

New Information

Metering Devices

IQ 200

IQ 200

Applications

- Monitoring of electrical parameters

Metered/Monitored Parameters

- Phase currents
- Voltage, L-L, L-N
- Power: real, reactive, apparent
- Energy: watt hours, Var hours, and VA hours
- Frequency
- Power factor
- Minimum/maximum values
- System demand
- KYZ pulse output
- ANSI C12 Revenue metering accuracy

Communications

- Interface capability to computer network for data collection, storage and/or printout via the Cutler-Hammer PowerNet system

Physical Characteristics

- 4 line x 20 character LED back-lit LCD display
- Standard 92 mm x 92 mm 1/4 DIN cutout that meets global standards
- 96 mm x 96 mm faceplates
- Membrane faceplate designed and tested to meet NEMA 12 and IP52

Listings/Certification

- UL and CUL listed under UL 3111 and CSA C22.2 # 1010.1
- Meets IEC 1010-1
- CE mark for applications where European compliance is required



General Description

The IQ 200's compact size and flexible mounting capabilities make it perfectly suited for machine control panels such as panelboard and switchboard mains and feeders, low voltage metal-enclosed switchgear feeders, motor control centers, and especially for individual load monitoring. The base module can be display mounted, panel-mounted, DIN-rail mounted or side mounted. The display fits into a standard 1/4 DIN cutout, and for retrofit applications a 100 mm ANSI collar is available.

One IQ 200 provides an alternative to an assortment of individually wired and mounted ammeters, voltmeters, ammeter and voltmeter switches, watt-meters, var-meters, power factor meters, frequency meters, watt hour and demand meters.

ANSI C12 Class 10 revenue metering accuracy make the IQ 200 an ideal choice for sub-metering and sub-billing applications.

The IQ 200 can be easily programmed and monitored from the faceplate keypad which features a 4 line x 20 character LED back-lit LCD display. Opting for the compatible Cutler-Hammer PowerNet system allows the user to program and monitor the meter remotely from a PC.

Retrofit Opportunities

- Retrofit of existing electrical distribution systems with the IQ 200 for load and energy monitoring
- Five mounting options makes installation easier

Ratings

- Application to 200 kV, no PTs to 600V
- CT ratios selectable 5 to 8000A
- Single-phase 2- or 3-wire
Three-phase 3- or 4-wire

Specifications

Compatible with the following systems:

- 3-phase, 3-wire
- 3-phase, 4-wire
- 1-phase, 2-wire
- 1-phase, 3-wire

Current Input (Each Channel)

- Current Range
2 Times
- Nominal Full Scale Current
5 amperes ac
- Overload Withstand
10 amperes ac continuous
150 amperes ac 1 second
- Input Impedance
0.01 Ohms
- Burden
0.025 VA

Voltage Input (Each Channel)

- Voltage Range (Nominal)
90-600 Vac
- Overload Withstand
660 Vac continuous
800 Vac 1 second
- Input Impedance
2 megaohm

CT (Primary) Settings

- Select from 256 values ranging from
5 to 8000 amperes
- PT Primary
256 values with ratios up to 200 kV

Environmental Conditions

Base	Display
Operating Temperature -20°C to 50°C	0°C to 50°C
Storage Temperature -30°C to 85°C	-20°C to 60°C
Maximum Relative Humidity 80% up to 31°C decreasing it nearly 50% at 50°C	

Frequency Range
50/60 Hz

Electrical Standards

- UL and CUL listed
- UL File Number E185559
- CE mark for applications where
European compliance is required

Safety

- IEC 1010-1 (1990) Incl. Amend.
1 and 2 (1995)
- EN61010-1 (1993)
- CSA C22.2 Number 1010.1 (1992)
- UL3111

EMC

- Emissions
FCC Part 15 Class A
CISPR 11 (1990)/EN55011 (1991)
Group 1 Class A

Immunity

- Electrostatic Discharge
EN61000-4-2 (1995)/EN50082-2 (1995)
4 kV Contact Discharge
8 kV Air Discharge
- Electrical Fast Transient
EN61000-4-4 (1995)/EN50082-2 (1995)
2 kV Power Lines
2 kV Signal Lines
- Radiated Immunity
EN61000-4-3 (1997)/EN50082-2 (1995)
10V/m
- Conducted Immunity
EN61000-4-6 (1996)/EN50082-2 (1995)
10V rms
- Power Frequency Magnetic Field
EN61000-4-8 (1995)
30 A/m

Metered Values (Based on Full Scale up to 5A, Based on Reading >5A)

	Phase A	Phase B	Phase C	Accuracy
Ac Ampere				+/- 0.5%
Watts				+/- 1.0%
Vars				+/- 1.0%
VA				+/- 1.0%
kW Hours				+/- 1.0%
kVar Hours				+/- 1.0%
kVA Hours				+/- 1.0%
Power Factor				+/- 2.0%
Frequency				+/- 0.1%
Demand				+/- 1.0%

Control Power Input

	Vac	Vdc
Input Range ± 10%	90-600	48-250
Frequency Range	50/60Hz	-
Burden	180mA	7w

Communications

- Cutler-Hammer PowerNet Compatible
- 1200/9600 Baud

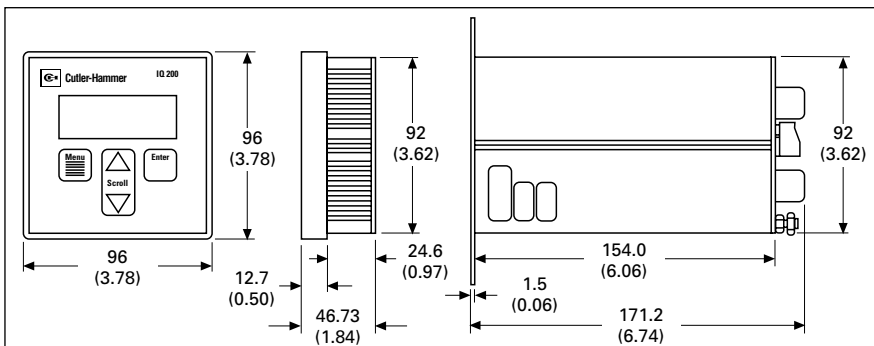
Input/Output

- KYZ Solid-State Relay Output
96 mA at 240 Vac/300 Vdc

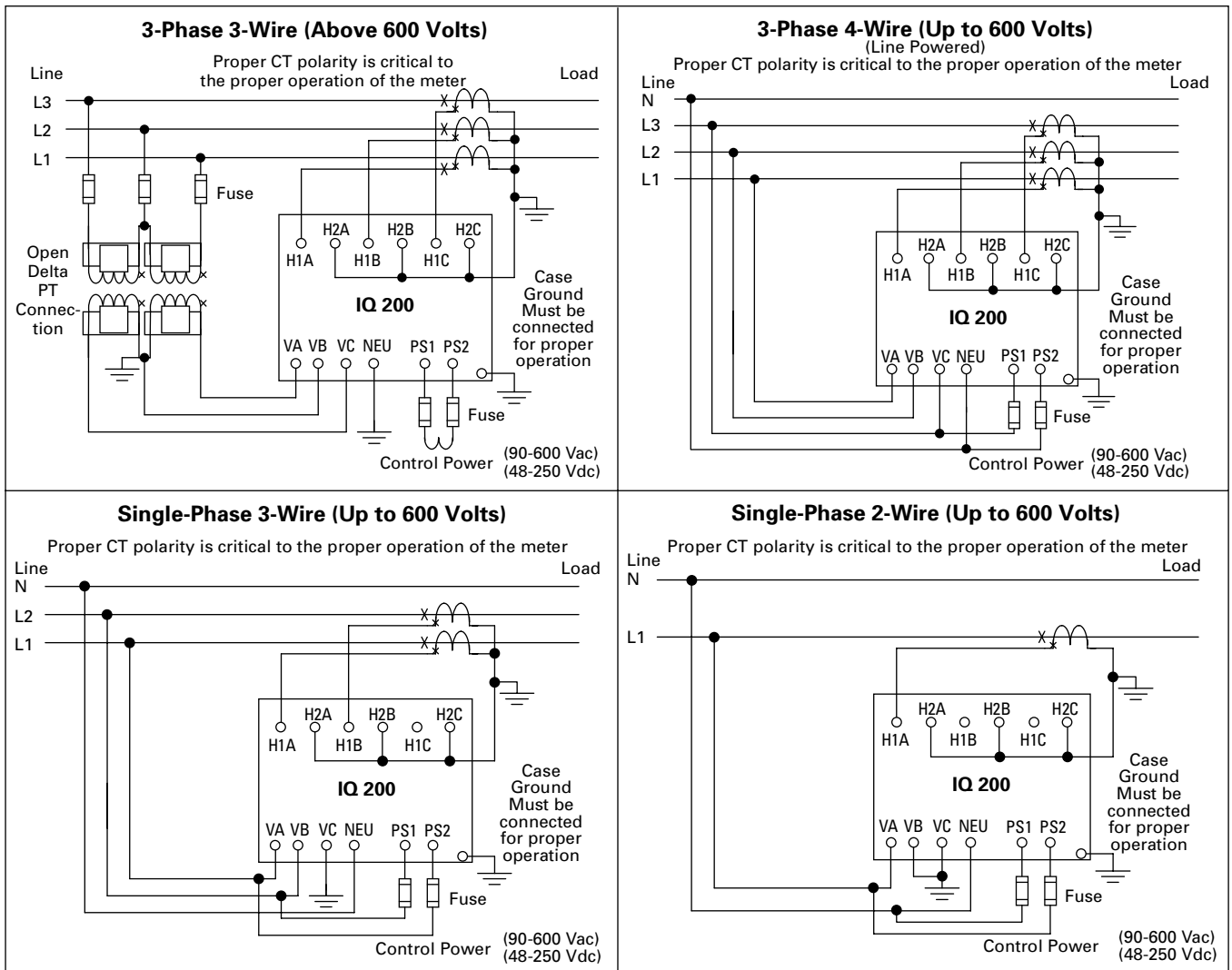


IQ 200 Metering Devices

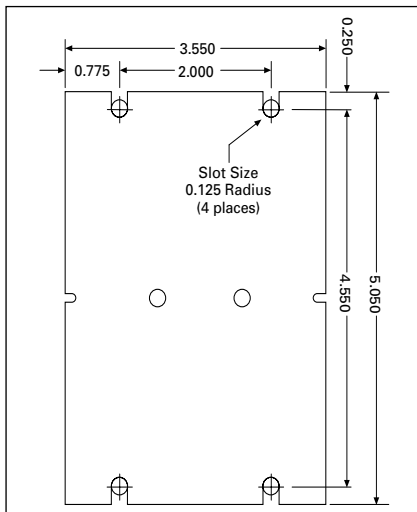
IQ 200 Dimensions in Millimeters (Inches)



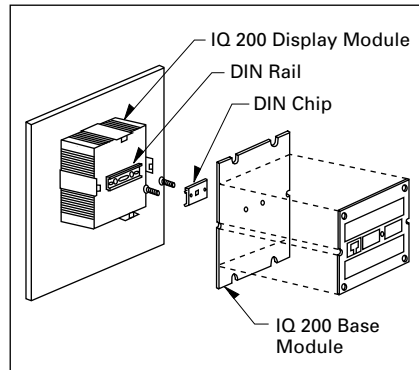
Field Wiring Connections



Mounting Hole Pattern for the IQ 200 Base Module



Mounting the IQ 200 Base Module to the IQ 200 Display Module



Ordering Information

IQ 200

Description	Catalog Number
IQ 200 Base Module	IQ220TRAN
IQ 200 Display Module	IQ200D
IQ 200 Base Module and IQ 200 Display Module and 14 inch cable	IQ220
3-foot long Category 5 Cable	IQ23CABLE
6-foot long Category 5 Cable	IQ26CABLE
10-foot long Category 5 Cable	IQ210CABLE

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