

AEG

RESIDENTIAL ALL-IN-ONE ENERGY STORAGE SYSTEM AS-BSH07 SERIES



CHARACTERISTICS

All-in-one: Inverter + High voltage battery system
Battery rated energy: 5.0kWh - 30.0kWh
Inverter power classes: 4.0kW - 15.0kW
Three-phase, 2/3 MPPT, High voltage
Product Name Code (PNC): AS-BSH07C-4.0K-3 | AS-BSH07C-5.0K-3 | AS-BSH07C-6.0K-3 | AS-BSH07C-8.0K-3 | AS-BSH07C-10.0K-3 | AS-BSH07C-12.0K-3 | AS-BSH07C-15.0K-3



**EXTRA PEACE OF MIND:
12/ 10 YEARS PRODUCT
WARRANTY
(INVERTER/ BATTERY)**

For the full warranty terms see: www.aeg-solar.com

ADVANTAGES

FLEXIBLE

- Low start-up voltage for longer operation
- 200% oversizing and 200% PV input power
- Max. 20A PV input per MPPT
- All-in-one, plug-and-play design
- Wireless meter solution
- Support smart scene functions (e.g., heat pump, EV charger)

RELIABLE

- IP66 rated ingress protection
- Type II SPD on AC & DC side
- Up to 200% EPS output for 10s
- UPS-level switchover time <10ms
- Unique battery heating tech and wide temperature tolerance

USER-FRIENDLY

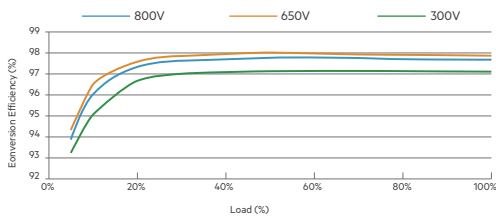
- Global MPP scan for optimal energy harvest
- Smart loads management
- AI ready, forecasting solar generation and home consumption for smart energy management strategy control
- Versatile installation for varied needs
- AFCI protection (optional)

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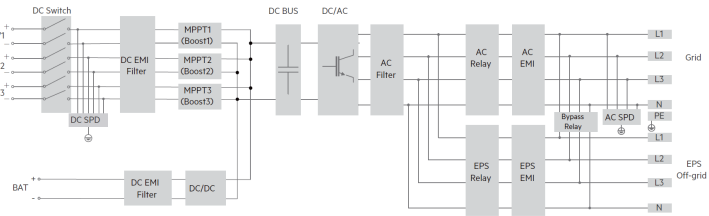
System Configuration



Efficiency Curve



Circuit Diagram



Rated power	4 kW / 5 kW / 6 kW / 8 kW / 10 kW / 12 kW / 15 kW					
Number of batteries	1	2	3	4	5	6
Rated energy ¹	5.1 kWh	10.2 kWh	15.3 kWh	20.4 kWh	25.6 kWh	30.7 kWh
Usable energy ²	4.6 kWh	9.2 kWh	13.8 kWh	18.4 kWh	23.0 kWh	27.6 kWh
Max. power ³	5.1 kW	10.2 kW	15.0 kW	15.0 kW	15.0 kW	15.0 kW
Ingress protection	IP66					
Operation temperature range	-30 ~ 53°C					
Relative humidity	4 ~ 100% (Condensing)					
Max. operation altitude	3000 m					
Net weight ⁴	97.2 kg	144.2 kg	191.2 kg	238.2 kg	144.2 kg / 146.2 kg	191.2 kg / 146.2 kg
Dimensions (W x H x D)	730 × 963 × 209.5 mm	730 × 1281 × 209.5 mm	730 × 1599 × 209.5 mm	730 × 1917 × 209.5 mm	730 × 1281 × 209.5 mm / 730 × 1120.5 × 150 mm	730 × 1599 × 209.5 mm / 730 × 1120.5 × 150 mm
Display	LCD					
Cooling concept	Natural cooling					
Topology	Non-isolated					
Communication interface	RS485, Pocket-X, USB, CAN, DO, DI					

1. Test conditions: 25°C, 100% depth of discharge (DoD), 0.2C charge & discharge

2. System usable energy may vary with inverter different setting

3. The max.charge/discharge power must not exceed the rated output power (the table takes the maximum power inverter as an example)

4. Different inverter have different weights. The heaviest one is taken as example

PV INPUT

Max. recommended PV array power	8 kWp	10 kWp	12 kWp	16 kWp	20 kWp	24 kWp	30 kWp
Max. PV input voltage ¹	1000 d.c.V						
Nominal PV input voltage	600 d.c.V						
Operating voltage range	90 ~ 950 d.c.V						
MPPT voltage range ²	110 ~ 950 d.c.V						
Start-up voltage	140 d.c.V						
No. of MPP trackers / Strings per MPP tracker	2 / (1 / 1)			3 / (1 / 1 / 1)			
Max. input current per MPPT (MPPT1/2/3)	20 / 20 d.c.A			20 / 20 / 20 d.c.A			
Max. input short circuit current per MPPT (MPPT1/2/3)	25 / 25 d.c.A			25 / 25 / 25 d.c.A			

AC INPUT & OUTPUT (ON-GRID)

Rated output power	4kVA	5kVA	6kVA	8 kVA	10 kVA	12 kVA	15 kVA
Rated output current	5.8 A	7.3 A	8.7 A	11.6 A	14.5 A	17.4 A	21.8 A
Max. output apparent power	4000 VA	5500 VA	6600 VA	8800 VA	10000 VA	13200 VA	16500 VA
Max. output continuous current	6.1 A	8.4 A	10 A	13.4 A	15.2 A	20.0 A	25.0 A
Nominal AC voltage	3 W / N / PE, 220 / 380 V 3 W / N / PE, 230 / 400 V						
Max. AC input apparent power	10kVA	10kVA	12kV	16 kVA	20 kVA	20 kVA	20 kVA
Max. AC input current	16.1 A	16.1 A	19.3 A	25.8 A	32.0 A	32.0 A	32.0 A
Nominal AC frequency	50 Hz / 60 Hz						
AC frequency range ³	50 ± 5 Hz / 60 ± 5 Hz						
Adjustable power factor range	~ 1 (0.8 lagging to 0.8 leading)						
THDi (rated power)	< 3%						

BATTERY

Battery voltage range	80 ~ 800d.c.V						
Communication interfaces	CAN / RS485						
BMS module	AS-BMH07-CM						
Battery module	AS-BMH07-5.1K						
Composition	AS-BMH07-CM + AS-BMH07-5.1K x (1- 6 stacks) + Base plate+ AS-BAC07 (Required for two column)						
Battery type	Li-ion (LFP)						
Nominal capacity / Nominal capacity ⁴	5.1 kWh / 50 Ah						
Usable energy ⁵	4.6 kWh						
Standard power	3 kW						
Max power	5.1 kW						
Max. charge / discharge current ⁶	50 d.c.A						
Cycle life	> 6000 cycles						
Warranty	10 years						
Safety	CE, RCM, TUV (IEC62619), RoHS, REACH						
AS-BMH07-CM dimensions (W x H x D) / net weight	730 × 165 × 150 mm / 9.3 kg						
AS-BMH07-5.1 dimensions (W x H x D) / net weight	730 × 318 × 150 mm / 47 kg						
Base plate dimensions (W x H x D) / net weight	730 × 75 × 150 mm / 3.9 kg						
AS-BAC07 dimensions (W x H x D) / net weight	167 × 91.5 × 121 mm / 1.3 kg						

EPS (OFF-GRID) OUTPUT (WITH BATTERY)

Rated EPS output voltage, frequency	230 V / 400 V, 50 Hz / 60 Hz						
Rated EPS output power	4 kVA	5 kVA	6 kVA	8 kVA	10 kVA	12 kVA	15 kVA
Peak EPS output power	2 times of rated power, 10 s						
Switchover time	< 10 ms						
	EFFICIENCY						
Max. efficiency	98.0%						
European efficiency	97.7%						
	ENVIRONMENT LIMIT						
Ingress protection	IP66						
Operating ambient temperature range ⁷	-35 - 60°C (> 45°C derating)						
Max. operating altitude	3000 m						
Relative humidity	4 ~ 100% RH (condensing)						
Oversoltage Category	Mains: III, Battery: II, PV: II						
	GENERAL						
Dimensions (W × H × D)	717 × 405 × 209.5 mm						
Net weight	40 kg						
Cooling concept	Nature cooling						
Communication interfaces	RS485, Pocket-X, CAN + RS485, DO, DI						
Power consumption (night)	< 40 W for hot standby, < 5 W for cold standby						
Topology	Non-isolated						
Certificates and approvals	IIEC62109-1 / IEC62109-2, VDE 0126-1-1 A1:2012 / VDE-AR-N 4105 / EN50549 / CEI 0-21						
	PROTECTION						
Protections	Over voltage protection, DC reverse-polarity protection, Residual current detection, Over temperature protection, DC isolation protection, Grid monitoring, DC injection monitoring, Back feed current						
Surge protection (DC / AC)	DC: Type II, AC: Type II						
Arc-fault circuit interrupter (AFCI)	Optional						

1. The maximum input voltage is the upper limit of the DC voltage. Any higher input DC voltage would probably damage the inverter

2. Input voltage exceeding the MPPT voltage range may trigger inverter protection

3. The AC frequency range may vary from different country codes

4. Test conditions: 25°C, 100% depth of discharge (DoD), 0.2C charge & discharge

5. System usable energy may vary with inverter different settings

6. Discharge: In case of the battery cell's temperature range of -20°C-10°C and 45°C-53 °C, the discharge current will be reduced; Charge: In case of the battery cell's temperature range of 0°C-25°C and 45°C-53°C, the charge current will be reduced. Product charge or discharge power depends on the actual temperature of the battery pack

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