Product specifications

Eaton 183315

Catalog Number: 183315

Eaton Moeller® series DILDC DC contactor, 2 N/O, 2 NC, 1000 V: 600 A, RDS 250: 110 - 250 V 40 - 60 Hz/110 - 350 V DC, AC and DC operation

General specifications

Product Name
Eaton Moeller® series DILDC DC Contactor

Catalog Number
183315

Model Code
DILDC600/22(RDS250)

EAN
4015081782505

Product Length/Depth
248 mm

Product Height
219 mm

Product Width
160 mm

Product Weight
7.5 kg

Certifications
UL Category Control No.: NRNT
UL
CSA
CSA Class No.: C321124
UL508
IEC/EN 60947-5-1
CSA File No.: 012528
UL File No.: E338590
IEC/EN 60947-4-1
CE
CSA-C22.2 No. 14-05

Catalog Notes
DILDC contactors feature an electronic arc suppression system. Because of this, it is important not to exceed any technical data limits in general – especially the making and breaking capacity limits. Opening the device will

defaultTaxonomyAttributeLabel

Accessories

Fitting options auxiliary contacts: on the side: 2 x DILM820-XHI11(V)-SI; 2 x DILM820-XHI11-SA

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

Brochures

eaton-dil-dc-contactors-brochure-br034002en-en-us.pdf

Catalogs

Product Range Catalog Switching and protecting motors

Certification reports

DA-DC-00004670.pdf

DA-DC-00004669.pdf

Drawings

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

eaton-contactors-dildc-dimensions.eps

eaton-contactors-mounting-dildc-dc-dimensions.eps

eaton-contactors-mounting-dilm-3d-drawing-002.eps

eaton-contactors-dildc-dc-3d-drawing.eps

eCAD model

DA-CE-ETN.DILDC600_22(RDS250)

Installation instructions

IL034035ZU

mCAD model

DA-CD-ipcd_dildc

DA-CS-ipcd_dildc

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.

Operating frequency

100 electrical Operations/h
1000 mechanical Operations/h (DC operated)
1000 mechanical Operations/h (AC operated)

Pollution degree

3

Climatic proofing

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

Rated impulse withstand voltage (Uimp)

8000 V DC

Ambient operating temperature - max

70 °C

Ambient operating temperature - min

-40 °C

Ambient operating temperature (enclosed) - max

40 °C

Ambient operating temperature (enclosed) - min

40 °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

72 W

Number of auxiliary contacts (normally closed contacts)

2

Number of auxiliary contacts (normally open contacts)

2

Number of contacts (normally closed contacts)

2

Number of contacts (normally closed) as main contact

0

Number of contacts (normally open contacts)

2

Number of main contacts (normally open contact)

2

Rated breaking capacity at 1000 V

900 A

Rated breaking capacity at 220/230 V

900 A

Rated breaking capacity at 380/400 V

900 A

Rated breaking capacity at 500 V

900 A

Rated breaking capacity at 660/690 V

900 A

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

40 ms

Application

DC contactor

Product category

Contactors

Protection

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

Electrical connection type of main circuit

Connection rail

Screwdriver size

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

Voltage type

DC

Degree of protection

IP00

Drop-out voltage

0.2 x US max - 0.6 x US min, DC operated
AC operated: 0.2 x US max - 0.6 x US min, AC operated

Overvoltage category

III

Duty factor

100 %

Electromagnetic compatibility

Designed for operation in industrial environments. Its use in residential environments may cause radio-frequency interference, requiring additional noise suppression.

Lifespan, mechanical

1,000,000 Operations (DC operated)
1,000,000 Operations (AC operated)

Pick-up voltage

0.7 - 1.15 V DC x Us
0.7 - 1.15 V AC x Us

Power consumption, pick-up, 50 Hz

600 VA, Pull-in power, Coil in a cold state and 1.0 x Us
550 W, Pull-in power, Coil in a cold state and 1.0 x Us

Safe isolation

1000 V, Between auxiliary contacts and main contacts, According to EN 61140
1000 V, Between control inputs and main contacts, According to

EN 61140

1000 V, Between the contacts, According to EN 61140

Power consumption, pick-up, 60 Hz

550 W, Pull-in power, Coil in a cold state and 1.0 x Us

600 VA, Pull-in power, Coil in a cold state and 1.0 x Us

Screw size

M3.5, Terminal screw, Control circuit cables

M10, Terminal screw, Main connections

Power consumption, sealing, 50 Hz

9.5 W, Coil in a cold state and 1.0 x Us

18 VA, Coil in a cold state and 1.0 x Us

Power consumption, sealing, 60 Hz

18 VA, Coil in a cold state and 1.0 x Us

9.5 W, Coil in a cold state and 1.0 x Us

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

250 V

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

110 V

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

250 V

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

110 V

Rated control supply voltage (Us) at DC - max

350 V

Rated control supply voltage (Us) at DC - min

110 V

Rated insulation voltage (Ui) at DC

1000 V

Rated making capacity (cos phi to IEC/EN 60947)

900 A

Rated operational current (Ie) at DC-1, 1000 V

600 A

Rated operational current (Ie) at DC-3/DC-5 at 440 V

0 A

Rated operational current for specified heat dissipation (In)

600 A

Rated operational power at DC-3/DC-5 at 440 v

0 kW

Rated operational voltage (Ue) at DC - max

1000 V

Static heat dissipation, non-current-dependent Pvs

9 W

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

80 ms

Rated control voltage (Uc)

15 - 31.2 V DC

24 V DC

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)

P300, DC operated (UL/CSA)

A600, AC operated (UL/CSA)

Terminal capacity (flexible with ferrule)

1 x (0.75 - 2.5) mm², Control circuit cales

1 x (0.75 - 2.5) mm², Control circuit cables

Shock resistance

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

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

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

Terminal capacity (solid)

1 x (0.75 - 2.5) mm², Control circuit cales

1 x (0.75 - 2.5) mm², Control circuit cables

Short-circuit protection rating

Max. 900 A gR 1000 V DC (max. short-circuit current 6 kA), Fuse, Type “2” coordination, 400 V DC, Main conducting paths

Max. 900 A gR 1000 V DC (max. short-circuit current 30 kA), Fuse, Type “1” coordination, 1000 V DC, Main conducting paths

Max. 900 A gR 1000 V DC (max. short-circuit current 6 kA), Fuse, Type “2” coordination, 690 V DC, Main conducting paths

Max. 900 A gR 1000 V DC (max. short-circuit current 6 kA), Fuse, Type “2” coordination, 1000 V DC, Main conducting paths

Max. 900 A gR 1000 V DC (max. short-circuit current 30 kA), Fuse, Type “1” coordination, 400 V DC, Main conducting paths

Terminal capacity (solid/stranded AWG)

1/0 - 500 MCM, Main cables

2 x (18 - 12)

Signal level

5 V - 15 V, PLC signal level (A3 - A4) to IEC/EN 61131-2 (type 2), Magnet systems

Terminal capacity (busbar)

40 mm width, Main connection

Terminal capacity (flexible with cable lug)

50 - 240 mm²

Switching capacity (main contacts, general use)

600 A, Maximum motor rating, Single-phase (UL/CSA)

Terminal capacity (stranded with cable lug)

50 - 240 mm²

Tightening torque

1.2 Nm, Screw terminals, Control circuit cables

24 Nm, Main cable connection screw/bolt

Width across flats

16 mm

Operating voltage at DC - min

110 V

Operating voltage at DC - max

350 V

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