FALCON ESS

SIGNATURE GREY SERIES

CLEAN ENERGY
A BRIGHTER TOMORROW

POWER A
CLEANER TOMORROW

P3 Plus

THREE-PHASE HYBRID INVERTER

P3 Plus is a state-of-the-art hybrid inverter model designed for maximum efficiency and reliability. With outstanding specifications and advanced features it is a market changer in commercial applications.



LONG BACK UP CAPABILITY

More than 6 hours backup power available.

EPS FUNCTION

Less than 10ms switch time.

HIGH PERFORMANCE

Supports 100% unbalanced three-phase output.

DISPLAY

Color LCD screen.

50kW ··· 125kW



Advanced System Monitoring
with **FalconCloud 2.0**

www.falcon-ess.com

CLEANER ENERGY
BRIGHTER TOMORROW

TECHNICAL SPECIFICATIONS

MODEL	P3-50-Plus	P3-60-Plus	P3-75-Plus	P3-80-Plus	P3-100-Plus	P3-125-Plus
PV INTPUT						
Max. Array Power [kW]	100	120	150	160	200	250
Max. Input Power [kW]	100	120	150	160	200	250
Withstand Voltage [V]	1000					
Input Voltage Range [V]	180 ~ 950					
Max. MPPT Input Current [A]	40					
Max. MPPT Short Circuit Current [A]	50					
MPPT Voltage Range [V]	180 ~ 850					
Start-up Voltage [V]	180					
No. of MPP Trackers	4	4	8	8	8	8
Strings per MPP Tracker	2					
BATTERY SPECIFICATION						
Battery Type	LFP ($LiFePO_4$)					
Voltage Range [V]	180 ~ 950					
Max. Charging/Discharging Current [A]	240 (80+80+80)					
Battery Port	3					
Communication	CAN*3					
AC OUTPUT (GRID)						
Nominal AC Power [kW]	50	60	75	80	100	125
Max. AC Output Power [kVA]	55	66	82.5	88	110	137.5
Rated AC Output Current (Per Phase) [A]	76	91.2	113.9	121.6	152	190
Max. AC Output Current (Per Phase) [A]	83.6	100.3	125.4	133.7	167.2	198.5
Nominal AC Voltage [V]	380/400, 3W+N+PE or 3W+PE					
AC Voltage Range [Un]	0.8 ~ 1.2					
Nominal AC Frequency [Hz]	50/60					
Frequency Range [Hz]	50/60, ±5					
Power Factor	0.8 Leading ~ 0.8 Lagging					
THDi [%]	<3 @Rated Power					
AC INTPUT (GRID/GENERATOR)						
Max. AC Input Power [kVA]	207					
Max. Bypass Current [A]	300					
Nominal AC Voltage [V]	380/400, 3W+N+PE or 3W+PE					
Frequency Range [Hz]	50/60, ±5					
EPS OUTPUT (LOAD)						
Max. AC Output Power [kVA]	55	66	82.5	88	110	137.5
Peak AC Output Power [kVA] (10s)	155					
LRA Current [A]	300					
Nominal AC Voltage [V]	380/400, 3W+N+PE or 3W+PE					
Nominal AC Frequency [Hz]	50/60					
Switching Time [ms]	<10					
THDv [%]	<3 @Rated Power					
EFFICIENCY						
European Efficiency [%]	98.1					
Max. Efficiency [%]	98.5					
PROTECTION						
DC Input Switch	Yes					
Battery Reverse Polarity	Yes					
PV Reverse Polarity	Yes					
AC Overcurrent Protection	Yes					
AC Output Short Circuit Protection	Yes					
AC/DC Surge Protection	Class II					
ISO Detection	Yes					
Residual Current Detection	Yes					
Ground Fault Detection	Yes					
AFCI	Yes					
Terminal Overtemperature Protection	Yes					
String Current Detection	Yes					
GENERAL SEPECIFICATION						
Dimensions (W*H*D) [mm]	730*1060*305					
Weight [kg]	115	115	120	120	120	120
Operating Temperature [°C]	-30 ~ 60					
Cooling Method	Smart Air Cooling					
Operating Altitude [m]	4000					
Humidity [%]	0 ~ 100					
Noise [dB]	<70					
Standby Consumption [W]	<60					
DC-Link EV Charger Ready [kW]	20 ~ 50					
Ingress Protection (IP) Rating	IP65					
Topology	Non-Isolation					
Display	LED, LCD, Wi-Fi+APP					
Communication Ports	USB / RS485 / Bluetooth / Wi-Fi+LAN / 4G(Optional) / CAN					