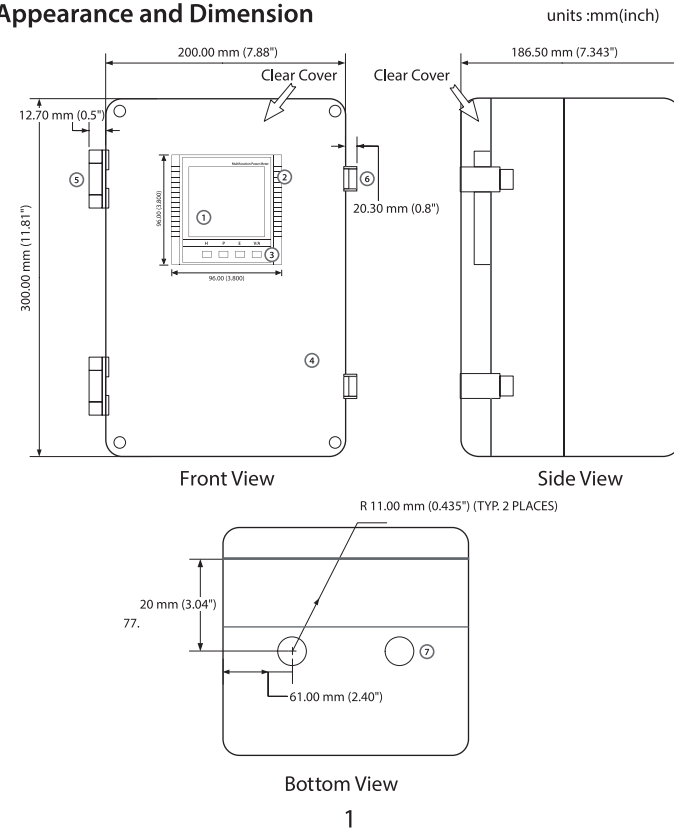


KW320-P1-D-W-RC-PC

Quick Setup Guide

- ⑤ Appearance and Dimensions
- ⑤ Installation Method
- ⑤ Terminals
- ⑤ Wiring Diagram
- ⑤ Settings Mode
- ⑤ Communication
- ⑤ Alarming
- ⑤ Specifications

Appearance and Dimension



Part Name	Description
① LCD	Large, easy-to-read, backlit digital display.
② Front Casing	Visible portion of the meter itself for easy access to the display & keys.
③ Keys	Four keys are used to select data or configure meter settings.
④ Meter Enclosure	Factory pre-wired, polycarbonate, NEMA 4X panel meter enclosure.
⑤ Hinged Lid	Swing the clear lid open to access the meter.
⑥ Lid Latches	Latches secure the clear lid closed.
⑦ Pre-cut Holes	Two, pluggable holes are pre-drilled to route wiring to the meter.

Installation Method

Environment

The polycarbonate, NEMA 4X panel enclosure provides protection against most environmental challenges, such as dust or moisture. The meter may be installed outdoors, however NEMA 4X-rated grommets or conduit must be connected to the pre-cut wiring holes to maintain the NEMA 4X rating and fully protect the meter. Note that the operating temperature range is 13 °F to 158 °F (-15°C to 70°C). Avoid placing the meter near radiation. or sources of strong electrical interference.

Installation Steps

1. Open the swing panel of the enclosure to view the terminal strip within the enclosure.

Voltage Inputs

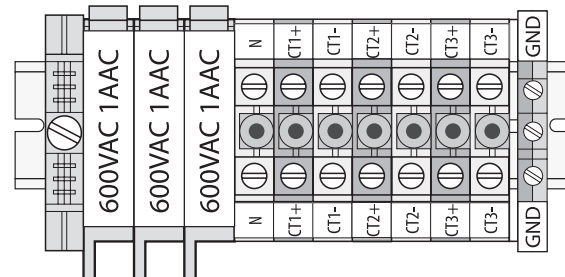
2. Incoming power must be brought into the enclosure through the pre-cut holes (located at the bottom of the enclosure) and landed on the line side of

Mechanical Specifications

NEMA Rating	NEMA 4X
Enclosure Material	Polycarbonate
Fuse	600VAC/1A
Wiring	Two pluggable pre-cut holes to feed wiring, fused terminal blocks for voltage connections pre-installed, color-coded and labelled
Flammability Rating	94-V0
Enclosure Dimensions (L x W x H)	7.88" (200 mm) x 11.81" (300 mm) x 7.34" (186.5 mm)
Enclosure Product Weight	8 lbs. (3.63 kg)

the terminals. (Note: If installing the enclosure in an outdoor location, NEMA 4X-rated grommets or conduit must be connected to the pre-cut holes to maintain the NEMA 4X rating.)

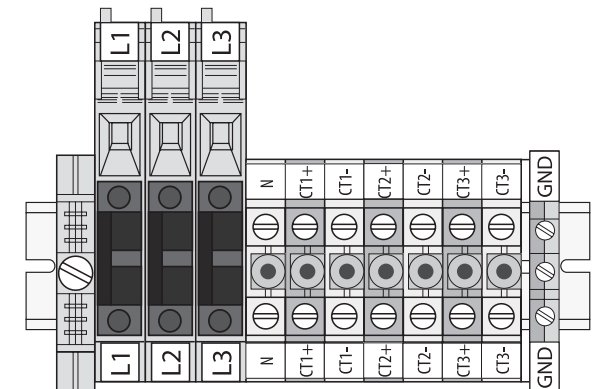
- The 208V to be measured can be connected to the L1, L2, and L3 terminals. Neutral can be connected to the N terminal, if applicable.
- Lift the L1, L2, and L3 terminal covers up to access the screw to tighten the conductor into the terminal.



Current Inputs

3. Connect the current transformers (CTs) around a bus bar or other conductor to measure the current. Pay close attention to the polarity of the CTs during the installation process.

- The leads of the CT will need to be routed into the enclosure through the pre-cut holes and connected to the positive and negative CT terminals labeled CT1+, CT1-, and so on.
- The positive lead of the CT needs to be connected to the CT terminal marked (+)
- The negative lead of the CT needs to be connected to the CT terminal marked (-)



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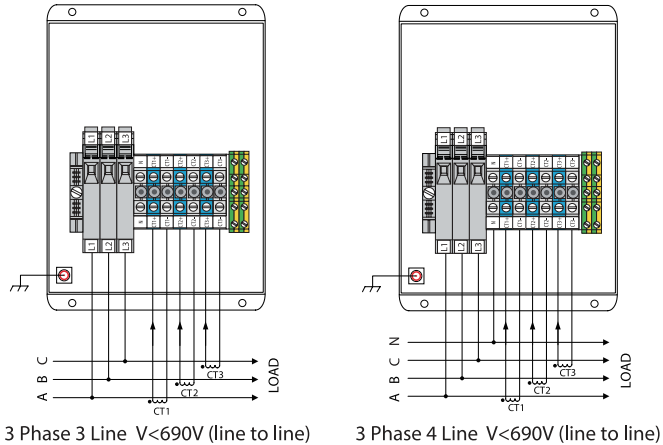


Ground Terminal Connection

Before setting up the meter's wiring, it is important to connect the meter's ground terminal and the switch gear's ground terminal together.



Wiring Diagram



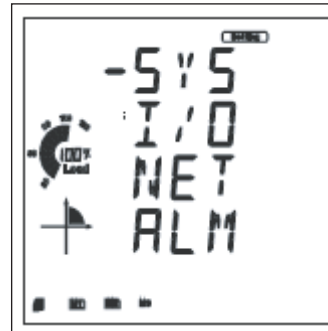
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Settings Mode

Meter Settings

Press V/A and H together to enter the mode selection screen. Press P or E to move the cursor left or right, respectively, to the "Setting" tab, then press V/A. A four-digit password is required to access the parameter setting mode. The default password is 0000.

Four options are available in the parameter selection page. "SYS" for system parameters, "I/O" for I/O module parameters, "WEB2" for Ethernet module parameters, and "ALM" for alarm parameters. Press P or E to move the cursor down or up, respectively. Press V/A to enter the selected parameter settings page.



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Wiring Diagram, PT, and CT Settings

Enter the "SYS" page and press P or E to scroll through the settings pages or V/A to change a parameter. For PT and CT ratio settings, press P or E to increase or decrease the digit by 1, press H to move the cursor to the next digit, and press V/A to accept any changes once finished.

Setting Page	Parameter
S04	Voltage Wiring
S05	Current Wiring
S06	Primary Side PT Ratio
S07	Secondary Side PT Ratio
S08	Primary Side CT Ratio
S09	Secondary Side CT Ratio

Communication

Serial Communication Settings

Serial communication terminals are A, B, S, (14, 15, 16). A is differential signal (+), B is differential signal (-), and (S) is shield. Up to 32 devices can be connected on a RS485 bus. The overall length of the bus cannot exceed 1200M (4000ft). When multiple meters are connected serially on the same RS485 bus, each meter shall have a different device address. Enter the "SYS" page and scroll to page S01 to set the device address. This address can be any integer between 1 and 247.

The baud rate can be selected from one of six values: 1200, 2400, 4800, 9600, 19200, and 38400 bps. SW320 series meters need to set S31 Parity to one

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of the follow settings: Odd, Even, None1 (stop bit 1), None2 (stop bit 2). The default setting is None1.

Ethernet Communication Settings

Enter the "WEB2" page and press P or E to scroll through the settings pages and V/A to change a parameter. To set a value, press P or E to increase or decrease the digit by 1, press H to move the cursor to the next digit, and press V/A to accept the change when finished.

Setting Page	Parameter
N02	IP Address
N03	Subnet
N04	Gateway
N07	Modbus
N08	HTTP Port

Alarming

16 alarming channels can be selected from 80 available parameters. Alarming channels and condition can be set from the utility software.

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Specifications

Voltage Input	
Nominal Full Scale	400VAC L-N, 690VAC L-L
Withstand	1500VAC continuous 3250VAC, 50/60Hz for 1 minute
Input Impedance	2M ohm per phase
Metering Frequency	45-65 Hz
Pickup Voltage	10VAC
Accuracy	0.2% full scale

Current Inputs (Each Channel)	
Nominal Current	100 mV (1A)
Metering Range	0-1.2A
Pickup Current	5mA
Withstand	20A RMS continuous 100A RMS for 1 second, non-recurring
Burden	0.05VA (typical) @ 5A RMS
Accuracy	0.2% full scale

AC/DC Control Power	
Operating Range	100-415VAC, 50/60Hz; 100-300VDC
Burden	5W
Withstand	3250VAC, 50/60Hz 1 minute
	Installation Category III (Distribution)

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