



P3-S

THREE-PHASE **HYBRID INVERTER**



5kW ... 15kW



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



up to
15kW
charge/
discharge

TECHNICAL SPECIFICATIONS

Model	P3-5.0-SH	P3-6.0-SH	P3-8.0-SH	P3-10.0-SH	P3-12.0-SH	P3-15.0-SH
PV INPUT						
Max. Array Power [Wp]	11000	14000	18000	20000	24000	30000
Max. DC Input Power [W]	11000	13200	17600	18000	22500	22500
Max. DC Voltage [V]				1000 [1]		
Nominal DC Operating Voltage [V]				620		
Max. MPPT Input Current [A]	20/20	20/20	20/20/20	20/20/20	20/20/20	20/20/20
Max. MPPT Short Circuit Current [A]	25/25	25/25	25/25/25	25/25/25	25/25/25	25/25/25
Max. MPPT Input Power [W]	10000/10000	10000/10000	10000/10000/10000	10000/10000/10000	10000/10000/10000	10000/10000/10000
Min. Operating PV Voltage [V]				90 [2]		
MPPT Voltage Range [V]				120 ~ 950		
Start-up Input Voltage [V]				140		
No. of MPP Trackers	2	2	3	3	3	3
Strings per MPP Tracker	1+1	1+1	1+1+1	1+1+1	1+1+1	1+1+1
BATTERY						
Battery Type				Lithium-Ion battery (LFP)		
Battery Voltage [V]				100 ~ 800		
Min. Operating Battery Voltage [V]				100		
Min. Battery Voltage @Full AC Load [V]	108	125	160	210	250	310
Max. Charge/ Discharge Current [A]				50.0		
Communication Interface				CAN		
AC OUTPUT						
Nominal AC Power [W]	5000	6000	8000	10000	12000	15000
Max. Apparent AC Power [VA]	5500	6600	8800	11000 [3]	13200	16500
Rated Grid Voltage (AC Voltage Range) [V]				400/230Vac; 380/220Vac, 3L/N/PE		
Rated Grid Frequency [Hz]				50/60, ±5		
Rated AC Current [A] (Per Phase)	7.6	9.1	12.1	15.2	18.2	22.7
Max. AC Current [A] (Per Phase)	8.3	10.0	13.3	16.7	20.0	25.0
Power Factor			1(Adjustable from 0.8 leading to 0.8 lagging)			
THDI [%]			<3 @rated power			
AC INPUT						
Max. AC Power [VA]	6000	7200	9600	12000	14400	16000
Rated Grid Voltage (AC Voltage Range) [V]				400/230Vac; 380/220Vac, 3L/N/PE		
Rated Grid Frequency [Hz]				50/60, ±5		
Max. AC Current [A] (Per Phase)	9.1	10.9	14.5	18.2	21.8	24.2
EPS OUTPUT						
Max. Apparent AC Power [VA]	5000	6000	8000	10000	12000	15000
Peak Apparent AC Power [VA] (60s)	6000	7200	9600	12000	14400	15000
Rated Output Voltage [V]				400/230Vac; 380/220Vac, 3L/N/PE		
Rated Grid Frequency [Hz]				50/60		
EPS Max. Current [A] (Per Phase)	7.2	8.7	11.6	14.5	17.4	21.7
Power Factor			1(Adjustable from 0.8 leading to 0.8 lagging)			
Switch Time [ms]			<10			
THDV [%]			<3 @Linear load			
EFFICIENCY						
MPPT Efficiency [%]				99.90		
Max. Efficiency [%]	97.30	97.70	97.70	97.90	97.90	97.90
European Efficiency [%]				97.20		
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		
DC/AC Surge Protection				Type II(PV)/Type II(AC)		
AFCI Protection				Optional		
DC Switch				YES		
GENERAL DATA						
Dimensions (W*H*D) [mm]				600*450*226		
Dimension of Packing (W*H*D) [mm]				665*545*390		
Net Weight [kg]				34		
Gross Weight [kg]				40		
Installation				Wall-mounted		
Operating Temperature Range [°C]				-25 ~ +60 (Derating at 45)		
Storage Temperature [°C]				-40 ~ +70		
Storage/Operation Relative Humidity [%]				0 ~ 100		
Altitude [m]				<4000 @Derating exceeding 2000		
Protective Class				I		
Ingress Protection				IP65 (For outdoor use)		
Standby Consumption [W]				20 ~ 25		
standby Mode				YES		
Cooling	Natural	Natural	Natural	Natural	FAN cooling	FAN cooling
Noise Grade [dB]	<40	<40	<40	<40	<55	<55
Inverter Topology				Non-isolated		
Communication Interface	Ethernet, EMS(RS485), Meter, WiLAN(Wifi+LAN+Bluetooth), 4G(Optional), DRM, Ripple Control, USB, BMS(CAN), SG Ready					
Button	Capacitive touch sensor *4					
Buzzer	1, inside(EPS&Earth fault)					

[1] For 1000V system, PV Maximum operating voltage is 950V.

[2] The starting working voltage of the power supply is 90V.

[3] Belgian safety regulations require an apparent power of 10000W to be 10000VA.



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

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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] ^[1]	7500/7500/7500	10000/10000/10000	12500/12500/12500	15000/15000/15000
Max. DC Voltage [V] ^[2]			1000	
Nominal DC Operating Voltage [V]			750	
Max. Input Current [A]		16+16/16+16/16+16		
Max. Short Circuit Current [A]		20+20/20+20/20+20		
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		
Rated AC Current [A] (Per Phase)	22.7	30.3	37.9	45.5
Max. AC Current [A] (Per Phase)	25.0	33.3	41.7	50.0
Power Factor		I(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		I(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		I(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 [%]	97.20	97.20	97.10	97.10
Max. Battery to AC Efficiency [%]	97.20	97.20	97.10	97.10
Max. PV to Battery Efficiency [%]	98.10	98.10	98.10	98.10
European Efficiency [%]	96.30	96.30	96.60	96.60
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 , 20 for Cold Standby		
Standby Mode		YES		
Cooling		Smart FAN Cooling		
Noise Grade [dB]	<45	<45	<55	<55
Inverter Topology		Non-isolated		
Communication Interface		Meter, WIFI, 4G(Optional), DRM, USB, BMS(CAN), RS485, Ethernet, SG ready		
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



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 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 INPUT (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 SPECIFICATION						
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		