

< **HLR SOLID STATE RELAYS**
360046


Overview


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GENERAL SPECIFICATIONS

PRODUCT NAME	Eaton Moeller series HLR solid state relay
CATALOG NUMBER	360046
MODEL CODE	HLR20/3(DC)600V
EAN	4015081998135
PRODUCT LENGTH/DEPTH	103 mm
PRODUCT HEIGHT	110 mm
PRODUCT WIDTH	54 mm
PRODUCT WEIGHT	.505 kg
COMPLIANCES	CE Marked RoHS Compliant
CERTIFICATIONS	CE UL 508 EAC CCC

MODEL CODE

HLR20/3(DC)600V

FEATURES & FUNCTIONS

FEATURES

Modular version

FUNCTIONS

Switching at zero-crossing

**ELECTRICAL CONNECTION TYPE FOR
AUXILIARY- AND CONTROL-CURRENT
CIRCUIT**

Screw connection

**ELECTRICAL CONNECTION TYPE OF MAIN
CIRCUIT**

Screw connection

GENERAL

DEGREE OF PROTECTION

IP20

FREQUENCY RATING

45 Hz - 65 Hz

MOUNTING POSITION

Mount device in specified orientation and do not
heat sink

NUMBER OF PHASES

3

NUMBER OF PILOT LIGHTS

1

OVERVOLTAGE CATEGORY

III

POLLUTION DEGREE

2

**RATED IMPULSE WITHSTAND VOLTAGE
(UIMP)**

6 kV (1.2/50 µs)

SERIES	HLR
SHOCK RESISTANCE	15/11 g/ms (according to EN 50155, EN 61373)
TYPE	Solid-state relay
VIBRATION RESISTANCE	2 g/axis (2-100 Hz, IEC 60068-2-6, EN 50155, EN 61373)
VOLTAGE TYPE	DC

CLIMATIC ENVIRONMENTAL CONDITIONS

ALTITUDE	0 - 1000 m (Above 1000 m derate linearly by 1 % per 100 m up to a maximum of 2000 m)
AMBIENT STORAGE TEMPERATURE - MIN	-40 °C
AMBIENT STORAGE TEMPERATURE - MAX	100 °C
CLIMATIC PROOFING	95% relative humidity non-condensing at 40°C
OPERATING TEMPERATURE - MIN	-40 °C
OPERATING TEMPERATURE - MAX	80 °C

ELECTROMAGNETIC COMPATIBILITY

AIR DISCHARGE	8 kV (according to IEC/EN 61000-4-2)
BURST IMPULSE	Main: 2 kV, 5 kHz PC 1 (according to IEC/EN 61000-4-2) Control: 1 kV, 5 kHz PC 1 (according to IEC/EN 61000-4-2)
CONTACT DISCHARGE	4 kV (according to IEC/EN 61000-4-2)

ELECTROMAGNETIC FIELDS	10 V/m, 80 - 1000 MHz and 1.4 - 2.0 GHz, PC 1 (according to IEC/EN 61000-4-3) 10 V/m, 2.0 - 2.7 GHz, PC 1 (according to IEC/EN 61000-4-3)
IMMUNITY TO LINE-CONDUCTED INTERFERENCE	10 V/m, 0.15 - 80 MHz, PC 1 (according to IEC/EN 61000-4-6)
RADIO INTERFERENCE CLASS	Class A
TERMINAL CAPACITIES	
TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	Main: 1 x 1-4 mm ² , 2 x 1-4 mm ² Control: 1 x 0.5-2.5 mm ² , 2 x 0.5-2.5 mm ²
TERMINAL CAPACITY (SOLID)	Main: 1 x 2.5-6 mm ² , 2 x 2.5-6 mm ² Control: 1 x 0.5-2.5 mm ² , 2 x 0.5-2.5 mm ²
TERMINAL CAPACITY (SOLID/STRANDED AWG)	Main: 1 x 14-10, 2 x 14-10 Control: 1 x 18-12, 2 x 18-12
TERMINAL CAPACITY (STRANDED)	Main: 1 x 2.5-6 mm ² , 2 x 2.5-6 mm ² Control: 1 x 0.5-2.5 mm ² , 2 x 0.5-2.5 mm ²
TIGHTENING TORQUE	Main: 2 Nm (17.7 lb-in) Control: 0.5 Nm (4.4 lb-in)
SCREWDRIVER SIZE	Main: Pozidriv 2 Control: Pozidriv 1
ELECTRICAL RATING	
OPERATING VOLTAGE - MAX.	660 V
OPERATING VOLTAGE - MIN.	42 V
RATED OPERATIONAL CURRENT (IE) AT AC-1	0 A

RATED OPERATIONAL CURRENT (IE) AT AC-3	0 A
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RATED OPERATIONAL CURRENT (IE) AT AC-51	20 A
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RATED OPERATIONAL CURRENT (IE) AT AC-53A	10 A
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RATED OPERATIONAL CURRENT (IE) AT AC-53B	0 A
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RATED OPERATIONAL VOLTAGE (UE) AT AC - MIN	42 V
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RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX	660 V
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SHORT-CIRCUIT RATING

RATED CONDITIONAL SHORT-CIRCUIT CURRENT, TYPE 1, 600 Y/347 V	100 kA
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RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ), TYPE 2, 230 V	100 kA
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RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ), TYPE 2, 380 V, 400 V, 415 V	100 kA
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CONTROL CIRCUIT

DELAY TIME	1/2 period + 500 microseconds at 24 V DC
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DROP-OUT TIME	< 20 ms
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DROP-OUT VOLTAGE	1 V DC
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INPUT CURRENT	29.5 mA at 24 V DC
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PICK-UP VOLTAGE	4.8 V DC
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RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN	0 V
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RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX	0 V
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RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN	0 V
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RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX	0 V
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RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN	5 V
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RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX	32 V
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MOTOR RATING

HORSEPOWER	3 HP (230 V), 7.5 HP (480 V), 10 HP (600 V)
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RATED OPERATIONAL POWER AT 220/230 V, 50 HZ	2.2 kW
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RATED OPERATIONAL POWER AT 400 V, 50 HZ	4 kW
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DESIGN VERIFICATION

EQUIPMENT HEAT DISSIPATION, CURRENT- DEPENDENT PVID	58 W
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HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	19.3 W
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	20 A
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	0 W
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	Please enquire
10.2.5 LIFTING	Does not apply, since the entire switchgear need not be evaluated.
10.2.6 MECHANICAL IMPACT	Does not apply, since the entire switchgear need not 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 need not 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 need not be evaluated.
10.6 INCORPORATION OF SWITCHING	Does not apply, since the entire switchgear need not be evaluated.

DEVICES AND COMPONENTS

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.

10.10 TEMPERATURE RISE

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

10.11 SHORT-CIRCUIT RATING

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

10.12 ELECTROMAGNETIC COMPATIBILITY

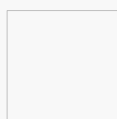
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10.13 MECHANICAL FUNCTION

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

Resources >

How to buy from Eaton



Questions before you buy

Contact us via web form by clicking the link

above, or call us: +44 (0) 1753 608 700 option 2,
then option 1

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