

DATASHEET

LIMITLESS 15K

HYBRID INVERTER - RESIDENTIAL NORTH AMERICA

15K-2P-LV

The Industry Standard for Whole-Home Backup

Built for whole-home energy resilience, the **Limitless 15K Hybrid Inverter** combines powerful backup performance with advanced energy management in a single platform. Delivering **13kW of backup power** and **24kW 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.

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

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

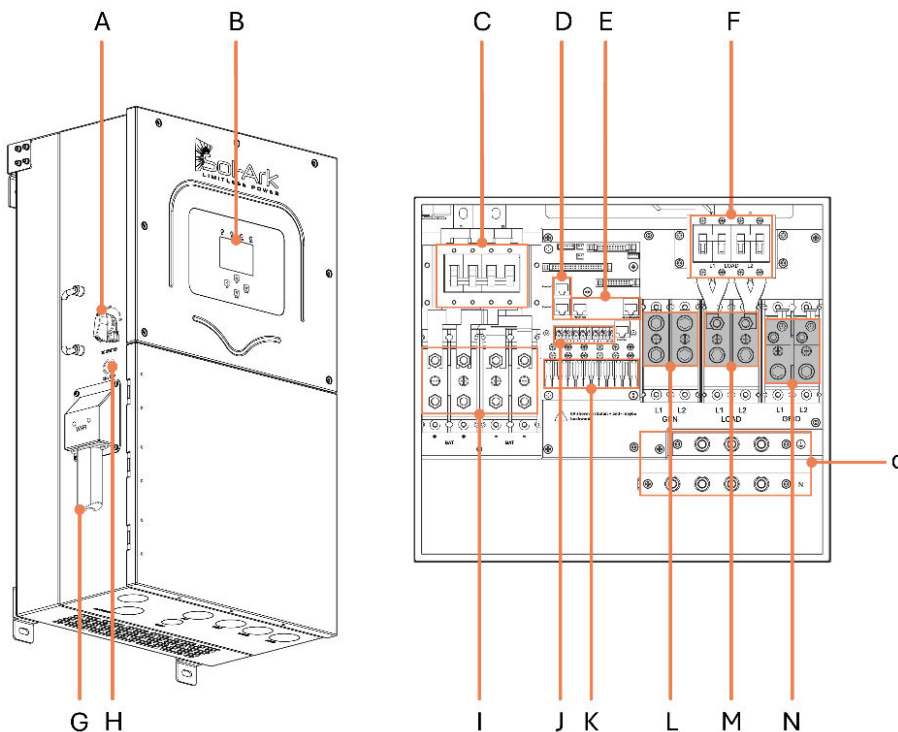
U.S. Company - Non-FEOC
Manufacturing & Inventory
Firmware and Data Hosting
7-Days-a-Week Support

Grid Interaction
NEM - Grid Sell
Peak Shaving
VPP Ready

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 & Performance Insights
VPP Enrollment & Participation



Component	Description
A	PV DC Disconnect
B	LCD Touch Screen
C	2x (200 A) BATTERY breaker ⁴
D	Parallel RJ45 ports
E	BMS RJ45 ports (RS485 / CAN)
F	(200 A) LOAD breaker
G	4G / Wi-Fi / BT / Ethernet Dongle
H	ON / OFF Button
I	BATTERY terminal
J	Input pinouts for sensors & accessories
K	3x MPPT inputs
L	(80 A) GEN terminal
M	(200 A) LOAD terminal
N	(200 A) GRID terminal
O	Ground / Neutral Busbars
N	(200 A) GRID terminal

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Model: 15K-2P-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 (100ms)	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 / WIFI / Bluetooth / LAN
Enclosure Rating		IP65 / NEMA 3R	Monitoring Platform		MySolArk Mobile and Web Apps
Cooling		Intelligent Fan	Options		
Display		LCD	Optional Accessories		4G Activation Plan, Revenue Grade Meter, Wireless CT
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, CISP				
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.

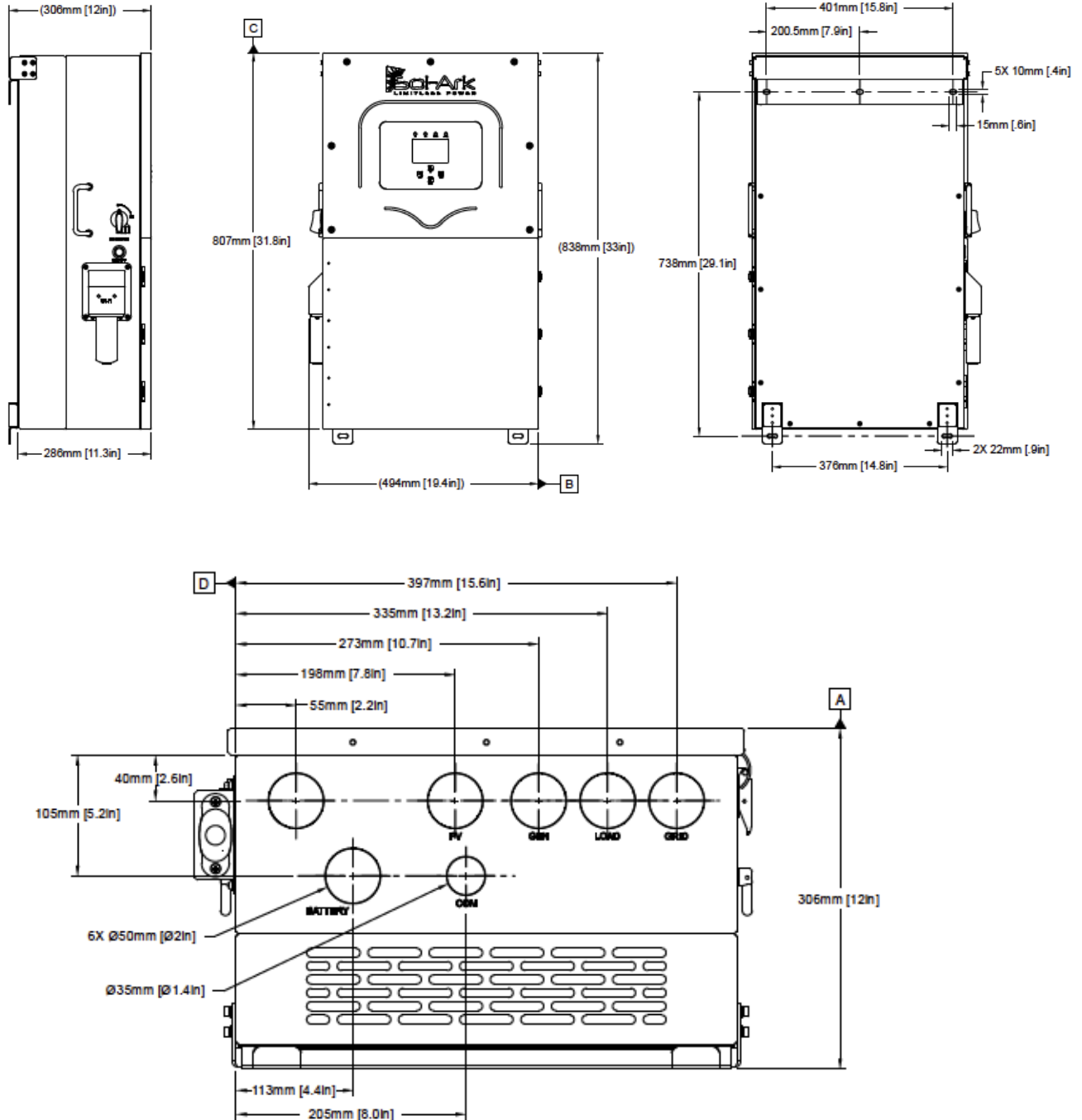
⁵ UL1741-CRD-PCS Open Loop Response Time (OLRT): Less than 10 seconds, per CA Rule 21.

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