

Primary Current Injectors



FEATURES:

- All outputs continuously variable.
- Built - in crystal time base multi range DIGITAL TIMER.
- True RMS digital metering of outputs.
- Compact rugged design - Fully tropicalised.
- Auto-switch off in all modes of operation.
- All current outputs fully isolated and distortion free.
- Suitable for testing thermal devices
- All controls and metering centralized.

Applications :

Primary Injection Testing:

Almost all electricity supply protective equipment is fed from a current transformer on the supply cable or busbar. Primary current injection testing checks all the components of the protective system. A high test current, enough to cause the protection equipment to operate, is injected into the supply cable. Time taken for the protection relay to operate is then measured.

Udey PCT is essential when commissioning new protection systems and after major repair and component replacement, since it tests the whole system.

Maintenance and routine testing of protective devices and systems by means of primary current injection, timing tests on protective relays- both magnetic and thermal types, current transformer ratio testing etc.





Description :

Udey PCT series comprises of two units: 1) a control unit and 2) a loading unit. Thus making the tester compact and portable. Four models are available with outputs from 250 A to 3000 A. The control unit offers a current output of 0-10 Volt at 50 Amp or 0-5 Volt at 100 Amp. Additionally, a separate voltage output of 0-250 V AC is available for testing voltage operated relays coils or checking the magnetization characteristics of current transformers.

Current and voltage outputs are varied from the output controller. The output current is supplied through wing nut bolts to the low inductance lead set (available optionally). The voltage output has a separate pair of terminals. Each set has a built-in multi range timer.

All current and voltage levels are displayed on digital LED meters. The elapsed time measured by the timer is also displayed on 4 digit LED display.

Circuit protection is by circuit breaker in input. Controlled switching ensures that, in the event of power failure or timer cut off operating, the output cannot be re-energized until the controls are reset, thereby offering protection to the equipment and the operator.

The mains supply for the tester is 240 volts, plus 10 % minus 6 %. For 110 volt input operation, an input adaptor can be supplied.

The control unit houses all necessary controls and metering for the complete equipment. The output voltage and currents are indicated on digital panel instruments.

Automatic control has been provided such that the selected output can be switched off once the device under test has operated. The automatic control can be switched in and out of circuit for the selected output, this enables setting up tests to be performed.

The control unit is provided with a crystal time base timer for timing relays whose contacts are either normally open or normally closed.

The control unit and loading units are housed in robust cases complete with fold away lifting handles.

Specification :

Model	PCT-5	PCT-10	PCT-20	PCT-30
Supply	240 V AC, 50/60 HZ	240 V AC, 50/60 HZ	240 V AC, 50/60 HZ	240 V AC, 50/60 HZ
Power	2 kVA	4 kVA	6 kVA	6 kVA
Output: Loading unit	500 A @ 0-4V 250 A @ 0-8 V	1000 A @ 0-4V 500 A @ 0-8V	2000 A @ 0-3V 1000 A @ 0-6V	3000 A @ 0-2 V 1500 A @ 0-4V
Output : Control unit	100 A @ 0-5 V 50 A @ 0-10 V 0-250 V @ 8 A	100 A @ 0-5 V 50 A @ 0-10 V 0-250 V @ 15 A	100 A @ 0-5 V 50 A @ 0-10 V 0-250V @ 20 A	100 A @ 0-5 V 50 A @ 0-10 V 0-250 V @ 20 A

RATING 50% of the	: 5 Minutes ON / 15 Minutes OFF. Continuous rating does not exceed rated output.
METERING	: 1) LED digital Ammeter, CT operated for current outputs. 2) LED digital Voltmeter for voltage output. Accuracy: $\pm 1\% \pm 3$ counts.
DIGITAL TIMER	: 4 digit, solid state crystal base timer system. Multi range from .0001 to 9999 seconds. Accuracy: $\pm 0.5\% \pm 2$ counts
TIMER CONTROL CIRCUITS	: The timer automatically starts when the output is initiated and automatically stops when the device under test operates. START SIGNAL: Internal. STOP SIGNAL : Via-either normally open or normally closed external contacts.
AUTO-CUT-OFF	: Cuts off output on operation of device under test.
OPERATION	: Circuit breaker in input, mains on indicator, contractor controlled push buttons for current output on or off, contact mode selector and reset switch. 'SET/TEST' switch to set up test current level.
CONSTRUCTION	: Two piece unit. Sheet steel cabinets powder coated and with fold away lifting handles.
ACCESSORIES	: 1. Operating Manual. 2. 2 meter long 3 core mains cable. 3. 2 meter long inter-connecting cable.
OPTIONAL ACCESSORIES	: 1. Low inductance lead set. 2. Precision grade (0.5%) Analogue meter with Current transformer.