# $WATTNODE^{\circ}PULSE$



# Advanced Pulse Output AC Power Measurement

The *WATTNODE PULSE* is an accurate AC watt-hour transducer with pulse output (solid state relay closure) proportional to kWh consumed or produced.

The *WATTNODE* meter provides a real energy measurement at low cost to meet your needs for sub-metering, energy management and performance contract applications

**Easy Installation** saves you time and money. The *WATTNODE* meter is small enough to fit entirely within a standard electrical panel and the screw terminals unplug for easy wiring.

**The Advanced Output** includes separate pulse channels for positive and negative power, for use in net metering and PV monitoring. Optional models are available with one pulse output channel per measurement phase, which can be used to monitor each phase independently or to monitor three separate single-phase circuits with three separate outputs.

**Our Diagnostic LEDs** provide a per-phase indication of power (green flashing), negative power (red flashing), to help troubleshoot connection problems, such as swapped CTs, or excessive line voltage. See the User's Guide for a full description.

**The Pulse Series** family measures 1, 2, or 3 phases in 2, 3 or 4 wire configurations. With voltage ratings from 120 to 600 Vac and current transformer (CT) ratings from 5 to 6000 Amps, there is a *WATTNODE* metering solution to meet your AC energy and power measurement requirements.

**ACCURACY of the** *WATTNODE* is 0.5% of reading over a wide range of power factors and harmonic content. You get true kWh measurements even with switching power supplies and variable speed drives.

**Our Safe CTs**, with internal burden resistors, produce a voltage proportional to the measured current. At rated current, the voltage is only 0.333 Vac. Split-core CTs install quickly on existing wiring and solid-core CTs cost less for new wiring.

# **Advanced Pulse Output**

Bi-directional single and three phase configurations for residential and commercial energy and power monitoring

# **Versatile Design**

- Tenant submetering
- Net Metering
- 3 single-phase meters in 1
- Combined PV output & residential load monitoring

# **Uses Safe CTs**

Low voltage, not shorting block required

# **Line Powered**

No external power supply required

# **Digital Signal Processing**

Accurate kWh measurement over a wide harmonic range.

# **Detachable Terminal Blocks**

Easy to install and remove

# **Diagnostic LEDs**

Speed installation and commissioning

# **5 Year Warranty**

WNP-1.23.13 Specifications are subject to change



# **Specifications**

# **Measurement Congurations**

Single phase: 2-wire or 3-wire Three phase: 3-wire or 4-wire

#### **Electrical**

Line Powered, 50 or 60 Hz

Operating Voltage Range: +15% to -20% of nominal

CT Input: 0 to 0.333 Vac nominal

#### **Pulse Output**

Opto-isolated, solid state relay closure up to 60 Vdc @ 5mA Scaling:

- Full-Scale Frequency 4 Hz (Standard), or 0.01 Hz to 600 Hz (factory option)
- Specified watt-hours per pulse (factory option)

# **Accuracy**

± 0.5% of reading (see manual for details)

# Regulatory

FCC Class B, EN 55022 Class B UL and cUL Listed (UL 61010-1)

CE Mark and RoHS

Immunity: EN 61326: 2002 (Industrial Locations)

#### **Environmental**

Oper. Temperature: 30°C to +55°C (-22°F to 131°F) Oper. Humidity: 5 to 90% relative humidity (RH) up to 40°C, decreasing linearly to 50% RH at 55°C

#### Mechanical

Enclosure: High impact, UL rated, ABS plastic Size: 6.1 x 3.35 x 1.5 in. (155 x 85 x 38 mm)

Connectors: UL, CSA recognized, detachable screw

terminals

# **Optional LCD Display Unit**

Display: 8-digit

Reset: Wired remote or front panel (configurable)

Battery: Lithium 2/3A, four year

Assembled in the USA: qualified under Buy American provision in ARRA of 2009

#### WATTNODE

Model Number	Vac Line to Neutral	Vac Line to Line	Phases	Wires
WNB-3Y-208-P	120	208-240	3	4
WNB-3Y-400-P	230	400	3	4
WNB-3Y-480-P	277	480	3	4
WNB-3Y-600-P	347	600	3	4
WNB-3D-240-P*	120	208-240	3	3
WNB-3D-400-P*	230	400	3	3
WNB-3D-277-P*	277	480	3	3

<sup>\*</sup> Operates with or without a neutral connection

# **LCD Displays**

Model	Displays	Units
LCDA-E	Energy	WH, kWH, or MWH
LCDA-P	Power	W or kW
LCDA-EP	Energy & Power	WH, kWH, or MWH & W or kW

# **Panel Application**

Typical residential - single-phase, 3-wire - 120/208-240



