

DOL starter, 3p, 5.5kW/400V/AC3, 100kA, protection electronic, SmartWire-DT

Part no. MSC-DEA-12-M12(24VDC)
Article no. 121757
Catalog No. XTSEA012B012BTDNL

Delivery program

| | | | | |
|---|-----------------|----|--------|---|
| 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. |
| Connection to SmartWire-DT | | | | with PKE-SWD-32 for connecting the motor-starter combination |
| Motor ratings | | | | |
| Motor rating | | | | |
| AC-3 | | | | |
| 380 V 400 V 415 V | P | kW | 5.5 | |
| Rated operational current | | | | |
| AC-3 | | | | |
| 400 V | I _e | A | 11.3 | |
| Rated short-circuit current 380 - 400 V | I _q | kA | 100 | |
| Setting range | | | | |
| Setting range of overload releases | I _r | A | 3 - 12 | |
| | | | | |
| Short-circuit releases | | | | |
| | | | | |
| Non-delayed | I _{rm} | A | 186 | |
| | | | | |
| Coordination | | | | Type of coordination "1" |
| Contact sequence | | | | |

| | | | |
|---|-------------------------|------------------------|------------------------|
| Actuating voltage | | | 24 V DC |
| | | | DC Voltage |
| Motor-protective circuit-breakers PKE12/XTUA-12 | | | |
| Contactor DILM12-01(...) | | | |
| DOL starter wiring set | | | |
| Mechanical connection element and electrical electric contact module PKZM0-XDM32 | | | |
| Notes | | | |
| The DOL starter (complete devices) consists of a PKE 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 PKE and contactor is established with electrical contact modules. | | | |
| When using DILA-XHIT... auxiliary contacts with MSC-DE-... DOL starters, the plug-in electrical connectors can be removed without removing the front-mounted auxiliary contact. | | | |
| Cannot be combined with NHI-E...PKZ0-C. | | | |
| MSC-DEA... DOL starters are prepared for communications via SmartWire-DT. In order to be used this way, they first need to be expanded with the PKE-SWD-32 communications module. | | | |
| Motor output/rated motor current | Rated motor current | | |
| Motor rating | AC-3 | | |
| | 220 V | 380 V | 415 V |
| | 230 V | 400 V | |
| | 240 V | | |
| | I _q = 100 kA | I _q =100 kA | I _q = 50 kA |
| P | I | I | I |
| kW | A | A | A |
| 0.75 | 3.2 | - | - |
| 1.1 | 4.6 | - | - |
| 1.5 | 6.3 | 3.6 | 3.6 |
| 2.2 | 8.7 | 5 | 5 |
| 3 | 11.5 | 6.6 | 6.6 |
| 4 | - | 8.5 | 8.5 |
| 5.5 | - | 11.3 | 11.3 |

Technical data

General

| | | | |
|-----------|--|--|----------------------------|
| Standards | | | IEC/EN 60947-4-1, VDE 0660 |
|-----------|--|--|----------------------------|

Main conducting paths

| | | | |
|---------------------------------------|------------------|------|-----------|
| Rated impulse withstand voltage | U _{imp} | V AC | 6000 |
| Overvoltage category/pollution degree | | | III/3 |
| Rated operational voltage | U _e | V | 230 - 415 |
| Rated operational current | | | |
| Open, 3-pole: 50 – 60 Hz | | | |
| 380 V 400 V | I _e | A | 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 |
|---|--|--|--|

Power consumption

| | | | |
|-------------|---------|---|-----|
| DC operated | Sealing | W | 4.5 |
|-------------|---------|---|-----|

Design verification as per IEC/EN 61439

| | | | |
|--|-------------------|----|-----|
| Technical data for design verification | | | |
| Rated operational current for specified heat dissipation | I _n | A | 12 |
| Heat dissipation per pole, current-dependent | P _{vid} | W | 1.5 |
| Equipment heat dissipation, current-dependent | P _{vid} | W | 4.5 |
| Static heat dissipation, non-current-dependent | P _{vs} | W | 2.6 |
| 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 | | | |

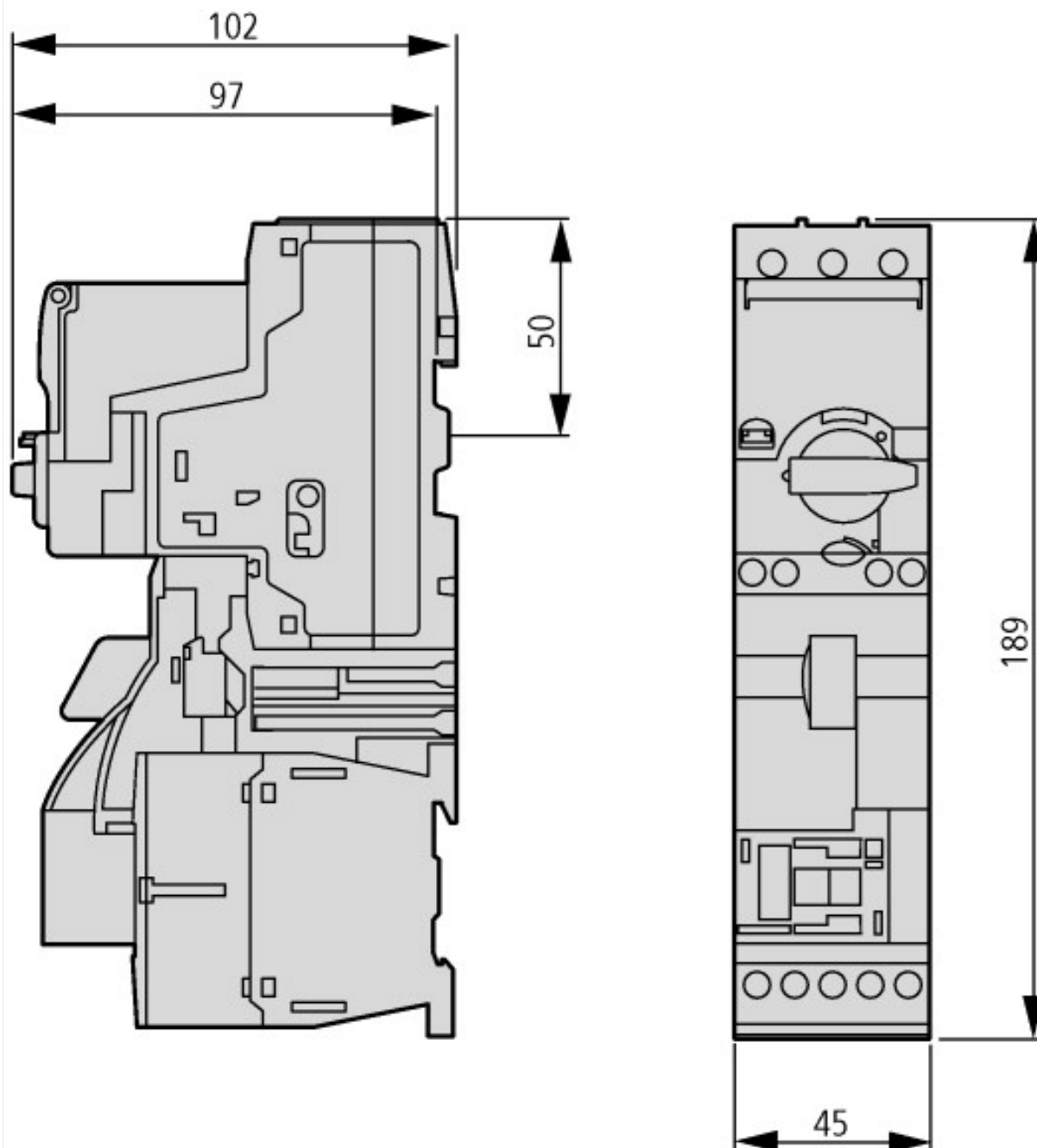
| | | |
|--|--|--|
| 10.2.2 Corrosion resistance | | Meets the product standard's requirements. |
| 10.2.3.1 Verification of thermal stability of enclosures | | Meets the product standard's requirements. |
| 10.2.3.2 Verification of resistance of insulating materials to normal heat | | Meets the product 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 6.0

| | | |
|---|----|------------------|
| 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@ss8.1-27-37-09-05 [AJZ718010]) | | |
| Kind of motor starter | | Direct starter |
| With short-circuit release | | Yes |
| Rated control supply voltage Us at AC 50HZ | V | 0 - 0 |
| Rated control supply voltage Us at AC 60HZ | V | 0 - 0 |
| Rated control supply voltage Us at DC | V | 24 - 24 |
| Voltage type for actuating | | DC |
| Rated operation power at AC-3, 230 V, 3-phase | kW | 3 |
| Rated operation power at AC-3, 400 V | kW | 5.5 |
| Rated power, 460 V, 60 Hz, 3-phase | kW | 0 |
| Rated power, 575 V, 60 Hz, 3-phase | kW | 0 |
| Rated operation current Ie | A | 11.3 |
| Rated operation current at AC-3, 400 V | A | 12 |
| Overload release current setting | A | 3 - 12 |
| 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 | | 0 |
| Number of auxiliary contacts as normally closed contact | | 1 |
| 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 |
| Degree of protection (IP) | | IP20 |

| | | | |
|---|--|--|-----|
| 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 | | | Yes |

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

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