Production Specifications

Eaton 360042

Catalog number: 360042

Eaton Moeller series HLR Solid-state relay, 1-phase, 43 A, 600 - 600 V, DC, high fuse protection

General specifications

Product Name
Eaton Moeller series HLR solid state relay

Catalog Number
360042

Product Length/Depth
141 mm

Product Height
110 mm

Product Width
35.6 mm

Product Weight
.42 kg

Compliances
CE Marked RoHS Compliant

Certifications
CE UL 508 EAC

EAN
4015081998104

Model Code
HLR40/1(DC)600V/S

Powering Business Worldwide

defaultTaxonomyAttributeLabel

Rated operational current (Ie) at AC-53A

16 A

Rated operational current for specified heat dissipation (In)

43 A

10.11 Short-circuit rating

Is the panel builder's responsibility. The specifications for the switchgear must be observed.

Rated operational current (Ie) at AC-53B

0 A

Input current

10.3 mA at 24 V DC

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

0 V

10.4 Clearances and creepage distances

Meets the product standard's requirements.

10.12 Electromagnetic compatibility

Is the panel builder's responsibility. The specifications for the switchgear must be observed.

Operating voltage - min.

600 V

10.2.5 Lifting

Does not apply, since the entire switchgear needs to be evaluated.

10.2.3.1 Verification of thermal stability of enclosures

Meets the product standard's requirements.

Ambient storage temperature - min

-40 °C

Rated control supply voltage (Us) at DC - min

4 V

Rated operational voltage (Ue) at AC - min

600 V

Number of pilot lights

1

Vibration resistance

2 g/axis (2-100 Hz, IEC 60068-2-6, EN 50155, EN 61373)

Drop-out voltage

Resources

3D models

hlr40_1dc.dwg

hlr40_1dc.stp

User guides

IL034109ZU2021_09.pdf

1 V DC

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

0 V

Frequency rating

45 Hz - 65 Hz

10.8 Connections for external conductors

Is the panel builder's responsibility.

Operating voltage - max.

600 V

Rated conditional short-circuit current, type 1, 600 Y/347 V

100 kA

Immunity to line-conducted interference

10 V/m, 0.15 - 80 MHz, PC 1 (according to IEC/EN 61000-4-6)

Contact discharge

4 kV (according to IEC/EN 61000-4-2)

Terminal capacity (stranded)

Main: 1 x 2.5-25 mm²

Control: 1 x 0.5-2.5 mm², 2 x 0.5-2.5 mm²

Rated operational power at 600 V, 60 Hz

10 HP

Rated operational current (Ie) at AC-3

0 A

Climatic proofing

95% relative humidity non-condensing at 40°C

Electrical connection type for auxiliary- and control-current circuit

Screw connection

Static heat dissipation, non-current-dependent Pvs

0 W

Rated control supply voltage (Us) at DC - max

32 V

Rated operational power at 230 V, 60 Hz

3 HP

10.9.3 Impulse withstand voltage

Is the panel builder's responsibility.

10.6 Incorporation of switching devices and components

Does not apply, since the entire switchgear needs to be evaluated.

10.5 Protection against electric shock

Does not apply, since the entire switchgear needs to be evaluated.

Mounting position

Mount device in specified orientation and do not obstruct the heatsink

Rated operational current (Ie) at AC-1

0 A

10.13 Mechanical function

The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Terminal capacity (flexible with ferrule)

Main: 1 x 2.5-16 mm²
Control: 1 x 0.5-2.5 mm², 2 x 0.5-2.5 mm²

10.2.6 Mechanical impact

Does not apply, since the entire switchgear needs to be evaluated.

10.9.4 Testing of enclosures made of insulating material

Is the panel builder's responsibility.

10.3 Degree of protection of assemblies

Does not apply, since the entire switchgear needs to be evaluated.

Heat dissipation per pole, current-dependent Pvid

35 W

Voltage type

DC

Phase

1

Operating temperature - min

-40 °C

Radio interference class

Class A

Equipment heat dissipation, current-dependent Pvid

35 W

Pick-up voltage

3.8 V DC

Air discharge

8 kV (according to IEC/EN 61000-4-2)

Drop-out time

1/2 period + 500 microseconds at 24 V DC

Terminal capacity (solid)

Main: 1 x 2.5-25 mm²

Control: 1 x 0.5-2.5 mm², 2 x 0.5-2.5 mm²

Delay time

1/2 period + 500 microseconds at 24 V DC

Rated conditional short-circuit current (Iq), type 2, 380 V, 400 V, 415 V

100 kA

Operating temperature - max

80 °C

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.

Rated operational power at 480 V, 60 Hz

7.5 HP

Number of phases

1

Features

Modular version

Electromagnetic fields

10 V/m, 80 - 1000 MHz and 1.4 - 2.0 GHz, PC 1

3 V/m, 2.0 - 2.7 GHz, PC 1

10.9.2 Power-frequency electric strength

Is the panel builder's responsibility.

Degree of protection

IP20

Overvoltage category

III

Ambient storage temperature - max

100 °C

Rated operational voltage (Ue) at AC - max

600 V

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

0 V

Pollution degree

2

10.7 Internal electrical circuits and connections

Is the panel builder's responsibility.

Electrical connection type of main circuit

Screw connection

10.10 Temperature rise

The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.

Functions

Switching at zero-crossing

Tightening torque

Main: 2.5 Nm (22 lb-in)

Control: 0.5 Nm (4.4 lb-in)

Rated conditional short-circuit current (Iq), type 2, 230 V

100 kA

Screwdriver size

Main: Pozidriv 2

Control: Pozidriv 1

Series

HLR

Burst Impulse

Main: 2 kV, 5 kHz PC 1 (according to IEC/EN 61000-4-4)

Control: 1 kV, 5 kHz PC 1 (according to IEC/EN 61000-4-4)

Type

Solid-state relay

10.2.2 Corrosion resistance

Meets the product standard's requirements.

10.2.4 Resistance to ultra-violet (UV) radiation

Please enquire

10.2.7 Inscriptions

Meets the product standard's requirements.

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

0 V

Rated operational power at 220/230 V, 50 Hz

1.5 kW

Rated impulse withstand voltage (Uimp)

6 kV (1.2/50 µs)

Rated operational current (Ie) at AC-51

43 A

Rated operational power at 400 V, 50 Hz

2.2 kW

Shock resistance

15/11 g/ms (according to EN 50155, EN 61373)

Terminal capacity (solid/stranded AWG)

Main: 1 x 14-3

Control: 1 x 18-12, 2 x 18-12

Altitude

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Eaton Corporation plc
Eaton House
30 Pembroke Road
Dublin 4, Ireland
Eaton.com

Eaton.com/socialmedia