

Resistance and power loss per pole

Type	Setting range		Resistance per pole Ω	Power loss per pole	
	lower value A	upper value A		at lower value W	at upper value W
MS132-0.16	0.10	0.16	66.00	0.7	1.7
MS132-0.25	0.16	0.25	25.50	0.7	1.7
MS132-0.4	0.25	0.40	10.38	0.7	1.7
MS132-0.63	0.40	0.63	4.36	0.7	1.7
MS132-1.0	0.63	1.00	1.605	0.7	1.7
MS132-1.6	1.00	1.60	0.648	0.7	1.7
MS132-2.5	1.60	2.50	0.272	0.7	1.7
MS132-4.0	2.50	4.00	0.106	0.7	1.7
MS132-6.3	4.00	6.30	0.046	0.7	1.7
MS132-10	6.30	10.0	0.024	0.9	2.4
MS132-12	8.00	12.0	0.016	1.0	2.3
MS132-16	10.0	16.0	0.011	1.1	2.8
MS132-20	16.0	20.0	0.0057	1.5	2.3
MS132-25	20.0	25.0	0.0045	1.8	2.8
MS132-32	25.0	32.0	0.0030	1.9	3.1

Technical data IEC/EN

Data at $T_A = 40\text{ °C}$ and at rated values, if nothing else indicated

Main circuit

	1L1-3L2-5L3 2T1-4T2-6T3
Rated operational voltage U_e	690 V a.c. 250 V d.c.
Setting range - thermal overload protection	see table "Order data" on page 1
Rated operational current I_n	see table below
Rated operational current DC-5 I_e 3 conducting paths in series up to 250 V	see "Rated operational current I_e "
Rated instantaneous short-circuit current setting I_i	see table below
Rated service short-circuit breaking capacity I_{cs}	see table "Short-circuit breaking capacity and back-up fuses" on page 6
Rated ultimate short-circuit breaking capacity I_{cu} Rated service short-circuit breaking capacity d.c. I_{cs} 3 conducting paths in series up to 250 V	10 kA
Trip class	see table "Order data" on page 1
Rated frequency	d.c., 50/60 Hz
Number of poles	3
Resistance per pole	see table "Resistance and power loss per pole"
Power loss per pole	on page 3

Isolation data	
Rated impulse withstand voltage U_{imp}	6 kV
Rated insulation voltage U_i	690 V
Pollution degree	3

Electrical connection		MS132 ≤ 10 A	MS132-12, -16	MS132-20, -25, -32
Connecting capacity	solid	1/2 x 1 ... 4 mm ²		1/2 x 2.5 ... 6 mm ²
	stranded	1/2 x 1 ... 4 mm ²		1/2 x 2.5 ... 6 mm ²
	flexible with ferrule	1/2 x 0.75 ... 2.5 mm ²		1/2 x 1 ... 6 mm ²
	flexible with ferrule insulated	1/2 x 0.75 ... 2.5 mm ²		1/2 x 1 ... 6 mm ²
	flexible without ferrule	1/2 x 0.75 ... 2.5 mm ²		1/2 x 2.5 ... 6 mm ²
Stripping length		9 mm	10 mm	10 mm
Tightening torque		0.8 ... 1.2 Nm	1.5 Nm	2 Nm
Connection screw		M3.5 (Pozidrive 2)	M4 (Pozidrive 2)	M4 (Pozidrive 2)

Type	Rated instantaneous short-circuit current setting I_i	Rated operational current I_n
	A	A
MS132-0.16	1.56	0.16
MS132-0.25	2.44	0.25
MS132-0.4	3.90	0.40
MS132-0.63	6.14	0.63
MS132-1.0	11.50	1.00
MS132-1.6	18.40	1.60
MS132-2.5	28.75	2.50
MS132-4.0	50.00	4.00
MS132-6.3	78.75	6.30
MS132-10	150	10.0
MS132-12	180	12.0
MS132-16	240	16.0
MS132-20	300	20.0
MS132-25	375	25.0
MS132-32	480	32.0

General data

Mechanical durability		10 ⁵
Electrical durability		5 x 10 ⁴
Duty time		100 %
Dimensions (W x H x D)		see drawing "Dimensions" on page 3
Weight		see table "Order data" on page 1
Mounting		DIN-rail (EN 60715)
Mounting position		position 1-6 (optional for single mounting)
Group Mounting		on request
Minimum distance to other units same type	horizontal	0 mm
	vertical	150 mm
Minimum distance to electrical conductive board	horizontal, up to 400 V	0 mm
	horizontal, up to 690 V	> 1.5 mm
	vertical	75 mm
Degree of protection	enclosure / terminals	IP20
Utilization category		A
Altitude		up to 2000 m
Maximum operating frequency		170 cycles/h

Electromagnetic compatibility

Electromagnetic compatibility		not applicable
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Environmental data

Ambient air temperature		
Operation	open - compensated without derating	-25 ... +60 °C
	open	-25 ... +70 °C
Storage		-50 ... +80 °C
Temperature compensation		continuous
Vibration (sinusoidal) acc. to IEC/EN 60068-2-6 (Fc)		5g / 3 ... 150 Hz
Shock (half-sine) acc. to IEC/EN 60068-2-27 (Ea)		25g / 11 ms

Standards / directives

Product standard		IEC/EN 60947-2 IEC/EN 60947-4-1 IEC/EN 60947-1 UL 508, CSA 22.2 No. 14
Low Voltage Directive		2006/95/EC
EMC Directive		2004/108/EC
RoHS Directive		2002/95/EC

Short-circuit breaking capacity and back-up fuses

I_{cs} Rated service short-circuit breaking capacity

I_{cu} Rated ultimate short-circuit breaking capacity

° No back-up fuse required, because short-circuit proof up to 100 kA

Type	230 V AC			400 V AC			440 V AC			500 V AC			690 V AC		
	I_{cs} kA	I_{cu} kA	gG A	I_{cs} kA	I_{cu} kA	gG A	I_{cs} kA	I_{cu} kA	gG A	I_{cs} kA	I_{cu} kA	gG A	I_{cs} kA	I_{cu} kA	gG A
MS132-0.16	100	100	°	100	100	°	100	100	°	100	100	°	100	100	°
MS132-0.25	100	100	°	100	100	°	100	100	°	100	100	°	100	100	°
MS132-0.4	100	100	°	100	100	°	100	100	°	100	100	°	100	100	°
MS132-0.63	100	100	°	100	100	°	100	100	°	100	100	°	100	100	°
MS132-1.0	100	100	°	100	100	°	100	100	°	100	100	°	100	100	°
MS132-1.6	100	100	°	100	100	°	100	100	°	100	100	°	100	100	°
MS132-2.5	100	100	°	100	100	°	100	100	°	100	100	°	100	100	°
MS132-4.0	100	100	°	100	100	°	20	20	on request	20	20	on request	3	3	on request
MS132-6.3	100	100	°	100	100	°	20	20	on request	20	20	on request	3	3	on request
MS132-10	100	100	°	100	100	°	20	20	on request	20	20	on request	3	3	on request
MS132-12	100	100	°	100	100	°	20	20	on request	20	20	on request	3	3	on request
MS132-16	100	100	°	100	100	°	20	20	on request	20	20	on request	3	3	on request
MS132-20	100	100	°	100	100	°	20	20	on request	20	20	on request	3	3	on request
MS132-25	50	50	100	50	50	100	20	20	on request	10	10	on request	3	3	on request
MS132-32	25	50	125	25	50	125	20	20	on request	10	10	on request	3	3	on request

Technical data UL/CSA

Main circuit

Maximum operational voltage	600 V	
Manual Motor Controller ratings	see table "UL 508 – Manual Motor Controller" on page 8	
Motor ratings	Horse power	see table below
	Full load amps (FLA)	see table below
	Locked rotor amps (LRA)	see table below

Electrical connection		MS132 ≤ 10 A	MS132-12, -16	MS132-20, -25, -32
Connecting capacity	stranded	1/2 x AWG 16 ... 12		1/2 x AWG 12 ... 8
	flexible without ferrule	1/2 x AWG 16 ... 12		1/2 x AWG 12 ... 8
Stripping length		9 mm	10 mm	10 mm
Tightening torque		10 ... 12 lb-in	14 lb-in	18 lb-in
Connection screw		M3.5 (Pozidrive 2)	M4 (Pozidrive 2)	M4 (Pozidrive 2)

Motor rating, single phase

hp Horse power

FLA Full load amps

LRA Locked rotor amps

Type	220 ... 240 V AC			440 ... 480 V AC		
	hp	FLA	LRA	hp	FLA	LRA
MS132-0.16	-	0.16	0.96	-	0.16	0.96
MS132-0.25	-	0.25	1.5	-	0.25	1.5
MS132-0.4	-	0.4	2.4	-	0.4	2.4
MS132-0.63	-	0.63	3.78	-	0.63	3.78
MS132-1.0	-	1	6	-	1	6
MS132-1.6	1/10	1.6	9.6	-	1.6	9.6
MS132-2.5	1/6	2.5	15	1/2	2.5	15
MS132-4.0	1/3	4	24	1/2	4	24
MS132-6.3	1/2	6.3	37.8	1	6.3	37.8
MS132-10	1-1/2	10	60	3	8.5	46
MS132-12	2	12	72	3	8.5	64
MS132-16	2	12	72	5	14	81
MS132-20	3	17	92	5	14	81
MS132-25	3	17	127	7-1/2	21	116
MS132-32	5	28	162	10	26	145

Motor rating, three phase

hp Horse power

FLA Full load amps

LRA Locked rotor amps

Type	110 ... 120 V AC			220 ... 240 V AC			440 ... 480 V AC			500 ... 600 V AC		
	hp	FLA	LRA	hp	FLA	LRA	hp	FLA	LRA	hp	FLA	LRA
MS132-0.16	-	0.16	0.96	-	0.16	0.96	-	0.16	0.96	-	0.16	0.96
MS132-0.25	-	0.25	1.5	-	0.25	1.5	-	0.25	1.5	-	0.25	1.5
MS132-0.4	-	0.4	2.4	-	0.4	2.4	-	0.4	2.4	-	0.4	2.4
MS132-0.63	-	0.63	3.78	-	0.63	3.78	-	0.63	3.78	-	0.63	3.78
MS132-1.0	-	1	6	-	1	6	-	1	6	1/2	1	6
MS132-1.6	-	1.6	9.6	-	1.6	9.6	3/4	1.6	9.6	3/4	1.6	9.6
MS132-2.5	-	2.5	15	1/2	2.5	15	1	2.5	15	1-1/2	2.5	15
MS132-4.0	-	4	24	1	4	24	2	4	24	3	3.9	26
MS132-6.3	1/2	6.3	37.8	1-1/2	6.3	37.8	3	4.8	32	5	6.1	37
MS132-10	3/4	10	60	3	9.6	64	5	7.6	46	7-1/2	9	51
MS132-12	1-1/2	12	72	3	9.6	64	7-1/2	11	64	10	11	65
MS132-16	2	16	84	5	15.2	92	10	14	81	10	11	65
MS132-20	3	19.2	128	5	15.2	92	10	14	81	15	17	93
MS132-25	3	19.2	128	7-1/2	22	127	15	21	116	20	22	116
MS132-32	5	30.4	184	10	28	162	20	27	145	25	27	146

Manual Motor Controller for Motor Disconnect

Type	Circuit Breaker or Class R fuse per UL/ NEC 480 V / 600 V	Maximum short-circuit current rating	
		480 V	600 V
		kA	kA
MS132-0.16	with minimum interrupting rating of 35,000 rms symmetrical amperes	30	18
MS132-0.25		30	18
MS132-0.4		30	18
MS132-0.63		30	18
MS132-1.0		30	18
MS132-1.6		30	18
MS132-2.5		30	18
MS132-4.0		30	18
MS132-6.3		30	18
MS132-10		30	18
MS132-12		30	18
MS132-16		30	18
MS132-20		30	18
MS132-25		30	18
MS132-32		30	18

Manual Motor Controller for Group Installation

Type	Circuit Breaker or Class R fuse per UL/ NEC 480 V / 600 V	Maximum short-circuit current rating	
		480 V kA	600 V kA
MS132-0.16	with minimum interrupting rating of 35,000 rms symmetrical amperes	35	35
MS132-0.25		35	35
MS132-0.4		35	35
MS132-0.63		35	35
MS132-1.0		35	35
MS132-1.6		35	35
MS132-2.5		35	35
MS132-4.0		35	35
MS132-6.3		35	35
MS132-10		35	35
MS132-12		35	35
MS132-16		35	35
MS132-20		35	35
MS132-25		35	35
MS132-32		35	35

Manual Motor Controller for Group Installation in combination with current limiter S803W-SCLxxx-SR

Type	Maximum short-circuit current rating	
	480 V kA	600 V kA
MS132-0.16	65	65
MS132-0.25	65	65
MS132-0.4	65	65
MS132-0.63	65	65
MS132-1.0	65	65
MS132-1.6	65	65
MS132-2.5	65	65
MS132-4.0	65	65
MS132-6.3	65	65
MS132-10	65	65
MS132-12	65	65
MS132-16	65	65
MS132-20	65	65
MS132-25	65	65
MS132-32	65	65

Self-Protected Combination Motor Controller (Type E) and Combination Motor Controller (Type F)

Type	UL 508 Self-Protected Combination Motor Controller (Type E) in combination with feeder block S1-M3-xx	UL 508 Combination Motor Controller (Type F)		UL 508 Manual Motor Controller for Tap Conductor Protection	
	Maximum short-circuit current rating	Maximum short-circuit current rating	Minimum contactor size	Maximum short-circuit current rating	
	480Y / 277 V kA	480Y / 277 V kA		480 V kA	600 V kA
MS132-0.16	30	30	AF26...AF38	30	65
MS132-0.25	30	30	AF26...AF38	30	30
MS132-0.4	30	30	AF26...AF38	30	30
MS132-0.63	30	30	AF26...AF38	30	30
MS132-1.0	30	30	AF26...AF38	30	30
MS132-1.6	30	30	AF26...AF38	30	30
MS132-2.5	30	30	AF26...AF38	30	30
MS132-4.0	30	30	AF26...AF38	30	30
MS132-6.3	30	30	AF26...AF38	30	30
MS132-10	30	30	AF26...AF38	30	30
MS132-12	30	-	-	30	30
MS132-16	30	-	-	30	30
MS132-20	30	-	-	30	30
MS132-25	30	-	-	30	30
MS132-32	30	-	-	30	30

Self-Protected Combination Motor Controller (Type E) and Combination Motor Controller (Type F) in combination with current limiter S803W-SCLxxx-SR

Type	UL 508 Self-Protected Combination Motor Controller (Type E) in combination with current limiter S803W-SCLxxx-SR	UL 508 Combination Motor Controller (Type F) in combination with current limiter S803W-SCLxxx-SR	
	Maximum short-circuit current rating	Maximum short-circuit current rating	Minimum contactor size
	480Y / 277 V kA	480Y / 277 V kA	
MS132-0.16	65	65	AF26...AF38
MS132-0.25	65	65	AF26...AF38
MS132-0.4	65	65	AF26...AF38
MS132-0.63	65	65	AF26...AF38
MS132-1.0	65	65	AF26...AF38
MS132-1.6	65	65	AF26...AF38
MS132-2.5	65	65	AF26...AF38
MS132-4.0	65	65	AF26...AF38
MS132-6.3	65	65	AF26...AF38
MS132-10	65	65	AF26...AF38
MS132-12	65	-	-
MS132-16	65	-	-
MS132-20	65	-	-
MS132-25	65	-	-
MS132-32	65	-	-