Saturn Three Phase Hybrid Inverter



PRODUCT MODEL

- Saturn 5K LVT Pro
- Saturn 6K LVT Pro
- Saturn 8K LVT Pro
- Saturn 10K LVT Pro
- Saturn 12K LVT Pro
- Saturn 15K LVT Pro
- Saturn 20K LVT Pro

- IP66 protection degree.
- Up to 20A maximum PV input current.
- Support diesel generators and charging piles.
- Fast and easy data checking and commissioning.
- Switch to off-grid mode within 10ms.
- Powering inductive & capacitive backup load 2 times rated current.
- Up to 430A Continuous charging/discharging.
- Max. 10pcs parallel for off-grid operation.

Models	Saturn 5K LVT Pro	Saturn 6K LVT Pro	Saturn 8K LVT Pro	Saturn 10K LVT Pro	Saturn 12K LVT Pro	Saturn 15K LVT Pro	Saturn 20K LVT Pro
PV Input							
Max. input power (W)	10,000	12,000	16,000	20,000	24,000	30,000	40,000
Starting Voltage (V)	130	130	130	130	130	130	130
Max. DC Input Voltage (V)	1000	1000	1000	1000	1000	1000	1000
Rated DC Input Voltage (V)	600	600	600	600	600	600	600
MPPT Voltage Range (V)	160-850	160-850	160-850	160-850	160-850	160-850	160-850
No. of MPP Trackers	2	2	3	3	4	4	4
No. of DC Inputs per MPPT	1/1	1/1	1/1/1	1/1/1	1/1/1/1	1/1/1/1	1/1/1/1
Max. Input Current (A)	20/20	20/20	20/20/20	20/20/20	20/20/20/20	20/20/20/20	20/20/20/20
Max. Short-circuit Current (A)	30/30	30/30	30/30/30	30/30/30	30/30/30/30	30/30/30/30	30/30/30/30
Battery							
Battery Type	Lithium battery / Lead-acid battery						
Battery Communication Mode	CAN						
Number of Battery Inputs	1	1	1	1	2	2	2
Battery Voltage Range (V)	40-60	40-60	40-60	40-60	40-60	40-60	40-60
Max. Charge/Discharge Current (A)	120	140	180	215	140/140	160/160	215/215
AC Input and Output (On-grid)							
Rated Output Power (W)**	5,000	6,000	8,000	10,000	12,000	15,000	20,000
Max. Output Apparent Power (VA)	5,500	6,600	8,800	11,000	13,200	16,500	22,000
Max. Input Apparent Power (VA)	7,500	9,000	12,000	15,000	18,000	22,500	30,000
Rated Output Voltage (V)**	3L/N/PE，220/230 ，380/400						
Rated AC Frequency (Hz)	50/60						
Max. Output Current (A)	8.3	10	13.4	16.7	20	25	33.4
Power Factor	＞0.99 （0.8 leading …0.8 lagging）						
Max. Total Harmonic Distortion	<3% @Rated Output Power						
Output (Back-up)							
Rated Output Power (W)	5,000	6,000	8,000	10,000	12,000	15,000	20,000
Max. Output Apparent Power (VA)	5,500	6,600	8,800	11,000	13,200	165,00	22,000
Max. Output Current (A)	8.3	10	13.4	16.7	20	25	33.4
Max. Bypass Current(Grid to Backup Load) (A)	11.4	13.6	18.2	22.7	27.3	34	45
UPS Switching Time	<10ms						
Rated Output Voltage (V)	3L/N/PE，380/400						
Rated AC Frequency (Hz)	50/60						
Peak Output Apparent Power (VA)	10,000①,10s	12000①,10s	16,000①,10s	20,000①,10s	24,000①,10s	30,000①,10s	40,000①,10s
Efficiency							
Max. Efficiency	97.6%	97.6%	97.6%	97.6%	97.6%	97.6%	97.6%
European Efficiency	97.0%	97.0%	97.0%	97.0%	97.0%	97.0%	97.0%
Max. Charging and Discharging Efficiency	95%	95%	95%	95%	95%	95%	95%
Protection							
PV Reverse Polarity Protection	Integrated						
Insulation Resistance Protection	Integrated						
DC Switch	Integrated						
AFCI	Optional						
Surge Protection	Integrated						
Over-temperature Protection	Integrated						
Residual Current Protection	Integrated						
Islanding Protection	Integrated						
AC Over-voltage Protection	Integrated						
Overload Protection	Integrated						
AC Short-circuit Protection	Integrated						
General Data							
Over Voltage Category	DC：Ⅱ；AC：Ⅱ						
Dimensions (mm)	782*572*219						
Weight (KG)	38						
Protection Degree	IP66						
Topology(Solar/Battery)	Transformerless / High-frequency isolation						
Operating Temperature Range (°C)	-25~60 (＞45°C derating)						
Relative Humidity (%)	0~100						
Operating Altitude (m)	3000						
Cooling	Intelligent Air Cooling						
Noise Level (dB)	<50						
Display	LCD						
Communication	RS485/LAN/Bluetooth/WiFi,4G(Optional)						
	WiFi/Bluetooth						

①The output power will exceed the rated value only when the power in the PV array is sufficient, and the duration of the overload is relating to the overload power.
**Due to differences in voltage values in various countries, minor variations may occur. The final interpretation rights belong to CESC.