

H84XXV, H84XXVB, & H84XXVBS SERIES

Revenue Grade Power Meter
for Voltage Mode CTs



The H84xxV, H84xxVB, and H84xxVBS Series digital power meters deliver high accuracy and high value at a competitive price.

Whether you are looking for a 1-phase pulse output meter to monitor kWh, or a 3-phase communicating meter to monitor THD, the H84xxV Series has the right meter for you, in panel and wall mounting styles for your convenience.

The pulse output unit offers two pulse outputs. While kWh is standard, the second pulse output provides a field-selectable choice between phase loss or kVARh.

The Modbus communications unit offers a choice between two data outputs, Full Data Set (FDS) or Extended Data Set (EDS). Data points are listed on the next page.

SPECIFICATIONS

INPUTS

Control Power	100 to 415 $\pm$ 10% Vac, 5 VA, 45 to 60 Hz*
DC	125 to 250 Vdc $\pm$ 20% Vdc, 3 W, external current limiting required
Voltage Input	UL: 600 Vac; CE: 300 Vac (L-N)

CURRENT INPUT

CT Scaling	Primary: Adjustable from 5 A to 32,767 A
Measurement Input Range	1 V RMS full scale (+20% over-range). CTs must be rated for use with Class 1 voltage inputs

ACCURACY

Current and Voltage	0.5%
Power	ANSI C12.16, 1%
Measurement - True RMS	True RMS up to 15th harmonic, 3-phase AC System

OUTPUTS

Pulse Output #1	(kWh) N.O. Static Output (240 Vac or 300 Vdc, 100 mA max. @ 25 °C, derate 0.56 mA per °C above 25 °C) 2.41 kV RMS isolation
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Revenue grade measurements

Meets ANSI C12.20 Class 0.2 standards

Mounting flexibility

Panel, wall, DIN rail mount

Intuitive navigation

Context-sensitive menus for easy use

Real-time

Real-time power monitoring via local display or through control/data acquisition systems

Trouble-free installation

Automatically detects and corrects phase reversal, eliminating the need to be concerned with CT load orientation

Large display

Large, easy-to-read display

APPLICATIONS

- Energy monitoring in building automation systems
- Renewable energy
- Energy management
- Commercial sub-metering
- Industrial monitoring
- Cost allocation

Pulse Output #2 (H8463V/VB/VBS)	(Phase Loss or kVARh) N.C. Static Output (240 Vac or 300 Vdc, 100 mA max. @ 25 °C, derate 0.56 mA per °C above 25 °C) 2.41 kV RMS isolation
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MECHANICAL

Weight	H84xxV: 0.8 lbs; H84xxVB: 6.35 lbs; H84xxVBS: 9.15 lbs
Protection Class	V: IP40 front, IP30 back; VB: NEMA 1, IP40

ENVIRONMENTAL

Altitude of Operation	3000 m
Operating Temp Range	Meter: 0 to 60 °C (32 to 140 °F); Display: -10 to 50 °C (14 to 122 °F)
Storage Temp Range	Meter and Display: -40 to 85 °C (-40 to 185 °F)
Humidity Range	0 to 95% non-condensing; indoor use only

WARRANTY

Limited Warranty	5 years
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AGENCY APPROVALS

Agency Approvals	UL508; Cat. III, Pollution Degree 2, for distribution systems up to 347VAC (L-N)/600VAC (L-L); CE per IEC61010-1, Cat. III, Pollution Degree 2, for distribution systems up to 300 Vac (L-N)/480 Vac (L-L)
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* For control voltages >415 Vac to 600 Vac order H84xxVBS.

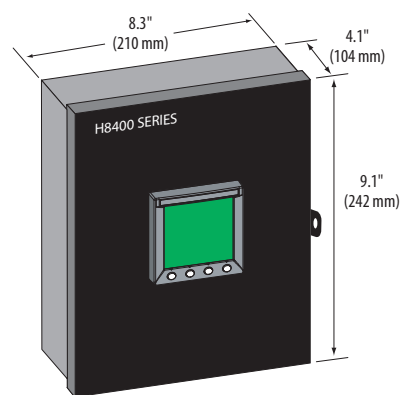
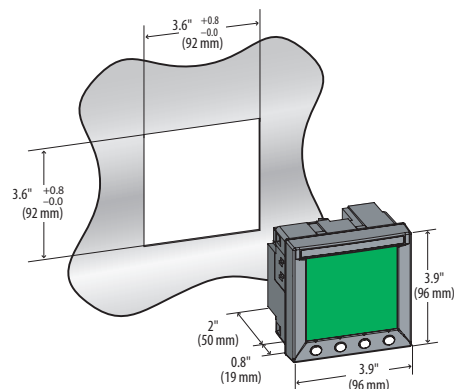
**The CE mark indicates RoHS2 compliance. Please refer to the CE Declaration of Conformity for additional details.

ORDERING INFORMATION

MODEL	DESCRIPTION	DATA OUTPUT		DISPLAY SCREENS	
	PANEL MOUNT - 120 to 480 V (For Control Voltages > 415 Vac to 600 Vac, order H84xxVBS)	Pulse	Modbus	FDS	EDS
H8463V*	Panel Mount, 1 V, CT Input, FDS	•		•	
H8453V*	Panel Mount, 1 V, CT Input, FDS	•		•	
H8436V	Panel Mount, 1 V, CT Input, FDS		•	•	
H8437V	Panel Mount, 1 V, CT Input, EDS		•		•
	WALL MOUNT - 120 to 480 V (For Control Voltages > 415 Vac to 600 Vac, order H84xxVBS)	Pulse	Modbus	FDS	EDS
H8463VB*	Wall Mount, 1 V, CT Input, FDS	•		•	
H8453VB*	Wall Mount, 1 V, CT Input, FDS	•		•	
H8436VB	Wall Mount, 1 V, CT Input, FDS		•	•	
H8437VB	Wall Mount, 1 V, CT Input, EDS		•		•
	WALL MOUNT - 240-600V	Pulse	Modbus	FDS	EDS
H8463VBS*	Wall Mount, 1 V, CT Input, FDS, 240 to 600 V	•		•	
H8453VBS**	Wall Mount, 1 V, CT Input, FDS, 240 to 600 V	•		•	
H8436VBS	Wall Mount, 1 V, CT Input, FDS, 240 to 600 V		•	•	
H8437VBS	Wall Mount, 1 V, CT Input, FDS, 240 to 600 V		•		•

*The H8453 has two normally open solid-state outputs: one kWh and one field-selectable for phase loss or kVARh. The H8463 has one normally open output (kWh) and one normally closed output (field selectable for phase loss or kVAR).

DIMENSIONAL DRAWINGS



DATA OUTPUTS

H8436: Full Data Set (FDS)

kWh, Consumption
kW, Real Power
kVAR, Reactive power
kVA, Apparent power
Power factor
Voltage, line to line
Voltage, line to neutral
Amps, Average current
kW, Real power ØA
kW, Real power ØB
kW, Real power 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

H8437: Extended Data Set (EDS)

(FDS Plus):
Amps, Current Neutral
Frequency
kVAh, Consumption
kVARh, Consumption
Minimum Real power
Maximum Real power
KVA, Apparent Power, Per Phase
KVAR, Reactive Power, Per Phase
KW, Total Real Power Present Demand
KVA, Total Apparent Power Present Demand
KVAR, Total Reactive Power Present Demand
KW, Total Real Power Max Demand
KVA, Total Apparent Power Max Demand
KVAR, Total Reactive Power Max Demand
THD, Voltage A-N, B-N, C-N
THD, Voltage A-B, B-C, A-C
THD, Current, Per Phase
Usage Hours
Usage Minutes
Total Hours
Total Minutes

COMPANION CURRENT TRANSFORMERS

