

Mimic In-House Article

Subject: Gateway Energy Meters

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Meters: AVH 16-T1, MFM 15-T1, MPD-192, EPM-14-M1, and PQM-16-M1

Modern energy systems rely on precise, continuous data, and this can be achieved by utilising a number of multifunction meters ranging from motor protection devices to power quality instruments with IIoT Gateway connectivity. This Gateway example includes multimeters AVH 16-T1 and MFM 15-T1 who form the core measurement layer, offering selectable 1Φ2W, 3Φ3W, and 3Φ4W configurations. They also include wide voltage and current inputs with CT ratios up to 6000 A, and PT scaling up to 520 kV, as well as optional RS-485 Modbus communication. Their ability to measure voltage and current THD up to 32 levels, along with robust construction and reliable auxiliary power supplies, makes them ideal for panels and energy management applications.

As supporting system protection, the MPD-192 and MPD-192-T1 provide comprehensive features such as motor safeguards, including over/under voltage, over/under current, phase sequence errors, imbalance, frequency deviations, short circuits, and lock-rotor conditions. Additionally, the true RMS measurement ensures accuracy even under distorted supply conditions, with the MPD-192-T1 adding selectable trip times and auto/manual reset modes, while both meters integrate easily into gateway-based monitoring.

For advanced energy and power quality visibility, the EPM-14-M1 and PQM-16+M1 enhance the system further. The EPM-14-M1 provides dual displays for kWh and kW. It has wide input ranges, CT selection up to 6000/5, pulse outputs, plus Modbus communication and an optional IP-65 protection.

Lastly, the Power Quality Premium Energy Meter PQM-16+M1, delivers full harmonic analysis up to the 32nd order, as well as complete energy measurements, including demand monitoring, a 30-day logging of 43 parameters, and supports a Class 0.5 accuracy rating. Visuals are easily read via a detailed backlit LCD interface.

When all these devices connect through GTW-T1 or GTW-G1 gateway models via Wi-Fi, they transmit high-integrity data directly to the cloud. The result is a unification of IIoT that enhances reliability and predicts failures, while improving energy efficiency, and gives every facility a powerful digital lift, through its industrial 'Cloud-bound carrier signals'.

Explore our range of Gateway IIOT Meters by calling us more information.

JHB Branch

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