ER45 Fan Cooling Burst Firing Power Controller instruction manual

1) Installation

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

2) Protection Fuse

Protection fuses are fitted for protecting the semi-conductors, external fuses with appropriate ratings are necessary for protecting cables from the power source to the thyristor unit and to the load.

ER45	2 off 55ET or 55FE in parallel

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

A ER 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 L1, L2,L3 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 switching ON and OFF according to the input signal.

4a) Input Switch

INPUT	SW1	SW2	SW3	SW4
0-10V	0	1	0	0
0-20V	0	0	0	0
0-5V	0	1	0	1
4-20mA	1	1	1	1

4c) ALL STANDARD UNITS ARE FACTORY SET UP AS FOLLOW

a) With the input at minimum (0V), switch on the mains supply to a ER unit.
c) 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 maximum.
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) Repeat steps c) and d) until the output is at maximum and zero.

5) Cycle Time Adjust

Units are factory set with the cycle time pot at mid position, the cycle time is about 15 to 20 seconds. If faster cycle time is required, adjust Cycle Time pot fully anti-clockwise or vice versa.

Specification

Supply voltage	380V to 420V, 3 phase unless specified
Supply frequency	47Hz to 63Hz
Fan Supply	230Vac supply as standard, 110Vac on application
operating temp.	0 to 45 Deg. C
Storage temp.	-10 to 80 Deg. C
Input signal	0-10V, 4-20mA as standard
Current ratings,	65A per phase
Cycle Time	2 to 35 sec.