



**DATASHEET**  
 Three-Phase Hybrid/AC Inverter  
 H3-5.0-E / 6.0 / 8.0 / 10.0 /12.0  
 AC3-5.0-E / 6.0 / 8.0 / 10.0/12.0

# 3-PHASE

## HYBRID/AC INVERTER

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

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



ORBUS 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

Connects to 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.



upto  
**12kW**  
charge/  
discharge

REFINED- POWERFUL- FLEXIBLE

## BATTERY EXPANSION EASY UPGRADE



Expand your system easily by simply adding additional batteries. There are three battery size options, and four batteries can be installed in series, providing up to 10.4kWh of storage capacity.

# TECHNICAL SPECIFICATIONS

Model	H3-5.0-E AC3-5.0-E	H3-6.0-E AC3-6.0-E	H3-8.0-E AC3-8.0-E	H3-10.0-E AC3-10.0-E	H3-12.0-E AC3-12.0-E
<b>INPUT PV (For hybrid only)</b>					
Max. recommended DC power[W]	7500	9000	10400	13000	15000
Max. DC voltage [V]			1000		
Nominal DC operating voltage [V]			720		
Max. input current (input A/input B)[A]	14A/14A	14A/14A	26A/14A	26A/14A	26A/14A
Max. short circuit current[A]	16A/16A	16A/16A	32A/16A	32A/16A	32A/16A
Start-Up voltage [V]			160V		
MPPT voltage range [V]			160-950		
MPPT voltage range (Full load) [Vdc]	210-800	250-800	240-800	280-800	320-800
No. of MPPT trackers			2		
Strings per MPPT tracker	1+1	1+1	2+1	2+1	2+1
<b>OUTPUT AC</b>					
Nominal AC power [VA]	5000	6000	8000	10000	12000
Max. apparent AC power [VA]	5500	6600	8800	11000	13200
Rated grid voltage (AC voltage range) [V]			400V/230VAC;380V/220VAC,3L/N/PE		
Rated grid Frequency [Hz]			50/60, ±5		
Max. AC current [A]	8.0	9.6	12.8	16.0	19.2
Displacement power factor			1(Adjustable from 0.8 leading to 0.8 lagging)		
Total harmonic distortion (THD <sub>i</sub> rated power)			<3%		
Unbalance output			Yes		
Parallel operation			Yes @max.0PCS		
Max. output fault current [A]			150A@0.5ms		
Max. output overcurrent protection [A]			45		
<b>BATTERY</b>					
Battery Type			Lithium battery		
Battery voltage [V]			180-600		
Full AC load Battery voltage [V]	205	250	330	410	480
Max. Charge/ discharge current [A]			26.0		
Communication interface			CAN/RS485		
<b>INPUT AC</b>					
Max. AC power [VA]	10000	12000	16000	16000	16000
Max. AC current [A]	15.2	18.2	24.2	24.2	24.2
Rated grid voltage (AC voltage range) [V]			400V/230VAC;380V/220VAC,3L/N/PE		
Rated grid frequency [Hz]			50/60, ±5Hz		
Power factor			1(Adjustable from 0.8 leading to 0.8 lagging)		
AC Inrush current [A]			15A@0.5ms		
<b>EPS OUTPUT</b>					
Nominal AC power [W]	5000	6000	8000	10000	12000
Max. AC power (60s) [VA]	10000	12000	14000	15000	15000
EPS rated voltage [V], Frequency [Hz]			400V/230VAC;380V/220VAC,3L/N/PE, 50/60		
EPS Max current [A](Per phase)	15.2	18.2	21.2	22.7	22.7
Power factor			1(Adjustable from 0.8 leading to 0.8 lagging)		
Switch time			<20ms		
THDV			<3%@rated power		
<b>EFFICIENCY</b>					
MPPT efficiency	99.90%	99.90%	99.90%	99.90%	99.90%
Max. efficiency	97.80%	97.80%	98.00%	98.00%	98.00%
Euro-efficiency	97.20%	97.20%	97.30%	97.30%	97.30%
<b>PROTECTION</b>					
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		
Over voltage category			III(AC side), II(DC side)		
Over-current protection / Over-temperature protection			YES		
AC/DC surge protection			Type II		
AFCI protection			Optional		
DC SWITCH			YES		
String monitoring function			optional		
<b>ENVIRONMENT LIMIT</b>					
Dimension(W/H/D) [mm]			449*519*198		
Net weight [kg]			28		
Installation			wall-mounted		
Operating temperature range [°C]			-25to+60°C(derating at 45°C)		
Storage temperature			-40to+70°C		
Storage/Operation relative humidity			0%-95%(without condensation)		
Altitude [m]			<2000		
Protective class			I		
Ingress protection			IP65(for outdoor use)		
Standby consumption [W]			200W for hot standby, 15W for cold standby		
Cooling			Natural FAN cooling		
Inverter topology			Non-isolated		
Communication interface			Ethernet, Meter, WiFi, 4G(optional), DRM, USB, BMS(CAN&RS485), RS485		
LCD display			Backlight 16*4 character		
warranty			10 years		

ORBUS ESS  
High Voltage  
Battery Series  
BMS-BOX

HIGH VOLTAGE  
FROM ORBUS ESS



SPECIFICATIONS

Model NO.	BMS-BOX
Operating voltage range(V)	60-500VDC
Max. charge/discharge current (A)	50A/50A
Total voltage measurement accuracy	±1.0%FSR
Total voltage measurement channel	2
Current measurement range	-65A~+65A
Insulation measurement accuracy	±5%@≤100KΩ
Communication interfaces	RS485/CAN
Available SOC range	10%~100%
Charge/Discharge efficiency (%)	>98
Operating temperature (°C)	-10 ~ 50
Storage temperature (°C)	-20 ~50
Humidity	10%~90%
Weight (kg)	4.5±1 kg
Dimensions (L*W*H)(mm)	443*410*116



  
High  
Voltage

  
Easy  
Installation

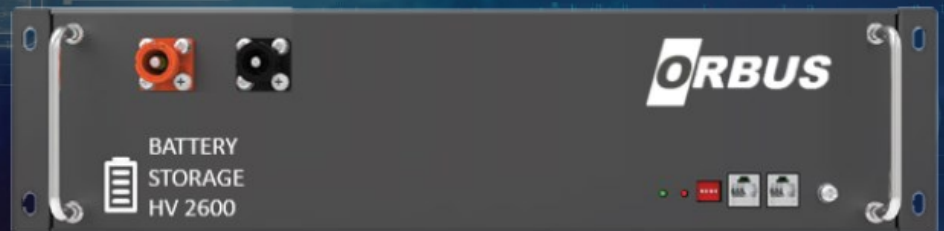
  
High  
Efficiency

  
Expandable  
System



## ORBUS ESS HV2600 BATTERY MODULE

### HIGH VOLTAGE BATTERIES FROM ORBUS ESS



The HV2600 is a high-performance, scalable battery storage module. The modular design allows for maximum flexibility, making it suitable for a broad range of storage applications.

Additional batteries can be installed in series, allowing for a maximum storage capacity of 20.8kWh. Installation is easy, with a plug and play solution that can save valuable time for installers.

- 2.6kWh Capacity
- Scalable to 20.8 kWh
- 98% Charge/Discharge Efficiency
- 90% Depth of Discharge
- Wide Temperature Tolerance
- Easy Installation
- CAN/RS485 Communication
- High Voltage



# ORBUS ESS HV2600

## BATTERY MODULE

### SPECIFICATIONS

Battery Module*	2	3	4	5	6	7	8
Nominal Capacity (kWh)	5.2	7.8	10.4	13.0	15.60	18.20	20.80
Maximum Charge Voltage (V)	1168	175.2	233.6	292.0	350.40	408.80	467.2
Discharge Cut Voltage (V)				40			
Rated Charge / Discharge Current (A)				50			
Peak Discharge Current (A)				60			
Peak Charge Current (30S) (A)				60			
Operating Temperature (°C)				-10 – 50°C			
Storage Temperature (°C)				-20 – 50°C			
Charge/Discharge Efficiency (%)				>98			
Protection Level				IP21			
Weight (kg)	54	81	108	135	162	189	216
Dimensions (L*W*H) (mm)	443*410*232	443*410*348	443*410*464	443*410*580	443*410*696	443*410*812	443*410*928

\*Minimum of 2 battery modules per system.

