

Part no.

Article no.

Catalog No.

## DOL starter, 3p, 7.5kW/400V/AC3, 50kA, +busbar adapter

MSC-D-16-M17(230V50HZ)/BBA 102961 XTSC016B018CFNL-A



Delivery 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	P	kW	7.5
Rated operational current	I <sub>e</sub>	Α	15.2
Rated short-circuit current 380 - 415 V	Iq	kA	50
Setting range			
Setting range of overload releases	I <sub>r</sub>	A	10 - 16
Non-delayed I	I <sub>rm</sub>	A	248
Coordination			Type of coordination "1" Type of coordination "2"
Contact sequence			M 3 ~
Actuating voltage			230 V 50 Hz AC voltage
Mater protective circuit breakers PK7M0 16			

#### Motor-protective circuit-breakers PKZM0-16

Contactor DILM17-10(...)

### **DOL** starter wiring set

Mechanical connection element and electrical electric contact module PKZM0-XM32DE

The direct-on-line starter (complete unit) consists of a PKZM0 motor-protective circuit-breaker and a DILM contactor. These conbinations are mounted on the busbars.

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

Further information Page

Technical data PKZM0 → PKZM0

Accessories PKZ → 072896

Technical data DILM → DILM

**→** 281199

#### Notes

**DILM** accessories

BK25/3-PKZ0-E extension terminal and if necessary B3.../...-PKZ0 three-phase commoning link can be added to motor-starter combinations to make Type F starters in accordance with UL508.

## Technical data General

DILM contactors

Dual-voltage coil 50 Hz

Standards			UL 508 (on request) CSA C 22.2 No. 14 (on request)
Main conducting paths			
Rated impulse withstand voltage	$U_{imp}$	V AC	6000
Overvoltage category/pollution degree			III/3
Rated operational voltage	U <sub>e</sub>	٧	230 - 415
Rated operational current			
Open, 3-pole: 50 – 60 Hz			
380 V 400 V	I <sub>e</sub>	Α	16
Additional technical data			
Motor protective circuit breaker PKZM0, PKE			PKZM0 motor-protective circuit-breakers, see motor-protective circuit-breakers/ PKZM0 product group

Sealing

W

2.1

DILM contactors, see contactors product group
DILET timing relay, ETR, see contactors, electronic timing relays product group

## **Design verification as per IEC/EN 61439**

Power consumption of the coil in a cold state and 1.0 x  $\rm U_{\rm C}$ 

Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	16
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	3.3
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	9.9
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	W	2.1
Heat dissipation capacity	P <sub>diss</sub>	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.

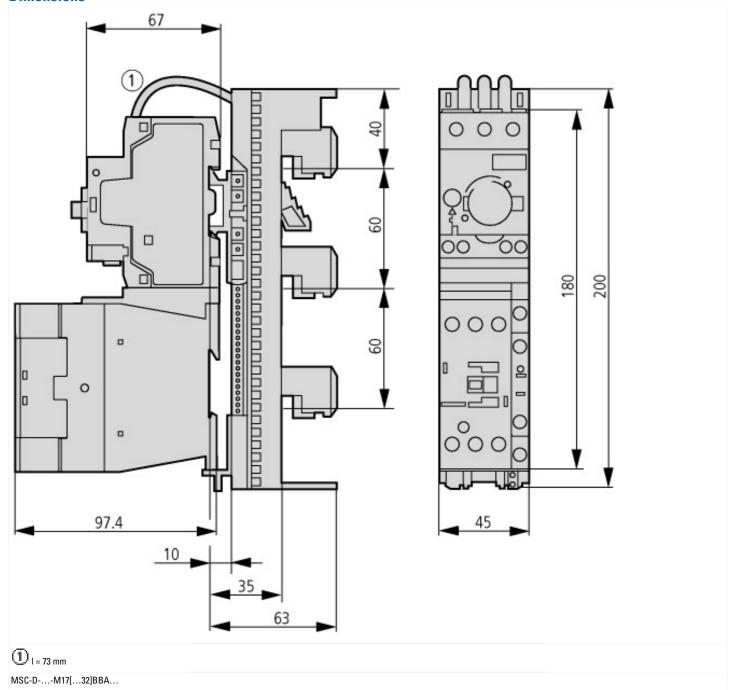
# **Technical data ETIM 6.0**

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

Electric engineering, automation, process control engineering / Low-voltage switch t [AJZ718010])	echnology / Load breal	kout, motor breakout / Motor starter combination (ecl@ss8.1-27-37-09-05
Kind of motor starter		Direct 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	A	15.2
Rated operation current at AC-3, 400 V	A	16
Overload release current setting	A	10 - 16
Rated conditional short-circuit current, type 1, 480 Y/277 V	A	0
Rated conditional short-circuit current, type 1, 600 Y/347 V	A	0
Rated conditional short-circuit current, type 2, 230 V	A	50000
Rated conditional short-circuit current, type 2, 400 V	A	50000
Number of auxiliary contacts as normally open contact		1
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
Degree of protection (IP)		IP00
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
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

# **Dimensions**



# **Additional product information (links)**

IL03402010Z (AWA1210-2265) Direct-on-line starter to 32 A			
IL03402010Z (AWA1210-2265) Direct-on-line starter to 32 A	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03402010Z2012_09.pdf		
IL03402015Z (AWA1210-2324) Busbar adapter			
IL03402015Z (AWA1210-2324) Busbar adapter	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03402015Z2010_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		