

SOLXPOW X3 Series & POW-HVE Series



High-voltage Off-grid & Grid-tied
Solar Intelligent Energy Storage System

Optimal Power & Storage

- 98.4% Max. Efficiency.
- 30A PV input, 2 MPP trackers.
- 110% Unbalanced Output.
- 40A charge/discharge current.

Strong Load & Back-up

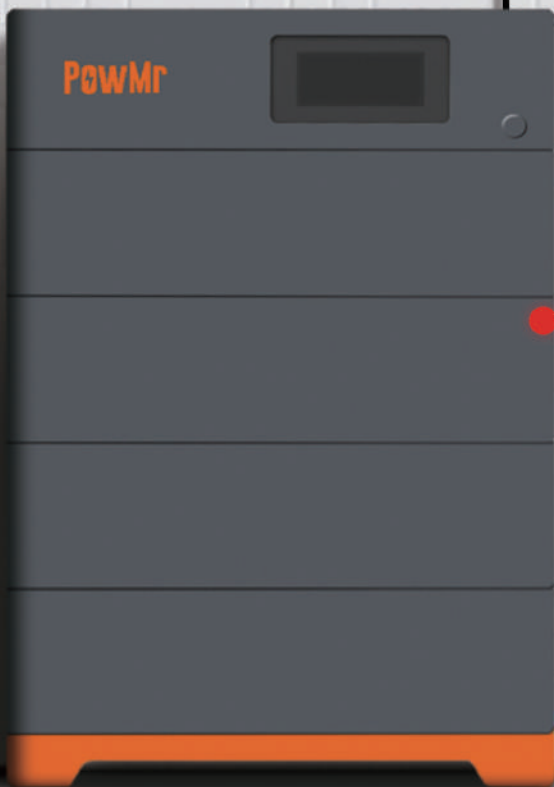
- 110% continuous AC output overloading.
- 200% max. back-up output overloading @60s.
- 10ms UPS-level switching.
- 150% DC oversizing.

Installation & Operation

- Plug & Play terminal.
- Power and alarm indicator.
- OLED display & App.

Flexible Design & Use

- 135-750V wide battery voltage range.
- IP65 for indoor and outdoor installation.
- Compact size and elegant appearance.



Optimal Power & Storage

- Support 8 modules in Series.

Meticulous Care

- Modules operate independently for system safety.

Easy Management

- Pulley bottom, manual switch, and visual supervision interface.

Stronger Compatibility

- Cover all mainstream protocols.

Long Life

- 4 times long static and 8 consistency screening.

Safety & reliability

- Nano-coating and self-healing technology construct the LFP channel.

Inverter Model			SOLXPOW X3-10K	SOLXPOW X3-12K	SOLXPOW X3-15K	SOLXPOW X3-20K
PV Input	Max. PV Array Power	[KW]	15.0	18.0	22.5	30.0
	PV Input Voltage Range*	[V]	135~1000			
	Rated PV Input Voltage	[V]	620			
	PV MPPT Voltage Range*	[V]	120~950			
	No. of MPP Trackers		2			
	Max. PV Input Current	[A]	30/30			
	Max. Short-circuit Current	[A]	40/40			
Battery Specification	Battery Type		Lithium Battery (with BMS)			
	Battery Voltage Range	[V]	135~750			
	Max. Charging/Discharging Current	[A]	40/40			
AC Input & AC Output (On-Grid)	Rated Output Power	[KW]	10.0	12.0	15.0	20.0
	Max. Output Apparent Power	[KVA]	11.0 ¹⁾	13.2	16.5 ³⁾	22.0
	Max. Input Apparent Power**	[KVA]	20.0	24.0	30.0	30.0
	Max. AC Charging Power	[KW]	10.0	12.0	15.0	20.0
	Nominal AC Input/Output Voltage		3L/N/PE; 220/380V;230/400V;240/415V			
	Nominal AC Frequency	[Hz]	50/60			
	Max. Output Current	[A]	16.5 ²⁾	20.0	25.0 ⁴⁾	33.5
	Power Factor		0.8 leading ...0.8 lagging			
	THD		<3% @Rated output power			
	DCI		<0.5%In			
AC Output (Back-up)	Rated Output Power	[KW]	10.0	12.0	15.0	20.0
	Max. Output Apparent Power	[KVA]	11.0	13.2	16.5	22.0
	Max. Output Current	[A]	16.5	20.0	25.0	33.5
	UPS Transfer Time		<10ms			
	Nominal Output Voltage		3L/N/PE; 220/380V;230/400V;240/415V			
	Nominal Output Frequency	[Hz]	50/60			
	Voltage Harmonic Distortion		<3% @Linear load			
Efficiency	Max. Efficiency		98.4%			
	European Efficiency		97.5%			
Protection	Integrated	PV Reverse polarity protection,Battery reverse protection,Insulation Resistance Protection, Surge Protection,Over-temperature Protection,Residual Current Protection,Islanding Protection, AC Over-voltage Protection,Overload Protection,AC Short-circuit Protection				
General Specification	Over Voltage Category		PV: II Main: III			
	Dimensions	[W×H×D MM]	534×418×210			
	Weight	[KG]	28.0 (10-12kW) / 31.0 (15-20kW)			
	IP Class		IP65			
	Static Consumption	[W]	<15			
	Topology		Transformerless			
	Operating Temperature Range	[°C]	-30~60			
	Relative Humidity	[%]	0~100			
	Operating Altitude	[m]	3000(> 3000m derating)			
	Cooling		Smart fan			
	Noise Leve	[dB]	<40			
	Display		OLED & LED			
	Communication		CAN, RS485, WiFi/LAN (Optional)			

* PV Max. Input voltage is 950V without battery, or 850V with battery, otherwise inverter will be waiting;

** Max apparent power from the grid means the maximum power imported from the utility grid used to satisfy the backup loads and charge the battery;

1) G98: 10.5kVA; 2) G98: 16.00A; 3) AS 4777.2: 15.0kVA; 4) AS 4777.2: 21.7A

Inverter Model			POW-HVE-5KWH	POW-HVE-10KWH	POW-HVE-15KWH	POW-HVE-20KWH	POW-HVE-25KWH	POW-HVE-30KWH
Electronic Specifications	Rated Voltage	[V]	51.2	102.4	153.6	204.8	256.0	307.2
	Rated Capacity (C5)		100Ah@25°C					
	Energy	[Wh]	5120	10240	15360	20480	25600	30720
	Months Self Discharge		<3%					
	Charge Efficiency		99.5%@ 0.2C					
	Discharge Efficiency		96-99%@ 1C					
	Internal resistance		≤50m Ω(Fully charged, 25°C)					
	Charge Voltage	[V]	56.8	113.6	170.4	227.2	284.0	340.8
	Standard Charge Mode (25°C±2°C, <75%RH)		0.2C A Constant Current to 57V, then Constant Voltage 57V , until the current drops to 0.02CA, before use, rest 30 minutes					
	Charge Current	[A]	20					
	Maximum Charge Current	[A]	50					
	Charge Cut-off Voltage	[V]	58.4	116.8	175.2	233.6	292.0	350.4
	Continuous Discharge Current	[A]	100					
	Maximum Pulse Current		200A (<1S)					
Discharge Cut Off Voltage	[V]	44.8	89.6	134.4	179.2	224.0	268.8	
Operating Temperature Range	Nominal operating temperature		25°C± 3°C (77°F± 5°F)					
	Discharge		- 20°C~ 60°C (-4°F ~ 140°F)					
	Charge		0°C~ 45°C (32°F ~ 113°F)					
	Storage		0°C~ 40°C (32°F ~ 104°F)					
General Information	Cycle life		4000 cycles @ 0.2C 100%D.O.D					
	Communicate Protocol		RS485/CAN					
	SOC Display		Screen/LED/PC Software					
	Number of Cell		16 Strings					

Application of High-Voltage Energy Storage Batteries

