

LS600-Z Series Microinverters



LS600-Z™ Series Microinverters

The LeadSolar LS600-Z™ microinverters optimize both residential and commercial solar PV projects by delivering increased energy harvest, while offering maximum flexibility in panel deployment. With its all-AC approach, integrated grounding, self-contained bus cable, and ability to support mixed module deployments on 30A branch circuits, the LS600-Z™ simplifies both design and installation. Coupled with Digi™ Communication and LinkView™ monitoring software, the LS600-Z™ can form the backbone of a superior solution for your PV projects.

⚡ Performance

- Maximizes energy production over life of system
- Minimizes losses due to shading, dust, and debris
- Eliminates single point of module failure

🔄 Versatility

- Supports most 60 or 72 cell panels
- Available in 240V, 208V, or 277V
- Zigbee communication protocol
- Allows for variable module placement
- Supports up to 30A branch circuits

✂️ Simplicity

- All AC design – No string calculations
- No GEC needed for microinverters
- Easy installation with integrated cable

⚡ Reliability & Safety

- Highly robust NEMA 6 construction
- Industry-leading warranty, up to 25 years
- NEC 2014 rapid shutdown compliant
- CA Rule 21 (UL 1741-SA) compliant
- AC branch circuits will not support arc faults

Refer to
LS600X
Datasheet for
96-cell
modules





LS600-Z™

INPUT DATA (DC)	LS600-240-Z	LS600-208-Z	LS600-277-Z
Recommended module power (STC)	230 – 400+ W		
Module compatibility	Two 60 or 72 cell panels		
Maximum input voltage	60V		
MPPT voltage range	27 - 45V	27 - 45V	27 - 45V
Min/Max start voltage	27 - 45V	27 - 45V	27 - 45V
Operating voltage range	22 - 55V	27 - 45V	22 - 55V
Maximum DC short circuit current	30A (15 A per MPPT)		
Maximum input current	19.4A (9.7 A per MPPT)		
OUTPUT DATA (AC)	240 V	208 V	277V
Peak power	700W	600W	700W
Maximum continuous output power	700W	600W	700W
Maximum continuous output current ¹	2.92A / 2.4A / 2.0A	2.88A	2.53 / 2.4A / 2.0A
Nominal voltage	240V	208V	277V
Nominal operating voltage range ²	211 - 264V	183 -229V	244 -305V
Over/under voltage trip time	OVP(110%, 13s), UVP(88%, 21s)		
Nominal operating frequency	60Hz		
Nominal operating frequency range ²	59.3 - 60.5 Hz		
Over/under frequency trip time	OFP(60.5Hz, 300s), UFP(58.5Hz, 300s)		
Maximum units per 20A branch circuit ¹	5 / 8	5	6 / 8
Maximum units per 30A branch circuit ¹	8 / 10/12	8	9 / 10 / 12
Standby power consumption	<100mW		
EFFICIENCY			
Peak inverter efficiency	96.00%	96.00%	96.20%
CEC weighted efficiency	95.50%	95.50%	96%
Static MPPT efficiency	99.40%	99.40%	99.40%
Power factor	>.95		
Total harmonic distortion	< 4%		
MECHANICAL DATA			
Operating ambient temp range	-40°C to 65°C (-40°F to 149°F)		
Dimensions (W x H x D) ⁴	26cm x 18cm x 3.1cm (10.2in x 7.1in x 1.2in)		
Weight	3.5kg (7.7lbs)		
Cooling	Convection (no fan required)		
Enclosure environmental rating	NEMA 6		
OTHER FEATURES			
Communication	Zigbee ³		
Monitoring	Lead Link™ - Supports Ethernet/WiFi connection to router or cellular		
Protect function	Overload, short circuit, over/under voltage, over temperature		
Integrated grounding Compliance	Meets NEC 690.35 - Ground Fault Protection internal to microinverter IEC 61727, IEC 62116, IEC/EN 62109-1 & -2, AS4777.2 & .3, AS/NZ 3100, IEEE 1547, FCC Part 15B, CAN/CSA-C22.2 NO.0-M91, 0.4-04 and 107.1-01, G83/G59, NBT 32004, CA Rule 21 (UL 1741-SA)		

1. Factory-set current limits allow additional microinverters per branch circuit.
2. Can be extended to conform to non-standard utility requirements.
3. LS600 microinverters are also available with PLC communication. See the LS-600-P datasheet.
4. Excluding mounting bracket.

LeadSolar Energy, Inc.