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MSC-D-1,6-M7(230V50HZ) - DOL starter, 380 V 400 V 415 V: 0.37, 0.55 kW, Ir= 1 - 1.6 A, 230 V 50 Hz, 240 V 60 Hz, AC



283140 MSC-D-1,6-M7(230V50HZ)

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DOL starter, 380 V 400 V 415 V: 0.37, 0.55 kW, Ir= 1 - 1.6 A, 230 V 50 Hz, 240 V 60 Hz, AC

Alternate Catalog No.

XTSC1P6B007BFNL

EL-Nummer (Norway)

4365026

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= 0.37, 0.55 kW, Setting range of overload releases: Ir= 1 - 1.6
A, Coordination: Type of coordination "1", Type of coordination "2", Actuating voltage: 230 V 50 Hz, 240
V 60 Hz, AC, Standards: IEC/EN 60947-4-1, VDE 0660

- 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



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]

0.37

0.55 kW

Rated operational current AC-3380 V 400 V 415 V [I_n]

1.1

1.5 A

Rated short-circuit current 380 - 415 V [I_k]

150 kA

Setting range

Setting range of overload releases  [I]

1 - 1.6 A

Coordination
Type of coordination "1"
Type of coordination "2"
Contact sequence



Actuating voltage
230 V 50 Hz, 240 V 60 Hz
AC

Motor-protective circuit-breakers

PKZMD-1,6 Type

Contactors

DILM7-10(...) Part no.

DOL starter wiring set

Mechanical connection element and electrical electric contact module

PKZMD-XDM12 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 PKZMD 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.

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.

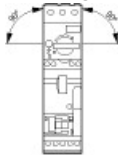
Technical data

General

Standards

IEC/EN 60947-4-1, VDE 0660

Mounting position



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 current Open, 3-pole: 50 – 60 Hz 380 V 400 V [I_e]

1.6 A

Additional technical data

Motor protective circuit breaker PKZMD, FKE

PKZMD motor-protective circuit-breakers, see motor-protective circuit-breakers/PKZMD product group

DILM contactors, see contactor product group

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

DILM contactors Current heat loss Current heat loss at I_e to AC-3/400 V

5.7 W

DILM contactors Power consumption of the coil in a cold state and $1.0 \times U_s$ Dual-voltage coil 50 Hz [Sealing]

1.4 W

Rating data for approved types
Auxiliary contacts Pilot Duty AC operated
A600
Auxiliary contacts Pilot Duty DC operated
P300
Auxiliary contacts General Use AC
600 V
Auxiliary contacts General Use AC
15 A
Auxiliary contacts General Use DC
250 V
Auxiliary contacts General Use DC
1 A

Design verification as per IEC/EN 61439

Technical data for design verification

Rated operational current for specified heat dissipation [I_r]

1.6 A

Heat dissipation per pole, current-dependent [P_{vid}]

1.9 W

Equipment heat dissipation, current-dependent [P_{vid}]

5.7 W

Static heat dissipation, non-current-dependent [P_{vs}]

1.4 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 parts 10.2.2 Corrosion resistance

Meets the product standard's requirements.

10.2 Strength of materials and parts 10.2.3.1 Verification of thermal stability of enclosures

Meets the product standard's requirements.

10.2 Strength of materials and parts 10.2.3.2 Verification of resistance of insulating materials to normal heat

Meets the product standard's requirements.

10.2 Strength of materials and parts 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 Strength of materials and parts 10.2.4 Resistance to ultra-violet (UV) radiation

Meets the product standard's requirements.

10.2 Strength of materials and parts 10.2.5 Lifting

Does not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts 10.2.6 Mechanical impact

Does not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts 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 Insulation properties 10.9.3 Impulse withstand voltage

Is the panel builder's responsibility.

10.9 Insulation properties 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 U_s at AC 50Hz

230 - 230 V

Rated control supply voltage U_s at AC 60Hz

0 - 0 V

Rated control supply voltage U_s at DC

0 - 0 V

Voltage type for actuating

AC

Rated operation power at AC-3, 230 V, 3-phase

0.25 kW

Rated operation power at AC-3, 400 V

0.55 kW

Rated power, 460 V, 60 Hz, 3-phase

0 kW

Rated power, 575 V, 60 Hz, 3-phase

0 kW

Rated operation current I_e

1.5 A

Rated operation current at AC-3, 400 V

1.6 A

Overload release current setting

1.6 - 1.6 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

50 A

Rated conditional short-circuit current, type 2, 400 V

50 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 A

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
45 mm
Height
180 mm
Depth
95 mm

Approvals

Product Standards
IEC/EN 60947-4-1; UL 60947-4-1; CSA - C22.2 No. 60947-4-1-14; CE marking
UL File No.
E36332
UL Category Control No.
NLRV

CSA File No.
12528
CSA Class No.
3211-24
North America Certification
UL listed, CSA certified
Specially designed for North America
No

Dimensions

MSC-D...-M7[...15]...

CAD data

- [Product-specific CAD data](#)
(Web)
- [3D Preview](#)
(Web)

DWG files

- [DA-CD-msc_d_bg1](#)
File
(Web)

edz files

- [DA-CE-ETN.MSC-D-1,6-M7\(230V/50HZ\)](#)
File
(Web)

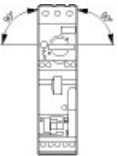
Step files

- [DA-CS-msc_d_bg1](#)
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)
- [Mbeller_Online Selections Aids](#)
(Web)

3D drawing



- [2115DRW-5](#)
Line drawing
Direct-on-line starters, mounting positions
- [2111003](#)
Line drawing
Direct-on-line starters MSC-D

Dimensions single product

- [2115DIM-1](#)
Line drawing

Product photo



2110PIC-122

Photo

Direct-on-line starter MSC-D

Standards



0000SFC-571

Logo

IE3-ready logo 4c

Wiring diagram



1210SW-16

Line drawing

DOL starter complete device

Instruction Leaflet

- [Direct-on-line starters up to 15 A \(IL034014ZU\)](#)
former IL03402005Z
(PDF, 04/2018, multilingual)
- [Direct-on-line starter up to 15 A \(IL034038ZU\)](#)
Asset
(PDF, multilingual)

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