102978 MSC-D-16-M17(24VDC)/BBA

DOL starter, 380 V 400 V 415 V: 7.5 kW, Ir= 10 - 16 A, 24 V DC, DC voltage

Alternate Catalog No.	XTSC016B018CTDNL-A
EL-Nummer (Norway)	4315439

DOL starter, Basic device: MSC, Notes: Also suitable for motors with efficiency class IE3, Motor ratings Motor rating AC-3 380 V 400 V 415 V: P= 7.5 kW, Setting range of overload releases: Ir= 10 - 16 A, Coordination: Type of coordination “1”, Type of coordination “2”, Actuating voltage: 24 V DC, DC voltage, Standards: UL 508 (on request), CSA C22.2 No. 14 (on request)

- Delivery program
- Technical data
- Design verification as per IEC/EN 61439
- Technical data ETIM 7.0
- Approvals
- Dimensions

Delivery program

Basic function
DOL starters (complete devices)
Basic device
MSC
IE3
Notes
Also suitable for motors with efficiency class IE3.
Connection technique
Screw terminals
Connection to SmartWire-DT
no

Motor ratings

Motor rating [P]AC-3380 V 400 V 415 V [P]
7.5 kW
Rated operational currentAC-3380 V 400 V 415 V [I_e]
15.2 A
Rated short-circuit current 380 - 415 V [I_q]
50 kA

Setting range

Setting range of overload releases [I_r]
10 - 16 A
Coordination
Type of coordination “1”

Type of coordination “2”
Contact sequence

Actuating voltage
24 V DC
DC voltage
Motor-protective circuit-breakers
PKZM0-16 Type
Contactor
DILM17-10(…) Part no.
DOL starter wiring set

Mechanical connection element and electrical electric contact module
PKZM0-XM32DE Type
Notes
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.

Notes
The DOL starters (complete units) consist of a PKZM0 motor protective circuit breaker and a DILM contactor. These combinations are mounted on the busbar adapters.

The connection of the main circuit between the motor protective circuit breaker and the contactor is established with an electrical contact module.

Cannot be combined with NHI-E-…-PKZ0-C standard auxiliary contact with spring-cage terminal.

Further information Page

Technical data PKZM0	PKZM0
Accessories PKZ	072896
Technical data DILM	DILM
Accessories DILM	281199

Technical data

General
Standards

UL 508 (on request)
CSA C22.2 No. 14 (on request)
Altitude
Max. 2000 m
Ambient temperature
-25 - +55
Main conducting paths
Rated impulse withstand voltage [U_{imp}]
6000 V AC
Overvoltage category/pollution degree
III/3
Rated operational voltage [U_e]
230 - 415 V
Rated operational currentOpen, 3-pole: 50 – 60 Hz380 V 400 V [I_e]
16 A
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 contactor product group
DILET timing relay, ETR, see contactors, electronic timing relays product group
Power consumption
DC operated [Sealing]
0.5 W
Rating data for approved types
Auxiliary contactsPilot DutyAC operated
A600
Auxiliary contactsPilot DutyDC operated
P300
Auxiliary contactsGeneral UseAC

600 V
Auxiliary contactsGeneral UseAC
15 A
Auxiliary contactsGeneral UseDC
250 V
Auxiliary contactsGeneral UseDC
1 A

Design verification as per IEC/EN 61439

Technical data for design verification
Rated operational current for specified heat dissipation [I_n]
16 A
Heat dissipation per pole, current-dependent [P_{vid}]
3.3 W
Equipment heat dissipation, current-dependent [P_{vid}]
9.9 W
Static heat dissipation, non-current-dependent [P_{vs}]
0.9 W
Heat dissipation capacity [P_{diss}]
0 W
Operating ambient temperature min.
-25 °C
Operating ambient temperature max.
+55 °C
IEC/EN 61439 design verification
10.2 Strength of materials and parts10.2.2 Corrosion resistance
Meets the product standard's requirements.
10.2 Strength of materials and parts10.2.3.1 Verification of thermal stability of enclosures
Meets the product standard's requirements.
10.2 Strength of materials and parts10.2.3.2 Verification of resistance of insulating materials to normal heat
Meets the product standard's requirements.
10.2 Strength of materials and parts10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects
Meets the product standard's requirements.
10.2 Strength of materials and parts10.2.4 Resistance to ultra-violet (UV) radiation
Meets the product standard's requirements.
10.2 Strength of materials and parts10.2.5 Lifting
Does not apply, since the entire switchgear needs to be evaluated.
10.2 Strength of materials and parts10.2.6 Mechanical impact
Does not apply, since the entire switchgear needs to be evaluated.
10.2 Strength of materials and parts10.2.7 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 properties10.9.2 Power-frequency electric strength
Is the panel builder's responsibility.
10.9 Insulation properties10.9.3 Impulse withstand voltage
Is the panel builder's responsibility.
10.9 Insulation properties10.9.4 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
0 - 0 V
Rated control supply voltage Us at AC 60HZ
0 - 0 V
Rated control supply voltage Us at DC
24 - 24 V
Voltage type for actuating
DC
Rated operation power at AC-3, 230 V, 3-phase
4 kW
Rated operation power at AC-3, 400 V
7.5 kW
Rated power, 460 V, 60 Hz, 3-phase
0 kW
Rated power, 575 V, 60 Hz, 3-phase
0 kW
Rated operation current Ie
15.2 A
Rated operation current at AC-3, 400 V
16 A
Overload release current setting
10 - 16 A
Rated conditional short-circuit current, type 1, 480 Y/277 V
0 A
Rated conditional short-circuit current, type 1, 600 Y/347 V
0 A
Rated conditional short-circuit current, type 2, 230 V
50000 A
Rated conditional short-circuit current, type 2, 400 V
50000 A
Number of auxiliary contacts as normally open contact
1
Number of auxiliary contacts as normally closed contact
0
Ambient temperature, upper operating limit
60 °C
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
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

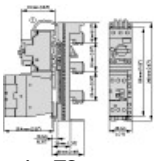
With fuse
No
Degree of protection (IP)
IP00
Degree of protection (NEMA)
Other
Supporting protocol for TCP/IP
No
Supporting protocol for PROFIBUS
No
Supporting protocol for CAN
No
Supporting protocol for INTERBUS
No
Supporting protocol for ASI
No
Supporting protocol for MODBUS
No
Supporting protocol for 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
45 mm
Height
200 mm
Depth
156 mm

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.
3211-04
North America Certification
UL listed, CSA certified

Specially designed for North America
No

Dimensions



□ l = 73 mm
MSC-D-…-M17[…32]BBA…

CAD data

- Product-specific CAD data
  (Web)
- 3D Preview
  (Web)

DWG files

- DA-CD-msc_d_bba_bg2
  File
  (Web)

edz files

- DA-CE-ETN.MSC-D-16-M17(24VDC)_BBA
  File
  (Web)

Step files

- DA-CS-msc_d_bba_bg2
  File
  (Web)

Additional product information

- Motor starters and "Special Purpose Ratings" for the North American market
  (PDF)
- Busbar Component Adapters for modern Industrial control panels
  (PDF)

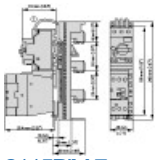
Product photo

- 
  2115PIC-22
  Photo
  DOL starter on busbar adapter

3D drawing

- 
  2115DRW-14
  Line drawing
  DOL starter on busbar adapter

Dimensions single product

- 
  2115DIM-7
  Line drawing
  DOL starter on busbar adapter
  □ l = 73 mm

Standards

- 
  0000SPC-571
  Logo
  IE3-ready logo 4c

Wiring diagram

- 
  1210SWI-16
  Line drawing
  DOL starter complete device

Instruction Leaflet

- Direct-on-line starter to 32 A (IL03402010Z)
  Asset
  (PDF, multilingual)
- Busbar adapter (IL03402015Z)
  Asset
  (PDF, multilingual)

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