

## Digital Panel Meters

Voltmeter / Amp Meter / VAF Meter

### DESCRIPTION

The Basic Series Meters are low cost microprocessor based metering instruments with 24 Bit ADC and SMPS / Capacitor based power supply unit. The meters have been designed to meet the harsh conditions of Indian Utilities and have following special features :

### APPLICATION

- ✦ Electrical Control Panels
- ✦ Motor Control Panels
- ✦ DC Drive Control Panels
- ✦ Battery Chargers
- ✦ HT / LT Panels
- ✦ Robust Design
- ✦ 4 Digit Red Bright FND Display
- ✦ Programmable on site CT ratio
- ✦ Programmable on site PT ratio
- ✦ Password Protection
- ✦ LED Indication for Healthy Phase



3 Phase Amp Meter PG-3A



VIF Meter



PGAV

### ORDERING & TECHNICAL INFORMATION

PARAMETERS	PG-1A	PG-1V	PG-1F	PG-3A	PG-3V	PG-VAF	PG-VAF-P	PG-AV
Phase	1-Φ	1-Φ	1-Φ	3-Φ	3-Φ	3-Φ	3-Φ	3-Φ (up to 60A)
Voltage		✓			✓	✓	✓	
Current	✓			✓		✓	✓	
Frequency			✓			✓	✓	
Power factor						✓	✓	
Runhour							✓	
Display	1-Line LED	1-Line LED	1-Line LED	1-Line LED	1-Line LED	3-Line LED		
Dimension (96x96mm)	✓	✓	✓	✓	✓	✓	✓	
Dimension (72x72mm)	✓	✓						✓

✓ Generally available features, however parameters and other features can be customized for bulk requirements.

## Technical Specifications

### ELECTRICAL CHARACTERISTICS

Type of measurement	: True RMS at 50 Hz
Current and voltage	: Class - 1.0
Active Power	: Class - 1.0 / Class - 0.5 accuracy
Reactive Power	: Class - 2.0 / Class - 1.0 accuracy
Apparent Power	: Class - 1.0 / Class - 0.5 accuracy
Frequency	: Class - 0.2 / Class - 0.1 accuracy
Power factor	: Class - 1.0
Active Energy	: Class - 1.0 / Class - 0.5 accuracy
Reactive Energy	: Class - 2.0 / Class - 1.0 accuracy
Apparent Energy	: Class - 1.0 / Class - 0.5 accuracy
Demand Energy	: 30 Min. Integration period
* Additional error for meter input current below 100 mA	
Data update rate	: 1 sec
Input Voltage	: V1, V2, V3, Vn
Measured voltage	: 80 - 480 V AC L-L without PTs Up to 999 kV with external Pts
Permissible overload	: 1.10 Un (480 V L-L)
Burden	: As per IS
Impedance	: As per IS
Frequency range	: 50Hz ± 5%
Primary CT	: 1 A - 99.0 kA
Secondary CT	: 1 A - 5 A
Measurement range	: 40 mA - 6 A
Permissible overload	: 6 A continuous
Burden	: As per IS
Impedance	: As per IS
AC Power Supply	: 100 - 277 V AC at 50 Hz
DC Power Supply	: 100 - 277 V DC

### MECHANICAL CHARACTERISTICS

Weight	: 0.500kg to 0.250kg (Shipping)
IP degree of protection	: Front: IP 51; Back: IP 40
Dimensions	: Bezel: 96 x 96 mm Depth: 65 mm behind bezel Panel cutout: 92 x 92 mm

### ENVIRONMENTAL CONDITIONS

Operating temperature	: 4°C to 60°C
Storage temperature	: 4°C to 70°C
Humidity rating	: 5 to 60 % RH non-condensing

### COMMUNICATION

RS-485 port	: 2 terminals only Baud rate : 9600bps Protocols: Modbus
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### ELECTROMAGNETIC COMPATIBILITY

Electrostatic discharge	: IEC 61000-4-2
Immunity to electromagnetic RF fields	: IEC 61000-4-3
Immunity to electrical fast transients	: IEC 61000-4-4
Immunity to surge waves	: IEC 61000-4-5
Impulse voltage withstand capability	: 6kV for 1.2/50 μS per IS : 13779

### DISPLAY CHARACTERISTICS

Integrated LED display	: View 3 parameters together on 3 line, 4 digits per line display. Auto-scaling capability for Kilo, User-selectable Mega values default display page. Password protection for setup parameters.
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**Note : Due to continuous improvements in all products the specifications might vary.**

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