



NEXGEN 8kW

LOW VOLTAGE HYBRID INVERTER

(Single PHASE)

High Efficiency

- Wide MPPT voltage range for increased power generation
- Max. string current 20A, suitable for high -current/double-sided components

Smart

- Supports remote diagnostics and software updates
- Easy to set up intelligent working modes
- Compatible with diesel generators, can control the generator automatically start and stop

User-Friendly

- <4ms UPS-level switching
- Smart load dual output interface protection
- 6 editable charge/discharge times

Safe & Reliable

- Supports I-V curve scanning, accurately identifying string anomalies
- Intelligent AFCI reduces fire risk (Optional)

Economical & Cost-Saving

- Supports grid-connected and off-grid AC coupled access

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PV-16000

Model:	CT NexGEN 8kW Hybrid-SP PV16000
PV INPUT	
MAX. PV access power	16000W
Max. PV input power	12kW
Max. input voltage	550V
Rated PV input voltage	360V
Start-up voltage	60V
MPPT voltage range	90-450V
Max. PV input current	32A/32A
Max. short circuit current	40A/40A
MPPT number/Max. input strings number	2/4
BATTERY	
Battery type	Lead-acid or Li-ion
Rated battery voltage	48V
Battery voltage range	40-60V
Max. charge / discharge current	190A/190A
Communication	CAN/RS485
Charging strategy for Li-ion battery	Self-adaption to BMS
AC OUTPUT	
Rated output power	8kW
Max. apparent output power	8.8kVA
Rated output voltage	220V/230V,L/N/PE
Output voltage range	160V-300V
Rated output frequency/frequency range	50Hz/60Hz (±5Hz)
Rated output current	34.8A
Max.output current	38.3A
power factor	>0.99(0.8 leading - 0.8 lagging)
THDi	<3%
AC INPUT	
Rated input power	8kW
Max. input power	11.5kW
Rated input voltage	220V/230V,L/N/PE
Rated input frequency	50/60Hz
Max. input current	50A
BACK-UP OUTPUT	
Rated output power	8kW
Max. output power	2 times of rated power, 10 s
Rated output voltage	220V/230V,L/N/PE
Rated output frequency	50/60Hz
Max. output switch time	38.3A
Back-up switch time	<4ms
THDv	<3%
EFFICIENCY	
MPPT efficiency	99.80%
Max. efficiency	97.70%
EU efficiency	96.70%
BAT charged/discharged Max efficieny	95.3% / 93.9%
PROTECTION	
Integrated DC switch	Yes
DC rever-polarity protection	Yes
Insulation impedance detection	Yes
Residual leakage current detection	Yes
Ground fault monitoring	Yes
Short circuit protection	Yes
Anti-islanding protection	Yes
DC/AC surge protection	DC:Type II;AC:Type II
DC arc-fault circuit protection	Optional
I/V curve scanning	Yes
Parallel connection number of inverter	Max.16
GENERAL	
Operating temperature range	-40 to 60°C
Max. operation altitude	4000m(Derating above 3000m)
Relative humidity	0~100%
Cooling concept	Smart Fan Cooling
Ingress protection	IP 66
Topology	Transformerless
Self consumption(night)	≤20W
Dimensions (W*H*D)	350*620*260mm
Weight	28kg
Type of PV terminal	MC4 connector
Type of PV terminal (Grid side)	Terminal
Warranty	10 Years*
COMMUNICATION	
Display	LCD+LED+Bluetooth+APP
Communication	WIFI+Bluetooth,Optional:GPRS,LAN ;BMS:RS485/CAN
CERTIFICATION	
Grid standards	IEC 61727/62116,IEC 61683,PEA
Safety/EMC	IEC/EN 62109-1/2,IEC/EN 62477-1, EN IEC61000-6-1/2/3/4