SOLARMAN
Monitored Analyzed Networked

DIN-Rail Logger (4G Cat.1)

Product Model:

LD4G-3

Contact

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Introduction

By collecting operating data and power generation of inverter, DIN-Rail Logger(4G Cat.1) can run a long-term and efficient monitoring of PV system.

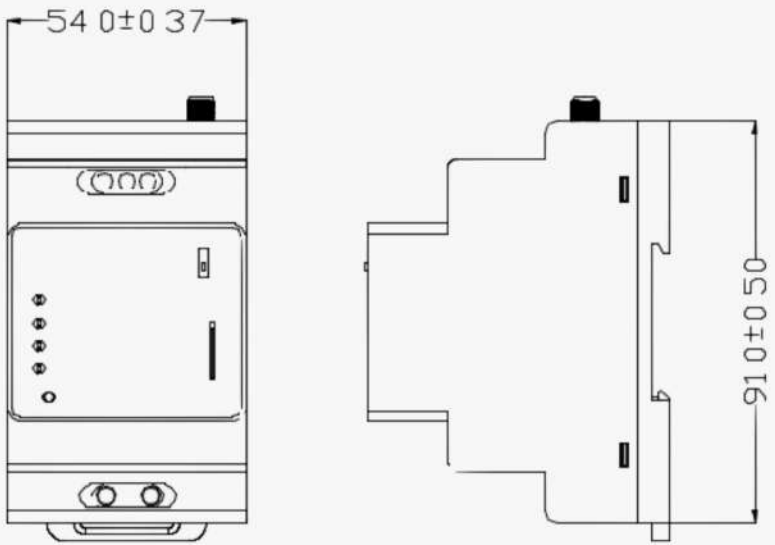
Logger can connect to multiple inverters, which enables to collect all the data of PV system from the inverter. Meanwhile, remote monitoring cloud platform (SOLARMAN Portal) provides powerful data support for the logger. Logger sends the data to the monitoring platform via 4G (Cat.1). The real-time status and historical data can be displayed with graphs, enabling intuitive and clear understanding of PV System. Furthermore, customized alerts can notify users of any malfunction or defect immediately via SMS and E-mail, which realizes the management of PV system at anytime and anywhere, also simplifies the maintenance significantly. Logger has internal integrated 4G (Cat.1) module and pluggable MicroSIM slot, which is applicable to the power plant projects in remote areas where no cable laying.

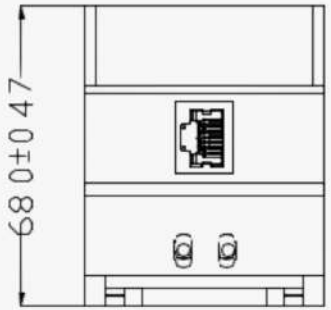
Parameters

Catalog	Parameter	Value
Wireless Parameter	Remote COM Interface	4G（Cat.1）
	Working Frequency	LTE-FDD B1/B3/B5/B8LTE-TDD B34/B38/B39/ B40/B41GSM 900/1800
	Transmitting Power	Class 4 for EGSM900Class 1 for DCS1800Class 3 for LTE-FDD bandsClass 3 for LTE-TDD bands
	LTE Characteristic	Cat.1 FDD&TDDSupport 1.4/3/5/10/15/20 MHz RF bandwidthLTE-FDD：Max. downlink rate 10 Mbps, Max. uplink rate 5 MbpsLTE-TDD：Max. downlink rate 8.96 Mbps, Max. uplink rate 3.1 Mbps
	GSM Characteristic	Support GPRS Level 12Encoding format：CS-1/CS-2/ CS-3/CS-4Max. downlink rate 85.6 kbps, Max. uplink rate 85.6 kbps
	Antenna	Sucker antenna
	Data Interface	One way RS485 / RS232（Configurable） {RJ45 interface} One way RS485 {tighten terminal, support resistance regulation}
	Input Voltage	AC 150~380V
	Static Power	< 2W
	Max. Consumption	5W
	Indicator Light	COM
		SER

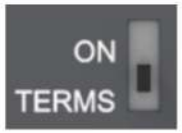
	Indicator Light	RUN
		One BLE MESH Network Light BLE (Not available for now)
	Button	Reset
	RTC	Real-time Clock
	Memory	Default 32M BYTE FLASH
	SIM	MicroSIM card (pluggable)
	Working Temperature	-30℃~+70℃
	Working Humidity	10%~65% RH (25℃ no condensation)
	Storage Temperature	-45℃~+90℃
	Storage Humidity	<40% RH
	Installation	DIN-Rail
Software Parameter	No. of Connection	1-20
	Serial COM Rate	Default:9600bps (1200-115200bps configurable)
	Uploading Interval	Default: 5 mins (1-15 mins configurable)
	Configuration	AT+Instruction Set
		Remote Server
	Firmware Upgrade	Remote Upgrade
		Local Serial Upgrade
	Other	Real-time control, data-resuming

Product Size (Unit: mm)





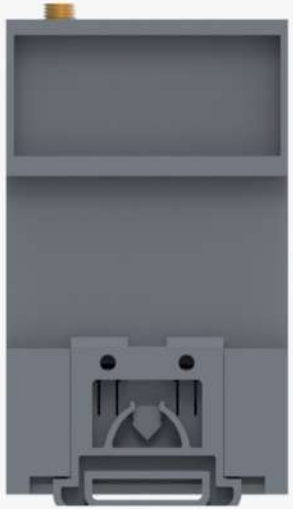
Interface Identification

	Region	Picture	Description	Network Name	Type	Instruction
1	Reset		Press			Reboot/ Reset
2	485 Terminal Matched Resistance: 120Ω		ON/OFF			ON: connected, otherwise disconnected. (Default: Term)
3	SIM Card Assembling		MicroSIM card slot			MicroSIM card
4	PIN1		RS485 data A	TXD	RS485-A	RS485 data A
	PIN2		RS485 data B	RXD	RS485-A	RS485 data B
	PIN3		RS485 to ground	GND	GND	RS485 to ground

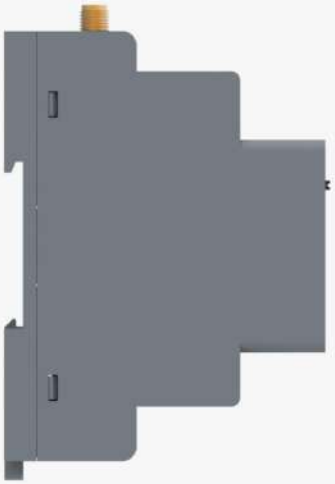
5	PIN1		Power AC-N	AC-N	Power	External Power: AC150V~380V
	PIN2		Power AC-L	AC-L	Power	
6	PIN1		GND	GND	Power	Output power: GND
	PIN2					
	PIN3		RS232 Sending Data (Reserved)	TX	O	RS232 TTL
	PIN4		RS485 A Sending and Receiving Data	485A+	I/O	RS485 bus A
	PIN5		RS485 B Sending and Receiving Data	485B-	I/O	RS485 bus B
	PIN6		RS232 Receiving Data (Reserved)	RX	I	RS232 TTL
	PIN7		Power VCC	DC_VOUT	Power	Output power: DC5V@500mA
	PIN8					

Product Picture

Front view



Back View



Left view

Right view

Bottom view

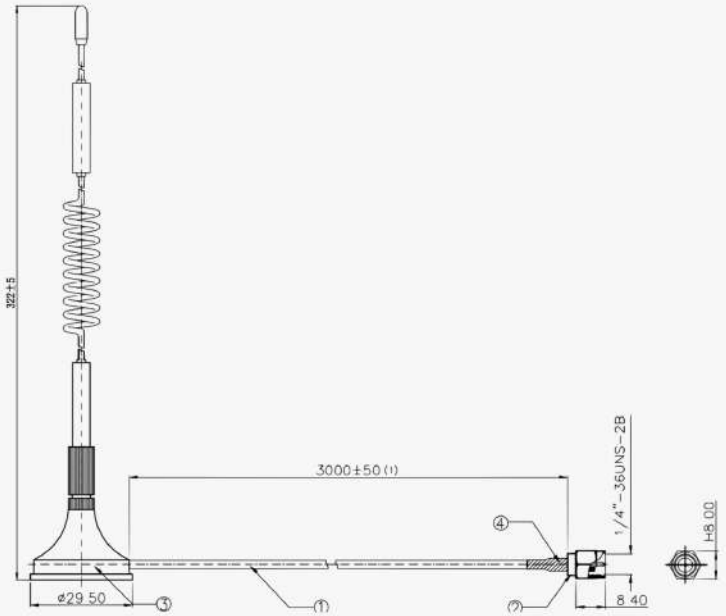
Top view

External SMA sucker antenna electrical index：

Classification	Parameter
Frequency Rang-MHz	4G LTE
VSWR	2 (MAX)
Input Impedance-Ω	50Ω
Gain-dBi	+2.5dBi~3dBi (MAX)
Antenna Color	Black
Input connector	SMA inner needle

External Antenna (Unit： mm)

External SMA antenna is used to connect 4G sucker antenna. According to RF communication standard, it should be connected to 4G LTE antenna.



Indicator Light

When the power is on, all indicator lights will be on for 5s and the device will go to normal working status.

Indicator Light		Status			
Name	Identification	ON	OFF	Slow Flash	Fast Flash
RUN	Running status	Abnormal	No power/ Power failure	Normal	
SER	Connect to server	Connect to server	Not working	Connect to base station	Download
BLE	Bluetooth working status				
COM	Serial port working status	Normal connection	Not connected/ Serial port failure	Serial port -data forwarding	
Reset	Long press reset button, RUN&SER ON, COM OFF, when SER extinguishes after 5s then release to reboot.				
Reset	Long press reset button, RUN&SER ON, COM OFF, when SER extinguishes still press the button and wait for RUN to extinguish, then reset the logger.				