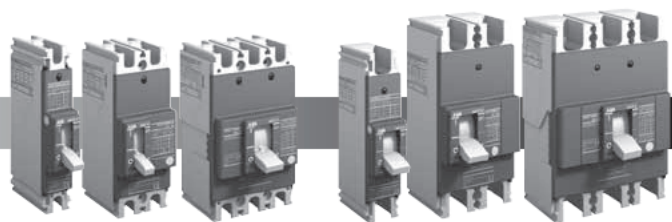


17 - Molded case circuit breakers



Formula MCCBs17.1 - 17.10

General information	
Introduction.....	17.1
Circuit breakers for power distribution	17.2
Catalog number explanation.....	17.3
Ordering details	
A1, 100A.....	17.4
A2, 250A, 600Y/347V, 480V Δ.....	17.5
Accessories.....	17.6 - 17.9

Tmax MCCBs.....17.11 - 17.10

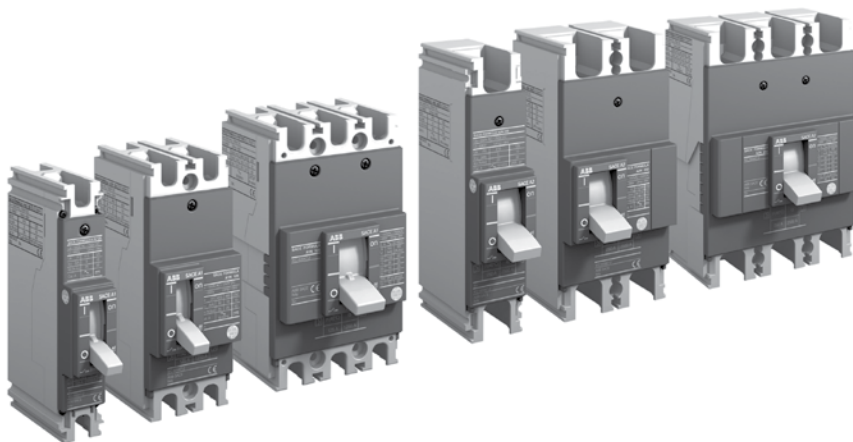
General information	
Introduction.....	17.11
Ordering details guide	17.12 - 17.13
Catalog number explanation.....	17.14
Ordering details	
T1, 100A, 600Y/347V, 480V Δ	17.15 - 17.16
T2, 100A, 480V Δ	17.17 - 17.19
T3, 225A, 600Y/347V, 480V Δ	17.20 - 17.22
Ts3, 150A, 600V Δ, 225A, 480V Δ	17.23 - 17.26
T4, 250A, 600V Δ	17.27 - 17.32
T5, 400/600A, 600V Δ	17.33 - 17.37
T6, 600A, 800A, 600V Δ	17.38 - 17.40
T7 (Toggle), 1000A, 1200A, 600V Δ	17.41
T7, 1000A, 1200A, 600V Δ	17.42 - 17.44
T7M (Stored energy).....	17.45 - 17.55
T8, 1600/2000/2500/3000A, 600VAC Δ	17.56 - 17.68

Tmax UL489B Photovoltaic circuit breakers.....17.67 - 17.70

General information	
Introduction.....	17.67
Catalog number explanation.....	17.68
Ordering details	
Tmax UL489B MCCBs and switches	17.69
Jumper kit accessories.....	17.70

Accessories, T1 - T717.71 - 17.83

Approximate dimensions, T1 - T7.....17.84 - 17.101



Introduction

ABB's FORMULA molded case circuit breaker line offers simplicity and quality in some of the smallest dimensions available. The A1 breaker frame size ranges in amperes from 15 through 100 and the A2 breaker frame size ranges from 125 through 250 amperes. All UL FORMULA circuit breakers offer protection trip units that have fixed thermal and magnetic threshold values and are standard as a fixed version with front terminals.

Standards

UL 489 & IEC 60947-2

Dimensions (W x D x H):

1 pole: 1.00 x 2.36 x 5.12

2 pole: 2.00 x 2.36 x 5.12

3 pole: 3.00 x 2.36 x 5.12

Weight:

1 pole: 0.54 lbs

2 pole: 1.04 lbs

3 pole: 1.54 lbs

Available accessories:

Shunt opening release (2p & 3p)

Undervoltage release (2p & 3p)

Auxiliary contacts (2p & 3p)

Termination kits (1p, 2p & 3p)

Padlocks (1p, 2p & 3p)

Direct and extended rotary handles (3p)

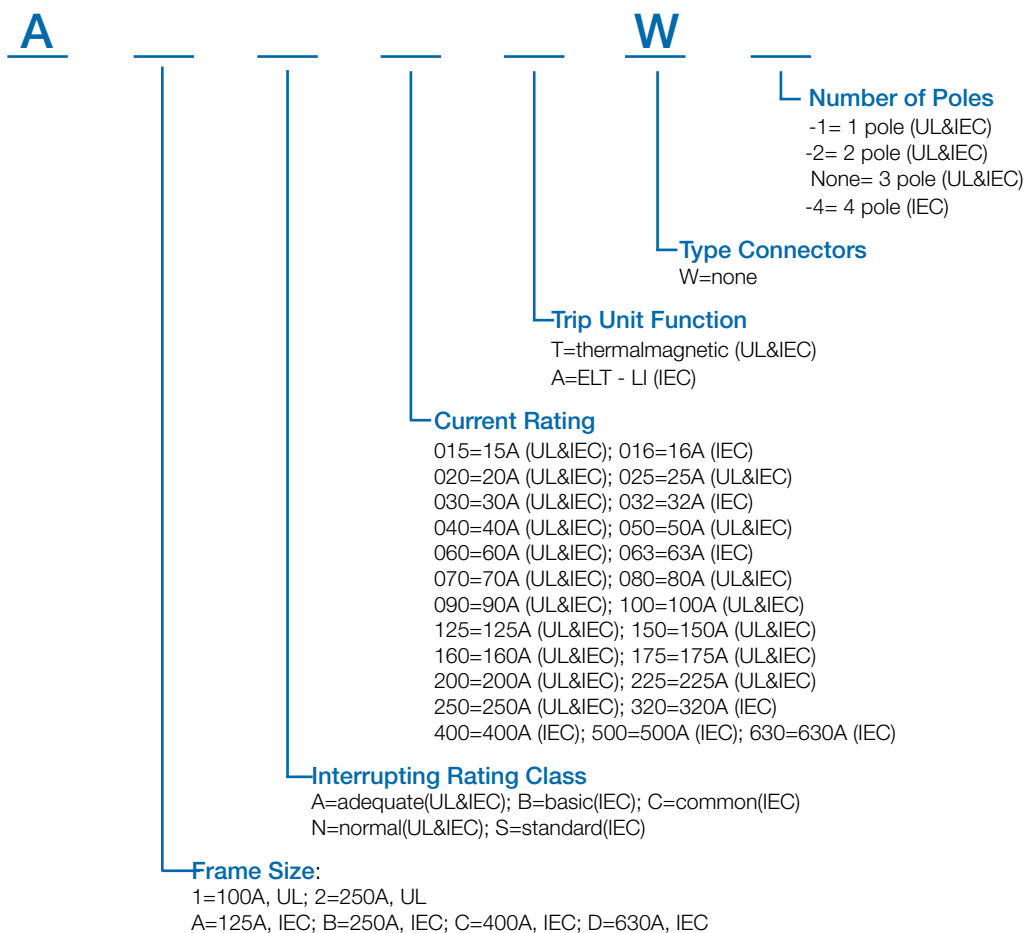
Circuit breakers for power distribution

Technical data

		A1				A2			
Frame size	A	100				250			
Rated current, In	A	15...100				125...250			
Poles [Nr]	Nr	1, 2, 3				1, 2, 3			
Rated service voltage, Ue (AC) 50-60 Hz	V	240 (1p, 2p, 3p)				240 (1p, 2p, 3p)			
(DC)	V	125 (1p), 250 (2p,3p)				125 (1p), 250 (2p,3p)			
Versions		Fixed				Fixed			
Performance Level		A		N		A		N	
Poles	Nr	1	2, 3	1	2, 3	1	2, 3	1	2, 3
Rated ultimate short circuit breaking capacity, Icu									
Interrupting rating @ 240 V 50-60 Hz (AC)	kA	10	10	18	25	10	10	14	25
Interrupting rating @ 125 V (DC) 1 pole (in 2012)	kA	5	-	10	-	5	-	10	-
Interrupting rating @ 250 V (DC) 2 poles in series (2p, 3p) (in 2012)	kA	-	5	-	10	-	10	-	25
Reference Standard		UL 489				UL 489			
Isolation behavior		Yes				Yes			
Fixing onto DIN rail		DIN EN 50022				DIN EN 50022			
Dimensions (Width x Depth x Height)									
1 pole	in	1.00 x 2.36 x 5.12				1.38 x 2.36 x 5.91			
2 poles	in	2.00 x 2.36 x 5.12				2.76 x 2.36 x 5.91			
3 poles	in	3.00 x 2.36 x 5.12				4.13 x 2.36 x 5.91			
Weight									
1 pole	lbs	0.54				0.82			
2 poles	lbs	1.04				1.61			
3 poles	lbs	1.54				2.43			
Trip Unit - Thermomagnetic TMF		Yes				Yes			

Circuit breakers for power distribution

Catalog number explanation



A1 100A



1 Pole



2 Pole



3 Pole

A1 - 100A Frame TMF, thermal magnetic fixed - fixed mount (F), front terminals (F)

Breaker	IC at 240VAC	Rating (A)	Magnetic trip	1 pole catalog number	2 pole catalog number	3 pole catalog number
A1A	10kA	15	400	A1A015TW-1	A1A015TW-2	A1A015TW
		20	400	A1A020TW-1	A1A020TW-2	A1A020TW
		25	400	A1A025TW-1	A1A025TW-2	A1A025TW
		30	400	A1A030TW-1	A1A030TW-2	A1A030TW
		40	400	A1A040TW-1	A1A040TW-2	A1A040TW
		50	500	A1A050TW-1	A1A050TW-2	A1A050TW
		60	600	A1A060TW-1	A1A060TW-2	A1A060TW
		70	700	A1A070TW-1	A1A070TW-2	A1A070TW
		80	800	A1A080TW-1	A1A080TW-2	A1A080TW
		90	900	A1A090TW-1	A1A090TW-2	A1A090TW
		100	1000	A1A100TW-1	A1A100TW-2	A1A100TW
A1N	1 pole 18kA 2-3 pole 25kA	15	400	A1N015TW-1	A1N015TW-2	A1A015TW
		20	400	A1N020TW-1	A1N020TW-2	A1A020TW
		25	400	A1N025TW-1	A1N025TW-2	A1A025TW
		30	400	A1N030TW-1	A1N030TW-2	A1A030TW
		40	400	A1N040TW-1	A1N040TW-2	A1A040TW
		50	500	A1N050TW-1	A1N050TW-2	A1A050TW
		60	600	A1N060TW-1	A1N060TW-2	A1A060TW
		70	700	A1N070TW-1	A1N070TW-2	A1A070TW
		80	800	A1N080TW-1	A1N080TW-2	A1A080TW
		90	900	A1N090TW-1	A1N090TW-2	A1A090TW
		100	1000	A1N100TW-1	A1N100TW-2	A1A100TW

A2

250A, 600Y/347V, 480V Δ
Thermal-magnetic



1 Pole



2 Pole



3 Pole

A2 - 250A Frame TMF, thermal magnetic fixed - fixed mount (F), front terminals (F)

Breaker	IC at 240VAC	Rating (A)	Magnetic trip	1 pole catalog number	2 pole catalog number	3 pole catalog number
A2A	10kA	125	1250	A2A125TW-1	A2A125TW-2	A2A125TW
		150	1500	A2A150TW-1	A2A150TW-2	A2A150TW
		175	1750	A2A175TW-1	A2A175TW-2	A2A175TW
		200	2000	A2A200TW-1	A2A200TW-2	A2A200TW
		225	2250	A2A225TW-1	A2A225TW-2	A2A225TW
		250	2500	A2A250TW-1	A2A250TW-2	A2A250TW
A1N	1 pole 18kA 2-3 pole 25kA	125	1250	A2N125TW-1	A2N125TW-2	A2N125TW
		150	1500	A2N150TW-1	A2N150TW-2	A2N150TW
		175	1750	A2N175TW-1	A2N175TW-2	A2N175TW
		200	2000	A2N200TW-1	A2N200TW-2	A2N200TW
		225	2250	A2N225TW-1	A2N225TW-2	A2N225TW
		250	2500	A2N250TW-1	A2N250TW-2	A2N250TW

Accessories

Electrical

A1 - A2



Cabled service release
SOR-C and UVR-C

Shunt opening release (SOR)

Frame size	Voltage	Catalog number
A1 - A2	12VDC	KA2S9
	24-30VAC/DC	KA2S8
	48-60VAC/DC	KA2S7
	110-127VAC	KA2S4
	220-240VAC	KA2S2

The shunt opening release allows for opening of the circuit breaker by means of a non-permanent electrical control. Operation of the release is guaranteed for a voltage between 70% and 110% of the power supply rated voltage value.

Undervoltage release (UVR)

Frame size	Voltage	Catalog number
A1 - A2	24-30VAC/DC	KA2U8
	48VAC/DC	KA2U7
	60VAC/DC	KA2U5
	110-127VAC	KA2U4
	220-240VAC	KA2U2

The undervoltage release ensures opening of the circuit breaker for lack/lowering of the release power supply voltage. Operation of the release is guaranteed for a voltage between 70% and 35% of the power supply rated voltage value. After tripping, the circuit breaker can be closed again starting from a voltage higher than 85% of the power supply rated voltage value.



Auxiliary contacts (AUX) & early auxiliary contacts (AUE)

Frame size	Description	2 Pole Catalog number	3 Pole Catalog number
A1 - A2	AUX-C 1Q+1SY 250 VAC/DC	KA2AS-2	KA2AS
	AUX-C 2Q+1SY 250 VAC/DC	KA2AS2-2	KA2AS2
	AUX-C 1Q+1SY 24 VDC	KA2ASAU-2	KA2ASAU
	AUX-C 2Q+1SY 24 VDC	KA2AS2AU-2	KA2AS2AU
	AUX-C 250V 1 CONT. SPARE PART*	KA2ASSP	KA2ASSP
	AUE 2 CONTACTS x RHx	—	KA2RH-EM

The auxiliary contacts allow information about the state of the circuit breaker to be available through an electronic signal to another apparatus. The early auxiliary contacts are normally open contacts which allow the undervoltage release to be supplied in advance prior to the closing of the main contacts in direct and extended rotary handle operating mechanisms.

Accessories

Mechanical

A1 - A2



Terminal FCCuAl



Terminal FCCuAl with cable

Front terminals for copper aluminum cables - FCCuAl

Frame size	Description	1 piece catalog number	2 piece catalog number	3 piece catalog number	4 piece catalog number	6 piece catalog number
A1	KIT FC CuAl A1 80A	KA1080-1	KA1080-2	KA1080-3	KA1080-4	KA1080-6
	KIT FC CuAl A1 100A	KA1100-1	KA1100-2	KA1100-3	KA1100-4	KA1100-6
A2	KIT FC CuAl A2 225A*	KA2225-1	KA2225-2	KA2225-3	KA2225-4	KA2225-6
	KIT FC CuAl A2 250A	KA2250-1	KA2250-2	KA2250-3	KA2250-4	KA2250-6

* 250A Cu cables and 225A Al cables



Terminal F



Terminal F with cable lug



Terminal F with busbar

Front terminals - F

Frame size	Description	1 piece catalog number	2 piece catalog number	3 piece catalog number	4 piece catalog number	6 piece catalog number
A1	KIT F A1	KA1F-1	KA1F-2	KA1F-3	KA1F-4	KA1F-6
A2	KIT F A2	KA2F-1	KA2F-2	KA2F-3	KA2F-4	KA2F-6

Front terminals are supplied as standard with all FORMULA circuit breakers.



Terminal EF



Terminal EF with busbar

Front extended terminals - EF (IEC only)

Frame size	Description	1 piece catalog number	2 piece catalog number	3 piece catalog number	4 piece catalog number	6 piece catalog number
A1	KIT EF A1	KA1EF-1	KA1EF-2	KA1EF-3	KA1EF-4	KA1EF-6
A2	KIT EF A2	KA2EF-1	KA2EF-2	KA2EF-3	KA2EF-4	KA2EF-6

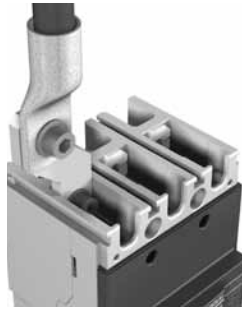
Accessories

Mechanical

A1 - A2



Terminal ES



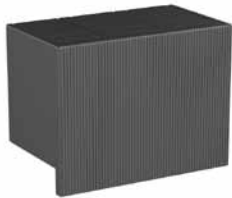
Terminal ES with cable lug



Terminal ES with busbar

Front extended spread terminals - ES (IEC only)

Frame size	Description	1 piece catalog number	2 piece catalog number	3 piece catalog number	4 piece catalog number	6 piece catalog number
A1	KIT ES A1	—	KA1ES-2	KA1ES-3	KA1ES-4	KA1ES-6
A2	KIT ES A2	—	KA2ES-2	KA2ES-3	KA2ES-4	KA2ES-6



High terminal cover (HTC)

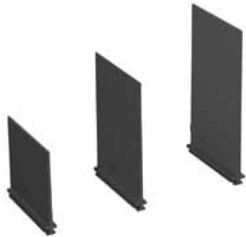


Low terminal cover (LTC)

Terminal covers - low profile (LTC) and high profile (HTC)

Frame size	Description	Catalog number
A1	LTC 3p - 2pcs	KA1LTC-3
	HTC 3p - 2pcs	KA1HTC-3
A2	LTC 3p - 2pcs	KA2LTC-3
	HTC 3p - 2pcs	KA2HTC-3
A1 - A2	Sealable screws for terminal covers*	KA2SSW-T
	Sealable screws for front*	KA2SSW-F

* IEC rated only



Phase barriers

Phase barriers - low profile and high profile

Frame size	Description	2-Piece catalog number	4-Piece catalog number
A1	PB 50mm	KA1PBL-2	KA1PBL-3
A2	PB 80mm	KA2PBL-2	KA2PBL-3
A1 - A2	PB 100mm	KA2PBH-2	KA2PBH-3



Direct handle (RHD)

Direct mount rotary handle (RHD)

Frame size	Description	Catalog number
A1 - A2	RHD A1-A2 STANDARD DIRECT	KA2RHD
	RHD A1-A2 EMERGENCY DIRECT	KA2RHDEM

Accessories

Mechanical

A1 - A2



Extended handle (RHE)

Extended mount rotary handle (RHE)

Frame size	Description	Catalog number
A1 - A2	RHE KIT A1-A2 STANDARD EXTENDED	KA2RHE
	RHE KIT A1-A2 EMERGENCY EXTENDED	KA2RHEEM
	RHE A1-A2 BASE	KA2RHE-B
	RHE A1-A2 SHAFT	KA2RHE-S
	RHE A1-A2 STANDARD HANDLE	KA2RHE-H
	RHE A1-A2 EMERGENCY HANDLE	KA2RHE-HEM



Fixed padlock in open position (PLL)

Padlocks for lever operating mechanism (PLL)

Frame size	Description	Catalog number
A1 - A2	PLL - removable in open position (1p, 2p, 3p)	KA2LDOR
	PLL - fixed in open position (3p)	KA2LDOR
	PLL - fixed in open and closed position (3p)	KA2LD



Fixed padlock in open and closed position (PLL)



Removable padlock in open position (PLL)



Key lock for direct handle

Key lock on handle and front lever operating mechanism (RHL) (IEC only)

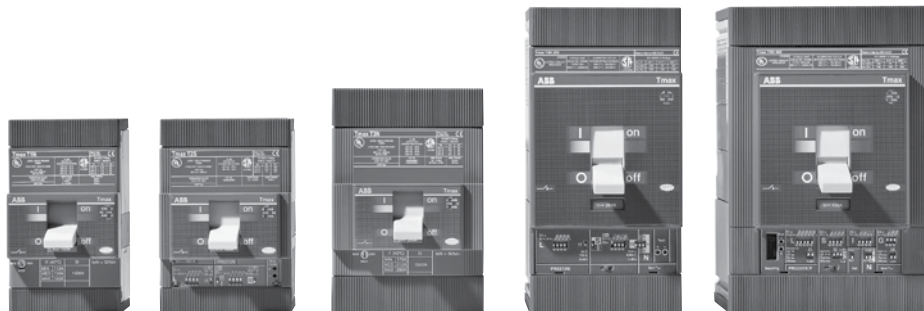
Frame size	Description	Catalog number
A1 - A2	RHL-D open position, different keys	KA2RHLO
	RHL-S open position, type A key	KA2RHLO-A
	RHL-S open position, type B key	KA2RHLO-B
	RHL-S open position, type C key	KA2RHLO-C
	RHL-S open position, type D key	KA2RHLO-D
	RHL-D open and closed position, different keys	KA2RHL

Bracket for fixing on DIN rail (IEC only)

Frame size	Description	Catalog number
A1 - A2	Bracket for 1p, 2p, 3p	KA2DIN



Bracket for DIN rail



Introduction

ABB is once again demonstrating its commitment to new product development and its superiority in product technology. Never before has the industry seen such high performance, versatility and standardization in a range of molded case circuit breakers.

The ABB Tmax line of circuit breakers, with a range up to 3000A, has several key features that go along with its very small size:

- Double insulation – this construction characteristic allows for the UL Listed field installation of internal accessories without exposure to energized parts.
- Complete range of electrical and mechanical accessories
- Positive operation – breakers from ABB ensure that the toggle indicates the precise position of the moving contacts. This guarantees safe and reliable signaling by the device.
- Installation – Tmax molded case circuit breakers can be installed in panels and switchboards in either the horizontal or vertical planes while being fed from either end without any derating of their performance characteristics.
- Interrupting ratings at 480VAC up to 150kAIC.
- Compact size
- All Tmax molded case circuit breakers are UL Listed and IEC rated for global application and acceptance.
- All versions of the Tmax family are suitable for reverse feed applications.

The ABB Tmax product line has the performance and accessories to satisfy all industry requirements in the 600VAC to 600VDC ranges.

Frame sizes — Nine basic sizes

The ABB Tmax series includes nine basic frame sizes as well as the T1 single pole with the range rated from 15A to 3000A at 480VAC. The various versions carry the following interrupting capacities:

- **B** Basic breaking capacity
- **N** Normal breaking capacity
- **S** Standard breaking capacity
- **H** High breaking capacity
- **L** Extra high breaking capacity
- **V** Very high breaking capacity

Derived versions

- Thermal magnetic
- Electronic
- Molded case switches
- Motor circuit protectors (MCPs)
- Direct current (DC) rated

ABB Tmax versions

- Fixed: all models
- Drawout or plug-in: T2, T3, Ts3, T4, T5, T6, T7 & T7M
- UL File #E93565 (breakers and MCPs)
#E116596 (Accessories)
#E116595 (Molded case switches)

Selection Guide

Circuit breakers for power distribution

T1 – Ts3



T1 1P



T1



T2



T3



Ts3

Type		Tmax T1 1p	Tmax T1	Tmax T2	Tmax T3	Tmax Ts3	Tmax Ts3
Frame size	[A]	100	100	100	225	150	225
Number of poles	[Nr]	1	3-4	3-4	3-4	2-3-4	2-3-4
Rated voltage	AC (50-60Hz)	[V]	347	600Y/347	480	600Y/347	600
	DC	[V]		500		500	600
Interrupting ratings		B	N	S H	N S	N H L	N H L
240V AC	[kA rms]		50 ②	65 150	50 65	65 100 150	65 100 150
277V AC	[kA rms]	18 ①					
347V AC	[kA rms]	14 ①					
480V AC	[kA rms]		22 ②	35 65	25 35	25 50 85 ③	25 50 65
600Y/347V AC	[kA rms]		10		10 10		
600V AC	[kA rms]					14 14 25	
250V DC (2 poles in series)	[kA rms]		25		25 35		
500V DC (3 poles in series)	[kA rms]		25		25 35		
500V DC (2 poles in series)	[kA rms]					35 50 65	20 35 50
600V DC (3 poles in series)	[kA rms]					20 35 50	
Trip units	TMF	■	■	■	■	■	■
	TMD/TMA						
	ELT			■			
	MA			■	■	■	■
	Electronic			■			
Dimensions	H	[in/mm]	5.12/130	5.12/130	5.9/150	6.7/170	6.7/170
	W 3p	[in/mm]	1/25.4	3/76	3.54/90	4.13/105	4.13/105
	D	[in/mm]	2.76/70	2.76/70	2.76/70	4.07/103.5	4.07/103.5
Mechanical life	[No. operations]	25000	25000	25000	25000	25000	25000

① In15A = 10kA@277VAC 10kA@347VAC

② In15A = 35kA@240VAC 14kA@480Y/277 VAC

③ T5 600 with electronic trip units only and in three pole version

④ 2p breakers: available only in N interrupting rating

⑤ In from 15A up to 30A=65kA@480V AC

Selection Guide

Circuit breakers for power distribution

T4 – T8



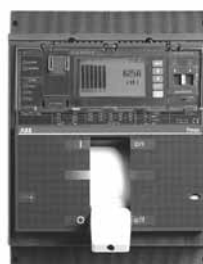
T4



T5



T6



T7



T8

Type			Tmax T4					Tmax T5					Tmax T6				Tmax T7/T7M				Tmax T8	
Frame size		[A]	250					400-600 ③					800				1000-1200				1600, 2000, 2500 & 3000	
Number of poles		[Nr]	2-3-4 ④					2-3-4 ④					3-4				3-4				3-4	
Rated voltage	AC (50-60Hz)	[V]	600					600					600				600				600	
	DC	[V]	600					600					600				600				600	
Interrupting ratings			N	S	H	L	V	N	S	H	L	V	N	S	H	L	S	H	L	V		
240V AC		[kA rms]	65	100	150	200	200	65	100	150	200	200	65	100	200	200	65	100	150	125		
277V AC		[kA rms]																				
347V AC		[kA rms]																				
480V AC		[kA rms]	25	35	65	100	150	25	35	65	100	150	35	50	65	100	50	65	100	125		
600Y/347V AC		[kA rms]																				
600V AC		[kA rms]	18	25	35	65	100	18	25	35	65	100	20	25	35	42	25	50	65	100		
250V DC (2 poles in series)		[kA rms]																				
500V DC (3 poles in series)		[kA rms]																				
500V DC (2 poles in series)		[kA rms]	25	35	50	65	100	25	35	50	65	100	35	35	50	65						
600V DC (3 poles in series)		[kA rms]	16	25	35	50	65	16	25	35	50	65	20	20	35	50						
Trip units	TMF				■																	
	TMD/TMA				■					■					■							
	ELT																					
	MA																					
	Electronic				■					■					■			■				
Dimensions	H	[in/mm]	8.07/205					8.07/205					10.55/268				10.55/268				15 / 382	
	W 3p	[in/mm]	4.13/105					5.51/140					8.26/210				8.26/210				16.8 / 427	
	D	[in/mm]	4.07/103.5					4.07/103.5					4.07/103.5				6.06/154 (toggle) 7/178 (motor)				11.2 / 282	
Mechanical life		[No. operations]	20,000					20,000					20,000				10,000				15,000	

① In15A = 10kA@277 VAC 10kA@347 VAC
 ② In15A = 35kA@240 VAC 14kA@480Y/277 VAC
 ③ T5 600 with electronic trip units only and in three pole version-
 ④ 2p T4N250 and T5N400 available only in N interrupting capacity.
 ⑤ In from 15A up to 30A=65kA@480 VAC
 ⑥ Applies to MCS only.

General information

Catalog number explanation

T3 S 080 T W - 4 xxx

Accessories (added in alpha-numeric order) ^①

- A** = Auxiliary Switch
- S_** = Shunt trip with voltage code
- U_** = Undervoltage release with voltage code

Number of poles

- 1** = 1 pole (T1 only)
- 2** = 2 pole
- 4** = 4 pole
- None** = 3 pole

Type connectors

- W** = None
- L** = Lugs included

Trip unit function

- B** = LS/I (AC only)
- D** = Molded Case Switch (MCS)
- T** = Thermal-magnetic
- M** = Magnetic only (MCP)
- E5** = Electronic MCP (AC only)
- C** = LSI (AC only)
- E** = LSIG (AC only)
- CZ** = LSI/PD ^②
- EZ** = LSIG/PD ^②
- P** = LI - LCD Display ^③
- R** = LSI - LCD Display ^③
- S** = LSIG - LCD Display ^③

Current rating

- 015** = 15A
- 080** = 80A
- 100** = 100A
- 225** = 225A
- 250** = 250A
- 400** = 400A
- 600** = 600A
- 800** = 800A
- 1200** = 1200A

Interrupting rating class

- B** = Basic
- N** = Normal
- S** = Standard
- H** = High
- L** = Extra High
- V** = Very high
- Q** = 100% Rated

Frame size

- T1** = 100A
- T2** = 100A
- T3** = 225A
- Ts3** = 225A
- T4** = 250A
- T5** = 400A, 600A
- T6** = 600A, 800A
- T7** = 1000A, 1200A (toggle)



^① Consult ABB for factory installed accessories.

^② Trip unit with communication module.

^③ Available on T7 toggle version only.

T1

100A, 600Y/347V, 480V Δ

Thermal-magnetic



T1

Dimensions 3P Fixed Version 5.12H x 3.00W x 2.76D
Weight 2.34 (lbs)

General

The T1 breaker family ranges from 15 through 100 amperes. The T1 trip units are non-interchangeable and use the very latest technology in electromagnetic relays for overcurrent trip protection. Thermal overload protection is provided by heat sensitive bimetals. Short circuit protection for the breaker is accomplished using a precise magnetic coil. State of the art construction in contacts and arcing chambers aid in limiting damaging fault currents through the protected circuits.

Standards

The UL489/CSA 22.2 version of T1 also carries an IEC-60947-2 rating.

Versions

The T1 frame is available in two versions:

- T = Thermal-magnetic, fixed
- D = Molded case switch

Performance levels

The T1 breaker has two performance levels available:

- B = Basic single pole
- N = Normal three pole

Number of poles

The T1 molded case circuit breaker is available in single, three and four pole versions. Estimate 4 pole pricing by adding 35% to the 3 pole price and contact your ABB sales person for details.

Molded case switches

UL489 switches include no overcurrent protection except for a high instantaneous trip mechanism for self protection.

UL489 / CSA C22.2 Interrupting capacity (kA RMS)

Voltage	Continuous rating	B (1 pole)	N
240VAC	15 – 100A	—	50 ①
347VAC	15A	10	—
	20 – 100A	14	—
480VAC Δ	15A ②	—	14
	20 – 100A	—	22
600Y/347VAC	15 – 100A	—	10
250VDC 2 pole series	15 – 100A	—	25
500VDC 3 pole series	15 – 100A	—	25

IEC 60947-2 Interrupting capacity (kA RMS)

Voltage	Continuous rating	B (1 pole)	N
230VAC	15 – 100A	25 ③	50
415VAC	15 – 100A	—	36
690VAC	15 – 100A	—	6
500VDC 3 pole series	15 – 100A	—	36

① In 15A 35kA @ 240VAC.
 ② 15A available in 480Y/277 VAC only.
 ③ Interrupting capacity for 16-20A is 16kA

T1

100A, 600Y/347V, 480V Δ
Thermal-magnetic/Molded Case Switch

T1B TMF — Single pole thermal magnetic fixed 1

Breaker	IC at 277VAC	Rating (A)	Magnetic trip (A)	1 pole, 277VAC catalog number
T1B	10kA	15	1000	T1B015TL-1
		20	1000	T1B020TL-1
	18kA	25	1000	T1B025TL-1
		30	1000	T1B030TL-1
		40	1000	T1B040TL-1
		50	1500	T1B050TL-1
		60	1500	T1B060TL-1
		70	1500	T1B070TL-1
		80	1500	T1B080TL-1
		90	1500	T1B090TL-1
		100	1500	T1B100TL-1

T1N TMF — 3 pole thermal magnetic fixed

Breaker	IC at 480VAC	Rating (A)	Magnetic trip (A)	3 pole, 600Y/347VAC/500VDC catalog number
T1N	14kA	15	1000	T1N015TL ②
		20	1000	T1N020TL
	22kA	25	1000	T1N025TL
		30	1000	T1N030TL
		40	1000	T1N040TL
		50	1500	T1N050TL
		60	1500	T1N060TL
		70	1500	T1N070TL
		80	1500	T1N080TL
		90	1500	T1N090TL
		100	1500	T1N100TL

T1N TMF — 100% Rated thermal-magnetic

Breaker	IC at 480VAC	Rating (A)	Magnetic trip (A)	3 pole, 600Y/347VAC/500VDC catalog number
T1N	14kA	15 ①	100	T1NQ015TL
		20	1000	T1NQ020TL
	22kA	25	1000	T1NQ025TL
		30	1000	T1NQ030TL
		40	1000	T1NQ040TL
		50	1500	T1NQ050TL
		60	1500	T1NQ060TL
		70	1500	T1NQ070TL
		80	1500	T1NQ080TL
		90	1500	T1NQ090TL
		100	1500	T1NQ100TL

T1N-D — Molded case switch

Breaker	Interrupting capacity ③	Rating (A)	Magnetic trip (A)	480VAC/500VDC catalog number
T1-D	240V, 50kA	100	1000	T1N100DL

① Electrical/mechanical accessories cannot be installed on single pole breakers.

② Rated 480Y/277 VAC for 15A.

③ When protected by a OCPD with appropriate ratings.

T2

100A, 480V Δ

Thermal-magnetic/electronic/current limiting

Dimensions 3P Fixed Version 5.12H x 3.54W x 2.76D
Weight 2.84 (lbs)



T2

General

The T2 breaker family ranges from 15 through 100 amperes. The T2 trip units are non-interchangeable and use the very latest technology in electromagnetic relays for overcurrent trip protection as well as a version with microprocessor-based electronic trip unit. Thermal overload protection is provided by heat sensitive bimetals. State of the art construction in contacts and arcing chambers aid in limiting damaging fault currents through the protected circuits.

Standards

The UL489/CSA 22.2 version of T2 also carries an IEC-60947-2 rating.

Versions

The T2 frame is available in four versions:

- T = Thermal-magnetic, fixed
- B = Adjustable LS/I electronic
- M = Magnetic only (MCP)
- E5 = Electronic instantaneous only (MCP)

Trip functions

These tripping functions are available:

- L = Long time
- S = Short time
- I - Instantaneous

Performance levels

The T2 breaker has two performance levels available:

- S = Standard
- H = High - UL Current Limiting

Number of poles

The T2 is available in three and four pole versions. Estimate 4 pole pricing by adding 35% to the 3 pole price and contact your ABB sales person for details.

UL489 / CSA C22.2 Interrupting capacity (kA RMS)

Voltage	Continuous rating	S	H
240VAC	15 – 100A	65	150
480VAC Δ	15 – 100A	35	65

IEC 60947-2 Interrupting capacity (kA RMS)

Voltage	Continuous rating	S	H
230VAC	15 – 100A	85	100
415VAC	15 – 100A	50	70
690VAC	15 – 100A	7	8
500VDC 3 pole series	15 – 100A	50	70

T2

100A, 480V Δ

Thermal-magnetic/current limiting

T2 — 100A TMF thermal magnetic fixed

Breaker	IC at 480VAC	Rating (A)	Magnetic trip (A)	3 pole, 480VAC Catalog number
T2S	35kA	15	500	T2S015TW
		20	500	T2S020TW
		25	500	T2S025TW
		30	500	T2S030TW
		40	500	T2S040TW
		50	500	T2S050TW
		60	600	T2S060TW
		70	700	T2S070TW
		80	800	T2S080TW
		90	900	T2S090TW
		100	1000	T2S100TW
T2H UL current limiting	65kA	15	500	T2H015TW
		20	500	T2H020TW
		25	500	T2H025TW
		30	500	T2H030TW
		40	500	T2H040TW
		50	500	T2H050TW
		60	600	T2H060TW
		70	700	T2H070TW
		80	800	T2H080TW
		90	900	T2H090TW
		100	1000	T2H100TW

T2 – 100A TMF, 100% rated thermal magnetic fixed

Breaker	IC at 480VAC	Rating (A)	Magnetic trip (A)	3 pole, 480VAC Catalog number
T2S	35kA	15	500	T2SQ015TW
		20	500	T2SQ020TW
		25	500	T2SQ025TW
		30	500	T2SQ030TW
		40	500	T2SQ040TW
		50	500	T2SQ050TW
		60	600	T2SQ060TW
		70	700	T2SQ070TW
		80	800	T2SQ080TW
		90	900	T2SQ090TW
		100	1000	T2SQ100TW
T2H UL current limiting	65kA	15	500	T2HQ015TW
		20	500	T2HQ020TW
		25	500	T2HQ025TW
		30	500	T2HQ030TW
		40	500	T2HQ040TW
		50	500	T2HQ050TW
		60	600	T2HQ060TW
		70	700	T2HQ070TW
		80	800	T2HQ080TW
		90	900	T2HQ090TW
		100	1000	T2HQ100TW

T2

100A, 480V Δ, 100% rated
Electronic/Current limiting/MCP

T2 — 100A Frame, electronic trip unit (AC only)

Breaker	IC at 480VAC	Trip unit type	CT rating	3 pole, 480VAC catalog number
T2S	35kA	PR221DS-LS/I	25A	T2S025BW
			60A	T2S060BW
			100A	T2S100BW
T2H UL Current Limiting	65kA	PR221DS-LS/I	25A	T2H025BW
			60A	T2H060BW
			100A	T2H100BW

T2 — 100A Frame 100% rated, electronic trip unit (AC only)

Breaker	IC at 480VAC	Trip unit type	CT rating	3 pole, 480VAC catalog number
T2S	35kA	PR221DS-LS/I	25A	T2SQ025BW
			60A	T2SQ060BW
			100A	T2SQ100BW
T2H UL Current Limiting	65kA	PR221DS-LS/I	25A	T2HQ025BW
			60A	T2HQ060BW
			100A	T2HQ100BW

T2 — 100A Frame, instantaneous only (MCP)

Breaker	IC at 480VAC	Trip unit type	Rating	Adjustment range	3 pole, 480VAC Catalog number
T2S	35kA	Mag only	20A	120 - 240	T2S020MW
			50A	300 - 600	T2S050MW
			100A	600 - 1200	T2S100MW
T2H	65kA	Mag only	20A	120 - 240	T2H020MW
			50A	300 - 600	T2H050MW
			100A	600 - 1200	T2H100MW

T2 — 100A Frame, instantaneous only, electronic (MCP - AC only)

Breaker	IC at 480VAC	Trip unit type	Rating	Adjustment range	3 pole, 480VAC Catalog number
T2S	35kA	Instantaneous only	25A	25 - 250	T2S025E5W
			60A	60 - 600	T2S060E5W
			100A	100 - 1000	T2S100E5W
T2H	65kA	Instantaneous only	25A	25 - 250	T2H025E5W
			60A	60 - 600	T2H060E5W
			100A	100 - 1000	T2H100E5W

T3

225A, 600Y/347V, 480V Δ

Thermal-magnetic



T3

Dimensions 3P Fixed Version 5.9H x 4.13W x 2.76D
Weight 5.45 (lbs)

General

The T3 breaker family ranges from 60 through 225 amperes. The T3 trip units are non-interchangeable and use the very latest technology in electromagnetic relays for overcurrent trip protection. Thermal overload protection is provided by heat sensitive bimetals. Short circuit protection begins at 10 times the thermal rating of the breaker using a precise magnetic coil. State of the art construction in contacts and arcing chambers aid in limiting damaging fault currents through the protected circuits.

Standards

The UL489/CSA 22.2 version of T3 also carries an IEC-60947-2 rating.

Versions

The T3 frame is available in three versions:

- T = Thermal-magnetic, fixed
- M = Magnetic only (MCP)
- D = Molded case switch

Performance levels

The T3 breaker has two performance levels available:

- N = Normal
- S = Standard

Number of poles

The T3 molded case circuit breaker is available in three and four pole versions. Estimate 4 pole pricing by adding 35% to the 3 pole price and contact your ABB sales person for details.

Molded case switches

UL489 switches include no overcurrent protection except for a high instantaneous trip mechanism for self protection.

UL489 / CSA C22.2 Interrupting capacity (kA RMS)

Voltage	Continuous rating	N	S
240VAC	60 – 225A	50	65
480VAC Δ	60 – 225A	25	35
600Y/347VAC	60 – 225A	10	10
250VDC 2 pole series	60 – 225A	25	35
500VDC 3 pole series	60 – 225A	25	35

IEC 60947-2 Interrupting capacity (kA RMS)

Voltage	Continuous rating	N	S
230VAC	60 – 225A	50	85
415VAC	60 – 225A	36	50
690VAC	60 – 225A	5	8
750VDC 3 pole series	60 – 225A	36	50

T3

225A, 600Y/347V, 480V Δ
Thermal-magnetic

T3 — 225A Frame TMF, thermal magnetic fixed

Breaker	IC at 480VAC	Rating (A)	Magnetic trip (A)	3 pole, 480VAC/500VDC Catalog number
T3N	25kA	60	600	T3N060TW
		70	700	T3N070TW
		80	800	T3N080TW
		90	900	T3N090TW
		100	1000	T3N100TW
		125	1250	T3N125TW
		150	1500	T3N150TW
		175	1750	T3N175TW
		200	2000	T3N200TW
		225	2250	T3N225TW
T3S	35kA	60	600	T3S060TW
		70	700	T3S070TW
		80	800	T3S080TW
		90	900	T3S090TW
		100	1000	T3S100TW
		125	1250	T3S125TW
		150	1500	T3S150TW
		175	1750	T3S175TW
		200	2000	T3S200TW
		225	2250	T3S225TW

T3 – 225A Frame TMF, 100% rated thermal magnetic fixed

Breaker	IC at 480VAC	Rating (A)	Magnetic trip (A)	3 pole, 600/347V VAC/500VDC Catalog number
T3N	25kA	60	600	T3NQ060TW
		70	700	T3NQ070TW
		80	800	T3NQ080TW
		90	900	T3NQ090TW
		100	1000	T3NQ100TW
		125	1250	T3NQ125TW
		150	1500	T3NQ150TW
		175	1750	T3NQ175TW
		200	2000	T3NQ200TW
		225	2250	T3NQ225TW
T3S	35kA	60	600	T3SQ060TW
		70	700	T3SQ070TW
		80	800	T3SQ080TW
		90	900	T3SQ090TW
		100	1000	T3SQ100TW
		125	1250	T3SQ125TW
		150	1500	T3SQ150TW
		175	1750	T3SQ175TW
		200	2000	T3SQ200TW
		225	2250	T3SQ225TW

T3

225A, 600Y/347V, 480V Δ
MCP/Molded case switch

T3 — 225A Frame instantaneous only, (MCP)

Breaker	IC at 488-VAC	Trip unit type	Rating	Adjustment range	3 pole, 480VAC Catalog number
T3S	35kA	Mag only	100A	600 – 1200	T3S100MW
			125A	750 - 1500	T3S125MW
			150A	900 - 1800	T3S150MW
			200A	1200 - 2400	T3S200MW

T3S-D — Molded case switch

Breaker	Interrupting capacity ①	Rating (A)	Magnetic trip (A)	3 pole, 480VAC/500VDC Catalog number
T3S-D	240V, 65kA	150	1500	T3S150DW
	480V, 35kA	225	2250	T3S225DW

① When protected by a OCPD with appropriate ratings.

Ts3

150A, 600V Δ, 225A, 480V Δ

Thermal magnetic



Ts3

Dimensions 3P Fixed Version 6.7H x 4.13W x 4.07D
Weight 6.75 (lbs)

General

The Ts3 breaker family ranges from 15 through 225 amperes. The Ts3 trip mechanisms are non-interchangeable and use sensitive electromagnetic relays for overcurrent trip protection. Heat sensitive bimetals are used for thermal overcurrent protection. Short circuit current protection begins at 10 times the thermal rating of the breaker and uses a magnetic coil principle.

Standards

The UL489/CSA 22.2 version of Ts3 also carries an IEC-60947-2 rating.

Versions

To meet all application needs, the Ts3 is available in various versions:

- T = Thermal-magnetic
- D = Molded case switch
- M = Magnetic only (MCP)

Performance level

Each version is also available in different maximum fault interrupting levels

- N = Normal
- H = High
- L = Extra high

Number of poles

The Ts3 is available in two, three and four pole versions. Estimate 4 pole pricing by adding 35% to the 3 pole price and contact your ABB sales person for details.

Molded case switches

UL489 switches include no overcurrent protection except for a high instantaneous trip mechanism for self protection.

UL/CSA Interrupting capacity (kA RMS) UL489 / CSA C22.2

Voltage	N	H	L
150AF, 15A-150A			
240 VAC	65	100	150
480 VAC	25	50	85 ^①
600 VAC	14	14	25
500 VDC	35	50	65
600 VDC	20	35	50
225AF, 175A-225A			
240 VAC	65	100	150
480 VAC	25	50	65
600 VAC	—	—	—
500 VDC	20	35	50
600 VDC	—	—	—

IEC-60947-2 Interrupting capacity (kA RMS)

230 VAC	65	100	170
415 VAC	35	65	85
690 VAC	14	18	20
750 VDC ^②	20	35	50

① 15-30A are 65kA at 480VAC

Ts3

150A, 600V Δ, 225A, 480V Δ
Thermal magnetic

Ts3

150A 600VAC/225A 480VAC

Thermal Magnetic Trip Units

Breaker	IC at 480VAC kA	Rating	Magnetic trip	2 pole, 600VAC/500VDC catalog number	3 pole, 600VAC/DC catalog number
Ts3N	25	15A	500A	Ts3N015TW-2	Ts3N015TW
		20A	500A	Ts3N020TW-2	Ts3N020TW
		25A	500A	Ts3N025TW-2	Ts3N025TW
		30A	500A	Ts3N030TW-2	Ts3N030TW
		35A	500A	Ts3N035TW-2	Ts3N035TW
		40A	500A	Ts3N040TW-2	Ts3N040TW
		50A	500A	Ts3N050TW-2	Ts3N050TW
		60A	600A	Ts3N060TW-2	Ts3N060TW
		70A	700A	Ts3N070TW-2	Ts3N070TW
		80A	800A	Ts3N080TW-2	Ts3N080TW
		90A	900A	Ts3N090TW-2	Ts3N090TW
		100A	1000A	Ts3N100TW-2	Ts3N100TW
		125A	1250A	Ts3N125TW-2	Ts3N125TW
		150A	1500A	Ts3N150TW-2	Ts3N150TW

Breaker	IC at 480VAC kA	Rating	Magnetic trip	2 pole, 600VAC/500VDC catalog number	3 pole, 600VAC/DC catalog number
Ts3H	50	15A	500A	Ts3H015TW-2	Ts3H015TW
		20A	500A	Ts3H020TW-2	Ts3H020TW
		25A	500A	Ts3H025TW-2	Ts3H025TW
		30A	500A	Ts3H030TW-2	Ts3H030TW
		35A	500A	Ts3H035TW-2	Ts3H035TW
		40A	500A	Ts3H040TW-2	Ts3H040TW
		50A	500A	Ts3H050TW-2	Ts3H050TW
		60A	600A	Ts3H060TW-2	Ts3H060TW
		70A	700A	Ts3H070TW-2	Ts3H070TW
		80A	800A	Ts3H080TW-2	Ts3H080TW
		90A	900A	Ts3H090TW-2	Ts3H090TW
		100A	1000A	Ts3H100TW-2	Ts3H100TW
		125A	1250A	Ts3H125TW-2	Ts3H125TW
		150A	1500A	Ts3H150TW-2	Ts3H150TW

Breaker	IC at 480VAC kA	Rating	Magnetic trip	2 pole, 600VAC/500VDC catalog number	3 pole, 600VAC/DC catalog number
Ts3L	65	15A	500A	Ts3L015TW-2	Ts3L015TW
		20A	500A	Ts3L020TW-2	Ts3L020TW
		25A	500A	Ts3L025TW-2	Ts3L025TW
		30A	500A	Ts3L030TW-2	Ts3L030TW
	85	35A	500A	Ts3L035TW-2	Ts3L035TW
		40A	500A	Ts3L040TW-2	Ts3L040TW
		50A	500A	Ts3L050TW-2	Ts3L050TW
		60A	600A	Ts3L060TW-2	Ts3L060TW
		70A	700A	Ts3L070TW-2	Ts3L070TW
		80A	800A	Ts3L080TW-2	Ts3L080TW
		90A	900A	Ts3L090TW-2	Ts3L090TW
		100A	1000A	Ts3L100TW-2	Ts3L100TW
		125A	1250A	Ts3L125TW-2	Ts3L125TW
		150A	1500A	Ts3L150TW-2	Ts3L150TW

NOTE: See pages 17.71 - 17.83 for electrical/mechanical accessories.

Ts3

150A, 600V Δ, 225A, 480V Δ, 100% rated
Thermal magnetic

Ts3**150A 600VAC/225A 480VAC**

Thermal Magnetic Trip Units 100% Rated

Breaker	IC at 480VAC	Rating	Magnetic trip	3 pole 600VAC/DC catalog number
Ts3NQ	25	15A	500A	Ts3NQ015TW
		20A	500A	Ts3NQ020TW
		25A	500A	Ts3NQ025TW
		30A	500A	Ts3NQ030TW
		35A	500A	Ts3NQ035TW
		40A	500A	Ts3NQ040TW
		50A	500A	Ts3NQ050TW
		60A	600A	Ts3NQ060TW
		70A	700A	Ts3NQ070TW
		80A	800A	Ts3NQ080TW
		90A	900A	Ts3NQ090TW
		100A	1000A	Ts3NQ100TW
		125A	1250A	Ts3NQ125TW
		150A	1500A	Ts3NQ150TW

Breaker	IC at 480VAC	Rating	Magnetic trip	3 pole catalog number
Ts3LQ	65kA	15A	500A	Ts3LQ015TW
		20A	500A	Ts3LQ020TW
		25A	500A	Ts3LQ025TW
		30A	500A	Ts3LQ030TW
	85kA	35A	500A	Ts3LQ035TW
		40A	500A	Ts3LQ040TW
		50A	500A	Ts3LQ050TW
		60A	600A	Ts3LQ060TW
		70A	700A	Ts3LQ070TW
		80A	800A	Ts3LQ080TW
		90A	900A	Ts3LQ090TW
		100A	1000A	Ts3LQ100TW
		125A	1250A	Ts3LQ125TW
		150A	1500A	Ts3LQ150TW

NOTE: See pages 17.71-17.83 for electrical/mechanical accessories.

Breaker	IC at 480VAC	Rating	Magnetic trip	3 pole catalog number
Ts3HQ	50kA	15A	500A	Ts3HQ015TW
		20A	500A	Ts3HQ020TW
		25A	500A	Ts3HQ025TW
		30A	500A	Ts3HQ030TW
		35A	500A	Ts3HQ035TW
		40A	500A	Ts3HQ040TW
		50A	500A	Ts3HQ050TW
		60A	600A	Ts3HQ060TW
		70A	700A	Ts3HQ070TW
		80A	800A	Ts3HQ080TW
		90A	900A	Ts3HQ090TW
		100A	1000A	Ts3HQ100TW
		125A	1250A	Ts3HQ125TW
		150A	1500A	Ts3HQ150TW

Ts3

150/225A 600VAC

MCP/Molded case switch

Magnetic only (MCP)

Breaker	IC at 480VAC	Trip unit type	Rating	Adjustment range	3 pole 600VAC Catalog number
Ts3L	25	Magnetic only	3	12-36	Ts3L003MW
	25	Magnetic only	5	20-60	Ts3L005MW
	25	Magnetic only	10	40-120	Ts3L010MW
	25	Magnetic only	25	100-300	Ts3L025MW
	85	Magnetic only	50	200-600	Ts3L050MW
Ts3L	85	Magnetic only	100	400-1200	Ts3L100MW
	85	Magnetic only	125	500-1500	Ts3L125MW
	85	Magnetic only	150	600-1500	Ts3L150MW
	65	Magnetic only	175 ①	700-2100	Ts3L175MW
	65	Magnetic only	200 ①	800-2400	Ts3L200MW

Molded case switch ②

Type	IC at 480V (2)	Magnetic trip	Amps	3 pole 600V catalog number
Ts3H	50	1500	150	Ts3H150DW
	50	2250	225 ①	Ts3H225DW

NOTE: See pages 17.71-17.83 for electrical/mechanical accessories.

T4

250A, 600V Δ

Electronic and thermal magnetic

Dimensions 3P Fixed Version 8.07H x 4.13W x 4.07D
Weight 6.18 (lbs)



T4

General

The T4 breaker is a 250 amp frame with either a microprocessor based over current protective trip system or a thermal magnetic trip unit.

Standards

The UL489/CSA 22.2 version of T4 also carries an IEC-60947-2 rating.

Versions

To meet all application requirements, the T4 is available in the following versions:

- T = Thermal-magnetic
- B = Selectable & adjustable LI or LS
- C = Adjustable LSI
- E = Adjustable LSI G
- D = Molded Case Switch
- E5 = Electronic instantaneous only (MCP)

Trip functions

These trip functions are available:

- L = Long time
- S = Short time
- I = Instantaneous
- G = Ground fault

Performance levels

Each version is also available in different maximum fault interrupting levels:

- N = Normal
- S = Standard
- H = High - UL Current Limiting
- L = Extra high
- V = Very high - UL Current Limiting

Number of poles ③

The T4 is available in two, three and four pole versions. Estimate 4 pole pricing by adding 35% to the 3 pole price and contact your ABB sales person for details.

UL489 / CSA C22.2 Interrupting capacity (kA RMS)

Voltage	N	S	H	L	V
240VAC	65	100	150	200	200
480VAC	25	35	65	100	150
600VAC	18	25	35	65	100
500VDC ①	25	35	50	65	100
600VDC ②	16	25	35	50	65

IEC 60947-2 Interrupting capacity (kA RMS)

Voltage	N	S	H	L	V
230VAC	70	85	100	200	200
415VAC	36	50	70	120	200
690VAC	20	25	40	70	80
750VDC ②	16	25	36	50	70

① 2 poles in series.

② 3 poles in series.

③ 2 pole breakers available in N version only. 4 pole breakers available in N and H version only.

T4

250A, 600V Δ

Adjustable thermal magnetic

20A - 250A Frame

Breaker	IC at 480VAC	Rating	Magnetic trip	2 pole, 600VAC/600VDC catalog number	3 pole, 600VAC/600VDC catalog number
T4N	25	125A	625-1250	T4N125TW-2	T4N125TW
		150A	750-1500	T4N150TW-2	T4N150TW
		200A	1000-2000	T4N200TW-2	T4N200TW
		250A	1250-2500	T4N250TW-2	T4N250TW
T4S	35	125A	625-1250	–	T4S125TW
		150A	750-1500	–	T4S150TW
		200A	1000-2000	–	T4S200TW
		250A	1250-2500	–	T4S250TW
T4H UL Current Limiting	65	125A	625-1250	–	T4H125TW
		150A	750-1500	–	T4H150TW
		200A	1000-2000	–	T4H200TW
		250A	1250-2500	–	T4H250TW
T4L	100	125A	625-1250	–	T4L125TW
		150A	750-1500	–	T4L150TW
		200A	1000-2000	–	T4L200TW
		250A	1250-2500	–	T4L250TW
T4V UL Current Limiting	150	125A	625-1250	–	T4V125TW
		150A	750-1500	–	T4V150TW
		200A	1000-2000	–	T4V200TW
		250A	1250-2500	–	T4V250TW

NOTE: See pages 17.71-17.83 for electrical/mechanical accessories.

T4

250A, 600V Δ 100% rated
Adjustable thermal magnetic

30A - 250A Frame 100% rated

Breaker	IC at 480 VAC kA	Rating	Magnetic trip	3 pole, 600VAC/600VDC Catalog number
T4N	25	125A	625-1250	T4NQ125TW
		150A	750-1500	T4NQ150TW
		200A	1000-2000	T4NQ200TW
		250A	1250-2500	T4NQ250TW
T4S	35	125A	625-1250	T4SQ125TW
		150A	750-1500	T4SQ150TW
		200A	1000-2000	T4SQ200TW
		250A	1250-2500	T4SQ250TW
T4H UL Current Limiting	65	125A	625-1250	T4HQ125TW
		150A	750-1500	T4HQ150TW
		200A	1000-2000	T4HQ200TW
		250A	1250-2500	T4HQ250TW
T4L	100	125A	625-1250	T4LQ125TW
		150A	750-1500	T4LQ150TW
		200A	1000-2000	T4LQ200TW
		250A	1250-2500	T4LQ250TW
T4V UL Current Limiting	150	125A	625-1250	T4VQ125TW
		150A	750-1500	T4VQ150TW
		200A	1000-2000	T4VQ200TW
		250A	1250-2500	T4VQ250TW

NOTE: See pages 17.71-17.83 for electrical/mechanical accessories.

T4

250A, 600V Δ

Electronic (AC only)

100A Frame, electronic trip unit (AC only)

Breaker	IC at 480VAC kA	Trip Unit	2 pole, 600V catalog number	3 pole, 600V catalog number
T4N	25	PR221 LS/I	T4N100BW-2	T4N100BW
		PR222 LSI	T4N100CW-2	T4N100CW
		PR222 LSIG	T4N100EW-2	T4N100EW
T4S	35	PR221 LS/I	-	T4S100BW
		PR222 LSI	-	T4S100CW
		PR222 LSIG	-	T4S100EW
T4H UL Current Limiting	65	PR221 LS/I	-	T4H100BW
		PR222 LSI	-	T4H100CW
		PR222 LSIG	-	T4H100EW
T4L	100	PR221 LS/I	-	T4L100BW
		PR222 LSI	-	T4L100CW
		PR222 LSIG	-	T4L100EW
T4V UL Current Limiting	150	PR221 LS/I	-	T4V100BW
		PR222 LSI	-	T4V100CW
		PR222 LSIG	-	T4V100EW

150A Frame, electronic trip unit (AC only)

Breaker	IC at 480VAC kA	Trip Unit	2 pole, 600V catalog number	3 pole, 600V catalog number
T4N	25	PR221 LS/I	T4N150BW-2	T4N150BW
		PR222 LSI	T4N150CW-2	T4N150CW
		PR222 LSIG	T4N150EW-2	T4N150EW
T4S	35	PR221 LS/I	-	T4S150BW
		PR222 LSI	-	T4S150CW
		PR222 LSIG	-	T4S150EW
T4H UL Current Limiting	65	PR221 LS/I	-	T4H150BW
		PR222 LSI	-	T4H150CW
		PR222 LSIG	-	T4H150EW
T4L	100	PR221 LS/I	-	T4L150BW
		PR222 LSI	-	T4L150CW
		PR222 LSIG	-	T4L150EW
T4V UL Current Limiting	150	PR221 LS/I	-	T4V150BW
		PR222 LSI	-	T4V150CW
		PR222 LSIG	-	T4V150EW

250A Frame, electronic trip unit (AC only)

Breaker	IC at 480VAC kA	Trip Unit	2 pole, 600V catalog number	3 pole, 600V catalog number
T4N	25	PR221 LS/I	T4N250BW-2	T4N250BW
		PR222 LSI	T4N250CW-2	T4N250CW
		PR222 LSIG	T4N250EW-2	T4N250EW
T4S	35	PR221 LS/I	-	T4S250BW
		PR222 LSI	-	T4S250CW
		PR222 LSIG	-	T4S250EW
T4H UL Current Limiting	65	PR221 LS/I	-	T4H250BW
		PR222 LSI	-	T4H250CW
		PR222 LSIG	-	T4H250EW
T4L	100	PR221 LS/I	-	T4L250BW
		PR222 LSI	-	T4L250CW
		PR222 LSIG	-	T4L250EW
T4V UL Current Limiting	150	PR221 LS/I	-	T4V250BW
		PR222 LSI	-	T4V250CW
		PR222 LSIG	-	T4V250EW

NOTE: See pages 17.71-17.83 for electrical/mechanical accessories.

T4

250A, 600V Δ, 100% Rated Electronic (AC only)

100A Frame - 100% rated, electronic trip unit (AC only)

Breaker	IC at 480VAC kA	Trip Unit	3 pole, 600V catalog number
T4N	25	PR221 LS/I	T4NQ100BW
		PR222 LSI	T4NQ100CW
		PR222 LSIG	T4NQ100EW
T4S	35	PR221 LS/I	T4SQ100BW
		PR222 LSI	T4SQ100CW
		PR222 LSIG	T4SQ100EW
T4H UL Current Limiting	65	PR221 LS/I	T4HQ100BW
		PR222 LSI	T4HQ100CW
		PR222 LSIG	T4HQ100EW
T4L	100	PR221 LS/I	T4LQ100BW
		PR222 LSI	T4LQ100CW
		PR222 LSIG	T4LQ100EW
T4V UL Current Limiting	150	PR221 LS/I	T4VQ100BW
		PR222 LSI	T4VQ100CW
		PR222 LSIG	T4VQ100EW

250A Frame - 100% rated, electronic trip unit (AC only)

Breaker	IC at 480VAC kA	Trip Unit	3 pole, 600V catalog number
T4N	25	PR221 LS/I	T4NQ250BW
		PR222 LSI	T4NQ250CW
		PR222 LSIG	T4NQ250EW
T4S	35	PR221 LS/I	T4SQ250BW
		PR222 LSI	T4SQ250CW
		PR222 LSIG	T4SQ250EW
T4H UL Current Limiting	65	PR221 LS/I	T4HQ250BW
		PR222 LSI	T4HQ250CW
		PR222 LSIG	T4HQ250EW
T4L	100	PR221 LS/I	T4LQ250BW
		PR222 LSI	T4LQ250CW
		PR222 LSIG	T4LQ250EW
T4V UL Current Limiting	150	PR221 LS/I	T4VQ250BW
		PR222 LSI	T4VQ250CW
		PR222 LSIG	T4VQ250EW

NOTE: See pages 17.71-17.83 for electrical/mechanical accessories.

150A Frame - 100% rated, electronic trip unit (AC only)

Breaker	IC at 480VAC kA	Trip Unit	3 pole, 600V catalog number
T4N	25	PR221 LS/I	T4NQ150BW
		PR222 LSI	T4NQ150CW
		PR222 LSIG	T4NQ150EW
T4S	35	PR221 LS/I	T4SQ150BW
		PR222 LSI	T4SQ150CW
		PR222 LSIG	T4SQ150EW
T4H UL Current Limiting	65	PR221 LS/I	T4HQ150BW
		PR222 LSI	T4HQ150CW
		PR222 LSIG	T4HQ150EW
T4L	100	PR221 LS/I	T4LQ150BW
		PR222 LSI	T4LQ150CW
		PR222 LSIG	T4LQ150EW
T4V UL Current Limiting	150	PR221 LS/I	T4VQ150BW
		PR222 LSI	T4VQ150CW
		PR222 LSIG	T4VQ150EW

T4

250A, 600V Δ

Instantaneous only, MCP/Molded case switch

Instantaneous only MCPs

T4 - 250A Frame magnetic only (MCP - AC only)

Breaker	IC at 480VAC	Trip unit type	Rating	Adjustment range	3 pole, 600VAC Catalog number
T4N	25kA	Instantaneous only	100A	100-1000	T4N100E5W
			150A	150-1500	T4N150E5W
			250A	250-2500	T4N250E5W
T4S	35kA	Instantaneous only	100A	100-1000	T4S100E5W
			150A	150-1500	T4S150E5W
			250A	250-2500	T4S250E5W
T4H	65kA	Instantaneous only	100A	100-1000	T4H100E5W
			150A	150-1500	T4H150E5W
			250A	250-2500	T4H250E5W
T4L	100kA	Instantaneous only	100A	100-1000	T4L100E5W
			150A	150-1500	T4L150E5W
			250A	250-2500	T4L250E5W

Molded case switch ①

Type	IC at 480VAC	Amps	Magnetic trip	3 pole 600V catalog number
T4N-D	25kA	250	3000	T4N250DW
T4S-D	35kA	250	3000	T4S250DW
T4H-D	65kA	250	3000	T4H250DW
T4L-D	100kA	250	3000	T4L250DW
T4V-D	150kA	250	3000	T4V250DW

NOTE: See pages 17.71-17.83 for electrical/mechanical accessories.

T5

400/600A, 600V Δ

Electronic and thermal magnetic



T5

Dimensions 3P Fixed Version 8.07H x 5.51W x 4.07D
Weight 8.55 (lbs)

General

The T5 breaker is a 400/600 amp frame with either a microprocessor based over current protective trip system or a thermal magnetic trip unit. ③

Standards

The UL489/CSA 22.2 version of T5 also carries an IEC-60947-2 rating.

Versions

To meet all application requirements, the T5 is available in the following versions:

- T = Thermal-magnetic
- B = Selectable & adjustable LI or LS
- C = Adjustable LSI
- E = Adjustable LSIg
- D = Molded Case Switch
- E5 = Electronic instantaneous only (MCP)

Trip functions

These trip functions are available:

- L = Long time
- S = Short time
- I = Instantaneous
- G = Ground fault

Performance levels

Each version is also available in different maximum fault interrupting levels:

- N = Normal
- S = Standard
- H = High - UL Current Limiting
- L = Extra high
- V = Very high - UL Current Limiting

Number of poles ④

The T5 is available in two, three and four pole versions. Estimate 4 pole pricing by adding 35% to the 3 pole price and contact your ABB sales person for details.

UL489 / CSA C22.2 Interrupting capacity (kA RMS)

Voltage	N	S	H	L	V
240VAC	65	100	150	200	200
480VAC	25	35	65	100	150
600VAC	18	25	35	65	100
500VDC ①	25	35	50	65	100
600VDC ②	16	25	35	50	65

IEC 60947-2 Interrupting capacity (kA RMS)

Voltage	N	S	H	L	V
230VAC	70	85	100	200	200
415VAC	36	50	70	120	200
690VAC	20	25	40	70	80
750VDC ②	16	25	36	50	70

① 2 poles in series.
 ② 3 poles in series.
 ③ T5 600A not available with thermal magnetic trip unit.
 ④ 2 pole available in N version only. 4 pole available in N and H version only.

T5

400/600A, 600V Δ

Thermal magnetic ①

300A - 400A Frames - thermal-magnetic trip units

Breaker	IC at 480VAC kA	Rating	Magnetic trip	2 pole, 600VAC/500VDC catalog number	3 pole, 600VAC/600VDC catalog number
T5N	25	300A	1500-3000	T5N300TW-2	T5N300TW
		400A	2000-4000	T5N400TW-2	T5N400TW
T5S	35	300A	1500-3000	-	T5S300TW
		400A	2000-4000		T5S400TW
T5H UL Current Limiting	65	300A	1500-3000	-	T5H300TW
		400A	2000-4000		T5H400TW
T5L	100	300A	1500-3000	-	T5L300TW
		400A	2000-4000		T5L400TW
T5V UL Current Limiting	150	300A	1500-3000	-	T5V300TW
		400A	2000-4000		T5V400TW

300A - 400A Frames - 100% rated, thermal-magnetic

Breaker	IC at 480VAC	Rating	Magnetic trip	3 pole, 600VAC/600VDC Catalog number
T5N	25	300A	1500-3000	T5NQ300TW
		400A	2000-4000	T5NQ400TW
T5S	35	300A	1500-3000	T5SQ300TW
		400A	2000-4000	T5SQ400TW
T5H UL Current Limiting	65	300A	1500-3000	T5HQ300TW
		400A	2000-4000	T5HQ400TW
T5L	100	300A	1500-3000	T5LQ300TW
		400A	2000-4000	T5LQ400TW
T5V UL Current Limiting	150	300A	1500-3000	T5VQ300TW
		400A	2000-4000	T5VQ400TW

NOTE: See pages 17.71-17.83 for electrical/mechanical accessories.

① T5 600A not available with Thermal Magnetic trip unit.

T5

400/600A, 600V Δ

Electronic (AC only)

300A Frame, electronic trip unit (AC only)

Breaker	IC at 480VAC kA	Trip Unit	2 pole, 600V catalog number	3 pole, 600V catalog number
T5N	25	PR221 LS/I	T5N300BW-2	T5N300BW
		PR222 LSI	T5N300CW-2	T5N300CW
		PR222 LSIG	T5N300EW-2	T5N300EW
T5S	35	PR221 LS/I	-	T5S300BW
		PR222 LSI	-	T5S300CW
		PR222 LSIG	-	T5S300EW
T5H UL Current Limiting	65	PR221 LS/I	-	T5H300BW
		PR222 LSI	-	T5H300CW
		PR222 LSIG	-	T5H300EW
T5L	100	PR221 LS/I	-	T5L300BW
		PR222 LSI	-	T5L300CW
		PR222 LSIG	-	T5L300EW
T5V UL Current Limiting	150	PR221 LS/I	-	T5V300BW
		PR222 LSI	-	T5V300CW
		PR222 LSIG	-	T5V300EW

400A Frame, electronic trip unit (AC only)

Breaker	IC at 480VAC kA	Trip Unit	2 pole, 600V catalog number	3 pole, 600V catalog number
T5N	25	PR221 LS/I	T5N400BW-2	T5N400BW
		PR222 LSI	T5N400CW-2	T5N400CW
		PR222 LSIG	T5N400EW-2	T5N400EW
T5S	35	PR221 LS/I	-	T5S400BW
		PR222 LSI	-	T5S400CW
		PR222 LSIG	-	T5S400EW
T5H UL Current Limiting	65	PR221 LS/I	-	T5H400BW
		PR222 LSI	-	T5H400CW
		PR222 LSIG	-	T5H400EW
T5L	100	PR221 LS/I	-	T5L400BW
		PR222 LSI	-	T5L400CW
		PR222 LSIG	-	T5L400EW
T5V UL Current Limiting	150	PR221 LS/I	-	T5V400BW
		PR222 LSI	-	T5V400CW
		PR222 LSIG	-	T5V400EW

600A Frame, electronic trip unit (AC only) ①

Breaker	IC at 480VAC kA	Trip Unit	3 pole, 600V catalog number
T5N	25	PR221 LS/I	T5N600BW
		PR222 LSI	T5N600CW
		PR222 LSIG	T5N600EW
T5S	35	PR221 LS/I	T5S600BW
		PR222 LSI	T5S600CW
		PR222 LSIG	T5S600EW
T5H	65	PR221 LS/I	T5H600BW
		PR222 LSI	T5H600CW
		PR222 LSIG	T5H600EW
T5L	100	PR221 LS/I	T5L600BW
		PR222 LSI	T5L600CW
		PR222 LSIG	T5L600EW
T5V	150	PR221 LS/I	T5V600BW
		PR222 LSI	T5V600CW
		PR222 LSIG	T5V600EW

NOTE: See pages 17.71-17.83 for electrical/mechanical accessories.

① T5 600A not available in 2 pole version.

T5

400/600A, 600V Δ, 100% Rated ①
Electronic (AC only)

300A Frame – 100% rated, electronic trip units (AC only)

Breaker	IC at 480VAC kA	Trip Unit	3 pole, 600V catalog number
T5N	25	PR221 LS/I	T5NQ300BW
		PR222 LSI	T5NQ300CW
		PR222 LSIG	T5NQ300EW
T5S	35	PR221 LS/I	T5SQ300BW
		PR222 LSI	T5SQ300CW
		PR222 LSIG	T5SQ300EW
T5H UL Current limiting	65	PR221 LS/I	T5HQ300BW
		PR222 LSI	T5HQ300CW
		PR222 LSIG	T5HQ300EW
T5L	100	PR221 LS/I	T5LQ300BW
		PR222 LSI	T5LQ300CW
		PR222 LSIG	T5LQ300EW
T5V UL Current limiting	150	PR221 LS/I	T5VQ300BW
		PR222 LSI	T5VQ300CW
		PR222 LSIG	T5VQ300EW

400A Frame – 100% rated, electronic trip units (AC only)

Breaker	IC at 480VAC kA	Trip Unit	3 pole, 600V catalog number
T5N	25	PR221 LS/I	T5NQ400BW
		PR222 LSI	T5NQ400CW
		PR222 LSIG	T5NQ400EW
T5S	35	PR221 LS/I	T5SQ400BW
		PR222 LSI	T5SQ400CW
		PR222 LSIG	T5SQ400EW
T5H UL Current limiting	65	PR221 LS/I	T5HQ400BW
		PR222 LSI	T5HQ400CW
		PR222 LSIG	T5HQ400EW
T5L	100	PR221 LS/I	T5LQ400BW
		PR222 LSI	T5LQ400CW
		PR222 LSIG	T5LQ400EW
T5V UL Current limiting	150	PR221 LS/I	T5VQ400BW
		PR222 LSI	T5VQ400CW
		PR222 LSIG	T5VQ400EW

NOTE: See pages 17.71–17.83 for electrical/mechanical accessories.

T5

400/600A, 600V Δ

Instantaneous only, MCP/Molded case switch

T5 - 400A Frame, magnetic only (MCP - AC only)

Breaker	IC at 480VAC	Trip unit type	Rating	Adjustment range	3 pole, 600VAC Catalog number
T5N	25kA	Instantaneous only	300A	300-3000	T5N300E5W
			400A	400-4000	T5N400E5W
T5S	35kA	Instantaneous only	300A	300-3000	T5S300E5W
			400A	400-4000	T5S400E5W
T5H	65kA	Instantaneous only	300A	300-3000	T5H300E5W
			400A	400-4000	T5H400E5W
T5L	100kA	Instantaneous only	300A	300-3000	T5L300E5W
			400A	400-4000	T5L400E5W

T5 - 600A Frame, magnetic only (MCP - AC only)

Breaker	IC at 480VAC	Trip unit type	Rating	Adjustment range	3 pole, 600VAC Catalog number
T5N	25kA	Instantaneous only	600A	600-6000	T5N600E5W
T5S	35kA	Instantaneous only	600A	600-6000	T5S600E5W
T5H	65kA	Instantaneous only	600A	600-6000	T5H600E5W
T5L	100kA	Instantaneous only	600A	600-6000	T5L600E5W

Molded case switch ①

Type	IC at 480VAC	Amps	Magnetic trip	3 pole 600V catalog number
T5N-D	25kA	400	5000	T5N400DW
T5S-D	35kA	400	5000	T5S400DW
T5H-D	65kA	400	5000	T5H400DW
T5L-D	100kA	400	5000	T5L400DW
T5V-D	150kA	400	5000	T5V400DW
T5N-D	25kA	600	6000	T5N600DW
T5S-D	35kA	600	6000	T5S600DW
T5H-D	65kA	600	6000	T5H600DW
T5L-D	100kA	600	6000	T5L600DW
T5V-D	150kA	600	6000	T5V600DW

NOTE: See pages 17.71-17.83 for electrical/mechanical accessories.

① When protected by a OCPD with appropriate ratings.

T6

600A, 800A, 600V Δ

Thermal magnetic and electronic

Dimensions 3P Fixed Version 10.55H x 8.26W x 4.07D
Weight 20.9 (lbs)



T6

General

The T6 breaker is an 800 amp frame with either a microprocessor based over current protective trip system or a thermal magnetic trip unit. The T6 is available as a 600 or 800A frame.

Standards

The UL489/CSA 22.2 version of T6 also carries an IEC-60947-2 rating.

Versions

To meet all application requirements, the T6 is available in the following versions:

- T = Thermal-magnetic, fixed
- B = Selectable & adjustable LI or LS
- C = Adjustable LSI
- E = Adjustable LSIG
- D = Molded Case Switch
- E5 = Electronic instantaneous only (MCP)

Trip functions

These trip functions are available:

- L = Long time
- S = Short time
- I = Instantaneous
- G = Ground fault

Performance levels

Each version is also available in different maximum fault interrupting levels:

- N = Normal
- S = Standard
- H = High
- L = Extra high

UL489 / CSA C22.2 Interrupting capacity (kA RMS)

Voltage	N	S	H	L
240VAC	65	100	200	200
480VAC	35	50	65	100
600VAC	20	25	35	42
500VDC ①	35	35	50	65
600VDC ②	20	20	35	50

IEC 60947-2 Interrupting capacity (kA RMS)

Voltage	N	S	H	L
230VAC	70	85	100	200
415VAC	36	50	70	100
690VAC	20	22	25	30
750VDC ②	16	20	36	50

17

Number of poles ③

The T6 is available as a three and four pole breaker. Estimate 4 pole pricing by adding 35% to the 3 pole price and contact your ABB sales person for details.

① 2 poles in series.

② 3 poles in series.

③ 4 pole available N and H version only.

T6

600A, 800A, 600V Δ

Thermal magnetic and electronic

T6

600A, 800A, 600V

Thermal Magnetic Trip Units

Breaker	IC at 480 VAC kA	Rating	Magnetic trip	3 pole, 600VAC/600VDC catalog number
T6N	35	600A	3000 - 6000A	T6N600TW
		800A	4000 - 8000A	T6N800TW
T6S	50	600A	3000 - 6000A	T6S600TW
		800A	4000 - 8000A	T6S800TW
T6H	65	600A	3000 - 6000A	T6H600TW
		800A	4000 - 8000A	T6H800TW
T6L	100	600A	3000 - 6000A	T6L600TW
		800A	4000 - 8000A	T6L800TW

T6

600A, 800A, 600V

Thermal Magnetic Trip Units 100% rated

Breaker	IC at 480 VAC kA	Rating	Magnetic trip	3 pole, 600VAC/600VDC catalog number
T6N	35	600A	3000 - 6000A	T6NQ600TW
		800A	4000 - 8000A	T6NQ800TW
T6S	50	600A	3000 - 6000A	T6SQ600TW
		800A	4000 - 8000A	T6SQ800TW
T6H	65	600A	3000 - 6000A	T6HQ600TW
		800A	4000 - 8000A	T6HQ800TW
T6L	100	600A	3000 - 6000A	T6LQ600TW
		800A	4000 - 8000A	T6LQ800TW

T6

600A, 600V

Electronic Trip Units

Breaker	IC at 480VAC	Trip type	Adjustment	3 pole, 600VAC catalog number
T6N	35	PR221	LS/I	T6N600BW
		PR222	LSI	T6N600CW
		PR222	LSIG	T6N600EW
T6S	50	PR221	LS/I	T6S600BW
		PR222	LSI	T6S600CW
		PR222	LSIG	T6S600EW
T6H	65	PR221	LS/I	T6H600BW
		PR222	LSI	T6H600CW
		PR222	LSIG	T6H600EW
T6L	100	PR221	LS/I	T6L600BW
		PR222	LSI	T6L600CW
		PR222	LSIG	T6L600EW

T6

800A, 600V

Electronic Trip Units

Breaker	IC at 480VAC	Trip type	Adjustment	3 pole, 600VAC catalog number
T6N	35	PR221	LS/I	T6N800BW
		PR222	LSI	T6N800CW
		PR222	LSIG	T6N800EW
T6S	50	PR221	LS/I	T6S800BW
		PR222	LSI	T6S800CW
		PR222	LSIG	T6S800EW
T6H	65	PR221	LS/I	T6H800BW
		PR222	LSI	T6H800CW
		PR222	LSIG	T6H800EW
T6L	100	PR221	LS/I	T6L800BW
		PR222	LSI	T6L800CW
		PR222	LSIG	T6L800EW

NOTE: See pages 17.71-17.83 for electrical/mechanical accessories.

T6

600A, 800A, 600V Δ

Thermal magnetic and electronic

T6

600A, 600V Δ

Electronic Trip Units 100% Rated

Breaker	IC at 480VAC	Trip type	Adjustment	3 pole, 600VAC catalog number
T6N	35	PR221	LS/I	T6NQ600BW
		PR222	LSI	T6NQ600CW
		PR222	LSIG	T6NQ600EW
T6S	50	PR221	LS/I	T6SQ600BW
		PR222	LSI	T6SQ600CW
		PR222	LSIG	T6SQ600EW
T6H	65	PR221	LS/I	T6HQ600BW
		PR222	LSI	T6HQ600CW
		PR222	LSIG	T6HQ600EW
T6L	100	PR221	LS/I	T6LQ600BW
		PR222	LSI	T6LQ600CW
		PR222	LSIG	T6LQ600EW

T6

800A, 600V

Electronic Trip Units 100% Rated

Breaker	IC at 480VAC	Trip type	Adjustment	3 pole, 600VAC catalog number
T6N	35	PR221	LS/I	T6NQ800BW
		PR222	LSI	T6NQ800CW
		PR222	LSIG	T6NQ800EW
T6S	50	PR221	LS/I	T6SQ800BW
		PR222	LSI	T6SQ800CW
		PR222	LSIG	T6SQ800EW
T6H	65	PR221	LS/I	T6HQ800BW
		PR222	LSI	T6HQ800CW
		PR222	LSIG	T6HQ800EW
T6L	100	PR221	LS/I	T6LQ800BW
		PR222	LSI	T6LQ800CW
		PR222	LSIG	T6LQ800EW

T6

600A, 600V Δ

Electronic Trip Units Instantaneous Only

Breaker	IC at 480VAC	kA	Trip type	Adjustment Range	3 pole, 600VAC catalog number
T6N	35		PR221	600-6000	T6N600E5W
T6S	50		PR221	600-6000	T6S600E5W
T6H	65		PR221	600-6000	T6H600E5W
T6L	100		PR221	600-6000	T6L600E5W

T6

800A, 600V

Electronic Trip Units Instantaneous Only

Breaker	IC at 480VAC	kA	Trip type	Adjustment Range	3 pole, 600VAC catalog number
T6N	35		PR221	800-8000	T6N800E5W
T6S	50		PR221	800-8000	T6S800E5W
T6H	65		PR221	800-8000	T6H800E5W
T6L	100		PR221	800-8000	T6L800E5W

T6

800A, 600V

Molded Case Switch

Breaker	IC at 480VAC ①	Amp	Magnetic Trip	3 pole, 600VAC catalog number
T6H	65	800	10,000	T6H800DW

① When protected by a OCPD with appropriate ratings.

T7 (Toggle)

1000A, 1200A, 600V Δ

Electronic

Dimensions 3P Fixed Version 10.55H x 8.26W x 6.06D
Weight 21.4 (lbs)



T7

General

The T7 breaker is a 1200 amp frame with a microprocessor based over current protective trip system.

Standards

The UL489/CSA 22.2 version of T7 also carries an IEC-60947-2 rating.

Versions

To meet all application requirements, the T7 is available in the following versions:

- B = Selectable & adjustable LI or LS — Dip switch settings
- C = Adjustable LSI — Dip switch settings
- E = Adjustable LSIG — Dip switch settings
- D = Molded Case Switch
- P = LI — LCD display
- R = LSI — LCD display
- S = LSIG — LCD display

Trip functions

These trip functions are available:

- L = Long time
- S = Short time
- I = Instantaneous
- G = Ground fault

Performance levels

Each version is also available in different maximum fault interrupting levels:

- S = Standard
- H = High
- L = Extra high

Number of poles ①

The T7 is available as a 3 and 4 pole breaker. Estimate 4 pole pricing by adding 35% to the 3 pole price and contact your ABB sales person for details.

UL489 / CSA C22.2 Interrupting capacity (kA RMS)

Voltage	S	H	L
240VAC	65	100	150
480VAC	50	65	100
600VAC	25	50	65

IEC 60947-2 Interrupting capacity (kA RMS)

Voltage	S	H	L
230VAC	85	100	200
415VAC	50	70	120
690VAC	30	42	50

① 4 Pole available S, H and L version.

T7

1000A, 1200A, 600V Δ

Electronic

T7S, 1000A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip type	Adjustment	3 pole, 600VAC catalog number
T7S	50	PR231/P	LS/I	T7S1000BW
		PR232/P	LSI	T7S1000CW
		PR331/P	LSIG	T7S1000EW
		PR332/P	LI	T7S1000PW
		PR332/P	LSI	T7S1000RW
		PR332/P	LSIG	T7S1000SW

T7S, 1200A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip type	Adjustment	3 pole, 600VAC catalog number
T7S	50	PR231/P	LS/I	T7S1200BW
		PR232/P	LSI	T7S1200CW
		PR331/P	LSIG	T7S1200EW
		PR332/P	LI	T7S1200PW
		PR332/P	LSI	T7S1200RW
		PR332/P	LSIG	T7S1200SW

T7H, 1000A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip type	Adjustment	3 pole, 600VAC catalog number
T7H	65	PR231/P	LS/I	T7H1000BW
		PR232/P	LSI	T7H1000CW
		PR331/P	LSIG	T7H1000EW
		PR332/P	LI	T7H1000PW
		PR332/P	LSI	T7H1000RW
		PR332/P	LSIG	T7H1000SW

T7H, 1200A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip type	Adjustment	3 pole, 600VAC catalog number
T7H	65	PR231/P	LS/I	T7H1200BW
		PR232/P	LSI	T7H1200CW
		PR331/P	LSIG	T7H1200EW
		PR332/P	LI	T7H1200PW
		PR332/P	LSI	T7H1200RW
		PR332/P	LSIG	T7H1200SW

T7L, 1000A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip type	Adjustment	3 pole, 600VAC catalog number
T7L	100	PR231/P	LS/I	T7L1000BW
		PR232/P	LSI	T7L1000CW
		PR331/P	LSIG	T7L1000EW
		PR332/P	LI	T7L1000PW
		PR332/P	LSI	T7L1000RW
		PR332/P	LSIG	T7L1000SW

T7L, 1200A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip type	Adjustment	3 pole, 600VAC catalog number
T7L	100	PR231/P	LS/I	T7L1200BW
		PR232/P	LSI	T7L1200CW
		PR331/P	LSIG	T7L1200EW
		PR332/P	LI	T7L1200PW
		PR332/P	LSI	T7L1200RW
		PR332/P	LSIG	T7L1200SW

NOTE: See pages 17.71-17.83 for electrical/mechanical accessories.

T7

1000A, 1200A, 600V Δ

Electronic, 100% rated

T7S, 1000A, 600V

Electronic, 100% rated

Breaker	IC at 480VAC kA	Trip type	Adjustment	3 pole, 600VAC Catalog number
T7S	50	PR231/P	LS/I	T7SQ1000BW
		PR232/P	LSI	T7SQ1000CW
		PR331/P	LSIG	T7SQ1000EW
		PR332/P	LI	T7SQ1000PW
		PR332/P	LSI	T7SQ1000RW
		PR332/P	LSIG	T7SQ1000SW

T7L, 1000A, 600V

Electronic, 100% rated

Breaker	IC at 480VAC kA	Trip type	Adjustment	3 pole, 600VAC Catalog number
T7L	100	PR231/P	LS/I	T7LQ1000BW
		PR232/P	LSI	T7LQ1000CW
		PR331/P	LSIG	T7LQ1000EW
		PR332/P	LI	T7LQ1000PW
		PR332/P	LSI	T7LQ1000RW
		PR332/P	LSIG	T7LQ1000SW

T7S, 1200A, 600V

Electronic, 100% rated

Breaker	IC at 480VAC kA	Trip type	Adjustment	3 pole, 600VAC Catalog number
T7S	50	PR231/P	LS/I	T7SQ1200BW
		PR232/P	LSI	T7SQ1200CW
		PR331/P	LSIG	T7SQ1200EW
		PR332/P	LI	T7SQ1200PW
		PR332/P	LSI	T7SQ1200RW
		PR332/P	LSIG	T7SQ1200SW

T7L, 1200A, 600V

Electronic, 100% rated

Breaker	IC at 480VAC kA	Trip type	Adjustment	3 pole, 600VAC Catalog number
T7L	100	PR231/P	LS/I	T7LQ1200BW
		PR232/P	LSI	T7LQ1200CW
		PR331/P	LSIG	T7LQ1200EW
		PR332/P	LI	T7LQ1200PW
		PR332/P	LSI	T7LQ1200RW
		PR332/P	LSIG	T7LQ1200SW

NOTE: See pages 17.71 - 17.83 for electrical/mechanical accessories.

T7H, 1000A, 600V

Electronic, 100% rated

Breaker	IC at 480VAC kA	Trip type	Adjustment	3 pole, 600VAC Catalog number
T7H	65	PR231/P	LS/I	T7HQ1000BW
		PR232/P	LSI	T7HQ1000CW
		PR331/P	LSIG	T7HQ1000EW
		PR332/P	LI	T7HQ1000PW
		PR332/P	LSI	T7HQ1000RW
		PR332/P	LSIG	T7HQ1000SW

T7H, 1200A, 600V

Electronic, 100% rated

Breaker	IC at 480VAC kA	Trip type	Adjustment	3 pole, 600VAC Catalog number
T7H	65	PR231/P	LS/I	T7HQ1200BW
		PR232/P	LSI	T7HQ1200CW
		PR331/P	LSIG	T7HQ1200EW
		PR332/P	LI	T7HQ1200PW
		PR332/P	LSI	T7HQ1200RW
		PR332/P	LSIG	T7HQ1200SW

T7

1200A, 600V Δ

Electronic/Molded case switch

T7

1200A, 600V

Molded case switch

Breaker	IC at 480VAC kA ①	Amp	Magnetic trip	3 pole, 600VAC Catalog number
T7H	-	1200	20,000	T7H1200DW

NOTE: See pages 17.67 - 17.79 for electrical/mechanical accessories.

T7

1000 - 1200A, 600V

Motor circuit protection

Electronic trip, instantaneous only

Breaker	IC at 480VAC kA ①	Amp	Catalog number
T7S	50	1000	T7S1000E5W
T7H	65	1000	T7H1000E5W
T7L	100	1000	T7L1000E5W
T7S	50	1200	T7S1200E5W
T7H	65	1200	T7H1200E5W
T7L	100	1200	T7L1200E5W

NOTE: See pages 17.71 - 17.83 for electrical/mechanical accessories.

① When protected by a OCPD with appropriate ratings.

T7M (Stored energy)

1000A, 1200A, 600V Δ

Electronic

Dimensions 3P Fixed Version 10.55H x 8.26W x 7D
Weight 24.25 (lbs)



T7M

General

The T7M breaker is a stored energy 1200A frame with a microprocessor based overcurrent protective trip system.

Standards

The UL489/CSA 22.2 version of T7M also carries an IEC-60947-2 rating.

Versions

To meet all application requirements, the T7M is available in the following versions:

- B = Selectable & adjustable LI or LS — Dip switch setting
- C = Adjustable LSI — Dip switch setting
- E = Adjustable LSI — Dip switch setting
- D = Molded Case Switch
- P = LI — LCD display
- R = LSI — LCD display
- S = LSI — LCD display

Trip functions

These trip functions are available:

- L = Long time
- S = Short time
- I = Instantaneous
- G = Ground fault

Performance levels

Each version is also available in different maximum fault interrupting levels:

- S = Standard
- H = High
- L = Extra high

Number of poles

The T7M is available as a three and four pole breaker.

UL489 / CSA C22.2 Interrupting capacity (kA RMS)

Voltage	S	H	L
240VAC	65	100	150
480VAC	50	65	100
600VAC	25	50	65

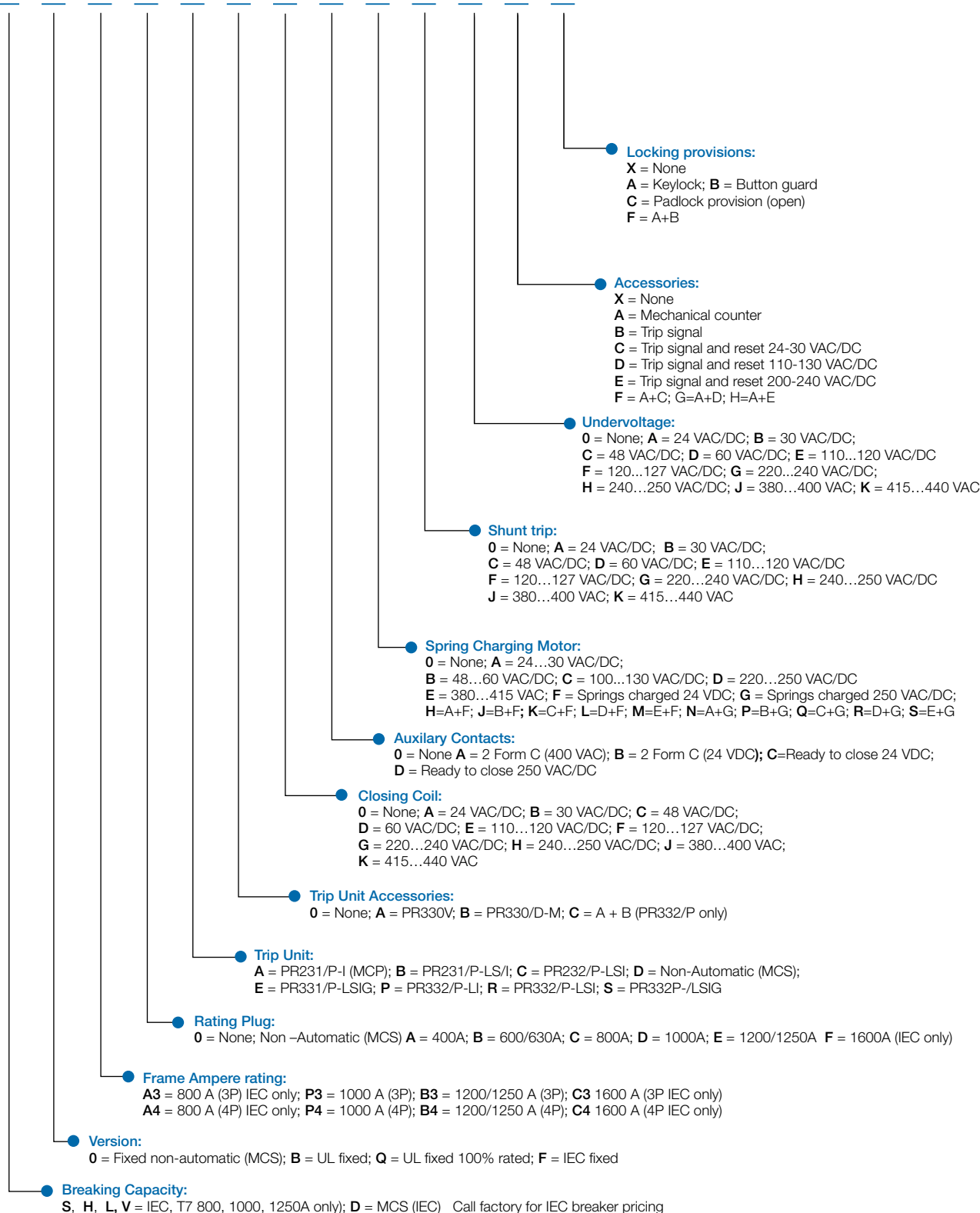
IEC 60947-2 Interrupting capacity (kA RMS)

Voltage	S	H	L
230VAC	85	100	200
415VAC	50	70	120
690VAC	30	42	50

T7M

1000A, 1200A, 600V Δ
Electronic

T 7 M



T7M

1000A, 1200A, 600V Δ - Three Pole
Electronic

T7M-S, 1000A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip unit	3 pole, 600V Catalog number
T7M-S	50	PR231/P-LS/I	T7MSBP3DB000000XX
		PR232/P-LSI	T7MSBP3DC000000XX
		PR331/P-LSIG	T7MSBP3DE000000XX
		PR332/P-LI	T7MSBP3DP000000XX
		PR332/P-LSI	T7MSBP3DR000000XX
		PR332/P-LSIG	T7MSBP3DS000000XX

T7M-H, 1000A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip unit	3 pole, 600V Catalog number
T7M-H	65	PR231/P-LS/I	T7MHBP3DB000000XX
		PR232/P-LSI	T7MHBP3DC000000XX
		PR331/P-LSIG	T7MHBP3DE000000XX
		PR332/P-LI	T7MHBP3DP000000XX
		PR332/P-LSI	T7MHBP3DR000000XX
		PR332/P-LSIG	T7MHBP3DS000000XX

T7M-L, 1000A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip unit	3 pole, 600V Catalog number
T7M-L	100	PR231/P-LS/I	T7MLBP3DB000000XX
		PR232/P-LSI	T7MLBP3DC000000XX
		PR331/P-LSIG	T7MLBP3DE000000XX
		PR332/P-LI	T7MLBP3DP000000XX
		PR332/P-LSI	T7MLBP3DR000000XX
		PR332/P-LSIG	T7MLBP3DS000000XX

T7M-S, 1200A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip unit	3 pole, 600V Catalog number
T7M-S	50	PR231/P-LS/I	T7MSBB3EB000000XX
		PR232/P-LSI	T7MSBB3EC000000XX
		PR331/P-LSIG	T7MSBB3EE000000XX
		PR332/P-LI	T7MSBB3EP000000XX
		PR332/P-LSI	T7MSBB3ER000000XX
		PR332/P-LSIG	T7MSBB3ES000000XX

T7M-H, 1200A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip unit	3 pole, 600V Catalog number
T7M-H	65	PR231/P-LS/I	T7MHBB3EB000000XX
		PR232/P-LSI	T7MHBB3EC000000XX
		PR331/P-LSIG	T7MHBB3EE000000XX
		PR332/P-LI	T7MHBB3EP000000XX
		PR332/P-LSI	T7MHBB3ER000000XX
		PR332/P-LSIG	T7MHBB3ES000000XX

T7M-L, 1200A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip unit	3 pole, 600V Catalog number
T7M-L	100	PR231/P-LS/I	T7MLBB3EB000000XX
		PR232/P-LSI	T7MLBB3EC000000XX
		PR331/P-LSIG	T7MLBB3EE000000XX
		PR332/P-LI	T7MLBB3EP000000XX
		PR332/P-LSI	T7MLBB3ER000000XX
		PR332/P-LSIG	T7MLBB3ES000000XX

T7M

1000A, 1200A, 600V Δ - Three Pole

Electronic 100% Rated

T7M-S, 1000A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip unit	3 pole, 600V Catalog number
T7M-S	50	PR231/P-LS/I	T7MSQP3DB000000XX
		PR232/P-LSI	T7MSQP3DC000000XX
		PR331/P-LSIG	T7MSQP3DE000000XX
		PR332/P-LI	T7MSQP3DP000000XX
		PR332/P-LSI	T7MSQP3DR000000XX
		PR332/P-LSIG	T7MSQP3DS000000XX

T7M-H, 1000A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip unit	3 pole, 600V Catalog number
T7M-H	65	PR231/P-LS/I	T7MHQP3DB000000XX
		PR232/P-LSI	T7MHQP3DC000000XX
		PR331/P-LSIG	T7MHQP3DE000000XX
		PR332/P-LI	T7MHQP3DP000000XX
		PR332/P-LSI	T7MHQP3DR000000XX
		PR332/P-LSIG	T7MHQP3DS000000XX

T7M-L, 1000A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip unit	3 pole, 600V Catalog number
T7M-L	100	PR231/P-LS/I	T7MLQP3DB000000XX
		PR232/P-LSI	T7MLQP3DC000000XX
		PR331/P-LSIG	T7MLQP3DE000000XX
		PR332/P-LI	T7MLQP3DP000000XX
		PR332/P-LSI	T7MLQP3DR000000XX
		PR332/P-LSIG	T7MLQP3DS000000XX

T7M-S, 1200A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip unit	3 pole, 600V Catalog number
T7M-S	50	PR231/P-LS/I	T7MSQB3EB000000XX
		PR232/P-LSI	T7MSQB3EC000000XX
		PR331/P-LSIG	T7MSQB3EE000000XX
		PR332/P-LI	T7MSQB3EP000000XX
		PR332/P-LSI	T7MSQB3ER000000XX
		PR332/P-LSIG	T7MSQB3ES000000XX

T7M-H, 1200A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip unit	3 pole, 600V Catalog number
T7M-H	65	PR231/P-LS/I	T7MQB3EB000000XX
		PR232/P-LSI	T7MQB3EC000000XX
		PR331/P-LSIG	T7MQB3EE000000XX
		PR332/P-LI	T7MQB3EP000000XX
		PR332/P-LSI	T7MQB3ER000000XX
		PR332/P-LSIG	T7MQB3ES000000XX

T7M-L, 1200A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip unit	3 pole, 600V Catalog number
T7M-L	100	PR231/P-LS/I	T7MLQB3EB000000XX
		PR232/P-LSI	T7MLQB3EC000000XX
		PR331/P-LSIG	T7MLQB3EE000000XX
		PR332/P-LI	T7MLQB3EP000000XX
		PR332/P-LSI	T7MLQB3ER000000XX
		PR332/P-LSIG	T7MLQB3ES000000XX

T7M

1000A, 1200A, 600V Δ - Four Pole Electronic

T7M-S, 1000A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip unit	4 pole, 600V Catalog number
T7M-S	50	PR231/P-LS/I	T7MSBP4DB000000XX
		PR232/P-LSI	T7MSBP4DC000000XX
		PR331/P-LSIG	T7MSBP4DE000000XX
		PR332/P-LI	T7MSBP4DP000000XX
		PR332/P-LSI	T7MSBP4DR000000XX
		PR332/P-LSIG	T7MSBP4DS000000XX

T7M-H, 1000A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip unit	4 pole, 600V Catalog number
T7M-H	65	PR231/P-LS/I	T7MHBP4DB000000XX
		PR232/P-LSI	T7MHBP4DC000000XX
		PR331/P-LSIG	T7MHBP4DE000000XX
		PR332/P-LI	T7MHBP4DP000000XX
		PR332/P-LSI	T7MHBP4DR000000XX
		PR332/P-LSIG	T7MHBP4DS000000XX

T7M-L, 1000A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip unit	4 pole, 600V Catalog number
T7M-L	100	PR231/P-LS/I	T7MLBP4DB000000XX
		PR232/P-LSI	T7MLBP4DC000000XX
		PR331/P-LSIG	T7MLBP4DE000000XX
		PR332/P-LI	T7MLBP4DP000000XX
		PR332/P-LSI	T7MLBP4DR000000XX
		PR332/P-LSIG	T7MLBP4DS000000XX

T7M-S, 1200A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip unit	4 pole, 600V Catalog number
T7M-S	50	PR231/P-LS/I	T7MSBB4EB000000XX
		PR232/P-LSI	T7MSBB4EC000000XX
		PR331/P-LSIG	T7MSBB4EE000000XX
		PR332/P-LI	T7MSBB4EP000000XX
		PR332/P-LSI	T7MSBB4ER000000XX
		PR332/P-LSIG	T7MSBB4ES000000XX

T7M-H, 1200A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip unit	4 pole, 600V Catalog number
T7M-H	65	PR231/P-LS/I	T7MHBB4EB000000XX
		PR232/P-LSI	T7MHBB4EC000000XX
		PR331/P-LSIG	T7MHBB4EE000000XX
		PR332/P-LI	T7MHBB4EP000000XX
		PR332/P-LSI	T7MHBB4ER000000XX
		PR332/P-LSIG	T7MHBB4ES000000XX

T7M-L, 1200A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip unit	4 pole, 600V Catalog number
T7M-L	100	PR231/P-LS/I	T7MLBB4EB000000XX
		PR232/P-LSI	T7MLBB4EC000000XX
		PR331/P-LSIG	T7MLBB4EE000000XX
		PR332/P-LI	T7MLBB4EP000000XX
		PR332/P-LSI	T7MLBB4ER000000XX
		PR332/P-LSIG	T7MLBB4ES000000XX

T7M

1000A, 1200A, 600V Δ - Four Pole
Electronic 100% Rated

T7M-S, 1000A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip unit	4 pole, 600V Catalog number
T7M-S	50	PR231/P-LS/I	T7MSQP4DB000000XX
		PR232/P-LSI	T7MSQP4DC000000XX
		PR331/P-LSIG	T7MSQP4DE000000XX
		PR332/P-LI	T7MSQP4DP000000XX
		PR332/P-LSI	T7MSQP4DR000000XX
		PR332/P-LSIG	T7MSQP4DS000000XX

T7M-S, 1200A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip unit	4 pole, 600V Catalog number
T7M-S	50	PR231/P-LS/I	T7MSQB4EB000000XX
		PR232/P-LSI	T7MSQB4EC000000XX
		PR331/P-LSIG	T7MSQB4EE000000XX
		PR332/P-LI	T7MSQB4EP000000XX
		PR332/P-LSI	T7MSQB4ER000000XX
		PR332/P-LSIG	T7MSQB4ES000000XX

T7M-H, 1000A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip unit	4 pole, 600V Catalog number
T7M-H	65	PR231/P-LS/I	T7MHQP4DB000000XX
		PR232/P-LSI	T7MHQP4DC000000XX
		PR331/P-LSIG	T7MHQP4DE000000XX
		PR332/P-LI	T7MHQP4DP000000XX
		PR332/P-LSI	T7MHQP4DR000000XX
		PR332/P-LSIG	T7MHQP4DS000000XX

T7M-H, 1200A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip unit	4 pole, 600V Catalog number
T7M-H	65	PR231/P-LS/I	T7MHQB4EB000000XX
		PR232/P-LSI	T7MHQB4EC000000XX
		PR331/P-LSIG	T7MHQB4EE000000XX
		PR332/P-LI	T7MHQB4EP000000XX
		PR332/P-LSI	T7MHQB4ER000000XX
		PR332/P-LSIG	T7MHQB4ES000000XX

T7M-L, 1000A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip unit	4 pole, 600V Catalog number
T7M-L	100	PR231/P-LS/I	T7MLQP4DB000000XX
		PR232/P-LSI	T7MLQP4DC000000XX
		PR331/P-LSIG	T7MLQP4DE000000XX
		PR332/P-LI	T7MLQP4DP000000XX
		PR332/P-LSI	T7MLQP4DR000000XX
		PR332/P-LSIG	T7MLQP4DS000000XX

T7M-L, 1200A, 600V

Electronic

Breaker	IC at 480VAC kA	Trip unit	4 pole, 600V Catalog number
T7M-L	100	PR231/P-LS/I	T7MLQB4EB000000XX
		PR232/P-LSI	T7MLQB4EC000000XX
		PR331/P-LSIG	T7MLQB4EE000000XX
		PR332/P-LI	T7MLQB4EP000000XX
		PR332/P-LSI	T7MLQB4ER000000XX
		PR332/P-LSIG	T7MLQB4ES000000XX

T7M

1200A, 600V Δ - Molded Case Switch

T7M

1200A, 600V

Molded case switch

Breaker	IC at 480VAC kA	Amp	Magnetic override	3 pole, 600VAC Catalog number
T7M-H	-	1200	20,000	T7MH0B30D000000XX

T7M

1000 - 1200A, 600V

Motor circuit protection

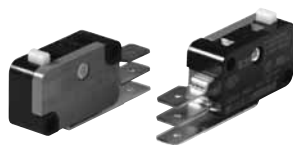
Electronic trip, instantaneous only

Breaker	IC at 480VAC kA	Amp	Catalog number
T7M-S	50	1000	T7MSBP3DA000000XX
T7M-H	65	1000	T7MHBP3DA000000XX
T7M-L	100	1000	T7MLBP3DA000000XX
T7M-S	50	1200	T7MSBB3EA000000XX
T7M-H	65	1200	T7MHBB3EA000000XX
T7M-L	100	1200	T7MLBB3EA000000XX

Accessories

Electrical

T7M



KT7MXC1

Closing coils ①

		Field installation Catalog number
T7M	415...440 VAC	KT7MXC1
	380...400 VAC	KT7MXC2
	240...250 VAC/DC	KT7MXC3
	220...240 VAC/DC	KT7MXC4
	120...127 VAC/DC	KT7MXC5
	110...120 VAC/VDC	KT7MXC6
	60 VAC/DC	KT7MXC7
	48 VAC/DC	KT7MXC8
	30 VAC/DC	KT7MXC9
	24 VAC/DC	KT7MXC0

Auxiliary contacts

		Field installation Catalog number
T7/T7M	2 Form C 400 VAC	KT7XAS2
	2 Form C 24 VDC	KT7XAS2-AU

Ready to close auxiliaries (IEC)

		Field installation Catalog number
T7M	24 VDC	KT7MX-RTC24V
	250 VAC/DC	KT7MX-RTC250V

Signals the circuit breaker is ready to accept a close signal if the following five conditions are met:

- Circuit breaker is open
- Any opening coil de-energized
- Closing springs are charged
- Any undervoltage coil energized
- Opening solenoid armed

Trip signal

		Field/factory installation Catalog number
T7M	Contact for signalling electronic trip unit tripped ①	KT7MTS



KT7MXM*

Spring charging motor ①

		Field installation Catalog number
T7M	380...415 VAC	KT7MXM2
	220...250 VAC/DC	KT7MXM3
	100...130 VAC/DC	KT7MXM5
	48...60 VAC/DC	KT7MXM7
	24...30 VAC/DC	KT7MXM9

Spring charged contacts (IEC)

		Field installation Catalog number
T7M	Contact signalling springs charged 24 VDC	KT7MX-SC24V
	Contact signalling springs charged 250 VAC/DC	KT7MX-SC250V

Shunt trip

		Field installation Catalog number
T7/T7M	415...440 VAC	KT7XS1
	380...400 VAC	KT7XS2
	240...250 VAC/DC	KT7XS3
	220...240 VAC/DC	KT7XS4
	120...127 VAC/DC	KT7XS5
	110...120 VAC/DC	KT7XS6
	60 VAC/DC	KT7XS7
	48 VAC/DC	KT7XS8
	30 VAC/DC	KT7XS9
	24 VAC/DC	KT7XS0

Undervoltage

		Field installation Catalog number
T7/T7M	415...440 VAC	KT7XU1
	380...400 VAC	KT7XU2
	240...250 VAC/DC	KT7XU3
	220...240 VAC/DC	KT7XU4
	120...127 VAC/DC	KT7XU5
	110...120 VAC/DC	KT7XU6
	60 VAC/DC	KT7XU7
	48 VAC/DC	KT7XU8
	30 VAC/DC	KT7XU9
	24 VAC/DC	KT7XU0

Trip reset (IEC)

		Field installation Catalog number
T7M	Trip reset command 24-30 VAC/DC	KT7MX-TR9
	Trip reset command 110-130 VAC/DC	KT7MX-TR5
	Trip reset command 200-240 VAC/DC	KT7MX-TR4

Allows remote circuit breaker resetting following a trip of the overcurrent release

① Not Suitable for T7 toggle version.

② Always supplied with PR332/P trip units

Accessories

Mechanical

T7M

Terminal lugs

Frame Size	Wire Size	Catalog number (3 pieces)	Catalog number (4 pieces)
T7/T7M ①	(4) 4/0-500 kxmil	KT7X1200-3 ①	KT7X1200-4 ①

Terminal covers - Low profile - kit includes two pieces-fixed breakers

Frame Size	Catalog number (3 pole)	Catalog number (4 pole)
T7/T7M ②	KT7XLTC-3	KT7XLTC-4

Terminal covers - High profile - kit includes two pieces

Frame Size	Catalog number (3 pole)	Catalog number (4 pole)
T7/T7M	KT7XHTC-3	KT7XHTC-4

Phase barriers - Low profile 100mm - 3.93 in

Frame Size	Catalog number 4 pcs (3 pole)	Catalog number 6 pcs (4 pole)
T7/T7M	KT7PBL-3 ②	KT7PBL-4

Phase barriers - High profile 200mm - 7.87 in

Frame	Catalog number 4 pcs (3 pole)	Catalog number 6 pcs (4 pole)
T7/T7M	KT7PBH-3	KT7PBH-4



KT7MXMC

Mechanical operation counter ③

Frame	Field/factory installation Catalog number
T7M	Mechanical counter ③ KT7MXMC

Transparent protection for buttons ③

Frame	Field/factory installation Catalog number
T7M	Button Guard ③ KT7MXPG



KT7XPG

Padlock provision ③

Frame	Field/factory installation Catalog number
T7M	Padlock-open ③ KT7MXLDO

Key locks

Frame Size	Key lock open position	Field/factory installation Catalog number
T7M	Key lock on breaker open position key lock # 20005 ③	KT7MKL2
	Key lock on breaker open position different keys ③	KT7MKL1



KT7MKL*

Mechanical interlock

Frame	Catalog part number
T7M/T7M	Cable T7 KT7XMLC
	Mechanical interlock plate - drawout KT7XMLPW
	Mechanical interlock plate - fixed KT7XMLPF

IP54 door protection ③

Frame	Field Installation Catalog number
T7M	Protective cover ③ KT7MXDC

① Comes standard with high profile terminal covers.

② Fixed breakers only

③ Not Suitable for T7 toggle version

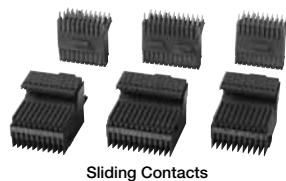
Accessories

Mechanical

T7M

Draw-out kits

Frame	Adaptor moving part	Fixed Part
T7M 3 Pole with horizontal/vertical terminals	KT7XWMK	KT7WFHR



Sliding contact blocks

T7M - Drawout	Moving part breaker	Fixed part cradle
Left Block Spring charging motor Spring charged contact Ready to close contact Early auxiliary contact Contact for trip coil trip release Trip reset	KT7XSCMP-L	KT7XSCFP-L
Center Block PR331 PR332	KT7XSCMP-C	KT7XSCFP-C
Right Block Auxiliary contacts Shunt trip Closing coil Undervoltage release	KT7XSCMP-R	KT7XSCFP-R

If at least one of the accessories in the table is installed on the breaker - respective pair of contact blocks must be installed on the fixed part (cradle) and the moving part (breaker)

Position key lock

Locks drawout breaker in racked-in/test-isolated/racked-out	Catalog number
Key #20005	KT7XPL2
Different keys	KT7XPL1

Position lock accessory

Added to position lock allows breaker to be locked in racked out position only	Catalog number
Position lock accessory	KT7XPLA

Rating plugs (UL)

	Catalog number
T7/T7M	400A Rating plug
	600A Rating plug
	800A Rating plug
	1000A Rating plug
	1200A Rating plug

Modules for T7M PR332 trip units

	Catalog number
T7/T7M	Voltage module ①
	Communication module (Modbus RTU)

External units

	Catalog number
T7/T7M	Battery power supply unit ②
	External Bluetooth communication module
	Includes diagnostic software for Modbus/Bluetooth networks
	Test configuration unit
	Allows tripping of all electronic trip units for Tmax (except PR33x)
	Current sensor for external neutral

Accessory connector

	Catalog number
For wiring to internal accessories	KT7XAC



PR330/D-M

Technical data T7/T7M

Shunt tips, closing coil,
Undervoltage & spring charging motor

Standard shunt trip

Inrush Power Consumption	T7/T7M	
	AC (VA)	DC (W)
Voltage		
24 VAC/DC	300	300
30 VAC/DC	300	300
48 VAC/DC	300	300
60 VAC/DC	300	300
110...120 VAC/DC	300	300
120...127 VAC/DC	300	300
220...240 VAC/DC	300	300
240...240 VAC/DC	300	300
380...400 VAC	300	—
415...440 VAC	300	—
Opening time (ms)	20	20

Undervoltage

Inrush Power Consumption	T7/T7M	
	AC (VA)	DC (W)
Voltage		
24 VAC/DC	3.5	3.5
30 VAC/DC	3.5	3.5
110...120 VAC/DC	3.5	3.5
120...127 VAC/DC	3.5	3.5
220...240 VAC	3.5	3.5
240...250 VAC/DC	3.5	3.5
380...400 VAC	3.5	—
415...440 VAC	3.5	—
Opening time (ms)	≤ 25	≤ 25

Closing coil

Inrush Power Consumption	T7M	
	AC (VA)	DC (W)
Voltage		
24 VAC/DC	300	300
30 VAC/DC	300	300
48 VAC/DC	300	300
60 VAC/DC	300	300
110...120 VAC/DC	300	300
120...127 VAC/DC	300	300
220...240 VAC/DC	300	300
240...240 VAC/DC	300	300
380...400 VAC	300	—
415...440 VAC	300	—
Opening time (ms)	20	20

Spring charging motor

Power Consumption	T7M	
	AC (VA)	DC (W)
Voltage		
24...30 VAC/DC	≤ 100	≤ 100
48...60 VAC/DC	≤ 100	≤ 100
100...130 VAC/DC	≤ 100	≤ 100
220...250 VAC/DC	≤ 100	≤ 100
380...415 VAC	≤ 100	—
Opening voltage (% Un)	85-110	85-110
Charging time (s)	8-10	8-10

T8

1600/2000/2500/3000A, 600VAC Δ

Electronic trip



T8

Dimensions	3P Fixed Version 15.0H x 16.8W x 11.2D
Weight	161 lbs (1600, 2000, 2500A) 236 lbs (3000A)

General

The T8 is available in a 1600A, 2000A, 2500A, 3000A frame with a microprocessor over current protective trip system.

Standards

The UL489/CSA 22.2 version of the T8 also carries an IEC-60947-2 rating.

Versions

To meet all application requirements the T8 is available in the following versions:

- C = Adjustable LSI PR232/P-T8 Dip switch settings
- D = Molded Case Switch
- E = Adjustable LSI PR331/P Dip switch settings
- P = Adjustable LI PR332/P LCD Display
- R = Adjustable LSI PR332/P LCD Display
- S = Adjustable LSI PR332/P LCD Display
- Rc = Residual Current (IEC, 3 pole, under 3200A only)

Trip functions

These trip functions are available:

- L = Long time
- S = Short time
- I = Instantaneous
- G = Ground fault

Performance levels

Each version is also available at the following maximum fault interrupting level:

- V = Very high

Number of poles

The T8 is available in three and four pole versions.

UL489/CSA C22.2 Interrupting capacity (kA RMS)

Voltage	V
240VAC	125
480VAC	125
600VAC	100
DC	—

IEC 60947-2 Interrupting capacity (kA RMS)

Voltage	V
230VAC	130
415VAC	130
440VAC	100
690VAC	80
DC	—

T8

Catalog number explanation

T 8 V

Locking provisions:

X = None; A = Keylock
 B = Button guard; C = Padlock provision; D = A+B; E = A+C
 T = Heavy duty padlock;
 9 = Extra heavy duty padlock

Accessories

X = None; A = Mechanical counter; B = Bell Alarm
 C = Bell Alarm w/remote reset, 24..30 VAC/DC
 D = Bell Alarm w/remote reset 110..130 VAC/DC
 E = Bell Alarm w/remote reset 220..240 VAC/DC
 F = A+B; G = A+C; H = A+D; J = A+E

Undervoltage

0 = None
 A = 24 VDC; B = 30 VAC/DC
 C = 48 VAC/DC; D = 60 VAC/DC
 E = 110..120 VAC/DC; F = 125..127 VAC/DC
 G = 220..240 VAC/DC; H = 250 VAC/DC
 J = 380..400 VAC; K = 440 VAC

Second shunt trip:

L = 24 VDC; M = 30 VAC/DC
 N = 48 VAC/DC; P = 60 VAC/DC
 Q = 110..120 VAC/DC; R = 125..127 VAC/DC
 S = 220..240 VAC/DC; T = 250 VAC/DC
 U = 380..400 VAC; V = 440..480 VAC

Shunt trip

0 = None
 A = 24 VDC; B = 30 VAC/DC; C = 48 VAC/DC;
 D = 60 VAC/DC; E = 110..120 VAC/DC
 F = 120..127 VAC/DC; G = 220..240 VAC/DC;
 H = 240..250 VAC/DC; J = 380...400 VAC;
 K = 440 VAC

Spring charging motor:

0 = None
 A = 24..30 VAC/DC; B = 48..60 VAC/DC;
 C = 100..130 VAC/DC; D = 220..250 VAC/DC

Contacts:

0 = None
 A = 4 aux contacts; (supplied as standard for breakers with PR332 trip units)
 B = 4 aux contacts digital (24V)
 D = UV energ NO; E = UV energ NC;
 F = A+D; G = A+E; H = B+D; J = B+E

Closing Coil:

0 = None
 A = 24 VDC; B = 30 VAC/DC; C = 48 VAC/DC; D = 60 VAC/DC; E = 110..120 VAC/DC;
 F = 120..127 VAC/DC; G = 220..240 AC/DC; H = 240..250 VAC/DC; J = 380..400 VAC; K = 440VAC

Trip Unit Accessories: PR332/P ONLY

0 = None
 B = Voltage measuring module; C = Modbus module

Trip Unit:

C = PR331/P-T8-LSI; D = Non-Automatic (MCS); E = PR331/P-LSIG;
 P = PR332/P-LI; R = PR332/P-LSI; S = PR332/P-LSIG; H = PR332/P-LSIRc (IEC)

Rating Plug:

D = 1000; E = 1200; F = 1600; G = 2000; H = 2500; J = 3000, 3200; 0 = Non-Automatic (MCS)

Frame Amp Rating:

C3 = 1600 (3P UL only); D3 = 2000 (3P); E3 = 2500 (3P); F3 = 3000 UL/3200 IEC (3P)
 C4 = 1600 (4P UL only); D4 = 2000 (4P); E4 = 2500 (4P); F4 = 3000 UL/3200 IEC (4P)

Version:

B = UL Fixed; Q = UL Fixed 100% Rated; F = IEC Fixed; 0 = Fixed Non-Automatic (MCS)

Breaking capacity:

V = Very High; L (IEC only. Call factory for IEC breaker pricing.)

T8

1600/2000/2500/3000A 600VΔ - Three Pole Electronic (AC Only)

1600A Frame, electronic trip unit (AC only) standard horizontal terminals

Breaker	IC at 480VAC kA	Trip Unit	3 pole, 600V Catalog number
T8V	125	PR232 LSI (Dip Switch)	T8VBC3FC000000XX
		PR331 LSI (Dip Switch)	T8VBC3FE000000XX
		PR332 LI (LCD)	T8VBC3FP00A000XX ①
		PR332 LSI (LCD)	T8VBC3FR00A000XX ①
		PR332 LSI (LCD)	T8VBC3FS00A000XX ①

2000A Frame, electronic trip unit (AC only) standard horizontal terminals

Breaker	IC at 480VAC kA	Trip Unit	3 pole, 600V Catalog number
T8V	125	PR232 LSI (Dip Switch)	T8VBD3GC000000XX
		PR331 LSI (Dip Switch)	T8VBD3GE000000XX
		PR332 LI (LCD)	T8VBD3GP00A000XX ①
		PR332 LSI (LCD)	T8VBD3GR00A000XX ①
		PR332 LSI (LCD)	T8VBD3GS00A000XX ①

2500A Frame, electronic trip unit (AC only) standard horizontal terminals

Breaker	IC at 480VAC kA	Trip Unit	3 pole, 600V Catalog number
T8V	125	PR232 LSI (Dip Switch)	T8VBE3HC000000XX
		PR331 LSI (Dip Switch)	T8VBE3HE000000XX
		PR332 LI (LCD)	T8VBE3HP00A000XX ①
		PR332 LSI (LCD)	T8VBE3HR00A000XX ①
		PR332 LSI (LCD)	T8VBE3HS00A000XX ①

3000A Frame, electronic trip unit (AC only) standard with vertical terminals - Required

Breaker	IC at 480VAC kA	Trip Unit	3 pole, 600V Catalog number
T8V	125	PR232 LSI (Dip Switch)	T8VBF3JC000000XX
		PR331 LSI (Dip Switch)	T8VBF3JE000000XX
		PR332 LI (LCD)	T8VBF3JP00A000XX ①
		PR332 LSI (LCD)	T8VBF3JR00A000XX ①
		PR332 LSI (LCD)	T8VBF3JS00A000XX ①

① Includes 4 open/closed auxiliary contacts as standard

T8

1600/2000/2500/3000A 600VΔ - Three Pole

Electronic (AC Only) 100% Rated

1600A Frame, electronic trip unit (AC only) standard horizontal terminals

Breaker	IC at 480VAC kA	Trip Unit	3 pole, 600V Catalog number
T8V	125	PR232 LSI (Dip Switch)	T8VQC3FC000000XX
		PR331 LSiG (Dip Switch)	T8VQC3FE000000XX
		PR332 LI (LCD)	T8VQC3FP00A000XX ①
		PR332 LSI (LCD)	T8VQC3FR00A000XX ①
		PR332 LSiG (LCD)	T8VQC3FS00A000XX ①

2500A Frame, electronic trip unit (AC only) standard with vertical terminals - Required

Breaker	IC at 480VAC kA	Trip Unit	3 pole, 600V Catalog number
T8V	125	PR232 LSI (Dip Switch)	T8VQE3HC000000XX
		PR331 LSiG (Dip Switch)	T8VQE3HE000000XX
		PR332 LI (LCD)	T8VQE3HP00A000XX ①
		PR332 LSI (LCD)	T8VQE3HR00A000XX ①
		PR332 LSiG (LCD)	T8VQE3HS00A000XX ①

2000A Frame, electronic trip unit (AC only) standard horizontal terminals

Breaker	IC at 480VAC kA	Trip Unit	3 pole, 600V Catalog number
T8V	125	PR232 LSI (Dip Switch)	T8VQD3GC000000XX
		PR331 LSiG (Dip Switch)	T8VQD3GE000000XX
		PR332 LI (LCD)	T8VQD3GP00A000XX ①
		PR332 LSI (LCD)	T8VQD3GP00A000XX ①
		PR332 LSiG (LCD)	T8VQD3GR00A000XX ①

3000A Frame, electronic trip unit (AC only) standard with vertical terminals - Required

Breaker	IC at 480VAC kA	Trip Unit	3 pole, 600V Catalog number
T8V	125	PR232 LSI (Dip Switch)	T8VQF3JC000000XX
		PR331 LSiG (Dip Switch)	T8VQF3JE000000XX
		PR332 LI (LCD)	T8VQF3JP00A000XX ①
		PR332 LSI (LCD)	T8VQF3JR00A000XX ①
		PR332 LSiG (LCD)	T8VQF3JS00A000XX ①

① Includes 4 open/closed auxiliary contacts as standard

T8

1600/2000/2500/3000A 600VΔ — Four pole Electronic (AC Only)

1600A Frame, electronic trip unit (AC only) standard horizontal terminals

Breaker	IC at 480VAC kA	Trip Unit	4 pole, 600V Catalog number
T8V	125	PR232 LSI (Dip Switch)	T8VBC4FC000000XX
		PR331 LSI (Dip Switch)	T8VBC4FE000000XX
		PR332 LI (LCD)	T8VBC4FP00A000XX ①
		PR332 LSI (LCD)	T8VBC4FR00A000XX ①
		PR332 LSI (LCD)	T8VBC4FS00A000XX ①

2500A Frame, electronic trip unit (AC only) standard horizontal terminals

Breaker	IC at 480VAC kA	Trip Unit	4 pole, 600V Catalog number
T8V	125	PR232 LSI (Dip Switch)	T8VBE4HC000000XX
		PR331 LSI (Dip Switch)	T8VBE4HE000000XX
		PR332 LI (LCD)	T8VBE4HP00A000XX ①
		PR332 LSI (LCD)	T8VBE4HR00A000XX ①
		PR332 LSI (LCD)	T8VBE4HS00A000XX ①

2000A Frame, electronic trip unit (AC only) standard horizontal terminals

Breaker	IC at 480VAC kA	Trip Unit	4 pole, 600V Catalog number
T8V	125	PR232 LSI (Dip Switch)	T8VBD4GC000000XX
		PR331 LSI (Dip Switch)	T8VBD4GE000000XX
		PR332 LI (LCD)	T8VBD4GP00A000XX ①
		PR332 LSI (LCD)	T8VBD4GR00A000XX ①
		PR332 LSI (LCD)	T8VBD4GS00A000XX ①

3000A Frame, electronic trip unit (AC only) standard with vertical terminals - Required

Breaker	IC at 480VAC kA	Trip Unit	4 pole, 600V Catalog number
T8V	125	PR232 LSI (Dip Switch)	T8VBF4JC000000XX
		PR331 LSI (Dip Switch)	T8VBF4JE000000XX
		PR332 LI (LCD)	T8VBF4JP00A000XX ①
		PR332 LSI (LCD)	T8VBF4JR00A000XX ①
		PR332 LSI (LCD)	T8VBF4JS00A000XX ①

① Includes 4 open/closed auxiliary contacts as standard

T8

1600/2000/2500/3000A 600VΔ—Four pole Electronic (AC Only) 100% Rated

1600A Frame, electronic trip unit (AC only) standard horizontal terminals

Breaker	IC at 480VAC kA	Trip Unit	4 pole, 600V Catalog number
T8V	125	PR232 LSI (Dip Switch)	T8VQC4FC000000XX
		PR331 LSI (Dip Switch)	T8VQC4FE000000XX
		PR332 LI (LCD)	T8VQC4FP00A000XX ①
		PR332 LSI (LCD)	T8VQC4FR00A000XX ①
		PR332 LSI (LCD)	T8VQC4FS00A000XX ①

2500A Frame, electronic trip unit (AC only) standard vertical terminals - Required

Breaker	IC at 480VAC kA	Trip Unit	4 pole, 600V Catalog number
T8V	125	PR232 LSI (Dip Switch)	T8VQE4HC000000XX
		PR331 LSI (Dip Switch)	T8VQE4HE000000XX
		PR332 LI (LCD)	T8VQE4HP00A000XX ①
		PR332 LSI (LCD)	T8VQE4HR00A000XX ①
		PR332 LSI (LCD)	T8VQE4HS00A000XX ①

2000A Frame, electronic trip unit (AC only) standard horizontal terminals

Breaker	IC at 480VAC kA	Trip Unit	4 pole, 600V Catalog number
T8V	125	PR232 LSI (Dip Switch)	T8VQD4GC000000XX
		PR331 LSI (Dip Switch)	T8VQD4GE000000XX
		PR332 LI (LCD)	T8VQD4GP00A000XX ①
		PR332 LSI (LCD)	T8VQD4GR00A000XX ①
		PR332 LSI (LCD)	T8VQD4GS00A000XX ①

3000A Frame, electronic trip unit (AC only) standard with vertical terminals - Required

Breaker	IC at 480VAC kA	Trip Unit	4 pole, 600V Catalog number
T8V	125	PR232 LSI (Dip Switch)	T8VQF4JC000000XX
		PR331 LSI (Dip Switch)	T8VQF4JE000000XX
		PR332 LI (LCD)	T8VQF4JP00A000XX ①
		PR332 LSI (LCD)	T8VQF4JR00A000XX ①
		PR332 LSI (LCD)	T8VQF4JS00A000XX ①

① Includes 4 open/closed auxiliary contacts as standard

T8

2000/2500/3000A 600VΔ

Molded Case Switch

T8V-D

Rated Voltage	
AC	600VAC
DC	—
Magnetic Override	40000

2000A Frame, standard horizontal terminals

Breaker	3 pole, 600V Catalog number
T8V-D	T8V0D30D000000XX

2500A Frame, standard horizontal terminals

Breaker	3 pole, 600V Catalog number
T8V-D	T8V0E30D000000XX

3000A Frame, standard with vertical terminals - Required

Breaker	3 pole, 600V Catalog number
T8V-D	T8V0F30D000000XX

T8

Accessories, electrical

UL Rating plugs

		Catalog number
T8	1000A Rating plug	KT81000RP
	1200A Rating plug	KT81200RP
	1600A Rating plug	KT81600RP
	2000A Rating plug	KT82000RP
	2500A Rating plug	KT82500RP
	3000A Rating plug	KT83000RP

Accessories for trip units

		Field/factory installation Catalog number
T8	Communication module (Modbus (RTU)	PR330/D-M ②
	External wireless communication module	BT030
	Power supply unit	PR030/B
	Voltage module, 3 pole ③	PR330/V-T83
	Voltage module, 4 pole ③	PR330/V-T84

Current sensor for external neutral

		Field installation Catalog number
T8	Current sensor for external neutral 1000A-3000A	KT8NCT

Closing coil

		Field/factory installation Catalog number
T8	440 VAC	KE6C1
	380...400VAC	KE6C2
	240...250 VAC/DC	KE6C3
	220...240 VAC/DC	KE6C4
	120...127 VAC/DC	KE6C5
	110...120 VAC/DC	KE6C6
	60 VAC/DC	KE6C7
	48 VAC/DC	KE6C8
	30 VAC/DC	KE6C9
	24 VDC	KE6C0

Auxiliary contacts

		Field/factory installation Catalog number
T8	4 open/closed PR232-T8/PR331	KT8A4
	4 open/closed PR332 ①	KT8A4-PR332
	4 open/closed 24V PR232-T8/PR331	KT8A4D
	4 open/closed 24V PR332	KT8A4D-PR332

Bell alarm

		Field/factory installation Catalog number
T8	Allows visual signaling (mechanical) and remote signaling (electrical) of circuit breaker opening by overcurrent release	DE6TBA

Bell alarm with remote reset command

		Field/factory installation Catalog number
T8	Remote setting of circuit breaker after opening by overcurrent release 220-240 VAC/DC	DE6TBAR4
	Remote setting of circuit breaker after opening by overcurrent release 110-130 VAC/DC	DE6TBAR5
	Remote setting of circuit breaker after opening by overcurrent release 24-30 VAC/DC	DE6TBAR9

Contact signaling undervoltage de-energized

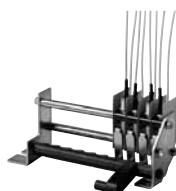
		Field/factory installation Catalog number
T8	NC UV signaling contact	KE6UE01
	NO UV signaling contact	KE6UE10

Spring charging motor

		Field/factory installation Catalog number
T8	24...30 VAC/DC	KE6M9
	48...60 VAC/DC	KE6M7
	100...130 VAC/DC	KE6M5
	220...250 VAC/DC	KE6M3



KE6C*



KT8A4



KE6M*

① Included as standard on breakers ordered with PR332 trip unit

② Discount schedule SAT (T0)

③ Factory install only.

T8

Accessories, electrical



KE6S*

Shunt trip		Field/factory installation Catalog number
T8	440 VAC	KE6S1
	380...400 VAC	KE6S2
	240...250 VAC/DC	KE6S3
	220...240 VAC/DC	KE6S4
	120...127 VAC/DC	KE6S5
	110...120 VAC/DC	KE6S6
	60 VAC/DC	KE6S7
	48 VAC/DC	KE6S8
	30 VAC/DC	KE6S9
	24 VDC	KE6S0

Second shunt trip ①		Field/factory installation Catalog number
T8	440 VAC	KE6S1-2
	380...400 VAC	KE6S2-2
	240...250 VAC/DC	KE6S3-2
	220...240 VAC/DC	KE6S4-2
	120...127 VAC/DC	KE6S5-2
	110...120 VAC/DC	KE6S6-2
	60 VAC/DC	KE6S7-2
	48 VAC/DC	KE6S8-2
	30 VAC/DC	KE6S9-2
	24 VDC	KE6S0-2



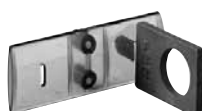
KE6U*

Undervoltage		Field/factory installation Catalog number
T8	440 VAC	KE6U1
	380...400 VAC	KE6U2
	240...250 VAC	KE6U3
	220...240 VAC/DC	KE6U4
	120...127 VAC/DC	KE6U5
	110...120 VAC/DC	KE6U6
	60 VAC/DC	KE6U7
	48 VAC/DC	KE6U8
	30 VAC/DC	KE6U9
	24 VDC	KE6U0

① May be used in place undervoltage.

T8

Accessories, mechanical



KE6PG

Key lock in open position		Field/factory installation Catalog number
T8	Key lock n. 20005 ①	KT8KL2
	Key lock n. 20006	KT8KL3
	Key lock n. 20007	KT8KL4
	Key lock n. 20008	KT8KL5
	Key lock different keys	KT8KL1

Padlocking button cover		Field/factory installation Catalog number
T8	3-4mm locks (padlocks not supplied)	KE6PD1
	HD padlock device	KE6PDHD1
	Extra HD padlock device	KE6PDHD2

Button guard		Field/factory installation Catalog number
T8	Protective cover for opening and closing pushbuttons	KE6PG

Mechanical operation counter		Field/factory installation Catalog number
T8	Indicates the number of mechanical operations	KE6MC

Phase barriers-top terminals only		Field installation Catalog number
T8	Low 100mm 2 pcs (3P)	KT8PBL-3
	Low 100mm 3 pcs (4P)	KT8PBL-4
	High 200mm 2 pcs (3P)	KT8PBH-3
	High 200mm 4 pcs (4P)	KT8PBH-4

IP54 door protection		Field installation Catalog number
T8	Protective cover	KE6DC

Vertical terminals			Field installation Catalog number
T8	Rear Vertical Terminals (2)	Set of six	KT82500VR-6
		Set of eight	KT82500VR-8

Cable terminals		Wire size	Field installation Catalog number
T8	Mechanical Lugs (set of 3)	1/0-750 kcmil (4)	K8TL
		1/0-750 kcmil (6)	K8TM

① Key lock number when factory installed is 20005.

T8

Technical data

Absorbed power on inrush

Shunt trip, Second shunt trip, closing coil		
Voltage	AC	DC
24 VDC	—	200
30 VAC/DC	200	200
48 VAC/DC	200	200
60 VAC/DC	200	200
110...120 VAC/DC	200	200
120...127 VAC/DC	200	200
220...240 VAC/DC	200	200
380...400 VAC	200	—
440 VAC	200	—
Opening time shunt trip - Second shunt trip (ms)	≤ 60	≤ 60
Closing time closing coil (ms)	≤ 80	≤ 80

Spring charging motor

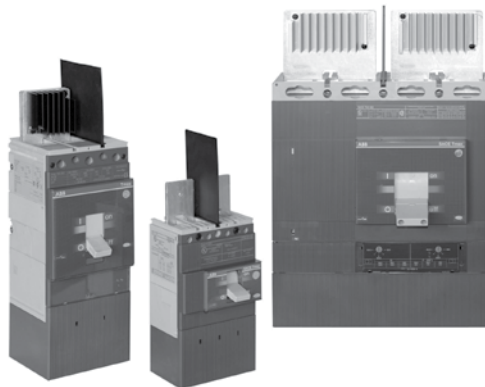
Shunt trip, Second shunt trip, closing coil		
Rated Voltage	AC	DC
	24...30	24...30
	48...60	48...60
	100...130	100...130
	220...250	220...250
Operating voltage (%Un)	85...110	85...110
Power consumption on inrush	500 VA	500 W
Inrush time (s)	0.2	0.2
Charging time (s)	4-5	4-5

Tmax UL489B Photovoltaic circuit breakers



Tmax

UL489B Photovoltaic circuit breakers



Introduction

Thanks to its experience with Tmax UL, ABB is proposing a complete range of products in accordance to UL489B, a new standard, whose requirements cover molded case circuit breakers and molded case switches rated up to 1000V DC, intended for use with photovoltaic systems. A complete range of MCCB and MCS is available up to 1000A for use at 1000V DC, complete with jumpers for connection of poles in series.

Standards

UL489B

Dimensions

All PV breakers are the same size as their standard UL/IEC counterparts.

Weights

T1 - 3.2 lbs.
T4 - 6.18 lbs.
T5 - 8.55 lbs.
T6 - 20.9 lbs.
T7 - 24.25 lbs.

Accessories

Standard Tmax accessories are able to work with all UL 489B units.

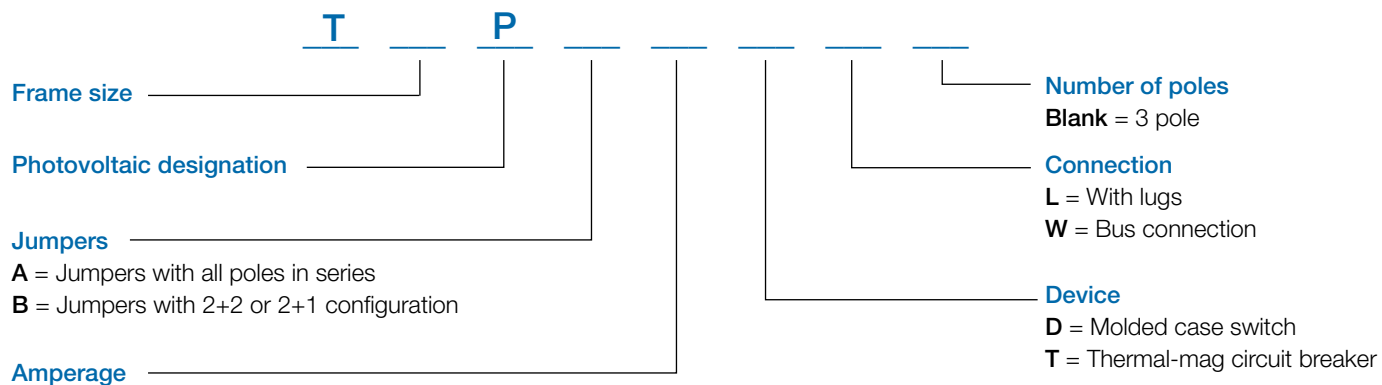
Jumpers come standard with all breakers in either all poles in series or 2+1 or 2+2.

Breakers without lug kits come with terminals to connect to Busbar poles in series for installation options.

General information

Catalog number explanation

Catalog number explanation



Tmax UL489B

Molded case circuit breakers and switches

Tmax
MCCBs

T4 - 200A Frame TMA, Thermal magnetic adjustable

IC at 1000VDC	Rating	Lugs	Poles in Series	Catalog number
3kA	40A	Yes	2+1 3	T4PB040TL T4PA040TL
3kA	50A	Yes	2+1 3	T4PB050TL T4PA050TL
3kA	80A	Yes	2+1 3	T4PB080TL T4PA080TL
3kA	100A	Yes	2+1 3	T4PB100TL T4PA100TL
3kA	125A	Yes	2+1 3	T4PB125TL T4PA125TL
3kA	150A	Yes	2+1 3	T4PB150TL T4PA150TL
3kA	200A	Yes	2+1 3	T4PB200TL T4PA200TL

T5 - 400A Frame TMA, Thermal magnetic adjustable

IC at 1000VDC	Rating	Lugs	Poles in Series	Catalog number
5kA	400A	Yes	2+1 3	T5PB400TL T5PA400TL
5kA	400A	No	2+1 3	T5PB400TW T5PA400TW

T6 - 800A Frame TMA, Thermal magnetic adjustable

IC at 1000VDC	Rating	Lugs	Poles in Series	Catalog number
10kA	600A	Yes	2+2 4	T6PB600TL-4 T6PA600TL-4
10kA	800A	No	2+2 4	T6PB800TW-4 T6PA800TW-4

NOTE: All poles in series is for use in grounded systems.
2+1 or 2+2 configurations are for ungrounded systems.

T1-D 100A Molded case switch

Rating	Lugs	Poles in Series	Catalog number
100A	Yes	2+2 4	T1PB100DL-4 T1PA100DL-4

T4-D 200A Molded case switch

Rating	Lugs	Poles in Series	Catalog number
200A	Yes	2+1 3	T4PB200DL T4PA200DL

T5-D 400A Molded case switch

Rating	Lugs	Poles in Series	Catalog number
400A	Yes	2+1 3	T5PB400DL T5PA400DL
400A	No	2+1 3	T5PB400DW T5PA400DW

T6-D 800A Frame molded case switch

Rating	Lugs	Poles in Series	Catalog number
600A	Yes	2+2 4	T6PB600DL-4 T6PA600DL-4
800A	No	2+2 4	T6PB800DW-4 T6PA800DW-4

T7-D 1000A Molded case switch

Rating	Lugs	Poles in Series	Catalog number
1000A	Yes	2+2 4	T7MPB1000DL-4 T7MPA1000DL-4

Tmax UL489B

Jumper kit accessories

T1-D

Description	Rating	Poles in Series	Catalog number
JUMPER KIT T1PV 100A 4P 2+2PS LUG UL	100A	2+2	KT1PB100-L
JUMPER KIT T1PV 100A 4P 4PS LUG UL		4	KT1PA100-L

T4-D

Description	Rating	Poles in Series	Catalog number
JUMPER KIT T4PV 100A 3P 2+1PS LUG UL	100A	2+1	KT4PB100-L
JUMPER KIT T4PV 100A 3P 3PS LUG UL		3	KT4PA100-L
JUMPER KIT T4PV 200A 3P 2+1PS LUG UL	200A	2+1	KT4PB200-L
JUMPER KIT T4PV 200A 3P 3PS LUG UL		3	KT4PA200-L

T5-D

Description	Rating	Poles in Series	Catalog number
JUMPER KIT T5PV 400A 3P 2+1PS LUG UL	400A	2+1	KT5PB400-L
JUMPER KIT T5PV 400A 3P 3PS LUG UL		3	KT5PA400-L
JUMPER KIT T5PV 400A 3P 2+1PS BUS UL		2+1	KT5PB400-W
JUMPER KIT T5PV 400A 3P 3PS BUS UL		3	KT5PA400-W

T6-D

Description	Rating	Poles in Series	Catalog number
JUMPER KIT T6PV 600A 4P 2+2PS LUG UL	600A	2+2	KT6PB600-L
JUMPER KIT T6PV 600A 4P 4PS LUG UL		4	KT6PA600-L
JUMPER KIT T6PV 800A 4P 2+2PS BUS UL	800A	2+2	KT6PB800-W
JUMPER KIT T6PV 800A 4P 4PS BUS UL		4	KT6PA800-W

T7-D

Description	Rating	Poles in Series	Catalog number
JUMPER KIT T7PV 1000A 4P 2+2PS LUG UL	1000A	2+2	KT7PB1000-L
JUMPER KIT T7PV 1000A 4P 4PS LUG UL		4	KT7PA1000-L

NOTE: See pages 17.71-17.83 for additional electrical/mechanical accessories

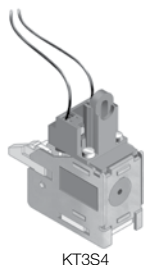
Accessories

Electrical

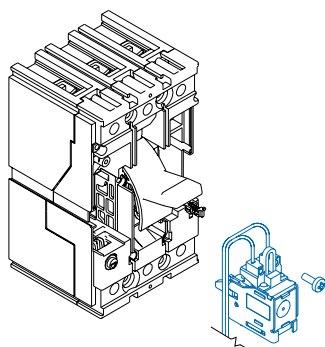
T1 - T7

Shunt trips -(Standard) ①

For remote opening of circuit breaker. Guaranteed operation for a voltage of between 75-110% of the rated power supply voltage. T1-T6 mounts in the left hand cavity cannot be used with UVR on 2-3P breakers



KT3S4



T1 with KT3S4



T7 X1 Shunt trip - UVR

Frame Size	Voltage	Factory Installation ①	Field Installation
		Catalog number suffix	Catalog number
T1-T3	480 - 500VAC	S1	KT3S1
	220-250VAC/DC	S2	KT3S2
	380 - 440VAC	S3	KT3S3
	110 - 125VAC/DC	S4	KT3S4
	48 - 60VAC/DC	S7	KT3S7
	24 - 30VAC/DC	S8	KT3S8
Ts3	12VDC	S9	KT3S9
	480VAC/250VDC	S1	KTS3S1
	240 VAC	S2	KTS3S2
	120VAC/125VDC	S4	KTS3S4
	48VDC	S7	KTS3S7
T4, T5, T6 ③	24VAC/VDC	S8	KTS3S8
	12VDC	S9	KTS3S9
	480-500VAC	S1	KT5S1
	220/250VAC/DC	S2	KT5S2
	380-440VAC	S3	KT5S3
	110-125VAC/DC	S4	KT5S4
T7	48-60VAC/DC	S7	KT5S7
	24VAC/DC	S8	KT5S8
	12VDC	S9	KT5S9
	415-440VAC	S1	KT7XS1
	380-400VAC	S2	KT7XS2
	240-250VAC/DC	S3	KT7XS3
	220-240VAC/DC	S4	KT7XS4
	120-127VAC/DC	S5	KT7XS5
	110-120VAC/DC	S6	KT7XS6
	60VAC/DC	S7	KT7XS7
T7	48VAC/DC	S8	KT7XS8
	30VAC/DC	S9	KT7XS9
	24VAC/DC	S0	KT7XS0

Shunt trip connector (REQUIRED for Ts3) ②

Ts3	Fixed Mount ②	Included when shunt trip factory installed	Field Kit
			KTS3C-SU
Ts3	Draw-out ②	Included when shunt trip factory installed	KTS3C-SUP

Shunt trips (Permanent Supply) ①

For remote opening of circuit breaker. Guaranteed operation for a voltage of between 75-110% of the rated power supply voltage. These shunt trips have much lower power consumption.

Frame Size	Voltage	Factory Installation ①	Field Installation
		Catalog number suffix	Catalog number
Ts3	24VDC	SA	KTS3SA
	120VAC	SB	KTS3SB
T4, T5, T6 ③	24-30VDC	SA	KT5SA
	110/120VAC	SB	KT5SB

Shunt trip connector (REQUIRED for Ts3) ②

Ts3	Fixed Mount ②	Included when shunt trip factory installed	Field Kit
			KTS3C-SU
Ts3	Draw-out ②	Included when shunt trip factory installed	KTS3C-SUP

① For factory installation add suffix given to end of circuit breaker catalog number per accessory format.

② Must be ordered separately for field installation.

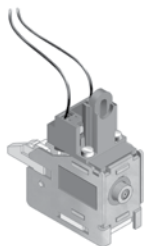
Accessories

Electrical

T1 - T7

Undervoltage release - UVR

Will trip circuit breaker when connected voltage drops to 35-70% of the undervoltage release voltage rating. Will allow circuit breaker to close when voltage is approximately 85% of the rated voltage. T1-T6 mounts in the left hand cavity cannot be used with shunt trip on 2-3P breakers



KT3U2



T7 X1 Shunt trip - UVR

Frame Size	Voltage	Factory Installation ①	Field Installation
		Catalog number suffix	Catalog number
T1-T3	480 - 500VAC	U1	KT3U1
	220-250VAC/DC	U2	KT3U2
	380 - 440VAC	U3	KT3U3
	110 - 125VAC/DC	U4	KT3U4
	60VAC/DC	U5	KT3U5
	48VAC/DC	U7	KT3U7
	24 - 30VAC/DC	U8	KT3U8
Ts3	480VAC	U1	KTS3U1
	240VAC	U2	KTS3U2
	24VAC	U3	KTS3U3
	120VAC	U4	KTS3U4
	250VDC	U5	KTS3U5
	125VDC	U6	KTS3U6
	48VDC	U7	KTS3U7
	24VDC	U8	KTS3U8
T4, T5, T6	480-500VAC	U1	KT5U1
	220/250VAC/DC	U2	KT5U2
	380-440VAC	U3	KT5U3
	110-125VAC/DC	U4	KT5U4
	60VAC/DC	U5	KT5U5
	48VAC/DC	U7	KT5U7
	24VAC/DC	U8	KT5U8
T7	415-440VAC	U1	KT7XU1
	380-400VAC	U2	KT7XU2
	240-250VAC/DC	U3	KT7XU3
	220-240VAC/DC	U4	KT7XU4
	120-127VAC/DC	U5	KT7XU5
	110-120VAC/DC	U6	KT7XU6
	60VAC/DC	U7	KT7XU7
	48VAC/DC	U8	KT7XU8
	30VAC/DC	U9	KT7XU9
	24VAC/DC	U0	KT7XU0

Undervoltage trip connector (REQUIRED for Ts3) ②

Ts3	Fixed Mount ②	Field Kit	
		Included when under voltage factory installed	KTS3C-SU
	Plug-In/Draw-out ②	Included when under voltage factory installed	KTS3C-SUP

① For factory installation add suffix given to end of circuit breaker catalog number per accessory format.

② Must be ordered separately for field installation.

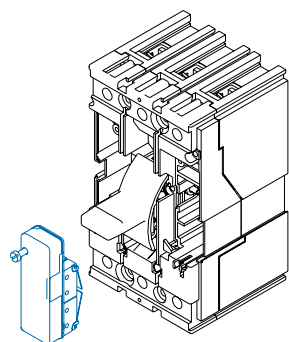
Accessories

Electrical

T1 - T7

Auxiliary contacts - AUX ①

Auxiliary contacts are for indication of the circuit breaker open-closed. Bell alarm contacts (BA) can be used to indicate circuit breaker tripped.



T1 with K3TAS



KTS3AS

Frame Size		Factory Installation ①	Field Installation
		Catalog number suffix	Catalog number
T1-T3 ②	1 Form C + 1BA	A	KT3AS
	3 Form C + 1BA	A3	KT3AS3
	3 Form C + 1BA 24VDC	A3AU	KT3AS3-AU
T2	T2 PR221DS 1 Form C + 1BA	A	KT2AS-E
Ts3	2 Form C	A	KTS3AS
	1 Form C + 1 BA	BA	KTS3BA
T4, T5, T6 ②	1 Form C + 1BA 250VAC/VDC	A	KT5AS
	2 Form C 400VAC/250VDC	A2	KT5AS2-B
	3 Form C + 1BA 250VAC/VDC	A3	KT5AS3
	3 Form C + 1BA 24VDC	A3AU	KT5AS3-AU
T7	1 Form C + 1BA 400VAC/250VDC	A	KT7AS
	2 Form C 400VAC/250VDC	A2	KT7XAS2
	1 Form C + 1BA 24VDC	AAU	KT7AS-AU
	2 Form C 24VDC	A2AU	KT7XAS2-AU
	3 Form C + 1BA 400VAC/250VDC	A3	KT7AS3
	3 Form C + 1BA 24VDC	A3AU	KT7AS3-AU
Auxiliary contact connector (REQUIRED for Ts3) ③			Field Kit
Ts3	Fixed Mount ③	Included	KTS3C-AB
	Plug-In /Drawout ③	Included	KTS3C-ABP

① For factory installation add suffix to end of breaker part number per accessory format .

② Not compatible for T2 with PR221DS trip unit.

③ Must be ordered separately for field installation.

Accessories

Motor operators

T1 - T7

Electrical operators

Allows remote opening and closing of circuit breaker

Frame size	Voltage	Catalog number
------------	---------	----------------

Solenoid operator

T1-T3	48 - 60VDC	KT3M1
	110 - 250VAC/DC	KT3M2

Direct action motor operator

Ts3	240VAC/250VDC	KTS3M2
	120VAC/125VDC	KTS3M4
	48VDC	KTS3M7
	24VDC	KTS3M8

Motor operator connector (REQUIRED for Ts3) ①

Ts3	Fixed Mount ①	KTS3C-M
	Plug-In / Draw-out ①	KTS3C-MP

Stored energy motor operator

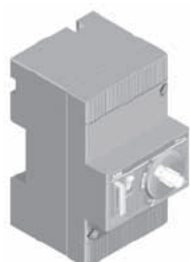
T4, T5	220-250VAC/DC	KT5M2
	110--125-VAC/DC	KT5M4
	48-60VDC	KT5M7
	24VDC	KT5M8

Contact for remote/manual operation (stored energy operator)

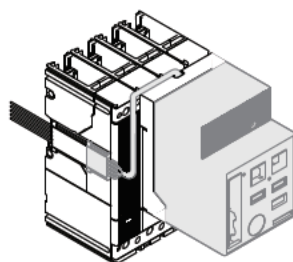
T4, T5, T6	-	KT5MA
------------	---	-------

Stored energy motor operator

T6	220-250VAC/DC	KT6M2
	110--125-VAC/DC	KT6M4
	48-60VDC	KT6M7
	24VDC	KT6M8
	380VAC	KT6M3



KT3M1



KT5M2



KTS3M2

① Must be ordered separately for field installation.

Accessories

Trip units

T4 - T7

Tmax
MCCBs

Frame Size	Rating plug	Catalog number
Rating plugs (UL)		
T7	400A Rating plug	KT7X0400RP
	600A Rating plug	KT7X0600RP
	800 Rating plug	KT7X0800RP
	1000A Rating plug	KT7X1000RP
	1200 Rating plug	KT7X1200RP

Modules for T7 PR332 trip units

T7	Voltage module ②	PR330/VT7
	Communication module (Modbus RTU)	PR330/D-M

External units

Test and configuration unit ③		PR010/T
Trip coil test-all Tmax electronic trip unit except PR33*		K7TUT
External Bluetooth communication module ① Includes diagnostic software for Modbus / Bluetooth networks		BT030
Battery power supply unit ①		PR030/B

Not suitable for UL applications.

T7 - Allows remote opening when used with PR330/D-M and shunt trip

T7M - Allows remote opening and closing when used with PR330//D-M. shunt trip and closing coil

Actuator module (IEC)

T7	Actuator module ②	PR330/R-T7
----	-------------------	------------

Neutral current transformers (required for 4 wire ground fault systems)

T4	100A	KT4NCT-100
	150A	KT4NCT-150
	250A	KT4NCT-250
T5	300A	KT5NCT-300
	400A	KT5NCT-400
T6	600A	KT6NCT-600
	800A	KT6NCT-800

Current sensor for external neutral

T7	400 - 1200A	KT7NCT
----	-------------	--------

① Always supplied with PR332/P trip unit.

③ Factory installed only.

Technical data

Shunt trips, Undervoltages

T1 - T7

Standard shunt trip

Voltage	Inrush Power Consumption							
	T1,T2,T3		Ts3		T4,T5,T6		T7	
	AC (VA)	DC (W)	AC (VA)	DC (W)	AC (VA)	DC (W)	AC (VA)	DC (W)
12 VDC	-	50	-	120	-	150	-	-
24 VAC/DC	-	-	100	100 or 4 ①	-	-	300	300
24...30 VAC/DC	50	50	-	-	150	150	-	-
30 VAC/DC	-	-	-	-	-	-	300	300
48 VAC/DC	-	-	-	120	-	-	300	300
48...60 VAC/DC	60	60	-	-	150	150	-	-
60 VAC/DC	-	-	-	-	-	-	300	300
100...120 VAC/DC	-	-	100 or 4 ①	-	-	-	300	300
120...127 VAC/DC	-	-	-	-	-	-	300	300
110...127 VAC 110...125 VDC	50	50	-	120	150	150	-	-
220...240 VAC/DC	-	-	-	-	-	-	300	300
220...240 VAC 220...250 VDC	50	50	100	120	150	150	-	-
240...250 VAC/DC	-	-	-	-	-	-	300	300
380...400 VAC	-	-	-	-	-	-	300	-
380...440 VAC	55	-	-	-	150	-	-	-
415...440 VAC	-	-	-	-	-	-	300	-
480 VAC	-	-	100	-	-	-	-	-
480...525 VAC	55	-	-	-	150	-	-	-
Opening Time (ms)	15	15	≤15	≤15	15	15	20	20

Permanent supply shunt trip

Voltage	T4,T5,T6	
	AC (VA)	DC (W)
24 VAC/DC	4	4
100...120 VAC	4	-

Undervoltage

Voltage	Power consumption during permanent operation							
	T1,T2,T3		Ts3		T4, T5, T6		T7	
	AC (VA)	DC (W)	AC (VA)	DC (W)	AC (VA)	DC (W)	AC (VA)	DC (W)
24 VAC/DC	-	-	6	3	-	-	3.5	3.5
24...30 VAC/DC	1.5	1.5	-	-	6	3	-	-
30 VAC/DC	-	-	-	-	-	-	3.5	3.5
48 VAC/DC	1	1	6	3	6	3	-	-
60 VAV/DC	1	1	-	-	6	3	-	-
110...120 VAC/DC	-	-	6	-	-	-	3.5	3.5
120...127 VAC/DC	-	-	-	-	-	-	3.5	3.5
110...127 VAC 110...125 VDC	2	2	-	-	6	3	-	-
220...240 VAC/DC	-	-	-	-	-	-	3.5	3.5
220...240 VAC 220...250 VDC	2.5	2.5	-	3	6	3	-	-
220...250 VAC	-	-	6	-	-	-	-	-
240...250 VAC/DC	-	-	-	-	-	-	3.5	3.5
380...400 VAC	-	-	-	-	-	-	3.5	-
380...440 VAC	3	-	-	-	6	-	-	-
415 - 440 VAC	-	-	-	-	-	-	3.5	-
480...525 VAC	4	-	-	-	6	-	-	-
480 VAC	-	-	6	-	-	-	-	-
Opening Time (ms)	15	15	≤18	≤18	≤25	≤25	≤25	≤25

① Shunt trip permanent supply

Technical data

Electrical operators

T1 - T6

Electrical operator, T1-T3

Rated Voltage		AC	DC
		-	48...60
		110...250	110...250
Operating Voltage		85...110% Un	
Inrush power absorption during operation		1800 (VA)	1000 (W)
Power on stand by		< 100 (mW)	
Time	opening (s)	< 0.1	
	closing (s)	< 0.1	
Minimum control impulse time on opening and closing (ms)		>100	

This unit is permanently supplied on stand by, a control is applied by means of external contact in a low power circuit.

Contact characteristics:

Voltage AC/DC=24V

Current 50 mA

Electrical operator, T4-T5

Voltage		AC	DC
		-	24
		-	48...60
		110...125	110...125
		220-250	220-250
		380	-
Operating Voltage		85...110%	
Inrush power consumption		≤ 300VA	≤ 300W
In service power consumption		≤150VA	≤150W
Duration	opening (s)	1.5	
	closing (s)	< 0.1	
	resetting (s)	3	
Minimum duration of the opening and closing command impulse (ms)		≥100	

Electrical operator, Ts3

Rated Voltage		AC	DC
		-	24
		-	48...60
		120	125
		240	250
		440	-
Operating Voltage		85...110 % Un	
Inrush power absorption		500 (VA)	500 (W)
Service power absorption		350 (VA)	350 (W)
Time constant (ms)		18	
Duration	opening (s)	0.1	
	closing (s)	0.1	
Minimum duration of the opening and closing command impulse (ms)		≥150	

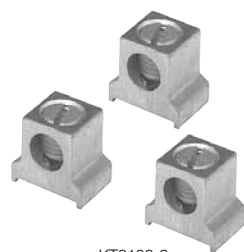
Electrical operator, T6

Voltage		AC	DC
		-	24
		-	48...60
		110-125	110-125
		220-250	220-250
		380	-
Operating Voltage		85...110%	
Inrush power consumption		≤ 400VA	≤ 400W
In service power consumption		≤150VA	≤150W
Duration	opening (s)	3	
	closing (s)	< 0.1	
	resetting (s)	5	
Minimum duration of the opening and closing command impulse (ms)		≥100	

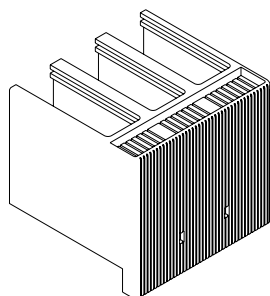
Accessories

Mechanical

T1 - T7



KT3100-3



KT1HTC-3

Standard cable terminal

Frame	Wire Size	Catalog number (set of 3)	Catalog number (set of 4)
T1	14 AWG-1/0	Integral	Integral
T2	14 AWG-1/0	KT2100-3	KT2100-4
T3	14 AWG - 1/0	KT3100-3	KT3100-4
	4 AWG - 300 kcmil	KT3225-3	KT3225-4
Ts3	14-2	K3TA	K3TA-4
	14-1/0	K4TB	K4TB-4
	2-4/0	K4TC	K4TC-4
	4-300 kcmil	K4TD	K4TD-4
T4	14 AWG-1/0	KT4100-3	KT4100-4
	6 AWG-350 kcmil	KT4250-3	KT4250-4
T5 ①	250 kcmil-500 kcmil	KT5300-3	KT5300-4
T5 ①③	(2) 3/0-250 kcmil	KT5400-3	KT5400-4
T5 ②	(2) 3/0-500 kcmil	KT5600-3	—
T6	(2) 250-500 kcmil	K6TH	K6TH-4
T6 ①	(3) 2/0-400 kcmil	K6TJ	K6TJ-4
T7 ①	(4) 4/0-500 kcmil	KT7X1200-3	KT7X1200-4

Standard cable lug kits with power control taps

Frame	Wire Size	Catalog number (set of 3)	Catalog number (set of 4)
T3	14 AWG - 1/0	KT3100-3C	KT3100-4C
	4 AWG - 300 kcmil	KT3225-3C	KT3225-4C
Ts3	14 AWG-1/0	K4TBC	K4TBC-4
	2 AWG-4/0	K4TCC	K4TCC-4
	4 AWG-300 kcmil	K4TDC	K4TDC-4
T4	14 AWG-1/0	KT4100-3C	KT4100-4C
	6 AWG-350 kcmil	KT4250-3C	KT4250-4C
T5 ③	250 kcmil-500 kcmil	KT5300-3C	KT5300-4C
T5 ①③	(2) 3/0-250 kcmil	KT5400-3C	KT5400-4C
T6	(2) 250-500 kcmil	K6THC	K6THC-4
T6 ①	(3) 2/0-400 kcmil	K6TJC	K6TJC-4

Terminal covers for fixed breakers - Low profile-kit includes two pieces



KT4LTC-3

Frame	Catalog number (3 pole)	Catalog number (4 pole)
T1	KT1LTC-3	KT1LTC-4
T2	KT2LTC-3	KT2LTC-4
T3	KT3LTC-3	KT3LTC-4
Ts3	KT3LTC-3	KT3LTC-4
T4	KT4LTC-3	KT4LTC-4
T5	KT5LTC-3	KT5LTC-4
T6	KT6LTC-3	KT6LTC-4
T7	KT7LTC-3	KT7LTC-4

Terminal covers for fixed breakers - High profile-kit includes two pieces

Frame	Catalog number (3 pole)	Catalog number (4 pole)
T1	KT1HTC-3	KT1HTC-4
T2	KT2HTC-3	KT2HTC-4
T3	KT3HTC-3	KT3HTC-4
Ts3	KT3HTC-3	KT3HTC-4
T4	KT4HTC-3	KT4HTC-4
T5	KT5HTC-3	KT5HTC-4
T6	KT6HTC-3	KT6HTC-4
T7	KT7HTC-3	KT7HTC-4

① Comes standard with high profile terminal covers.

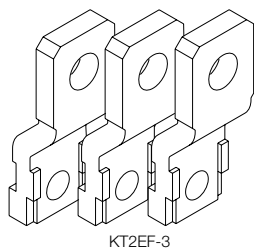
② Uses front extended spreaded terminals... refer to technical catalog.

③ Not suitable for use on T5 600A.

Accessories

Mechanical

T1 - T7



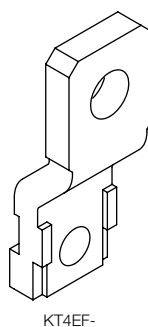
Phase barriers - Low profile 100mm-3.93 in

Frame	4 pcs (3p)	6 pcs (4p)
T1-T3	KT3PBL-3	KT3PBL-4
T4-T5	KT5PBL-3	KT5PBL-4
T6	KT6PBL-3	KT6PBL-4
T7	KT7PBL-3	KT7PBL-4

Phase barriers - High profile 200mm-7.87 in

Frame	4 pcs (3p)	6 pcs (4p)
T1-T3	KT3PBH-3	KT3PBH-4
T4-T5	KT5PBH-3	KT5PBH-4
T7	KT7PBH-3	KT7PBH-4

Saddle terminals for Copper Cables - IEC



Frame	Catalog number (Set of 3)	Catalog number (Set of 4)
T2	KT2100S-3	KT2100S-4
T3	KT3225S-3	KT3225S-4
Ts3	K4TES	K4TES-4
T4	KT4250S-3	KT4250S-4
T5	KT5300S-3	KT5300S-4

Extended front terminals

Frame	Catalog number (set of 3)	Catalog number (set of 4)
T1	KT1EF-3	KT1EF-4
T2	KT2EF-3	KT2EF-4
T3	KT3EF-3	KT3EF-4
Ts3	KTs3EF-3	KTs3EF-4
T4	KT4EF-3	KT4EF-4
T5	KT5EF-3	KT5EF-4

Rear terminals ①

Frame	Catalog number (set of 3)	Catalog number (set of 4)
T2	KT2R-3	KT2R-4
T3	KT3R-3	KT3R-4
T4	KT4R-3	KT4R-4
T5	KT5R-3	KT5R-4
T6	KT6R-3	KT6R-4
T7	KT7R-3	KT7R-4

Distribution cable lug kit ②

Frame	Wire Size	Catalog number (set of 3)	Catalog number (set of 4)
T3	(6) #14-6	KT3TN	KT3TN-4
Ts3	(6) #14-6	KTS3TN	KTS3TN-4
T4	(6) #14-6	KT4TN	KT4TN-4
T5	(6) #14-1/0	KT5TGD	KT5TGD-4

① Includes low profile terminal cover.
② Includes high profile terminal cover.

Accessories

Mechanical

T1 - T7

Padlock locking device

Frame	Style	Locking Position	Breaker Mounting	Catalog number
T1,T2,T3	PLL	OPEN/CLOSED OPEN	Fixed	KT3LD KT3LDO
Ts3	FLD	OPEN	Fixed, Plug-In Draw-Out	KTS3FLD KTS3FLDW
T4-T5	FLD	OPEN	Fixed, Plug-In Draw-out	KT5FLD KT5FLDW
T6	FLD	OPEN	Fixed, Plug-In Draw-out	KT6FLD KT6FLDW
T7	PLL	OPEN	Fixed, Drawout	KT7LDO

Keylocks-rotary handle mechanism

Frame	Style	Locking Position	Keys	Catalog number
T1,T2,T3	RHL	OPEN/CLOSED	Different	KT3RHL3
Ts3	-	OPEN	Different	KTS3KLFD
T4-T5	KLF-D	OPEN	Different	KT5KLFD
T6	KLF-D	OPEN	Different	KT6KLFD
T7	KLF-D	OPEN	Different	KT7KLFD



KT5RH

Direct mount rotary operator handle

Frame	Breaker Mounting	Catalog number
T1, T2, T3	Fixed, Plug-In	KT3RH
Ts3	Fixed, Plug-In	KTS3RH
Ts3	Draw-out	KTS3RHW
T4-T5	Fixed, Plug-In	KT5RH
T4-T5	Draw-Out	KT5RHW
T6	Fixed, Draw-out	KT6RH
T6	Draw-out	KT6RHW
T7	Fixed, Draw-out	KT7RH



OH65J6



OH125J10

Variable depth handle operators

Frame	NEMA rating	Mechanism catalog number	Shaft catalog number	Handle catalog number
T1—T3	1,3R,12	—	—	OH65J6 OHY65J6
	4, 4X	KT3VD-M	EXP6X430 (16.9") ①	OH680L6 OHY80L6
	1	—	KT3VD-S (11.8")	KT3VD-H
Ts3	1,3R,12	—	EXP10X148 (5.8") ①	OH695J10 OHY95J10
	4,4X	KTS3VD-M	EXP10X225 (8.9")	OH695L10 OHY95L10
	—	—	EXP10X500 (19.7")	—
	1	—	KTS3VD-S (20")	KTS3VD-H
T4-T5	1,3R,12	—	EXP10X148 (5.8")	OH695J10 OHY95J10
	4,4X	KT5VD-M	EXP10X225 (8.9")	OH695L10 OHY95L10
	—	—	EXP10X500 (19.7")	—
	1	—	KT5VD-S (19.7")	KT5VD-H
T6	1,3R,12	—	EXP10X148 (5.8")	OH6125J10 OHY125J10
	4,4X	KT6VD-M	EXP10X225 (8.9")	OH6125L10
	—	—	EXP10X500 (19.7")	—
	1	—	KT6VD-S (19.7")	KT6VD-H
T7	1,3R,12	—	EXP10X148 (5.8")	OH6175J10 OHY175J10
	4, 4X	KT7VD-M	EXP10X225 (8.9")	OH6175L10
	—	—	EXP10X500 (19.7")	—
	1	—	KT7VD-S (19.7")	KT7VD-H

① Discount schedule H6.

Accessories

Mechanical

T1 - T7

Plug-in kits ①



KT2PFF + KT2PMK (on back of breaker) +
breaker

Frame	Catalog number Adapter moving part	Catalog number fixed part
T2 - 3 pole with front terminals	KT2PMK	KT2PFF
T3 - 3 pole with front terminals	KT3PMK	KT3PFF
T2-T3 Fixed parts accept the same cable and rear terminal kits as the circuit breakers		
Ts3 3 pole with front terminals	KTS3PMK	KT3PFF
Ts3 3 pole with rear terminals		KT3PFR
T4 3 pole with extended front terminal	KT4PMK	KT4PFEF
T4 3 pole with rear horizontal terminals		KT4PFHR
T4 3 pole with rear vertical terminals		KT4PFVR

T5, 400A

T5 400A 3 pole with extended front terminal	KT5PMK	KT5PFEF
T5 400A 3 pole with rear horizontal terminal		KT5PFHR
T5 400A 3 pole with rear vertical terminal		KT5PFVR

T5, 600A

T5 600A 3 pole with extended front terminal	KT56PMK	KT56PFEF
T5 600A 3 pole with rear horizontal terminal		KT56PFHR
T5 600A 3 pole with rear vertical terminal		KT56PFVR



KT4PMK (on back of
breaker)

Plug connectors, T1-T3

Required when adding accessories to plug-in breakers

Plug Connector	Catalog number
Shunt trip or UVR	KT3PC-3
1 form C plus 1 BA	KT3PC-6
3 form C plus 1 BA	KT3PC-12

Adaptors, T4-T6

Required when adding accessories to plug-in or drawout breakers

Adaptors	Catalog number
1 form C plus 1 BA	KT5ADP-6
Shunt trip/UVR	KT5ADP-5
Stored energy operator	KT5ADP-10
Stored energy operator plus shunt trip/UVR	KT5ADP-10
3 form C plus 1BA	KT5ADP-12

Testing extension, T4 - T6

Extension	Catalog number
5 pin for blank tests w/service release	KT5EXT-5
6 pin for blank tests w/aux contacts (1+1) service and residual current releases	KE5EXT-6
10 pin for blank tests w/motor operator and early contacts	KT5EXT-10
12 pin for blank tests w/aux contacts (3+1)	KT5EXT-12

① Plug connectors (T2-T3), Adaptors (T4-T5), required when adding accessories to plug-in breakers.

Accessories

T1 - T7

Draw-out kits ①

Item	Catalog number Adaptor moving part	Catalog Number Fixed part
Ts3 3 pole with front terminals	KTS3WMK	KTS3WFF ③
Ts3 3 pole with rear terminals		KTS3WFR ③
T4 3 pole with extended front terminal	KT4WMK	KT4WFEF
T4 3 pole with rear horizontal terminals		KT4WFHR
T4 3 pole with rear vertical terminals		KT4WFFR
T5 3 pole with extended front terminal	KT5WMK	KT5WFEF
T5 3 pole with rear horizontal terminal		KT5WFHR
T5 3 pole with rear vertical terminal		KT5WFFR
T5 3 pole with extended front terminal, 600A	KT56WMK	KT56WFEF
T5 3 pole with rear horizontal terminal, 600A		KT56WFHR
T5 3 pole with rear vertical terminal, 600A		KT56WFFR
T6 3 pole with extended front terminal	KT6WMK	KT6WFEF ③
T6 3 pole with rear horizontal terminal		KT6WFHR ③
T6 3 pole with rear vertical terminal		KT6WFFR
T7 3 pole with horizontal/vertical terminals	KT7XWMK	KT7WFHR ②



Adaptors — T4-T6

Required when adding accessories to plug-in or drawout breakers

Adaptors	Catalog number
1 form C plus 1 BA	KT5ADP-6
Shunt trip/UVR	KT5ADP-5
Stored energy operator	KT5ADP-10
Stored energy operator plus shunt trip/UVR	KT5ADP-10
3 form C plus 1BA	KT5ADP-12

Sliding contact blocks — T7-Draw-out

Item	Moving Part Breaker	Fixed Part Cradle
Left Block		
Spring charging motor	KT7XSCMP-L	KT7SCFP-L
Spring charged contact		
Ready to close contact		
Early auxiliary contact		
Contact for trip coil release trip		
Trip rest		
Center Block		
PR331	KT7XSCMP-C	KT7XSCFP-C
PR332		
Right Block		
Auxiliary contacts	KT7XSCMP-R	KT7XSCFP-R
Shunt trip		
Closing Coil		
Undervoltage release		

If at least one of the accessories in table is installed on the breaker - respective pair of contact blocks must be installed on the fixed part (cradle) and the moving part. (breaker)

Position key lock — T7 - T7M-X1

Item	Catalog number
Key #20005	KT7XPL2
Different key	KT7XPL1

Locks drawout breaker in racked-in / test isolation / racked-out position.

Position key lock accessory — T7 - T7M-X1

Item	Catalog number
Key lock accessory	KT7XPLA

Accessory added to position key lock allows breaker to be locked in racked-out position only.

① Adaptors (T4-T6), Sliding contact blocks (T7) required when adding accessories to draw-out breakers.

② Comes standard with horizontal terminals field convertible to vertical

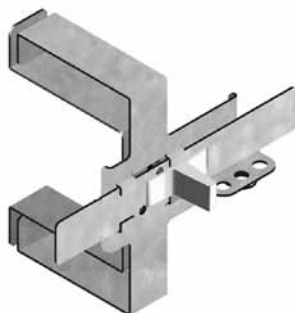
③ IEC

Accessories

T1 - T7

DIN rail adapters

Item	Catalog Number
T1/T2 (mounts on 35 mm DIN rail 15mm high)	KT2DIN
T3 (mounts on 35mm DIN rail 15mm high)	KT3DIN
Ts3 (mounts on 75 mm DIN rail)	KTS3DIN



KT3MIF2

Mechanical interlocks

T1-T3	Catalog Number
Sliding bar interlock-front mounted (2 Breakers)	KT3MIF2
Sliding bar interlock-front mounted (3 Breakers)	KT3MIF3
T3	
Rear Interlock-horizontal	KT3MI-H
Rear Interlock-vertical	KT3MI-V
Ts3	
Horizontal	KTS3MI-H
Vertical	KTS3MI-V
T4-T5 ①	
Interlock frame	
Mechanical Interlock frame-horizontal	KT5MIR-HB
Mechanical Interlock frame-vertical	KT5MIR-VB
Plate type	
A T4 (F-P-W) T4 (F-P-W)	KT5MIR-PA
B T4 (F-P-W) T5 400 (F-P-W) OR T5 600 (F)	KT5MIR-PB
C T4 (F-P-W) T5 600 (P-W)	KT5MIR-PC
D T5 (F-P-W) T5 400 (F-P-W) OR 630 (F)	KT5MIR-PD
E T4 (F-P-W) T5 600 (P-W)	KT5MIR-PE
F T4 (F-P-W) T5 600 (P-W)	KT5MIR-PF
T6	
Horizontal	KT6MI-H
Vertical	KT6MI-V
T7 ②	
Cable T7-X1	KT7XMLC
Mech. interlock plate-fixed	KT7XMLPF
Mech. interlock plate-draw-out	KT7XMLPW

Flange cable mechanisms

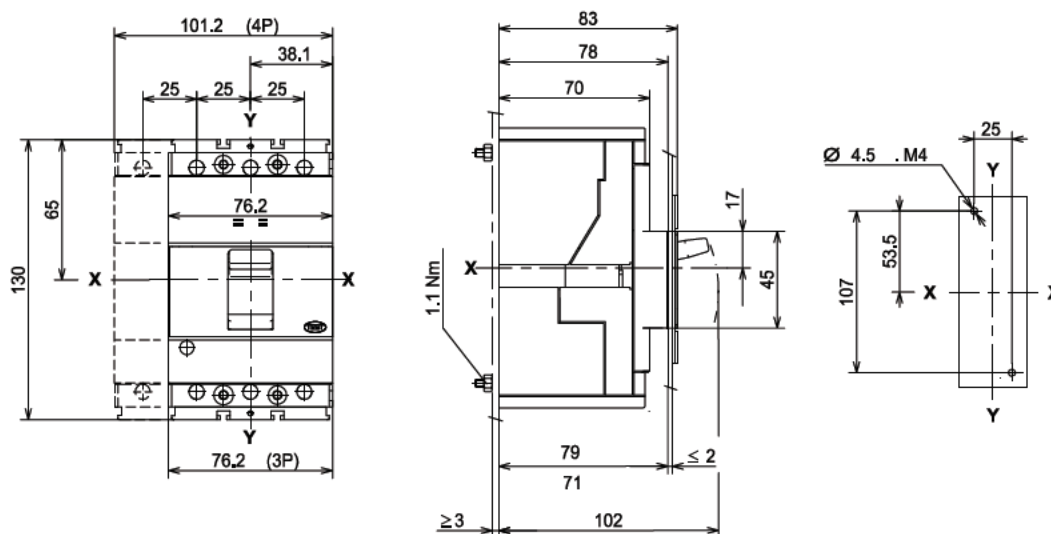
Item	Catalog Number
Handles	
T1 - T3	NEMA 1, 3R, 12
	NEMA 4, 4X
Ts3 - T5	NEMA 1, 3R, 12
	NEMA 4, 4X
Mechanisms	
T1 - T2	MKCT2
T3	MKCT3
T4 - Ts3	MKCT4
T5	MKCT5
Cables	
36"	OXC1L36
48"	OXC1L48
60"	OXC1L60
72"	OXC1L72
84"	OXC1L84
96"	OXC1L96
108"	OXC1L108

① T4-T5 Complete assembly consists of one interlock frame and one plate.

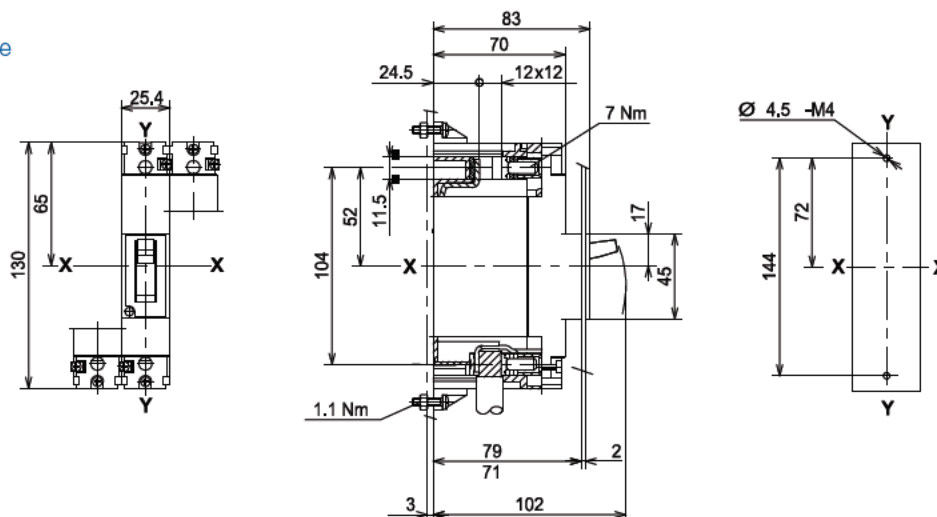
② To interlock two circuit breakers, you have to order a cable kit and two plates.

Approximate dimensions T1 & T2

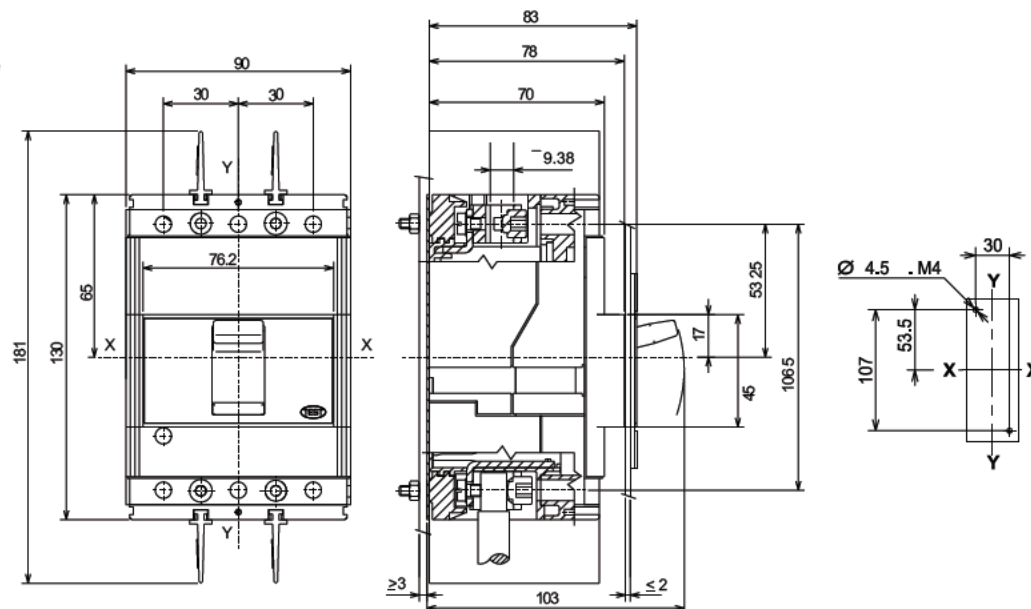
T1 — 3 pole



T1 — Single pole



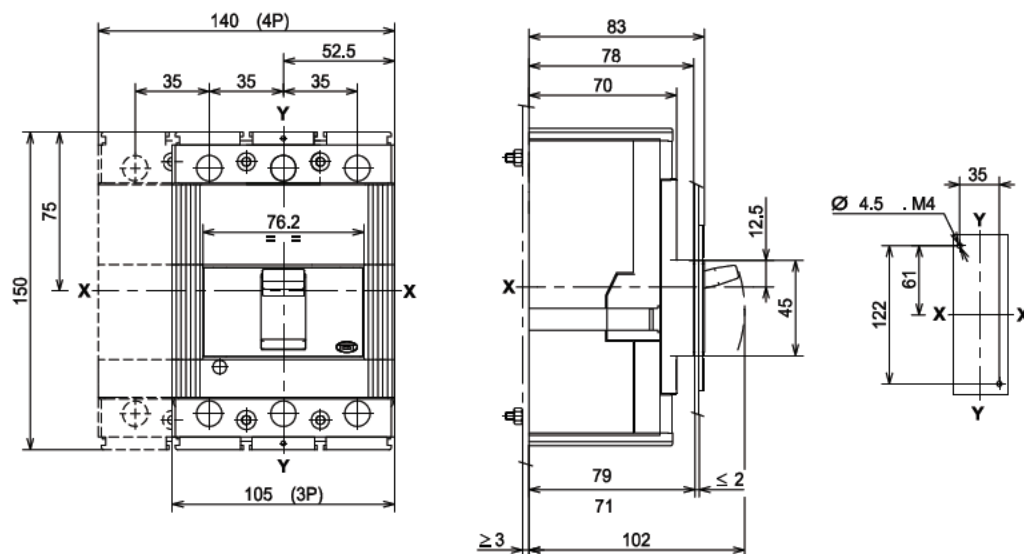
17 T2 — 2 & 3 pole



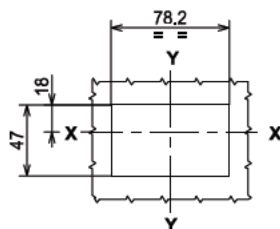
Approximate dimensions T3

Tmax
MCCBs

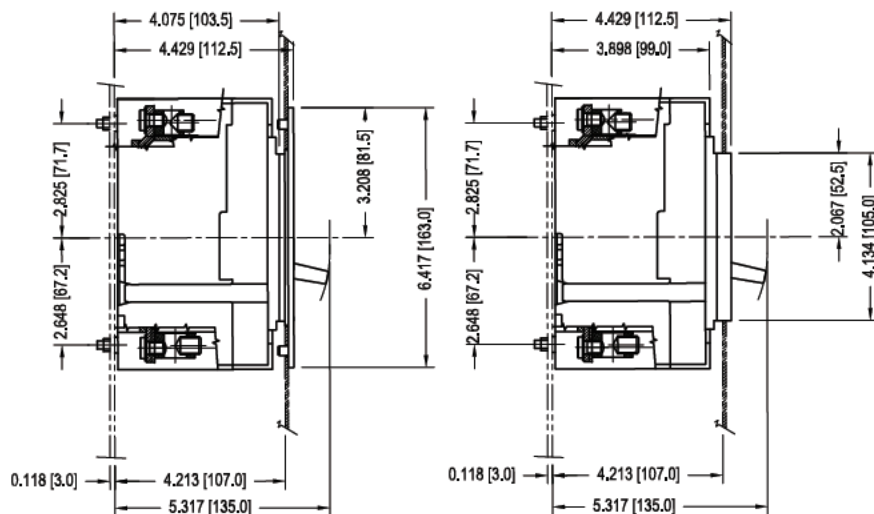
T3 — 2 & 3 pole



Door cut-out for Tmax without faceplate

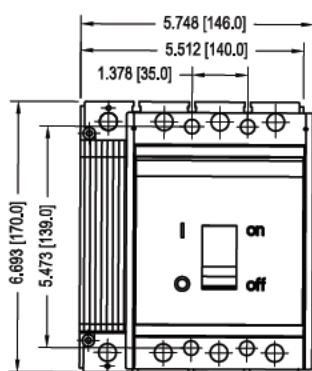


Approximate dimensions T3S

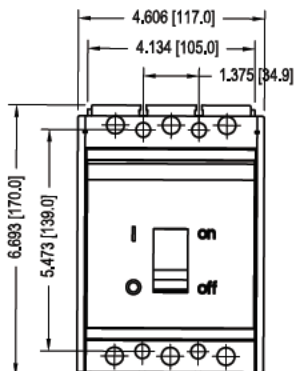


**T3S 3 & 4 POLE
SIDE VIEW
WITH FLANGE**

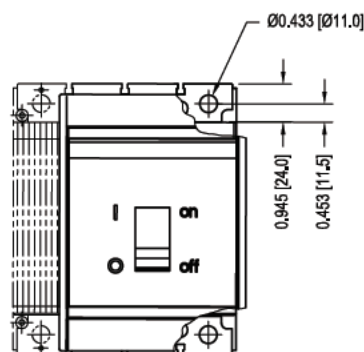
**T3S 3 & 4 POLE
SIDE VIEW
WITHOUT FLANGE**



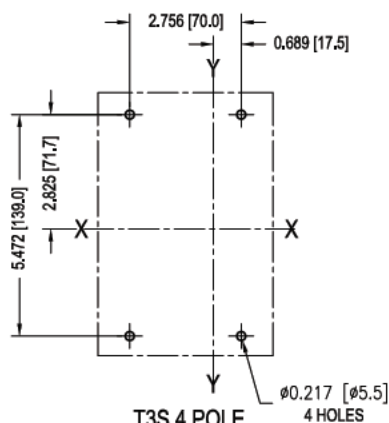
**T3S 4 POLE
FRONT VIEW**



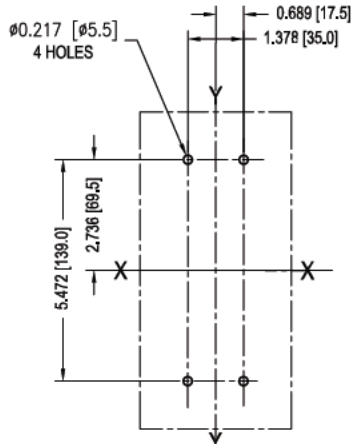
**T3S 3 POLE
FRONT VIEW**



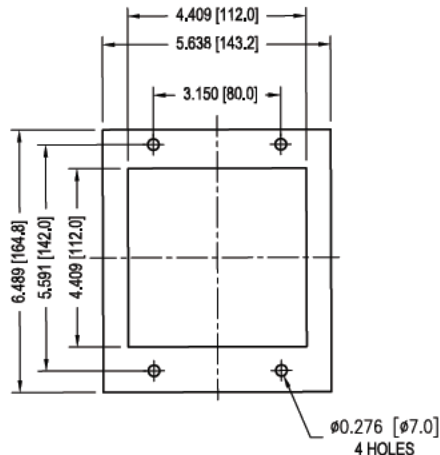
**T3S 3 & 4 POLE
FRONT CONNECTION
FRONT VIEW**



**T3S 4 POLE
DRILLING
FRONT VIEW**



**T3S 3 POLE
DRILLING
FRONT VIEW**

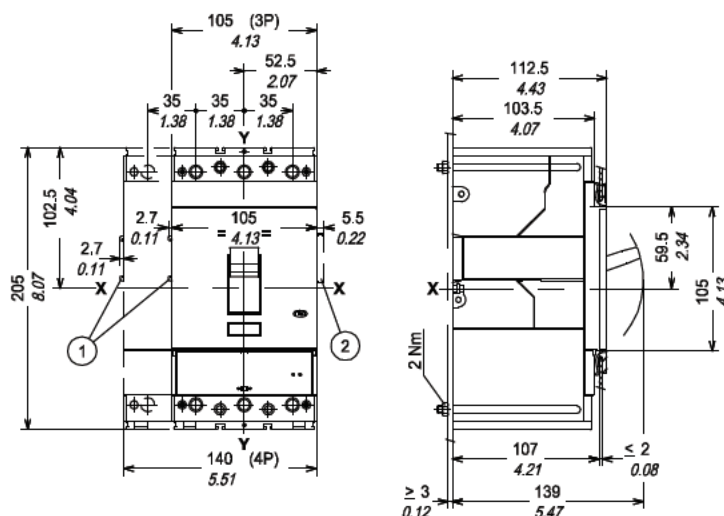


**T3S 3 POLE
HANDLE DOOR
CUT-OUT**

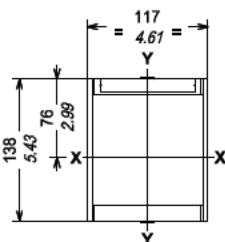
Fixed circuit breaker

Caption

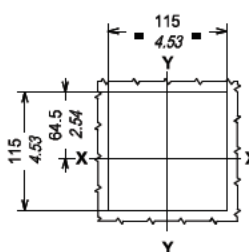
- ① Overall dimensions with cabled accessories mounted (SOR-C, UVR-C, RC221-222)
- ② Overall dimensions with cabled auxiliary contacts mounted (only 3Q 15Y)



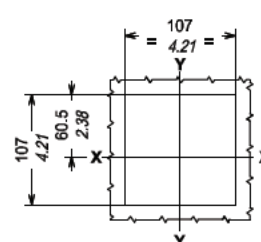
Flange for
compartment door



Drilling templates of the compartment door



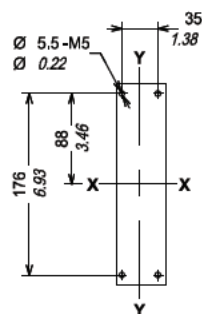
3-4 POLES
With flange



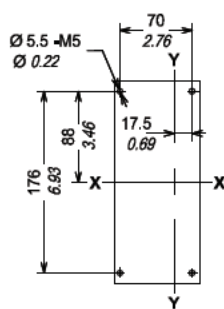
3-4 POLES
Without flange

Drilling templates for support sheet

For front terminals

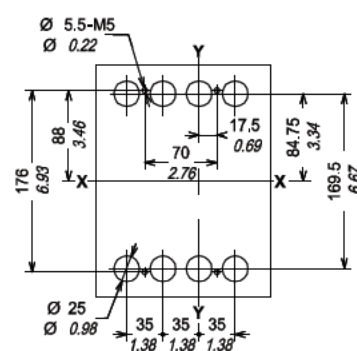
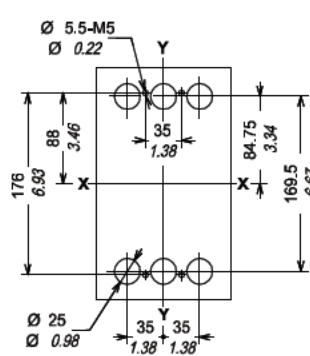


3 POLES



4 POLES

For rear terminals

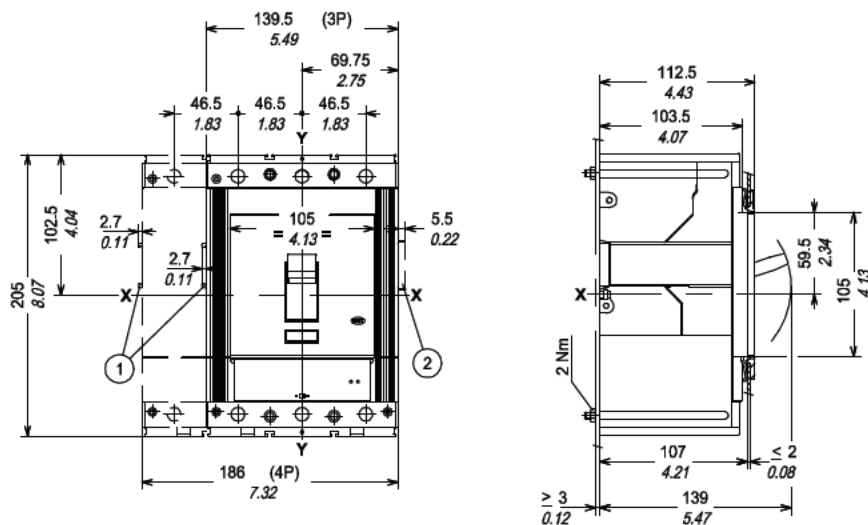
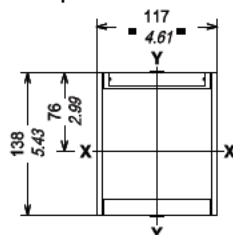


Fixed circuit breaker

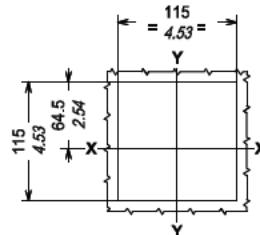
Fixing on sheet

Caption

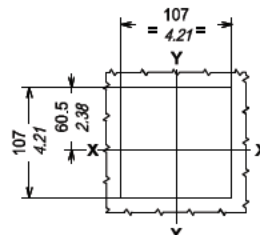
- ① Overall dimensions with cabled accessories mounted (SOR-C, UVR-C, RC221-222)
- ② Overall dimensions with cabled auxiliary contacts mounted (only 3Q 1SY)

Flange for
compartment door

Drilling templates of the compartment door



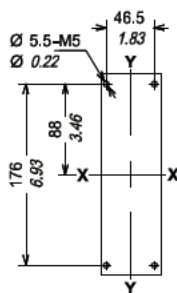
With flange (3-4 POLES)



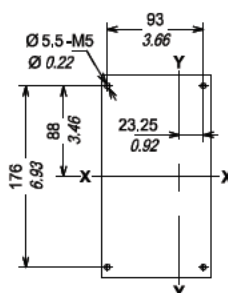
Without flange (3-4 POLES)

Drilling templates for support sheet

For front terminals

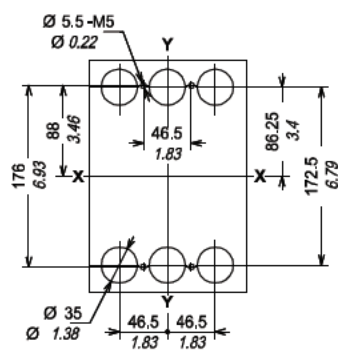


3 POLES

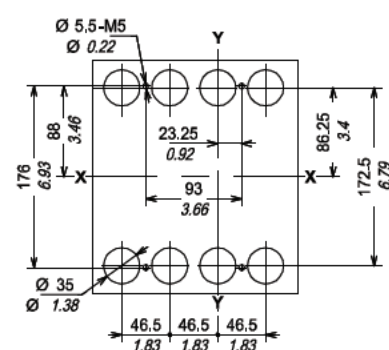


4 POLES

For rear terminals



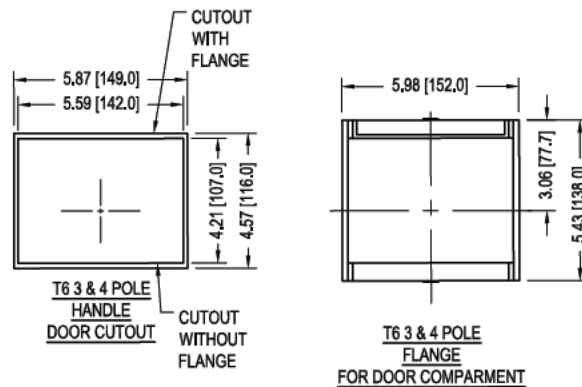
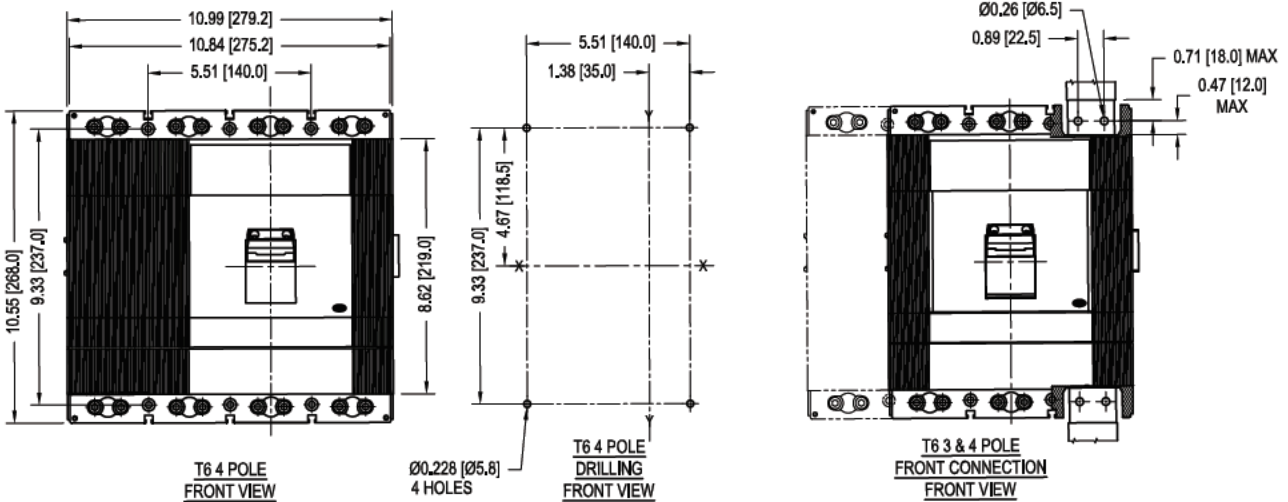
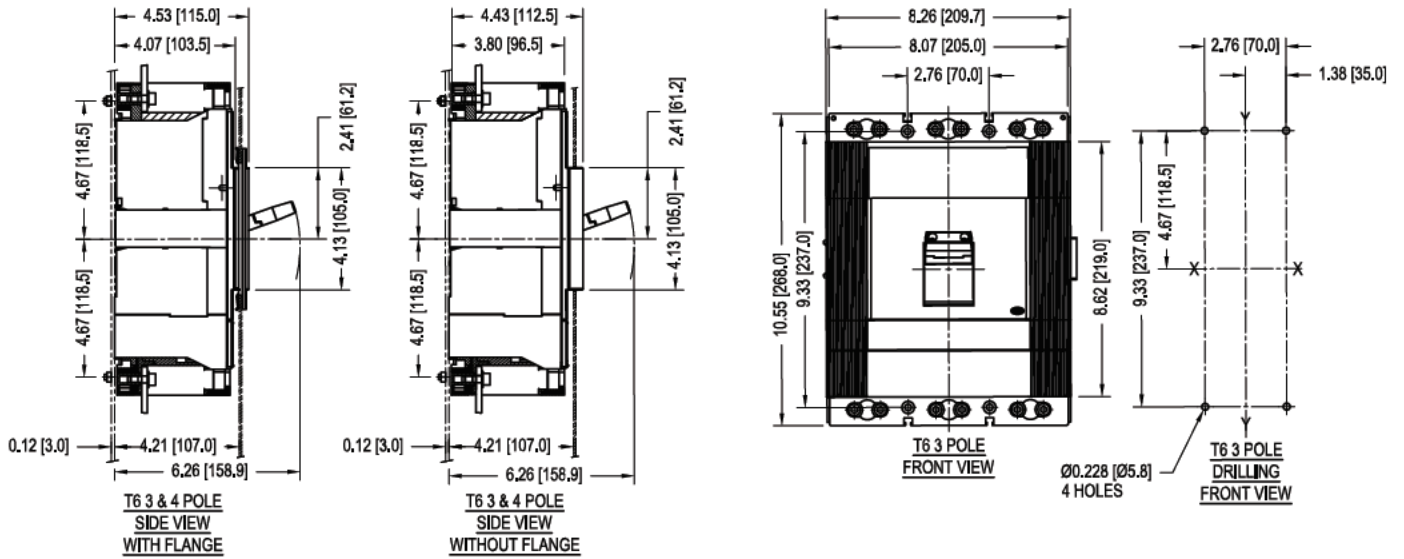
3 POLES



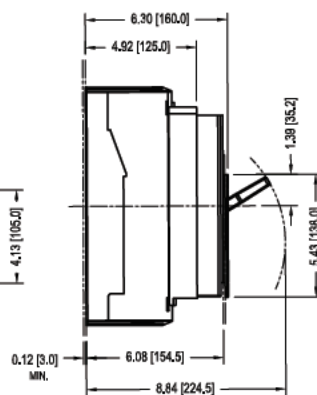
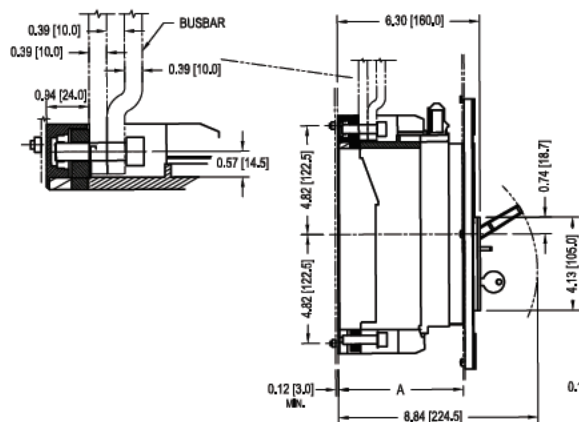
4 POLES

Approximate dimensions T6

Tmax
MCCBs



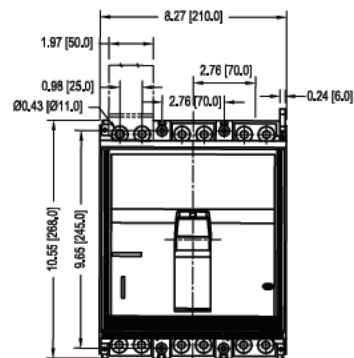
Approximate dimensions T7



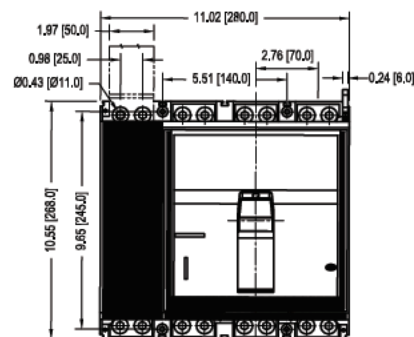
	WITH FLANGE	WITHOUT FLANGE
A	4.92 [125.0] - 5.55 [141.0]	5.79 [147.0]

T7 3 & 4 POLE
SIDE VIEW
WITH FLANGE

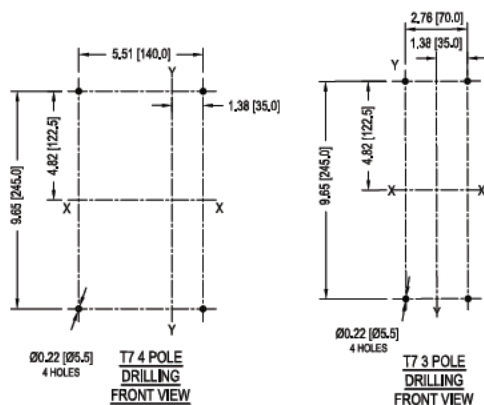
T7 3 & 4 POLE
SIDE VIEW
WITH REDUCED FLANGE



T7 3 POLE
FRONT VIEW

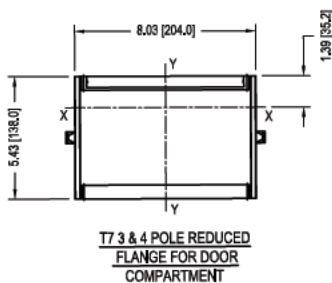


T7 4 POLE
FRONT VIEW

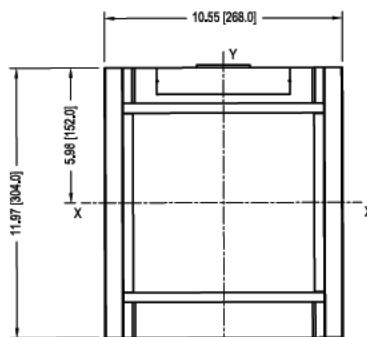


T7 4 POLE
DRILLING
FRONT VIEW

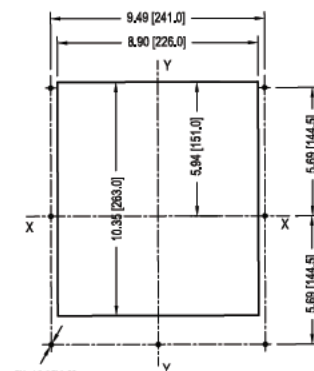
T7 3 POLE
DRILLING
FRONT VIEW



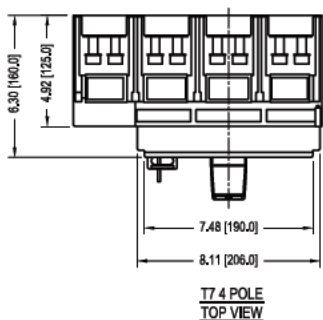
T7 3 & 4 POLE REDUCED
FLANGE FOR DOOR
COMPARTMENT



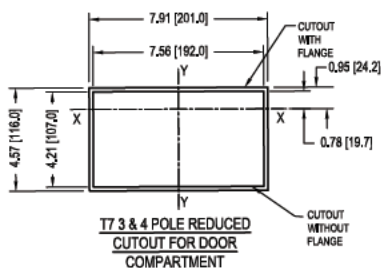
T7 3 & 4 POLE FLANGE
FOR DOOR
COMPARTMENT



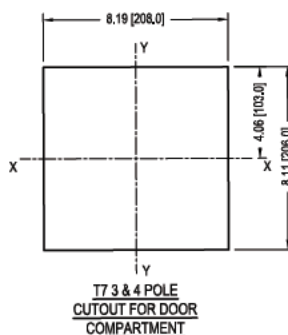
T7 3 & 4 POLE CUTOUT FOR
DOOR COMPARTMENT
WITH FLANGE



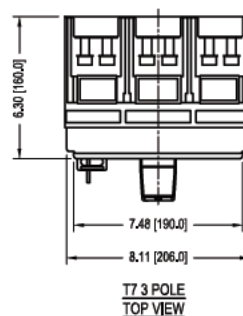
T7 4 POLE
TOP VIEW



T7 3 & 4 POLE REDUCED
CUTOUT FOR DOOR
COMPARTMENT



T7 3 & 4 POLE
CUTOUT FOR DOOR
COMPARTMENT

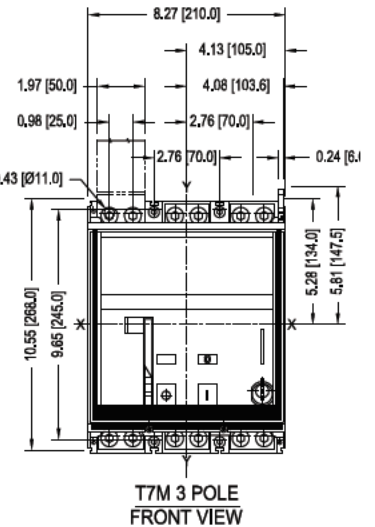
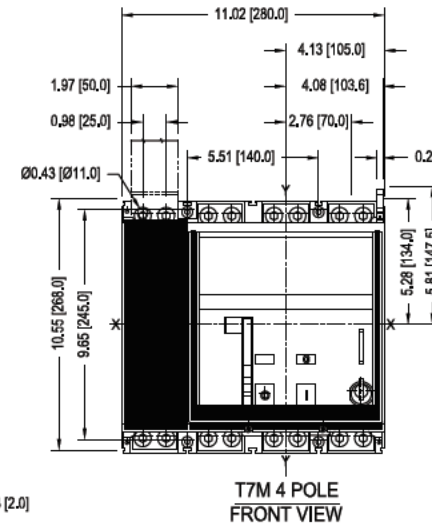
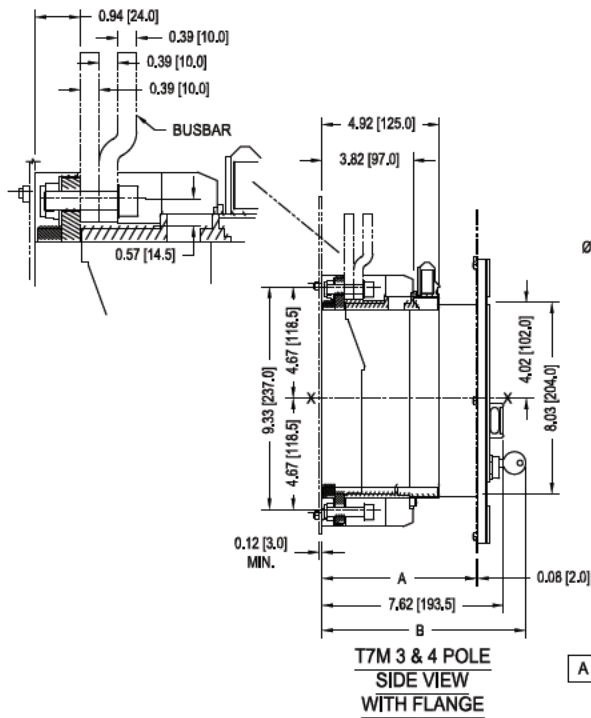


T7 3 POLE
TOP VIEW

Approximate dimensions

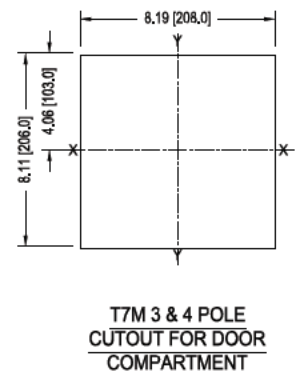
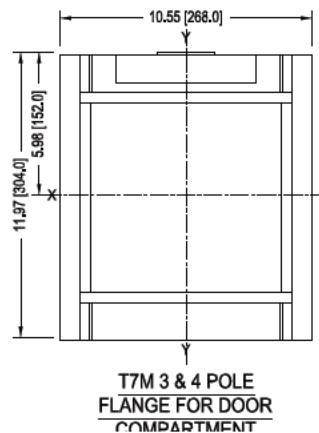
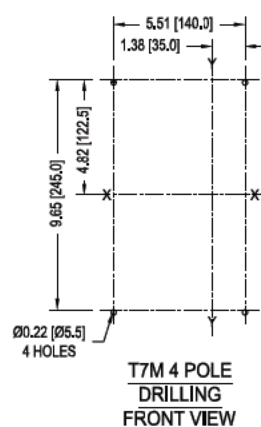
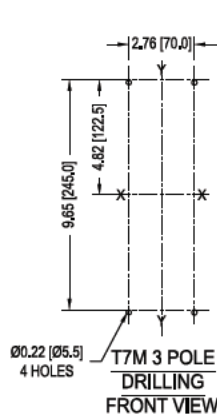
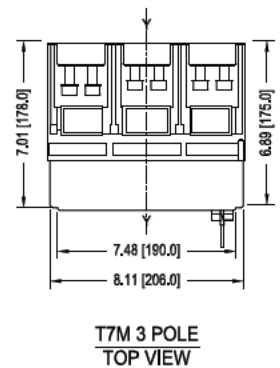
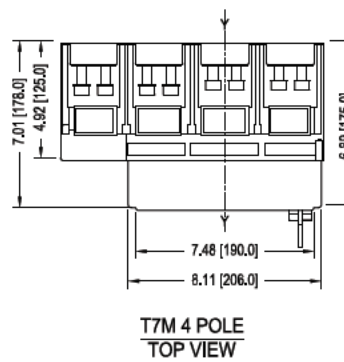
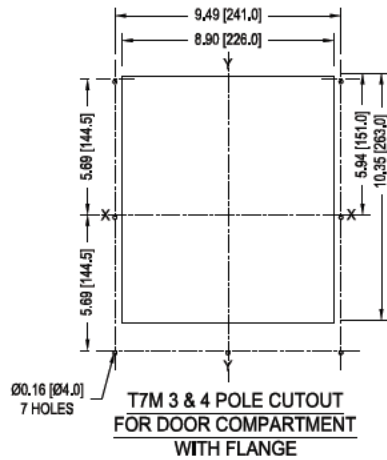
T7M

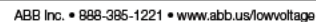
Fixed, 3 Pole, front terminals



	WITH FLANGE	WITHOUT FLANGE
A	4.92 [125.0]-6.46 [164.0]	6.69 [170.0]

	STANDARD	RONIS	PROFALUX	KIRK	CASTEL
B	8.19 [208.0]	8.50 [216.0]	8.82 [224.0]	NO	NO







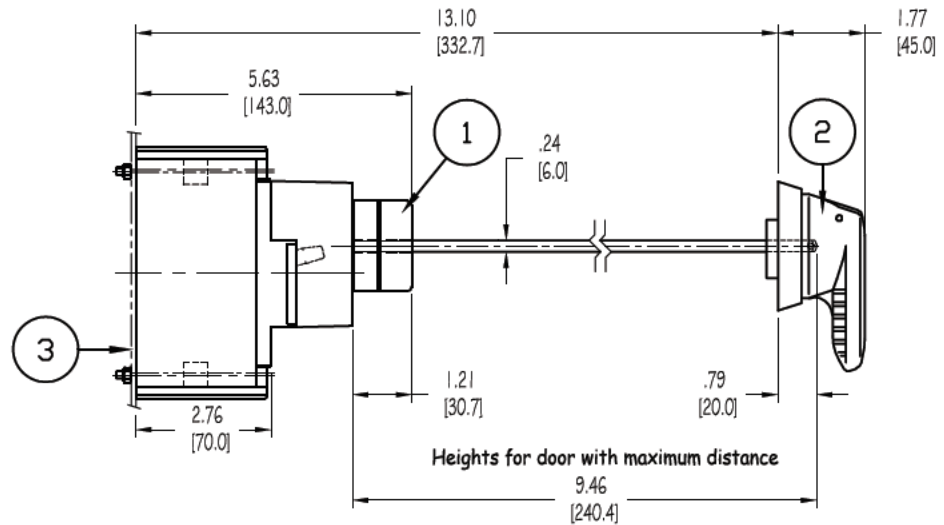


Approximate dimensions

T1 - T3

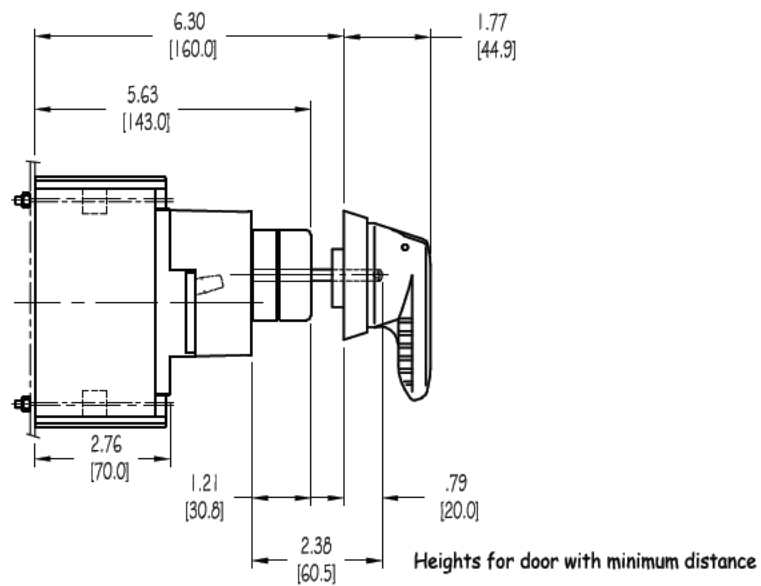
Variable depth mechanism with OHB handle

Pistol handle operating mechanism on the compartment door



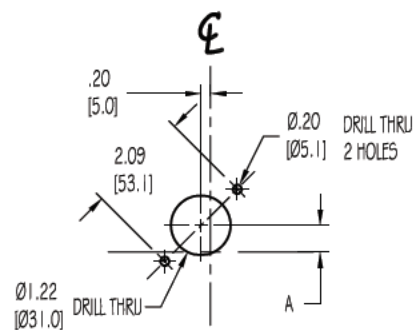
Caption

- ① Transmission unit
- ② Pistol handle operating mechanism on the compartment door
- ③ Insulating plate



Drilling template of the compartment door

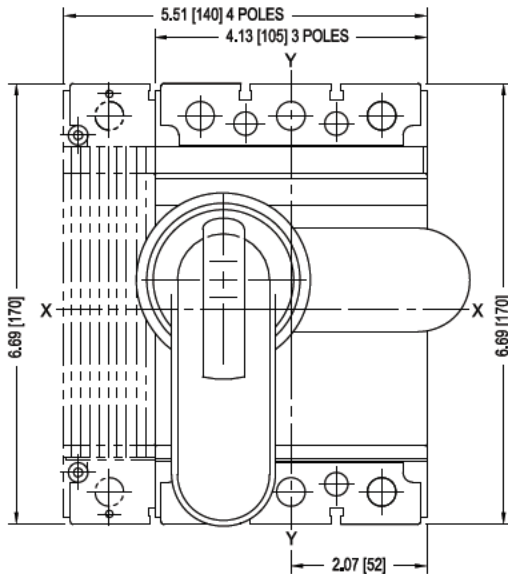
A	
T1 - T2	T3
0.55	0.37
[13.97]	[9.4]



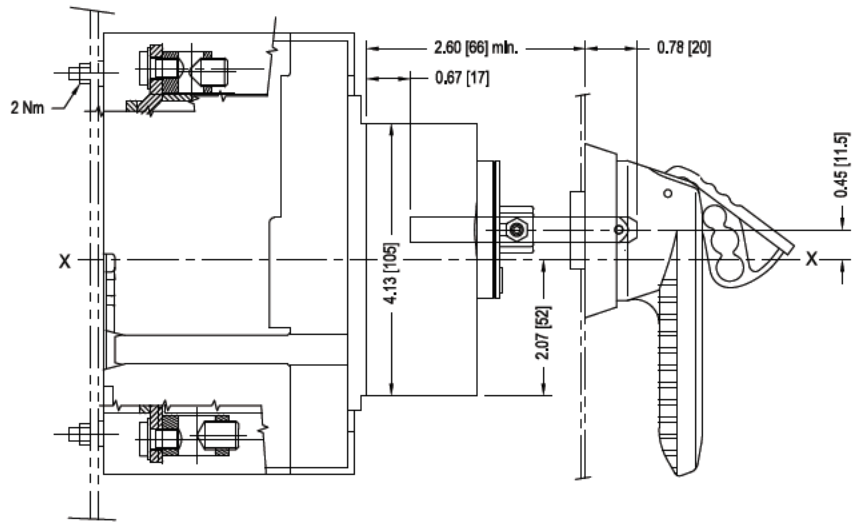
Approximate dimensions

Ts3

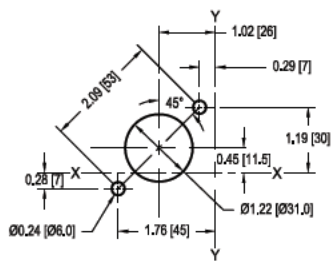
Variable depth mechanism with OHB handle



FRONT VIEW

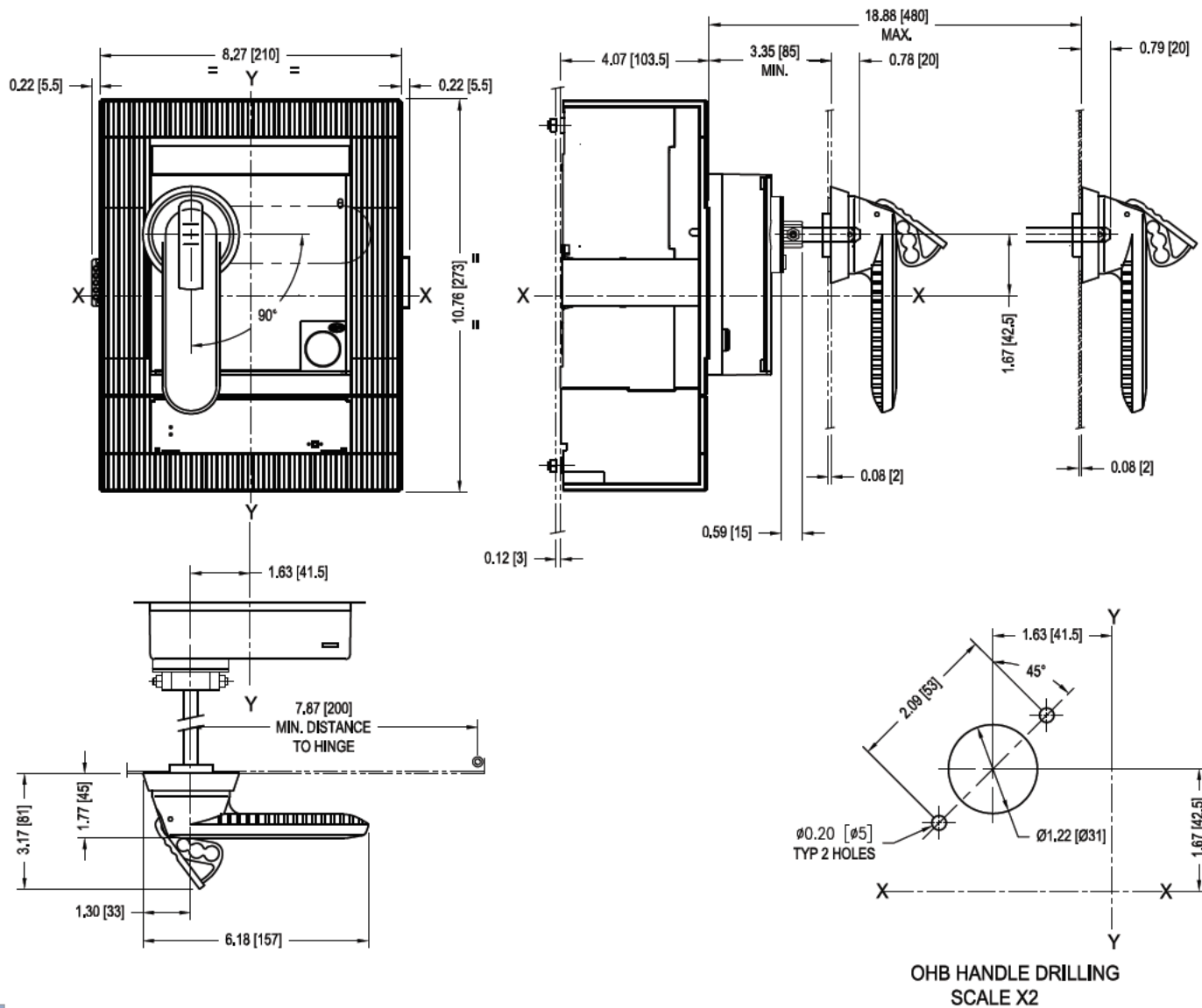


SIDE VIEW



OHb HANDLE DRILLING

Approximate dimensions
T6
Variable depth mechanism

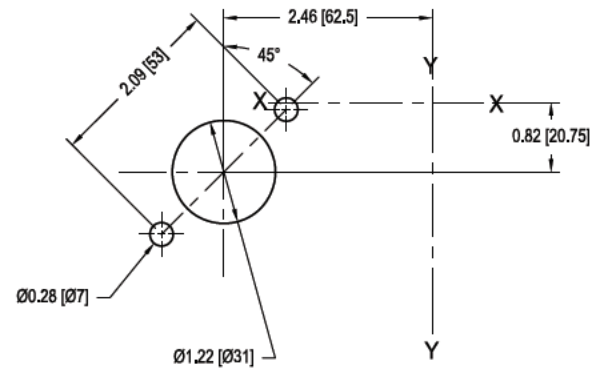
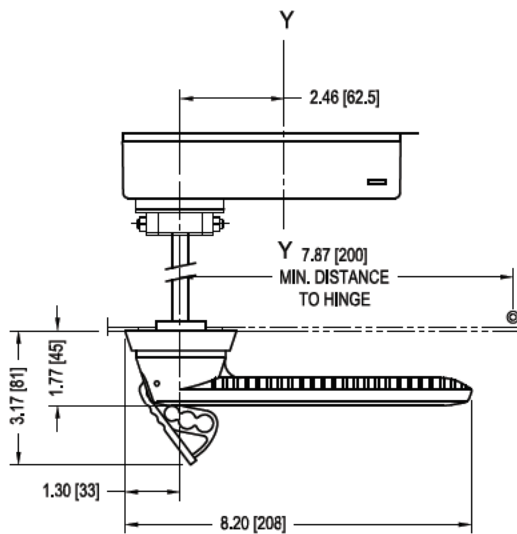
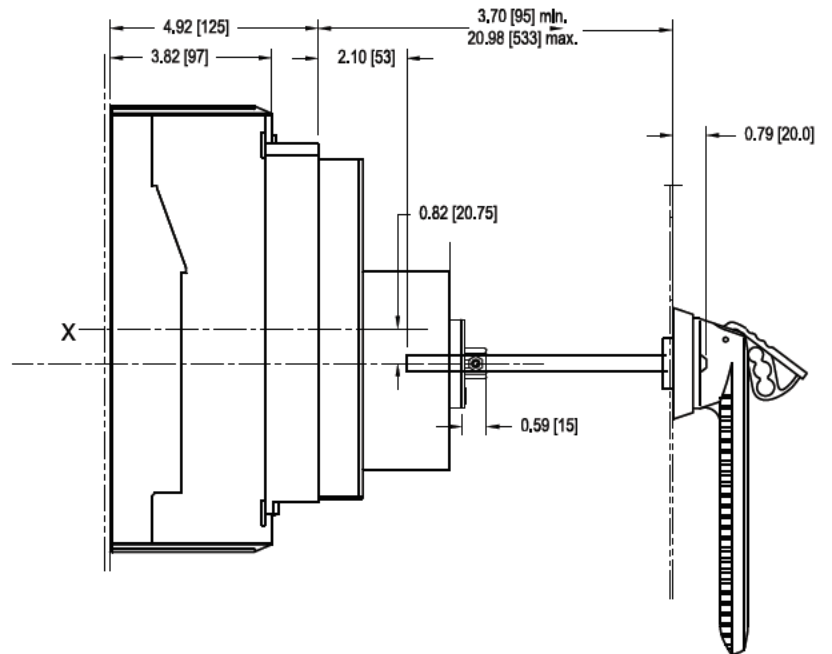
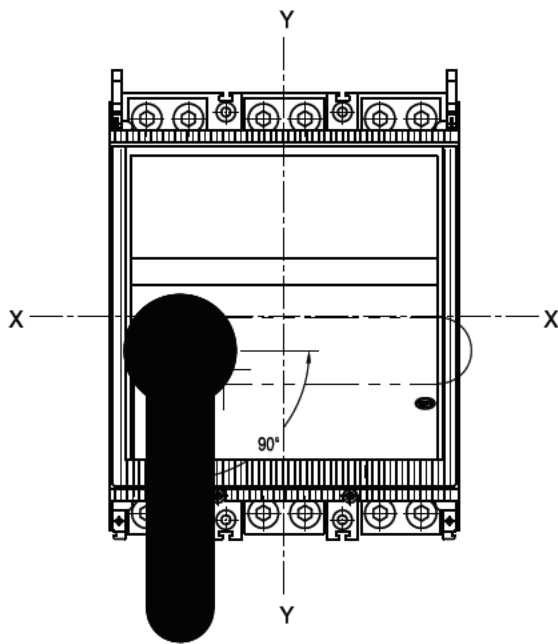


Approximate dimensions

T7

Variable depth mechanism

Tmax
MCCBs



OHB HANDLE DRILLING
SCALE X2

