FALCON
ESS

CLEAN ENERGY
A BRIGHTER TOMORROW

SIGNATURE GREY SERIES

# 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.




**50kW ··» 125kW**

### 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.



Advanced System Monitoring
with **FalconCloud 2.0**

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POWER
A CLEANER
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 | | | | | |