AVOCADO

IP66 RATED | EPS FUNCTION | -20°C ~ 55°C | 95% DOD



Powered by Fox ESS

DATASHEET

P50

ENERGY STORAGE SYSTEM

P50

A next-generation energy storage system solution with a fully-integrated inverter/charger and boasting a range of advanced features.

5kW ···» **30kW**

5kWh ···» **15kWh**

Off-Grid



Advanced System Monitoring with FoxCloud **V2.0**

For more information about the Fox ESS range, visit:
www.fox-ess.com

FULLY INTEGRATED STORAGE SYSTEM

Seamlessly integrated, truly all-in-one solution.

LESS IS MORE

Sleek, minimalist design for effortless one-step installation.

DOUBLE OFF-GRID BACKUP CAPABILITY

The system experienced a 200% overload for 10 seconds.

4MS

Support 4ms parallel off-grid switching

TECHNICAL SPECIFICATIONS

MODEL		P50-5-H	P50-6-H	P50-7-H	P50-8-H	P50-9-H	P50-10-H
PV INPUT (ONLY FOR HYBRID)							
Max. PV array power[W]		16000	16000	20000	20000	20000	20000
Max. Input Power [W]		10000	11000	12000	1300	14000	15000
Max. MPPT Input Power [W]		8000/8000	8000/8000	8000/8000/8000	8000/8000/8000	8000/8000/8000	8000/8000/8000
Max. Input Voltage [V]					600		
Start-up Input Voltage [V]					80		
Rated Input Voltage [V]					360		
MPPT Operating Voltage Range [V]					80 ~ 550		
Max. Input Current [A]		20/20	20/20	20/20/20	20/20/20	20/20/20	20/20/20
Max. Short-circuit Current [A]		25/25	25/25	25/25/25	25/25/25	25/25/25	25/25/25
No. of Independent MPP Trackers		2	2	3	3	3	3
No. of Strings per MPP Tracker					1		
BATTERY CONNECTION							
Battery Type					LFP ($LiFePO_4$)		
Battery Energy [kWh]					5.12		
Depth of Discharge [%]					95		
Cycle Life					6000		
AC INPUT AND OUTPUT (GRID)							
Output	Rated Power [W]	5000	6000	7000	8000	9000	10000
	Rated Apparent Power [VA]	5000	6000	7000	8000	9000	10000
	Max. Apparent Power [VA]	5500	6600	7700	8800	9900	11000
	Rated Output Current (Per Phase) [A]	22.7	27.3	31.8	36.4	40.9	45.5
	Max. AC Current (Per Phase) [A]	25.0	30.0	35.0	40.0	45.0	50.0
	THDI				<3%@rated power		
Input	Max. Apparent Power [VA]	6000	7200	8400	9600	10800	12000
	Max. Input Current [A] (Per Phase)	27.3	32.7	38.2	43.6	49.1	54.5
Output & Input	Nominal Voltage [V]				220/230/240, L/N/PE		
	Nominal Frequency [Hz]				50/60, ±5		
	Power Factor				1(Adjustable from 0.8 leading to 0.8 lagging)		
	Inrush Current [A]				15A@0.5ms		
EPS OUTPUT							
Max. Apparent Power [VA]		5000	6000	7000	8000	9000	10000
Peak Apparent Power [VA]		6000@60s	7200@60s	8400@60s	9600@60s	10800@60s	12000@60s
		7500@30s	9000@30s	10500@30s	12000@30s	13500@30s	15000@30s
		10000@10s	12000@10s	14000@10s	16000@10s	18000@10s	20000@10s
Nominal Voltage [V]					220/230/240		
Nominal Frequency [Hz]					50/60		
Max. Output Current (Per Phase) [A]		22.7@220V	27.3@220V	31.8@220V	36.4@220V	40.9@220V	45.5@220V
Power Factor					1(Adjustable)		
Switch Time [ms]					<4		
THDV [%]					<3@Linear Load		
Parallel Operation					Yes @max 3PCS		
EFFICIENCY							
Max. Conversion Efficiency [%]					97.62		
European Efficiency [%]					97.20		
Max. Battery Charge Efficiency (PV To BAT) (@full Load) [%]					95.40		
Max. Battery Charge/discharge Efficiency (BAT To AC)(@full Load)[%]					94.50		
PROTECTION							
Insulation Monitoring					YES		
Residual Current Monitoring					YES		
DC Reverse Polarity Protection					YES		
Anti-islanding Protection					YES		
AC Short-circuit Protection					YES		
AC Overcurrent/Overvoltage Protection					YES		
DC Switch					YES		
Over Voltage Category					DC: Type II /AC: Type II		
AFCI Protection					YES		
GENERAL DATA							
Dimensions (W*H*D) [mm]					584*1009*197		
Weight [kg]					80		
Installation					Floor-mounted/Wall-mounted		
Cooling Method					Intelligent air cooling		
Noise Emission [dB]					<45, Average		
Max. Operating Altitude [m]					<4000@Derating exceeding 2000m		
Operating Temperature Range [°C]					-20 ~ 55		
Humidity (No Condensation) [%]					0 ~ 100		
Ingress Protection					IP66		
Standby Consumption [W]					＜20		
Monitoring Module					WiFi, LAN, 4G		
Communication Interface					Ethernet, EMS(RS 485), Meter, WiLAN(WiFi+LAN+Bluetooth), 4G(Optional), DRM, Ripple Control, USB, BMS(CAN), SG Ready		
Display					LED, LCD, APP, Website		
Support dual EPS expansion					YES		
STANDARD COMPLIANCE (MORE AVAILABLE UPON REQUEST)							
Safety					EN/IEC 62109-1, EN/IEC 62109-2, EN/IEC62477-1,EN/IEC 62040(AU)		
EMC					EN IEC 61000-6-1:2019, EN IEC 61000-6-3:2021, EN IEC 61000-6-2:2019, EN IEC 61000-6-4:2019, IEC 62920:2017		
RED					EN 50665:2017, ENIEC 62311:2020, EN 301 489-1 V2.2.3 (2019-11), EN 301 489-17 V3.2.4 (2020-09), EN 300 328 V2.2.2(2019-07), EN 55032:2015+A11:2020+A1:2020, EN 55035:2017+A11:2020		
Grid Regulation					G99, CEI 0-21, AS/NZS 4777.2:2020, NRS 097-2-1, IEC 61727, EN 50549-1, P140/P515		
Battery Regulation					IEC62619:2022		
Transportation					UN 38.3		
Environment					ROHS, REACH, WEEE		