



DATASHEET  
 Single-Phase Hybrid/AC Inverter  
 HI-3.0-E / 3.7 / 4.6 / 5.0 / 6.0  
 ACI-3.0-E / 3.7 / 4.6 / 5.0 / 6.0



# Fox ESS

## HYBRID/AC INVERTER

Harness the power of the sun day and night with the ground-breaking range of Hybrid & AC inverters from Fox ESS.

Full of advanced features and compatible with our very own range of high-voltage batteries, the hybrid range from Fox ESS. It is a new class of Inverter.



Fox ESS storage solutions are available with advanced and intuitive app based remote control and monitoring functionality.



### Easy Installation

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



### High Voltage

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



### IP65 Rated

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



### Remote Monitoring

Monitor your system remotely via smartphone app or web portal.



up to  
**6kW**  
 charge/  
 discharge

REFINED – POWERFUL – FLEXIBLE

## BATTERY EXPANSION EASY UPGRADE



Expand your system easily by simply adding additional batteries. There are six battery size options, and Max. seven batteries can be installed in series, providing up to 33.24kWh of storage capacity.

For more about the Fox ESS range, visit:

WWW.FOX-ESS.COM



# TECHNICAL SPECIFICATIONS

| Model   | H1-3.0-E<br>AC1-3.0-E  | H1-3.7-E<br>AC1-3.7-E | H1-4.6-E<br>AC1-4.6-E | H1-5.0-E<br>AC1-5.0-E | H1-6.0-E<br>AC1-6.0-E |
|---|--|-----------------------|-----------------------|-----------------------|-----------------------|
| <b>INPUT PV (ONLY FOR HYBRID)</b>                                 |  |                       |                       |                       |                       |
| Max. Input Power [W]  | 3900   | 4680                  | 5980                  | 6500                  | 7800                  |
| Max. Input Voltage [V]  |  |                       | 600                   |                       |                       |
| Start-up Input Voltage [V]  |  |                       | 75                    |                       |                       |
| Rated Input Voltage [V]   |  |                       | 360                   |                       |                       |
| MPPT Operating Voltage Range [V]                                  |  |                       | 80 ~ 550              |                       |                       |
| Max. Input Current [A]  |  |                       | 13.5/13.5             |                       |                       |
| Max. Short-circuit Current [A]                                    |  |                       | 15/15                 |                       |                       |
| No. of Independent MPP Trackers                                   | 2  | 2                     | 2                     | 2                     | 2                     |
| No. of Strings per MPP Tracker                                    | 1  | 1                     | 1                     | 1                     | 1                     |
| <b>BATTERY CONNECTION</b>   |  |                       |                       |                       |                       |
| Battery Type  | Lithium Battery (LFP)  |                       |                       |                       |                       |
| Battery Voltage [V]   | 85 ~ 450   |                       |                       |                       |                       |
| Max. Charge/Discharge Current [A]                                 | 40   |                       |                       |                       |                       |
| Communication Interface   | CAN(Communicate With Inverter), RS485 (Upgrade BMS)                                  |                       |                       |                       |                       |
| <b>AC INPUT AND OUTPUT (GRID)</b>                                 |  |                       |                       |                       |                       |
| Max. AC Input Power [VA]  | 7000   | 7680                  | 9600                  | 10000                 | 12000                 |
| Max. AC Input Current (per phase) [A]                             | 31.8   | 34.9                  | 43.6                  | 45.5                  | 54.5                  |
| Rated Output Power [W]  | 3000   | 3680                  | 4600                  | 5000                  | 6000                  |
| Max. Output Apparent Power [VA]                                   | 3300   | 4048                  | 5060                  | 5500                  | 6600                  |
| Rated Output Current (per phase) [A]                              | 13.0   | 16.0                  | 20.0                  | 21.7                  | 26.1                  |
| Max. Output Current [A]   | 14.3   | 17.6                  | 22.0                  | 23.9                  | 28.7                  |
| Rated Grid Voltage [V]  | 220/230/240  |                       |                       |                       |                       |
| Rated Grid Frequency [Hz]   | 50/60  |                       |                       |                       |                       |
| Power Factor  | 1 ( Adjustable from 0.8 leading to 0.8 lagging )                                     |                       |                       |                       |                       |
| THDi [%]  | <3 @rated power  |                       |                       |                       |                       |
| <b>EPS OUTPUT (WITH BATTERY)</b>                                  |  |                       |                       |                       |                       |
| Max. Output Apparent Power [VA]                                   | 5000   | 5000                  | 6000                  | 6000                  | 6000                  |
| Peak Output Apparent Power (60s) [VA]                             | 6000   | 6000                  | 7200                  | 7200                  | 7200                  |
| Max. Current (per phase) [A]                                      | 21.7   | 21.7                  | 26.1                  | 26.1                  | 26.1                  |
| Rated Output Voltage [V]  | 220/230/240  |                       |                       |                       |                       |
| Rated Output Frequency [Hz]                                       | 50/60  |                       |                       |                       |                       |
| Power Factor  | 1 ( Adjustable from 0.8 leading to 0.8 lagging )                                     |                       |                       |                       |                       |
| THDv ( linear Load ) [%]  | <2 @rated power  |                       |                       |                       |                       |
| Switch time [ms]  | <20  |                       |                       |                       |                       |
| <b>EFFICIENCY</b>   |  |                       |                       |                       |                       |
| Euro Efficiency [%]   | 97.00  |                       |                       |                       |                       |
| Max. Efficiency [%]   | 97.80  |                       |                       |                       |                       |
| Max. Battery Charge Efficiency<br>(PV to BAT) (@full load) [%]    | 98.50  |                       |                       |                       |                       |
| Max. Battery Discharge Efficiency<br>(BAT to AC) (@full load) [%] | 97.00  |                       |                       |                       |                       |
| <b>PROTECTION</b>   |  |                       |                       |                       |                       |
| Insulation Monitoring   | YES  |                       |                       |                       |                       |
| Residual Current Monitoring                                       | YES  |                       |                       |                       |                       |
| DC Reverse Polarity Protection                                    | YES  |                       |                       |                       |                       |
| Anti-islanding Protection   | YES  |                       |                       |                       |                       |
| AC Short-circuit Protection                                       | YES  |                       |                       |                       |                       |
| AC Overcurrent/Overvoltage Protection                             | YES  |                       |                       |                       |                       |
| DC Switch   | YES  |                       |                       |                       |                       |
| SPD   | DC: Type II, /AC: Type III   |                       |                       |                       |                       |
| <b>GENERAL DATA</b>   |  |                       |                       |                       |                       |
| Dimensions (WxHxD) [mm]   | 430*410*178  |                       |                       |                       |                       |
| Weight [kg]   | 23   |                       |                       |                       |                       |
| Installation  | Wall-Mounted   |                       |                       |                       |                       |
| Topology  | Transformerless  |                       |                       |                       |                       |
| Cooling Method  | Natural  |                       |                       |                       |                       |
| Noise Emission [dB]   | 35   |                       |                       |                       |                       |
| Max. Operating Altitude [m]                                       | 2000   |                       |                       |                       |                       |
| Operating Temperature Range [°C]                                  | -25 ~ 60   |                       |                       |                       |                       |
| Humidity ( No Condensation ) [%]                                  | 0 ~ 100  |                       |                       |                       |                       |
| Protection Degree   | IP65   |                       |                       |                       |                       |
| Standby consumption[W]  | <10  |                       |                       |                       |                       |
| Monitoring Module   | WiFi, LAN, 4G, GPRS (Optional)   |                       |                       |                       |                       |
| Communication   | 2*RS485, DRM, Ripple Control, USB  |                       |                       |                       |                       |
| Display   | LCD, App, Website  |                       |                       |                       |                       |
| <b>STANDARD COMPLIANCE (MORE AVAILABLE UPON REQUEST)</b>          |  |                       |                       |                       |                       |
| Safety  | EN 62109-1, EN 62109-2   |                       |                       |                       |                       |
| EMC   | EN 61000-6-2, EN 61000-6-3   |                       |                       |                       |                       |
| Grid Regulation   | EN50549-1, C10 / 11, VDE-AR-N 4105, G98, G99, CEI 0-21, NRS 097-2-1, AS / NZS 4777.2 |                       |                       |                       |                       |

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