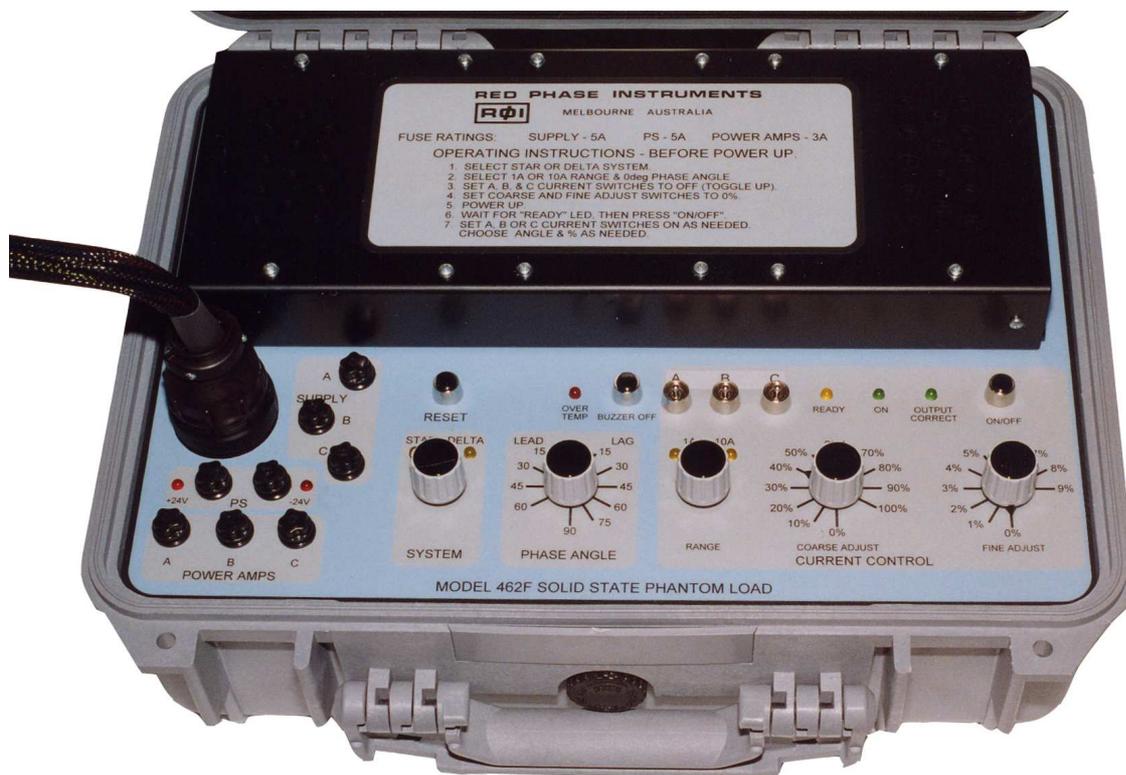


RØI RED PHASE INSTRUMENTS

MODEL 462F SOLID STATE PHANTOM LOAD FOR TESTING POLYPHASE C.T. METERS TO 10A



1.0 APPLICATION

The Model 462F is designed for use with any field test set to test polyphase C.T. meters. It can be powered from the metering test block, and will test nominal 240V, 3 phase, 4 wire star connected L.V. meters or nominal 63.5V star connected H.V. meters. It can also test nominal 110V, 3 phase, 3 wire delta connected meters.

The Model 462F can be used with the Red Phase Instruments Model 465C and Model 469 polyphase meter testers. It can be supplied with special test leads so that the Model 465C can be connected to the Model 462F, and only one test lead is needed to connect the meter tester and phantom load to the meter test block. This saves weight and makes connection very simple and quick.

The 3 current outputs are variable from 0 to 100% in 1A and 10 A ranges in coarse (10%) and fine (1%) increments. Phase angle/power factor settings are available from 60° LEAD to 90° LAG in 15° increments.

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2.0. TECHNICAL SPECIFICATION

2.1. SUPPLY VOLTAGE:

The Model 462F will operate from 3 phase, 4 wire (star) systems with a phase to phase voltage of 350V to 450V, or a phase to phase voltage of 100V to 120V.

The Model 462F will operate at maximum output from 3 phase, 3 wire (delta) systems with a voltage from 100V to 120V.

2.2. OUTPUT CURRENT:

Maximum current output, 10A range:-
10A into 0.3 Ohm burden, at 100% setting on "COARSE ADJUST" switch.
1.5A into 3.0 Ohms burden, at 20% setting on "COARSE ADJUST" switch.

Maximum current output, 1A range:-
1.1A into 0.3 Ohm burden, at 100% setting on "COARSE ADJUST" switch.
0.7A into 3.0 Ohms burden, at 100% setting on "COARSE ADJUST" switch.

The 462F always ramps current up and down in response to control inputs and does not produce sudden current changes.

Any current output distortion will energise the internal buzzer.

Two fans are fitted in the case to minimize temperature rise in the case and amplifier heatsinks

3.0. CONTROLS & INDICATORS

"SYSTEM" SWITCH. This allows a choice of star or delta system

"PHASE ANGLE" SWITCH. This allows the phase angle between the VA voltage and A phase current to be varied from 60° lead to 90° lag in 15° increments.

"RANGE" SWITCH. This selects either the 1A or 10A current ranges.

"CURRENT CONTROL", "COARSE ADJUST".

Used for selecting current in 10% increments.

"CURRENT CONTROL", "FINE ADJUST". Used for fine control of current in 1% steps.

"CURRENT ON" SWITCHES. Each phase current can be switched individually.

"RESET" pushbutton. Resets the microprocessor when necessary.

"ON/OFF" pushbutton. This has a toggle action to start and stop the current output.

"BUZZER OFF" pushbutton. For operator to acknowledge alarm condition and turn buzzer off.

"READY" LED which illuminates when the microprocessor has initialized the electronics

and is ready for operation.

"ON" LED. This LED is illuminated when the "ON/OFF" pushbutton has been pressed to start the output current.

"OUTPUT CORRECT" LED. This LED illuminates after the microprocessor has ramped the current level and to the selected value.

4.0. PROTECTION FEATURES

4.1. INDICATORS

The ALARM BUZZER which is activated by over temperature sensors in the amplifier heatsinks, output current distortion and some error conditions in the microprocessor.

The "+24V" & "-24V" LEDs which indicate that the two main switch mode power supplies for the power amplifiers are both operating.

The "OVER TEMP" LED which illuminates and the buzzer sounds on over temperature in any of the amplifier heatsinks.

4.2. FUSES

SUPPLY FUSES: 3 off 20x5mm type at 5A rating for incoming voltage supply.

POWER SUPPLY: 2 off 20x5mm type at 5A rating for switched mode power supply outputs.

POWER AMPS: 3 off 20x5mm type at 3A rating for the power amp outputs.

5.0. TEST LEADS

A Voltage supply and current test lead or a special test lead for interconnecting with the Red Phase Model 465C polyphase test set is supplied to suit customer requirements.

6.0. ENCLOSURE

The Model 462F is built into a fully moulded "Pelican" brand case. The front panel is finished with an attractive, reverse screen printed, polycarbonate label.

A tough ABS plastic transit case is also provided with the phantom load. This case has a foam lining and is ideal for protecting portable equipment.

7.0. SIZE AND WEIGHT

The case size is 410 x 330 x 175.

The weight is 12kg.

The size of the transit case is approx.

570 x 360 x 350mm.

The weight of the complete phantom load plus transit case and test leads is approx. 18kg.

Every care has been taken to ensure that the above data is correct at the time of printing. Always refer to the latest data sheet when purchasing. RED PHASE INSTRUMENTS reserves the right to alter specifications without prior notice.