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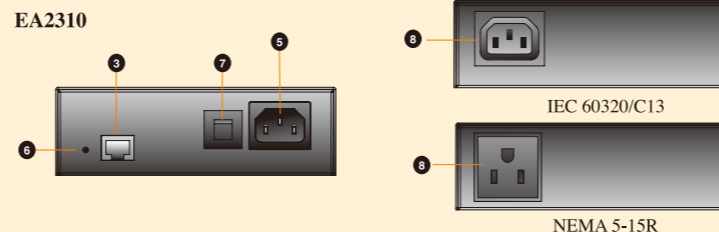
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EA2110/EA2210/EA2310 Sensor Box User Guide

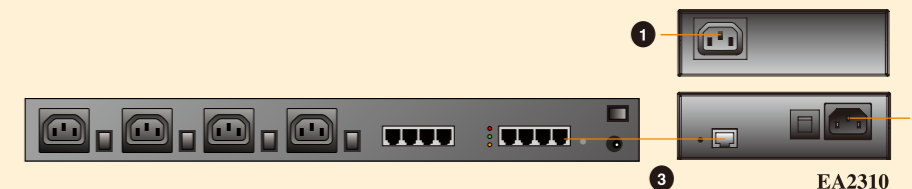
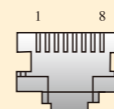
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#	Description	Function
1	CH1	The AC Current sensor wires go here.
2	CH2	The humidity sensor wires go here. (EA2110) The second AC current sensor wires go here (EA2210)
3	System Unit AI Port	Use this to connect the EA2110/EA2210/EA2310 to the GN0116.
4	Power LED	This LED indicates the EA2110/EA2210 is connected and transmitting data to the GN0116.
5	Power Inlet	The EA2310's power cord goes here.
6	Power LED	Lights Green to indicate the power distribution unit is ON and that the EA2310 is connected and transmitting data to the GN0116.
7	Breaker	Acts as a circuit breaker during an overcurrent situation.
8	Power Outlet	Plug the source device's power cord here.

Pin Assignment

	P1	P2	P3	P4	P5	P6	P7	P8
VAI: 31, 32	+12V		GND		VD1+	VD2+	GND	GND



To connect the EA2310 to the GN0116 do the following:

1. Plug in the provided AC power cord into an AC socket and then the other side into the EA2310's Power Inlet.
2. Plug the power cord from a source device into the EA2310's Power Outlet.
3. Connect the EA2310's RJ-45 port to one of the RJ-45 ports numbered 31, 32 on the GN0116 using standard Cat 5 cable (not supplied). The Power LED will light on.

Note: A single GN0116 unit offers two AI ports (port 31 and 32). If more than two sensors are necessary for your environment, use additional GN0116 units and daisy chain them.

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Operation

To enable AC current and humidity sensor reading from the GN0116, enter the following commands on the GN0116's Web interface:

@controller pc AI-port Parameter1 Parameter2 Parameter3

- Value for **controller** (0~255)
- Value for **AI-port** (31,32)
- Value for **Parameter 1** (1)
- Value for **Parameter 2**: EA2110: (3) (AC Current sensor), (4) (humidity sensor)
EA2210: (3) (AC Current sensor)
EA2310: (3) (AC current sensor): (1) (AC voltage sensor)

- Value for **Parameter 3**: EA2110/EA2210: (5) (25A AC Current sensor)
EA2310: (3) (15A AC Current sensor)
@0 pc 31 1 3 5 (Configures port 31 for the AC current sensor)
@0 pc 32 1 4 (Configures port 32 for the humidity sensor (EA2110)/AC current sensor (EA2210))
@0 pc 32 1 1 (Configures port 32 for the AC Voltage sensor (EA2310))

Note: CH1: port 31; CH2: port 32

To set the threshold for the AI sensors enter the following commands from the GN0116's Web interface:

- For the AC current sensor:
@0 ts 31 13 17 (#Level 1 is set to 13A, and Level 2 is set to 17A)
- For the humidity sensor (EA2110):
@0 ts 32 80 90 (#Level 1 is set to 80%, and Level 2 is set to 90%)
- For the AC current sensor 2 (EA2210):
@0 ts 32 13 17 (#Level 1 is set to 13A, and Level 2 is set to 17A)
- For the AC voltage sensor (EA2310):
@0 ts 32 110 120 (#Level 1 is set to 110V, and Level 2 is set to 120V)
@0 ts 32 210 220 (#Level 1 is set to 210V, and Level 2 is set to 220V)

Note: 1. The Level 1 and Level 2 values above are just for reference, use the appropriate for your current environment!

- 2. Ratio accuracy:
• EA2110: +/- 4% (over 10A); +/- 0.4A (under 10A); +/- 9% RH (Humidity 30-90% RH)
• EA2210: +/- 4% (over 10A); +/- 0.4A (under 10A)
• EA2310: +/- 1.5% (80-220V); +/- 5% (220-240V); +/- 0.4A (under 10A); +/- 4% (over 10A)

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Specifications

Function	EA2110	EA2210	EA2310
Connectors	To System	1 x RJ-45 Female	
	AC Current Sensor	1 x Terminal Block	2 x Terminal Block
	Power Inlet	N/A	
	Power Outlet	N/A	
Switches	Circuit Breaker	N/A	
	Power LED	1 (Green)	
Humidity Sensor	Measurement Range	0-100% Relative Humidity	N/A
	Measurement Range	0-25A (RMS)	
AC Current Sensor	Measurement Range	0-15A (RMS)	
	Measurement Range	N/A	120V~, 240V~, 12A(Max.), 10A(Max.), 50-60Hz, 50-60Hz
Environment	Operating Temp.	0-50°C	
	Storage Temp.	-20-60°C	
	Humidity	0 - 80% RH, Non-condensing	
Physical Properties	Housing	Metal	
	Weight	0.31 kg	0.31 kg
	Dimensions (L x W x H)	10.80 x 9.00 x 3.75 cm	10.80 x 8.10 x 3.75 cm

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Package Contents

The EA2110/EA2210/EA2310 package consists of:

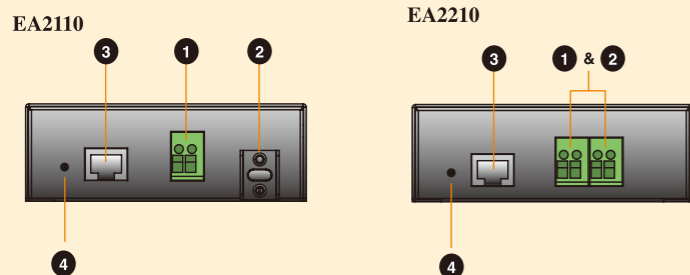
- 1 EA2110, EA2210 or EA2310 Sensor
- 1 AC Current Sensor + Cable (EA2110)
- 2 AC Current Sensor + Cable (EA2210)
- 1 AC Power Cord (EA2310)
- 1 Mounting Kit

There are three models in this series. The difference is shown in the following table:

Model	Sensor
EA2110	1 AC Current Sensor and 1 Humidity Sensor
EA2210	2 AC Current Sensors
EA2310	1 AC Current Sensor and 1 AC Voltage Sensor

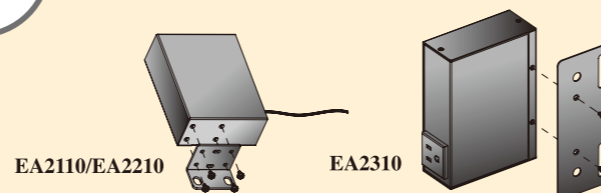
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Hardware Overview



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Rack Mounting



Using the screws provided with this package, screw the mounting bracket into the bottom of the unit, and then screw the bracket into the rack.

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Hardware Installation

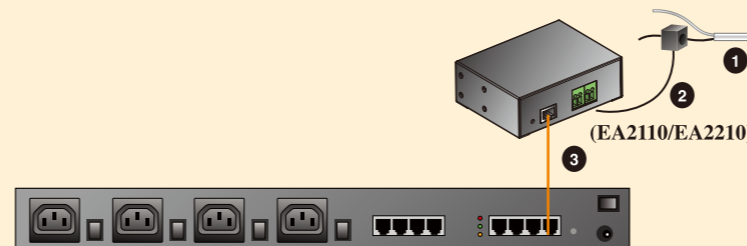
Rack mounting the EA2110/EA2210/EA2310

To rack mount the EA2110/EA2210/EA2310, insert 2 of the mounting screws supplied with your rack into the rack mounting points.

Connecting the EA2110/EA2210/EA2310 to the GN0116

Important:

Before connecting the EA2110/EA2210/EA2310 to the GN0116, make sure the GN0116's firmware version should be 1.7.3 or higher. To check the current firmware version installed on a GN0116 unit, enter "@0 vc" from the GN0116's Web interface.



To connect the EA2110/EA2210 to the GN0116, do the following:

1. Insert the live AC wire (usually black) through the hole of the current sensor. Note that the sensor must clip to live side.
2. Connect the two AC current sensor wires to CH1 on the EA2110 or to CH1/CH2 on the EA2210. Make sure that these wires are connected securely.
3. Connect the EA2110/EA2210's RJ-45 port to one of the RJ-45 ports numbered 31, 32 on the GN0116 using standard Cat 5 cable (not supplied). The Power LED will light on.