Power Quality and Energy Measurement GPM96

Designed for Intelligence

Eetarp Graphene® Designed For Intelligence

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Comply with Energy IEC62053-22 Cl.05S

Product description

GPM96 Power Quality & Energy Measurement Meter is used to record and indicate electrical parameters for electrical network. The GPM96 series is a top new-generation intelligent panel meter, used not only in the electricity transmission and power distribution system, but also in the power consumption measurement and analysis in high voltage intelligent power grid.

Measurement Parameters

GPM96 measures and displays the characteristics of single phase, two wires, three phase three wires and three phase four wires supplies. Monitoring parameters including voltage, frequency, current, power, harmonic, power factor, max. demand and imported or exported energy. Maximum demand current can be measured over preset periods of up to 60minutes

GPM96 can be configured to work with a wide range of CTs, giving the unit a wide range of operation and applications. Built-in interfaces provide with standard RS485 Modbus RTU outputs with password protection for configuration.

GPM96 features

- Measurement accuracy according to IEC62053-22 Cl 0.5S
- Instantaneous values, L-N voltage, L-L voltage, frequency, power, power factor, THDV, THDI harmonics, Displacement Power Factor (option), voltage crest factor (option), Current K factory (option), voltage unbalance (option
- Harmonics up to 15th order (Optional upto 63rd order)
- Memory Recording for energy, demand, max demand & max/min record
- Real time clock
- Build in Modbus RTU communication
- 6.4kHz sampling (128 Samples/cycle)
- Optional - multi tariffs
- Optional - 4DI, 2DO
- Optional - Modbus TCP/IP
- Optional - MID certified

Example Application

- Low voltage distribution networks
- Power station
- Generation plant
- Data Center
- Consumer billing
- Retails shop
- Commercial/residential building
- Oil & Gas Plant
- Offshore and marine
- High tension distribution network

Technical Specification

Voltage and Current

- Voltage to Neutral 100 to 280Va.c
- Voltage between phases 174 to 600Va.c
- Installation Category III (600V) IEC61010-1
- Rated Current: Continuous 8A with 5mA starting current (120A for 0.5Seconds)
- Current input range: 5%~120% continuous

Measurement Accuracy:

- Apparent power 0.5%
- Reactive power 1%
- Power factor 0.01
- Active energy IEC62053-22 Class 0.5S
- Active energy IEC 61557-12 Class 0.5
- THD 1%
- Voltage VL-N 0.2%
- Voltage VL-L 0.2%
- Current 0.2%
- Frequency 0.1
- Active power 0.5%

Pulse Output

- The pulse outputs can be set to generate pulses to represent kWh/kVarh
- Pulse constant: 0.001/0.01/0.1/1/10/100/1000 kwh or kVarh per Pulse
- Pulse width: 200/100/60 ms.
- The pulse output is passive type, complies with IEC62053-31 Class A.

Environment

- Operating temperature -25° C to +55° C
- Storage temperature -40° C to +70° C
- Relative humidity 0 to 95%, non-condensing
- Altitude <2000 meters
- Vibration 10Hz to 50Hz, IEC 60068-2-6, 2g
- Pollution degree II

Mechanics

- DIN rail dimensions 96x 96mm (WxH)
- Mounting Panel mounting
- Material Self-extinguishing UL 94 V-0

EMC Standard

- Electrostatic Discharge IEC 61000-4-2
- Immunity to Radiated Fields IEC 61000-4-3
- Immunity to Fast Transients IEC 61000-4-4
- Immunity to Impulse Waves IEC 61000-4-5
- Conducted Immunity IEC 61000-4-6
- Immunity to Magnetic Fields IEC 61000-4-8
- Immunity to Voltage Dips IEC 61000-4-11
- Radiated Emissions EN55011 Class A
- Conducted Emissions EN55011 Class A
- Harmonics IEC 61000-3-2

Digital Output

- Electrostatic Discharge IEC 61000-4-2
- Number/Type2 - electromagnetic relay
- Output Frequency 1 Hz maximum
- Switching Current 250 Vac at 3.0 Amps, 100k cycles,
- Isolation 2.5 KVac for 1min

Digital Input

- Number 4
- Input Resistance 10 kΩ
- Maximum Frequency 1kHz
- Response Time 10 milliseconds
- Isolation 2.5 KVac for 1min

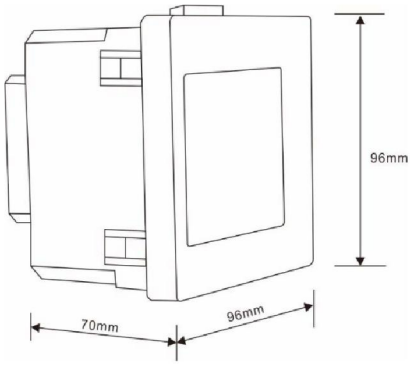
Mechanical Characteristics

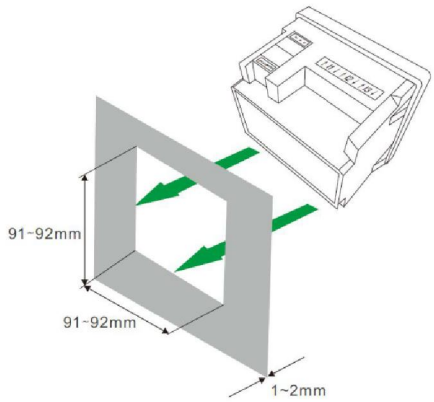
- Weight 250g
- IP Degree of Protection IEC 60529
- IP51 front display
- Dimensions (WxHxD) 96x96x70.3
- Mounting Position Vertical
- Panel Thickness 1~5mm

Auxiliary Power Supply

- Operating Range 65~480V AC / 80~660V DC
- Power Consumption < 7VA/3.5W.
- Frequency 45 to 65 Hz

Dimensions





GPM96 ordering code

G	Eetarp Product Fixed Code
A	A = IEC62053-22, M = MID Class
X	Reserved
X	Reserved
X	Reserved
	C = MODBUS RTU, E = MODBUS TCP/IP
	B = Aux 65~480V AC / 80~660V DC, C = 24~48V DC, D = Self-power supply
	5 = RS485, 6 = TCP/IP
X	
	3 = Demand Version + 15th harmonics version 4 = Demand + Min/Max + 63rd Harmonics Version + multi tariffs + DPF + Unbalance 5 = Basic Version 6 = MID, Multi-tariff with 63rd Harmonics Version
	X = No Ethernet Gateway, 1 = With Ethernet Gateway
	2 = No DI/DO, 3 = 4 DI & 2 DO
	X = No Pulse Outputs, 2 = 2 Pulse Outputs
X	Reserved
	X = 1% - Basic version 0 = 0.5% 1 = 0.2%

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