GENERAL SPECIFICATIONS

PRODUCT NAME	Eaton Moeller series HLR solid state relay
CATALOG NUMBER	360042
MODEL CODE	HLR40/1(DC)600V/S
EAN	4015081998104
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
MODEL CODE	HLR40/1(DC)600V/S

MODEL CODE	HLR1A(DC)3047S

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 r heatsink
NUMBER OF PHASES	1
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,
VOLTAGE TYPE	DC

CLIMATIC ENVIRONMENTAL CONDITIONS

ALTITUDE	0 - 1000 m (Above 1000 m derate linearly by 1 100 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 6 Control: 1 kV, 5 kHz PC 1 (according to IEC/EN
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

ELECTROMAGNETIC FIELDS	3 V/m, 2.0 - 2.7 GHz, PC 1
IMMUNITY TO LINE-CONDUCTED INTERFERENCE	10 V/m, 0.15 - 80 MHz, PC 1 (according to IEC
RADIO INTERFERENCE CLASS	Class A

TERMINAL CAPACITIES

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
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
TERMINAL CAPACITY (SOLID/STRANDED AWG)	Main: 1 x 14-3 Control: 1 x 18-12, 2 x 18-12
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
TIGHTENING TORQUE	Main: 2.5 Nm (22 lb-in) Control: 0.5 Nm (4.4 lb-in)
SCREWDRIVER SIZE	Main: Pozidriv 2 Control: Pozidriv 1

ELECTRICAL RATING

OPERATING VOLTAGE - MAX.	600 V
OPERATING VOLTAGE - MIN.	600 V
RATED OPERATIONAL CURRENT (IE) AT AC-1	0 A
RATED OPERATIONAL CURRENT (IE) AT AC-	

RATED OPERATIONAL CURRENT (IE) AT AC-3	0 A
RATED OPERATIONAL CURRENT (IE) AT AC-51	43 A
RATED OPERATIONAL CURRENT (IE) AT AC-53A	16 A
RATED OPERATIONAL CURRENT (IE) AT AC-53B	0 A
RATED OPERATIONAL VOLTAGE (UE) AT AC - MIN	600 V
RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX	600 V

SHORT-CIRCUIT RATING

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

CONTROL CIRCUIT

DELAY TIME	1/2 period + 500 microseconds at 24 V DC
DROP-OUT TIME	1/2 period + 500 microseconds at 24 V DC
DROP-OUT VOLTAGE	1 V DC
INPUT CURRENT	10.3 mA at 24 V DC

INPUT CURRENT	10.3 mA at 24 V DC
PICK-UP VOLTAGE	3.8 V DC
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN	0 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX	0 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN	0 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX	0 V
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN	4 V
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX	32 V

MOTOR RATING

HORSEPOWER	3 HP (230 V), 7.5 HP (480 V), 10 HP (600 V)
RATED OPERATIONAL POWER AT 220/230 V, 50 HZ	1.5 kW
RATED OPERATIONAL POWER AT 400 V, 50 HZ	2.2 kW

DESIGN VERIFICATION

EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	35 W
HEAT DISSIPATION PER POLE, CURRENT-	

HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	35 W
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	43 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 nee evaluated.
10.2.6 MECHANICAL IMPACT	Does not apply, since the entire switchgear nee 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 nee 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 nee evaluated.
10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS	Does not apply, since the entire switchgear nee 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 tempe calculation. Eaton will provide heat dissipation devices.
10.11 SHORT-CIRCUIT RATING	Is the panel builder's responsibility. The specifi switchgear must be observed.
10.12 ELECTROMAGNETIC COMPATIBILITY	Is the panel builder's responsibility. The specifi switchgear must be observed.
10.13 MECHANICAL FUNCTION	The device meets the requirements, provided t in the instruction leaflet (IL) is observed.

Resources >

How to buy from Eaton

Questions before you buy

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