

Energy Web Server**Cat. no:**
PM1WS255

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1. DESCRIPTION - UTILISATION

Energy Web server to configure, test, control and display via web browser with secured web pages ([https...](https://)).

Via web browser on PCs, smartphone, web viewers, tablet computers, it allows remote configuration and management of data collected from: protection devices (Add-on modules BT DIN with integrated measurement control unit, MEGATIKER and MEGABREAK), BT DIN electricity meters and multi-function measuring units and EMS BT DIN energy management system.

2. PRODUCT RANGE

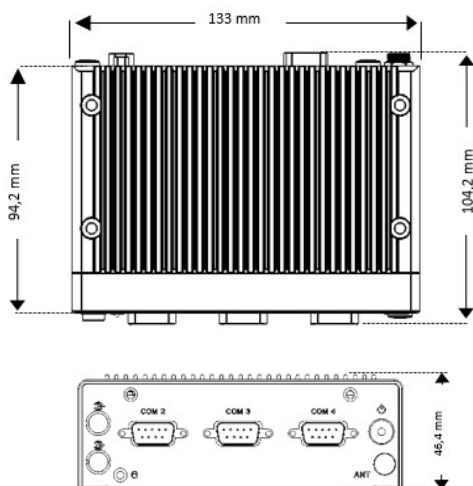
. Cat N° PM1WS255, composed by: 1 Web server for 255 Modbus addresses, 1 external power supply and fixing brackets.

Auxiliary supply:

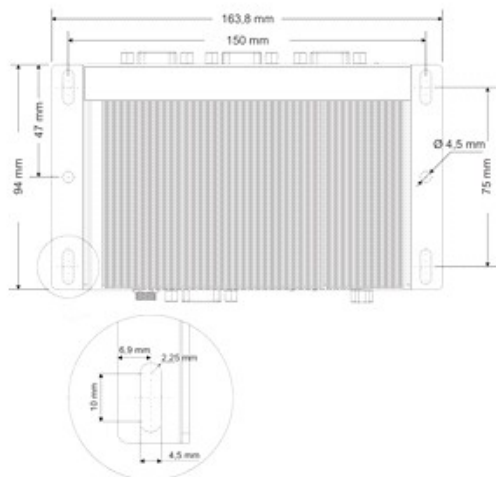
. 12 VDC \pm 10%, by external power supply (Power Adapter supplied with the Web Server).

3. OVERALL DIMENSIONS

. Web server:



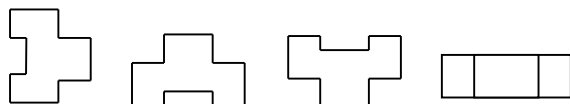
. Web server with fixing brackets (supplied with the web server): to be used to fix the web server in a rack cabinet or on the bottom of a cabinet or panel board using screws:



4. FIXING – CONNECTION

Operating position:

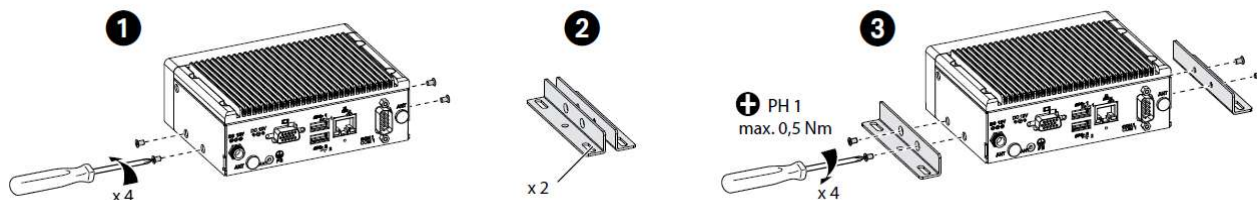
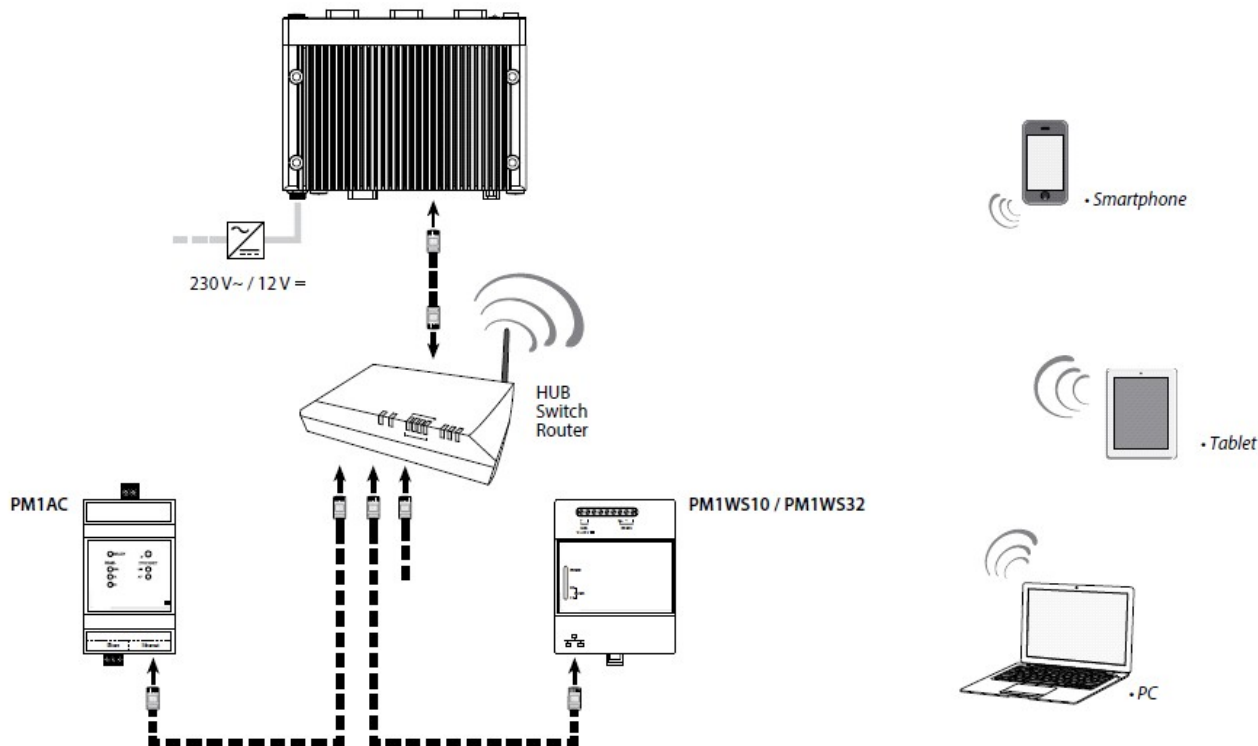
. Vertical, Horizontal, backwards, on the side



4. FIXING – CONNECTION *(continued)*

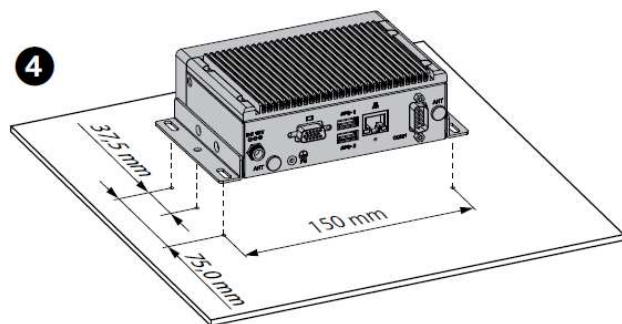
Wiring diagram:

Installation of the fixing brackets:



Fixing the Web Server on a flat surface:

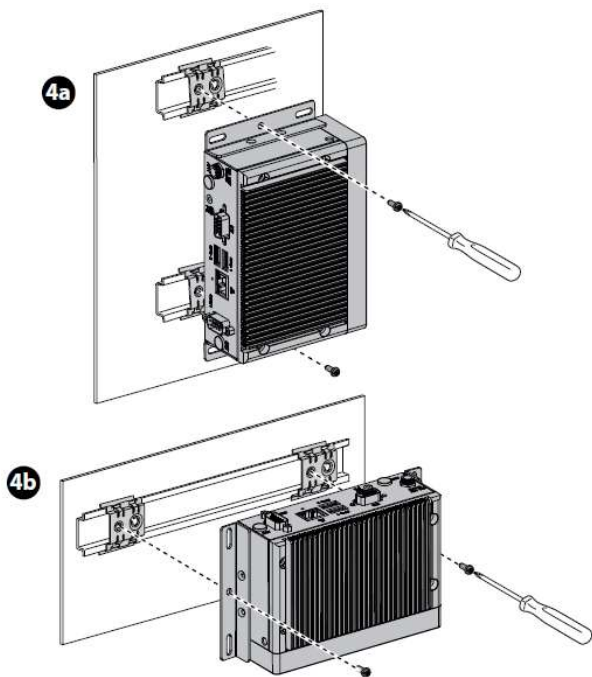
It is possible to fix the Web Server in a rack cabinet or on the bottom of a cabinet or panel board simply using screws adapted to the surface on which you want to fix the device (see image 4)





4. FIXING – CONNECTION *(continued)*

Fixing the Web Server on a DIN rail:

It is always possible to fix the Web Server in a cabinet or panel board directly between DIN rails of two different rows *(see picture 4a)* or on the rail of a row *(see picture 4b)* using fixing claws (cat. n° 0 374 39) and M4 screws with a maximum length of 14 mm

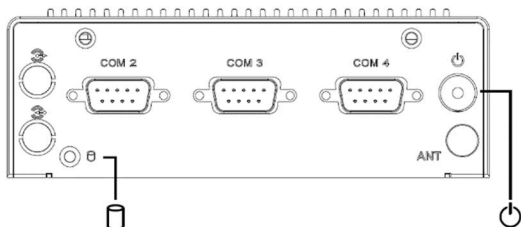




	= 0 374 39	• Parti non a corredo • Parts not included • Pièces non fournies • Partes no incluidas
	M4 x 14 mm (max.)	

5. GENERAL CHARACTERISTICS

Front face marking:

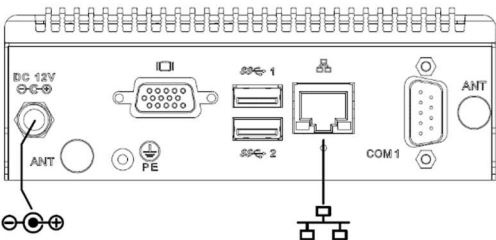
. By permanent ink pad printing:





	HDD activity LED
	Power ON/OFF button with integrated LED

Rear face marking:

. By permanent ink pad printing:

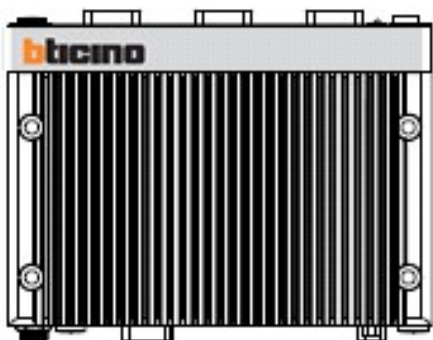


	Power input connector for the external adapter
	RJ45 Ethernet connector with activity LEDs

5. GENERAL CHARACTERISTICS (continued)

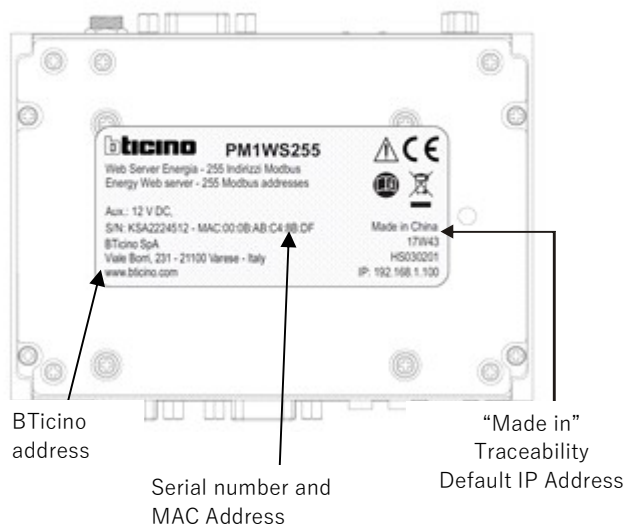
Upper face marking:

. By adhesive foil:



Lower part marking:

. By adhesive foil:



Signalling LEDs:

. Gives information about the operating state of the Web server:
 . Led linked to power On/Off button



. Possible states & colours:

Led	State	Meaning
Green	Steady on	Device powered on
Orange	Steady on	Device turned off or suspend mode

5. GENERAL CHARACTERISTICS (continued)

Signalling LEDs (continued):

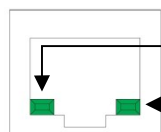
. HDD activity led



. Possible states & colours:

Led	State	Meaning
Red	Blinking	HDD activity

. RJ45 Ethernet connector with activity LEDs



Act/Link

. Possible states & colours:

Led	State	Meaning
"Act/Link" " (green)	Blinking	Device connected to the Ethernet network and activity on Ethernet cable
"Speed"	Steady off Steady Green Steady Yellow	Operating at 10 Mbps Operating at 100 Mbps Operating at 1000 Mbps

Note: all LEDs and ports not described in this document do not have any use in BTicino applications.

Technical characteristics of communication:

. Ethernet specification compliance: Compliant with IEEE 802.3, IEEE 802.3u, IEEE 802.3x, IEEE 802.3y, IEEE 802.3ab.
 . Interface Ethernet: 1 x 10/100/1000 Mbps Intel 82583V GbE, supports "Wake on LAN" standard

Default configuration:

. IP Address: 192.168.1.100
 . Subnet Mask: 255.255.255.0
 . Gateway: 198.168.1.1

Web pages access:

. Access to the web Servers pages and data is secured by two identification codes (PIN and PUK codes).
 . Four types of "default" users are configured:

User	PIN	PUK
administrator	99999	00000 9999 00000
Installer	55555	00000 5555 00000
user	11111	00000 1111 00000

Note: The home page ("home") will be different depending on the type of user that access to the device (for more details refer to the user manual).

5. GENERAL CHARACTERISTICS *(continued)*

IT security:

. Server web pages use HTTPS with SSL and 256-bit cryptography (AES-256).

Operating system:

The operating system is Linux (Ubuntu / Debian) and the embedded application on the Web server is written in Java.

Historical of consumptions

. All energy, water and gas values (Δ of consumptions and global counters) and statistical values (average values, peak values, etc.), only if available on the device making the measurement, are saved automatically in files ".CSV" compatibles with Excel or "csv" reader.

. Access to this data is possible in several ways:

- "FTP" protocol
- creation of a network drive
- data download via web pages
- receive automatic reports sent by the web server

(for more details refer to the user manual).

Data storage time:

. Energies (Ea+), Water consumption, Gas Consumption: **data storage time is unlimited.**

Sampling of data (accuracy per minutes) is over time reduced, thus passing to an accuracy per hour → per day → per month → per year for the oldest stored data.

. For data such as:

THD *(if available on the measuring device installed)*

Harmonics *(if available on the installed measuring device)*

Min, max, average values *(if available on the measuring device installed)*

Status information *(if available on the device installed)*

the storage time is limited according to:

total number of registered devices

number of "EQ" devices activated

type of registered devices (e.g. Energy meter, Multifunction devices, ...)

Sampling of data (accuracy per minutes) is over time reduced, thus passing to an accuracy per hour → per day → per month → per year for the oldest stored data.

Real Time Clock battery:

. 3 V / 210 mAh

Pollution degree:

. 2

Ambient operating temperature:

. Min. = -20° C; Max. = +60° C

Ambient storage temperature:

. Min. = -40° C; Max. = +85° C

Relative humidity:

. 95% @ 40° C (non-condensing)

Case material:

. Aluminium housing

5. GENERAL CHARACTERISTICS *(continued)*

Protection Index:

. Protection index against direct contacts:
IP2X (IEC/EN 60529).

Vibrations during operation:

. 3G rms, IEC 60068-2-64, random, 5 ~ 500 Hz, 1hr/axis

Shocks during operation:

. 30G rms, IEC 60068-2-27, half sine, 11ms duration

Consumption:

. Typical 5,5 W

. Max 10,2 W

Average weight per device:

. 0,7 kg.

Volume when packed:

. 7,75 dm³.

6. COMPLIANCE AND APPROVALS

Compliance to standards:

. Compliance with Directive on electromagnetic compatibility (EMC) n° 2014/30/EU

. Compliance with low voltage directive n° 2014/35/EU.

. Compliance with:

EN 55011: 2016/A1:2017

EN 55032:2015+AC:2016, class B

EN 61000-6-3:2007 +A1:2011+AC:2012

EN 55024: 2010 / EN 55024: 2010 + A1: 2015

EN 61000-6-4: 2007+A1: 2011

EN 61000-3-2: 2014

EN 61000-3-3: 2013

EN 61000-6-2: 2005 +AC: 2005

EN 61000-6-1: 2017/ EN 61000-4-2: 2009 /IEC 61000-4-2:2008

ED 2.0 / EN 61000-4-3: 2006 +A1: 2008 +A2: 2010

IEC 61000-4-3:2010 ED 3.2 / EN 61000-4-4: 2012 / IEC 61000-4-

4:2012 ED 3.0 EN 61000-4-5: 2014 +A1:2017/ IEC 61000-4-5:

2014 +A1:2017 ED 3.0

EN 61000-4-6: 2014 +AC:2015 / IEC 61000-4-6: 2013 ED 4.0

EN 61000-4-8: 2010

EN 61000-4-11: 2004+A1:2017 /IEC 61000-4-11: 2004+A1:2017

ED 2.0

Environment respect - Compliance with EU directives:

. Compliance with Directive 2011/65/EU as amended by Directive 2015/863 (RoHS 2) on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

. Compliance with REACH regulation (1907/2006): at the date of the publication of this document no element of the SVHC substance list (updated on 27/06/2018) is present in these products.

. WEEE directive (2012/19/EU): the sale of this product is subject to a contribution to eco-organisations in each country responsible for managing end-of-life products in the field of application of the European Waste Electronic and Electrical Equipment Directive.

Packaging:

. Design and manufacture of packaging compliant to decree 98-638 of the 20/07/98 and also to directive 94/62/CE.