Primary Current Injection Test System

Type: PCU1/E MK III

Features

- All outputs continuously variable
- Built in multifunction Quartz locked timer system
- Compact rugged design
- Class 1 metering
- Auto-switch off in all modes of operation
- Current outputs fully isolated
- All control and metering centralised
- Fully tropicalised

Applications

Routine testing and timing of protective relays, circuit breakers and complete protection systems including both thermal and magnetic devices
Ratio testing of protective current transformers

T&R Test Equipment

Specification

Control Unit:
Type PCU1/E Mk III

Supply:
240V, 50/60Hz 1 ph + 10% - 6%

Power:
7.2 kVA

Current Output: (Isolated)

IAC continuous	IAC intermittent	VAC
50A	100A	0 – 5V
25A	50A	0 –10A

Voltage Output: (Non-isolated)

15A	25A	0 – 240V

External Loading Unit Output: (Non-isolated)

15A	30A	0 – 240V

IAC intermittent is based on a duty-cycle of 5 minutes 'ON' circuit followed by 15 minutes 'OFF' circuit

Metering:

AC Current:	By dual scale class 1 ammeter 0 – 100A and 0 – 50A
AC Voltage	By class 1 voltmeter 0 – 300V

Timing:
Quartz locked, resolution 0.001 seconds, range 0 – 999.999 seconds
Contact circuit: voltage - 24V.DC current (S/C) - 0.3.DC
Both the stop and start contact circuits will accept voltage free or contacts which are connected to a DC voltage system (220V. max). Each contact circuit will auto-select for N/O or N/C contacts.
L.E.D. status indicators are located next to each set of 4mm sockets giving indication for N/O or N/C contacts
Voltage signal range 24 – 240V.DC will auto-select for volts on or off
Current operated, internal control, rise and fall of injected current

Timer Functions:

SELECTED MODE	START	STOP
Normal	internal	contacts or V.DC
Reset	contacts or V.DC	contacts
Auto re-close	contacts or V.DC	contacts or V.DC
I (current)	internal	internal
Off	setting position	

Control:
a) Output voltage and current controlled by variable ratio transformer
b) When in the timing mode the selected output is automatically switched off by the timer stop signals

Protection:

Input Supply:	30A HRC fuse
Output Supply:	30A HRC fuse
Control Circuit:	3A Anti-surge fuse
Current Output:	3A Anti-surge fuse
Contact Circuit:	0.5A Quick-blow fuse

Dimensions:
490 x 300 x300 mm

Weight:
35 kgs

System Accessories:
Supplied with equipment:-
a) Operation Manual b) Spare fuse set c) 2 metre mains lead
d) 5 metre interconnecting and metering leads

Optional Accessories supplied at extra cost:-
a) Set of output cables (Types 500AL, 1000AL, 2000AL,3000AL-LP)
b) 110 volt supply adaptor (Type SU 6000)
c) Filter Units (Types 100AFS, 100AFS-PH)
d) Choice of 4 Loading Units (Types LU500 MKII, LU1000 MkII, LU2000 MkII, LU3000-LP MkII)

Description

The Type PCU1/E Mk III Control Unit forms the heart of T&R Test Equipment's Primary Current Injection Test System. Both units provide all necessary controls and metering for driving external loading units up to 3000A capacity.

A multi-function quartz locked timing system is fitted which enables the user to perform timing tests on the following protection devices;

Overvoltage and overcurrent relays,undervoltage and undercurrent relays, reactive relays, M.C.B.'s, auto-reclosures, power relays and reset timing on inductive disc relays.

Additionally, the unit will function as a multi-purpose timer.

Automatic control has been provided such that the output will be de-energised once the device under test has operated

The unit is housed in a rugged case complete with lift off protective cover and fold away carrying handles.

NB Due to the Company's continuous research programme, the information contained in this leaflet may change at any time without previous notification

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