

POWERLINK



ER3 & ER6 Single Phase Thyristor Controller instruction manual

1) Installation

The controller should be mounted to allow airflow through the heatsink naturally. The maximum ambient temperature should not exceed 45 Deg. C.

2) Protection Fuse

Suitable fuse should be fitted to protect a ER3 or ER6 from overloading. The fuse level depends on the load current rating. The maximum fuse value for an ER3 is 20A. The maximum fuse value for an ER6 is 30A.

A 100mA delay fuse which is on the print circuit board is used to protect the low voltage supply of the electronic control circuit.

3) Wiring

An ER3 or ER6 controller should be connected according to the wiring diagram as shown in fig. 1. The size of cables for controlling signals should be larger than 0.5 mm sq. and the cable to L, N and cables to the load must be sufficient to withstand the maximum current rating of the LOAD and meet the IEE WIRING REGULATIONS.

4) Set-up procedure

After connecting the load to a power controller, set the input signal to minimum (0V). Switch on the mains supply, the output voltage or current to the load should be zero (except the leakage current or snubber circuit current which is less than 10mA). Gradually increase the input signal and check that the output is switching ON and OFF according to the input signal.

5) ALL STANDARD UNITS ARE FACTORY SET UP AS FOLLOWS

- a) With the input at minimum (0V), switch on the mains supply to an ERC unit.
- b) With an input of 9V for 0-10V input range (for other input range, set the input to 90% of the max. input), adjust the SPAN pot clockwise until the output voltage or current is at maximum.
- c) With input signal at 8V, output should be nearly fully on with slightly off.
- d) With the input at 1V for 0-10V input range (for other input range, set the input to 10% of the max. input), adjust ZERO POT until the output is zero.
- e) With input signal at 2V, the output should be nearly fully off with slightly on.
- d) Repeat step b) and c) until the output is at maximum and zero.

Specification

Supply voltage		192V to 264Vac, 47 to 63Hz
Input signal		0-10V as standard, 22 kilo-ohm min. input impedance
Current ratings		Natural cooling ER3 - 17A max. ER6 - 30A max. per phase
Cycle Time		typical 3 sec.
Isolation		2500Vrms between input and output
Min. holding current		30mA
Repetitive peak voltage		600V
Operating temp.		0 to 45 Deg. C
Storage temp.		-10 to 80 Deg. C
Dimensions	ER3	W: 85mm x H: 130mm x D: 65mm
	ER6	W: 120mm x H: 130mm x D: 80mm
Mounting		DIN rail mounted, positive screw locking

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