DATASHEET - MSC-R-16-M17(230V50HZ)



Delivery program

Reversing starter, 380 V 400 V 415 V: 7.5 kW, Ir = 10 - 16 A, 230 V 50 Hz, 240 V 60 Hz, AC voltage



Part no. MSC-R-16-M17(230V50HZ)

Catalog No. 283186

Alternate Catalog

XTSR016B018CFNL

No.

EL-Nummer 4365061

(Norway)

Basic function Reversing starters (complete devices) MSC Basic device Notes Also suitable for motors with efficiency class IE3. IE3-ready devices are identified by the logo on their packaging. Connection technique Screw terminals Connection to SmartWire-DT no **Motor ratings** Motor rating AC-3 380 V 400 V 415 V kW 7.5 Rated operational current AC-3 380 V 400 V 415 V I_e Α 15.2 Rated short-circuit current 380 - 415 V kΑ 50 I_q Setting range Setting range of overload releases Α 10 - 16

Type of coordination "1"
Type of coordination "2"

230 V 50 Hz, 240 V 60 Hz

AC voltage

Motor-protective circuit-breakers PKZM0-16

Contactor DILM17-01(...)

DOL starter wiring set

Actuating voltage

Mechanical connection element and electrical electric contact module PKZM0-XRM32

Notos

Coordination

Contact sequence

The reversing starter (complete unit) consists of a PKZM0 motor-protective circuit-breaker and two DILM contactors.

With the adapter-less top-hat rail mounting of starters up to 12 A, only the motor-protective circuit-breaker on the top-hat rail requires an adapter. The contactors are provided with mechanical support via a mechanical connection element.

Control wire guide with max. 6 conductors up to 2.5mm external diameter or 4 conductors up to 3.5mm external diameter.

From 16 A, the motor-protective circuit-breakers and contactors are mounted on the top-hat rail adapter plate.

The connection of the main circuit between PKZ and contactor is established with electrical contact modules.

Complete units with mechanical interlock, starters up to 12 A also feature electrical interlock.

When using the auxiliary contacts DILA-XHIT... (-> 101042) the plug-in electrical connector can be removed without the removal of the front mounting auxiliary contact.

For further information
Technical data PKZM0
Accessories PKZ
Technical data DILM
Further actuating voltages
DILM accessories

Page → PKZM0 → 072896 → DILM → 276537 → 281199

Technical data

Mounting position Autitude m m Max. 2000 -25 - +55 Autitude Main conducting paths Autitude m m Max. 2000 -25 - +55 Main conducting paths Material impulse withstand voltage Margin conducting paths Autitude m m Max. 2000 6000 1000	General			
Abititude	Standards			
Ambient temperature Main conducting paths Martin injuries withstand voltage Divervoltage category/pollution degree Mate dispractional voltage Divervoltage category/pollution degree Mate dispractional voltage Open, 3-pole: 50 – 60 btz 380 v 400 v	Mounting position			
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Rated operational current Open, 3-pole: 50 – 60 Hz 380 V 400 V Ie A 16 Additional technical data Motor protective circuit breaker PKZMO, PKE Motor protective circuit breaker, See motor-protective circuit-breakers/ PKZMO product group DILET timing relay, ETR, See contactors, electronic timing relays product group DILET timing relay, ETR, See contactors, electronic timing relays product group DILET timing relay, ETR, See contactors, electronic timing relays product group DILET timing relay, ETR, See contactors, electronic timing relays product group DILET timing relay, ETR, See contactors, electronic timing relays product group DILET timing relay, ETR, See contactors, electronic timing relays product group DILET timing relay, ETR, See contactors, electronic timing relays product group DILET timing relay, ETR, See contactors, electronic timing relays product group DILET timing relay, ETR, See contactors, electronic timing relays product group DILET timing relay, ETR, See contactors, electronic timing relays product group DILET timing relay, ETR, See contactors, electronic timing relays product group DILET timing relay, ETR, See contactors, electronic timing relays product group DILET timing relay, ETR, See contactors, electronic timing relays product group DILET timing relay, ETR, See contactors, electronic timing relays product group DILET timing relay, ETR, See contactors, electronic timing relays product group DILET timing relay, ETR, See contactor product group DILET timing relay, ETR, S	Overvoltage category/pollution degree			III/3
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Auxiliary contacts Pilot Duty AC operated DC operated AC	Power consumption of the coil in a cold state and 1.0 x $\ensuremath{\text{U}_{\text{S}}}$			
Auxiliary contacts Image: Contact of the contact o	Dual-voltage coil 50 Hz	Sealing	W	2.1
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DC operated P300 General Use V 600 AC A 15 DC V 250	Pilot Duty			
General Use V 600 AC A 15 DC V 250	AC operated			A600
AC V 600 AC A 15 DC V 250	DC operated			P300
AC	General Use			
DC V 250	AC		V	600
	AC		Α	15
DC A 1	DC		V	250
	DC		Α	1

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	16
Heat dissipation per pole, current-dependent	P_{vid}	W	3.1
Equipment heat dissipation, current-dependent	P_{vid}	W	9.3
Static heat dissipation, non-current-dependent	P_{vs}	W	2.1
Heat dissipation capacity	P _{diss}	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	55
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
10.2.2 Corrosion resistance			Meets the product standard's requirements.

10.2.3.1 Verification of thermal stability of enclosures	Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat	Meets the product standard's requirements.
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects	Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation	Meets the product standard's requirements.
10.2.5 Lifting	Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact	Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions	Meets the product standard's requirements.
10.3 Degree of protection of ASSEMBLIES	Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances	Meets the product standard's requirements.
10.5 Protection against electric shock	Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components	Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections	Is the panel builder's responsibility.
10.8 Connections for external conductors	Is the panel builder's responsibility.
10.9 Insulation properties	
10.9.2 Power-frequency electric strength	Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage	Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material	Is the panel builder's responsibility.
10.10 Temperature rise	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 Electromagnetic compatibility	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 Mechanical function	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Technical data ETIM 7.0

Low-voltage industrial components (EG000017) / Motor starter/Motor starter combination (EC001037)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Load breakout, motor breakout / Motor starter combination (ecl@ss10.0.1-27-37-09-05 [AJZ718013])

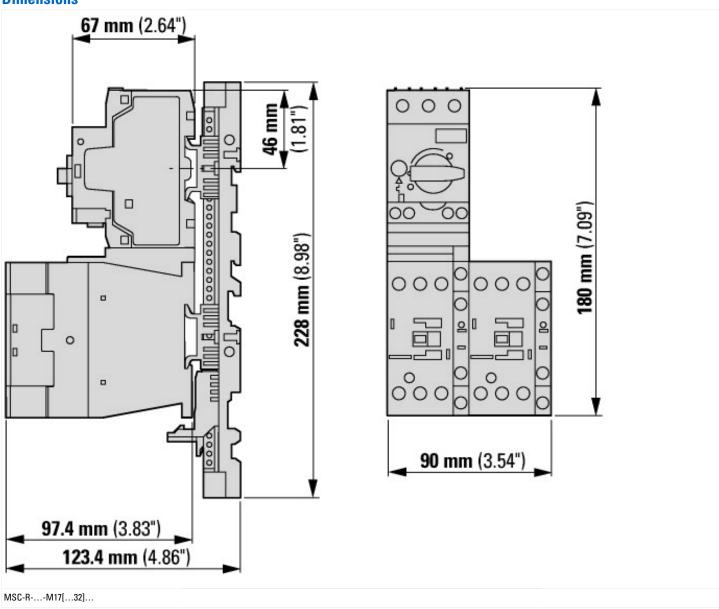
[A02710010])		
Kind of motor starter		Reversing starter
With short-circuit release		Yes
Rated control supply voltage Us at AC 50HZ	V	230 - 230
Rated control supply voltage Us at AC 60HZ	V	0 - 0
Rated control supply voltage Us at DC	V	0 - 0
Voltage type for actuating		AC
Rated operation power at AC-3, 230 V, 3-phase	kW	4
Rated operation power at AC-3, 400 V	kW	7.5
Rated power, 460 V, 60 Hz, 3-phase	kW	0
Rated power, 575 V, 60 Hz, 3-phase	kW	0
Rated operation current le	Α	15.2
Rated operation current at AC-3, 400 V	А	16
Overload release current setting	А	10 - 16
Rated conditional short-circuit current, type 1, 480 Y/277 V	А	0
Rated conditional short-circuit current, type 1, 600 Y/347 V	А	0
Rated conditional short-circuit current, type 2, 230 V	А	50000
Rated conditional short-circuit current, type 2, 400 V	Α	50000
Number of auxiliary contacts as normally open contact		0
Number of auxiliary contacts as normally closed contact		0
Ambient temperature, upper operating limit	°C	60
Temperature compensated overload protection		Yes
Release class		CLASS 10
Type of electrical connection of main circuit		Screw connection
Type of electrical connection for auxiliary- and control current circuit		Screw connection
Rail mounting possible		Yes
With transformer		No
Number of command positions		0

Coordination class according to IEC 60947-4-3 Class 2 Number of indicator lights 0 External roset possible No With fuse No Degree of protection (IP) IP00 Degree of protection (NEMA) Other Supporting protocol for TCP/IP No Supporting protocol for PROFIBUS No Supporting protocol for CAN No Supporting protocol for MDBUS No Supporting protocol for MDBUS No Supporting protocol for David MDBUS No Supporting protocol for SUCONET No Supporting protocol for EUROPINET IO No Supporting protocol for PROFINET CBA No			
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Height mm 228	Supporting protocol for other bus systems		No
	Width	mm	90
Depth mm 123.4	Height	mm	228
	Depth	mm	123.4

Approvals

Product Standards	UL60947-4-1A; CSA-C22.2 No. 14-10; IEC60947-4-1; CE marking
UL File No.	E123500
UL Category Control No.	NKJH
CSA File No.	12528
CSA Class No.	3211-24
North America Certification	UL listed, CSA certified
Specially designed for North America	No

Dimensions



Additional product information (links)

Auditional product informat	ion (mive)	
IL03402006Z (AWA1210-2248) Reversing starter to 12 A		
IL03402006Z (AWA1210-2248) Reversing starter to 12 A	https://es-assets.eaton.com/D0CUMENTATION/AWA_INSTRUCTIONS/IL03402006Z2018_04.pdf	
IL03402011Z (AWA1210-2266) Reversing starter to 32 A		
IL03402011Z (AWA1210-2266) Reversing starter to 32 A	https://es-assets.eaton.com/D0CUMENTATION/AWA_INSTRUCTIONS/IL03402011Z2018_06.pdf	
Motor starters and "Special Purpose Ratings" for the North American market	http://www.eaton.eu/ecm/groups/public/@pub/@europe/@electrical/documents/content/pct_3258146.pdf	
Busbar Component Adapters for modern Industrial control panels	http://www.moeller.net/binary/ver_techpapers/ver960en.pdf	