



# P3 PRO

THREE-PHASE **HYBRID INVERTER**



15kW ... 30kW



## HIGH VOLTAGE

Includes high-voltage batteries for maximum round-trip efficiency.



## EASY INSTALLATION

Flexible configuration, plug and play set-up, built-in fuse protection.



## IP65 RATED

Engineered to last with maximum flexibility. Suitable for outdoor installation.



## REMOTE MONITORING

Monitor your system remotely via smartphone app or web portal.



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

REFINED – POWERFUL – FLEXIBLE

Harness the power of the sun day and night with the ground-breaking range of Hybrid inverter from Fox ESS. Full of advanced features and compatible with our very own range of high-voltage batteries, the hybrid range from Fox ESS.



For more information about the Fox ESS range, visit:  
[www.fox-ess.com](http://www.fox-ess.com)



up to  
**30kW**  
charge/  
discharge



# TECHNICAL SPECIFICATIONS

| MODEL                                               | P3-Pro-15.0    | P3-Pro-20.0                                          | P3-Pro-25.0       | P3-Pro-30.0       |
|-----------------------------------------------------|----------------|------------------------------------------------------|-------------------|-------------------|
| PV INPUT(ONLY FOR HYBRID)                           |                |                                                      |                   |                   |
| Max. Array Power [Wp]                               | 30000          | 40000                                                | 50000             | 60000             |
| Max. Recommended DC Power [W] <sup>[1]</sup>        | 7500/7500/7500 | 10000/10000/10000                                    | 12500/12500/12500 | 15000/15000/15000 |
| Max. DC Voltage [V] <sup>[2]</sup>                  |                | 1000                                                 |                   |                   |
| Nominal DC Operating Voltage [V]                    |                | 750                                                  |                   |                   |
| Max. Input Current [A]                              |                | 32                                                   |                   |                   |
| Max. Short Circuit Current [A]                      |                | 40                                                   |                   |                   |
| MPPT Voltage Range [V]                              |                | 150 ~ 850                                            |                   |                   |
| MPPT Voltage Range [V] (full load)                  | 170 ~ 850      | 230 ~ 850                                            | 280 ~ 850         | 340 ~ 850         |
| Start-up Voltage [V]                                |                | 160                                                  |                   |                   |
| No. of MPP Trackers                                 |                | 3                                                    |                   |                   |
| Strings per MPP Tracker                             |                | 2/2/2                                                |                   |                   |
| Max. Inverter Backfeed Current to the Array         |                | 0                                                    |                   |                   |
| BATTERY                                             |                |                                                      |                   |                   |
| Battery Type                                        |                | Lithium Battery                                      |                   |                   |
| Battery Voltage [V]                                 |                | 150 ~ 800                                            |                   |                   |
| Full AC Load Battery Voltage [V]                    | 160 ~ 790      | 220 ~ 790                                            | 270 ~ 790         | 330 ~ 790         |
| Max. Charge/ Discharge Current [A]                  |                | 50+50                                                |                   |                   |
| Number of Battery Input                             |                | 2                                                    |                   |                   |
| Communication Interface                             |                | CAN                                                  |                   |                   |
| AC OUTPUT                                           |                |                                                      |                   |                   |
| Nominal AC Power [VA]                               | 15000          | 20000                                                | 25000             | 30000             |
| Max. Apparent AC Power [VA]                         | 16500          | 22000                                                | 27500             | 33000             |
| Rated Grid Voltage (AC Voltage Range) [VAC]         |                | 400 / 230 ; 380 / 220 , 3L / N / PE                  |                   |                   |
| Rated Grid Frequency [Hz]                           |                | 50 / 60 , ±5                                         |                   |                   |
| Max. AC Current [A] (Per Phase)                     | 25.0           | 33.3                                                 | 41.7              | 50.0              |
| Power Factor                                        |                | 1(Adjustable from 0.8 Leading to 0.8 Lagging)        |                   |                   |
| Export Control                                      |                | YES                                                  |                   |                   |
| THDI [%]                                            |                | <3 @Rated Power                                      |                   |                   |
| AC INPUT                                            |                |                                                      |                   |                   |
| Max. AC Power [VA]                                  | 22500          | 30000                                                | 35000             | 35000             |
| Rated Grid Voltage (AC Voltage Range) [V]           |                | 400 / 230 ; 380 / 220 , 3L / N / PE                  |                   |                   |
| Rated Grid Frequency [Hz]                           |                | 50 / 60 , ±5                                         |                   |                   |
| Max. AC Current [A] (Per Phase)                     | 34.1           | 45.5                                                 | 53.0              | 53.0              |
| Power Factor                                        |                | 1(Adjustable from 0.8 Leading to 0.8 Lagging)        |                   |                   |
| EPS OUTPUT                                          |                |                                                      |                   |                   |
| Max. Apparent AC Power [VA]                         | 15000          | 20000                                                | 25000             | 30000             |
| Peak Apparent AC Power [VA] (60s)                   | 18000          | 24000                                                | 30000             | 36000             |
| Rated Output Voltage [V]                            |                | 400 / 230 ; 380 / 220 , 3L / N / PE                  |                   |                   |
| Rated Grid Frequency [Hz]                           |                | 50 / 60                                              |                   |                   |
| EPS Max. Current [A] (Per Phase)                    | 22.7           | 30.3                                                 | 37.9              | 45.5              |
| Power Factor                                        |                | 1(Adjustable from 0.8 Leading to 0.8 Lagging)        |                   |                   |
| Parallel Operation                                  |                | Yes @Max10PCS                                        |                   |                   |
| Switch Time [ms]                                    |                | <10                                                  |                   |                   |
| THDV [%]                                            |                | <3 @Rated Power                                      |                   |                   |
| EFFICIENCY                                          |                |                                                      |                   |                   |
| MPPT Efficiency [%]                                 | 99.90          | 99.90                                                | 99.90             | 99.90             |
| Max. Efficiency [%]                                 | 97.80          | 97.80                                                | 97.80             | 97.80             |
| Max. Battery to AC Efficiency [%]                   | 97.60          | 97.60                                                | 97.60             | 97.60             |
| Max. PV to Battery Efficiency [%]                   | 98.10          | 98.10                                                | 98.10             | 98.10             |
| European Efficiency [%]                             | 97.30          | 97.40                                                | 97.40             | 97.40             |
| PROTECTION                                          |                |                                                      |                   |                   |
| PV Reverse Polarity Protection                      |                | YES                                                  |                   |                   |
| Battery Reverse Protection                          |                | YES                                                  |                   |                   |
| Anti-Islanding Protection                           |                | YES                                                  |                   |                   |
| Output Short Protection                             |                | YES                                                  |                   |                   |
| Leakage Current Protection                          |                | YES                                                  |                   |                   |
| Insulation Resistor Detection                       |                | YES                                                  |                   |                   |
| Overvoltage Category                                |                | III (AC Side) , II (DC Side)                         |                   |                   |
| Reverse Connect Protection                          |                | YES                                                  |                   |                   |
| Overcurrent Protection / Overtemperature Protection |                | YES                                                  |                   |                   |
| AC/DC Surge Protection                              |                | Type II/Type II                                      |                   |                   |
| AFCI Protection                                     |                | Optional                                             |                   |                   |
| DC Switch                                           |                | Optional                                             |                   |                   |
| String Monitoring Function                          |                | Optional                                             |                   |                   |
| GENERAL DATA                                        |                |                                                      |                   |                   |
| Dimensions (W*H*D) [mm]                             |                | 600*560*225                                          |                   |                   |
| Dimension of Packing (W*H*D) [mm]                   |                | 720*680*370                                          |                   |                   |
| Net Weight [kg]                                     |                | 52.5                                                 |                   |                   |
| Gross Weight [kg]                                   |                | 57.5                                                 |                   |                   |
| Installation                                        |                | Wall-mounted                                         |                   |                   |
| Operating Temperature Range [°C]                    |                | -25 ~ +60 (Derating at 45)                           |                   |                   |
| Storage Temperature [°C]                            |                | -40 ~ +70                                            |                   |                   |
| Storage/Operation Relative Humidity [%]             |                | 0 ~ 95 (No condensation)                             |                   |                   |
| Altitude [m]                                        |                | <4000                                                |                   |                   |
| Protective Class                                    |                | I                                                    |                   |                   |
| Ingress Protection                                  |                | IP65 (for Outdoor Use)                               |                   |                   |
| Standby Consumption [W]                             |                | 200 for Hot Standby , 18 for Cold Standby            |                   |                   |
| Standby Mode                                        |                | YES                                                  |                   |                   |
| Cooling                                             |                | Smart FAN Cooling                                    |                   |                   |
| Noise Grade [dB]                                    | <45            | <45                                                  | <60               | <60               |
| Inverter Topology                                   |                | Non-isolated                                         |                   |                   |
| Communication Interface                             |                | Meter, WIFI, 4G(optional), DRM, USB, BMS(CAN), RS485 |                   |                   |
| Button                                              |                | Capacitive Touch Sensor *4                           |                   |                   |
| Buzzer                                              |                | 1, Inside (EPS&Earth Fault)                          |                   |                   |
| STANDARD COMPLIANCE MORE AVAILABLE UPON REQUEST)    |                |                                                      |                   |                   |
| Safety                                              |                | EN 62109-1, EN 62109-2                               |                   |                   |
| EMC                                                 |                | IEC 61000-6-2, IEC 61000-6-3                         |                   |                   |

\*More technical characteristics are available on demand and customized.

[1] Per MPP max. PV input power 15kW.

[2] For 1000V system, Maximum operating voltage is 950V. PV input voltage greater than 955V, PV overvoltage error will be reported.



# P3 Plus

THREE-PHASE **HYBRID INVERTER**



## 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 **FoxCloud V2.0**

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



For more information about the Fox ESS range, visit:  
[www.fox-ess.com](http://www.fox-ess.com)



## TECHNICAL SPECIFICATIONS

| MODEL                                  | P3-50-Plus | P3-60-Plus | P3-75-Plus | P3-80-Plus                                               | P3-100-Plus | P3-125-Plus |
|----------------------------------------|------------|------------|------------|----------------------------------------------------------|-------------|-------------|
| PV INPUT                               |            |            |            |                                                          |             |             |
| 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 <sub>4</sub> )                               |             |             |
| Voltage Range [V]                      |            |            |            | 180 ~ 950                                                |             |             |
| Max. Charging/Discharging Current [A]  |            |            |            | 240 (80+80+80)                                           |             |             |
| Battery Port                           |            |            |            | 3                                                        |             |             |
| Communication                          |            |            |            | CAN*3                                                    |             |             |
| AC OUTPUT                              |            |            |            |                                                          |             |             |
| Nominal AC Power [kW]                  | 50         | 60         | 75         | 80                                                       | 100         | 125         |
| Max. AC Output Power [kVA]             | 55         | 66         | 82.5       | 88                                                       | 110         | 137.5       |
| 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 INPUT                               |            |            |            |                                                          |             |             |
| 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         | 75*/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 |             |             |