



Type DCL/ACL

DC and AC Line Lightning Protection for vessels at sea



Lightning generated transients or overvoltages appearing across DC or AC cables and between them and earth are likely to be damaging to connected equipment. DC and AC external cables feeding navigation lights, wind speed and direction indicators, etc., can also carry these transient over voltages via the ships DC or AC wiring to other instruments and electronic devices such as chart plotters, computers, radios and the like, to cause damage.

Moonraker DCL/ACL line protectors provide high quality protection from these potentially damaging transients by clamping the voltage and conducting surges safely to ground. The use of solid-state transient clamping devices connected between each cable and earth, ensures virtually instantaneous protection is achieved. With a rating of 10 amps continuous current, a single DCL or ACL protector will, for instance, support the navigation lights in. For higher current drain two units should be used.

The protectors should be fitted at the point of entry of the cables to the interior of the vessel. Connection in the type DC or type AC cable is via sealed cable glands and internal screw terminals. The lid of the housing is fitted with an O ring seal. The housing is mounted via two bolts (not supplied) through the mounting plate.

The protectors are housed in safe all metal enclosures so that they are intrinsically safe. In the event of a prolonged overvoltage they will not catch fire or explode. The housing is constructed from cast aluminium, being finished with a high durability epoxy based coating, highly resistant to chemical attack, abrasion and the effects of ozone and ultra-violet radiation, and sealed to IP65 rating for waterproofing.

Specifications

Operating Voltage	type DCL suitable for 12, 24 and 32 volts DC; type ACL suitable for 110 and 240 volts AC, 50 or 60 Hz
Operating Current	10 Amps maximum (split the system and use extra units for higher currents)
Earth Leakage Current	less than 500 μ A (micro amp)
Operating Temperature	-40°C to +80°C
Housing Dimensions	66W x 58H x 114mm long (163 including cable glands)
Earth Terminal	M8 stainless steel stud on side of housing
Maximum Surge Current	type DCL 10kA; type ACL 50kA
Response Time	<5NS
Connection	via cable glands to screw terminals (16mm OD maximum cable)
Mounting	via 2 bolts (not supplied) through base plate 6.5mm (0.26 in)holes
Weight	550g (1.2 lbs)
Packed Weight	1 kg (2.2 lbs)

Specifications subject to change – Issued 07/13



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