Residential North America Hybrid Inverter

Limitless 15K

15K-2P-LV

The Industry Standard for Whole-Home Backup.



Key Benefits

Intelligent Energy Management
Multi-Season Time-of-Use, Zero Meter, Self-Consumption.

Grid Interaction
NEM - Grid Sell, Peak Shaving, VPP Ready.

Backup Resilience
5 ms Transfer Time, Auto Generator Start, Smart AC Load Control.

New Installs or Retrofits
AC and DC Solar Coupling, All-in-One PCS platform – No MID.

Battery Choice
Multiple UL 9540 Certifications.

MySolArk V2 Monitoring App
Monitoring and Performance Insights, VPP Enrollment and Participation.

The Sol-Ark Advantage

10-Year Warranty	7-day USA Tech Support	USA Non-FEOC	USA Firmware & Data Hosting

Built for whole-home energy resilience, the **Limitless 15K Hybrid Inverter** combines powerful backup performance with advanced energy management in a single platform. Delivering **13 kW of backup power** and **24 kW of surge capacity**, it easily starts demanding loads such as central air conditioning, well pumps, compressors, and other motor-driven equipment.

Designed for maximum installation flexibility, the Limitless 15K supports both **DC and AC-coupled solar**, making it ideal for new installations and retrofit projects alike. A **200 A grid passthrough** helps eliminate costly main service panel upgrades, while the integrated **Smart Load** function and multifunction **GEN port** provide seamless support for generators, AC-coupled PV, and intelligent load management.

The result is a complete whole-home energy solution that delivers exceptional performance, installation flexibility, and reliable energy independence—without requiring additional PCS components.

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DATASHEET

LIMITLESS 15K

Model: 15K-2P-LV — **UL listed as Limitless15K-LV**

Specification	Unit	Rating	Specification	Unit	Rating
PV (DC)			**Battery (DC)**		
Max. STC Rated PV Power	W	23,400	Compatible Technology		Lead-acid[3] or Lithium
Max. Usable Combined MPPT PV Power	W	19,500	Nominal DC Voltage	V	48
Rated MPPT Operating Voltage Range	V	150 - 425	Operating Voltage Range	V	43 – 59
Start-Up Voltage	V	125	Number of Inputs[4]		2
Max. Input Voltage[1]	V	500	Terminal Current Rating	A	200
Max. Operating PV Input Current	A	26 (per MPPT)	Max. Charge / Discharge Current	A	275 / 275
Max. Input Short Circuit Current	A	44 (per MPPT)	BMS Communication		CANbus / RS485 / MODBUS RTU
Number of MPPT / Strings per MPPT		3/2	Charge Controller Type		3-Stage with Equalization[3] / CC/CV - BMS Controlled
Grid (AC)			**Backup – Off-Grid (AC)**		
Nominal Voltage (L-N/L-L)	V	120/240, 120/208	Rated Voltage (L-N, L-L)	V	120/240 120/208
Nominal Frequency	Hz	50 / 60	Rated Frequency	Hz	50 / 60
Nominal Voltage Range	V	185 - 275	Max. Continuous Power	W	12,000 10,400
Nominal Frequency Range	Hz	55 - 65	Peak Surge Power (30 min)	W	13,000 11,260
Max. Passthrough Current (Grid to Load)	A	200	Peak Surge Power (10 s)	W	24,000 20,800
Max. Input Short Circuit Current (100 ms)	A	120	Backup Transfer Time	ms	5
Nominal Real Power (240V)	W	15,000	Max. Load Imbalance Ratio	%	50
Max. Output Current, Batteries + PV	A	62.5	THDv	%	1.5
THDi	%	2.2			
Power Factor Adjustment Range	+/-	0.9			
Efficiency			**GEN Port (AC)[2]**		
CEC	%	96.5	Max. AC-Coupled PV Power (240V)	W	19,200 16,640
Max	%	97.5	Max. Generator Power (240V)	W	19,200 16,640
Grid to Battery - Charge	%	92.3	Max. Current	A	80
Mechanical and Environment			**Protection - Integrated**		
Dimensions, H x W x D	mm (in)	838 x 494 x 306 (33 x 19.4 x 12)	PV DC Disconnect Switch — NEC 240.15	PV Arc Fault Detection — NEC 690.11	
Weight	kg (lbs.)	61.2 (135)	Ground Fault Detection — NEC 690.5	PV Input Lightning Protection	
			PV Rapid Shutdown — NEC 690.12	PV String Input Reverse Polarity Protection	
Ambient Temperature / De-rated	°C (°F)	-25 to 55 (-13 to 131) / +45 (+113)	Surge Protection - DC Type II / AC Type III		
Operating Altitude	m (ft)	> 2,000 (6561)	**General**		
Idle Consumption - No Load	W	90	Warranty Years	10	
Noise (@ 25°C / 77°F)	dB	< 30	Parallel Units	12	
Humidity non-condensing	%	0 - 100	Automatic Generator Start (AGS)	2-Wire Start - Integrated	
Mounting (hanging bracket included)		Wall	Communication	4G / Wi-Fi / LAN	
Enclosure Rating		IP65 / NEMA 3R	Monitoring Platform	MySolArk Mobile and Web Apps	
Cooling		Intelligent Fan	**Options**		
Display		LCD	Optional Accessories	4G Cellular Plan; External RGM Kit (810-00040); Wireless CT	
			Additional 15K Models	15K-2P-LV-RGM (pre-installed CTs with Revenue Grade Meter) 15K-2P-LV-EMP (includes EMP protection)	

Compliance and Certification	
Safety Certification	UL 1741 SB, UL 1741 SA11, UL 1741 CRD-PCS[5], UL 1699B, UL 1998, CSA C22.2 107.1-16, CSIP
Interconnection Compliance	IEEE 1547.1-2020, CA Rule 21, HECO Rule 14H (SRD 2.0)
EMC	FCC Part 15 Class B
Listings	CEC, SGIP

[1] The highest input voltage is based on the open-circuit voltage of the array at the minimum design temperature (See Installation Manual for more details).

[2] Bidirectional AC port for AC fuel generator input, AC-coupled PV input, or AC load (EV Charger, etc.).

[3] Lead-acid charge settings limited to: Capacity AH, Absorption V, Float V (Equalization: V + Time).

[4] Using only a single battery input will derate inverter and charger output capacity.

[5] UL1741-CRD-PCS Open Loop Response Time (OLRT): Less than 10 seconds, per CA Rule 21.

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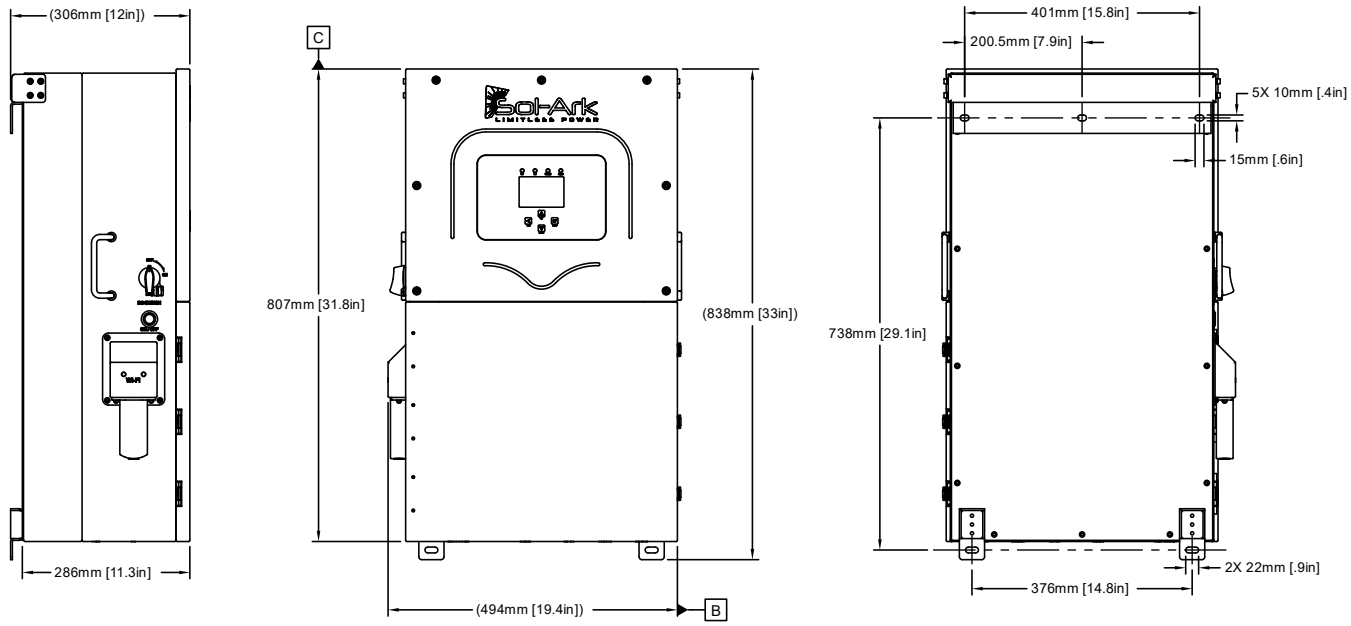

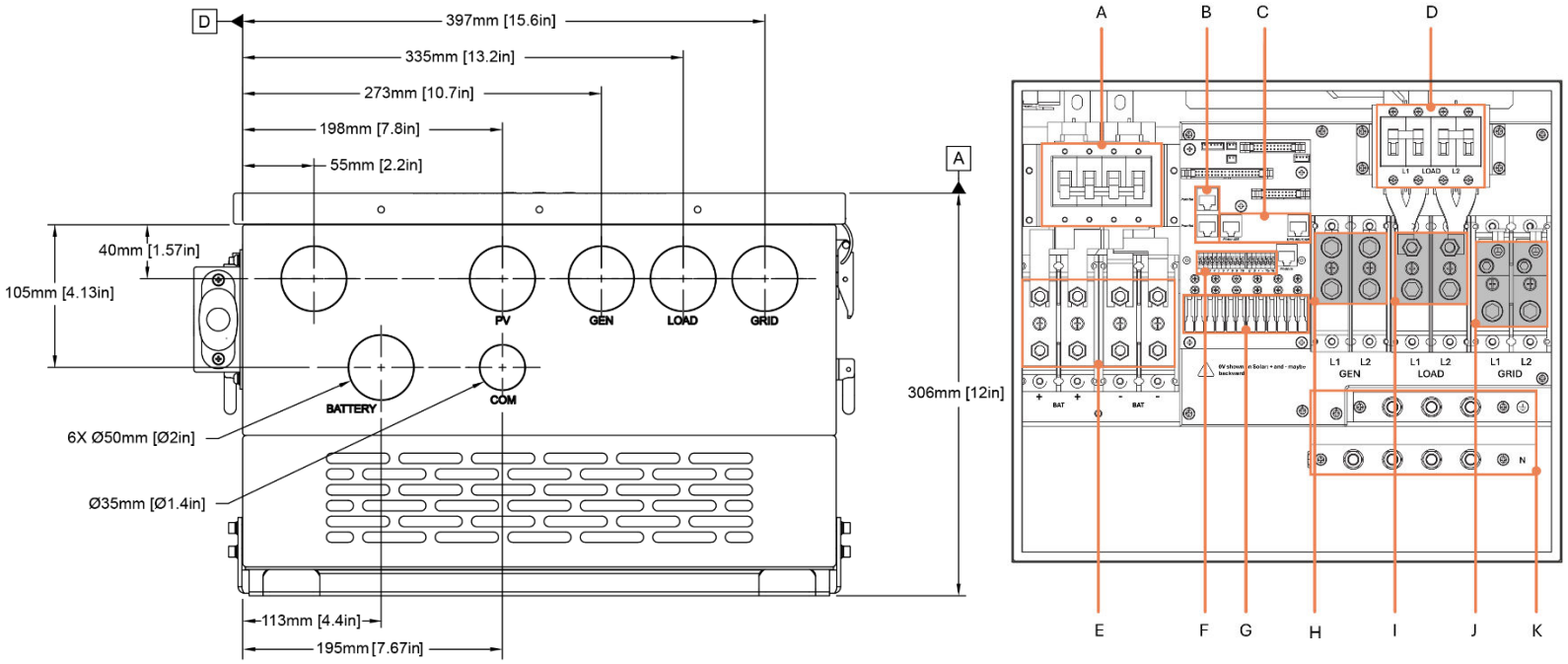

Component	Description	Component	Description	Component	Description
A	2 x (250 A) BATTERY breaker	E	Battery terminals	I	(200 A) LOAD terminal
B	Parallel RJ45 ports	F	Input pinouts for sensors and accessories	J	(200 A) GRID terminal
C	BMS RJ45 ports (RS-485/CAN)	G	3 x MPPT inputs	K	Ground/Neutral Busbars
D	(200 A) LOAD breaker	H	(80 A) GEN terminal		

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