

Ubbink Battery Energy Storage System 3Phase

Product information

The Ubbink Battery Energy Storage System offers a fully integrated solution, including batteries, an Energy Management System (EMS), and an inverter in 4 different capacity variants. The system supports residential owners to streamline energy usage, optimize costs and increase independence. The plug-and-play configuration offers easy installation and safe operation. Battery storage systems safeguard energy supply all year around, also when the sun is not shining. In combination with a photovoltaic system it can significantly increase the autarky rate and offer a major contribution to the energy transition.

Inverter

- Multifunctional hybrid inverter/charger
- Full blackout capability with built-in anti-islanding functionality
- Grid or generator current sources can be selected
- Off grid as well as grid connected PV

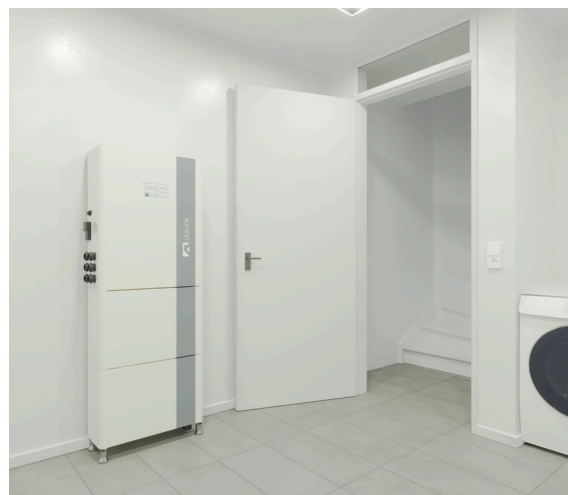
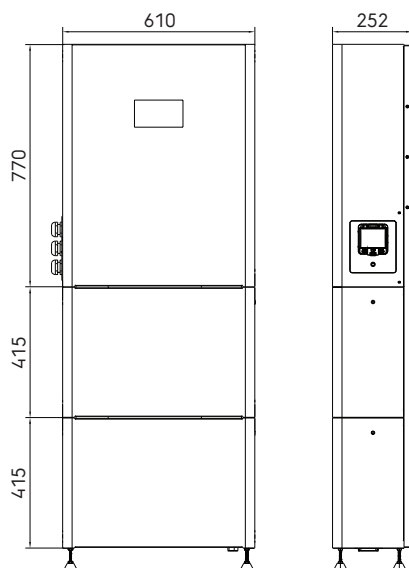
Battery

- Lithium Iron Phosphate | LFP
- 10 year warranty on battery cycles
- Easy installation and connection
- Energy Secure for continuous health monitoring
- Integrated aerosol fire suppression system

EMS

- Real-time and historical data of energy flows
- Sync EV charging, heat pump operation and battery charging with solar PV
- Prioritize solar power use of different devices in the home
- Continuous monitoring of safety related parameters
- Highly flexible connection of energy devices
- Management via the Voltara installer app

Product dimensions - M10KH3UB



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Technical specifications

Power	6 kVa 3Phase	8 kVa 3Phase	10 kVa 3Phase	15 kVa 3Phase
Type	Hybrid All-in-One System			
Product name	M6KH3UB	M8KH3UB	M10KH3UB	M15KH3UB
DC-Input (PV)				
PV Nominal input power	6 kW	8 kW	10 kW	15 kW
PV Max. input power	8 kWp	12 kWp	15 kWp	22.5 kWp
Max. input voltage	1000 Vdc			
Min. startup voltage	>125 Vdc			
Nominal input voltage	600 Vdc			
MPPT Operational range	180 Vdc - 860 Vdc			
Number of MPPTs	2			
Max. input number per MPP tracker	1			
Nominal input current per MPPT	13 A 13 A			20 A 20 A
Max. short-circuit per MPPT	16 A 16 A			30 A 30 A
Max. MPPT efficiency	99.5% at 850 Vdc			
AC-Input (GRID) Peak				
Nominal input power	12 kW	16 kW	20 kW	30 kW
Nominal input current	17.3 A	23.1 A	28.8 A	43.4 A
Max. input current	19 A	25.5 A	31.9 A	47.6 A
Grid nominal voltage	3/N/PE 230/400 Vac 3Phase			
Grid nominal frequency	50/60Hz ±5 Hz			
Max. input apparent power	13.2 kVA	17.6 kVA	22 kVA	33.3 kVA
AC-Output (GRID) Nominal				
Nominal output power	6 kW	8 kW	10 kW	15 kW
Nominal output current	8.7 A	11.5 A	14.4 A	17.3 A
Max. output current	9.5 A	12.7 A	15.9 A	23.8 A
Grid nominal voltage	3/N/PE 230/400 Vac 3Phase			
Grid nominal frequency	50 / 60Hz ±5 Hz			
Nominal output apparent Power	6 kVA	8 kVA	10 kVA	15 kVA
Max. output apparent power	6.6 kVA	8.8 kVA	11 kVA	16.5 kVA
THDI (Harmonics)	<3%			
AC-Output (EPS) Emergency Power Off-grid				
Nominal output power	6 kVA	8 kVA	10 kVA	15 kVA
Nominal output current at 400V	8.7 A	11.5 A	14.4 A	21.7 A
Nominal output voltage	3/N/PE 230/400 Vac 3Phase			
Nominal nominal frequency	50/60Hz ±1 Hz			
Max. output apparent Power <10 min	6.6 kVA	8.8 kVA	11 kVA	16.5 kVA
Peak output apparent Power to 60 s	7.2 kVA	9.6 kVA	12 kVA	18 kVA
Max. output current	9.5 A	12.7 A	15.9 A	23.8 A
THDI (Linear load)	<2%			
Switching time	<10 ms			

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Technical specifications (continuation)

Power	6 kVa 3Phase	8 kVa 3Phase	10 kVa 3Phase	15 kVa 3Phase
GEN-Input (GEN)				
GEN Connection (max)	3Phase			
GEN Input Power (max)	6 kW	8 kW	10 kW	15 kW
GEN Input Current per Phase	13 A	13 A	13 A	20 A
Efficiency				
Max. MPPT efficiency	99.9%			
Max. efficiency	97.9%	97.9%	98.2%	98.5%
European efficiency	97.2%	97.2%	97.5%	97.6%
Max. efficiency charge / discharge	97.5%	97.5%	97.5%	97.8%
Battery parameters				
Number of batteries Min. Max.	2 5	2 5	2 5	3 5
Nominal battery energy Min. Max.	10.24 Wh 25.6 Wh	10.24 Wh 25.6 Wh	10.24 Wh 25.6 Wh	15.36 Wh 25.6 Wh
Usable battery energy Min. Max.	9.2 Wh 23 Wh	9.2 Wh 23 Wh	9.2 Wh 23 Wh	13.8 Wh 23 Wh
EV-Charger parameters				
Reference	EV: 80 kWh at 10% SoC			
Recommended EV-Charger power	3.5 kW (Type 2)	7 kW (Type 2)	7 kW (Type 2)	11 kW (Type 2)
Charge time	18 - 20 hrs	10 - 12 hrs	10 - 12 hrs	6 - 8 hrs
System configuration				
				
Module parameters				
Cell type	LFP - Lithium Iron Phosphate			
Module cell configuration	32S1P			
Module capacity	50 Ah			
Module energy	5120 Wh			
Module Max. charge / discharge power	2560 W (0.5C) / 5120 W (1.0C)			
Module Max. charge / discharge current	25 A (0.5C) / 50 A (1.0C)			
Module nominal input voltage	102.4 Vdc			
Max. module charge voltage	116.8 Vdc			
Max. module discharge voltage	92.8 Vdc			
Max. DoD standard operation	90%			
Module efficiency (DC)	>98.5%			
Lifetime	6000 charging cycles at +25°C - 100 % DoD 80% nameplate capacity			
Storage time	6 Month / Battery service disconnected			

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Technical specifications (continuation)

Power	6 kVa 3Phase	8 kVa 3Phase	10 kVa 3Phase	15 kVa 3Phase
BMS communication	CAN / RS485			
Safety functions				
Asymmetric load capable	Yes			
BMS integrated	Yes			
Battery charge from grid	Yes			
DC-Switch	Yes			
PV Reverse polarity protection	Yes			
Battery reverse polarity protection	Yes			
Output short circuit protection	Yes			
Output short over-current protection	Yes			
Output over-voltage protection	Yes			
Isolation failure detection	Yes			
Fault current detection	Yes			
Island protect VDE-AR-N 4105	Yes			
Integrated fire suppression system	Yes			
Internal bypass Auto-reset	Yes			
Surge protection	PV: Typ II, AC: Typ II			
General parameters				
Standard operational modes	Self consumption mode Black start mode Peak consumption mode Off grid mode Generator mode			
Operating temperature range	0 °C - +50 °C			
Storage temperature range	-20 °C - +60 °C			
Air humidity	5% - 95%			
Max. elevation	<2000m			
Consumption in standby mode	<20W			
Installation mode	Wall mounted			
Ingress	IP65 Outdoor			
Noise emission	<35 dB (at 1 m)			
Dimensions (LxHxW)	Inverter 610 x 770 x 252 mm Battery 610 x 415 x 252 mm			
Weight	Inverter 65 kg Battery 51 kg			
Housing type	Steel			
Cooling	Passive cooling			
EMS	Integrated			
Communication interfaces	RS485 / Wi-Fi / LAN / SG Ready / Ripple control receiver Ready / Dynamic electricity tariffs Ready			
Display	Touch LED display			
Guarantee	10 years			
Standards and regulations	EN-IEC 60335-1 / EN-IEC 60335-2-29 / EN-IEC 62109-1 / EN-IEC 62109-2 / VDE-AR-E 2829-6-1 / EN-IEC 55014-1 / EN-IEC 55014-2 / CE / IEC62619 / UN38.3 / VDE2510-50 / RoHS			
EMC	EN-IEC 61000-6-1 / EN-IEC 61000-6-2 / EN-IEC 61000-6-3 / EN-IEC 61000-6-4 / EN-IEC 61000-3-3 / EN-IEC 55022			

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