Product specifications

Eaton 276386

Catalog Number: 276386

Eaton Moeller® series DILA Contactor relay, 24 V 50 Hz, 2 N/O, 2 NC, Screw terminals, AC operation



Photo is representative

General specifications

Product Name
Eaton Moeller® series DILA Control relay

Catalog Number
276386

Model Code
DILA-22(24V50HZ)

EAN
4015082763862

Product Length/Depth
75 mm

Product Height
68 mm

Product Width
45 mm

Product Weight
0.24 kg

Compliances
CE Marked

Certifications
UL 508
CSA Std. C22.2 No. 14-05
EN 60947-4-1
IEC 60947-4-1
VDE
CE
IEC/EN 60947-4-1
VDE 0660
CSA Class No.: 3211-03
CSA File No.: 012528
EN 60947-5-1
CSA
CSA-C22.2 No. 14-05
IEC/EN 60947
UL Category Control No.: NKCR
UL
UL File No.: E29184

Powering Business Worldwide

defaultTaxonomyAttributeLabel

Features

Positive operating contacts to EN 60947-5-1 appendix L, including auxiliary contact module

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.

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.

10.3 Degree of protection of assemblies

Does not apply, since the entire switchgear needs to be

Resources

Catalogs

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

Switching and protecting motors - catalog

Product Range Catalog Switching and protecting motors

Characteristic curve

eaton-contactors-component-dila-relay-characteristic-curve.eps

eaton-contactors-dila-relay-characteristic-curve.eps

Declarations of conformity

DA-DC-00004810.pdf

DA-DC-00004792.pdf

Drawings

eaton-contactors-module-dilm-dimensions.eps

eaton-contactors-frame-dilm-dimensions.eps

eaton-contactors-mounting-dilm-dimensions.eps

eaton-contactors-mounting-dilm-dimensions-002.eps

eaton-contactors-dilm-3d-drawing-007.eps

eCAD model

ETN.276386.edz

Installation instructions

eaton-contactors-dila-dilm7-15-dilmp20-instruction-leaflet-il03407013z.pdf

Installation videos

WIN-WIN with push-in technology

mCAD model

DA-CS-dil_m7_15

DA-CD-dil_m7_15

System overview

eaton-contactors-dila-system-overview.eps

Wiring diagrams

2100SWI-108

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.

Fitted with:

Positive operation contacts

Operating frequency

9000 Operations/h

Pollution degree

3

Climatic proofing

Damp heat, cyclic, to IEC 60068-2-30
Damp heat, constant, to IEC 60068-2-78

Ambient operating temperature - max

60 °C

Ambient operating temperature - min

-25 °C

Ambient operating temperature (enclosed) - max

40 °C

Ambient operating temperature (enclosed) - min

25 °C

Ambient storage temperature - max

80 °C

Ambient storage temperature - min

40 °C

Equipment heat dissipation, current-dependent Pvid

0 W

Heat dissipation capacity Pdiss

0 W

Heat dissipation per pole, current-dependent Pvid

0.5 W

Number of auxiliary contacts (change-over contacts)

0

Number of auxiliary contacts (normally closed contacts)

2

Number of auxiliary contacts (normally closed contacts, delayed switching)

0

Number of auxiliary contacts (normally open contacts)

2

Number of auxiliary contacts (normally open contacts, leading)

0

Number of contacts (normally closed contacts)

2

Number of contacts (normally open contacts)

2

Rated control supply voltage (Us) at AC, 50 Hz - max

24 V

Rated control supply voltage (Us) at AC, 50 Hz - min

24 V

Connection to SmartWire-DT

No

Rated impulse withstand voltage (Uimp)

6000 V AC

Connection

Screw terminals

Application

Contactor relays

Product category

DILA relays

Protection

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

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

16 A

Voltage type of operating voltage

AC/DC

Rated switch current

16 A

Operating voltage at AC, 50 Hz - min

17 V

Operating voltage at AC, 50 Hz - max

500 V

Operating voltage at AC, 60 Hz - min

17 V

Operating voltage at AC, 60 Hz - max

500 V

Operating voltage at DC - min

24 VDC

Operating voltage at DC - max

220 VDC

Screwdriver size

0.8 x 5.5/1 x 6 mm, Terminal screw, Standard screwdriver 2, Terminal screw, Pozidriv screwdriver

Voltage type

AC

Code number

22D

Degree of protection

IP20

Overvoltage category

III

Control circuit reliability

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

Connection type (auxiliary circuit)

Screw connection

Duty factor

100 %

Lifespan, mechanical

20,000,000 Operations (AC operated)

Mounting method

DIN rail

Pick-up voltage

0.8 - 1.1 V AC x Uc (voltage tolerance - single-voltage coil 50 Hz and dual-voltage coil 50 Hz, 60 Hz)

Power consumption, pick-up, 50 Hz

24 VA, AC, Single-frequency coil 50 Hz and Dual-frequency coil 50/60 Hz

Safe isolation

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

Power consumption, pick-up, 60 Hz

24 VA, AC, Single-frequency coil 50 Hz and Dual-frequency coil 50/60 Hz

Screw size

M3.5, Terminal screw

Power consumption, sealing, 60 Hz

1.4 W, AC, Single-frequency coil 50 Hz and Dual-frequency coil 50/60 Hz

Rated operational current (Ie)

4 A at 60 V, DC L/R ≤ 50 ms (with 3 contacts in series)
6 A at 110 V, DC L/R ≤ 15 ms (with 3 contacts in series)
5 A at 220 V, DC L/R ≤ 15 ms (with 3 contacts in series)
10 A at 60 V, DC L/R ≤ 15 ms (with 2 contacts in series)
6 A at 60 V, DC L/R ≤ 15 ms (with 1 contact in series)
3 A at 110 V, DC L/R ≤ 15 ms (with 1 contact in series)
1 A at 220 V, DC L/R ≤ 50 ms (with 3 contacts in series)
4 A at 24 V, DC L/R ≤ 50 ms (with 3 contacts in series)
10 A at 24 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)

2 A at 110 V, DC L/R ≤ 50 ms (with 3 contacts in series)

16 A

Power consumption, sealing, 50 Hz

1.4 W, AC, Single-frequency coil 50 Hz and Dual-frequency coil 50/60 Hz

3.4 VA, AC, Single-frequency coil 50 Hz and Dual-frequency coil 50/60 Hz

Switching capacity (auxiliary contacts, general use)

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

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

Switching capacity (auxiliary contacts, pilot duty)

A600, AC operated (UL/CSA)

P300, DC operated (UL/CSA)

Rated control supply voltage (Us) at AC, 60 Hz - max

0 V

Rated control supply voltage (Us) at AC, 60 Hz - min

0 V

Rated control supply voltage (Us) at DC - max

0 V

Rated control supply voltage (Us) at DC - min

0 V

Rated insulation voltage (Ui)

690 V

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

4 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 operational current for specified heat dissipation (In)

15.5 A

Rated operational voltage (Ue) at AC - max

690 V

Static heat dissipation, non-current-dependent Pvs

1.4 W

Stripping length (main cable)

10 mm

Switching time (AC operated, make contacts, closing delay) - max

21 ms

Switching time (AC operated, make contacts, closing delay) - min

15 ms

Switching time (AC operated, make contacts, opening delay) - max

18 ms

Switching time (AC operated, make contacts, opening delay) - min

9 ms

Terminal capacity (flexible with ferrule)

1 x (0.75 - 2.5) mm², Screw terminals

2 x (0.75 - 2.5) mm², Screw terminals

Shock resistance

5 g, N/C auxiliary contact, Basic unit with auxiliary contact module, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms

7 g, N/O auxiliary contact, Basic unit with auxiliary contact module, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 10 ms

Terminal capacity (solid/stranded AWG)

18 - 14, Screw terminals

Short-circuit protection rating without welding

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

Terminal capacity (solid)

2 x (0.75 - 2.5) mm², Screw terminals

1 x (0.75 - 4) mm², Screw terminals

Tightening torque

1.2 Nm, Screw terminals

Actuating voltage

24 V 50 Hz

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