PV Storage System Specifications

DONNERGY

DOA01-5K_XFM5K-EU

- Combines energy storage and inverter functionality in a single unit, reducing installation time and costs, making it especially suitable for residential and small commercial applications.
- Supports both American and European standards, meeting safety and operational requirements in different regions for global applicability.
- Capable of handling up to 6000W of photovoltaic power, providing ample energy input for homes or businesses.
- Utilizes LFP (Lithium Iron Phosphate) batteries with a lifespan of up to ≥3,000 cycles, ensuring long-term energy supply and stable storage performance.
- Equipped with WiFi connectivity, enabling real-time monitoring of system status and energy usage, allowing users to manage and track their power systems conveniently.
- Delivers 94% to 99.5% efficiency for batteries and inverters, ensuring high energy conversion rates and minimizing energy waste.

Model	DOA01-5K_XFM5K-EU
Battery	
Cell Materials	LiFePO4
Pack Method	1P16S
Nominal Capacity	100Ah
Nominal Voltage	51.2V
Energy	5120Wh
Communication Method	CAN
Charge Cut-off Voltage	58.4V
Discharge Cut-off Voltage	41.6V
Maximum Charging Current	100A
Maximum Discharge Current	100A
Charging Mode	Two-Stage/Three-Stage Charging/PV Charging
Operating Efficiency	98%
Cycle Life	≥3,000 Times
Internal impedance	≤100mΩ
Ambient Temperature	-10℃~50℃
PV	
PV Charging Method PV	MPPT
PV Input Maximum Power PV	6000W
MPPT Operating Voltage MPPT	120~430Vdc
PV input Voltage Range PV	150V~500V
MPPT Operating Voltage MPPT	120Vdc~430Vdc
Starting Voltage	150Vdc
PV Maximum input Voltage PV	500Vdc
MPPT Quantity MPPT	1
Maximum Input Current	30A
Max Charging Current	100A
AC Input	
Main Topology	L+N+PE
Nominal Voltage	208/220/Default 230/240VAC
Input Voltage Range	90~280V(Default APP)；170~280V(UPS)
Frequency Range	40~70Hz，Default
Power Factor	≥0.99
AC Output	
Main Topology	L+N+PE
Output Voltage Waveform	Pure Sine Wave
Output Voltage	208/220/Default 230/240VAC
Voltage Regulation	≤±5%
Nominal Output Power	5500W
Power Factor	1
Frequency Range	Line Mode：Synchronized range，Battery Mode：50/60Hz±0.1%
Harmonic Distortion	≤3% (Linear Load)；≤5% (Non-linear Load PF=0.7)
Transfer Time	APP：Line Mode to Battery Mode 10ms(Typical) UPS：Line Mode to Battery Mode 10ms(Typical)
Overlord Capacity	1min@102%~110% Load；10s@110%~130% Load；3s@130%~150% Load；0.2s@>150% Loa
Maximum Charging Current of AC Power	80A
Bypass Current	40A
Switching Time	<10ms
Efficiency	
Battery Mode(Peak Efficiency)	94%
MPPT Tracking Efficiency (Peak Efficiency)	99.5%
Line Mode	>99.5%@5Kva (Full R load, without battery connect;Efficiency VS load curve with different input Voltage.
Battery Mode	>91.5% (Full R load;Efficiency VS load curve with different input Voltage.
Standby Power	< 60W (No-load mode, battery disconnected)
General parameters	
IP Protection Level	IP21
Ambient Temperature	-20℃-50℃
Operating Temperature Range	-20℃~+60℃
Ambient Humidity	5-95%(No condensation)
Display Mode	LCD
Warranty	5 years for battery cells and 2 years for inverter boards
Operating Altitude	<2000m
Cooling	Intelligent air cooling
Size(W*H*Dmm)	610*937*161.2mm
Weight	75kg
Noise	<60dB