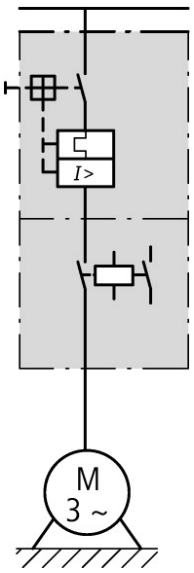
DATASHEET - MSC-DE-4-M17-SP(24V50/60HZ)

DOL starter, Ir= 1 - 4 A, 24 V 50/60 Hz, AC voltage

Part no.	**MSC-DE-4-M17-SP(24V50/60HZ)**
Catalog No.	**167815**
Alternate Catalog No.	**XTFCE004BCCST**

Powering Business Worldwide™

Delivery program

Basic function			Type E DOL starters (complete devices)
Basic device			MSC
Components for			North America
Connection to SmartWire-DT			no
Maximum motor rating			
AC HP = PS			
200 V 208 V		HP	0.75
230 V 240 V		HP	0.75
460 V 480 V		HP	2
Short Circuit Current Rating			
240 V		kA	18
480 Y 277 V		kA	18
Setting range			
Setting range of overload releases	I_r	A	1 - 4
Contact sequence			
Actuating voltage			24 V 50/60 Hz
			AC voltage

Motor-protective circuit-breakers PKE12/XTU-4

Contactor DILM17-10(...)

DOL starter wiring set
Mechanical connection element and electrical electric contact module PKZM0-XDM32

Extension terminal BK25/3-PKZ0-E

Notes

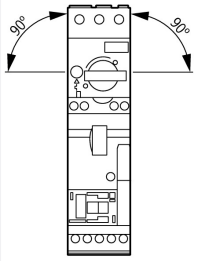
The DOL starter type E (complete devices) consists of a PKE motor-protective circuit-breaker with AK-PKZ0, a DILM contactor and an extension terminal BK25/3-PKZ0-E.

Motor-protective circuit-breaker and contactor mounted on top hat rail adapter plate.

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

Technical data

General

Standards			IEC/EN 60947-4-1, VDE 0660, UL, CSA
Mounting position			
Altitude		m	Max. 2000
Ambient temperature			-25 - +55

Main conducting paths

Rated impulse withstand voltage	U_{imp}	V AC	6000
Overvoltage category/pollution degree			III/3
Rated operational voltage	U_e	V	208 - 600
Rated operational current			
Open, 3-pole: 50 – 60 Hz			
380 V 400 V	I_e	A	4
AC-4 cycle operation			
Minimum current flow times		ms	500 (Class 5) 700 (Class 10) 900 (Class 15) 1000 (Class 20)
Minimum cut-out periods		ms	500
Note		ms	In AC-4 cycle operation, going below the minimum current flow time can cause overheating of the load (motor). For all combinations with an SWD activation, you need not adhere to the minimum current flow times and minimum cut-out periods.

Additional technical data

Motor protective circuit breaker PKZM0, PKE			PKE motor-protective circuit-breaker, see motor-protective circuit-breaker product group DILM contactors, see contactor product group
DILM contactors			
Current heat loss			
Current heat loss at I_e to AC-3/400 V		W	1.5
Power consumption of the coil in a cold state and 1.0 x U_S			
Sealing power	Sealing	CO	2.1

Rating data for approved types

Switching capacity			
Maximum motor rating			
Three-phase			
200 V 208 V		HP	0.75
230 V 240 V		HP	0.75
460 V 480 V		HP	2
Auxiliary contacts			
Pilot Duty			
AC operated			A600
DC operated			P300
General Use			
AC		V	600

AC		A	15
DC		V	250
DC		A	1
Short Circuit Current Rating, type E		SCCR	
240 V		kA	18
480 Y / 277 V		kA	18

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I_n	A	4
Heat dissipation per pole, current-dependent	P_{vid}	W	0.5
Equipment heat dissipation, current-dependent	P_{vid}	W	1.5
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 7.0

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@ss10.0.1-27-37-09-05 [AJZ718013])			
Kind of motor starter			Direct starter
With short-circuit release			Yes
Rated control supply voltage Us at AC 50HZ		V	24 - 24
Rated control supply voltage Us at AC 60HZ		V	24 - 24
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	0.75

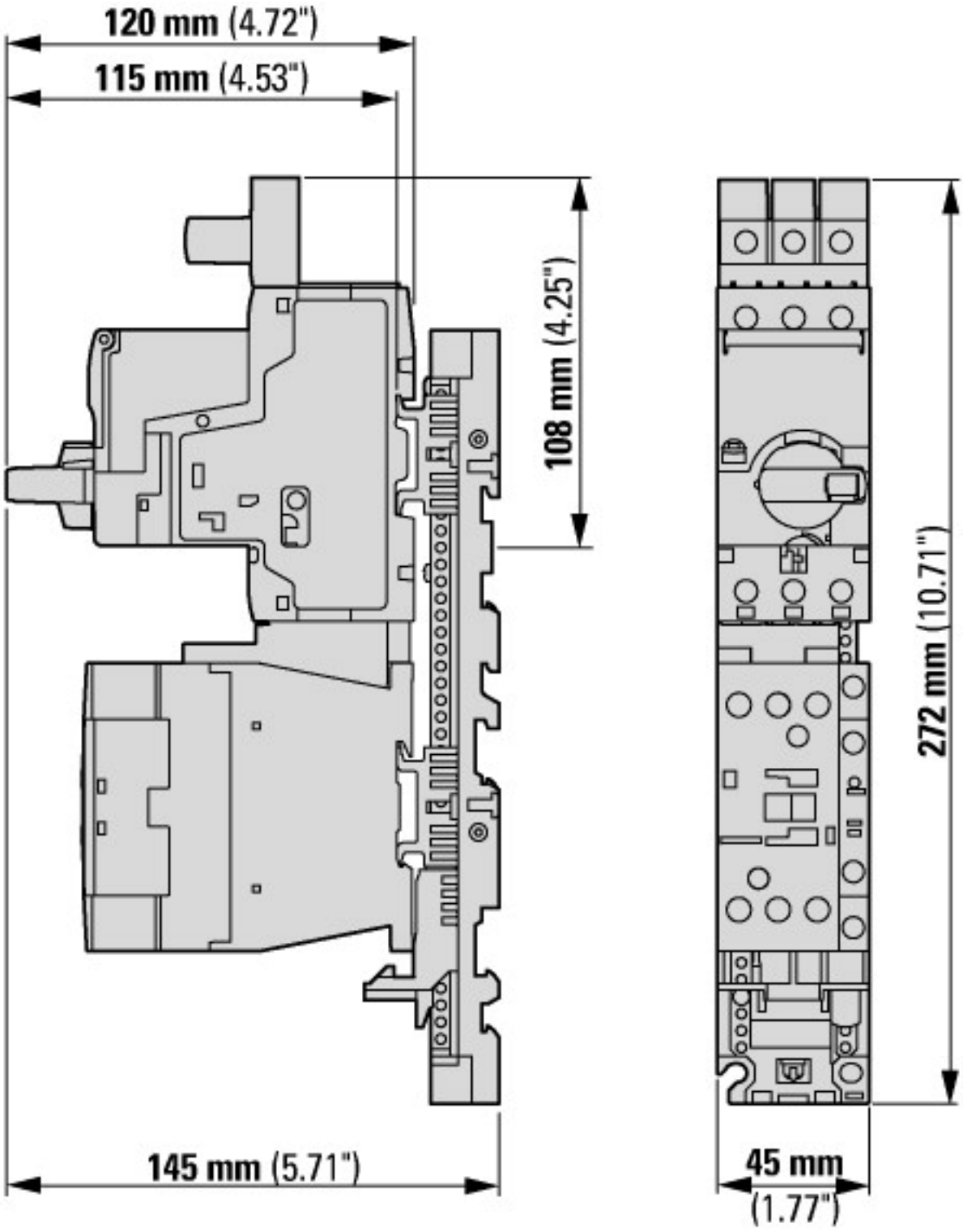
Rated operation power at AC-3, 400 V	kW	7.5
Rated power, 460 V, 60 Hz, 3-phase	kW	1.47
Rated power, 575 V, 60 Hz, 3-phase	kW	0
Rated operation current Ie	A	12
Rated operation current at AC-3, 400 V	A	4
Overload release current setting	A	1 - 4
Rated conditional short-circuit current, type 1, 480 Y/277 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	0
Rated conditional short-circuit current, type 2, 400 V	A	0
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		Adjustable
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
With transformer		No
Number of command positions		0
Suitable for emergency stop		No
Coordination class according to IEC 60947-4-3		Class 2
Number of indicator lights		0
External reset possible		No
With fuse		No
Degree of protection (IP)		IP20
Degree of protection (NEMA)		Other
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
Width	mm	45
Height	mm	272
Depth	mm	145

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.	3211-08
North America Certification	UL listed, CSA certified
Specially designed for North America	Yes

Dimensions



Assets (links)

Declaration of CE Conformity

00003119

Instruction Leaflets

IL03402052Z2018_03

Additional product information (links)

IL03402052Z Motorstarter combination: type E starter/type F starter with PKE	
IL03402052Z Motorstarter combination: type E starter/type F starter with PKE	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL03402052Z2018_03.pdf

© 03/2020 by Eaton Industries GmbH