

# Firefly Residential Hybrid Inverter

Hybrid-3k/4.6k/5k



Intelligent energy management system



Natural cooling, no noise



Advanced MPPT algorithm achieving maximize PV utilization



IP65 dustproof and waterproof design



EPS load enables seamless switching



Available for CAN, RS485, Wi-Fi and GPRS communication



Multiple protection offers a safe and reliable use



Outdoor wall-mounted, and easy to install



Model	Hybrid-3k	Hybrid-4.6k
<b>AC (grid-connected)</b>		
Maximum output apparent power	3000VA	4600VA/5000VA
Rated output power	3000W	4600W/5000W
Maximum output current	15A	25A
Rated grid voltage (range)	230V (180-270V)	
Rated grid frequency (range)	50/60Hz (45-55/55-65Hz)	
Power factor	Adjustable, 0.8 (advance) ~ 0.8 (lag)	
Current Total Harmonic Distortion	<3%	
AC system	L/N/PE	
<b>AC (off-grid)</b>		
EPS maximum output apparent power	3600VA/5000VA (no PV/with PV)	
EPS Rated Output Power(No PV)	3000W	
EPS Rated Output Current (No PV)	13A	
Rated Output Voltage (No PV)	230V	
Rated Output Frequency (No PV)	50/60Hz	
Peak overload power	4500W, 30s	
Voltage Total Harmonic Distortion	<5%	
Duration for switching between grid-connected and off-grid	≤10ms	
<b>DC (PV &amp; Battery)</b>		
Maximum PV input power	6600W	8000W
Maximum photovoltaic voltage	550V	
PV MPPT Voltage Range	120-500V	
MPPT number	2	
Maximum PV input current	10A	11A
Compatible Battery Type	Lithium Iron Phosphate /Lead Acid Battery	
Rated battery voltage (range)	48V (40-60V)	
Maximum charge/discharge power	3600W/3600W	
Maximum charge/discharge current	66A/66A	
BMS communication mode	CAN, RS485	
<b>Efficiency</b>		
Maximum efficiency	97.9%	
Battery charge/discharge efficiency	94.5%	
<b>Basic Information</b>		
Protection	Protection for DC reverse connection, grounding fault, short circuit, overload, and so on	
Dimensions (W*H*D±2mm)	451mm×469 (551) mm×184 mm	
Weight	20kg	
Topology	No transformer, high frequency isolation (battery)	
Cooling method	Natural cooling	
Operation ambient temperature/relative humidity	-25~60°C/0~100%RH	
Part	<2000m	
Noise	<25dB	
Display & Communication Interface	LCD, LED, RS485, Wi-Fi, CAN	
Protection Grade	IP65/NEM4X	
Grid connection standard	EN50549-1, G98, G83, G59, AS4777.2:2015, VDE0126-1-1, VDE-AR-N4105, CEI 0-21, UTEC15-T12-1:2013-07	
Grid-connected safety conditions and evaluation specifications/EMC standard	IEC62109-1/-2, IEC62040-1, EN61000-6-1, EN61000-6-2, EN61000-6-3	