



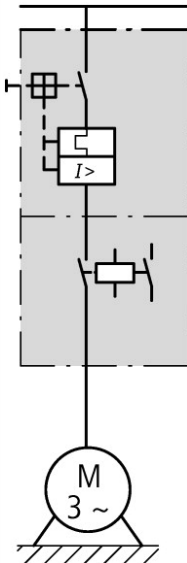


**DOL starter, 3p, 2.2kW/400V/AC3, 150kA**

**Part no. MSC-D-6,3-M7(230V50HZ)**  
**Article no. 283145**  
**Catalog No. XTSC6P3B007BFNL**



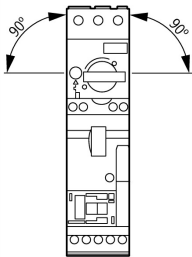
## Delivery programme

Basic function			DOL starters (complete devices)
Basic device			MSC
			
Notes			Also suitable for motors with efficiency class IE3. IE3-ready devices are identified by the logo on their packaging.
<b>Motor ratings</b>			
Motor rating			
AC-3			
380 V 400 V 415 V	P	kW	2.2
Rated operational current			
AC-3			
400 V	$I_e$	A	5
Rated short-circuit current 380 - 415 V	$I_q$	kA	150
<b>Setting range</b>			
Setting range of overload releases	$I_r$	A	4 - 6.3
			
Short-circuit releases			
			
Non-delayed	$I_{rm}$	A	88.2
			
Coordination			Type of coordination "1" Type of coordination "2"
Contact sequence			
Actuating voltage			230 V 50 Hz

			AC voltage
<b>Motor-protective circuit-breakers</b> PKZM0-6,3			
Contactor DILM7-10(...)			
<b>DOL starter wiring set</b> Mechanical connection element and electrical electric contact module PKZM0-XDM12			
<b>Notes</b>  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.			
<b>Notes</b>  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

Standards			IEC/EN 60947-4-1, VDE 0660
Mounting position			

Main conducting paths

Rated impulse withstand voltage	U <sub>imp</sub>	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	I <sub>e</sub>	A	6.3

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 U <sub>C</sub>			
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	I <sub>n</sub>	A	6.3
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	2.2
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	6.6
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	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			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.

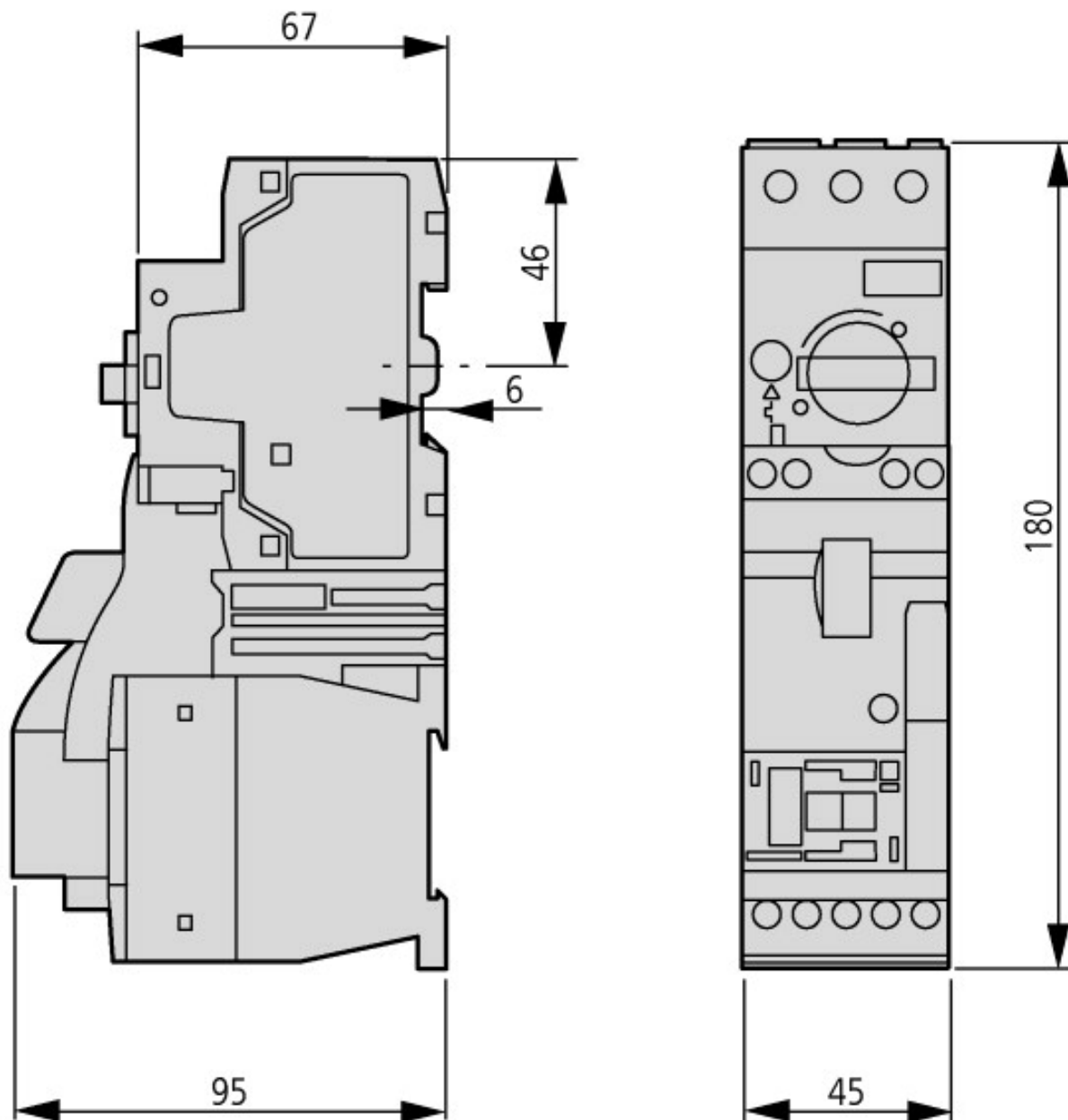
## Technical data ETIM 5.0

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 (ec ss8-27-37-09-05 [AJZ718009])		
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	2.2
Rated operation current Ie	A	5
Conditioned rated short-circuit current Iq	kA	100
Setting range overload protector	A	4 - 6.3
With short-circuit release		Yes
Type of coordination		1.2
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



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](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](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](http://www.moeller.net/binary/ver_techpapers/ver960en.pdf)

Moeller\_Online Selections Aids <http://www.moeller.net/en/support/slider/index.jsp>