PUSR USR-S100 PV Data Stick User Guide

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Contents

Introduction

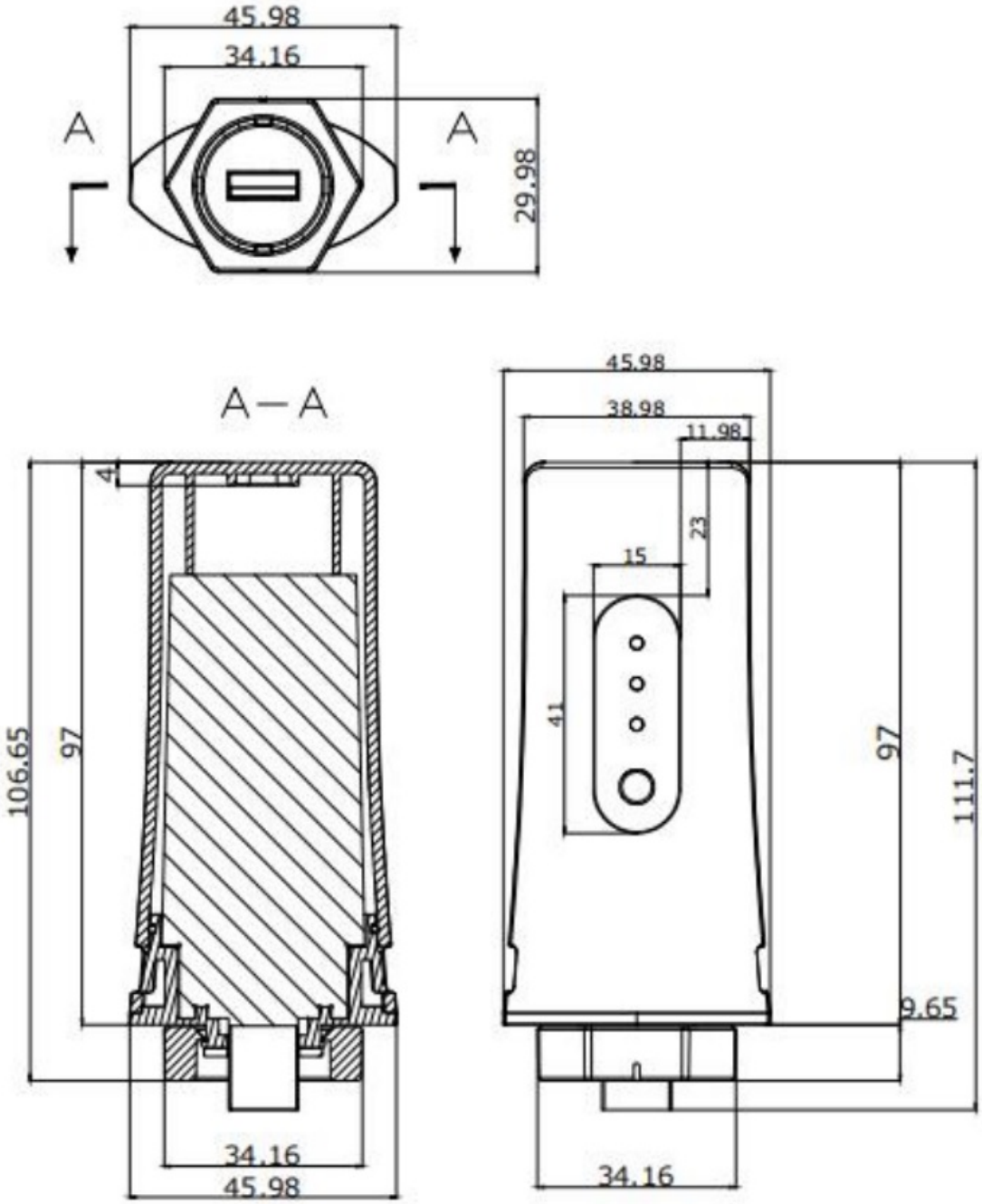
USR-S100-WA01 PV data stick is a very cost-effective WiFi communication PV networking product, supporting 802.11b /g/n protocol standard, equipped with deeply optimized TCP/IP protocol stack,
Support TCP Client, TCP Server, UDP Client, UDP Server data transparent transmission, HTTP protocol, simple configuration can achieve the photovoltaic device through RS-485 stable communication with the network end.

The product adopts standard USB connector, industrial operating environment, plug and play; The remote platform is connected through the WIFI network, so as to achieve the functions of data collection, configuration, remote monitoring and management of photovoltaic equipment, improve the production efficiency and maintainability of photovoltaic power stations, and reduce operating

Product Features

- WiFi@2.4 GHz 802.11b/g/n Wireless standard.
- Standard USB interface, plug and play, small size and easy to install.
- Industrial design, the working temperature can reach -30°C-75°C, excellent hardware protection, IP65 protection level, meet the harsh application environment.
- Data transmission is highly reliable, TCP\UDP\HTTP protocol, support no data restart and no data reconnection function, help the stable operation of the device.
- Support access to human cloud platform, private customization, quickly build their own platform.
- Support Simplelink distribution mode, simple and fast.
- A variety of configuration methods are available, and parameters can be configured through AT instructions and web pages.
- WEP, WPA/WPA2 security modes are supported.
- LAN search and wireless parameter setting functions.

Dimensions(mm)

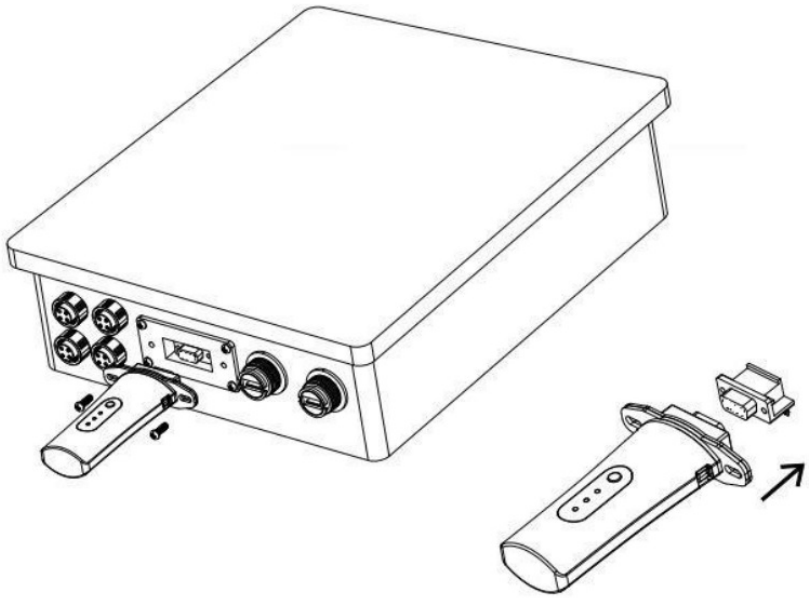


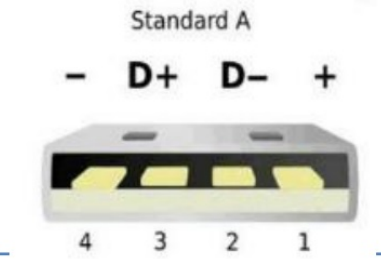
USB Interface pin definition

Check the matching degree of the USB interface before application to prevent misoperation from damaging the data stick.
The supported input voltage range is DC 5-24V, the power supply must ensure the stability of the power supply (ripple less than 300mV, and ensure that the instantaneous voltage does not exceed 48V), and ensure that the power supply is greater than 8W.

Way to Install

The product is directly plugged into the concentrator for use



USB Interface diagram	USB stitch	remark
	Stitch 1	VCC
	Stitch 2	RS485-B
	Stitch 3	RS485-A
	Stitch 4	GND

Description of indicators and buttons

name	function	state
PWR	Power indicator, red	If the power supply is normal, the indicator is steady on. If the power supply is abnormal, the indicator is off.
LINK	Network and connection status indicator, green	**Always on display：** After the WIFI network is successfully connected, the indicator is steady on. The indicator is in the restart state. **3S flashing:**After the connection to the server is successfully established, the blinking rate is 3S. **fast blink：** When data is being communicated with the network end, the indicator blinks at a 1S interval; When switching to the Simplelink distribution network, blinks at 500ms intervals. **Light off：** The WIFI network is disconnected, the network cannot be successfully connected, and the factory Settings are restored.

		In three states, the light is off.
COM	Serial port communication indicator, red.	**fast blink**:Data communication blinks once every 1S. When switching to the Simplelink distribution network, blinks at 500ms intervals. **Always on display**: It enters the restart state and becomes steady on. **Light off**: Enter to restore factory, lights off.
RESET	function button	Press 2-5 seconds to perform Simplelink network distribution, press 6-9S to restart, press 10-15S to restore factory Settings.

Product Parameter

classify	parameter	value
WIFI parameter	Wireless standard	802.11 b/g/n
	receive sensitivity	-97.9dBm @ 11b, 1Mbps -89.2dBm @ 11b, 11Mbps -92.8dBm @ 11g, 6Mbps -76.3dBm @ 11g, 54Mbps -92.8.8dBm @11n, HT20, MCS0 -74.3dBm @11n, HT20, MCS7 -89.8dBm @11n, HT40, MCS0 -71.1dBm @11n, HT40, MCS7
	antenna	built-in aerial
Hardware	data interface	USB interface, RS485 communication
	working voltage	DC 5~24V

configured	working current	5v @ 500ma, stable operation
	operating temperature	-30℃～ 75℃
	operating humidity	5%～95%RH(without condensation)
	ip code	IP65
	size	114 * 75 *25.1 mm
	interface pointer	USB
Software parameters	Wireless network type	AP、STA、AP+STA
	security mechanism	WPA-PSK/WPA2-PSK
	Encryption Type	TKIP,AES ,TKIP/AES
	networking protocol	TCP/UDP/HTTP
software function	DHCP/Stastic IP	Support DHCP dynamic access IP and static IP functions
	DNS	support
	Socket	TCP Server, TCP Client, UDPServer, UDP Client
	configuration	AT instruction set, web configuration,Simplelink

FCC STATEMENT : This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation. Warning: Changes or modifications not expressly approved by the party responsible for compliance could void the
user's authority to operate the equipment. NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: Reorient or relocate the receiving antenna. Increase the separation between the equipment and receiver. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. Consult the dealer or an experienced radio/TV technician for help. FCC Radiation Exposure Statement: This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Documents / Resources

	PUSR USR-S100 PV Data Stick [pdf] User Guide USR-S100 PV Data Stick, USR-S100, PV Data Stick, Data Stick, Stick

References

- User Manual