

# DIGITAL UNIVERSAL POWERMETER EPR-03

## General

EPR-03 is developed for measuring active, reactive and apparent power. Three connection models exist; single phase, two phase and three phase. Current and voltage transformer (primer) ratio can be adjusted by means of buttons. Maximum Demand and Demand values are recorded. EPR-03 has non-volatile memory. Demand values and adjusted set values will not be lost even if the power is off.

## Maximum Demand and Demand

**Maximum Demand** shows the max. value of the power. If the max. value exceeds the previous max. value, the new value is recorded as *Max.Demand*. **Demand** is average of power for demand time (1-60 min.). During demand time, if average of power exceeds the previous demand value, the new average value is recorded as Demand.

Demand Values can be cleared by pressing the UP and DOWN  $\blacktriangle$   $\blacktriangledown$  buttons at the same time.

**NOTE:** When the transformers ratio's were changed, demand values must be cleared.

## Operating Principles:

Device measures power by multiplying the input values with the (current & voltage) transformers ratio.

- If a current transformer is used, the current transformer's ratio must be set for real power measurement.

Current Transformer's Ratio refers to "primary value of the current transformer", i.e. if a current transformer has a ratio of 400/5 (primary/secondary), Ct must be set to 400.

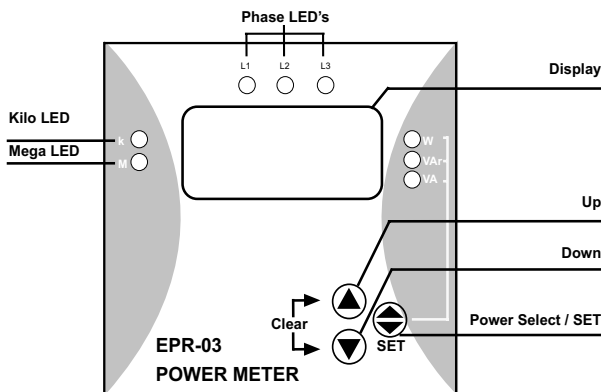
- If a voltage transformer is used, Voltage Transformer ratio must be set. For a voltage transformer which has 100/1 ratio, Utr must be set to 100.

"k and M" LEDs, which are in front of devices, show kWatt (kVA or kVA) and MWatt (MVA or MVA).

When the measured value exceeds 999W the k led turns on. 1000 Watt is shown by 1.00 k.

When the measured value exceeds 999kW the M led turns on. 1000kWatt is shown by 1.00M.

**Note:** Phase LED's light at minimum 30V.



## Setting Of Voltage Transformer Ratio

- $\blacktriangledown$  Press the SET button. ESC will appear on Display.
- $\blacktriangle$  Press the UP button. Utr will appear on Display.
- $\blacktriangledown$  Press the SET button again. Ratio of Voltage transformer will appear on display.
- $\blacktriangle$   $\blacktriangledown$  Transformer ratio is set by pressing the UP-DOWN buttons.
- $\blacktriangledown$  Press the SET button again. Setting of voltage transformer ratio will be finished. Measured value will be displayed.

Display

ESC

Utr

001

002

348

## Setting Of Current Transformer Ratio

- $\blacktriangledown$  Press the SET button. ESC will appear on Display.
- $\blacktriangledown$  Press the Down button. Ctr will be appear on Display.
- $\blacktriangledown$  Press the SET button again. Ratio of Current transformer will appear on display.
- $\blacktriangle$   $\blacktriangledown$  Transformer ratio is set by pressing the UP-DOWN buttons.
- $\blacktriangledown$  Press the SET button again. Setting of voltage transformer ratio will be finished. Measured value will be displayed.

Display

ESC

Ctr

005

100

348

## Displaying Maximum Demand

- $\blacktriangle$  Press UP button  
Maximum Demand value will be displayed.

## Displaying Demand

- $\blacktriangledown$  Press DOWN button  
Demand value will be displayed.

## Clearing Maximum Deman and Demand Values

- $\blacktriangle$   $\blacktriangledown$  Press UP and DOWN buttons at the same time.

## Technical Data :

$\Delta$ U (Aux. Supply)	: 190-260 VAC
Operating Frequency	: 50/60 Hz
Measuring Input( $I_{in}$ )	: 0.05-5.5A
( $V_{in}$ )	: 10-300 V AC (Phase to Neutral) : 10-500 V AC (Phase to Phase)
Measuring Range	: 0...999 M (W, VAr, VA)
Accuracy	: 1% $\pm$ 1 digit (W, VA) : 2% $\pm$ 1 digit (VAr)

Voltage Transformer ratio: 1...2000

Current Transformer ratio: 5... 10000/5A

Ambient Temperature : -5°C; +50°C

Display : Red LED display

Protection Class : IP 40 (front panel)

: IP 00 (terminals)

Dimensions : PR-19

Installations : Flush mounting with rear terminals.

Weight : 0.3 kg

\* Different supply voltages are adjustable upon request.

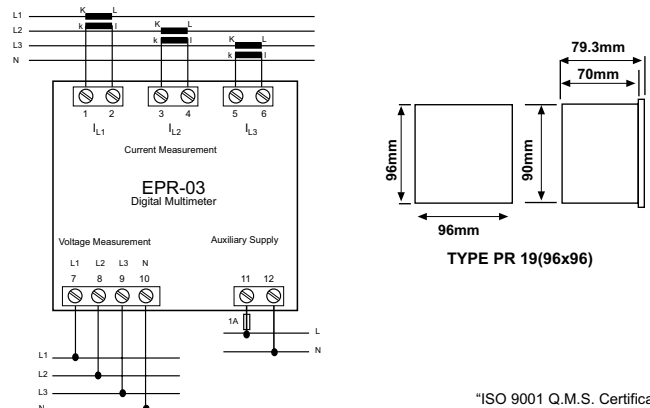
## TYPE PR 19

Package Dimensions : 36 x 24.5 x 24.7 cm

Package Weight : 5.5 kg

Pcs per Package : 12 Pcs

## Connection Diagram



"ISO 9001 Q.M.S. Certificate"