

DOL starter, 3p, 5.5kW/400V/AC3, 50kA

Part no. Article no. Catalog No. MSC-D-12-M12(230V50HZ) 283148 XTSC012B012BFNL



Delivery program

Derivery program			
Basic function			DOL starters (complete devices)
Basic device			MSC
			IE3 🗸
Notes			Also suitable for motors with efficiency class IE3. IE3-ready devices are identified by the logo on their packaging.
Motor ratings			
Motor rating			
AC-3			
380 V 400 V 415 V	Р	kW	5.5
Rated operational current			
AC-3			
400 V	Ιe	А	11.3
Rated short-circuit current 380 - 415 V	Ιq	kA	50
Setting range			
Setting range of overload releases	١r	A	8 - 12
Short-circuit releases			
Non-delayed	I _{rm}	A	186
Coordination			Type of coordination "1"
Contact sequence			
Actuating voltage			230 V 50 Hz
			AC voltage

Motor-protective circuit-breakers PKZM0-12

Contactor DILM12-10(...)

DOL starter wiring set

Mechanical connection element and electrical electric contact module PKZM0-XDM12

Notes

The DOL starter (complete device) consists of a PKZM0 motor protective circuit breaker and a DILM contactor.

With the adapter-less top-hat rail mounting of starters up to 15 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 2.5°mm external diameter or 4 conductors up to 3.5°mm external diameter.

From 16 A, the motor protective circuit breaker and contactor 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.

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.

Technical data

General			
Standards			IEC/EN 60947-4-1, VDE 0660
Mounting position			
Main conducting paths			
Rated impulse withstand voltage	U _{imp}	V AC	6000
Overvoltage category/pollution degree			III/3
Rated operational voltage	Ue	V	230 - 415
Rated operational current			
Open, 3-pole: 50 – 60 Hz			

380 V 400 V

Additional technical data
Mater protective circuit breaker DK7M0, DKF

Motor protective circuit breaker PKZM0, PKE			PKZM0 motor-protective circuit-breakers, see motor-protective circuit-breakers/ PKZM0 product group DILM contactors, see contactors 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 $\rm U_{c}$			
Dual-voltage coil 50 Hz	Sealing	W	1.2

А

12

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Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	In	А	12
Heat dissipation per pole, current-dependent	P _{vid}	W	2.9
Equipment heat dissipation, current-dependent	P _{vid}	W	8.7
Static heat dissipation, non-current-dependent	P _{vs}	W	1.4
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)

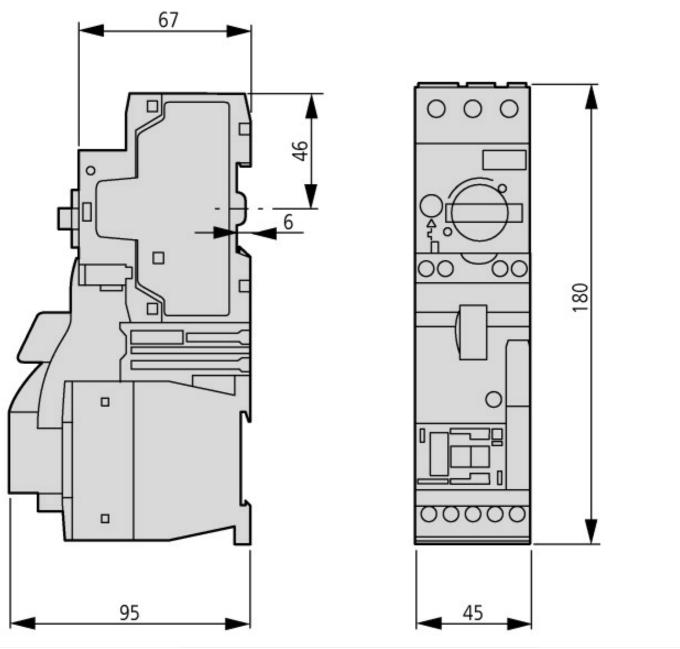
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Rate control supply voltage Us at AC 80HZ • • • Rated control supply voltage Us at DC •	With short-circuit release			Yes
Rated control suphy withing Us at DC 	Rated control supply voltage Us at AC 50HZ		V	230 - 230
Contraction for actuating A Rated operation power at AC-3, 200 V, 3-phase KW 3 Rated operation power at AC-3, 400 V S 5 Rated operation power at AC-3, 400 V W 0 Rated operation current la M 0 Rated operation current la M 0 Rated operation current la A 13 Rated operation current la A 0 Rated conditional short-circuit current, type 1,480 V/277 V A 0 Rated conditional short-circuit current, type 2,200 V A 0 Rated conditional short-circuit current, type 2,400 V/27 V A 0 Number of auxiliary contacts as normally open contact B A Number of auxiliary contacts as normally closed contact B B Rated conditional short-circuit current, type 2,400 V C S Number of auxiliary contacts as normally closed contact C S	Rated control supply voltage Us at AC 60HZ		V	0 - 0
Rade operation power at AC-3, 200 V, 3-phase KW 3 Rated operation power at AC-3, 400 V KW 5.5 Rated power, 575 V, 60 Hz, 3-phase KW 0 Rated operation current le KW 0 Rated operation current at AC-3, 400 V A 1.3 Rated operation current at AC-3, 400 V A 1.3 Overload release current string A 1.2 Rated conditional short-circuit current, type 1, 400 V/277 V A 0 Rated conditional short-circuit current, type 1, 400 V/277 V A 0 Rated conditional short-circuit current, type 1, 400 V/277 V A 0 Rated conditional short-circuit current, type 2, 200 V A 0 Rated conditional short-circuit current, type 2, 400 V A 0 Number of auxiliary contacts as normally closed contact F 0 Number of auxiliary contacts as normally closed contact F 0 Release class F 6 F Release class Class 10 F F Release class F F N	Rated control supply voltage Us at DC		V	0 - 0
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Action A 0 Rated conditional short-circuit current, type 1, 480 Y/277 V A 0 Rated conditional short-circuit current, type 1, 600 Y/37 V A 0 Rated conditional short-circuit current, type 2, 200 V A 0 Rated conditional short-circuit current, type 2, 200 V A 0 Number of auxiliary contacts as normally open contact A 0 Number of auxiliary contacts as normally closed contact C 0 Ambient temperature, upper operating limit C 60 Temperature compensated overload protection C Ves Release class C CLASS 10 Type of electrical connection of main circuit Yes Screw connection Type of electrical connection for auxiliary- and control current circuit Yes Screw connection Supporting protocol for TCP/IP Yes No No Supporting protocol for IRENBUS No No No Supporting protocol for INTERBUS No No No Supporting protocol for AN No No No	Rated operation current at AC-3, 400 V		А	12
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Rated conditional short-circuit current, type 2, 400 V A A A Number of auxiliary contacts as normally open contact 1 1 Number of auxiliary contacts as normally closed contact 0 0 Ambient temperature, upper operating limit C 60 Temperature compensated overload protection Yes C Release class CLASS 10 Cerew connection Type of electrical connection of main circuit Yes Cerew connection Rail mounting possible Yes Screw connection Degree of protection (IP) Yes Yes Supporting protocol for TCP/IP Yes No Supporting protocol for CAN Yes Yes Supporting protocol for CAN Yes Yes Supporting protocol for INTERBUS Yes Yes Supporting protocol for CAN Yes Yes Supporting protocol for CAN Yes Yes Supporting protocol for INTERBUS No No Supporting protocol for CANSI Yes No Supporting protocol for CANSI Yes No Suporting protocol for CANSI No <td>Rated conditional short-circuit current, type 1, 600 Y/347 V</td> <td></td> <td>А</td> <td>0</td>	Rated conditional short-circuit current, type 1, 600 Y/347 V		А	0
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Degree of protection (IP) IP20 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 No	Type of electrical connection for auxiliary- and control current circuit			Screw connection
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Supporting protocol for ASI No	Supporting protocol for CAN			No
	Supporting protocol for INTERBUS			No
Supporting protocol for MODBUS No	Supporting protocol for ASI			No
	Supporting protocol for MODBUS			No

Supporting protocol for Data-Highway	No
Supporting protocol for DeviceNet	No
Supporting protocol for SUCONET	No
Supporting protocol for LON	No
Supporting protocol for PROFINET IO	No
Supporting protocol for PROFINET CBA	No
Supporting protocol for SERCOS	No
Supporting protocol for Foundation Fieldbus	No
Supporting protocol for EtherNet/IP	No
Supporting protocol for AS-Interface Safety at Work	No
Supporting protocol for DeviceNet Safety	No
Supporting protocol for INTERBUS-Safety	No
Supporting protocol for PROFIsafe	No
Supporting protocol for SafetyBUS p	No
Supporting protocol for other bus systems	No

Approvals

Product Standards	UL508; CSA-C22.2 No. 14; IEC60847-4-1; CE marking
UL File No.	E36332
UL Category Control No.	NLRV
CSA File No.	165628
CSA Class No.	3211-04
North America Certification	UL listed, CSA certified
Specially designed for North America	No

Dimensions



MSC-D-...-M7[...15]...

Additional product information (links)

IL034014ZU (IL03402005Z) Direct-on-line starter up to 15 A

IL034014ZU (IL03402005Z) Direct-on-line starter up to 15 A	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL034014ZU2013_11.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	
Moeller_Online Selections Aids	http://www.moeller.net/en/support/slider/index.jsp	