FOX ESS

DATASHEET

H3 Smart

THREE-PHASE HYBRID 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 ••• 15kW



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	H3-5.0-Smart	H3-6.0-Smart	H3-8.0-Smart	H3-9.9-Smart	H3-10.0-Smart	H3-12.0-Smart	H3-15.0-Smart
PV INPUT							
Max. Array Power [Wp]	11000	14000	18000	20000	20000	24000	30000
Max. DC Input Power [W]	11000	13200	17600	18000	18000	22500	22500
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	250	310
Max. Charge/ Discharge Current [A]	50.0						
Communication Interface	CAN						
AC OUTPUT							
Nominal AC Power [W]	5000	6000	8000	9900	10000	12000	15000
Max. Apparent AC Power [VA]	5500	6600	8800	9900	11000[3]	13200	16500
Rated Grid Voltage (AC Voltage Range) [V]	400/230; 380/220, 3L/N/PE						
Rated Grid Frequency [Hz]	50/60, ±5						
Rated AC Current [A] (Per Phase)[4]	7.6	9.1	12.1	15.0	15.2	18.2	22.7
Max. AC Current [A] (Per Phase)[4]	8.3	10.0	13.3	15.0	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	12000	14400	16000
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)	9.1	10.9	14.5	18.2	18.2	21.8	24.2
EPS OUTPUT							
Max. Apparent AC Power [VA]	5000	6000	8000	10000	10000	12000	15000
Peak Apparent AC Power [VA] (60s)	6000	7200	9600	12000	12000	14400	15000
Rated Output Voltage [V]	400/230; 380/220, 3L/N/PE						
Rated Grid Frequency [Hz]	50/60						
EPS Max. Current [A] (Per Phase)	7.2	8.7	11.6	14.5	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	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	Natural	FAN cooling	FAN cooling
Noise Grade [dB]	<40	<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.

[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.