

# SUNERGY® EXTRA LOW VOLTAGE INVERTERS

PV in Parallel for More Power & Safety



SAFE



THIN FILM



CRYSTALLINE



CPV



**SUNERGY inverters** use proprietary power conversion technology for high efficiency at extra low operating voltages (ELV). Low voltage inverters enable parallel wiring for PV arrays, boosting performance and setting a new benchmark for system safety. The inverters are ideal for all solar module technologies including thin film, crystalline, and concentrated PV.

- 5-15% increased energy yield from array with parallel wiring
- Maximum power from every module
- Eliminated partial shading and mismatch losses
- >95% peak conversion efficiency, 94% EU efficiency
- Highest overall performance ratio for PV systems
- Integrated galvanic isolation
- Sealed modular electronics, field swappable for easy service
- 7 year standard warranty with 10 & 20 year optional

## ◆ SIMPLE SYSTEM DESIGN

- Simplified shading analysis – Minor partial shading no longer an issue as losses are isolated to affected panels
- Maximize use of space with flexibility to use any number of modules

## ◆ MONITORING

- Compatible with all 3rd party monitoring systems via optional RS485 or Ethernet
- Sunergysoft performance monitoring software (Included with Ethernet communication option)
- Open protocol for communication with other devices

## ◆ SAFETY

- Eliminates high DC voltage hazard from PV systems
- Improved safety for installers, maintenance, firefighters



**SUNERGY inverters** are compatible with PARALEX® massively parallel thin film systems. For more information visit [www.paralexosolar.com](http://www.paralexosolar.com)

## SUNERGY INVERTER SPECIFICATIONS

Model	Sunergy ELV 230	Sunergy LV 230
<b>DC INPUT</b>		
Maximum Input Voltage	135 V	150 V
Rated Input Voltage	60 V	85 V
Operating Voltage Range	50 - 120 V	70 - 150 V
MPPT range	50 - 95 V	70 - 130 V
Maximum Input Current	108 A	77 A
Maximum Input Short Circuit Current	120 A	
Array circuit grounding	Negative conductor grounded inside inverter through GFDI protective circuit Positive grounded and ungrounded configurations are also possible	
<b>AC OUTPUT</b>		
Maximum continuous output power	5000 W	
Nominal output power	5000 W (4600 W DE)	
Nominal Output Voltage	230 V, 1 $\phi$	
Nominal Output Frequency	50 Hz	
Maximum continuous output current	21.7 A	
Maximum output overcurrent protection	32 A	
Utility Compatibility	VDE 0126-1-1, RD1663 (Spain), PPC (Greece) Operating ranges and trip times adjustable according to local regulatory limits	
Peak Conversion Efficiency	>95%	>95%
EU Efficiency	94%	94%
Output Power Quality, Power Factor	< 2% THD, IEEE 519 Compliant	
<b>PHYSICAL</b>		
External Dimensions	445 x 556 x 287 mm	
Weight - Transformer Module	65kg	65kg
Weight - Inverter Module	13kg	
<b>ENVIRONMENTAL</b>		
Ambient Temperature	-25°C to +50°C, no derating	
Relative Humidity	95%	
Enclosure	Outdoor Rated (inverter module sealed for protection of electronics)	
<b>FEATURES</b>		
Isolation	Integrated Transformer	
Cooling	Active	
Warranty	7 years standard, 10 & 20 years optional	
<b>OPTIONS</b>		
Sunergy Comlink-S	RS485 communication using open protocols, can be polled by third party monitoring equipment	
Sunergy eData	Ethernet communication with onboard datalogger for PC-based monitoring on LAN or WAN	

### SUSTAINABLE ENERGY TECHNOLOGIES LTD.

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