DATASHEET - MSC-R-10-M17(230V50HZ)



Reversing starter, 3p, 4.0kW/400V/AC3, 100kA

Part no. MSC-R-10-M17(230V50HZ)

Catalog No. 101049

 ${\bf Eaton~Catalog~No.} \qquad {\bf XTSR010B018CFNL}$

EL-Nummer 4315474 (Norway) Powering Business Worldwide*

Delivery program Basic function

Notes Connection to SmartWire-DT Motor ratings Motor rating AC-3 380 V 400 V 415 V Rated operational current AC-3 380 V 400 V 415 V Rated operational current AC-3 380 V 400 V 415 V Rated operational current AC-3 380 V 400 V 415 V Rated operational current AC-3 380 V 400 V 415 V Rated operational current 380 - 4	Basic function			Reversing starters (complete devices)
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Actuating voltage 230 V 50 Hz, 240 V 60 Hz	Coordination			Type of coordination "1" Type of coordination "2"
	Contact sequence			
AC voltage	Actuating voltage			
				AC voltage

Motor-protective circuit-breakers PKZM0-10

Contactor DILM17-01(...)

DOL starter wiring set

Mechanical connection element and electrical electric contact module PKZM0-XRM32

Notes

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 PKZMO Accessories PKZ Technical data DILM Further actuating voltages

DILM accessories

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→ PKZM0

→ 072896

→ DILM

→ 276537

Technical data

Mounting position	request)
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Main conducting paths

Rated impulse withstand voltage	U_{imp}	V AC	6000
Overvoltage category/pollution degree			III/3
Rated operational voltage	U _e	V	230 - 415
Rated operational current			
Open, 3-pole: 50 – 60 Hz			
380 V 400 V	I _e	Α	10

Additional technical data

Motor protective circuit breaker PKZM0, PKE			PKZM0 motor-protective circuit-breakers, see motor-protective circuit-breakers/ PKZM0 product group DILM contactors, see contactor product group DILET timing relay, ETR, see contactors, electronic timing relays product group
DILM contactors			
Power consumption of the coil in a cold state and 1.0 x $\ensuremath{\text{U}_{\text{S}}}$			
Dual-voltage coil 50 Hz	Sealing	W	2.1

Rating data for approved types

Auxiliary contacts		
Pilot Duty		
AC operated		A600
DC operated		P300
General Use		
AC	V	600
AC	A	15
DC	V	250
DC	A	1

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	10
Heat dissipation per pole, current-dependent	P _{vid}	W	2.6
Equipment heat dissipation, current-dependent	P _{vid}	W	7.8
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 6.0

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@ss8.1-27-37-09-05 [AJZ718010])

[AJZ/18010])			
Kind of motor starter			Reversing starter
With short-circuit release			Yes
Rated control supply voltage Us at AC 50HZ	V	1	230 - 230
Rated control supply voltage Us at AC 60HZ	V	1	0 - 0
Rated control supply voltage Us at DC	V	1	0 - 0
Voltage type for actuating			AC
Rated operation power at AC-3, 230 V, 3-phase	k'	:W	2.2
Rated operation power at AC-3, 400 V	k'	:W	4
Rated power, 460 V, 60 Hz, 3-phase	k'	:W	0
Rated power, 575 V, 60 Hz, 3-phase	k'	W	0
Rated operation current le	А	4	8.5
Rated operation current at AC-3, 400 V	А	4	10
Overload release current setting	А	4	6.3 - 10
Rated conditional short-circuit current, type 1, 480 Y/277 V	А	4	0
Rated conditional short-circuit current, type 1, 600 Y/347 V	А	4	0
Rated conditional short-circuit current, type 2, 230 V	А	4	50000
Rated conditional short-circuit current, type 2, 400 V	А	4	50000
Number of auxiliary contacts as normally open contact			0
Number of auxiliary contacts as normally closed contact			0
Ambient temperature, , upper operating limit	٥	С	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

Degree of protection (IP) Supporting protocol for TCP/IP No Supporting protocol for PROFIBUS No Supporting protocol for CAN No Supporting protocol for INTERBUS No Supporting protocol for ASI Supporting protocol for MODBUS Supporting protocol for Data-Highway No Supporting protocol for Data-Highway No Supporting protocol for DeticeNet No Supporting protocol for SUCONET No Supporting protocol for SUCONET No Supporting protocol for PROFINET IO Supporting protocol for PROFINET OS Supporting protocol for SEROS No Supporting protocol for Fundation Fieldbus Supporting protocol for EtherNet/IP Supporting protocol for EtherNet/IP Supporting protocol for DeviceNet Safety at Work Supporting protocol for DeviceNet Safety Supporting protocol for INTERBUS-Safety No Supporting protocol for PROFISafe Supporting protocol for PROFISafe No Supporting protocol for Refisafe No Supporting protocol for R		
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	Supporting protocol for PROFIsafe	No
Supporting protocol for other bus systems No	Supporting protocol for SafetyBUS p	No
	Supporting protocol for other bus systems	No

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

67 mm (2.64") (86.8) mm (8.08) (1.8.1) (1.8.1) (1.8.1)

90 mm (3.54")

MSC-R-...-M17[...32]...

Additional product information (links)

123.4 mm (4.86")

97.4 mm (3.83")

Additional product informat	IOH (HHKS)
IL03402006Z (AWA1210-2248) Reversing starter	to 12 A
IL03402006Z (AWA1210-2248) Reversing starter to 12 A	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03402006Z2018_04.pdf
IL03402011Z (AWA1210-2266) Reversing starter	to 32 A
IL03402011Z (AWA1210-2266) Reversing starter to 32 A	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03402011Z2010_10.pdf
Motor starters and "Special Purpose Ratings" for the North American market	http://www.moeller.net/binary/ver_techpapers/ver953en.pdf
Busbar Component Adapters for modern Industrial control panels	http://www.moeller.net/binary/ver_techpapers/ver960en.pdf