTWV-U2	11338186	52.00	
" U3 "	36	IDG10/6-BTWV-U3	11338187	52.00	
" U4 "	36	IDG10/6-BTWV-U4	11338190	52.00	
" U5 "	36	IDG10/6-BTWV-U5	11338191	52.00	
" U6 "	36	IDG10/6-BTWV-U6	11338193	52.00	
" U7 "	36	IDG10/6-BTWV-U7	11338195	52.00	



# TERMINAL BLOCKS

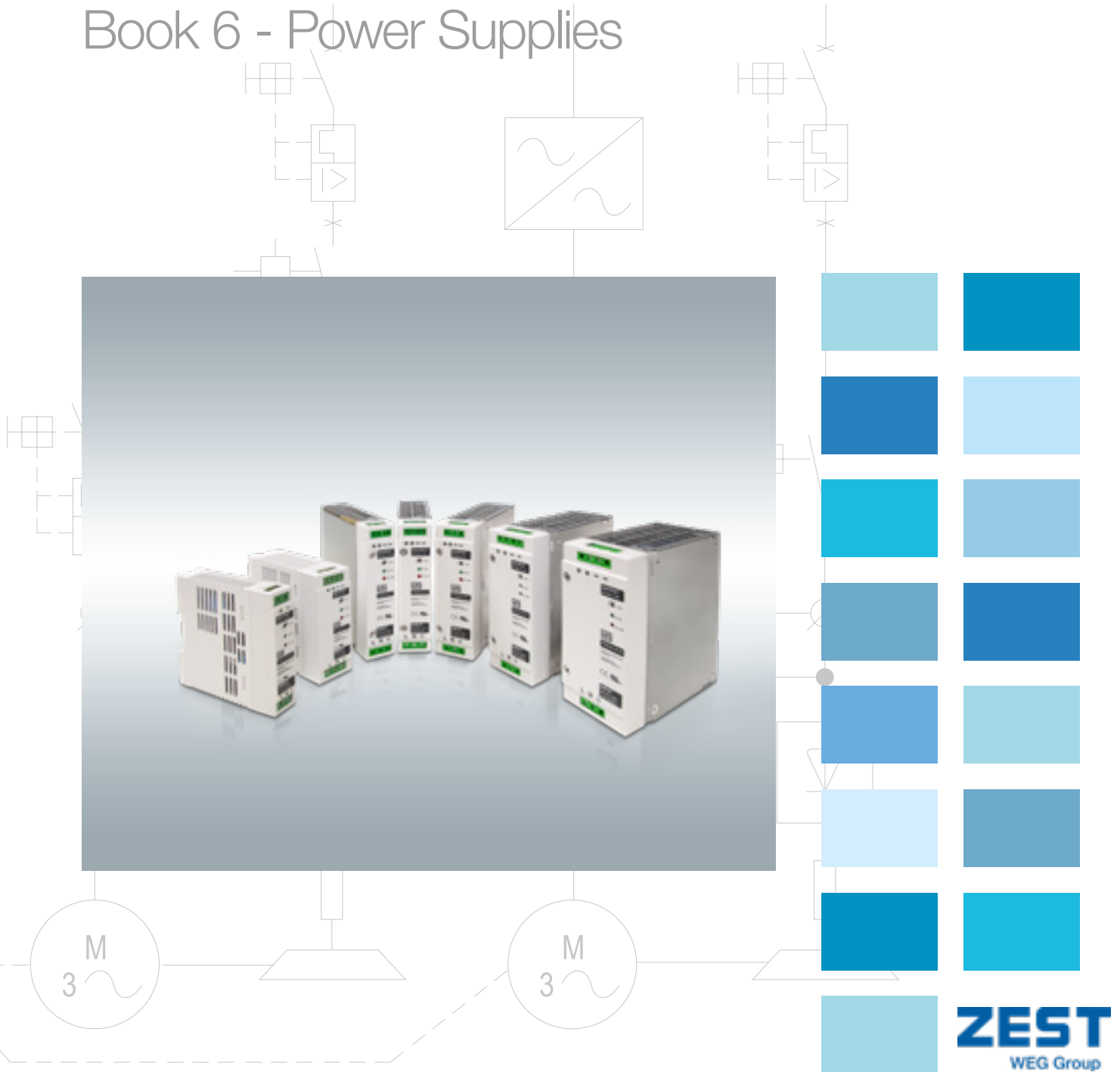
## GENERAL ACCESSORIES FOR TERMINAL BLOCKS

TAG TYPE	INSCRIPTION	LABELS PER PACK	TYPE	SAP CODE	PACK PRICE (ZAR)
Pack of tags type IDG10/6-BTW printed at the vertical position	" U8 "	36	IDG10/6-BTWV-U8	11338208	52.00
	" U9 "	36	IDG10/6-BTWV-U9	11338210	52.00
	" V1 "	36	IDG10/6-BTWV-V1	11338243	52.00
	" V2 "	36	IDG10/6-BTWV-V2	11338244	52.00
	" V3 "	36	IDG10/6-BTWV-V3	11338247	52.00
	" V4 "	36	IDG10/6-BTWV-V4	11338250	52.00
	" V5 "	36	IDG10/6-BTWV-V5	11338251	52.00
	" V6 "	36	IDG10/6-BTWV-V6	11338255	52.00
	" V7 "	36	IDG10/6-BTWV-V7	11338257	52.00
	" V8 "	36	IDG10/6-BTWV-V8	11338270	52.00
	" V9 "	36	IDG10/6-BTWV-V9	11338272	52.00
	" W1 "	36	IDG10/6-BTWV-W1	11338273	52.00
	" W2 "	36	IDG10/6-BTWV-W2	11338276	52.00
	" W3 "	36	IDG10/6-BTWV-W3	11338277	52.00
	" W4 "	36	IDG10/6-BTWV-W4	11338278	52.00
	" W5 "	36	IDG10/6-BTWV-W5	11338280	52.00
	" W6 "	36	IDG10/6-BTWV-W6	11338281	52.00
	" W7 "	36	IDG10/6-BTWV-W7	11338284	52.00
	" W8 "	36	IDG10/6-BTWV-W8	11338285	52.00
	" W9 "	36	IDG10/6-BTWV-W9	11338286	52.00
	" 0 "	36	IDG10/6-BTWV-0	11338319	52.00
	" 1 "	36	IDG10/6-BTWV-1	11338321	52.00
	" 2 "	36	IDG10/6-BTWV-2	11338322	52.00
	" 3 "	36	IDG10/6-BTWV-3	11338332	52.00
	" 4 "	36	IDG10/6-BTWV-4	11338335	52.00
	" 5 "	36	IDG10/6-BTWV-5	11338337	52.00
	" 6 "	36	IDG10/6-BTWV-6	11338338	52.00
	" 7 "	36	IDG10/6-BTWV-7	11338339	52.00
	" 8 "	36	IDG10/6-BTWV-8	11338340	52.00
	" 9 "	36	IDG10/6-BTWV-9	11338342	52.00
	" 10 "	36	IDG10/6-BTWV-10	11338344	52.00
	1-18	36	IDG10/6-BTWV-1-18	11338347	52.00
	19-36	36	IDG10/6-BTWV-19-36	11338370	52.00
	1-36	36	IDG10/6-BTWV-1-36	11338372	52.00
	37-72	36	IDG10/6-BTWV-37-72	11338374	52.00
	73-108	36	IDG10/6-BTWV-73-108	11338375	52.00
	" R "	36	IDG10/6-BTWV-R	11338376	52.00
	" S "	36	IDG10/6-BTWV-S	11338379	52.00
	" T "	36	IDG10/6-BTWV-T	11338380	52.00
	" U "	36	IDG10/6-BTWV-U	11338381	52.00
	" V "	36	IDG10/6-BTWV-V	11338382	52.00
	" W "	36	IDG10/6-BTWV-W	11338383	52.00
	" + "	36	IDG10/6-BTWV- +	11338384	52.00
	" - "	36	IDG10/6-BTWV- -	11338385	52.00
	⚡	36	IDG10/6-BTWV-TERRA	11338410	52.00
	109-144	36	IDG10/6-BTWV-109-144	11338411	52.00
	145-180	36	IDG10/6-BTWV-145-180	11338412	52.00
	181-216	36	IDG10/6-BTWV-181-216	11338414	52.00
217-252	36	IDG10/6-BTWV-217-252	11338416	52.00	
253-288	36	IDG10/6-BTWV-253-288	11338418	52.00	
289-324	36	IDG10/6-BTWV-289-324	11338419	52.00	
325-360	36	IDG10/6-BTWV-325-360	11338422	52.00	
361-396	36	IDG10/6-BTWV-361-396	11338425	52.00	
397-432	36	IDG10/6-BTWV-361-396	11071541	52.00	



# Automation

## Book 6 - Power Supplies



**ZEST**  
WEG Group





# POWER SUPPLIES

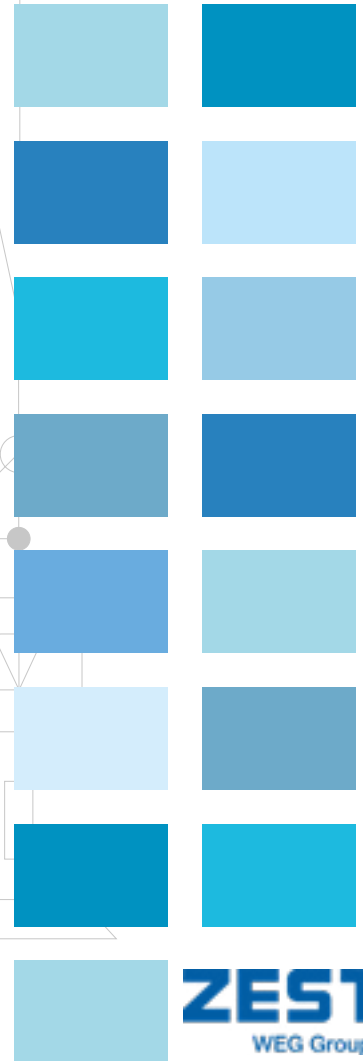
## SWITCHED-MODE POWER SUPPLIES 24 V DC

TYPE	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT POWER	OUTPUT RATED CURRENT	STOCK CODE	PRICE EACH (ZAR)
PSS24-W/0,65	100-240 V ac	24 V dc	15 W	0,65 A	13108240	902.00
PSS24-W/1,3			30 W	1,3 A	13108202	961.00
PSS24-W/2,2			50 W	2,2 A	13108203	1201.00
PSS24-W/3			70 W	3,0 A	13108241	1537.00
PSS24-W/5			120 W	5,0 A	13108206	1873.00
PSS24-W/7,5			180 W	7,5 A	13108242	2305.00
PSS24-W/10			240 W	10,0 A	13108244	2881.00



# Automation

## Book 7 - Fanox - Electronic Motor Protection



## FANOX - ELECTRONIC MOTOR PROTECTION

### BASIC MOTOR PROTECTION - TYPE "C"



DESCRIPTION	FANOX ARTICLE NUMBER	FANOX TYPE	STOCK CODE	PRICE EACH (ZAR)
1.5-4kW, 3ph Electronic Motor Protection Relay, Range: 3-9.3amp, 115 VAC Control	11202	C9.115V	F0000001	2087.00
1.5-4kW, 3ph Electronic Motor Protection Relay, Range: 3-9.3amp, 230 VAC Control	11203	C9.230V	F0000002	2087.00
5.5-9kW, 3ph Electronic Motor Protection Relay, Range: 9-21.6amp, 115 VAC Control	11222	C21.115V	F0000003	2548.00
5.5-9kW, 3ph Electronic Motor Protection Relay, Range: 9-21.6amp, 230 VAC Control	11223	C21.230V	F0000004	2548.00
11-22kW, 3ph Electronic Motor Protection Relay, Range: 20-45.2amp, 115 VAC Control	11242	C45.115V	F0000005	3191.00
11-22kW, 3ph Electronic Motor Protection Relay, Range: 20-45.2amp, 230 VAC Control	11243	C45.230V	F0000006	3191.00

### INTERGRAL MOTOR PROTECTION - TYPE GL"



DESCRIPTION	FANOX ARTICLE NUMBER	FANOX TYPE	STOCK CODE	PRICE EACH (ZAR)
2.2-7.5kW, 3ph Electronic Motor Protection Relay, Range: 4-16.7amp, 115 VAC Control	11302	GL16.115V	F0000007	3654.00
2.2-7.5kW, 3ph Electronic Motor Protection Relay, Range: 4-16.7amp, 230 VAC Control	11303	GL16.230V	F0000008	3654.00
7.5-18.5kW, 3ph Electronic Motor Protection Relay, Range: 15-40.5amp, 115 VAC Control	11322	GL40.115V	F0000009	4081.00
7.5-18.5kW, 3ph Electronic Motor Protection Relay, Range: 15-40.5amp, 230 VAC Control	11323	GL40.230V	F0000010	4081.00
22-45kW, 3ph Electronic Motor Protection Relay, Range: 40-91amp, 115 VAC Control	11342	GL90.115V	F0000011	4409.00
22-45kW, 3ph Electronic Motor Protection Relay, Range: 40-91amp, 230 VAC Control	11343	GL90.230V	F0000012	4409.00

### UNLOAD MOTOR PROTECTION BY COS - TYPE PF"

DESCRIPTION	FANOX ARTICLE NUMBER	FANOX TYPE	STOCK CODE	PRICE EACH (ZAR)
1.5-7.5kW, 3Ph Pump Protection Relay, Range: 4-16.6amp, 400VAC Control	12165	PF16-R.400V	F0000013	3102.00
7.5-22kW, 3Ph Pump Protection Relay, Range: 16-47.5amp, 400VAC Control	12167	PF47-R.400V	F0000014	3429.00



## FANOX - ELECTRONIC MOTOR PROTECTION

### UNLOAD MOTOR PROTECTION BY UNDERCURRENT - TYPE "P"



DESCRIPTION	FANOX ARTICLE NUMBER	FANOX TYPE	STOCK CODE	PRICE EACH (ZAR)
3-7kW, 3ph Motor Protection Relay, U/L Protection, Range 7-19.6amp 24VAC/DC Control	11400	P19.24V	F0000015	3664.00
3-7kW, 3ph Motor Protection Relay, U/L Protection, Range 7-19.6amp 115V Control	11402	P19.115V	F0000016	2901.00
3-7kW, 3ph Motor Protection Relay, U/L Protection, Range 7-19.6amp 230V Control	11403	P19.230V	F0000017	2901.00
9.2-20kW, 3ph Motor Protection Relay, U/L Protection, Range 19 - 44.2amp 115V Control	11422	P44.115V	F0000018	3273.00
9.2-20kW, 3ph Motor Protection Relay, U/L Protection, Range 19 - 44.2amp 230V Control	11423	P44.230V	F0000019	3273.00
20-40kW, 3ph Motor Protection Relay, U/L Protection, Range 40-90.4amp 115V Control	11442	P90.115V	F0000020	3393.00
20-40kW, 3ph Motor Protection Relay, U/L Protection, Range 40 - 90.4amp 230V Control	11443	P90.230V	F0000021	3393.00

### MOTOR MANAGEMENT SYSTEMS RELAY BASE - TYPE "PBM"



DESCRIPTION	FANOX ARTICLE NUMBER	FANOX TYPE	STOCK CODE	PRICE EACH (ZAR)
0.8...6A Motor Management Relay, Control Supply 110/230VAC/DC	17000	PBM.B11	F0000022	9950.00
4...25A Motor Management Relay, Control Supply 110/230VAC/DC	17001	PBM.B51	F0000023	9950.00
0.8...6A Motor Management Relay, Control Supply 24/48VDC	17002	PBM.B12	F0000024	11218.00
4...25A Motor Management Relay, Control Supply 24/48VDC	17003	PBM.B52	F0000025	11218.00

### MOTOR MANAGEMENT SYSTEMS - HMI

DESCRIPTION	FANOX ARTICLE NUMBER	FANOX TYPE	STOCK CODE	PRICE EACH (ZAR)
HMI Display	17006	PBM.HE	F0000026	3812.00

### MOTOR MANAGEMENT SYSTEMS - INTERFACE CABLE

DESCRIPTION	FANOX ARTICLE NUMBER	FANOX TYPE	STOCK CODE	PRICE EACH (ZAR)
0.5m Interface cable, from PBM.B RJ45 to PBM.H.RJ45	17008	PBM.C1	F0000027	146.00
1m Interface cable, from PBM.B RJ45 to PBM.H.RJ45	17009	PBM.C2	F0000028	162.00

### SINGLE PHASE PUMP PROTECTION - UNLOAD PROTECTION BY UNDERCURRENT - TYPE "PS"

DESCRIPTION	FANOX ARTICLE NUMBER	FANOX TYPE	STOCK CODE	PRICE EACH (ZAR)
0.37-1.5kW, 1Ph Pump Protection Relay, Range: 3-11amp, 230VAC Control	12164	PS11.230V	F0000029	1627.00

### GENERATOR PROTECTION - TYPE "GEN"

DESCRIPTION	FANOX ARTICLE NUMBER	FANOX TYPE	STOCK CODE	PRICE EACH (ZAR)
Generator protection Relay Range: 4 - 10,3amp, 24VDC Control	11350	GEN10.24VDC	F0000030	3487.00



## FANOX - ELECTRONIC MOTOR PROTECTION

### FANOX - MOTOR PROTECTION RELAY - ACCESSORIES



DESCRIPTION	FANOX ARTICLE NUMBER	FANOX TYPE	STOCK CODE	PRICE EACH (ZAR)
External Display Module for C9/C21/C45 Motor Protection Relay	12530	OD.C	F0000031	467.00
External Display Module for GL16/GL40/GL90 Motor Protection Relay	12535	OD.GL	F0000032	511.00
External Display Module for Pump Protection Relay	12540	OD.P	F0000033	562.00
External Display Module for Pump Protection Relay	12555	OD.PF	F0000034	511.00
External Display Module for BG Ex Motor Protection Relay	12505	OD-G	F0000035	511.00
External Display Module for Generator Protection Relay	12545	OD.GEN	F0000036	464.00

### MOTOR MANAGEMENT SYSTEM - TOROIDAL TRANSFORMERS (CT'S)

DESCRIPTION	FANOX ARTICLE NUMBER	FANOX TYPE	STOCK CODE	PRICE EACH (ZAR)
Ø35mm Internal Diameter	41060	CT1/35	F0000037	1078.00
Ø60mm Internal Diameter	41065	CT1/60	F0000038	1422.00
Ø80mm Internal Diameter	41070	CT1/80	F0000039	1803.00
Ø110mm Internal Diameter	41075	CT1/110	F0000040	2371.00
Ø160mm Internal Diameter	41080	CT1/160	F0000041	6648.00
Ø210mm Internal Diameter	41085	CT1/210	F0000042	7146.00

### THERMISTOR SENSORS



DESCRIPTION	FANOX ARTICLE NUMBER	FANOX TYPE	STOCK CODE	PRICE EACH (ZAR)
Thermistor Sensor Internal Mounting, 1200C ≥ 1330 Ω	41700	PTC120	F0000043	141.00
Thermistor Sensor External Mounting, 700C ≥ 1330 Ω	41705	PTCEX70	F0000044	117.00

### FANOX - CONTROL RELAY - PHASE RELAY - TYPE "S"

DESCRIPTION	FANOX ARTICLE NUMBER	FANOX TYPE	STOCK CODE	PRICE EACH (ZAR)
Phase Relay	12034	S4.400V	F0000045	1515.00

### THERMISTOR PROTECTION RELAY - TYPE "MT"

DESCRIPTION	FANOX ARTICLE NUMBER	FANOX TYPE	STOCK CODE	PRICE EACH (ZAR)
Thermistor Protection Relay	12039	MT.230V	F0000046	1383.00

### MULTI FUNCTIONAL DIGITAL TIMER - TYPE "MTR"

DESCRIPTION	FANOX ARTICLE NUMBER	FANOX TYPE	STOCK CODE	PRICE EACH (ZAR)
Multi Function Timer	12110	MTR-10	F0000047	2484.00

### SINGLE PHASE VOLTAGE RELAY - TYPE "U1"

DESCRIPTION	FANOX ARTICLE NUMBER	FANOX TYPE	STOCK CODE	PRICE EACH (ZAR)
Control relay	12027	U1D.230V	F0000048	2007.00



## FANOX - ELECTRONIC MOTOR PROTECTION

### EARTH LEAKAGE RELAY - TYPE "ELR"

DESCRIPTION	FANOX ARTICLE NUMBER	FANOX TYPE	STOCK CODE	PRICE EACH (ZAR)
Earth Leakage relay, sensitivity 0.025-25A, Adjustable trip delay 0.02-5s, Control Voltage 110/230VAC	41015	ELR.A	F0000049	3870.00
Earth Leakage relay, sensitivity 0.025-25A, Adjustable trip delay 0.02-5s, Control Voltage 110/230VAC	41105	ELR.T60	F0000050	4053.00
Earth Leakage relay, sensitivity 0.025-25A, Adjustable trip delay 0.02-5s, Control Voltage 110/230VAC	41000	ELR-3C	F0000051	2944.00

### EARTH LEAKAGE RELAY - TYPE "D300"

DESCRIPTION	FANOX ARTICLE NUMBER	FANOX TYPE	STOCK CODE	PRICE EACH (ZAR)
Earth Leakage relay, sensitivity 0.03 - 30A, Adjustable trip delay 0.02 - 5s, Control Voltage 110VAC	41020	D30	F0000052	2292.00
Earth Leakage relay, sensitivity 0.03 - 30A, Adjustable trip delay 0.02 - 5s, Control Voltage 230VAC	41022	DM30	F0000053	2311.00

### FANOX SURGE ARRESTOR - CLASS C - TYPE II

DESCRIPTION	FANOX ARTICLE NUMBER	FANOX TYPE	STOCK CODE	PRICE EACH (ZAR)
Single Pole Surge Protector - Class "C" Type II	41600	VP C40 275/1	F0000054	1080.00
Three Pole Surge Protector - Class "C" Type II	41609	VP C40 250/NPE	F0000055	1333.00
Double Pole Surge Protector - Class "C" Type II	41603	VP C40 275/2	F0000056	2205.00



# TYPE 2 COORDINATION (IEC 60947-4-1) D.O.L. STARTERS, NON-REVERSING<sup>1</sup>, 400/415 V AC, IQ = 50 KA

**Technical Notes:**

(<sup>1</sup>) For DOL reversing starters the following DOL non-reversing type-2 coordination tables are applicable by selecting two identical contactors.

For star-delta starters the following DOL non-reversing type-2 coordination tables are applicable by selecting three identical contactors.

(<sup>2</sup>) Orientative values of WEG W22 Motor - Premium Efficiency IE3 - 4 pole - Standard Frame - IEC Standard - 50 Hz - Duty S1 - Service factor 1.00

## MAGNETIC MCCB + CONTACTOR + SOLID STATE OVERLOAD RELAY (CLASS 10) WITH COMMUNICATION

**Component description:**

ACW 101/161/250/400 - Trip Unit MTU - Breaking Capacities "H" and "V"

Solid State Overload Relay SRW01 (Tripping Class 10)

CWM Contactors

MOTOR (²)			SHORT CIRCUIT PROTECTIVE DEVICE				CONTACTOR	OVERLOAD RELEASE				GROUP - I MAX (A)
RATED POWER (KW)	RATED CURRENT (A)		SCPD TYPE	RATED CURRENT (A)	SETTING MAGNETIC RELEASE		TYPE	SMART RELAY TRIPPING CLASS 10		CURRENT SETTING		IQ=50KA @ 400/415VAC
	400 V	415 V			X IN	(A)		CONTROL UNIT	MEASURING UNIT	MIN (A)	MAX (A)	
2.2	4.6	4.4	ACW101H-MTU50-3	50	12	600	CWM50	SRW01-UC	UMC1 / UMCT1	0.5	5.0	5.0
3	6.2	5.9	ACW101H-MTU50-3	50	12	600	CWM50	SRW01-UC	UMC3 / UMCT3	2.5	25	25
4	8.2	7.9	ACW101H-MTU50-3	50	12	600	CWM50	SRW01-UC	UMC3 / UMCT3	2.5	25	25
5.5	10.4	10.0	ACW101H-MTU50-3	50	12	600	CWM50	SRW01-UC	UMC3 / UMCT3	2.5	25	25
7.5	14.2	13.7	ACW101H-MTU50-3	50	12	600	CWM50	SRW01-UC	UMC3 / UMCT3	2.5	25	25
9.2	17.4	16.8	ACW101H-MTU50-3	50	12	600	CWM50	SRW01-UC	UMC3 / UMCT3	2.5	25	25
11	21	20	ACW101H-MTU50-3	50	12	600	CWM50	SRW01-UC	UMC3 / UMCT3	2.5	25	25
15	28	27	ACW101H-MTU50-3	50	12	600	CWM50	SRW01-UC	UMC4 / UMCT4	12.5	125	50
18.5	35	34	ACW101H-MTU50-3	50	12	600	CWM50	SRW01-UC	UMC4 / UMCT4	12.5	125	50
22	41	40	ACW101H-MTU50-3	50	12	600	CWM50	SRW01-UC	UMC4 / UMCT4	12.5	125	50
30	57	55	ACW101H-MTU100-3	100	12	1200	CWM95	SRW01-UC	UMC4 / UMCT4	12.5	125	95
37	67	64	ACW101H-MTU100-3	100	12	1200	CWM95	SRW01-UC	UMC4 / UMCT4	12.5	125	95
45	81	78	ACW101H-MTU100-3	100	12	1200	CWM95	SRW01-UC	UMC4 / UMCT4	12.5	125	95
55	99	95	ACW101V-MTU100-3	100	12	1200	CWM112	SRW01-UC	UMC4 / UMCT4	12.5	125	112
75	134	129	ACW161V-MTU160-3	160	12	1920	CWM150	SRW01-UC	UMC5 / UMCT5	42	420	150
90	158	152	AC-W250H-MTU220-3	220	12	2640	CWM180	SRW01-UC	UMC5 / UMCT5	42	420	180
110	193	186	ACW250V-MTU220-3	220	12	2640	CWM250	SRW01-UC	UMC5 / UMCT5	42	420	220
132	231	223	AC-W400H-MTU320-3	320	12	3840	CWM400	SRW01-UC	UMC5 / UMCT5	42	420	320
150	266	256	AC-W400H-MTU320-3	320	12	3840	CWM400	SRW01-UC	UMC5 / UMCT5	42	420	320
160	280	270	AC-W400H-MTU320-3	320	12	3840	CWM400	SRW01-UC	UMC5 / UMCT5	42	420	320
185	-	315	AC-W400H-MTU320-3	320	12	3840	CWM400	SRW01-UC	UMC5 / UMCT5	42	420	320



# TYPE 2 COORDINATION (IEC 60947-4-1) D.O.L. STARTERS, NON-REVERSING<sup>1</sup>, 400/415 V AC, IQ = 50 KA

**Technical Notes:**

(<sup>1</sup>) For DOL reversing starters the following DOL non-reversing type-2 coordination tables are applicable by selecting two identical contactors.

For star-delta starters the following DOL non-reversing type-2 coordination tables are applicable by selecting three identical contactors.

(<sup>2</sup>) Orientative values of WEG W22 Motor - Premium Efficiency IE3 - 4 pole - Standard Frame - IEC Standard - 50 Hz - Duty S1 - Service factor 1.00

## MAGNETIC MCCB + CONTACTOR + SOLID STATE OVERLOAD RELAY (CLASS 10) WITH COMMUNICATION

**Component description:**

DWB160L - Trip Unit MF - Breaking Capacity "L"

Solid State Overload Relay SRW01 (Tripping Class 10)

CWM Contactors

MOTOR ( <sup>2</sup> )			SHORT CIRCUIT PROTECTIVE DEVICE				CONTACTOR	OVERLOAD RELEASE				GROUP - I MAX (A)
RATED POWER (KW)	RATED CURRENT (A)		SCPD TYPE	RATED CURRENT (A)	SETTING MAGNETIC RELEASE		TYPE	SMART RELAY TRIPPING CLASS 10		CURRENT SETTING		IQ=50KA @ 400/415VAC
	400 V	415 V			X IN	(A)		CONTROL UNIT	MEASURING UNIT	MIN (A)	MAX (A)	
2.2	4.6	4.4	DW-B160L25-3MF	25	12	300	CWM50	SRW01-UC	UMC1 / UMC1	0.5	5.0	5.0
3	6.2	5.9	DW-B160L25-3MF	25	12	300	CWM50	SRW01-UC	UMC3 / UMC3	2.5	25	25
4	8.2	7.9	DW-B160L25-3MF	25	12	300	CWM50	SRW01-UC	UMC3 / UMC3	2.5	25	25
5.5	10.4	10.0	DW-B160L25-3MF	25	12	300	CWM50	SRW01-UC	UMC3 / UMC3	2.5	25	25
7.5	14.2	13.7	DW-B160L25-3MF	25	12	300	CWM50	SRW01-UC	UMC3 / UMC3	2.5	25	25
9.2	17.4	16.8	DW-B160L25-3MF	25	12	300	CWM50	SRW01-UC	UMC3 / UMC3	2.5	25	25
11	21	20	DW-B160L25-3MF	25	12	300	CWM50	SRW01-UC	UMC3 / UMC3	2.5	25	25
15	28	27	DW-B160L32-3MF	32	12	385	CWM65	SRW01-UC	UMC4 / UMC4	12.5	125	32
18.5	35	34	DW-B160L40-3MF	40	12	480	CWM65	SRW01-UC	UMC4 / UMC4	12.5	125	40
22	41	40	DW-B160L50-3MF	50	12	600	CWM65	SRW01-UC	UMC4 / UMC4	12.5	125	50
30	57	55	DW-B160L65-3MF	65	12	780	CWM65	SRW01-UC	UMC4 / UMC4	12.5	125	65
37	67	64	DW-B160L80-3MF	80	12	960	CWM95	SRW01-UC	UMC4 / UMC4	12.5	125	80
45	81	78	DW-B160L95-3MF	95	12	1140	CWM95	SRW01-UC	UMC4 / UMC4	12.5	125	95
55	-	95	DW-B160L95-3MF	95	12	1140	CWM95	SRW01-UC	UMC4 / UMC4	12.5	125	95



# TYPE 2 COORDINATION (IEC 60947-4-1)

## D.O.L. STARTERS, NON-REVERSING<sup>1</sup>, 400/415 V AC, IQ = 50 KA

### Technical Notes:

<sup>(1)</sup> For DOL reversing starters the following DOL non-reversing type-2 coordination tables are applicable by selecting two identical contactors.

For star-delta starters the following DOL non-reversing type-2 coordination tables are applicable by selecting three identical contactors.

<sup>(2)</sup> Orientative values of WEG W22 Motor - Premium Efficiency IE3 - 4 pole - Standard Frame - IEC Standard - 50 Hz - Duty S1 - Service factor 1.00

### MAGNETIC MCCB + CONTACTOR + SOLID STATE OVERLOAD RELAY (CLASS 10) WITH COMMUNICATION

#### Component description:

MPW40i Magnetic Motor Protective Circuit Breaker

CLT32 Current Limiter

Solid State Overload Relay SRW01 (Tripping Class 10)

CWM Contactors

MOTOR <sup>(2)</sup>			SHORT CIRCUIT PROTECTIVE DEVICE				CONTACTOR	OVERLOAD RELEASE				GROUP - I MAX (A)
RATED POWER (KW)	RATED CURRENT (A)		SCPD TYPE	RATED CURRENT (A)	SETTING MAGNETIC RELEASE		TYPE	SMART RELAY TRIPPING CLASS 10		CURRENT SETTING		IQ=50KA @ 400/415VAC
	400 V	415 V			X IN	(A)		CONTROL UNIT	MEASURING UNIT	MIN (A)	MAX (A)	
-	-	-	MPW40I-3-C063	0.63	13	8.2	CWM9	SRW01-UC	UMC1 / UMCT1	0.5	5.0	0.63
0.25	-	0.7	MPW40I-3-U001	1.0	13	13	CWM9	SRW01-UC	UMC1 / UMCT1	0.5	5.0	1.0
0.37	-	1.0	MPW40I-3-D016	1.6	13	20.8	CWM9	SRW01-UC	UMC1 / UMCT1	0.5	5.0	1.6
0.55	1.2	1.2	MPW40I-3-D016	1.6	13	20.8	CWM9	SRW01-UC	UMC1 / UMCT1	0.5	5.0	1.6
0.75	1.6	1.6	MPW40I-3-D025	2.5	13	32.5	CWM9	SRW01-UC	UMC1 / UMCT1	0.5	5.0	2.5
1.1	2.4	2.3	MPW40I-3-U004	4	13	52	CWM25	SRW01-UC	UMC2 / UMCT2	1.25	12.5	4
1.5	3.2	3.1	MPW40I-3-U004	4	13	52	CWM25	SRW01-UC	UMC2 / UMCT2	1.25	12.5	4
2.2	5	4	MPW40I-3-D063	6.3	13	82	CWM25	SRW01-UC	UMC2 / UMCT2	1.25	12.5	6.3
3	6	6	MPW40I-3-U010 + CLT32	10	13	130	CWM25	SRW01-UC	UMC3 / UMCT3	2.5	25	10
4	8	8	MPW40I-3-U010 + CLT32	10	13	130	CWM25	SRW01-UC	UMC3 / UMCT3	2.5	25	10
5.5	10	10	MPW40I-3-U016 + CLT32	16	13	208	CWM25	SRW01-UC	UMC3 / UMCT3	2.5	25	16
7.5	14	14	MPW40I-3-U016 + CLT32	16	13	208	CWM25	SRW01-UC	UMC3 / UMCT3	2.5	25	16
9.2	17	17	MPW40I-3-U020 + CLT32	20	13	260	CWM25	SRW01-UC	UMC3 / UMCT3	2.5	25	20
11	21	20	MPW40I-3-U025 + CLT32	25	13	325	CWM25	SRW01-UC	UMC3 / UMCT3	2.5	25	25
15	28	27	MPW40I-3-U032 + CLT32	32	13	416	CWM40	SRW01-UC	UMC4 / UMCT4	12.5	125	32

Even though tripping classes 5 to 45 can be selected on the SRW01 Smart Relay, for applications where a tripping class higher than class 10 is required, a derating factor may be required to be applied to the rated current of the MCCB.



# TYPE 2 COORDINATION (IEC 60947-4-1) D.O.L. STARTERS, NON-REVERSING<sup>1</sup>, 525/550 V, IQ = 50 KA

**Technical Notes:**

- (<sup>1</sup>) For DOL reversing starters the following DOL non-reversing type-2 coordination tables are applicable by selecting two identical contactors.  
For star-delta starters the following DOL non-reversing type-2 coordination tables are applicable by selecting three identical contactors.
- (<sup>2</sup>) Orientative values of WEG W22 Motor - Premium Efficiency IE3 - 4 pole - Standard Frame - IEC Standard - 50 Hz - Duty S1 - Service factor 1.00

## MAGNETIC MCCB + CONTACTOR + SOLID STATE OVERLOAD RELAY (CLASS 10) WITH COMMUNICATION

**Component description:**

ACW 101 / 161 / 250 - MTU "V"  
Solid State Overload Relay SRW01 (Tripping Class 10)  
CWM Electromagnetic Contactors

MOTOR ( <sup>2</sup> )			SHORT CIRCUIT PROTECTIVE DEVICE				CONTACTOR	OVERLOAD RELEASE				GROUP - I MAX (A)
RATED POWER (KW)	RATED CURRENT (A)		SCPD TYPE	RATED CURRENT (A)	SETTING MAGNETIC RELEASE		TYPE	SMART RELAY TRIPPING CLASS 10		CURRENT SETTING		IQ=50KA @ 525/550V I MAX (A)
	525 V	550 V			X IN	(A)		CONTROL UNIT	MEASURING UNIT	MIN (A)	MAX (A)	
0.37	0.8	0.7	ACW101V-MTU20-3	20	12	240	CWM50 T2	SRW01-UC	UMC1 / UMCT1	0.5	5.0	5.0
0.55	0.9	0.9	ACW101V-MTU20-3	20	12	240	CWM50 T2	SRW01-UC	UMC1 / UMCT1	0.5	5.0	5.0
0.75	1.2	1.2	ACW101V-MTU20-3	20	12	240	CWM50 T2	SRW01-UC	UMC1 / UMCT1	0.5	5.0	5.0
1.1	1.8	1.7	ACW101V-MTU20-3	20	12	240	CWM50 T2	SRW01-UC	UMC1 / UMCT1	0.5	5.0	5.0
1.5	2.4	2.3	ACW101V-MTU20-3	20	12	240	CWM50 T2	SRW01-UC	UMC1 / UMCT1	0.5	5.0	5.0
2.2	3.5	3.3	ACW101V-MTU20-3	20	12	240	CWM50 T2	SRW01-UC	UMC1 / UMCT1	0.5	5.0	5.0
3	4.7	4.5	ACW101V-MTU20-3	20	12	240	CWM50 T2	SRW01-UC	UMC2 / UMCT2	1.25	12.5	12.5
4	6.1	5.8	ACW101V-MTU20-3	20	12	240	CWM50 T2	SRW01-UC	UMC2 / UMCT2	1.25	12.5	12.5
5.5	7.9	7.6	ACW101V-MTU20-3	20	12	240	CWM50 T2	SRW01-UC	UMC2 / UMCT2	1.25	12.5	12.5
7.5	10.6	10.1	ACW101V-MTU20-3	20	12	240	CWM50 T2	SRW01-UC	UMC2 / UMCT2	1.25	12.5	12.5
9.2	13.3	12.7	ACW101V-MTU20-3	20	12	240	CWM50 T2	SRW01-UC	UMC3 / UMCT3	2.5	25	20
11	15.9	15.2	ACW101V-MTU20-3	20	12	240	CWM50 T2	SRW01-UC	UMC3 / UMCT3	2.5	25	20
15	21.3	20.3	ACW101V-MTU50-3	50	12	600	CWM50 T2	SRW01-UC	UMC3 / UMCT3	2.5	25	25
18.5	26.7	25.5	ACW101V-MTU50-3	50	12	600	CWM50 T2	SRW01-UC	UMC4 / UMCT4	12.5	125	36
22	31	30	ACW101V-MTU50-3	50	12	600	CWM105 T2	SRW01-UC	UMC4 / UMCT4	12.5	125	50
30	44	42	ACW101V-MTU50-3	50	12	600	CWM105 T2	SRW01-UC	UMC4 / UMCT4	12.5	125	50
37	51	49	ACW101V-MTU100-3	100	12	1200	CWM105 T2	SRW01-UC	UMC4 / UMCT4	12.5	125	79
45	62	59	ACW101V-MTU100-3	100	12	1200	CWM105 T2	SRW01-UC	UMC4 / UMCT4	12.5	125	79
55	75	72	ACW101V-MTU100-3	100	12	1200	CWM105 T2	SRW01-UC	UMC4 / UMCT4	12.5	125	79
75	102	98	ACW161V-MTU160-3	160	10.8	1728	CWM180	SRW01-UC	UMC4 / UMCT4	12.5	125	125
90	120	115	ACW161V-MTU160-3	160	10.8	1728	CWM180	SRW01-UC	UMC5 / UMCT5	42	420	147
110	147	140	ACW161V-MTU160-3	160	12	1920	CWM250	SRW01-UC	UMC5 / UMCT5	42	420	160
132	176	168	ACW250V-MTU220-3	220	10.8	2376	CWM250	SRW01-UC	UMC5 / UMCT5	42	420	207
150	203	193	ACW250V-MTU220-3	220	10.8	2376	CWM250	SRW01-UC	UMC5 / UMCT5	42	420	207
160	213	204	ACW250V-MTU220-3	220	12	2640	CWM300	SRW01-UC	UMC5 / UMCT5	42	420	220

Even though tripping classes 5 to 45 can be selected on the SRW01 Smart Relay, for applications where a tripping class higher than class 10 is required, the following derating factor must be applied to the rated current of the MCCB.



Derating factor to be applied on MCCB rated current for use on applications with long starting time

MCCB type ACW101/ ACW161 ACW250	Trip Class of SRW01 overload relay				
	10	15	20	25	30
-	-	-	0.90	0.80	0.70
-	0.90	0.75	0.70	0.70	0.60

E.g.: For applications with long starting time where the tripping class 30 is required, the ACW101-MTU100 should be used for a maximum of  $100\text{ A} \times 0,7 = 70\text{ A}$  rated current.

Note: The MCCB use in applications with tripping classes higher than 30 is not recommended



# TYPE 2 COORDINATION (IEC 60947-4-1)

## D.O.L. STARTERS, NON-REVERSING<sup>1</sup>, 525/550 V, IQ = 50 KA

**Technical Notes:**

<sup>(1)</sup> For DOL reversing starters the following DOL non-reversing type-2 coordination tables are applicable by selecting two identical contactors.

For star-delta starters the following DOL non-reversing type-2 coordination tables are applicable by selecting three identical contactors.

<sup>(2)</sup> Orientative values of WEG W22 Motor - Premium Efficiency IE3 - 4 pole - Standard Frame - IEC Standard - 50 Hz - Duty S1 - Service factor 1.00

### MAGNETIC MCCB + CONTACTOR + THERMAL RELAY (CLASS 10)

**Component description:**

ACW 101 / 161 / 250 - MTU "V"

RW Thermal Overload Relay Tripping Class 10

CWM Electromagnetic Contactors

MOTOR <sup>(2)</sup>			SHORT CIRCUIT PROTECTIVE DEVICE				CONTACTOR	OVERLOAD RELEASE			GROUP - I MAX (A)
RATED POWER (KW)	RATED CURRENT (A)		SCPD TYPE	RATED CURRENT (A)	SETTING MAGNETIC RELEASE		TYPE	THERMAL RELAY TRIPPING CLASS 10	CURRENT SETTING		IQ=50KA @ 525/550V I MAX (A)
	525 V	550 V			X IN	(A)			MIN (A)	MAX (A)	
22	31	30	ACW101V-MTU50-3	50	12	600	CWM80 T2	RW67-2D3-U040	25	40	40
30	44	42	ACW101V-MTU50-3	50	12	600	CWM105 T2	RW67-2D3-U050	32	50	50
37	51	49	ACW101V-MTU100-3	100	12	1200	CWM105 T2	RW67-2D3-U057	40	57	57
45	62	59	ACW101V-MTU100-3	100	12	1200	CWM112	RW67-2D3-U063 + BF67-2D	50	63	63
							CWM150	RW67-2D3-U070 + BF67-2D	57	70	70
55	75	72	ACW101V-MTU100-3	100	12	1200	CWM112	RW117-2D3-U080 + GA117D	63	80	80
							CWM150	RW117-2D3-U097 + GA117D	75	97	97
75	102	98	ACW161V-MTU160-3	160	9.6	1536	CWM150	RW117-2D3-U112 + GA117D	90	112	112
90	120	115	ACW161V-MTU160-3	160	10.8	1728	CWM180	RW317-1D3-U150 + GA317-2D	100	150	147
110	147	140	ACW161V-MTU160-3	160	12	1920	CWM250	RW317-1D3-U215 + GA317-3D	140	215	160
132	176	168	ACW250V-MTU220-3	220	10.8	2376	CWM250	RW317-1D3-U215 + GA317-3D	140	215	207
150	203	193	ACW250V-MTU220-3	220	10.8	2376	CWM250	RW317-1D3-U215 + GA317-3D	140	215	207
160	213	204	ACW250V-MTU220-3	220	12	2640	CWM300	RW317-1D3-U215 + GA317-3D	140	215	215



## TYPE 2 COORDINATION (IEC 60947-4-1) D.O.L. STARTERS, NON-REVERSING<sup>1</sup>, 525/550 V, IQ = 50 KA

### THERMAL AND MAGNETIC MOTOR CIRCUIT BREAKER (CLASS 10) + CONTACTOR

**Component description:**

MPW40 Thermal-Magnetic Motor Circuit Breaker

CLT32 Current Limiter

CWB Electromagnetic Contactors

MOTOR (²)			SHORT CIRCUIT PROTECTIVE DEVICE				CONTACTOR	OVERLOAD RELEASE			GROUP
RATED POWER (KW)	RATED CURRENT (A)		SCPD TYPE	RATED CURRENT (A)	SETTING MAGNETIC RELEASE		TYPE	MOTOR CIRCUIT BREAKER TRIPPING CLASS 10	CURRENT SETTING		IQ=50KA @ 525/550V I MAX (A)
	525 V	550 V			X IN	(A)			MIN (A)	MAX (A)	
0.37	0.8	0.7	MPW40-3-U001	1	13	13	CWB9	MPW40-3-U001	0.63	1.0	1.0
1.1	1.8	1.7	MPW40-3-D025 + CLT32	2.5	13	32.5	CWB38	MPW40-3-D025	1.6	2.5	2.5
1.5	2.4	2.3	MPW40-3-U004 + CLT32	4	13	52	CWB38	MPW40-3-U004	2.5	4.0	4.0
2.2	3.5	3.3	MPW40-3-U004 + CLT32	4	13	52	CWB38	MPW40-3-U004	2.5	4.0	4.0
3	4.7	4.5	MPW40-3-D063 + CLT32	6.3	13	82	CWB38	MPW40-3-D063	4.0	6.3	6.3
4	6.1	5.8	MPW40-3-U010 + CLT32	10	13	130	CWB38	MPW40-3-U010	6.3	10	10
5.5	7.9	7.6	MPW40-3-U010 + CLT32	10	13	130	CWB38	MPW40-3-U010	6.3	10	10
7.5	10.6	10.1	MPW40-3-U016 + CLT32	16	13	208	CWB38	MPW40-3-U016	10	16	16
9.2	13.3	12.7	MPW40-3-U016 + CLT32	16	13	208	CWB38	MPW40-3-U016	10	16	16
11	15.9	15.2	MPW40-3-U020 + CLT32	20	13	260	CWB38	MPW40-3-U020	16	20	17
15	21.3	20.3	MPW40-3-U025 + CLT32	25	13	325	CWB38	MPW40-3-U025	20	25	25



# SELECTION CHARTS

## RATED MOTOR CURRENT CONVERSION TABLE

RATED POWER		3 PHASE 4 POLE MOTORS 50-60HZ			STAR DELTA FLC X 0.58		
KW	HP	230V	400V	(IE3*) 550V	400Vt	440V	500V
0.37	0.5	2.9A	0.98A	0.72			
0.55	0.75	4.6A	1.5A	0.90			
0.75	1	5.7A	1.9A	1.18			
1.1	1.5	7.3A	2.4A	1.71			
1.5	2	9.9A	3.3A	2.31			
2.2	3	14.4A	4.7A	3.32			
3	4	19.1A	6.2A	4.47			
4	5.5	24A	8.1A	5.84	4.6A	4.3A	3.7A
5.5	7.5	33A	10.9A	7.56	6.4A	6.1A	5.37A
7.5	10	44.7A	14.7A	10.10	8.5A	7.8A	6.8A
9.2	12.5	57.3A	19A	12.70	10.9A	10A	8.8A
11	15	65A	20.9A	15.20	12.2A	11.7A	10.3A
15	20	86.1A	28.5A	20.30	16.5A	15.4A	13.5A
18.5	25	106.1A	35.5A	25.50	20.4A	19A	16.7A
22	30	124.3A	41.8A	29.80	24.2A	22.6A	19.68A
30	40	170.3A	57A	41.50	33A	31.9A	28A
37	50	208.5A	68.4A	48.60	39.5A	37A	32.5A
45	60	242.9A	80.7A	58.80	46.6A	43.9A	38.6A
55	75	301.3A	99.7A	71.70	57.6A	52A	45.7A
75	100	396A	131.1A	97.50	76A	72.2A	63.5A
90	125		161.5A	115.00	93A	84A	73.9A
110	150		194.7A	140.00	112.1A	102A	89.7A
132	180		232.7A	168.00	134.4A	124A	109.1A
160	220		285A	204.00	164.5A	147.8A	130A
200	270		351.5A	252.00	203A	185A	162.8A
220	300		389A	282.00	225.6A	204.7A	180.3A
250	340		442A	317.00	256A	233A	205A
315	430		551A	404.00	319A	290A	255A
355	480		617A	449.00	358A	325A	284A
400	550		660A	519.00	383A	339A	307A
450			742A	585.00	430A	391A	344A
500			742A	641.00			

Information in this table must be used as guidelines only as each motor and installation have their own characteristics which depend on many factors and we cannot be held responsible should there be any discrepancy in these tables.

IE3\* = WEG W22 Cast Iron Frame - Top Premium Efficiency - IE3 (4-pole / standard Frame / 50Hz)

ELECTRICAL FORMULA			
DESIRED DATA	AC SINGLE PHASE	AC THREE PHASE	DIRECT CURRENT
KILOWATT OUTPUT	$V \times I \times \%Eff \times PF$ 1000	$V \times I \times 1.73 \times \%Eff \times PF$ 1000	$1 \times V \times \%Eff$ 1000
kVA	$V \times I$ 1000	$V \times I \times 1.73$ 1000	
HORSEPOWER OUTPUT	$V \times I \times \%Eff \times PF$ 746	$V \times I \times 1.73 \times \%Eff \times PF$ 746	$V \times I \times \%Eff$ 746
AMPERES WHEN HORSEPOWER IS KNOWN	$HP \times 746$ $V \times \%Eff \times PF$	$HP \times 746$ $1.73 \times V \times \%Eff \times PF$	$HP \times 746$ $V \times \%Eff$
AMPERES WHEN KILOWATTS ARE KNOWN	$kW \times 1000$ $V \times \%Eff \times PF$	$kW \times 1000$ $1.73 \times V \times \%Eff \times PF$	$kW \times 1000$ $V \times \%Eff$
AMPERES WHEN kVA ARE KNOWN	$kVA \times 1000$ V	$kVA \times 1000$ $1.73 \times V$	

V = Volts

I = Amperes

%Eff = Percentage Efficiency

P.F = Power Factor

HP = Horsepower



# DISCOUNT STRUCTURE

**CUSTOMER:**
**DATE:**

PAGE	GROUP	DESCRIPTION	DISCOUNT %
92 - 106	0100	22 mm PILOT LIGHTS	
92 - 106	0101	22 mm PUSHBUTTONS	
92 - 106	0102	ACCESSORIES FOR CSW	
7	0110	CWCO CONTACTORS	
14	0112	CWB CONTACTORS	
19	0111	CWCAO CONTROL RELAYS	
17	0112	CWM CONTACTORS	
18	0113	CWM POWER CONTACTORS	
24	0114	CWMC CONTACTORS FOR CAPACITORS	
33, 41, 42	0117	SPARE COILS	
40, 43	0118	CONTACT KITS	
28, 31, 32, 39	0119	WIRING KITS	
25-43	0120	ACCESSORIES FOR CONTACTORS	
157, 158	0130	AIR CIRCUIT BREAKERS	
159 - 164	0131	ACCESSORIES FOR ACB	
112-114,121	0141	DWA160 MCCBS	
115-116,123	0142	DWB 250 - 400 MCCBS	
117,124	0143	DWB 800 - 1000 MCCBS	
118	0144	DWB 1600 MCCBS	
118	0145	DWM160 MCCBS	
119	0146	DWM250 - 400 MCCBS	
120,125	0146	DWM 800 - 1600 MCCBS	
181,183,185	0147	MSW ISOLATORS	
133-141,	0148	ACCESSORIES FOR MCCBS	
182,184	0148	MSW ISOLATORS	
49,52	0150	RW17 THERMAL OVERLOAD RELAY	
50-51,52,53	0151	RW27 THERMAL OVERLOAD RELAY	
50,51,52,53	0152	RW67 THERMAL OVERLOAD RELAY	
51	0153	RW117 THERMAL OVERLOAD RELAY	
51	0154	RW317 THERMAL OVERLOAD RELAY	
51	0155	RW407 THERMAL OVERLOAD RELAY	
54	0156	ACCESSORIES FOR RW	
56	0160	MOTOR PROT CB MPW18	
56	0161	MOTOR PROT CB MPW18i	
58	0162	MOTOR PROT CB MPW40	
58	0163	MOTOR PROT CB MPW40i	
61	0164	MOTOR PROT CB MPW80	
61	0165	MOTOR PROT CB MPW80i	
61	0164	MOTOR PROT CB MPW65	
61	0165	MOTOR PROT CB MPW650i	
61	0166	MOTOR PROT CB MPW100	
62-66	0167	ACCESSORIES FOR MPCB	
83	0170	SMART RELAYS EARTH LEAKAGE	
83	0171	SMART RELAYS PTC	
84-86	0172	ACCESSORIES FOR SMART RELAYS	



# DISCOUNT STRUCTURE

**CUSTOMER:**

**DATE:**

PAGE	GROUP	DESCRIPTION	DISCOUNT %
67	0180	DLW-7 STARTERS	
67	0181	DLW-9 UP STARTERS	
68	0182	DLWM-7 STARTERS	
68	0183	DLWM-9 UP STARTERS	
69	0185	ACCESSORIES FOR STARTERS	
75,79,80	0190	TIMING RELAYS	
76	0191	MONITORING RELAYS	
77	0192	LEVEL CONTROL RELAYS	
167.168.169.171.172.173	0200	MCBS B CURVE	
167.168.169.171.172.173	0201	MCBS C CURVE	
175	0202	SWITCH-DISCONNECTORS	
175	0203	RESIDUAL CURRENT SWITCHES	
170.1174	0204	ACCESSORIES FOR MCBS	
201-222	0210	TERMINAL BLOCKS	
177,178,180	0221	NH FUSES	
179-180		ACCESSORIES FOR FUSES	
149-150	0230	ACW MCCB	
151-155	0231	ACCESSORIES FOR MCCBS ACW	
187-198	0240	CAPACITORS KVAR	
199	0241	ACCESSORIES FOR CAPACITORS	
224	0250	POWER SUPPLIES	
226-229	0250	FANOX	

*All products sold are subject to ZEST WEG's general terms and conditions of sale.  
Copy of terms and conditions available upon request.  
Prices subject to change without prior notice.*



### Johannesburg

47 Galaxy Avenue  
 Linbro Business Park  
 Private Bag X10011, Sandton 2146  
 GPS: S 26° 4' 10.92" E 28° 6' 45.88"  
 Tel +27 (0) 11 723 6000  
 Fax: +27 (0) 11 723 6001  
 info@zestweg.com

### Cape Town

9 Omuramba Road, Marconi Beam  
 Montague Gardens, Milnerton  
 GPS: S 33° 52' 42.1" E 18° 30' 39.1"  
 Tel: +27 (0) 21 551 2710  
 capetown@zestweg.com

### Durban

51 Island Circle  
 Riverhorse Business Estate  
 GPS: S 29° 46' 5.53" E 31° 0' 21.04"  
 Tel: +27 (0) 31 569 7260  
 durban@zestweg.com

### Rustenburg

6 Kgwebo Road  
 Mabe Business Park  
 Old Pretoria Road  
 GPS: S 25° 41' 14.1" E 27° 15' 38.78"  
 Tel: +27 (0) 14 594 0450  
 rustenburg@zestweg.com

### Middelburg

6 Wicht Street  
 Vaalbank, Middelburg  
 GPS: S 25° 47' 7.70" E 29° 28' 42.33"  
 Tel: +27 (0) 13 246 2849  
 mpumalanga@zestweg.com

### Richards Bay

78 Alumina Alley  
 GPS: 28°45'27.414"S 32°1'30.586"E  
 Tel: +27 (0) 35 751 1607  
 richardsbay@zestweg.com

### Trichardt

3 Schabort Street, Trichardt  
 GPS: S26° 29' 28.08" E29° 13' 15.64"  
 Tel: +27 (0) 17 638 1571  
 trichardt@zestweg.com

### Port Elizabeth

1 Millennium Road,  
 Old Show grounds, North End, PE  
 GPS: S 33° 55' 70.7" E 25° 36' 19.6"  
 Tel +27 (0) 41 486 1262  
 portelizabeth@zestweg.com

### Zest Electric Ghana LTD

15, Third Close Street  
 Airport Residential Area  
 Accra, Ghana  
 GPS: N 5° 36' 54.90" W 0° 10' 50.02"  
 Tel: +233 30 27 664 90  
 Fax: +233 30 27 664 93  
 Cell: +233 540 898 466  
 ghana@zestweg.com

### Enl Electrical

Electrical/Instrumentation Engineering  
 and Contracting  
 47 Galaxy Avenue  
 Linbro Business Park  
 GPS: S 26° 4' 10.92" E 28° 6' 45.88"  
 Tel: +27 (0) 11 792 2803  
 info@eni.zestweg.com

### Zest Energy

Integrated Power Generation, Co-Generation and  
 Energy Solutions  
 21 Galaxy Avenue  
 Linbro Business Park  
 GPS: S 26° 4' 23.4" E 28° 6' 49.5"  
 Tel: +27 (0) 11 723 6000  
 info@energy.zestweg.com

### Generator Sets

**Johannesburg**  
 47 Galaxy Avenue  
 Linbro Business Park  
 GPS: S 26° 4' 10.92" E 28° 6' 45.88"  
 Tel: +27 (0) 11 723 6000  
 gensets@zestweg.com

### Generator Sets & Panel Division

**Cape Town**  
 13 Benbow Avenue  
 Epping Industrial 1  
 GPS: S 33° 55' 48.65" E 18° 32' 12.6"  
 Tel: +27 (0) 21 507 7200  
 gensets@zestweg.com

### Shaw Controls

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 Switchgear Solutions  
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 Tel: +27 (0) 11 434 8100  
 info@shaw.zestweg.com

### WEG Transformers Africa

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 Wadeville, Germiston  
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 Tel: +27 (0) 11 827 3458  
 wta@zestweg.com

### Heidelberg

11 Marconi Street  
 Heidelberg  
 GPS: S 26° 31' 7.54" E 28° 21' 33.28"  
 Tel: +27 (0) 16 349 2683/4/5  
 wta@zestweg.com

