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
	Model Code	HLR40/1(DC)600V/S
	EAN	4,01508E+12
	Product Length/Depth	141 mm
	Product Height	110 mm
	Product Width	35.6 mm
	Product Weight	0.42 kg
	Compliances	CE Marked RoHS Compliant
	Certifications	CE UL 508 EAC
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	
General	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
Climatic environmental conditions	Altitude	0 - 1000 m (Above 1000 m derate linearly by 1% of FLC 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	
	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 61000-4-4) Control: 1 kV, 5 kHz PC 1 (according to IEC/EN 61000-4-4)
	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 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/EN 61000-4-6)
	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)	
	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.	
	Rated operational current (Ie) at AC-1	12:00 am
	Rated operational current (Ie) at AC-3	
	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	
	Rated operational voltage (Ue) at AC - min	
	Rated operational voltage (Ue) at AC - max	
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	
	Rated conditional short-circuit current (Iq), type 2, 380 V, 400 V, 415 V	
Control circuit	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	3.8 V DC
	Rated control supply voltage (Us) at AC, 50 Hz - min	0 V
	Rated control supply voltage (Us) at AC, 50 Hz - max	
	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	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-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	IL034109ZU2021_09.pdf	
Date	Wed Feb 23 2022	