

# 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 ± 10% Vac, 5 VA, 45 to 60 Hz*
DC	125 to 250 Vdc ± 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

## 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
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)



\* For control voltages >415 Vac to 600 Vac order H84xxVBS.

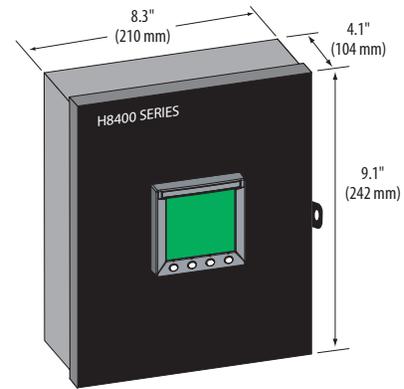
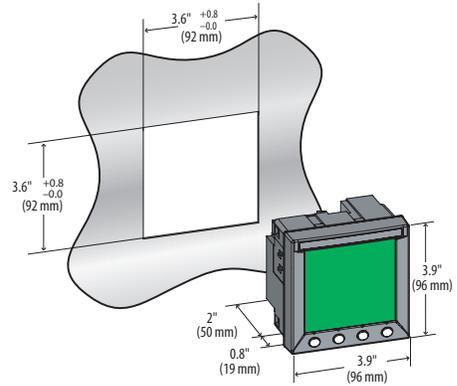
\*\*The CE mark indicates RoHS2 compliance. Please refer to the CE Declaration of Conformity for additional details.

**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**

(Model/Amps) (Output Type)

H681  -  1V = 0 to 1 Vac

Example: H681  2-800 -  1V

**Small:**  
 0-100 = 100 A  
 0-200 = 200 A  
 0-300 = 300 A

**Medium:**  
 1-400 = 400 A  
 1-600 = 600 A  
 1-800 = 800 A

**Large:**  
 2-800 = 800 A  
 2-1600 = 1600 A  
 2-2000 = 2000 A  
 2-2400 = 2400 A