



# H3 Smart

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

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](http://www.fox-ess.com)

up to  
**15kW**  
charge/  
discharge



## 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]                                      |               |               |               |
| Norminal 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                                           |              |                                                                                                                    |              |                                               |               |               |               |
| Normalinal 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]           |              |                                                                                                                    |              | 400/230Vac; 380/220Vac, 3L/N/PE               |               |               |               |
| Rated Grid Frequency [Hz]                           |              |                                                                                                                    |              | 50/60, ±5                                     |               |               |               |
| Rated AC Current [A] (Per Phase)                    | 7.6          | 9.1                                                                                                                | 12.1         | 15.0                                          | 15.2          | 18.2          | 22.7          |
| Max. AC Current [A] (Per Phase)                     | 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]           |              |                                                                                                                    |              | 400/230Vac; 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                                          | 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]                            |              |                                                                                                                    |              | 400/230Vac; 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                                          | 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         |
| Euro-Efficiency [%]                                 |              |                                                                                                                    |              | 97.20                                         |               |               |               |
| PROTECTION                                          |              |                                                                                                                    |              |                                               |               |               |               |
| PV Reverse Polarity Protection                      |              |                                                                                                                    |              | YES                                           |               |               |               |
| Battert Reverse Protection                          |              |                                                                                                                    |              | YES                                           |               |               |               |
| Anti-Islanding Protection                           |              |                                                                                                                    |              | YES                                           |               |               |               |
| Output Short Protection                             |              |                                                                                                                    |              | YES                                           |               |               |               |
| Leakage Current Protection                          |              |                                                                                                                    |              | YES                                           |               |               |               |
| Insulation Resistor Detection                       |              |                                                                                                                    |              | YES                                           |               |               |               |
| Over Voltage Category                               |              |                                                                                                                    |              | III(AC side), II(DC side)                     |               |               |               |
| Reverse Connect Protection                          |              |                                                                                                                    |              | YES                                           |               |               |               |
| Over-Current Protection/Over-Temperature 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.