



SC310/SD - FAN SPEED CONTROLLER

Installation, Operation and Maintenance Manual

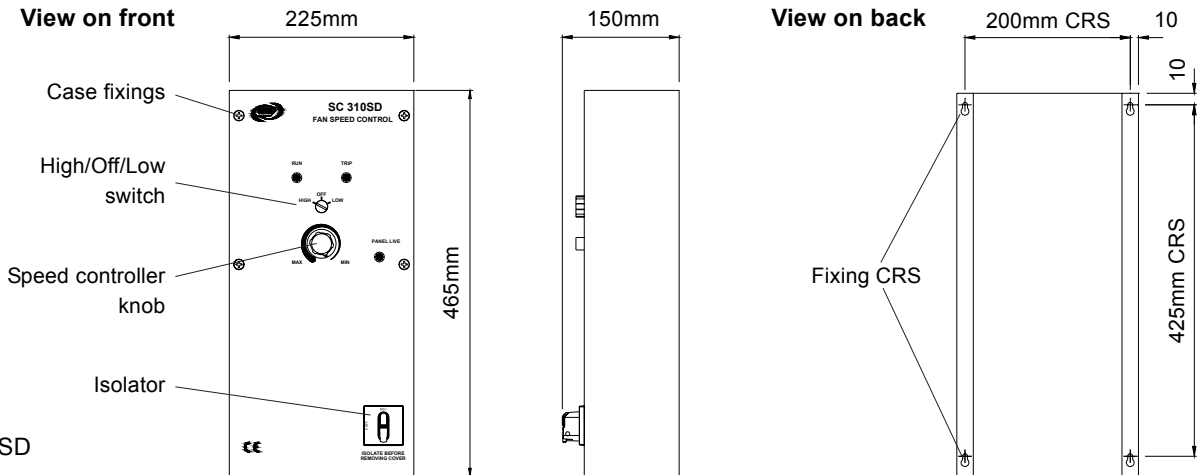


Fig. 1
SC310/SD

Introduction

The SC310/SD provides manual speed control for some fan motors in the Skypod & Airbeam range (See installation instructions below for important wiring information). The SC310/SD 3 phase controller requires the fan to be wired in star/delta connections. A changeover switch on the controller allows for the fan to be changed from the full speed (non controllable) delta connection to the speed controllable star connection (which is approximately 70% of the fan duty at full speed).

Specification

- Maximum ambient temperature 30°C
- Input voltage 400 VAC + 10% 50Hz. 3 Phase **plus neutral**
- Maximum load 8A
- Maximum temperature on any mounting surface 35°C
- Output voltage 0-400 VAC 50Hz, 3 phase
- Minimum output voltage 130V, see commissioning for details
- Control MCB 2A, Fan MCB 10A
- Enclosure, powder coated steel
- Enclosure protected to IP44 when fully installed.

Installation

All installations must be carried out to ensure compliance with Health and Safety at Work Act and all other applicable regulations. The controller is suitable for internal mounting only and must only be fitted in a safe position where it is not in direct contact with moisture, chemicals or solvents. See *fig. 1* for fixing centre dimensions.

Wiring

All electrical connections must be carried out in accordance with the current edition of the I.E.E REGULATIONS and only competent electricians should be allowed to affect any electrical work to our units. Please ensure that the appropriate wiring diagram is referenced and that all necessary connecting links within the fan motor have been removed prior to installation.

IMPORTANT !

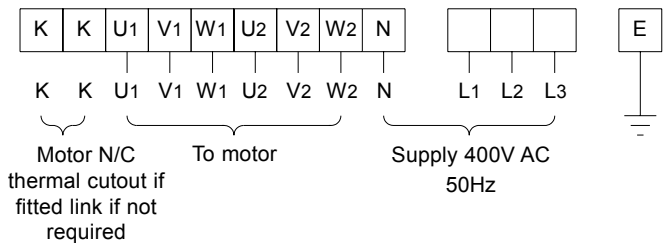
Do not connect any unit to an electrical supply voltage outside of that indicated on the motor nameplate.

Note: When retro-fitting a controller you should have the correct fan wiring information to check the installed fan. When using the SC310/SD in conjunction with a roof unit pre-wired to an isolator additional wiring from the motor to the isolator is required, see appropriate wiring diagram.

The controller is fitted with 10 Amp output MCB as standard. Ensure motor overload protection (by others) is installed.

Install the wiring using appropriate cable glands, and ensure that the cables are clamped where necessary. Carry out electrical safety for earth continuity to front plate, and insulation resistance measurements, and record results.

Fig. 2 Terminal connections



Commissioning

Set the SC310/SD to Delta (high) and run the fan to check it is rotating in the correct direction, whilst the unit is running check the FLC and voltage of the fan.

Set the SC310/SD to Star (low/controllable) and set speed control knob to minimum. The fan should run at minimum speed but no lower than 130v phase to neutral, check the FLC and voltage of the fan. If necessary the minimum speed can be adjusted by the small adjustment potentiometer P4 located on the PCB. **Ensure isolator is off before carrying out any adjustment.** Once complete, adjusting the main control knob should vary the fan speed.

When enquiring after or ordering spares contact VES Spares Department, quoting the sales order (SO) number and unit type as found on the unit nameplate.

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PLEASE ENSURE THAT THIS DOCUMENT IS PASSED ON TO THE END USER.

We reserve the right to alter the specification without notice