FOX ESS

DATASHEET

P3-S

THREE-PHASE **HYBRID INVERTER**



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.

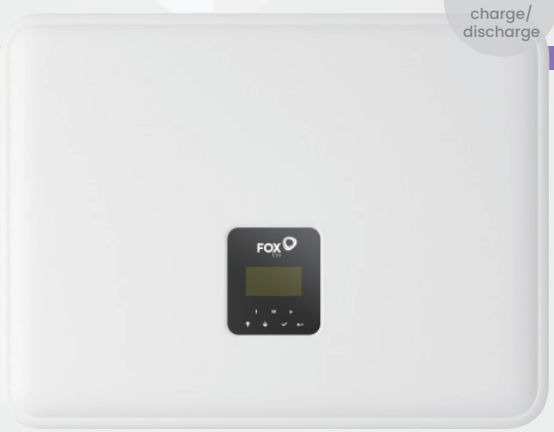
REMOTE MONITORING
Monitor your system remotely via smartphone app or web portal.



Advanced System Monitoring
with FoxCloud V2.0

REFINED – POWERFUL – FLEXIBLE

up to **15kW** charge/ discharge



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.

5kW ··· 15kW

For more information about the Fox ESS range, visit:
www.fox-ess.com

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.