FALCON
ESS

SIGNATURE GREY SERIES

CLEAN ENERGY
A BRIGHTER TOMORROW





P100

ENERGY STORAGE SYSTEM

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

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.

5kW »» 30kW | 10kWh »» 30kWh

OFF-GRID



Advanced System Monitoring
with **FalconCloud 2.0**

www.falcon-ess.com

POWERING A CLEANER TOMORROW

TECHNICAL SPECIFICATIONS

MODEL		P100-5-H	P100-6-H	P100-7-H	P100-8-H	P100-9-H	P100-10-H
PV INPUT (ONLY FOR HYBRID)							
Max. PV Array Power [Wp]		16000	16000	20000	20000	20000	20000
Max. Input Power [W]		15000	16000	17000	18000	19000	20000
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]		75					
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 MPP Trackers		2	2	3	3	3	3
Strings per MPP Tracker		1					
BATTERY CONNECTION							
Battery Type		LFP ($LiFePO_4$)					
Battery Energy [kWh]		10.24					
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]	15 @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 [%]		97.60					
European Efficiency [%]		97.20					
Max. Battery Charge Efficiency (PV To BAT) @full Load [%]		97.30					
Max. Battery Charge/discharge Efficiency (BAT To AC) @full Load [%]		96.40					
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					
Overvoltage Category		DC: Type II /AC: Type II					
AFCI Protection		YES					
GENERAL DATA							
Dimensions (W*H*D) [mm]		584*1009*197					
Weight [kg]		113					
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					
Supports 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					