

# H84XXV, H84XXVB, & H84XXVBS SERIES

Revenue Grade Power Meter  
for Voltage Mode CTs



BACnet  
Connectivity  
Via E8951 Gateway

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 |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------|

## 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 |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|

### 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);<br>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.

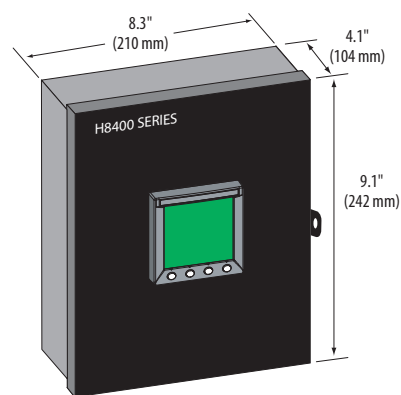
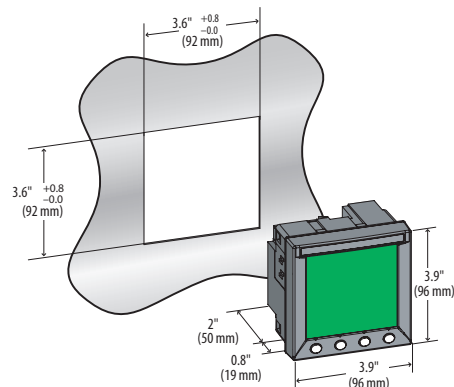
\*\*The CE mark indicates RoHS2 compliance. Please refer to the CE Declaration of Conformity for additional details.

## ORDERING INFORMATION

| MODEL      | DESCRIPTION                                                                               | DATA OUTPUT |        | DISPLAY SCREENS |     |
|------------|-------------------------------------------------------------------------------------------|-------------|--------|-----------------|-----|
|            | PANEL MOUNT - 120 to 480 V<br>(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<br>(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

