



DataSheet

Wi-Fi Energy Meter (WEM3080)



FEB, 2017

1 General Specification

Specification	Description
Standard package	<ol style="list-style-type: none"> 1. Wi-Fi Energy Monitor (WEM3080) 2. Split-Core Current Transformer (150A, other CT ratings optional) 3. 2.4G Wi-Fi Antenna
Power Supply	Built-in universal power supply
Communication	Built-in Wi-Fi
Antenna	external 2.4G antenna with SMA male
Reporting interval	1-5 minutes interval, typically 1 minute
Report contents	Active energy, active power, to grid energy, voltage, current
Configuration	Wi-Fi access point and webpage for setting SSID and password
Monitoring Scenarios	<ol style="list-style-type: none"> 1. Monitor on Iammeter Cloud 2. Monitor locally on your PC via LAN (Http get interface) 3. Monitor on your own cloud (TCP Mode)

2 Electrical characteristics

Specification	Description
Input Voltage	100 ~ 380 V AC
CT rating	60A or 250A optional
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)

3 Mechanical characteristics

Specification	Description
Weight	0.5kg
Dimension	90.2*71*57.5mm (2 DIN pole)
Protection	IP51
Connection	AC input: UA-Live wire Phase A, UB-Live wire Phase B, UC-Live wire Phase C, UN-Neutral wire RS485 interface: A-Positive, B-Negative CT: IA+ is Positive Phase A, IA- is Negative Phase A; IB+ is Positive Phase B, IB- is Negative Phase B; IC+ is Positive Phase A, IC- is Negative Phase C SMA port: External Antenna Port

4 Environmental conditions

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

5 Wi-Fi Network

Specification	Description
WLAN	Channel:Auto Security:WPA2-PSK
SSID	iMeter_xxxxxxx(8 digits serial no), no password
Configuration page	URL:http://11.11.11.1 Login username: admin Password:admin

6 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, 8dBi gain

7 RS485 interface

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

8 Indicator

Indicator	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 for any phase, or it is connect to the wrong phase (Like you connect CT to the Phase A, but you measure the current of Phase B)
WIFI	Always on after the Wi-Fi module is connected to the router

9 Compliance Certificates and standard

- Certification: Rohs, CE
- 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 I , Indoor
Accuracy requirement	IEC62053-21	Accuracy index class 1
Mechanical requirement	IEC62053-21	Protective class I , Indoor