FOX ESS

DATASHEET

P3-S-LD

THREE-PHASE HYBRID/AC INVERTER

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.



HIGH EFFICIENCY

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.

5kW ••» 10kW



Advanced System Monitoring
with **FoxCloud 2.0**

REMOTE MONITORING

- Monitor your system remotely via smartphone App or Web portal.
- AI assistant helps better understand and manage your system.

www.fox-ess.com

TECHNICAL SPECIFICATIONS

MODEL	P3-5.0-SH-LD P3-5.0-SA-LD	P3-6.0-SH-LD P3-6.0-SA-LD	P3-8.0-SH-LD P3-8.0-SA-LD	P3-10.0-SH-LD P3-10.0-SA-LD	P3-10.0-SH1-LD P3-10.0-SA1-LD
PV INPUT					
Max. Array Power [Wp]	11000	14000	18000	20000	20000
Max. DC Input Power [W]	11000	13200	17600	18000	18000
Max. DC Voltage [V]			1000 [1]		
Nominal DC Operating Voltage [V]			620		
Max. MPPT Input Current [A]			20/20/20		
Max. MPPT Short Circuit Current [A]			25/25/25		
Max. MPPT Input Power [W]			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			3		
Strings per MPP Tracker			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	210
Max. Charge/ Discharge Current [A]			50.0		
Communication Interface			CAN		
AC OUTPUT					
Nominal AC Power [W]	5000	6000	8000	10000	9900
Max. Apparent AC Power [VA]	5500	6600	8800	10000 [3]	9900
Rated Grid Voltage (AC Voltage Range) [V]			230V/132Vac; 220V/127Vac, 3L/PE		
Rated Grid Frequency [Hz]			50/60Hz, ±5Hz		
Rated AC Current [A] (Per Phase) [4]	13.2	15.8	21.0	26.2	26.0
Max. AC Current [A] (Per Phase) [4]	14.5	17.4	23.1	28.9	26.0
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	10000	10000
Rated Grid Voltage (AC Voltage Range) [V]			230V/132Vac; 220V/127Vac, 3L/PE		
Rated Grid Frequency [Hz]			50/60Hz, ±5Hz		
Max. AC Current [A] (Per Phase)	15.7	18.9	25.2	31.5	31.5
EPS OUTPUT					
Max. Apparent AC Power [VA]	5000	6000	8000	10000	10000
Peak Apparent AC Power [VA] (60s)	6000	7200	9600	10000	10000
Rated Output Voltage [V]			230Vac; 220Vac, 3L/PE		
Rated Grid Frequency [Hz]			50/60		
EPS Max. Current [A] (Per Phase)	15.7	18.9	25.2	26.2	26.2
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
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]			33.5		
Gross Weight [kg]			39.5		
Installation			Wall-mounted		
Operating Temperature Range [°C]			-25 to +60 (Derating at 45)		
Storage Temperature [°C]			-40 to +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]			25		
standby Mode			YES		
Cooling			Natural		
Noise Grade [dB]			<40		
Inverter Topology			Non-isolated		
Communication Interface		EMS (RS 485), 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.

[4] Per-phase output current can be increased via remote settings. After enabling the expansion function, the inverter can deliver up to 22.7A output current per phase.