



GEOVENT

INSTRUCTION MANUAL



POWERBOX III

on/off control of airflow dampers and fans

1.0 Installation of Powerbox FV50X for on/off control of airflow dampers

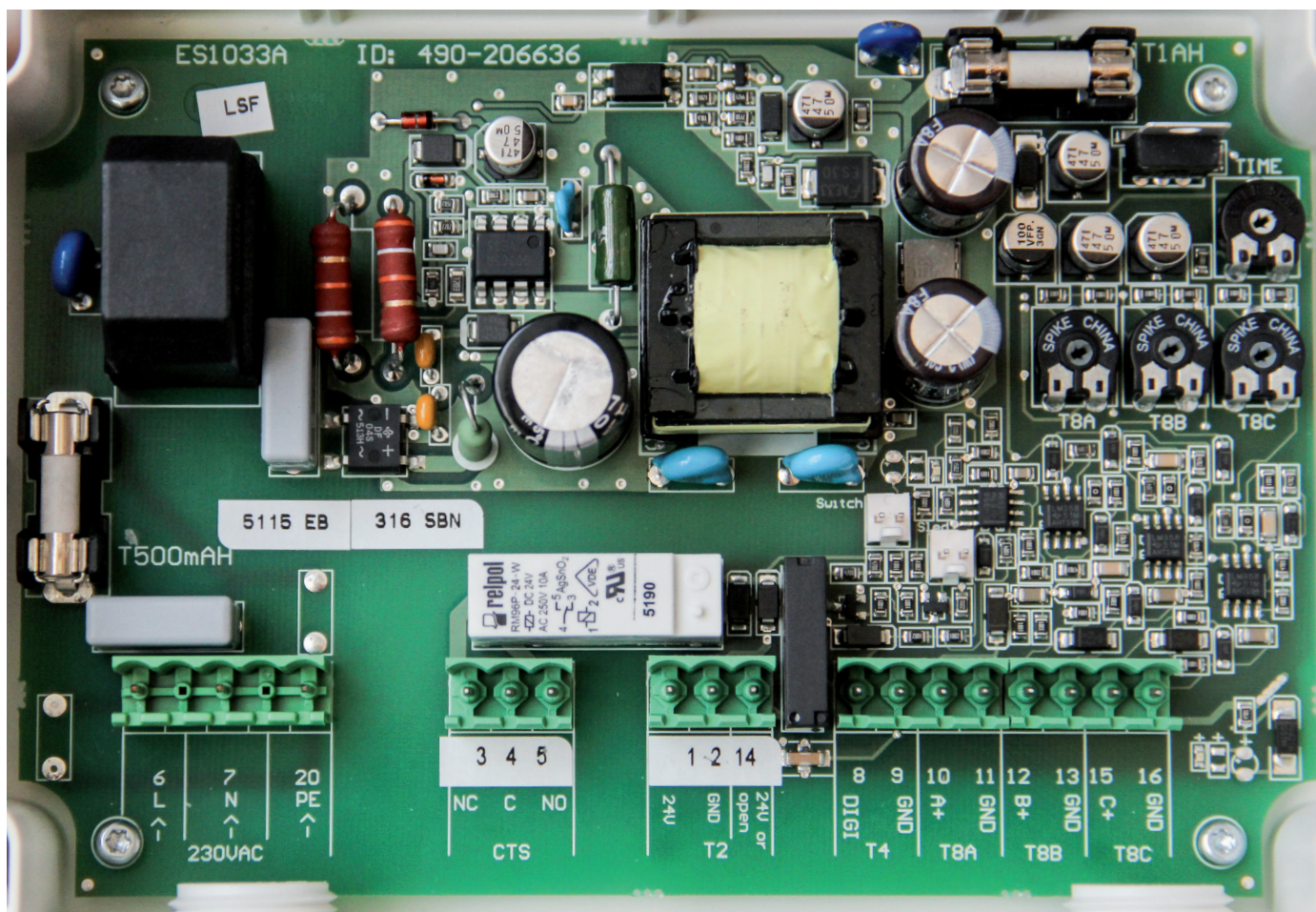
- Connect 230V power supply to terminal L and N as shown in diagram and photo
- Connect terminal 1 and 2 to damper motor 24V supply
- Connect terminal 14 (beside terminal 1 and 2) to the damper motor signal input terminal.
- Input terminals 8 and 9 (T4) can be connected to a possible external open/close control function. When terminal 8 and 9 are connected Powerbox II will open the damper independent of power sensors.
- Terminal 10 and 11 can be connected to power sensor A (induction coil)
- Terminal 12 and 13 can be connected to power sensor B (induction coil)
- Terminal 15 and 16 can be connected to power sensor C (induction coil)
- Power sensor A can be connected to a welding machine or other power-consuming machine. One electric phase from the supply cable is taken through the induction coil, and will now induce a small electric current in the power sensor when the machine starts. This current will activate the Powerbox III unit and make it open the damper.
- It is recommended to install the induction coil around a free electric phase inside a CEE socket. The CTS exit will change position simultaneously with the damper opening and closure
- The CTS contacts can be applied as start and stop signal to fans or dampers.

After start:

- The installation is controlled by activating the FV40X. This is done by either pressing the switch on the front cover or by short-circuiting terminal 8 and 9 in T4. The damper will now open and close.
- Trimmer A and Trimmer B are adjusted when the machine is stopped. The pot-meter is turned anti-clock wise until the damper just opens the damper, and then turned a little reverse. This will close the damper after short time.
- The setting is verified by starting the machine and then control that the damper opens, and that it closes again after the delay time period.
- The delay time period (for after-fume) is adjusted on the Timer pot-meter.
- The CTS contacts can be applied as start and stop signal to fans or dampers.

The damper will now open when either:

- The switch on front panel is pushed to "Man" position.
- Terminal 8 and 9 are short circuited.
- Power sensor A is activated by starting machine A
- Power sensor B is activated by starting machine B
- Power sensor C is activated by starting machine C
- The CTS exit can be connected to a fan or damper for automatic start and stop



230VAC Supply	L N PE	Power Coil A	T8A
Damper motor 24VDC	T2	Power Coil B	T8B
To CTS outlet	CTS	Power Coil C	T8C
To ON/OFF switch	T4	Power Coil A Trim	T8A
		Power Coil B Trim	T8B
		Power Coil C Trim	T8C
		Timer for Off function	TIME

Maintenance:

- Trimmer A, B and Trimmer C can eventually be readjusted if the damper does not open and close correctly with the machine.
- The Trimmer for time can also be adjusted for shorter or longer delay time
- The CTS exit can be connected to a fan or damper for automatic start and stop.
- Delay time for timer function between 2 secs. - 3 min. +20%



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