



GPS-290PR

Three-Phase Power Clamp Meter



A Coil That Goes Where a Jaw Will Not.

A three-phase power meter on the end of a Rogowski coil. The coil is a flexible loop with no iron and no exposed metal, so it wraps round a busbar, a cable bundle or a conductor buried at the back of a crowded cabinet, where a rigid jaw will not reach. It also takes a double wrap when the current is small.

Because there is no core there is nothing to saturate. Response stays linear to 6000 A, phase error is close to zero, and the coil shrugs off the distorted waveforms around drives, thyristors and welding sets, which is where a conventional CT clamp struggles.

Voltage, current, active, reactive and apparent power, power factor, energy, frequency, the phase angles between currents and voltages and phase sequence all read on one 2.8-inch colour screen. Ranging is fully automatic. Two hundred readings store to memory and upload over USB for reporting.

KEY FEATURES

- Three-phase power on one colour screen
- Rogowski coil, $\phi 200$ mm · no saturation
- 0.0 A to 6000 A · up to 3600 kW
- Power factor, energy and phase sequence
- 200-group memory · USB upload with software
- Fully automatic ranging · data hold

IDEAL FOR

- Load surveys and energy audits
- Phase balancing on distribution boards
- Busbars and dense cable runs
- Drives, thyristors and distorted waveforms
- Commercial and industrial HVAC

MEASUREMENT RANGES

Range	Accuracy	Resolution
AC voltage		
0.00 V to 60.00 V	±0.5% FS	0.01 V
60.0 V to 600.0 V	±0.5% FS	0.1 V
AC current · via the Rogowski coil		
0.0 A to 600.0 A	±0.5% FS	0.1 A
600 A to 6000 A	±0.5% FS	1 A
Active power (W), apparent power (VA) and reactive power (var) · same six ranges and resolutions for each, in its own unit		
0.00 to 36.00	±1% FS	0.01
36.0 to 360.0	±1% FS	0.1
360 to 3600	±1% FS	1
3.60 k to 36.00 k	±1% FS	0.01 k
36.00 k to 360.0 k	±1% FS	0.1 k
360 k to 3600 k	±1% FS	1 k
Electric energy		
0.00 Wh to 36.00 Wh	±1% FS	0.01 Wh
36.0 Wh to 360.0 Wh	±1% FS	0.1 Wh
360 Wh to 3600 Wh	±1% FS	1 Wh
3.60 kWh to 36.00 kWh	±1% FS	0.01 kWh
36.00 kWh to 360.0 kWh	±1% FS	0.1 kWh
360 kWh to 360000 kWh	±1% FS	1 kWh
Frequency, power factor and phase angle		
Frequency · 25.0 Hz to 600.0 Hz	±0.5 Hz	0.1 Hz
Power factor · 0.300 to 1.000	±0.5% FS	0.001
Phase angle · 0° to 360°	±0.5°	0.1°
Phase angle accuracy by current · the ±0.5° figure applies above 60 A		
5.0 A to 20.0 A	±4°	0.1°
20.0 A to 40.0 A	±2°	0.1°
40.0 A to 60.0 A	±1°	0.1°
Above 60.0 A	±0.5°	0.1°

FS denotes full scale. The instrument measures AC only. Ranging is fully automatic, so the resolution shown is the one that applies on each range.



WHAT'S IN THE BOX

- GPS-290PR power clamp meter with Rogowski coil
- Test leads, four: yellow, green, red and black
- USB communication cable
- PC software on CD
- Meter bag

COIL SIZE · Supplied with the $\phi 200$ mm coil; other diameters can be made to order for larger busbars

GENERAL SPECIFICATIONS

Code	Item	Part Number
GPS-290PR	Three-phase power clamp meter, Rogowski flexible coil, $\phi 200$ mm	480290

MEASURES

Three-phase AC voltage and current · active, reactive and apparent power · total power · power factor · electric energy · frequency · phase angles · phase sequence

DISPLAY

2.8-inch TFT colour LCD, 58 × 44 mm · multiple parameters on one screen · backlight on the * key · HOLD and OL indicators

LINE VOLTAGE

For measurement on circuits below 600 V AC

DATA STORAGE

200 groups · FULL shown when storage is used up

POWER

6 V DC, 4 × LR03 AAA alkaline · 80 mA backlight on, 50 mA off · battery reminder at about 4.8 V · auto power off after 15 minutes

DIMENSIONS · WEIGHT

200 × 370 × 35 mm (w × h × d) · meter 272 g · 755 g complete with batteries and accessories

CURRENT SENSOR

Rogowski flexible coil, $\phi 200$ mm · no exposed metal conductor · measured conductor at the centre of the loop · other diameters available to order

RANGING

Fully automatic · 2 readings per second · 50/60 Hz automatic recognition

DIELECTRIC STRENGTH

3700 V AC rms between core and case

COMMUNICATION

USB, 1.8 m cable · upload to PC for reading, saving and printing · software supplied

ENVIRONMENT

Operating -10 to 40 °C · relative humidity below 80%

WARRANTY

1 year, subject to product registration with GPS LTD · service and calibration available