



Eaton HLR25-1-AC-600V

Eaton D99 series solid-state relay, SSR-DIN
25A, 600VAC OUT 20-275VAC/24-190VDC IN

□□□□

PRODUCT NAME	Eaton D99 series solid-state relay
CATALOG NUMBER	HLR25-1-AC-600V
UPC	786689909147
PRODUCT LENGTH/DEPTH	5.55 in
PRODUCT HEIGHT	4.33 in
PRODUCT WIDTH	1.4 in
PRODUCT WEIGHT	0.93 lb
COMPLIANCES	RoHS Compliant CE Marked
CERTIFICATIONS	UL 508 CSA Certified



Powering Business Worldwide

SPECIAL FEATURES	Switching at zero crossing
TYPE	Solid State Relay
OPERATING TEMPERATURE - MAX	80 °C
OPERATING TEMPERATURE - MIN	-40 °C
10.13 MECHANICAL FUNCTION	6
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
10.2.7 INSCRIPTIONS	Meets the product standard's requirements.
10.4 CLEARANCES AND CREEPAGE DISTANCES	Meets the product standard's requirements.
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.
AMBIENT STORAGE TEMPERATURE - MAX	100 °C
AMBIENT STORAGE TEMPERATURE - MIN	-40 °C
RATED OPERATIONAL CURRENT (IE) AT AC-51	43 A
RATED OPERATIONAL	16 A

CURRENT (IE) AT AC-53A	
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	25 A
RATED OPERATIONAL POWER AT 220/230 V, 50 HZ	0.37 kW
RATED OPERATIONAL POWER AT 400 V, 50 HZ	0.75 kW
RATED OPERATIONAL VOLTAGE (UE) AT AC - MAX	600 V
RATED OPERATIONAL VOLTAGE (UE) AT AC - MIN	42 V
VOLTAGE TYPE	AC
FREQUENCY RATING	45 Hz - 65 Hz
SERIES	HLR
SWITCH TYPE	Zero Crossing
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	35 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	35 W
NUMBER OF PHASES	1
NUMBER OF PILOT LIGHTS	1
OPERATING VOLTAGE - MAX.	600 V
OPERATING VOLTAGE - MIN.	600 V
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX	32 V
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN	3 V
AIR DISCHARGE	8 kV (according to IEC/EN 61000-4-2)
ALTITUDE	9
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)
CLIMATIC PROOFING	95% relative humidity non-condensing at 40°C
CONTACT DISCHARGE	4 kV (according to IEC/EN 61000-4-2)

DEGREE OF PROTECTION	IP20
DELAY TIME	1/2 period + 500 microseconds at 24 V DC
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)
INPUT CURRENT	10.3 mA at 24 V DC
MOUNTING POSITION	Mount device in specified orientation and do not obstruct the heatsink
POLLUTION DEGREE	2
RADIO INTERFERENCE CLASS	Class A
SCREWDRIVER SIZE	Main: Pozidriv 2 Control: Pozidriv 1
SHOCK RESISTANCE	15/11 g/ms (according to EN 50155, EN 61373)
TIGHTENING TORQUE	Control: 0.5 Nm (4.4 lb-in) Main: 2.4 Nm (21.2 lb-in)
VIBRATION RESISTANCE	2 g/axis (2-100 Hz, IEC 60068-2-6, EN 50155, EN 61373)
DROP-OUT TIME	1/2 period + 500 microseconds at 24 V DC
DROP-OUT VOLTAGE	1 V DC
IMMUNITY TO LINE- CONDUCTED INTERFERENCE	10 V/m, 0.15 - 80 MHz, PC 1 (according to IEC/EN 61000-4-6)
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	6 kV (1.2/50 μ s)
TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	Control: 1 x 0.5-2.5 mm ² , 2 x 0.5-2.5 mm ² Main: 1 x 1-4 mm ² , 2 x 1-4 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)	Control: 1 x 18-12, 2 x 18- 12 Main: 1 x 14-10, 2 x 14-10
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
SHORT-CIRCUIT CURRENT RATING 600 Y/347 V,	100 kA, 30A Class J or CC

