

# H3 Smart

## HYBRID/AC INVERTER



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

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



Lightspeed 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.



## BATTERY EXPANSION EASY UPGRADE



Easily expand your system by just add extra batteries. There are three battery series you can choose, which enables a storage capacity of up to 41.93 kWh.

# 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
<b>PV INPUT</b>							
Max. DC Input Power [W]	11000	13200	17600	18000	18000	18000	18000
Max. DC Voltage [V]				1000 [1]			
Normalinal 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 ~ 900			
Start-up Input Voltage [V]				150			
MPPT Voltage Range [V](Full Load)	120 ~ 850	120 ~ 850	140 ~ 850	175 ~ 850	175 ~ 850	210 ~ 850	263 ~ 850
No. of MPP Trackers				3			
Strings per MPP Tracker				1+1+1			
<b>BATTERY</b>							
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			
<b>AC OUTPUT</b>							
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			
<b>AC INPUT</b>							
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
<b>EPS OUTPUT</b>							
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]				<20			
THDV [%]				<3 @Linear load			
<b>EFFICIENCY</b>							
MPPT Efficiency [%]				99.90			
Max. Efficiency [%]				98.20			
Euro-Efficiency [%]				97.20			
<b>PROTECTION</b>							
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			
<b>GENERAL DATA</b>							
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			
standby Mode				YES			
Cooling	Natural	Natural	Natural	Natural	Natural	Natural	FAN cooling
Noise Grade [dB]	<40	<40	<40	<40	<40	<40	<55
Inverter Topology				Non-isolated			
Communication Interface		Ethernet, EMS(RS485), Meter, WiLAN(Wifi+LAN+Bluetooth), 4G(Optional), DRM, Ripple Control, USB, BMS(CAN), 5G Ready					
LCD Display				Backlight 16*4 character			
Standard Warranty [year]				10			
Button				Capacitive touch sensor *4			
Buzzer				1, inside(EPS&Earth fault)			

[1] For 1000V system, PV Maximum operating voltage is 900V.

[2] The starting working voltage of the power supply is 90V.

[3] Belgian safety regulations require an apparent power of 10000W to be 10000VA.