X10806 – FSC5-5A Enclosed DIN Rail Fan Speed Controller Issue 2



1 Introduction

This 1.1KW fan speed controller is available for single phase, 230V applications. The unit can control loads of up to 5A, with a number of signal control options. The controllers are assembled to suit the fan load with an integral fuse. Operating in phase angle mode and mounted in a din rail enclosure for ease of installation.

2 Applications

Suitable for controlling fan motors, but also could be used to control small transformers and resistive loads such as heaters. The solid state SCR gives smooth proportional control of all types of industrial processes.

3 Features

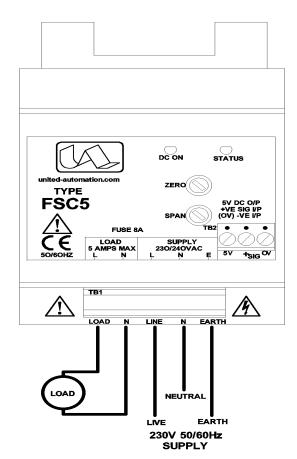
- Wide range of Control Signal Options.
- DIN RAIL Enclosed
- Power and status LED indication
- Phase angle mode of operation with Soft-Start.
- Mains protection fuse fitted.
- Integral class A RFI filter



4 Connections

WARNING!

Isolate supply when carrying out any servicing work on this controller.



CONTROL SIGNAL OPTIONS TB2 5V + OV SIG I/P +VE -VE DC SIGNAL CW 5k POTENTIOMETER 270 OHMS 1/4 WATT + 4-20mA SIGNAL

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5 Installation

5.1 Cooling Requirements

Heatsink rating for standard controller is calculated when naturally cooled. If mounted in an enclosure or Cabinet, adequate ventilation and/or forced cooling should be fitted. When thermal trips are fitted we recommend that they are wired in line with the signal, so as to switch off the power in an over temperature situation.

Unusual heating loads such as Molybdenum, Platinum or Tungsten, typically have a 10 to 1 hot to cold resistance ratio and therefore when cold, draw larger currents than normal. Transformers and other inductive loads have surge starting currents and require the correct type of phase angle firing circuit. These and similar types of surge loads, should be indicated, so that appropriate slow start or larger rated units can be correctly supplied for the specific needs.

Note: The unit is factory set for manual control or 0-5Vdc. For4-20mA, a 270R resistor will be required to be fitted across the '+' & '0v' terminals and the zero & span adjusters will need recalibrating

6 Technical Specifications

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|--------------------------|------------------------|---------------------------------|---------------|
| Mains Voltage | 230V ac +10% - 6% | Auxiliary Output | 5V dc |
| Signal Span Minimum | 0 to 5V dc | Triac Limiting RMS Current | 16A |
| Signal Span Maximum | 0 to 25V dc | Peak Single Cycle Surge Current | 150A |
| Signal Zero Offset | 0-30% of Span | Max. Peak Voltage | 600V |
| Signal Input | 0-5Vdc/factory default | Current Rating | 5A |
| Manual Potentiometer | 5K | Replacement Fuse | 8A 32mm FF |
| Soft Start Time Constant | 1 second fixed | Storage Temperature | -20°C to 85°C |
| Isolation Voltage | 2500V RMS | Max. Working Temperature | 75°C heatsink |
| Dimensions | | | |
| Enclosure with Heatsink | W72 x H113 x D68mm | | |

7 Fusing

The unit comes with an integral 8A Protection fuse (32mm FF type). On initial "switch" on, some loads may need an increased Factor of Safety (F of S) for Unit and/or Device protection. See SRA Data sheet for further information.

8 CE Marking

This product family carries a "CE marking". The 1.1KW phase angle controller may require a suitable remote filter. For information see recommendation section and contact our sales desk. (See Declaration of Conformity).

9 Recommendations & Safety Requirements

Other documents available on request, which may be appropriate for your application:

| Code | Identity | Description |
|--------|----------|--|
| X10213 | ITA | Interaction: Uses for phase angle and for burst fire control |
| X10255 | SRA | Safety Requirements: Addressing the Low Voltage Directive (LVD) including Thermal Data/Cooling, Live Parts Warning, Earthing Requirements and Fusing Recommendations |
| P01.1 | COS | UAL Conditions of Sale |

NOTE It is recommended that installation and maintenance of this equipment should be done with reference to the current edition of the I.E.E. wiring regulations (BS7671) by suitably qualified/trained personnel. The regulations contain important requirements regarding safety of electrical equipment. For International Standards refer to I.E.C/ directive IEC 950.

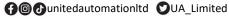
10 Order Code

| State Part Number | A72297 – FSC5 | |
|-------------------|-------------------------------------|--|
| Optional Extras | 270R ¼ W Resistor, 5k Potentiometer | |



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