



277951  
DILM 150-XHI13

Overview

Specifications

Resources



Delivery program

Technical data

Design verification as per IEC/EN 61439

Technical data ETIM 7.0

Approvals

## DELIVERY PROGRAM

Accessories  
Auxiliary contact modules

Description  
with interlocked opposing contacts

Function  
for standard applications

Number of poles  
4 pole

Connection technique  
Screw terminals

### Rated operational current

Conventional free air thermal current, 1 pole  
Open  
at 60 °C [ $I_{th}$ ]  
16 A

AC-15  
220 V 230 V 240 V [I<sub>e</sub>]  
6 A

AC-15  
380 V 400 V 415 V [I<sub>e</sub>]  
4 A

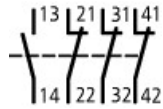
## Contacts

NO = Normally open  
1 NO

NC = Normally closed  
3 NC

Mounting type  
Front fixing

Contact sequence



For use with  
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 lifespan

at  $U_e = 230$  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 temperature

Open

-25 - +60 °C

#### Ambient temperature

Enclosed

- 25 - 40 °C

#### Ambient temperature

Ambient temperature, storage

- 40 - 80 °C

#### Mechanical shock resistance (IEC/EN 60068-2-27)

Half-sinusoidal shock, 10 ms

Basic unit with auxiliary contact module

N/O contact

7 g

#### Mechanical shock resistance (IEC/EN 60068-2-27)

Half-sinusoidal shock, 10 ms

Basic unit with auxiliary contact module

N/C contact

5 g

Degree of Protection  
IP20

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

Weight  
0.055 kg

Terminal capacities  
Screw terminals  
Solid  
1 x (0.75 - 2.5)  
2 x (0.75 - 2.5) mm<sup>2</sup>

Terminal capacities  
Screw terminals  
Flexible with ferrule  
1 x (0.75 - 2.5)  
2 x (0.75 - 2.5) mm<sup>2</sup>

Terminal capacities  
Screw terminals  
Solid or stranded  
18 – 14 AWG

Terminal capacities  
Screw terminals  
Pozidriv screw driver  
2 Size

Terminal capacities  
Screw terminals  
Standard screw driver  
0.8 x 5.5  
1 x 6 mm

Terminal capacities  
Screw terminals  
Max. 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 [ $U_{imp}$ ]  
6000 V AC

Overvoltage category/pollution degree  
III/3

Rated insulation voltage [ $U_i$ ]  
690 V AC

Rated operational voltage [ $U_e$ ]  
500 V AC

Safe isolation to EN 61140  
between coil and auxiliary contacts  
440 V AC

Safe isolation to EN 61140  
between the auxiliary contacts  
440 V AC

Rated operational current  
Conventional free air thermal current, 1 pole  
at 60 °C [ $I_{th}$ ]  
16 A

Rated operational current  
AC-15  
220 V 230 V 240 V [ $I_e$ ]  
6 A

Rated operational current  
AC-15  
380 V 400 V 415 V [ $I_e$ ]  
4 A

Rated operational current  
AC-15  
500 V [ $I_e$ ]  
1.5 A

Rated operational current  
DC current  
Switch-on and switch-off conditions based on

DC-13, time constant as specified.

Rated operational current  
DC current  
DC L/R  $\square$  15 ms  
Contacts in series:  
1 [24 V]  
10 A

Rated operational current  
DC current  
DC L/R  $\square$  15 ms  
Contacts in series:  
1 [60 V]  
6 A

Rated operational current  
DC current  
DC L/R  $\square$  15 ms  
Contacts in series:  
1 [110 V]  
3 A

Rated operational current  
DC current  
DC L/R  $\square$  15 ms  
Contacts in series:  
1 [220 V]  
1 A

Rated operational current  
Control circuit reliability [Failure rate]  
 $<10^{-8}$ , < one failure at 100 million operations  
(at  $U_e = 24$  V DC,  $U_{min} = 17$  V,  $I_{min} = 5.4$  mA)  $\lambda$

Short-circuit rating without welding  
Short-circuit protection maximum fuse  
500 V  
16 A gG/gL

Current heat loss at  $I_{th}$   
AC operated  
3.7 W

Current heat loss at  $I_{th}$   
DC operated  
3.7 W

Current heat loss at  $I_{th}$   
Current heat loss per auxiliary circuit at  $I_e$  (AC-  
15/230 V)  
0.5  $\infty$

## Rating data for approved types

Auxiliary contacts  
Flot Duty  
AC operated  
A600

Auxiliary contacts  
Flot 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 [ $I_n$ ]  
4 A

Heat dissipation per pole, current-dependent [ $P_{id}$ ]  
0.23 W

Equipment heat dissipation, current-dependent

[ $P_{vid}$ ]

0 W

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

0 W

Heat dissipation capacity [ $P_{diss}$ ]

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 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) / 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  
1

Number of contacts as normally closed contact  
3

Number of fault-signal switches  
0

Rated operation current  $I_e$  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  
No



