Specifications

# Eaton 278048

## Catalog Number: 278048

Eaton Moeller® series DILM Auxiliary contact module, 4 pole, Ith= 16 A, 4 NC, Front fixing, Spring-loaded terminals, DILMC40 - DILMC150




### General specifications

**Product Name**
Eaton Moeller® series DILM auxiliary contact module

**Catalog Number**
278048

**EAN**
4015082780487

**Product Length/Depth**
39 mm

**Product Height**
46 mm

**Product Width**
45 mm

**Product Weight**
0.055 kg

**Compliances**
CE Marked

**Certifications**
UL 508
EN 60947-4-1
IEC 60947-4-1
CSA Std. C22.2 No. 14-05
VDE
UL Category Control No.: NKCR
UL File No.: E29184
VDE 0660
CSA
CSA Class No.: 3211-03
CSA File No.: 012528
CSA-C22.2 No. 14-05
CE
IEC/EN 60947
IEC/EN 60947-4-1
UL

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## Features Functions

### Features

Interlocked opposing contacts within an auxiliary contact module (according to IEC 60947-5-1 Annex L)

### Functions

For standard applications

### Fitted with:

Interlocked opposing contacts

### Number of poles

Four-pole

### Electric connection type

Spring clamp connection

## General

### Degree of protection

IP20

### Lifespan, electrical

1,300,000 Operations (at 230 V, AC-15, 3 A)

### Model

Top mounting

### Mounting method

Front fastening

### Connection

Spring-loaded terminals

### Overvoltage category

III

### Pollution degree

3

### Protection

Finger and back-of-hand proof, Protection against direct contact when actuated from front (EN 50274)

### Rated impulse withstand voltage (Uimp)

6000 V AC

### Type

Front mounting auxiliary contact

## Ambient conditions, mechanical

### Shock resistance

7 g, N/O auxiliary contact, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms
5 g, N/C auxiliary contact, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms

## Climatic environmental conditions

### Ambient operating temperature - min

-25 °C

### Ambient operating temperature - max

60 °C

### Ambient operating temperature (enclosed) - min

-25 °C

### Ambient operating temperature (enclosed) - max

40 °C

### Ambient storage temperature - min

-40 °C

### Ambient storage temperature - max

80 °C

### Climatic proofing

Damp heat, cyclic, to IEC 60068-2-30

Damp heat, constant, to IEC 60068-2-78

## Terminal capacities

### Terminal capacity (flexible with ferrule)

1 x (0.75 - 1.5) mm²

2 x (0.75 - 1.5) mm²

### Terminal capacity (solid)

2 x (0.75 - 2.5) mm²

1 x (0.75 - 2.5) mm²

### Terminal capacity (solid/stranded AWG)

18 - 14

### Screwdriver size

0.6 x 3.5 mm, Spring-loaded terminals

## Electrical rating

### Rated operational current (Ie)

3 A at 110 V, DC L/R ≤ 15 ms (with 1 contact in series)

1 A at 220 V, DC L/R ≤ 15 ms (with 1 contact in series)

6 A at 60 V, DC L/R ≤ 15 ms (with 1 contact in series)

10 A at 24 V, DC L/R ≤ 15 ms (with 1 contact in series)

### Rated operational current (Ie) at AC-15, 220 V, 230 V, 240 V

6 A

### Rated operational current (Ie) at AC-15, 380 V, 400 V, 415 V

4 A

### Rated operational current (Ie) at AC-15, 500 V

1.5 A

### Rated insulation voltage (Ui)

690 V

### Rated operational voltage (Ue) at AC - max

500 V

## Short-circuit rating

### Short-circuit protection rating

Max. 16 A gG/gL, Fuse, Without welding, Auxiliary contacts

### Short-circuit protection rating without welding

16 A gG/gL, 500 V, Max. Fuse, Contacts

## Conventional thermal current Ith

### Conventional thermal current ith at 60°C (3-pole, open)

16 A

## Switching capacity

### Switching capacity (auxiliary contacts, general use)

15 A, 600 V AC, (UL/CSA)

1 A, 250 V DC, (UL/CSA)

### Switching capacity (auxiliary contacts, pilot duty)

A600, AC operated (UL/CSA)

P300, DC operated (UL/CSA)

## Contacts

### Control circuit reliability

$\lambda < 5 \times 1/10^{7}$ (1 failure at 2,000,000 operations for $U_e$ = 24 V DC, Umin = 17 V, Imin = 5.4 mA)

### Number of contacts (change-over contacts)

0

Number of contacts (normally closed contacts)

4

Number of contacts (normally open contacts)

0

## Safety

Safe isolation

440 V AC, Between coil and auxiliary contacts, According to EN 61140

440 V AC, Between auxiliary contacts, According to EN 61140

## Design verification

Equipment heat dissipation, current-dependent Pvid

0 W

Heat dissipation capacity Pdiss

0 W

Heat dissipation per pole, current-dependent Pvid

0.23 W

Rated operational current for specified heat dissipation (In)

4 A

Static heat dissipation, non-current-dependent Pvs

0 W

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 Resist. of insul. mat. to abnormal heat/fire by internal elect. 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.

## Resources

Catalogs

Product Range Catalog Switching and protecting motors

SmartWire-DT Catalog

eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf

Declarations of conformity

DA-DC-00004229.pdf

DA-DC-00004817.pdf

DA-DC-00004070.pdf

DA-DC-00004818.pdf

DA-DC-00004782.pdf

DA-DC-00004774.pdf

DA-DC-00004781.pdf

DA-DC-00004775.pdf

Drawings

eaton-contactors-contact-dilm-accessory-3d-drawing-005.eps

eCAD model

ETN.278048.edz

Installation instructions

IL03407034Z

Installation videos

WIN-WIN with push-in technology

mCAD model

DA-CS-dil_m150_xhic_4

DA-CD-dil_m150_xhic_4

Wiring diagrams

2100SWI-130

### 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.

### 10.9.2 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.




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