

Home Battery Energy Storage System



Product Introduction

A hybrid all in one BESS, compatible with high voltage LFP battery system, can achieve the best function to maximize clean solar power usage for your home.

Convenient

Heat stimulation for the best layout

Quiet

Less than 25 db, no noise pollution

Flexible

IP65 up to 6kW, 5/10kWh optional

Adaptative

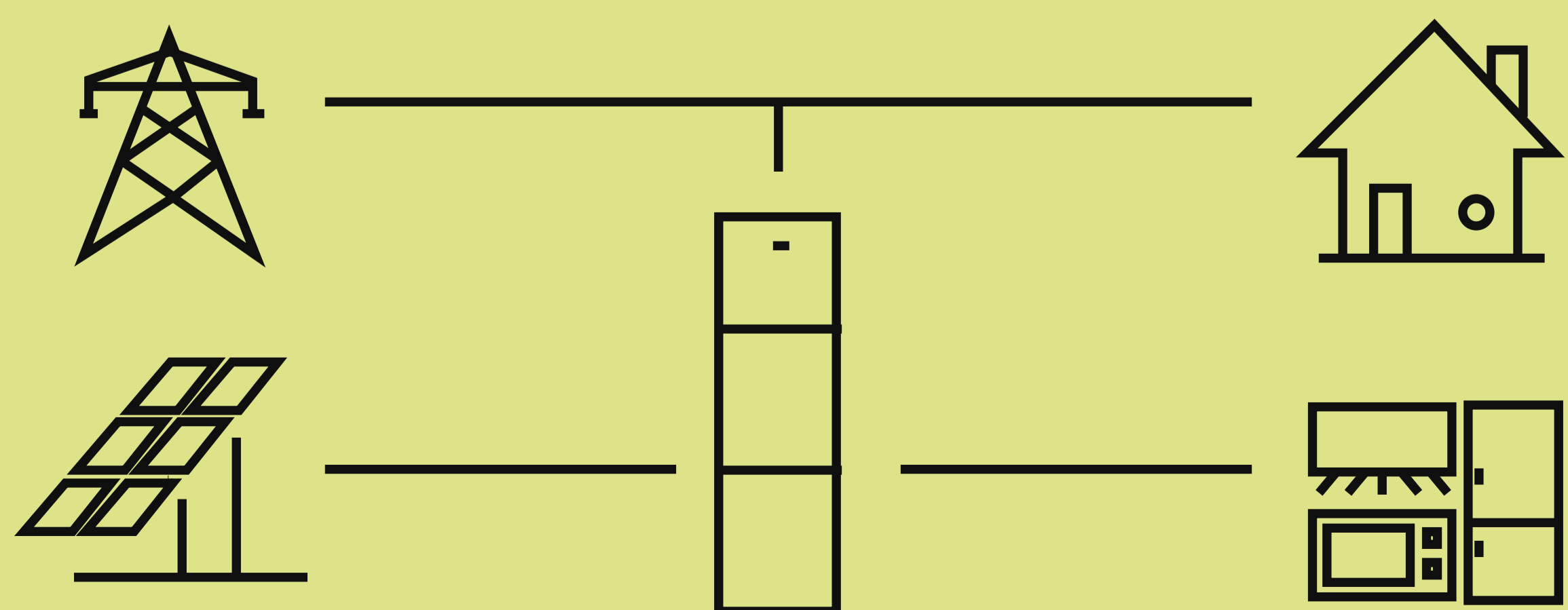
Self-power, backup, and load shifting modes

Independent

No additional modules and inverters are required

Smart

Support VPP and AIOT



- BESS will store photovoltaic or grid energy. If there is not enough solar energy to support consumption, the battery will be discharged by BESS to meet the power demand.
- Autonomous strategy.
- Country of Manufacture: China

Technical Parameters

Model	EVANTRA-3.6HS-5.12KWH EVANTRA-3.6HS-10.24KWH	EVANTRA-5.0HS-5.12KWH EVANTRA-5.0HS-10.24KWH	EVANTRA-6.0HS-5.12KWH EVANTRA-6.0HS-10.24KWH
PV Input			
Absolute max Voltage (d.c.V)		600	
MPPT Voltage Range (d.c.V)		100...550	
Max. DC Input Power (W)	4800		6650 8000
Start-up Voltage (d.c.V)		90	
Rated Operating Voltage (d.c.V)		360	
Max. Input Current (d.c.A)		12.5/12.5	
Max. inverter backfeed current to array (d.c.A)		0	
Isc PV (d.c.A)		18/18	
NO.of MPPT Trackers		2	
NO.of Strings per MPPT Tracker		1	
Battery Model	WH-BXB5.12 ⁽¹⁾		WH-BXB10.24 ⁽²⁾
Battery Capacity	LiFePO4 5.12kWh		LiFePO4 10.24kWh
Nominal Battery Voltage (d.c.V)	204.8		409.6
Battery Voltage Range (d.c.V)	160...227.2		320...454.4
Max. Charge/Discharge Current (d.c.A)		25/25	
Cycling times/Depth of Discharge(%)		6000/90%	
AC Input/Output			
Rated output Power (W)	3600		5000 6000
Rated Apparent Power to Grid (VA)	3600		5000 6000
Max. Apparent Power to Grid (VA)	3600		5000 6000
Max. Apparent Power from Grid (VA)	7200		10000 12000
Rated Voltage (a.c.V)		220/230/240	
Rated Frequency (Hz)		50/60	
Rated AC Current to Grid (a.c.V)	15.6		21.7 26.1
Max. output current (a.c.A)	17.2		23.9 28.7
Max. Current from Grid (a.c.A)	31.2		43.4 52.2
Inrush current (a.c.A)		16 a.c.A (peak), 11.3 us (duration)	
Max. output fault current (a.c.A)		57 (peak), 40 (rms)	
AC output Maximum output overcurrent protection (a.c.A)		40	
AC input power factor		-0.8...+0.8	
AC output power factor		1 (-0.8...+0.8 adjustable)	
THDi		<3%	
EPS Output (With Battery)			
Max. Output Power (W)	3600		5000 6000
Rated Apparent Power (VA)	4320		6000 7200
Max. Apparent Power (VA)	4320		6000 7200
Rated Voltage (a.c.V)		230 (±2%)	
Norminal Frequency (Hz)		50/60 (±0.2%)	
Max. Output Current (a.c.A)	18.8		26.1 31.3
Inrush current (a.c.A)		16 a.c.A (peak), 11.3 us (duration)	
Max. output fault current (a.c.A)		57 (peak), 40 (rms)	
EPS output Maximum output overcurrent protection (a.c.A)		40	
Switch time (ms)		<10	
THDv @Linear Load (%)		<2	
Power Factor		-0.8...+0.8	
Efficiency			
PV Max. Efficiency (%)		97.6	
PV Europe Efficiency (%)		97	
PV Max. MPPT Efficiency (%)		99.9	
Battery Charge by PV Max. Efficiency (%)		98	
Battery Discharge Efficiency (%)		96.7	
Protection			
Over/Under voltage protection		Yes	
DC isolation protection		Yes	
DC injection monitoring		Yes	
Residual current detection		Yes	
Anti-islanding protection		Yes	
Over load protection		Yes	
Battery Input reverse polarity protection		Yes	
PV reverse polarity protection		Yes	
Surge protection		Yes	
Over heat protection		Yes	
General Data	WH-BXB5.12		WH-BXB10.24
Dimension (W/D/H)(mm)	550*233*1125		550*233*1750
Dimension of Packing (W/D/H)(mm)	655*302*1390		655*302*2085
Net weight (kg)	68		115
Gross weight (kg)	78		130
Operation Temp (°C)		-10...+55	
Relative Humidity (%)		0...95	
Altitude (m)		≤3000	
Ingress Protection		IP65	
Cooling		Natural	
Inverter Topology		Non-isolated	
Over voltage category		III(AC), II(DC)	
Protective class		Class I	
Active anti-islanding method		frequency shift	
Human Interface		LED/APP	
BMS Communication Interface		RS485/CAN	
Meter Communication Interface		RS485	
Noise Emission (dB)		<25	
Standby Power Consumption (W)		<5	
Safety and Approvals			
Safety		IEC62040.1:2019 IEC 62109-1&-2 IEC62619 UN38.3 IEC60730-1	
EMC		EN IEC 61000-6-2:2019 EN IEC 61000-6-3:2021	
Country	AS/NZS 4777.2:2020 VDE-AR-N 4105:2018-11 MEA:2015 PEA:2016 EN 50549-2:2019 EN 50549-1+Poland deviation G99/1-6:2020 G98/1-6:2021 RD1699+UNE		Distribution Code VDE0126+UTE C10/11: 2021

(1). The internal battery/Internal Battery Model Number WH-BXB5.12) will be applied to equipment with BESS Model Number: EVANTRA-3.6HS-5.12KWH, EVANTRA-5.0HS-5.12KWH, EVANTRA-6.0HS-5.12KWH.
(2). The internal battery/Internal Battery Model Number WH-BXB10.24) will be applied to equipment with BESS Model Number: EVANTRA-3.6HS-10.24KWH, EVANTRA-5.0HS-10.24KWH, EVANTRA-6.0HS-10.24KWH.