



ETI Power

TOD Meter  
Multifunction Meter  
Power & Energy Meter

# Digital Panel Meter

## Multifunction Meters

### 1.0 Class Accuracy



### Description

- Multifunction Meter are based on 32 Bit, 100 Pin micro processor, with 24 Bit six channel sigma delta front end analog to digital converters. The measurement accuracy of Class 0.5 can be achieved on the practical range of operation.
- The TVM (Trivector Meter) are 4 Quadrant true RMS Meter and have advanced feature of maximum demand and RTC based load surveys.
- The variants available are
  - **EIPL720CR** - Smart MF LCD Meter Cl - 0.5S
  - **EIPL56ER** - Smart MF LED Meter Cl - 0.5S
  - **TMFR42** - Advance MF 7 Segment Meter Cl - 1.0
  - **TMF28** - Basic MF 7 Segment Meter Cl - 1.0

### Key Features

- 32 Bit, 100 Pin, Processor.
- SMT Technology.
- Various choice of bright FND/LED STN display.
- 2-4 keys for programming input.
- higher class of Accuracy.
- 2 Quadrant to 4 Quadrant.
- Provision of RTC based load survey.
- RS 232/RS485 interface.
- MODBUS Protocol.
- Integration of 1 of 2 potential free contacts.



## Technical Specification

### DISPLAY

- LCD Display

### ACCURACY

- U/I : 0.2 Class
- P/Q/PF : 0.5 Class
- Harmonic : A Class
- Active Energy : 0.5S Class
- Reactive Energy : 2 Class
- Analog Output : 0.5 Class

### VOLTAGE INPUT

- Rated value : AC 100V, AC 380V
- Overload : Sustainable : 1.2 times, Instantaneous : 2 times/10s
- Consumption :  $\leq 0.1VA$  (per phase)
- Impedance :  $\geq 1.7 m\Omega$
- Frequency :  $(50\pm 5\%)(60\pm 5\%)$  Hz,
- Accuracy :  $\pm 0.01Hz$
- Harmonic : Voltage, Current total harmonic distortion and 2-15 times odd harmonic distortion
- Energy : Dual direction active and reactive metering

### CURRENT INPUT

- Rated value : AC 1A, AC 5A
- Overload : Sustainable : 1.2 times, Instantaneous : 10 times/5s
- Consumption :  $\leq 0.1VA$  (per phase)
- Impedance :  $\leq 20 m\Omega$
- Frequency :  $(50\pm 5\%)(60\pm 5\%)$  Hz,
- Accuracy :  $\pm 0.01Hz$
- Harmonic : voltage, current total harmonic distortion and 2-15 times odd harmonic distortion
- Energy : Dual direction active and reactive metering

### AUXILIARY SUPPLY

- Working range : AC, DC: 80V~270V
- Consumption :  $\leq 5VA$

### FUNCTION MODULE

- Communication Port : 1 loop RS485, Modbus-RTU, Baud rate 2400~9600
- Energy Pules output : 1 loops energy pulse output, Photo coupler relay, constant 5000imp/kWh(kvarh)
- Digital input : At most 4 loops digital invariables input, dry node connection
- Relay Output : At most 3 cycles relay output, AC 250V/5A, DC30V/5A
- Analog output : 1 Analog output:0/4~20mA or 0~5/10V

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### OPERATING ENVIRONMENT

- -20~65°C, Humidity  $\leq 93\%$ , no erosion gas, altitude  $\leq 2500m$

### STORAGE ENVIRONMENT

- -25~75°C, Humidity  $\leq 93\%$

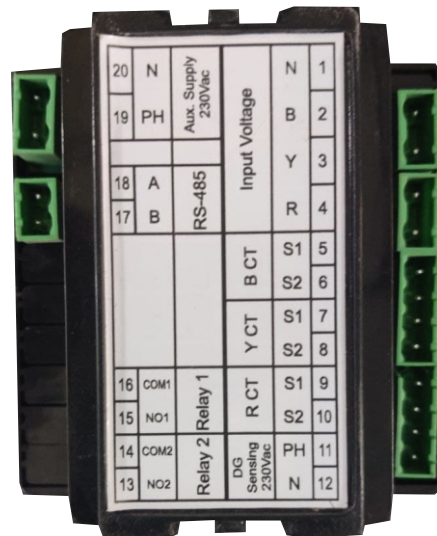
### SAFETY

- Insulation : Signal, power, output terminal to shell resistance  $> 100m\Omega$
- Withstand voltage : Input and power  $> 2kV$ , Input and output  $> 1kV$ , power and output  $> 2kV$

### Communications

- RS-485 port communicates as per MODBUS Protocol & can be easily configured to an Enertrak GSM/GPRS modem for seamless & live data transmission to a host website application.
- The live data can be seen at our website [www.meterdekho.com](http://www.meterdekho.com) with User ID & Password details.

### Connections



**Enertrak**  
Instruments Pvt. Ltd.

IT-3, EPIP, RIICO Industrial Area,  
Sitapura, Jaipur, Rajasthan-302022

[www.enertrak.in](http://www.enertrak.in)

[ak.enertrak@gmail.com](mailto:ak.enertrak@gmail.com)/[raj.enertrak@gmail.com](mailto:raj.enertrak@gmail.com)

+91-9549061797 / +91-8233000062