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DILM150-XHl20 - Auxiliary contact module, 2 pole, lth= 16 A, 2 N/O, Front fixing, Screw terminals, DILM40 - DILM170



277945 DILM150-XHI20

Overview Specifications Resources



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## 277945 DILM150-XHI20

Auxiliary contact module, 2 pole, lth= 16 A, 2 N/O, Front fixing, Screw terminals, DILM40 - DILM170 Alternate Catalog No.

L-Nummer (Norway)

XTCEXFBG20

4130494

Auxiliary contact module, with interlocked opposing contacts, Function: for standard applications, 2 pole, Connection technique: Screw terminals, Rated operational current AC-15 220 V 230 V 240 V: le= 6 A, Rated operational current AC-15 380 V 400 V 415 V: le= 4 A, Contacts N/O = Normally open: 2 N/O, Mounting type: Front fixing, For use with: DILM40..., DILM50..., DILM65..., DILM72..., DILM80..., DILM95..., DILM15..., DILM150..., DILM150..., DILMP63..., DILMP80..., DILMP125..., DILMP160..., DILMP160..., DILMF150..., DILMF150..., DILMF150..., DILMF150..., Type: Front mounting auxiliary contact, Instructions: Interlocked opposing contacts according to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contact module, Auxiliary contacts used as mirror contacts according to IEC/EN 60947-4-1 Appendix F (not N/C late open)

### Delivery program

Accessories

Auxiliary contact modules

Description

with interlocked opposing contacts

**Function** 

for standard applications

Number of poles

2 pole

Connection technique

Screw terminals

Rated operational current

Conventional free air thermal current, 1 poleOpenat 60 °C [lth]

16 A

AC-15220 V 230 V 240 V [le]

6 A

AC-15380 V 400 V 415 V [le]

4 A

Contacts

NO = Normally open

2NO

Mounting type

Front fixing

Contact sequence



DILM40...

DILM50...

DILM65...

DILM72...

DILM80...

DILM95...

DILM115...

DILM150...

DILM170...

DILMP63...

DILMP80...

DILMP125...

DILMP160...

DILMP200...

DILMF40...

DILMF50...

DILMF65...

DILMF80... DILMF95...

DILMF115...

DILMF150...

Type

Front mounting auxiliary contact

#### Instructions

Interlocked opposing contacts according to IEC/EN 60947-5-1 Appendix L, inside the auxiliary contact module Auxiliary contacts used as mirror contacts according to IEC/EN 60947-4-1 Appendix F (not N/C late open)

#### Technical data

General

Standards

IEC/EN 60947, VDE 0660, UL, CSA

Component lifespanat U<sub>e</sub> = 230 V, AC-15, 3 A [Operations]

 $1.3 \times 10^{6}$ 

Climatic proofing

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

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

Ambient temperatureOpen

-25 - +60 °C

Ambient temperature Enclosed

- 25 - 40 °C

Ambient temperatureAmbient temperature, storage

- 40 - 80 °C

Mechanical shock resistance (IEC/EN 60068-2-27). Half-sinusoidal shock, 10 msBasic unit with auxiliary contact moduleNO contact

Mechanical shock resistance (IEC/EN 60068-2-27). Half-sinusoidal shock, 10 msBasic unit with auxiliary contact moduleNC contact

5 g

Degree of Protection

Protection against direct contact when actuated from front (EN 50274)

Finger and back-of-hand proof

Weight

 $0.03 \, \text{kg}$ 

Terminal capacitiesScrew terminalsSolid

1 x (0.75 - 2.5)

2 x (0.75 - 2.5) mm<sup>2</sup>

Terminal capacitiesScrew terminalsFlexible with ferrule

1 x (0.75 - 2.5)

2 x (0.75 - 2.5) mm<sup>2</sup>

Terminal capacitiesScrew terminalsSolid or stranded

18 - 14 AWG

Terminal capacitiesScrew terminalsPozidriv screwdriver

2 Size

Terminal capacitiesScrew terminalsStandard screwdriver

 $0.8 \times 5.5$ 

1 x 6 mm

Terminal capacitiesScrew terminalsMax. tightening torque

1.2 Nm

Contacts

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

Yes

N/C contact (not late-break contact) suitable as a mirror contact (to IEC/EN 60947-4-1 Annex F)

DILM40 - DILM170

Rated impulse withstand voltage [U<sub>imp</sub>]

6000 V AC

Overvoltage category/pollution degree

111/3

Rated insulation voltage [U]

690 V AC

Rated operational voltage [Ua]

500 V AC

Safe isolation to EN 61140between coil and auxiliary contacts

440 V AC

Safe isolation to EN 61140between the auxiliary contacts

440 V AC

Rated operational currentConventional free air thermal current, 1 poleat 60 °C [Ith]

16 A

Rated operational currentAC-15220 V 230 V 240 V [la]

6 A

Rated operational currentAC-15380 V 400 V 415 V [le]

4 A

Rated operational currentAC-15500 V [le]

1.5 A

Rated operational currentDC current

Switch-on and switch-off conditions based on DC-13, time constant as specified.

Rated operational currentDC L/R  $\square$  15 msContacts in series:1 [24 V]

10 A

Rated operational currentDC currentDC L/R 

15 msContacts in series:1 [60 V]

6 A

Rated operational currentDC currentDC L/R  $\square$  15 msContacts in series:1 [110 V]

3 A

Rated operational currentDC currentDC L/R  $\square$  15 msContacts in series:1 [220 V]

1 A

Rated operational currentControl circuit reliability [Failure rate]

<10<sup>-8</sup>, < one failure at 100 million operations

(at  $U_e = 24 \text{ V DC}$ ,  $U_{min} = 17 \text{ V}$ ,  $I_{min} = 5.4 \text{ mA}$ )  $\lambda$ 

Short-circuit rating without weldingShort-circuit protection maximumfuse500 V 16 A gG/qL

Current heat loss at InAC operated

3.7 W

Current heat loss at IthDC operated

3.7 W

Ourrent heat loss at IthOurrent heat loss per auxiliary circuit at Ie (AC-15/230 V)

0.5 00

Rating data for approved types

Auxiliary contacts Plot Duty AC operated

A600

Auxiliary contacts Plot Duty DC operated

P300

Auxiliary contactsGeneral UseAC

600 V

Auxiliary contactsGeneral UseAC

15 A

Auxiliary contactsGeneral UseDC

250 V

Auxiliary contactsGeneral UseDC

1 Δ

## Design verification as per IEC/EN 61439

Technical data for design verification

Rated operational current for specified heat dissipation [In]

4 A

Heat dissipation per pole, current-dependent [Pvid]

0.23 W

Equipment heat dissipation, current-dependent [Pvid]

0 W

Static heat dissipation, non-current-dependent [P<sub>vs</sub>]

0 W

Heat dissipation capacity [Pdiss]

0 W

Operating ambient temperature min.

-25°C

Operating ambient temperature max.

+60 °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 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 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 ASSEVBLIES

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 ( $\rm IL$ ) is observed.

### Technical data ETIM 7.0

Low-voltage industrial components (EG000017) / Auxiliary contact block (EC000041)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Component for low-voltage switching technology / Auxiliary switch block (ecl@ss10.0.1-27-37-13-02 [AKN342013])

Number of contacts as change-over contact

0

Number of contacts as normally open contact

2

Number of contacts as normally closed contact

0

Number of fault-signal switches

0

Rated operation current le at AC-15, 230 V

6 A

Type of electric connection

Screw connection

Model

Top mounting

Mounting method

Front fastening

Lamp holder

None

### **Approvals**

**Product Standards** 

IEC/EN 60947-4-1; UL 508; CSA-C22.2 No. 14-05; CE marking

UL File No.

E29184

UL Category Control No.

NKCR

CSA File No.

012528

CSA Class No.

3211-03

North America Certification

UL listed, CSA certified

Specially designed for North America

Nc

### CAD data

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

#### **DWG** files

DA-CD-dil\_m150\_xhi\_2 File (Web)

#### edz files

DA-CE-ETN.DILM150-XH20
 File
 (Web)

### Step files

DA-CS-dil\_m150\_xhi\_2 File (Web)

## Additional product information

- Motor starters and "Special Purpose Ratings" for the North American market (PDF)
- Switchgear of Power Factor Correction Systems (PDF)
- X-Start Modern Switching Installations Efficiently Fitted and Wired Securely (PDF)
- Mirror Contacts for Highly-Reliable Information Relating to Safety-Related Control Functions (PDF)
- Effect of the Cabel Capacitance of Long Control Cables on the Actuation of Contactors (PDF)

- Switchgear for Luminaires
- Standard Compliant and Functionally Safe Engineering Design with Mechanical Auxiliary Contacts (PDF)
- The Interaction of Contactors with PLCs
- Busbar Component Adapters for modern Industrial control panels (PDF)

# **Product photo**



Photo

Auxiliary contact module

## 3D drawing



2-pole screw terminal auxiliary contact module

# Wiring diagram



Auxiliary contact for high-capacity miniature circuit-breaker

## Instruction Leaflet

• Auxiliary contact (IL03407034Z) Asset (PDF, multilingual)

# **Declaration of Conformity**

#### EU

• DILM40-DILM72 - Contactors & contactor combinations (DA-DC-00004070) Asset (PDF)

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