

Features of IQ 250/260 Electronic Power meters

Features	IQ 250	IQ 260
Instrumentation		
Current, per phase	X	X
Current demand	X	X
Calculated neutral current	X	X
Voltage, per phase (L-L, L-N)	X	X
Frequency	X	X
Power, energy & demand		
Real, reactive & apparent power, total & per phase (kW, kvar, kVA)	X	X
Real, reactive & apparent energy, total & per phase (kWh, kvarh, kVAh)	X	X
Real, reactive & apparent power demand	X	X
Power factor, total & per phase	X	X
Min./max. readings, I, V, PF, F, THD (IQ260), kW, kvar, kVA	X	X
Demand methods		
Block interval (sliding, fixed)	X	X
Communications		
RS-485	X	X
KYZ output	X	X
Modbus RTU	X	X
Modbus ASCII	X	X
DNP 3.0	X	X
Data Logging		
128KB for data logging	Opt.	Opt.
I/O		
2 digital in / 2 digital out ¹	Opt.	Opt.
4 digital in / 4 KYZ out	Opt.	Opt.
4 analog output (4 – 20 mA) ²	Opt.	Opt.
4 analog output (0 – 1 mA)	Opt.	Opt.
Power quality analysis		
Total harmonic distortion (THD) voltage and current per phase		X
Alarming		
Set point driven alarm		X

¹ Digital out with the IQ 250 requires external command.

² Requires external power supply.



IQ 250/260 Meter (rear view) with connection and communication ports

Mix-and-match input/output options

Perhaps you need to:

- Monitor the status of a piece of equipment
- Activate a warning light if voltage exceeds a certain threshold
- Trigger a relay contact-closure device
- Transmit power information directly to a process-control system or building management system, or to a legacy system that doesn't use Modbus

For any of these scenarios, IQ 250/260 meters provide optional input/output (I/O) cards that meet the need for either manual or automatic operation.

The IQ 250/260 meters provide flexible configuration, with four optional cards available (analog and digital), which can be combined in any fashion in two universal communication slots. The meters auto-detect the installed I/O modules, so you can easily add or change I/O cards after installation, giving you the ability to upgrade as needed.

Industry-standard communication protocols

The IQ 250/260 meters use the open Modbus protocol. This industry-standard protocol provides serial communications with Eaton or third-party platforms, such as a building management system, power management system, or Eaton's Power Xpert Gateway for Web-based monitoring.

Integrated with Eaton's Power Xpert Architecture

IQ 250/260 meters integrate into Eaton's Power Xpert Architecture, where meters, gateways and monitoring devices collaborate to create a unified, centralized view of the end-to-end power and facility's infrastructure.

When used in this architecture and in conjunction with Eaton's Power Xpert Gateway, IQ 260/260 meters can provide Web-based graphics of current power conditions. Simply connect your meter to a Power Xpert Gateway or upgrade to a Power Xpert Meter 2000 to translate Modbus-based information from the meter into HTML-based Web pages, accessible from any standard Web browser. With access to accurate, real-time information from IQ 250/260 meters, the Power Xpert Architecture can transform your power system into an integrated, agile system, an easily managed entity that performs better and costs less.

Designed for the user

When space is at a premium, yet you need ANSI C12.20 accuracy, Eaton IQ 250/260 meters fit the bill. These ultra-compact meters are ideal for electrical equipment assemblies, machine control panels, such as panelboard and switchboard mains and feeders, low voltage metal-enclosed switchgear feeders and motor control centers. Requiring far less space than other meters with similar functionality, IQ 250/260 meters fit into a standard ANSI or IEC cutout on a panelboard or other electrical equipment, and therefore fit easily into retrofit applications.

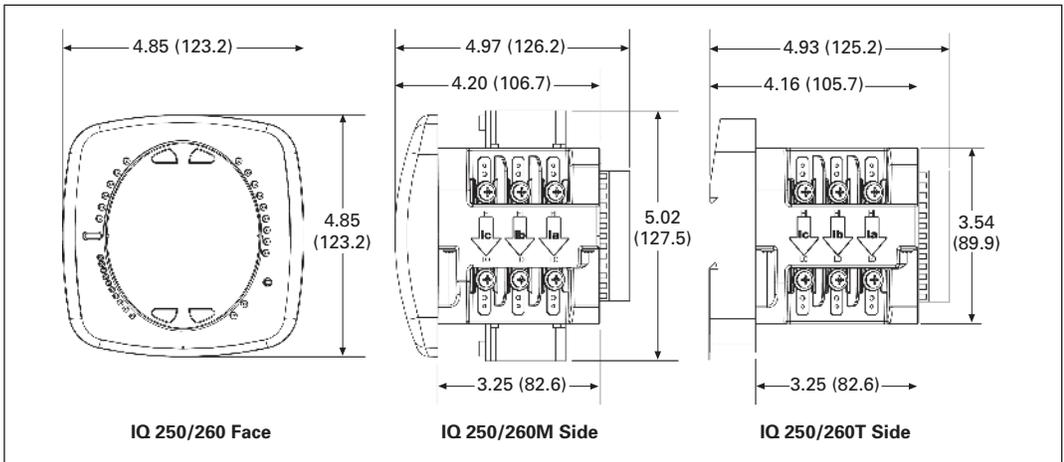
Most meters in this class have small or dark displays that can be hard to see, especially from a distance. IQ 250/260 meters have a large, bright red, three-line LED display, each line more than a half-inch tall. This display is very easy to read, even if the meter is installed at a height or distance. Using the keypad and menus on the local display, users can display a variety of electrical system values or program the meter (see Figure 1). The IQ 250/260 meters can also be configured remotely using Eaton configuration software, provided with the meter.

In addition, the meters are available with or without the display module. You might choose to forego the display for applications where there is no need to configure or read the meter locally. This option reduces costs, especially where many meters will be monitored from a central operations system.



Figure 1 — IQ 250/260 Meter faceplate display

IQ 250/260 Meter dimensions

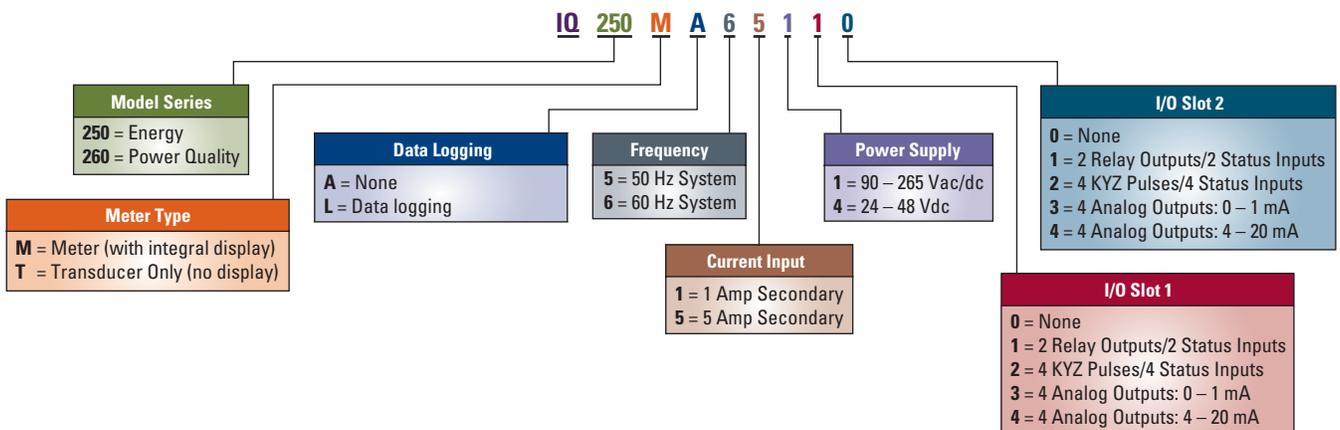


IQ 250/260 Meter dimensions — face and side views



Expandable I/O componentry

IQ 250/260 Meter ordering information



IQ 250/260 Electronic Power Meter technical specifications

Current inputs

Class 10	5 amp nominal, 10 amp max.
Class 2	1 amp nominal, 2 amp max.
Fault current withstand	
100 amps for:	10 seconds
300 amps for:	3 seconds
500 amps for:	1 second
Continuous current withstand	20 amps for screw terminated or pass-through connections
Programmable current	Full scale to any CT ratio
Burden	0.005 VA per phase max. at 11 amps
Pickup current	0.1% of nominal
Class 10	5 mA
Class 2	1 mA
Connections	
Pass-through wire gauge dimension	0.177 inches (4.5 mm)
Quick connect	0.25-inch male tab

Voltage inputs

Range	
Line-to-neutral	20 – 576 Vac
Line-to-line	0 – 721 Vac
Programmable voltage range	Full scale to any PT ratio
Supported systems	3 element wye, 2.5 element wye, 2 element delta, 4-wire delta systems
Input impedance	1 meg ohm/phase
Burden	0.36 VA/phase max. at 600 V; 0.014 VA at 120 Volts
Connection	7-pin 0.400-inch pluggable terminal block, AWG #12 – 26 (0.129 – 3.31 mm ²)

Isolation

All inputs and outputs are galvanically isolated to 2500 volts.

Environmental ratings

Operating temperature	-20°C to +70°C
Storage temperature	-20°C to +70°C
Operating humidity	To 95% RH non-condensing
Faceplate rating	NEMA® 12
	Water-resistant
	Mounting gasket included

Sensing method

Voltage, current	True RMS
Power	Sampling at over 400 samples per cycle on all channels
Harmonics resolution	40th order

Update rate

Watts, Var and VA	100 msec at 60 Hz
All other parameters	1 second at 60 Hz

Power supply

AC/DC voltage option	90 – 265 Vac at 50/60 Hz or 100 – 370 Vdc, universal AC/DC supply
DC voltage option	18 – 60 Vdc
Burden	10 VA max.

Standard communications format

Connection type	RS-485 (through back plate)
Com port baud rate	9600 – 57,600 bauds
Com port address	01 – 247
Data format	8-bit, no parity
Protocols	Modbus ASCII, RTU or DNP 3.0

KYZ pulse

Contacts	1 form A
On resistance, max.	35 ohms
Peak switching voltage	350 Vdc
Continuous load current	120 mA
Peak load current	350 mA (10 ms)
Off-state leakage current at 350 Vdc	1 uA
Opto-isolation	3750 Vac

Dimensions and shipping

Weight	2 lbs.
Basic unit	H 5.00 x W 4.90 x L 5.00 inches
IQ 250/260	Mounts in 92 mm DIN and ANSI C39.1 round cut-outs
Shipping container dimensions	6-inch cube
Tolerance	+/-0.1 inches (2.54 mm)

Compliance

IEC 687	0.2% accuracy
ANSI C12.20	0.2% accuracy
ANSI C62.41	Burst
UL®/cUL®/CE	Electrical & electronic Measuring & test Equipment 22CZ

Note: Features and specifications listed in this document are subject to change without notice and represent the maximum capabilities of the software and products with all options installed. This is not a complete feature list. Features and functionality may vary depending on selected options.

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