Honeywell

SXB35 & SXB36 Networked Power Meters (Modbus® RTU)

SPECIFICATION DATA

OVERVIEW

Honeywell's innovative three-phase networked (Modbus RTU) power meters combine power metering electronics and high accuracy industrial grade CTs in a single package. The need for external electrical enclosures is eliminated, greatly reducing installation time and cost.

APPLICATIONS

There are two application-specific platforms to choose from. The SXB35 Meters are ideal for submetering applications where only kW and kWh are required. The SXB36 Enhanced Data Stream meters output 26 energy variables including kW, kWh, volts, amps, and power factor, making them ideal for power monitoring and diagnostics.

Color-coordination between voltage leads and CTs makes phase matching easy. Additionally, these meters automatically detect and compensate for phase reversal, eliminating the concern of CT load orientation. Up to 63 power meters can be daisy-chained on a single RS-485 network.

- Energy managing & performance contracting
- Submetering for commercial tenants
- Activity-based costing in commercial and industrial facilities
- Real-time power monitoring

FEATURES

- **Monitor energy parameters (kW, kWh, kVAR, PF, Amps, Volts) at up to 63 locations on a single RS-485 network—greatly reduces wiring time and cost.**
- **Fast split-core installation eliminates the need to remove conductors—saves time and labor.**
- **Precision metering electronics and current transformers in a single package reduces the number of installed components, meaning huge labor savings.**
- **Smart electronics eliminate CT orientation concerns—resulting in fast, trouble-free installation.**

SPECIFICATIONS

Systems accuracy:
±1% of reading from 10% to 100% of the rated current of the CTs (accomplished by matching the CTs with a meter and calibrating them as a system)

Input Primary Voltage: 208 to 480VAC RMS

Number of Phases Monitored: One to Three

Frequency: 50/60Hz

NOTE: SXB meters are rated for use at 50-60Hz. Exposure to extreme harmonics from VFDs or similar sources will result in signal problems and may permanently damage the product

Primary Current: Up to 2400 amps cont. per phase

Internal Isolation: 2000VAC RMS

Insulation Class: 600VAC RMS†

Temperature Range: 0° to 60°C (32° F to 140°F)
50°C (122°F) for 2400A

Humidity Range: 0 - 95% non-condensing

Output Physical Characteristics:
RS-485, 2 wire + shield

Baud Rate: 9600, 8N1 format

Protocol: Modbus RTU

† Do not apply 600V Class current transformers to circuits having a phase-to-neutral voltage greater than 600V, unless adequate additional insulation is applied between the primary conductor and the current transformers. Honeywell assumes no responsibility for damage of equipment or personal injury caused by products operated on circuits above their published ratings.

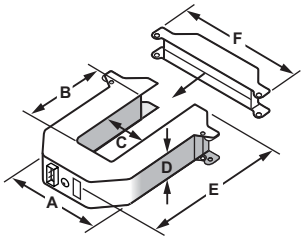
SXB35 Data Output Specifications

kWh, kW

SXB36 Data Output Specifications

kWh, consumption
kW, demand
VAR, reactive power
VA, apparent power
Power factor
Average demand
Minimum demand
Maximum demand
Voltage, line-to-line
Voltage, line-to-neutral
Amps, average current
kW, demand ØA
kW, demand ØB
kW, demand ØC
Power factor ØA
Power factor ØB
Power factor ØC
Voltage, ØA to ØB
Voltage, ØB to ØC
Voltage, ØA to ØC
Voltage, ØA to Neutral
Voltage, ØB to Neutral
Voltage, ØC to Neutral
Amps, Current ØA
Amps, Current ØB
Amps, Current ØC

DIMENSIONS



SMALL
100/300 AMP

A = 3-51/64 (96)
B = 1-1/2 (38)
C = 1-19/64 (31)
D = 1-3/32 (29)
E = 4 (100)
F = 4-51/64 (121)

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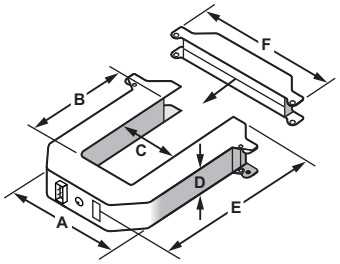
Fig. 1. Dimensions of small CT.



MEDIUM
400/800 AMP

A = 4-29/32 (125)
B = 2-29/32 (73)
C = 2-1/2 (62)
D = 1-3/32 (29)
E = 5-13/64 (132)
F = 5-29/32 (151)

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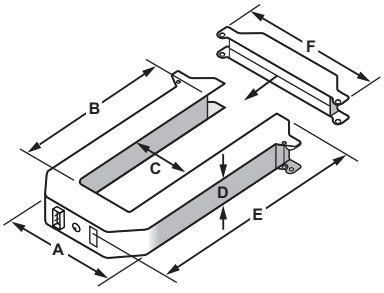
Fig. 2. Dimensions of medium CT.



LARGE
800/1600/2400 AMP

A = 4-29/32 (125)
B = 5-1/2 (139)
C = 2-1/2 (62)
D = 1-3/32 (29)
E = 7-29/32 (201)
F = 6 (151)

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Fig. 3. Dimensions of large CT.

WIRING

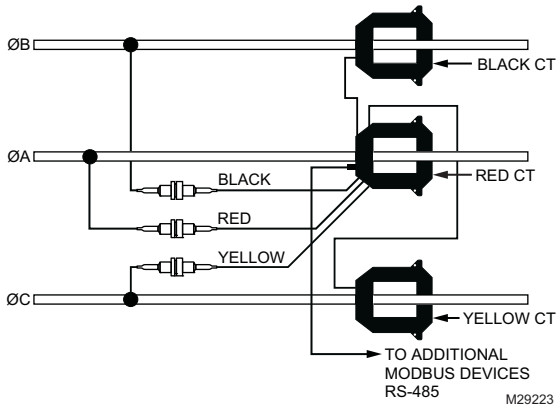

Fig. 4. Typical 208/480 VAC 3Ø installation.

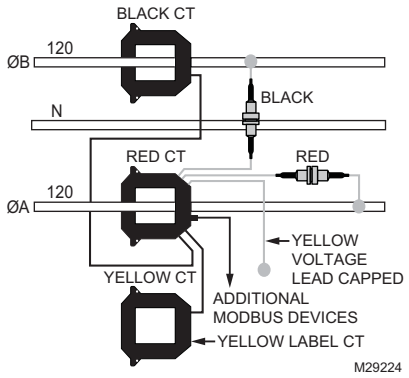

Fig. 5. Typical 240 VAC 1Ø, 3-wire installation.

ORDERING INFORMATION

Table 1. SXB35 Modbus basic energy meters.*

Model	Max. amps	CT size
SXB35-100	100	Small
SXB35-300	300	Small
SXB35-400	400	Medium
SXB35-800-3	800	Medium
SXB35-800-4	800	Large
SXB35-1600	1600	Large
SXB35-2400	2400	Large

* SXB35 models work with SXBC-5 LON nodes.

Table 2. SXB36 Modbus enhanced data stream meters.*

Model	Max. amps	CT size
SXB36-100	100	Small
SXB36-300	300	Small
SXB36-400	400	Medium
SXB36-800-3	800	Medium
SXB36-800-4	800	Large
SXB36-1600	1600	Large
SXB36-2400	2400	Large

* SXB36 models work with SXBC-1 LON nodes.

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