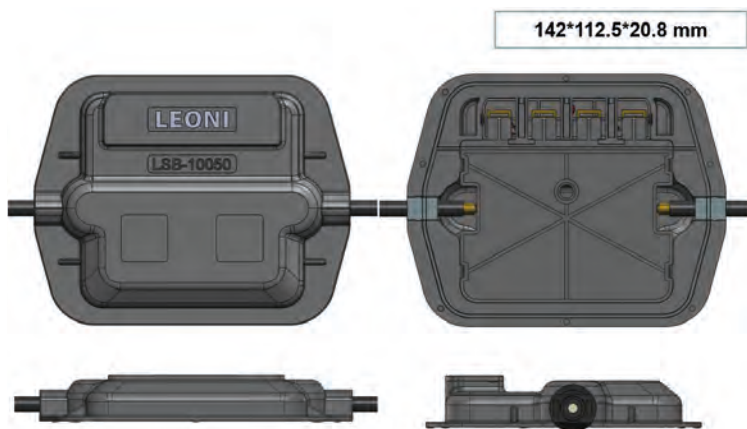


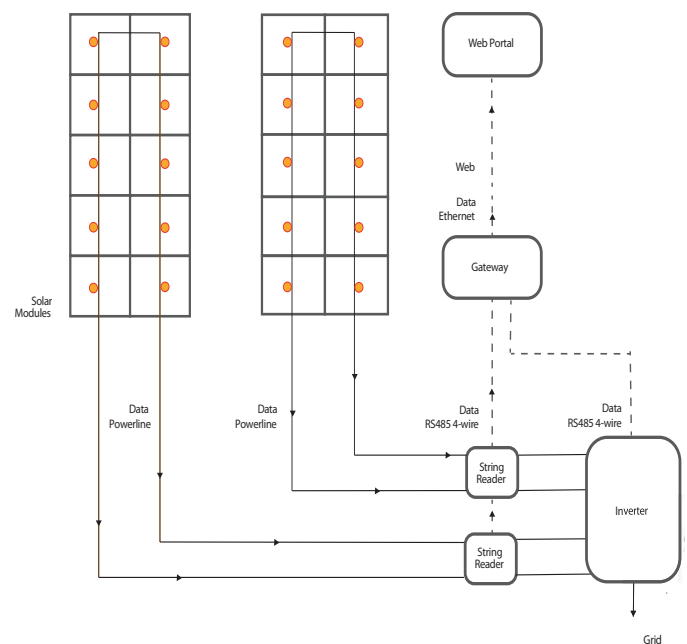
## SunSniffer RAPID SHUT DOWN

in compliance with  
SunSpec Alliance  
specifications

In total compliance with the newly released SunSpec Alliance specifications regarding rapid shut down solutions for pv plants, the SunSniffer junction box RAPID SHUT DOWN made by LEONI integrates not only a sensor measuring voltage and temperature of each module/junction box, but shuts the module down immediately if necessary. Data are sent via smart Powerline communication (existing DC cabling).



Picture 1. Appearance of junction box.



Picture 2. SunSniffer Technology Scheme

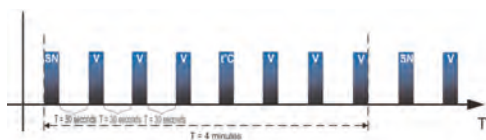
# SunSniffer RAPID SHUT DOWN

## Communication protocol:

Power line with S-FSK modulation

## Power control mode:

Permission to operate watchdog



Picture 3. Sequence of data packets

The SunSniffer sensor transmits data with 30 seconds interval.  
There are three types of data sent:  
1) Module full serial number SN;  
2) Module voltage V; 3) Module Temperature  $t^{\circ}\text{C}$ .  
The sequence is repeated every 4 minutes.  
Please refer to data packet sequence below.

## JUNCTION BOX TECHNICAL SPECIFICATIONS: Model LSB-10050

Dimensions (L*W*H)	142*112.5*20.8 mm
Waterproofing structure	Potting
Ribbon Fixing	Soldering
Ribbon Spacing	20 mm
Rated Voltage	MAX 1500V (TUV), 1500V (UL)
Rated Current	12 A
Degree of protection	IP67
Wire cross section area	4 mm <sup>2</sup>
PCB information (L*W*H)	SunSniffer MaSO 64*40*10 mm
Smart function	Monitoring & Switch-off

## SENSOR TECHNICAL SPECIFICATIONS:

Working voltage	10 ~ 50 $\pm$ 0.2 V
Maximum output voltage at shutdown mode	<1 V
Maximum shutdown delay	30 sec
Maximum turn-on delay	30 sec
Temperature	-40 ~ + 85 $\pm$ 1 $^{\circ}\text{C}$
Current consumption	$\leq$ 10 mAmp
Serial Number length (SN)	30 bit
Data transmission interval (T) , including:	30 $\pm$ 0.4 sec
- Temperature transmission interval ( $T_{T^{\circ}\text{C}}$ )	4 $\pm$ 0.4 min
- SP full serial number transmission interval ( $T_{\text{SNfull}}$ )	4 $\pm$ 0.4 min
- Voltage transmission interval ( $T_v$ )	30 $\pm$ 0.4 sec

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Specifications in this datasheet are subject  
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