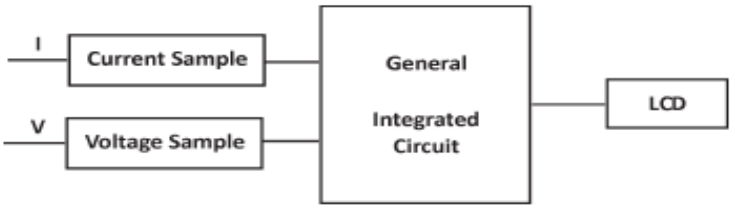
Order Code : 20213590.1.26
Name : Single Phase Power Meter

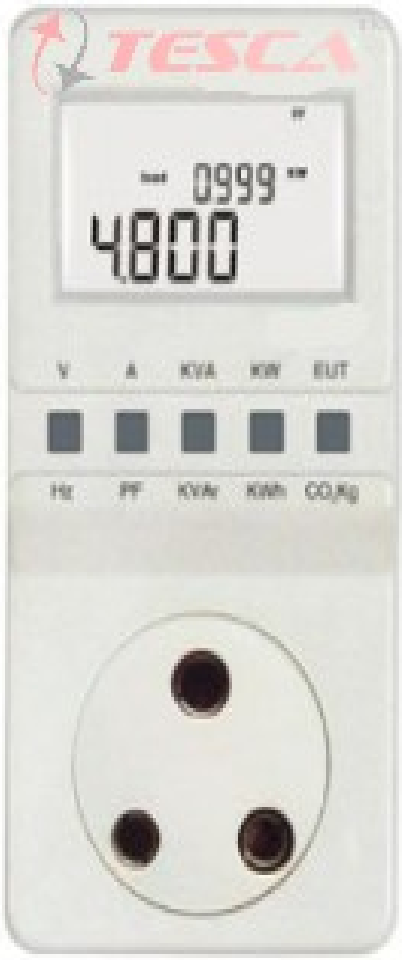
Principle

Using high-integration microcomputer chips and special Energy Metering IC, with high-accuracy current sensor and LCD, this product can monitor electric equipments in every way. It can be used in monitoring domestic appliances such as air condition, fridge and microwave oven.This product is suitable for home, rental house, office, laboratory and various places.

Power Guard is with high measurement precision when used in low current consuming equipments. When the current power is less than 20W, the power measurement error is in ±0.01~0.1W, and the power factor measurement error is in ±0.001~0.01.



Principle Block Schematic



Function

- Measures active energy;
- Total used energy increase when using power;
- Monitors instantaneous rms Voltage;
- Monitors instantaneous rms Current;
- Monitors active power;
- Monitors power factor;
- Record the total time of using energy;
- Warning when in peak load;
- Display on a big LCD.

Technical Specifications

- Standard : BC17215-2003
- Specification : 220V, 50Hz, 2.5~10A (PG09)
  220V, 50Hz, 2.5~15A (PG09H)
- Precision : 1.0 class;
- Constant : 6400imp/kWh;
- Consumption : less than 0.8W;
- Weight : 300gms (approx.);
- Size : 158 × 80 × 50mm (approx.);
- Working temperature : -25 to 45ºC.

Handling and Use

1. Put Power Guard's plug into power socket, and then put electric equipment's plug into Power Guard's socket.
2. Values of total used energy, power, power factor, voltage, current, and energy usage time can be displayed on LCD.
3. Description for power-on : LCD will show active power value for one minute and backlight will be light when power on, And then show, power factor, voltage, current, energy usage time, total used energy, and active power value in cycle.

Note: Specifications are subject to change, Photos shown above are Indicative, Actual Product can Vary.

TESCA TECHNOLOGIES PVT. LTD.
IT-2013, Ramchandrapura Industrial Area, Sitapura Extension, Jaipur-302029, Rajasthan, India.
*Ph/ Fax: 91-141-2771791, 2771792; Email: **info@tesca.in**, **tesca.technologies@gmail.com***
*Website: **www.tesca.in***

4. Description for button : Press "KW/PF" to show active power value and power factor one by one, and in real time.
   Press "V" to show voltage value in real time.
   Press "A" to show current value in real time.
   Press "EUT" to show energy usage time in total.
   To reset the energy usage time, press "EUT" continuously, than press "KWh" three times & press "V" within 5 sec.
   Press "KWh" energy consumption in total, and in real time.
   To reset the energy consumption, press "KWh" continuously, than press "EUT" three times & press "A" within 5 sec.
   After any one of these press, Backlight will be lighted for 10 minutes.
5. Alarm when in peak load
   When electric equipment's active power value is over the alarm threshold, backlight will blink, and active power value shown in timely; after active power value is under the threshold, backlight will be turn off. The threshold value is 2200W (PG09) & 3300W (PG09H). This function is mainly used to prompt peak load.

Description for LCD and symbol

Code	Data Format	Unit	Data Name
01	XXXX.XX	W	Power
02	X. XXX	-	Power Factor
03	XXX.XX	V	Voltage
04	XXXXX	mA	Current
05	XX.XX	YY.MM	Energy usage Time
06	XX.XX.XX	DD.HH.MM	Energy usage Time
07	XXXX.XX	kWh	Total Used Energy

Appendix

Display on LCD

Active Power

Power Factor

Voltage

Current

Total Using Time (YY.MM)

Total Using Time (DD.HH.MM)

Total Consumption

Specifications

Functions	Input Range		Accuracy Class
RMS Voltage	195 ~ 265 Vrms		0.5
	PG09	**PG09H**	
RMS Current	0.02 ~ 10 Arms	0.15 ~ 15 Arms	1
Active Power	0.2 ~ 1W 1 ~ 5W 5 ~ 2200W	0.55 ~ 5W 5 ~ 20W 20 ~ 3300W	<10 5 1
Power Factor	For : 0.2 ~ 5W For : 5 ~ 10W For : 10 ~ 2200W	For : 0.55 ~ 10W For : 10 ~ 20W For : 20 ~ 3300W	>0.03 PF <0.03 PF <0.01 PF
Active Energy	For : 5 ~ 2200W	For : 30 ~ 3300W	1
Energy Usage Time (EUT)	Days/Hours/Minutes Years/Months		- -
Applications	Teaching, Demonstration & Testing of Electrical Energy Saving of Household & Office Appliances. It can be used in Houses, Offices, Shops, Schools, Laboratories etc.		

Transportation and Storage

The product must be protected from radical impacting in transporting and unpacking, and transporting and storing according to GB/T15464-1995 (General-purpose specification for the packaging of instrumentation products). The product must be stored and kept on the trestle table with original package, and stack-height must be less than 8 layers. Keep the room clean. The temperature must be 0 to 40°C, relative humidity must be less than 85%, and make sure that there are no corrosive materials in the air.

Note: Specifications are subject to change, Photos shown above are Indicative, Actual Product can Vary.

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