HEVAC Control Agencies

INTERIM LEAFLET

ECVSD

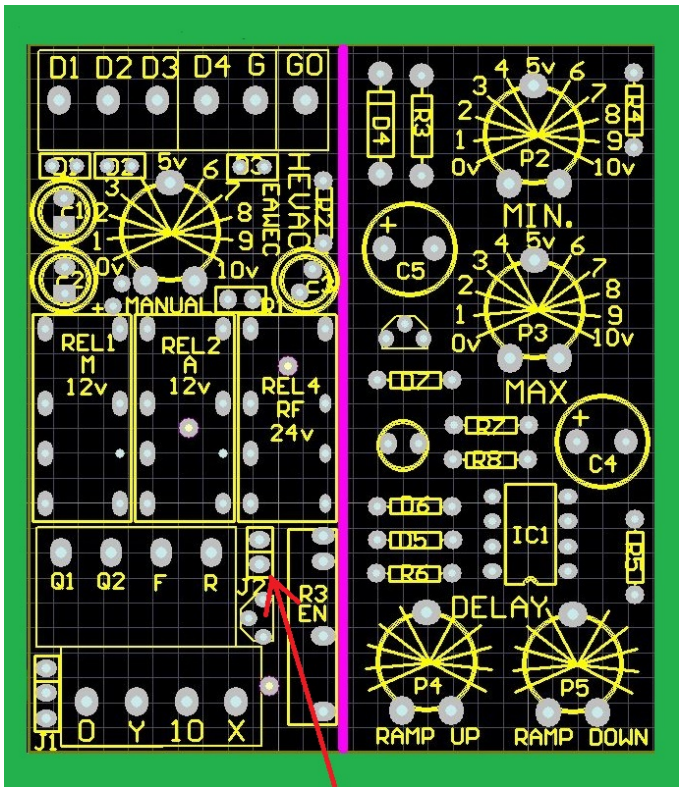
VSD TYPE CONTROL FOR EC FANS

- **Made in Australia to Australian Standards.**
- **Output Run Proving Input (C.T, D.P etc)generates Run & Fault Outputs**
- **Min & Max. Limiting of 0-10v Output**
- **Ramp Up & Ramp Down delays**
- **Manual potentiometer can adjust output from 0-10vDC.**
- **Potential Free (24v 1Amp max.) SPST Fan Enable Relay Output ...selectable by jumper as N/O or N/C potential free contacts.**
- **Optional use Onboard 12vdc power supply for manual potentiometer signal source to save 3rd wire (10v source) from EC fan.**
- **2 or 3 wire signal to EC fan (+ 2 wires if relay enable O/P required)**
- **Din rail mount low profile.**

The ECVSD module incorporates the main desired features to allow controlling EC fans similar to the control capability with a single phase VSD. The module incorporates both min & max trimming of the 0-10v output signal plus ramp up & down delay settings to smooth start up & running operation. The output signal to the EC fan is derived either from the onboard potentiometer (in manual mode) or to pass out the 0-10vdc signal from an external control device ie BMS EC speed control output. ECVSD comes with an optional use 10vDC power supply that can be used to power the onboard manual speed potentiometer saving the need to bring a 3rd wire (the 10v source) from the EC fan which reduces the typical connection from 3 wires to 2. The potentiometer shaft/knob can be removed exposing only a hexagonal hole to decrease the ability of tampering post commissioning manual fan speed settings if desired. Also incorporated in this module is an output run proving input, typically derived from a C.T or a pressure or flow proving switch, On a manual or auto run call, a 24v run & fault output voltage is generated based on the fan proving input.

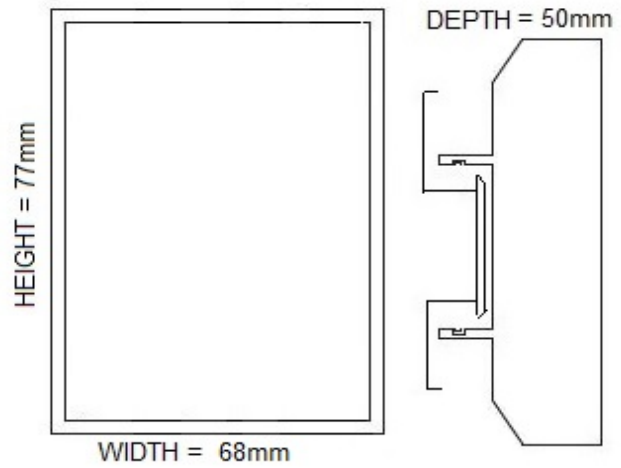
TERMINAL LEGEND

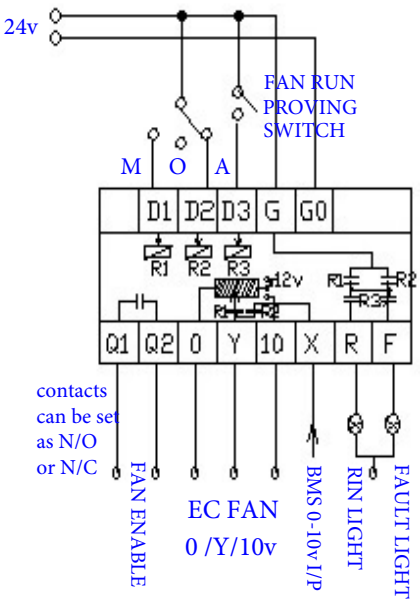
D1 24v ACTIVE to energise relay 1 (Manual)
D2 24v ACTIVE to energise relay 2 (Auto)
D3 24v Output run Proving Input
G 24v ACTIVE
G0 24v NEUTRAL
Q1 & Q2 Auxiliary SPST N/O or N/C contacts
R 24v Run Output
F 24v Fault Output
0 EC Fan & potentiometer DC ground interlock
Y EC Fan 0-10Vdc output control interlock
10 10vDC Supply from EC Fan (If onboard supply not used)
X External (AUTO) 0-10vdc signal input

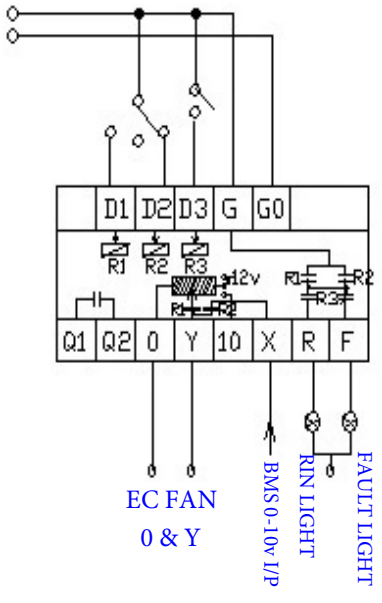


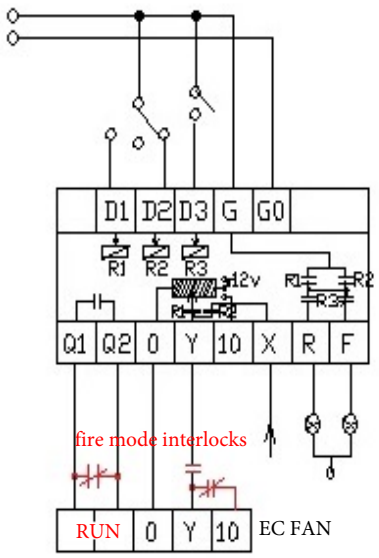
IF EXTERNAL 10vDC SUPPLY USED REMOVE ONBOARD 12V SUPPLY JUMPER J2 (jumper in middle of pcb).
J1 JUMPER BOTTOM LEFT CAN SET THE EC FAN ENABLE RELAY CONTACTS AS N/O or N/C

DIMENSIONS









EC FAN SPEED CONTROL WITH VARIABLE EXTERNAL INPUT & MANUAL SPEED VIA SWBD SWITCH C/W FAN RUN RELAY ENABLE OUTPUT. MANUAL POT. POWERED BY EC 10v SUPPLY

BASIC EC FAN SPEED CONTROL WITH VARIABLE EXTERNAL CONTROL INPUT & MANUAL SPEED SELECTION VIA 3 POSITION SWITCHBOARD SWITCH. MANUAL POT POWERED BY INTERNAL SUPPLY

EXAMPLE OF FORCED RUN FIRE MODE INTERLOCKS

Hevac does NOT offer or suggest this product is suitable for use in fire mode control interlocks for fan operation. For maximum compliance & safety we recommend : for forced run fire mode operation, breaking the 0-10v Y signal from this module and connecting a fire mode set of relay contacts directly across the EC fans "10v" supply & "Y" input terminals plus enabling fan run contacts if the fan also requires an enable interlock. Or for forced fan OFF mode : breaking connections from this module.