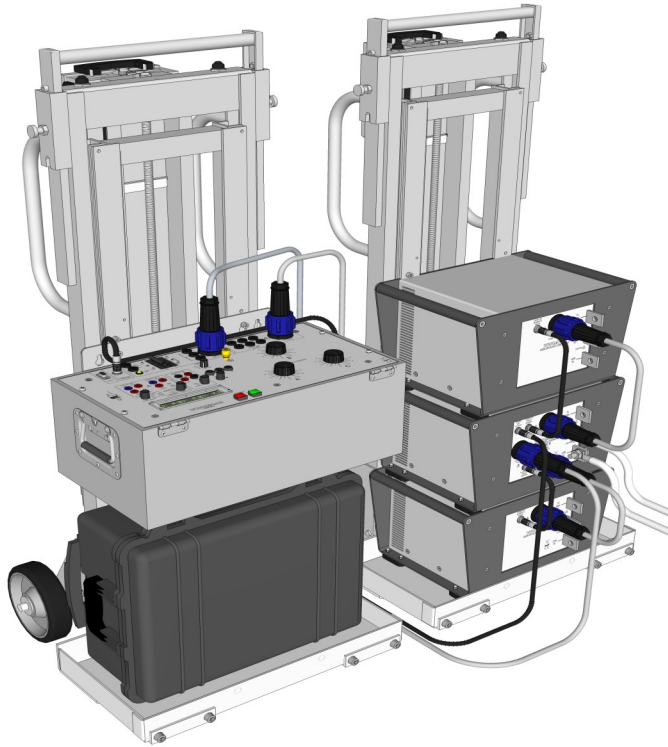


1200A-3PH

3 Phase Current Injection



Features

- Clear and simple user interface
- 3- Φ current output
- 0-1200A per phase output current
- True RMS digital metering
- Memory ammeter
- Multi-function timing system
- Auxiliary metering input
- Large back-lit liquid crystal display
- Thermal and over-current protection
- Portable on battery powered stair climbing trolleys
- Maximum power output 13kVA

The 1200A-3PH is a three phase injection system providing commissioning and maintenance engineers with a flexible system for testing protective systems. It has an easy to understand panel layout and a simple user interface. The status of every function can be seen at a glance, and there are no complex menus to navigate.

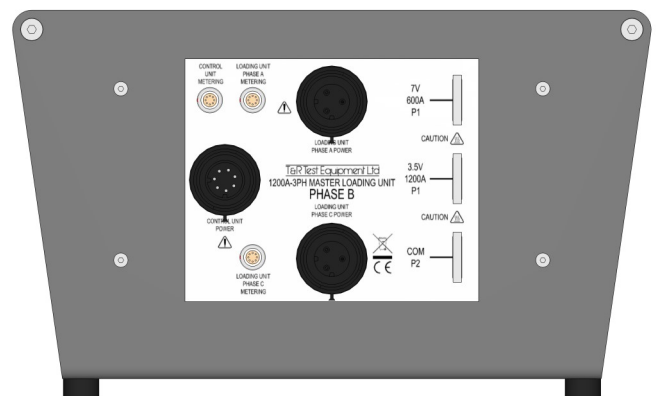
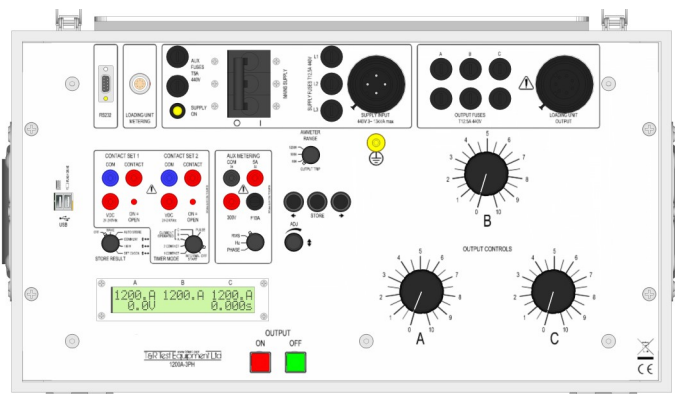
Each loading unit has two output taps to allow for a range of load impedance. Each phase is isolated and can be configured to either give a maximum of 1200A at 3.5V or 600A at 7V. Three true RMS metering ranges are provided, allowing the full scale of the meter and trip level to be set independently of the selected output.

An auxiliary metering input is provided and can measure voltage, current, frequency, and the phase between any of the current outputs and an external voltage or current.

The timing system is very flexible without compromising ease of use, allowing trip times, reset times and reclose times to be quickly measured to a high degree of accuracy. Two independently isolated contact inputs are provided, and the timing system may also be used as a stand-alone timer.

The 1200A-3PH can be used to test many single and three phase devices including:

- Over current relays
- Under current relays
- IDMT relays
- Auto-reclosers
- Time delay relays
- Earth fault relays
- Miniature circuit breakers
- Power relays
- Tripping relays
- Thermal relays



1200A-3PH Specification

Loading Unit Ratings

The AC Output current is metered by a true RMS memory ammeter (acquisition time 200ms) with an LCD display. The current metering has 3 ranges 60A, 500A and 1200A. The main output on the loading unit has two taps, allowing the selection of output voltages up to 7V and output currents up to 1200A.

Range	Continuous	5 minutes	1 minute	20s
3.5V	350A	600A	1000A	1200A
7V	175A	300A	500A	600A

The above intermittent on times must be followed by an off time of 15 minutes, and are based on an ambient temperature of 25°C.

Metering

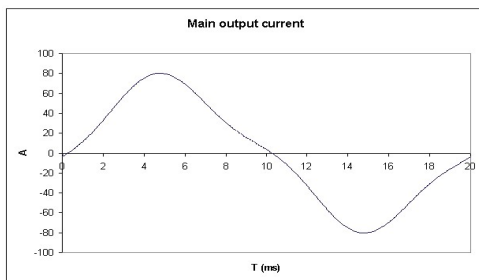
The output is metered by a digital true RMS system with a memory ammeter - whenever the timer stops and the output is switched off, the current reading is held on the display. The currents for each phase are displayed simultaneously.

Range	Resolution	Trip current	Accuracy
60.00A	0.01A	63A	$\pm 0.6\%rdg+5d$
500.0A	0.1A	525A	$\pm 0.6\%rdg+5d$
1200A1A		1260A	$\pm 0.6\%rdg+5d$

A current trip is automatically set to 105% of full scale of the current metering range to protect the device under test.

USB Storage of Results

All test results from the 1200A-3PH can be stored to a USB memory key. All results are time and date-stamped, and can include a user defined comment. All saved results can be viewed on the control unit display or on a PC.



In addition to this the 1200A-3PH can store a .BMP file of the waveform to the USB key.

Auxiliary Metering Inputs

An auxiliary metering input is provided which is able to measure RMS voltage or current. In addition the frequency of the external input may be measured, and the phase measured between any of the phase outputs and the auxiliary metering input.

Setting	Range	Resolution	Accuracy
Volts AC	270.0V	0.1V	$\pm 0.7\%rdg+5d$
Amps AC	5.000A	1mA	$\pm 0.7\%rdg+5d$
Phase	$\pm 180^\circ$	0.1°	$\pm 3^\circ$
Frequency	20-1000Hz	0.1Hz	$\pm 0.2\%rdg+1d$

The current input is protected by a F6.3A fuse.

Supply Requirements

440V $\pm 10\%$ 50/60Hz 3ph (3P+E) 1300VA

RS232

An RS232 port is provided to allow connection to a printer or PC.

Timing System

Range	0-999.999s	Resolution	1ms
Accuracy	0.01%rdg+2d (+4d current operated mode)		

The contact circuit has an open circuit voltage of 24VDC and a short circuit current of 20mA. Each contact circuit will auto-select for normally open or normally closed contacts. A DC voltage of 24-240VDC may also be used to trigger either timer channel. The output is automatically switched off at the end of the test to safeguard the relay under test.

The following functions are provided:

Mode	Timer Start	Timer Stop
Internal start	Press 'ON'	Contact 1
Single contact	Contact 1	Contact 1
Dual contact	Contact 1	Contact 2
Current operated	Current > 10% of range	Current < 10% of range

Pulse mode is used for setting the current level in devices sensitive to heating, and allows current to be injected for 200ms and the current recorded.

Current operated mode operates on one output phase (selectable).

Protection and Safety

The unit is protected by electronic over current and duty cycle trips on the outputs, thermal monitoring on the power components, and fuses on the input and regulator. An earth terminal is provided for connection to a local earth. The unit is designed to comply with BSEN61010 and is CE marked.

Lead Set Specifications

The 1200A-3PH is supplied with a lead set in a plastic case including:

- 1 x 5m mains lead
- 1 x 5m power interconnection lead: control unit to master loading unit
- 2 x 1m power interconnecting leads: master to slave loading units
- 1 x 5m metering interconnect lead: control unit to master loading unit
- 2 x 1m metering interconnecting leads: master to slave loading units
- 6 x 3m 95mm² output leads terminated in M12 Crimps
- 1 x 5m 2 core timer lead terminated in 4mm plugs

*Additional leads can be supplied

Temperature Range

Storage -20°C to 60°C **Operating** 0°C to 45°C

Dimensions

	Dimensions	Weight
Loading unit	450 x 275 x 370mm	44kg
Control Unit	315 x 550 x 300mm	35kg
Trolley	610 x 450 x 1450mm	

Accessories

Operating manual, spare fuse set, USB memory key, USB keyboard, lead set case. 2 battery operated stair climbing trolleys with spare batteries and chargers.