

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

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



### **Delivery programme**

Delivery programme			
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	5.5
Rated operational current			
AC-3			
400 V	l <sub>e</sub>	Α	11.3
Rated short-circuit current 380 - 415 V	$I_q$	kA	50
Setting range			
Setting range of overload releases	I <sub>r</sub>	Α	8 - 12
中			
Short-circuit releases			
Non-delayed	I <sub>rm</sub>	A	168
Coordination			Type of coordination "1"
Contact sequence			M 3~
Actuating voltage			230 V 50 Hz

AC voltage

#### Motor-protective circuit-breakers PKZM0-12

Contactor DILM12-10(...)

### DOL starter wiring set

 ${\bf Mechanical\ connection\ element\ and\ electrical\ electric\ contact\ module\ PKZM0-XDM12}$ 

#### 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	$U_{\text{imp}}$	V AC	6000
Overvoltage category/pollution degree			III/3
Rated operational voltage	U <sub>e</sub>	V	230 - 415
Rated operational current			
Open, 3-pole: 50 – 60 Hz			
380 V 400 V	l <sub>e</sub>	Α	12

#### 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 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 $\rm U_{\rm C}$			
Dual-voltage coil 50 Hz	Sealing	W	1.2

## Data for design verification according to IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	12
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	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 <sub>diss</sub>	W	0
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 $ \frac{1}{2} \left( \frac{1}{2} \right) = \frac{1}{2} \left( \frac{1}{2} \right) \left($			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 5.0**

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

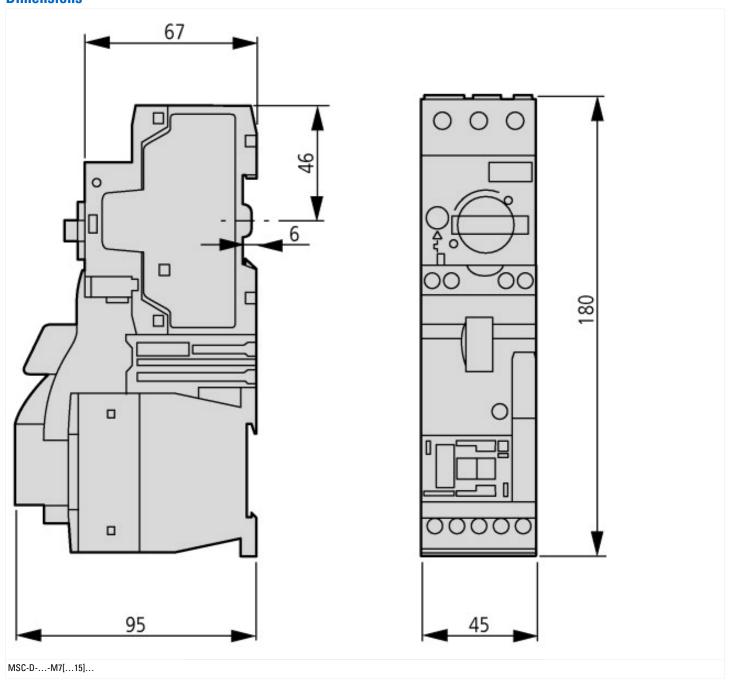
Electric engineering, automation, process control engineering / Low-voltage switch technology / Load breakout, motor breakout / Motor starter combination (ecl@ss8-27-37-09-05 [AJZ718009])

Lieutic engineering, automation, process control engineering / Low-voltage switch	r teciniology / Loau	breakout, motor breakout/ motor starter combination (ecresso-27-57-05-05 [A02710005])
Function		Direct starter
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, 400 V	kW	5.5
Rated operation current le	А	11.3
Conditioned rated short-circuit current Iq	kA	100
Setting range overload protector	А	8 - 12
With short-circuit release		Yes
Type of coordination		1
Connection type main current circuit		Screw connection
Degree of protection (IP)		IP20
Suited for bus connection		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**



# **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	