



**RED POLE
ENERGY**



IAmMeter Bi-directional Single Phase Wi-Fi Power Meter

WEM3080

General Specification

Specification	Description
Standard Package	<ol style="list-style-type: none">1. IamMeter Wi-Fi Energy Meter (WEM3080) x 12. Split-Core Current Transformer (150A) x 13. 2.4G Wi-Fi Antenna x 1
Phase	Single Phase
Power Supply	Internal
Communication	Internal Wi-Fi
Antenna	External 2.4G antenna with SMA male
Reporting Interval	1-5 minutes interval, typically 1 minute
Report Contents	Active Energy (Forward and Reverse), Active Power, Voltage, Current, Frequency
Configuration	Laptop with Wi-Fi required for setting Wi-Fi SSID and Wi-Fi password via a web portal. Wi-Fi access point and Internet required to post data to cloud.
Monitoring Scenarios	<ol style="list-style-type: none">1. Monitor on IamMeter cloud (www.iammeter.com)2. Monitor locally on your PC via WLAN (Http get interface)3. Integrate with third party server, such as your own server, and HomeAssistant (TCP/SSL interface)

Electrical Characteristics

Specification	Description
Input Voltage	80V ~ 277VAC (Phase Voltage), 140V ~ 480 VAC (Line Voltage)
CT Rating	150A
CT Diameter	150A: 16mm
Measurement Accuracy	<ol style="list-style-type: none">1. Voltage: $\pm 1.0\%$2. Current: $\pm 1.0\%$3. Active Power: $\pm 1.0\%$4. Active Energy: Class 1 as defined by IEC62053-21
Typical Power Consumption	$\leq 2W$ (220VAC input)

Mechanical Characteristics

Specification	Description
Weight	0.26kg (150A model)
Dimension	90 x 36.5 x 58mm (2 DIN pole)
Protection	IP51
AC input	UL-Live wire,UN-Neutral wire
RS485	A-Positive, B-Negative
CT	I+ is Positive, I- is Negative
SMA port	External Antenna Port

Environmental Conditions

Specification	Description
Operating Temperature	-20 ~ +60°C
Operating Humidity	5 ~ 95%
Altitude	0 ~ 3000m

Wi-Fi Network

Specification	Description
WLAN	Channel: Auto Security: WPA2-PSK
SSID	iMeter_XXXXXXXX (8 digits device SN), no password
Configuration Page	URL: http://11.11.11.1 Login username: admin Password: admin

Wi-Fi Parameters

Specification	Description
Wi-Fi Mode	IEEE802.11b/g/n, Wi-Fi Channel 1-13
Transmit Power	18.5dBm@11b, 16.5dBm@11g, 15.5dBm@11n;
Wi-Fi Frequency	2.412 ~ 2.484GHZ
Transmit Speed	72.2Mbps@20M Bandwidth; 150Mbps@40M Bandwidth
Maximum Connections	8
Wi-Fi Antenna	External, 5dBi gain

RS485 Interface

Specification	Description
Protocol	Modbus-RTU
Data format	"n,8,1"
Baud rate	1200, 2400, 4800, 9600Bps; 9600Bps by default

LED Status Indicators

Specification	Description
RUN	Always on after powering on, flashing while the WiFi module is communicating with the power meter
REV	Always on when the current is reversed as per the bottom-marked current direction of CT
WIFI	Always on after the Wi-Fi module is connected to the router

Certifications

CE Standard Applied

Essential Requirements	Applied Standard
Health and Safety	EN60950-1:2006+A11; 2009+A1;2010+A12;2011+A2;2013
Electromagnetic Compatibility	EN62311:2008
Effective use of the Radio Spectrum	1. ETSI EN 301 489-1 V2.1.1 (2017-02) 2. ETSI EN 301 489-1 V3.1.1 (2017-02) 3. ETSI EN 300 328 V2.1.1 (2016-11)

IEC Standard Applied

Essential Requirements	Applied Standard	Meters of Class
General Requirement	IEC62052-11	Protective class, Indoor
Accuracy Requirement	IEC62053-21	Accuracy index class 1
Mechanical Requirement	IEC62053-21	Protective class, Indoor



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