

360048		Eaton Moeller series HLR Solid-state relay, 3-phase, 30 A, 42 - 660 V, DC, high fuse protection	
General specifications	Product Name	Eaton Moeller series HLR solid state relay	
	Catalog Number	360048	
	Model Code	HLR30/3(DC)600V/S	
	EAN	4,01508E+12	
	Product Length/Depth	126 mm	
	Product Height	110 mm	
	Product Width	72 mm	
	Product Weight	0.78 kg	
	Compliances	CE Marked RoHS Compliant	
	Certifications	CE UL 508 EAC CCC	
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	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	
	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 environmental conditions	Climatic proofing	95% relative humidity non-condensing at 40°C	
	Operating temperature - min		
	Operating temperature - max	80 °C	
	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)	
	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 capacity (flexible with ferrule)	Main: 1 x 2.5-16 mm ² Control: 1 x 0.5-2.5 mm ² , 2 x 0.5-2.5 mm ²	
Terminal capacities	Terminal capacity (solid)	Main: 1 x 2.5-25 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 14-3 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.	660 V
	Operating voltage - min.	42 V
	Rated operational current (Ie) at AC-1	12:00 am
	Rated operational current (Ie) at AC-3	
	Rated operational current (Ie) at AC-51	30 A
	Rated operational current (Ie) at AC-53A	14 A
	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
Short-circuit rating	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	< 20 ms
	Drop-out voltage	1 V DC
	Input current	29.5 mA at 24 V DC
	Pick-up voltage	4.8 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	5 V
Motor rating	Rated control supply voltage (Us) at DC - max	32 V
	Horsepower	5 HP (230 V), 10 HP (480 V), 15 HP (600 V)
Design verification	Rated operational power at 220/230 V, 50 Hz	3 kW
	Rated operational power at 400 V, 50 Hz	5.5 kW
	Equipment heat dissipation, current-dependent Pvid	84 W
	Heat dissipation per pole, current-dependent Pvid	28 W
	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. Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.11 Short-circuit rating	
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	IL034110ZU2021_09.pdf
Date	Wed Feb 23 2022