

Product Brief ZBMLC30, Model # 4040B



ZigBee HA Wireless Triple-Relay Metering Load Controller

This triple-relay on/off load controller interfaces wirelessly with a ZigBee Home Automation (HA) network and is capable of wirelessly controlling high power loads (up to 240VAC at 30Amps). The device measures the power delivered to the load and can report various parameters such as real and apparent power based on high accuracy industry standards. This enables the intelligent management of large appliances to maximize energy conservation while taking advantage of the lowest rates offered by electric utilities. Triple relays eliminate the need for additional controllers when handling two-speed appliances such as pool pumps. Use of the ZigBee® HA Profile ensures compatibility with the emerging standards for smart homes/buildings being deployed around the world.



Benefits

- Remotely controls and monitors heavy loads such as water heaters, pool pumps, pool heaters, electric vehicle chargers, HVAC, etc.
- Measures the energy consumed by a 120V or 240V load, allowing total energy management by the consumer or an electric utility.
- Controlled via ZigBee, a wireless RF protocol that is rapidly becoming the standard for energy management. Enables appliances to become part of the emerging smart ecosystems.
- Small size and convenient connectivity means easy retrofitability and low installation cost.
- Comes standard with normally open (NO) primary relays. Contact the company for other configurations including fail-safe mode.
- Relays on both lines of the power input provide total isolation of the switched load.
- Third relay on line 1 is ideal for control of two speed appliances.
- Safety tested to UL916 and CSA 22.2 standards.
- Outdoor/indoor NEMA 4X enclosure means the device is ready to be installed stand-alone.

SPECIFICATIONS:

Electrical

Operating Voltage:	95—270 VAC 50/60 Hz
Max. Load Current:	Relay 1: 30 Amps @ 240VAC Relay 2: 30 Amps @ 240VAC Relay 3: 30 Amps @ 240VAC
Operating power:	All relays energized: < 2.5 Watts. Standby: < 0.5 Watts.
Surge protection:	MOV rated for 300V
Connections:	Loose 12 ga. wires
Switch Contactor:	N.O. primary relays N.O. secondary relay

Mechanical

Size:	4.5" L X 3.5" W X 2.25" H
Weight:	14.5 Oz.
Mounting:	Four screw holes or bracket.
Local Load Control:	Yes, through pushbutton

Environmental

Temperature:	-25—50 °C (-13—122 °F)
Humidity:	5—80 %RH Condensing

OTHER SPECIFICATIONS:

Indicators:	Blue LED: Multi-function to indicate network join status, binding mode, fault conditions. Green LED: Indicates main relays are energized. Red LED: Indicates L2 relay and second relay on L1 are energized.
Local Control:	Multifunction pushbutton. Operates relays for High/Medium/Off settings. Used for joining network, permit joining, opt-in, opt-out, price update and binding.
ZigBee® function:	Manufacturer ID: 0x1075; end device
Calibrated Metering Accuracy:	Better than 0.5% 5W-7200W. Supports IEC61036/60687, and IEC62053-22/-23. Can also be supplied with 1-2% accuracy.

HA Profile: (0x0104)		Device ID: 0x0002 On/Off Output	
Cluster ID	Cluster Name	Client/Server	Cluster Description
0x0000	Basic	Server	Attributes for determining basic information and setting and enabling device
0x0001	Power Configuration	Server	Attributes about the power source and for configuring under/over voltage alarms
0x0003	Identify	Client/Server	Attributes and commands for putting a device into Identification mode
0x0004	Groups	Client	Attributes and commands for group configuration and manipulation
0x0005	Scenes	Server	Attributes and commands for scene configuration and manipulation
0x0006	On/Off	Server	Attributes and commands for switching device.
0x0702	Simple Metering	Server	Provides mechanism to retrieve electric power usage