

RØI RED PHASE INSTRUMENTS

MODEL 4023 COUPLING TRANSFORMER



1.0. BRIEF DESCRIPTION.

The Model 4024 and 4024B Injection Units are designed to produce maximum power output into an 180V, 1500VA load. In normal field use the impedance of the earth circuit under investigation can vary considerably.

Typically the earth test circuit consists of the earth grid under test connected to a remote earth grid through an earth path in the ground. To complete the loop, a return connecting path isolated from earth, usually an 'out of service' feeder, is also used. The earth test current is driven around the loop by the secondary winding of the Model 4023 Coupling Transformer which is inserted into the loop.

The primary of the coupling transformer is driven by the Model 4024/B Injection Unit Amplifier. Inside the 4023 various secondary taps are brought out to terminals on the front panel via the selector switch. When the correct tap is chosen the Amplifier sees a reflected 1500VA load and it can deliver maximum power.

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2.0. FEATURES.

The coupling transformer unit includes the following:

2.1. A multiple tap transformer for matching impedance of the earth test injection loop to the 1500VA impedance required by Models 4024 & 4024B.

2.2. High current switch on the front panel for isolating the output terminals from the earth test circuit and selecting the required tap setting.

2.3. The transformer is protected by an auto-resetting thermal cut-out in case of overloading / overheating.

2.4. Cooling fan.

3.0. PERFORMANCE SPECIFICATIONS.

Primary winding: Single 1500VA winding,
180V @ 8.33 Amps

Secondary winding: Multi-tapped with
graded outputs:-

0.5 Ohms - 26V @ 55A

1.0 Ohms - 38V @ 37A

2.0 Ohms - 53V @ 26A

4.0 Ohms - 75V @ 19A

7.0 Ohms - 99V @ 14A

10.0 Ohms - 113V @ 12A

20.0 Ohms - 167V @ 8A

40.0 Ohms - 236V @ 6A

The ratings above are for a typical 33%
duty cycle of loading for 20 minutes in 60.

4.0. ENCLOSURE.

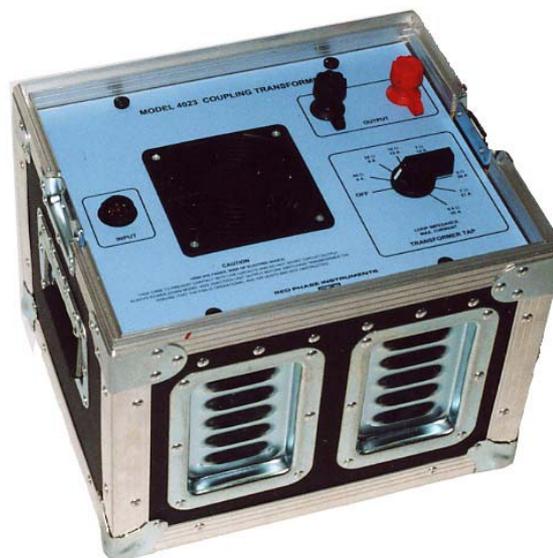
The unit is housed in a rugged, versatile custom designed flight transit case with heavy duty carry handles on each side. The front panel is covered with a polycarbonate "lexan" label with all functions clearly identified and the terminals colour coded.

The case has side vents to exhaust the air

5.0. SIZE AND WEIGHT.

370 x 310 x 360(H)mm.

32 kgs.



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 notice.