

<b>360039</b> <b>General specifications</b>	<b>Eaton Moeller series HLR Solid-state relay, 1-phase, 25 A, 230 - 230 V, DC</b>	
	Product Name	Eaton Moeller series HLR solid state relay
	Catalog Number	360039
	Model Code	HLR25/1(DC)230V
	EAN	4,01508E+12
	Product Length/Depth	103.5 mm
	Product Height	110 mm
	Product Width	17.8 mm
	Product Weight	0.205 kg
	Compliances	CE Marked RoHS Compliant
	Certifications	CE UL 508 EAC
<b>Features &amp; Functions</b>	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	
<b>General</b>	Degree of protection	IP20
	Frequency rating	45 Hz - 65 Hz
	Mounting position	Mount device in specified orientation and do not obstruct the heatsink
	Number of phases	1
	Number of pilot lights	
	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
		0 - 1000 m (Above 1000 m derate linearly by 1% of FLC per 100 m up to a maximum of 2000 m)
		-40 °C
		100 °C
<b>Climatic environmental conditions</b>	Altitude	
	Ambient storage temperature - min	
	Ambient storage temperature - max	
	Climatic proofing	95% relative humidity non-condensing at 40°C
	Operating temperature - min	
	Operating temperature - max	80 °C
<b>Electromagnetic compatibility</b>	Air discharge	8 kV (according to IEC/EN 61000-4-2) 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)
	Burst Impulse	
	Contact discharge	4 kV (according to IEC/EN 61000-4-2) 10 V/m, 80 - 1000 MHz and 1.4 - 2.0 GHz, PC 1
	Electromagnetic fields	3 V/m, 2.0 - 2.7 GHz, PC 1 10 V/m, 0.15 - 80 MHz, PC 1 (according to IEC/EN 61000-4-6)
	Immunity to line-conducted interference	
	Radio interference class	Class A Main: 1 x 1-4 mm <sup>2</sup> , 2 x 1-4 mm <sup>2</sup> Control: 1 x 0.5-2.5 mm <sup>2</sup> , 2 x 0.5-2.5 mm <sup>2</sup>
	Terminal capacity (flexible with ferrule)	Main: 1 x 2.5-6 mm <sup>2</sup> , 2 x 2.5-6 mm <sup>2</sup> Control: 1 x 0.5-2.5 mm <sup>2</sup> , 2 x 0.5-2.5 mm <sup>2</sup>
	Terminal capacity (solid)	Main: 1 x 14-10, 2 x 14-10 Control: 1 x 18-12, 2 x 18-12
	Terminal capacity (solid/stranded AWG)	
	Terminal capacity (stranded)	
<b>Terminal capacities</b>	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

<b>Electrical rating</b>	Operating voltage - max.	230 V
	Operating voltage - min.	
	Rated operational current (Ie) at AC-1	12:00 am
	Rated operational current (Ie) at AC-3	
	Rated operational current (Ie) at AC-51	25 A
	Rated operational current (Ie) at AC-53A	5:00 am
	Rated operational current (Ie) at AC-53B	
	Rated operational voltage (Ue) at AC - min	
	Rated operational voltage (Ue) at AC - max	
	Rated conditional short-circuit current, type 1, 600 Y/347 V	100 kA
<b>Short-circuit rating</b>	Rated conditional short-circuit current (Iq), type 2, 230 V	
	Rated conditional short-circuit current (Iq), type 2, 380 V, 400 V, 415 V	
<b>Control circuit</b>	Delay time	1/2 period + 500 microseconds at 24 V DC
	Drop-out time	
	Drop-out voltage	1 V DC
	Input current	10.3 mA at 24 V DC
	Pick-up voltage	3 V DC
	Rated control supply voltage (Us) at AC, 50 Hz - min	0 V
	Rated control supply voltage (Us) at AC, 50 Hz - max	
	Rated control supply voltage (Us) at AC, 60 Hz - min	
	Rated control supply voltage (Us) at AC, 60 Hz - max	
	Rated control supply voltage (Us) at DC - min	3 V
<b>Motor rating</b>	Rated control supply voltage (Us) at DC - max	32 V
	Horsepower	2 HP (230 V), 3 HP (480 V), 3 HP (600 V)
<b>Design verification</b>	Rated operational power at 220/230 V, 50 Hz	0.37 kW
	Rated operational power at 400 V, 50 Hz	0.75 kW
	Equipment heat dissipation, current-dependent	
	Pvid	25 W
	Heat dissipation per pole, current-dependent	
	Pvid	
	Rated operational current for specified heat dissipation (In)	
	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	
	10.2.3.2 Verification of resistance of insulating materials to normal heat	
	10.2.3.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effects	

10.2.4 Resistance to ultra-violet (UV) radiation	Please enquire
10.2.5 Lifting	Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact	
10.2.7 Inscriptions	
10.3 Degree of protection of assemblies	
10.4 Clearances and creepage distances	
10.5 Protection against electric shock	
10.6 Incorporation of switching devices and components	
10.7 Internal electrical circuits and connections	Is the panel builder's responsibility.
10.8 Connections for external conductors	
10.9.2 Power-frequency electric strength	
10.9.3 Impulse withstand voltage	
10.9.4 Testing of enclosures made of insulating material	
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	
10.13 Mechanical function	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Installation instructions

Date

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Wed Feb 23 2022