Accessories

Combinations:

 $Right hand side \, of \, \text{MSP:} \, An \, auxiliary \, contact \, and / or \, a \, short-circuit \, signalling \, contact$ Left hand side of MSP: Undervoltage release or Shunt release

Short circuit trip indication							
Туре	Code No.	Description	Wiring diagram	Weight [g]	Packaging [pcs]		
MSP-AS	004646617	1NO+1NC (AC-15: 3A/230V, 1.5A/400V, 1A/500V)	13 21 	40	1		

width=9mm

Auxiliary contact								
Туре	Code No.	Description	Wiring diagram	Weight [g]	Packaging [pcs]			
MSP-PS11	004646631	1NO+1NC (AC-15: 3A/230V, 1.5A/400V, 1A/500V)	13 21 14 22	40	1			

width=9mm

Shunt release								
Туре	Code No. Rated voltage Un Operation range		Weight [g]	Packaging [pcs]				
MSP-A 230 004646632 230 VAC (220-230V 50Hz)		154-253 VAC	110	1				
MSP-A 24 004646633 24 VAC (24V 50Hz, 24-60V DC) 16.8 - 26.4 VAC, 16.8 - 66VDC 110 1								
width=18mm, operation range: 0.7-1.1*Un								

Undervoltage release								
Туре	Type Code No. Rated voltage Un		Operation range (for keeping)	Weight [g]	Packaging [pcs]			
MSP-U 240	004646634	240 V 50Hz	204-264 VAC	110	1			
MSP-U 240 004646634 240 V 50Hz 204-264 VAC 110 1 width=18mm Falling(tripping) voltage: 0.35-0.7 Llp, keeping voltage: 0.85-1 Llp 0.85-1 Llp 1								

Connection terminals							
Туре	Code No.	Description	Weight [g]	Packaging [pcs]			
MSP-IZ2	004646635	busbar connection of 2 MSPs	50	1			
MSP-IZ3	004646636	busbar connection of 3 MSPs	50	1			
MSP-IZ4	004646637	busbar connection of 4 MSPs	100	1			
MSP-TA1	004646638	3 phase line side terminal	110	1			
MSP-TA2	004646639	3 phase line side terminal (in combination with MSP-IZ)	50	1			







MSP-PS11



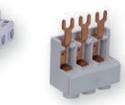
MSP-A 230



MSP-U 240

MSP-TA1





MSP-TA2

ETICON

Motor protective circuit breaker MSP

Technical data			according to IEC 60947-1; IEC 60947-2; IEC 60947-4-1						
Туре		MS	PO			M	SP1		
General data									
Number of poles			3 3						
Max. rated current I _n									
• motor protection A			2	5			5	52	
Permissible ambient temperature									
at full rated current	°C				-20	+55			
• in storage	°C				-50	+80			
Rated operational voltage U _e	V	690							
Rated frequency	Hz	50/60							
Rated insulation voltage U _i	V	750							
Rated impulse withstand voltage U _{imp} kV			6						
Utilization category									
to IEC 60947-2 (motor starter protectors)		A							
to IEC 60947-4-1 (motor starters)		AC-3							
Mechanical endurance									
• up to 25 A	Operating	100000				100000			
• 25 A upwards	cyles					30000			
Number of operating cycles/h (on load)	1/h	25 25							
Degree of protection with open terminals/with conductors connected	l	IP00/IP20							
Temperatures compensation to IEC 60947-4-1			✓						
Phase failure sensitivity to IEC 60947-4-1					,	/			
Power loss P _v , per breaker									
	А	0,6	4	6	25	2,4	6	25	63
 P_	W	5	6	7	9	8	7	14	23

Auxiliary contacts							
Utilization category	AC-15						
Rated operational voltage U _e	230	400	500				
Rated operational current I A		3	1.5	1			
Utilization category	DC-13						
Rated operational voltage U _p DC L/R200 ms DC V		24	60	220			
Rated operational current I	А	2.3	0.7	0.3			

Туре		MSPO	MSP1
Cross-section for main conductors			
Solid or stranded	mm ²	2 x (1 6)	1 x 1.5 2 x 16 or 1 x 25 + 1 x 10
Finely stranded with end sleeve		2 x (1 4)	1 x 1.5 2 x 10 or 1 x 16 + 1 x 10
Cross-sections for auxiliary and control connecting leads			
Solid or stranded	mm ²	1 x 0.5 2 x 2.5	
Finely stranded with end sleeve	mm ²	1 x 0.5 2 x 1.5	

Rated short-circuit breaking capacity

The table shows the rated ultimate short-circuit breaking capacity

 I_{cu} and the rated service short-circuit breaking capacity I_{ci} for the MSP motor starter protectors with respect to rated current I_n and reated operational voltage U_n .

Infeed is permitted at top or bottom without reduction of rated data. In the short-circuit proof areas, I_{cu} is at least 100 kA. A backup fuse is therefore not necessary.

In the other areas, when the short-circuit current at the installation point exceeds the rated short-circuit breaking capacity given in the table for the motor starter protectors, the motor starter protector must be protected by a backup fuse. See the following table for the maximum reated current for the backup

fuse. With a backup fuse according to the table, the maximum short-circuit current is permitted to equal the rated breaking capacity of the backup fuse.