



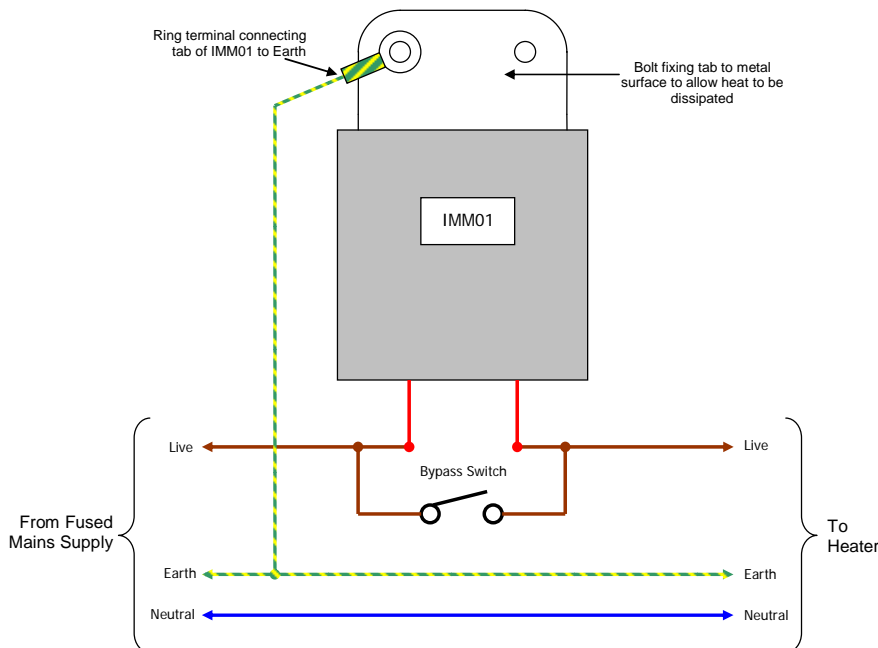
Immersion Heater Power Reducer – IMM01

The IMM01 is designed to halve the power consumed by standard 1-2kW 230V AC immersion heaters. When using the IMM01, the 1kW heater effectively becomes 500W. The device is rated at 240V, 8A. The device is simply connected in series with the immersion heater, and to bypass the IMM01, a switch can be connected across the module. The IMM01 possesses thermal and over-current protection and is hermetically sealed in epoxy resin in an ABS enclosure. The unit is not suitable for 3kW immersion heaters.

Parameter	Value
Nominal Operating Voltage	220-240V AC
Sustained Operating Voltage Range	100-450V AC
Maximum Heater Current	8A
Maximum Heater Power	2kW
Non-sustained Peak Output Current	20A
Operating Temperature Range	-20 – 70°C (-4 – 160°F)
Dimensions of Module	52 × 52 × 31mm (2.1 × 2.1 × 1.2 in)
Mechanical Fixing	2 × 5.2mm dia, 20 pitch
Electrical Connection	2 × lead-out wires, >30cm long

Operating Guidelines

The IMM01 is sealed in resin in an ABS enclosure and should be mounted inside an earthed metal enclosure to allow heat dissipation and electrical safety. The metal bracket is internally isolated from mains voltages, but should still be earthed separately. The module will run warm when operating, and an internal thermal cut-out is provided at 98°C to prevent excessive heat build-up leading to fire. If this thermal cut-out ever trips, the IMM01 will need to be replaced. The module can be bypassed (i.e. full power to the heater) simply by connecting a suitably rated switch ACROSS the red lead-outs. When the switch is closed, full power is allowed to flow to the heater, but when the switch is open the IMM01 takes over and allows half the power to the heater. The IMM01 should be supplied from a switched supply fused at 10A or less. Due to the halving of the power to the immersion heater when the IMM01 is operating, the water in which it is submersed will take longer to heat to the same temperature. The current drawn by a 1kW immersion at 240V reduces from 4.5A to about 2.3A when the IMM01 is operating. Please note cascading two or more IMM01 modules will not quarter the power, and the module will only work at AC voltages. Also, the module is designed to work from domestic AC mains and may not be suitable for connection to inverters or generators.



The Module should be connected as shown to the left, and is simply connected in series with the live line of the immersion heater. A bypass switch can be fitted across the unit if desired to allow maximum power to the heater.

WARNING

The unit works at AC mains voltages and is designed to be professionally installed by a suitably qualified person.

The unit is intended to be installed into a sealed metal junction box or other metal enclosure. It is essential the metal fixing tab of the IMM01 is securely bolted to the back wall of the metal enclosure to allow heat to be dissipated.