Multifit

Multifit Solar Smart Grid System

The MultifitSmart Grid System includes high efficiency micro inverters, a communication gateway, and secure web access. System information is analyzed in real time for instant response to changing weather conditions and hardware needs. A backup safety feature initiates system-wide power down if hardware-threatening conditions are identified. Customers can conveniently monitor and control the system via computer or mobile device.

1. Multifit Microinverter: Powerlife series

The micro inverter is the key component to a distributed solar system. Combined with its web-based analytics, a continual fine-runing of settings produces 15-25% more energy than string converters.

2. Multifit Link:

The link collects critical data on the panel's health and performance, relaying it to the online management system for analysis. This data provides the basis for the system's self-regulation, optimizing for maximal performance and safety.

3. Multifit Management Platform:

Users can view the self-regulating smart grid online, via computer or mobile device. Self-diagnosed maintenance/repair need are sent by email. Settings and auto-responses are all customizable, and can be adjusted to fit the user's desired level of control.

Product features

Advanced technology:	Easy monitoring
Peak efficiency 96.2%	Communication via PLC
CEC efficiency 95.5%	 Web based real-time monitoring system
15 built-in protection measures	 Remote real time control
Enhanced safety insulations	
Quality assurance:	
Carefully selected components	
Strict supplier selection	
Most vigorous production quality control	
Up to 25-year warranty	

NREL (National Renewable Energy Laboratory)

- Microinverters can improve performance under shaded conditions more than 12%
- Under partially shaded conditions, the use of distributed power electronics can recover between 10%-30% of annual performance

PV System	with	String	Invert
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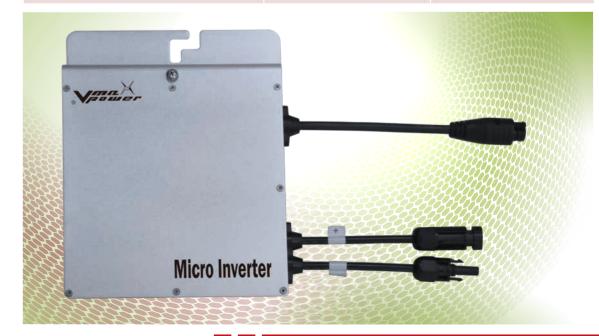
- Monitoring the whole system
- More susceptible to the effect of the shading
- Hard to expand the system after installing to replace
- Need 4-5 inverters during 25years
- High DC voltage wiring wall

PV System with Multifit Microinverter:

- Panel level monitoring
- Harvest 15-25% more energy
- Flexibility to adjust the size of the system
- Up to 25-year warranty and no additional replacement cost
- No DC high voltage

Microinverter PowerLife series Specification

Inputdate (dc)	Powerlife250	Powerlife230
	72-cell PV modules	60-cell PV modules
Recommended input power(STC)	230-280	218-260
Maximum Voc(d.cV)	60	60
Peak power tracking voltage (d.c.V)	27-45	24-45
Maximum DC short circuit current(d.c.A)	15	15
Maximum input current(d.c.A)	9.7	10.0
Output Data(Ac)		
Maximum continuous output power(W)	250	230
Nominal output current (a.c.A)	1.1	1.0
Nominal voltage(a.c.A)	230	230
Nominal operating voltage range (a.c.V)	210-253	210-253
Nominal operating frequency(Hz)	50	50
Nominal operating frequency range(Hz)	49-51	49-51
Power factor	>0.99	>0.99
Total harmonic distortion	<4%	<4%
Maximum units per 18A branch	15	15
Efficiency		
Peak inverter efficiency	96.2%	96.2%
CEC weighted efficiency	95.5%	95.5%
Static MPPT efficiency(reference EN50530)	>99.0%	>99.0%
Dynamic MPPT efficiency(reference EN50530)	>99.0%	>99.0%
Mechanical Data		
Operating ambient temp range	-40C°to65C°	-40C°to65C°
Dimension(W*H*D)	16.2cm*16.2cm*3.1cm	16.2cm*16.2cm*3.1cm
Weight KG	1.8	1.8
Cooling	Natural convection	Natural convection
Enclosure environmental rating	Ip65	Ip65
Other Features		
Night time power consumption	<30mW	<30mW
Compliance	IEC61727 ,IEC62116,IEC/EN6210	IEC61727 ,IEC62116,IEC/EN6210
	9-1,62109-2,AS4777.2 AS4777.3	9-1,62109-2AS4777.2 AS4777.3
	AS/NZS3100	AS/NZS3100
Communication	Power Line carrier	Power Line carrier



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Micro Inverter