

MCF51EM256-based Poly Phase Energy Meter Reference Design 110V Technical Specifications

Electrical

Connection type	Direct connected (whole current)
Wiring configuration	3 phase 4 wire, 1 phase 3 wire & 1 phase 2 wire
Voltage rating	120 V +/-20% (L-N)
Current range	15-100 A
Accuracy	Class 0.5
Frequency range	57 Hz to 63 Hz
Pulse constant	800 impulses/kWh & 800 impulses/kVArh

Standard compliance	IEC 62053-11, IEC 62053-22, IEC 62053-23 & IEC62056-21
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Mechanical

Dimensions (WxHxD)	168 x 242 x 84 mm
Weight	1.745kg
Enclosure	Plastic (PC/ABS blends)
Sealing	Sealing screws provision

Environmental

Compliance	IEC 60529
Ingress protection	IP 51 (Indoor type meter)
Operating Temperature	-25°C to +55°C
Storage Temperature	-25°C to +70°C
Humidity	95%

Features

Measurement parameters	Voltage, Current, Frequency, kWh import/export, kVAh import/export/lead/lag, kW, kVA, Power factor.
Tamper Recording	Logging of tampers with time stamp for Voltage Failure, Current Failure, Voltage unbalance, Current Unbalance and Cover open. LED indication for tamper Tamper counter showing number tampers from last reset of counter.
Load profile	Load profile interval period: 5, 10, 15, 30, 60 minutes and 1 day.
Maximum demand	Programmable MD interval period of 30 minutes and 60 minutes MD can be reset by using Reset key.
Display	Custom built metering specific LCD with backlight. Eight digits 7 segment display for parameters with symbol identifiers. Auto scroll Manual scroll using UP and DOWN keys
Communication	Optical port as per standard IEC 62056-21 RS 232 port for debug and BDM port for programming.
Data security	Data storage in non-volatile memory 2 Levels of password: for programming, configuration and for auto calibration.
Output device	LED pulses proportional to kWh, kVAh LED for Power on indication

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