

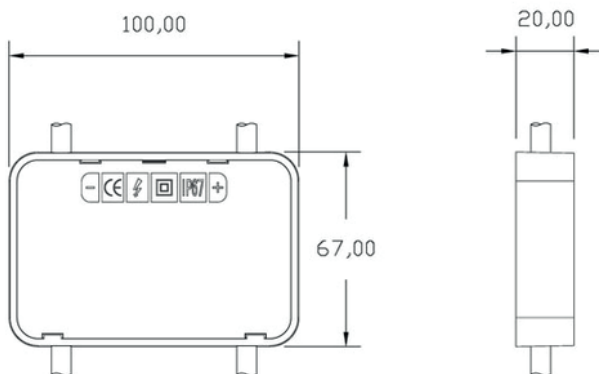
AS-EF01-1 RETROFIT

Retrofitting with ease
your existing
solar power plants
for highly accurate detection
of solar module data.

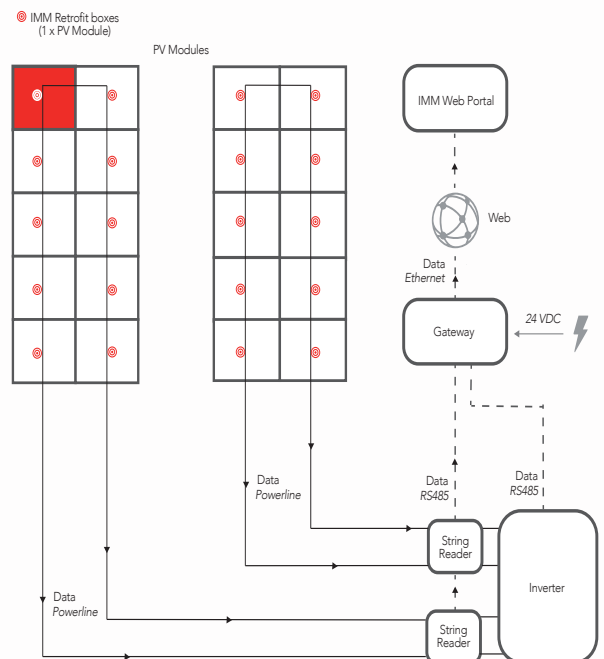


The IMM (Individual Module Monitoring) Sensor is deployed for precise module-level monitoring of the solar modules. Installed in a special Retrofit housing, it can easily be connected to the junction box of existing solar modules to assume the function of telemetry data collection and transmission of:

- voltage (V);
- temperature (t°C);
- solar panel serial number.

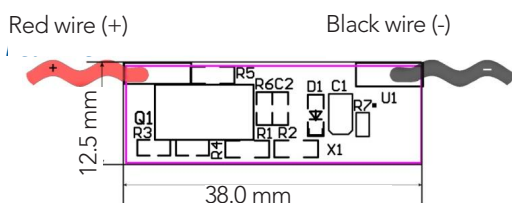


Picture 1. Retrofit box dimensions. Dimensions are expressed in mm with tolerance ± 2 mm (± 0.079 ")



Picture 2. IMM Technology Scheme

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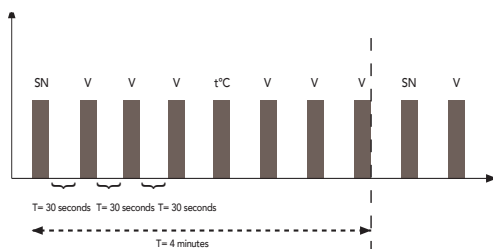
Picture 3. Sensor technical drawing and dimensions

The IMM sensor transmits data with 30 seconds interval.

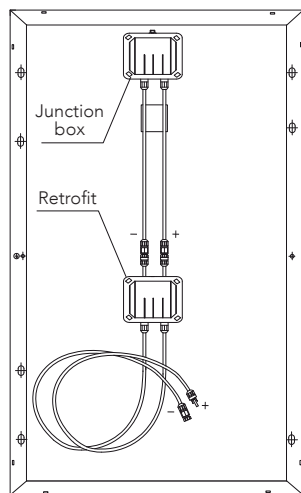
There are three types of data sent:

- 1) Module full serial number SN;
- 2) Module voltage V; 3) Module Temperature t°C.

The sequence is repeated every 4 minutes.
Please refer to data packet sequence below.



Picture 4. Sequence of data packets



Picture 5. Connection of the Retrofit box to the existing Junction box.
Please refer to the related installation manual

HOUSING TECHNICAL SPECIFICATIONS:

Rated current (J/D)	414.5 A / 30 [A]
Rated voltage	IEC 1000 [V] / UL 600 [V]
Reverse current	25 [A]
Dimensions	100 x 67 x 20 [mm]
Temperature range	-40°C ~ 85 [°C]
Cable size	4.0, 6.0 [mm ²] / 12, 10 [AWG]
Protection degree	IP 67
Flammability class	5VA
Cable length	50 / 900 [mm]
Weight	0.09 [kg]

SENSOR TECHNICAL SPECIFICATIONS:

Dimensions (L x W)	38.0 x 12.5 [mm]
Working voltage	10 ~ 45 ± 0.2 [V]
Temperature	-40 ~ + 85 ± 2 [°C]
Current consumption	≤ 10 [mAmp]
Serial Number length (SN)	30 [bit]
Data transmission interval (T), including:	30 ± 0.4 [sec]
- Temperature transmission interval (T _{t°C})	4 ± 0.4 [min]
- SP full serial number transmission interval (T _{SNfull})	4 ± 0.4 [min]
- Voltage transmission interval (T _v)	30 ± 0.4 [sec]

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