

FNS G6KW Hybrid Inverter

FNS Hybrid inverter includes 2 MPPT charge controllers, inverter/ charger, LCD touch screen and remote monitoring housed in one cabinet. A single pre-wired inverter is simple, highly efficient, and affordable for PV, battery storage and backup applications. Specially designed for Time of Use (TOU), backup power, self-consumption, and zero-export. The FNS hybrid inverter has been designed based on industry leading technology and is one of most feature-rich inverters available on the market.

Rich Features and Advanced Technology

- DC-coupled architecture that stores PV power directly to the battery without AC conversion losses
- UL1741SA / Rule 21 and IEEE1547 Certified
- Remote access and diagnostics to both inverter and battery
- Integrated Rapid Shutdown functionality
- DC and AC Coupling
- Works with 48V lithium battery chemistries
- Web-based and Mobile App remote monitoring



Model	FNS-G6kW
Input Data (DC)	
Max. Recommended PV Power(W)	8000W
Max. DC Voltage(V)	550V
MPPT Voltage Range(V)	150V~550V
Start Voltage(V)	150V
Nominal Voltage(V)	370V
No. of MPPT Trackers	2
No. of MPPT Strings Per MPPT Tracker	1
PV Input Current(A)	13A+13A
Max. Short-circuit Current Per MPPT Trackers	16

Output Data (AC)	
AC Nominal Power(W)	6000
Max AC Apparent Power(VA)	6000
Nominal AC Voltage/Range	240V(211~264V)/208(183~228V)
AC Grid Frequency/Range	60Hz; 59.3~60.5Hz
MAX. Output Current(A)	27
Power Factor(@Nominal Power)	1
Adjustable Power Factor	0.8Leading...0.8Lagging
THDI	<3%
AC Grid Connection Type	Split Phase
Stand Alone Data	
Max AC Apparent Power(VA)	3680
Nominal AC Voltage(V)	240
Nominal AC Frequency	60Hz
MAX. Output Current(A)	16
THDv	<1.5%@50Rload
Switch Time	≤1s
Battery Data	
Battery Type	LiFePO ₄
Nominal Voltage (V)	48V
Battery Voltage Range(V)	42~59V
Max Charging Current(A)	75A
Max Discharging Current(A)	75A
Continuous Charging/Discharge Power	4000W/10s
Capacity of Battery	50~2000Ah
Efficiency	
Max. Efficiency	97.0%
Max. Battery Charge/Discharge Efficiency	94.0%

Protection Devices	
DC Reverse-polarity Protection	YES
Battery Reverse Protection	YES
DC Switch	YES
Insulation Resistance Monitoring	YES
AC Surge Protection	YES
AC Short-circuit Protection	YES
Ground Fault Monitoring	YES
Grid Monitoring	YES
Residual-current Monitoring Unit	YES
General Data	
Operating Temperature Range(°C)	-25~+60°C(-13°F~140°F)
Noise Emission (typical)	≤25dB
Weight(kg)	73.85lbs/33.5kg
Dimensions(W/D/H)	26.3/22.2/7.0in(669/565/179mm)
Protection Degree	NEMA 4X(IP65)
Altitude	6562ft(2000m)
Self-consumption	<12W
Topology	Transformerless
Cooling	Natural Convection
Relative Humidity	100%
Battery Connection	Screw
Interfaces	
Display	LCD+LED
RS232/RS485/CAN/USB/WIFI/GPRS/4G	Yes/Yes/Yes/Yes/Yes/No/No
Certifications and Standards	
Grid Regulation	UL1741:2018, CSA C22.2 No.107.1:2016, IEEE 1547:2003, IEEE 1547A:2014, IEEE 1547.1:2008; Rule 21