

Model VR648 Universal Voltage Regulator

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C B A F+ F-

Actual Size



STAB ADJ

Voltage Adjustment

Programming Guide



220/127 Volts/50 Hertz



208/120 Volts/60 Hertz
240/120 1 Phase 60 Hertz
240/120 Delta 60 Hertz



380/220 Volts/50 Hertz



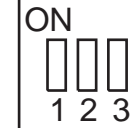
380/220 Volts/60 Hertz
415/240 Volts/60 Hertz



440 volts 50 Hertz



480/277Volts/60Hertz



1 ON 50Hz 1 OFF 60 Hz
2 ON 3 ON 220 V
2 ON 3 OFF 380 V
2 OFF 3 OFF 440 V

Warning: Connecting the AVR to the wrong voltage or programming it wrong can cause High Voltage output that will ruin your panel and equipment!

The VR648 AVR is normally connected with only 4 wires.

It comes factory set with a short from (B to A) terminals and the dip switches set for 208 - 240 volts 60 Hertz use. 1 OFF - 2 ON - 3 ON

In this configuration it works in almost all modern 12 wire generators sets from 190 to 277 volts and with exciter fields from 9 to 100 Ohms.

With the power and sensing input voltage connected together in the AVR to terminals C & BA, and output terminals connected to terminals F+ and F-, It can work in almost any voltage configuration. See Fig 1, 2, 3, and 4.

This AVR is "Universal" because it can also work with any 4 wire generator at any voltage & Hertz just by programing 3 simple dip switches located on the AVR itself. As long as you feed power to input terminals C&B with 100 to 300 Volts and then connect sensing terminals C&A to the generator output voltage, you can make it work on almost any configuration. See Fig 5.

The VR648 is the repairman's friend because of its great versatility.. Always handy to have around for emergencies.

Accurate generator output can be obtained in 380, 415, 440 and 480 volt systems by by using terminals A, B & C separately. See Fig. 5

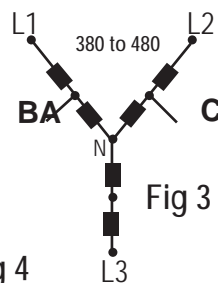
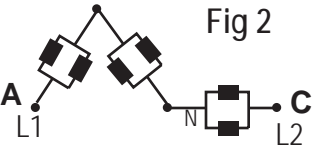
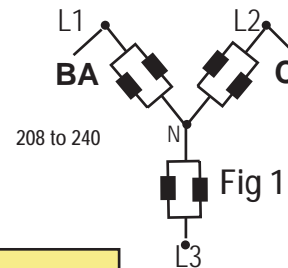
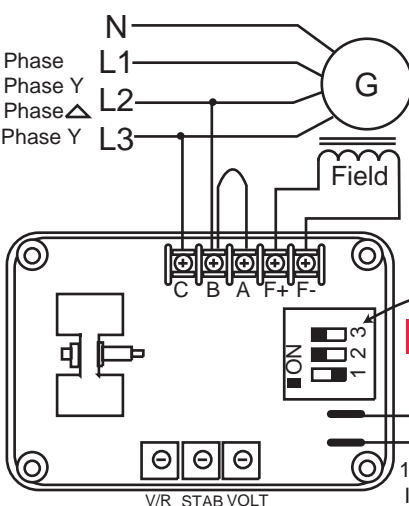


Fig 3



See programing guide

1k Ohm
If not use "Short"

Power 100 to 300 V from C to B
Sensing 208 to 480 From C to A

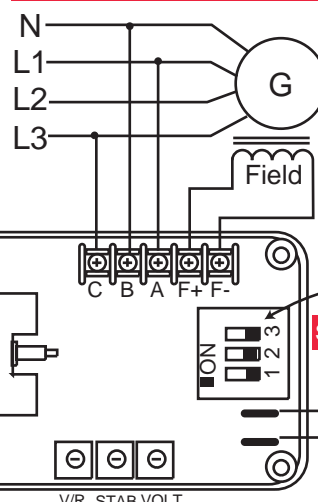


Fig 5

See programing guide

1k Ohm
If not use "Short"

ONLY
240/120V 1 Phase
208/120V 3 Phase Y
240/120V 3 Phase Δ
220 Volts 3 Phase Y
Any HZ

ANY VOLTAGE & HZ
208/120V 3 Phase Y
240/120V 3 Phase Δ
220 Volts 3 Phase Y
380/220V 3 Phase Y
415/240V 3 Phase Y
440/Volts 3 Phase Y
480/277V 3 Phase Y