



# AESOLAR Residential PV+ Storage Solutions

IT'S TIME TO SAVE THE WORLD.



AESOLAR, as a BNEF Tier 1 German manufacturer of high-quality PV modules, has proven itself to be a dynamic and progressive enterprise. Since our inception in 2003, we have positioned ourselves to be one of the leaders in the private sector.

AESOLAR is headquartered in Augsburg, Germany, with satellite offices in the US, Brazil, and Switzerland. Our production lines are located in China and Turkey with an annual capacity of 2GW.

We have a global distribution network in more than 100 countries, and our products are available in more than 100 countries and regions around the world as well.

Unlike most sales-oriented companies in the industry, AESOLAR focuses more on listening to the needs of its customers and researching and developing accordingly. Making clean energy available to our customers all over the world is our starting point and our goal!

*Alexander Maier*

**Alexander Maier**  
CEO & Founder



Deutsches Institut für Bautechnik



ABOUT AESOLAR

# Common Hybrid Storage System

## ✓ Clean Solar Power

Generate renewable energy directly from your rooftop.

## ✓ Smart Energy Storage

Store surplus power in the battery and use it whenever you need it.

## ✓ Seamless Power Supply

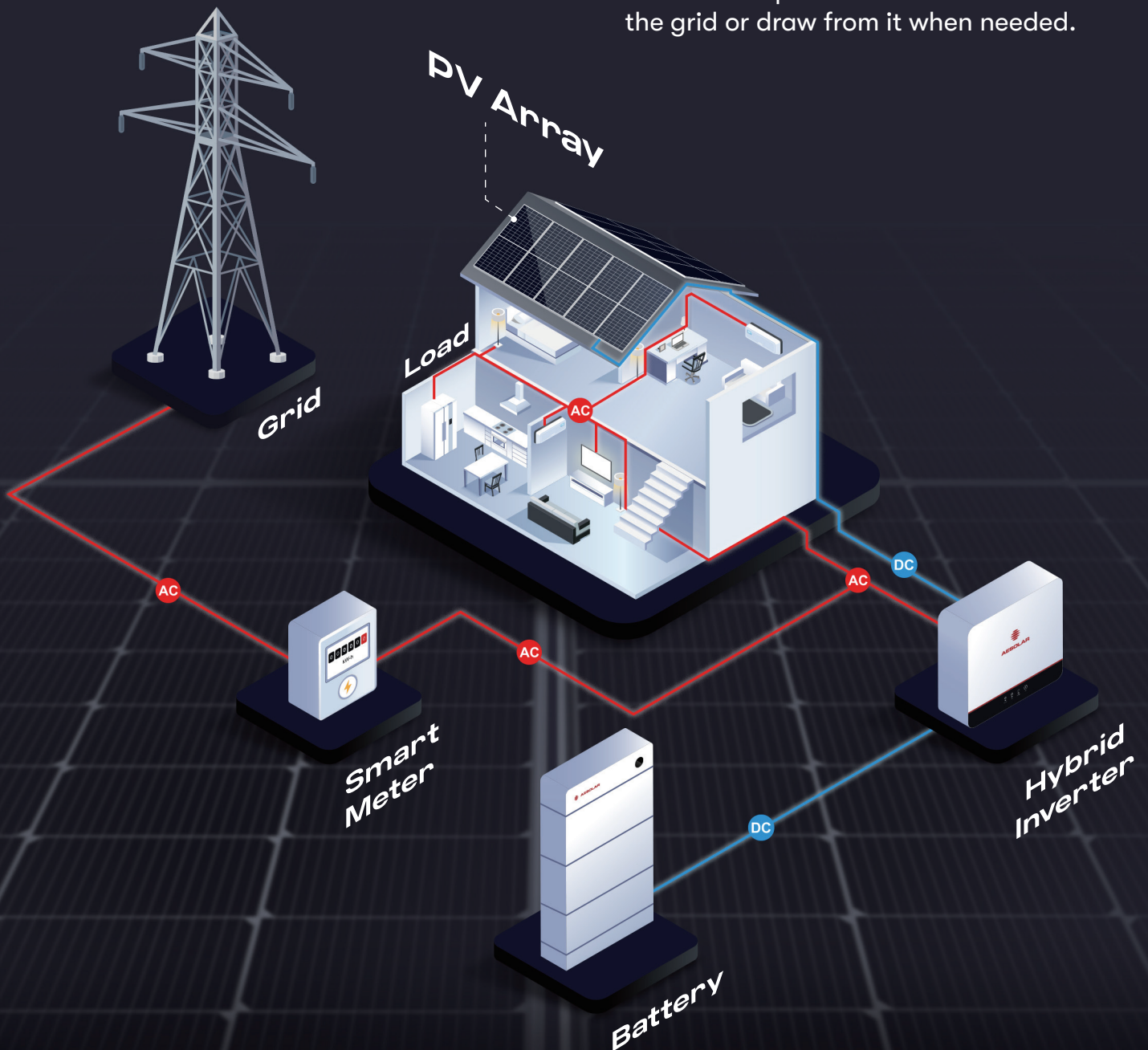
Enjoy uninterrupted electricity, even during grid outages.

## ✓ Real-Time Monitoring

A smart meter optimizes energy flow between your home, battery, and the grid.

## ✓ Grid Interaction

Feed excess power back to the grid or draw from it when needed.



# **AE 3.0/3.68/4.0/5.0/6.0HS**

Single Phase Hybrid Inverter / 2 MPPTs



Ver. 25. 9. 2



## **SAFE & RELIABLE**

Built-in arc-fault circuit-interrupter  
Type II SPD, both DC & AC sides  
Remote fault diagnosis and firmware upgrade



## **HIGH EFFICIENCY**

DC/AC ratio up to 1.5  
Extra load capacity under EPS mode  
Switch time to EPS mode within 10ms



## **USER-FRIENDLY DESIGN**

Fan-less and silent design  
85~460V Wide battery voltage range  
Built-in multiple operating modes  
Adapt to the AC coupling system

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Qualität  
Garantiert

# AE 3.0/3.68/4.0/5.0/6.0HS

Single Phase Hybrid Inverter/2 MPPTs

SINGLE PHASE • 2 MPPTS

Model		AE3.0HS	AE3.68HS	AE4.0HS	AE5.0HS	AE6.0HS
<b>PV input</b>	Recommended max. PV power (STC) (Wp)	4500	5520	6000	7500	9000
	Max. PV input voltage (1) (V)			600		
	Startup voltage (V)			100		
	Rated PV input voltage (V)			360		
	MPPT operating voltage range (2) (V)			90 ~ 560		
	No. of MPP trackers / strings per MPP tracker			2 / (1/1)		
	Max. input current per MPPT (A)			16		
	Max. short circuit current per MPPT (A)			25		
<b>Battery input</b>	Battery type			LiFePO <sub>4</sub>		
	Battery voltage range (V)			85 ~ 460		
	Max. charge/discharge current (A)			25 / 25		
	Max. charge/discharge power (W)	3000 / 3000	3680 / 3680	4000 / 4000	5000 / 5000	6000 / 6000
<b>Grid output</b>	Rated grid output power (W)	3000	3680	4000	5000	6000
	Max. grid output apparent power (VA)	3000	3680	4000	5000	6000
	Max. grid output current (A)	13	16	17.4	21.7	26.1
	Rated grid voltage (V)			L / N / PE, 220 / 230		
	Rated grid frequency (HZ)			50 / 60		
	THDi			< 3%		
	Power factor range			0.8leading ~ 0.8lagging		
<b>Grid input</b>	Max. input apparent power (VA)	6000	7300	8000	10000	12000
	Max. input current (A)	26	32	34.8	43.4	52.3
	Rated grid voltage (V)			L / N / PE, 220 / 230		
	Rated grid frequency (HZ)			50 / 60		
<b>Back-up</b>	Rated output power (W)	3000	3680	4000	5000	6000
	Peak output power, Duration (VA, s)	5000, 10	5000, 10	5000, 10	7500, 10	7500, 10
	Back up switch time (ms)			10		
	Rated output voltage (V)			220 / 230		
	Rated output frequency (Hz)			50 / 60		
<b>Efficiency</b>	Max. efficiency	97.60%				
	EU efficiency	97.00%				
<b>Protection</b>	Anti islanding protection	Yes				
	Leakage current protection	Yes				
	PV reverse protection	Yes				
	Short circuit protection	Yes				
	Arc-fault circuit-interrupter	Yes				
	RSD	Optional				
	Surge protection	DC II / AC II				
	Battery reverse protection	Yes				
	<b>General data</b>			Dimensions (W*H*D) (mm)		470*375*178
				Weight (kg)		17.2
			Installation method		Wall-mounted	
			Topology		Transformerless	
			Protection degree		IP65	
			Operating temperature (°C)		-25 ~ 60	
			Humidity		0 ~ 100%	
			Cooling method		Natural	
			Max. operating altitude		4000m (>3000m derating)	
			Display		LED	
			Communication method		Wifi / 4G / Ethernet, RS485, CAN	

IEC62109-1/-2, IEC62116, IEC61727, IEC61683, IEC/EN62477, IEC60068

(1) Exceeding the maximum input voltage will damage the inverter and trigger its self-protection mechanism.

(2) DC input voltage beyond the MPPT operating voltage range will cause the inverter to be out of work.

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**AESOLAR**

Since 2003

+49 8231 978268 0  
sales@ae-solar.com  
www.ae-solar.com

**AESOLAR**  
Senefelderstraße 23  
86368 Gersthofen, Germany



# **AE 5.0/6.0/8.0/10/12/15HT**

Three Phase Hybrid Inverter / 2 MPPTs



www.ae-solar.com



## **SAFE & RELIABLE**

Built-in arc-fault circuit-interrupter  
IP66 protection & C5 anti-corrosion rating  
Remote fault diagnosis and firmware upgrade



## **HIGH EFFICIENCY**

DC/AC ratio up to 1.5  
Extra load capacity under EPS mode  
Switch time to EPS mode within 10ms



## **USER-FRIENDLY DESIGN**

100% three phase unbalanced output  
160~600V Wide battery voltage range  
Adapt to the AC coupling system  
Compatible with charging piles, heat pumps, diesel generators  
Adaptive adjustment of the phase sequence of the meter and inverter



Ver. 25. 9. 2

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# AE 5.0/6.0/8.0/10/12/15HT

Three Phase Hybrid Inverter / 2 MPPTs

THREE PHASE • 2 MPPTS

Model	AE5.0HT	AE6.0HT	AE8.0HT	AE10HT	AE12HT	AE15HT	
<b>PV input</b>	Recommended max. PV power (STC) (Wp)	7500	9000	12000	15000	18000	22500
	Max. PV input voltage (1) (V)				1000		
	Startup voltage (V)				180		
	Rated PV input voltage (V)				620		
	MPPT operating voltage range (2) (V)				160 ~ 950		
	No. of MPP trackers / strings per MPP tracker		2 / (1/1)			2 / (2/1)	
	Max. input current per MPPT (A)		18				32 / 18
	Max. short circuit current per MPPT (A)		25				40 / 25
	Battery type						LiFePO <sub>4</sub>
Battery voltage range (V)					160 ~ 600		
Max. charge/discharge current (A)			25 / 25			30 / 30	
Max. charge/discharge power (W)	7500 / 7500	9000 / 9000	12000 / 12000	15000 / 15000	18000 / 18000	18000 / 18000	
<b>Grid output</b>	Rated grid output power (W)	5000	6000	8000	10000	12000	15000
	Max. grid output apparent power (VA)	5500	6600	8800	11000	13200	16500
	Max. grid output current (A)	8.33	10	13.3	16.7	20	25
	Rated grid voltage (V)				3L / N / PE, 220 / 380 or 230 / 400		
	Rated grid frequency (HZ)				50 / 60		
	THDi				<3%		
	Power factor range				0.8leading ~ 0.8lagging		
<b>Grid input</b>	Max. input apparent power (VA)	7500	9000	12000	15000	18000	22500
	Max. input current (A)	11.4	13.6	18.2	22.7	27.3	34.1
	Rated grid voltage (V)				3L / N / PE, 220 / 380 or 230 / 400		
	Rated grid frequency (HZ)				50 / 60		
<b>Back-up</b>	Rated output power (W)	5000	6000	8000	10000	12000	15000
	Peak output power, Duration (VA, s)	7500, 60	9000, 60	12000, 60	15000, 60	18000, 60	18000, 60
	Back up switch time (ms)				10		
	Rated output voltage (V)				220 / 380 or 230 / 400		
	Rated output frequency (Hz)				50 / 60		
<b>Efficiency</b>	Max. efficiency		97.80%			98.20%	
	EU efficiency		97.20%			97.50%	
<b>Protection</b>	Anti islanding protection				Yes		
	Leakage current protection				Yes		
	PV reverse protection				Yes		
	Short circuit protection				Yes		
	Arc-fault circuit-interrupter				Yes		
	RSD				Optional		
	Surge protection				DC II / AC II		
	Battery reverse protection				Yes		
<b>General data</b>	Dimensions (W*H*D) (mm)				577*537*206		
	Weight (kg)			26			29
	Installation method				Wall-mounted		
	Topology				Transformerless		
	Protection degree				IP66		
	Operating temperature (°C)				-25 ~ 60		
	Humidity				0 ~ 100%		
	Cooling method			Natural			Smart fan cooling
	Max. operating altitude				4000m (>3000m derating)		
	Display				LED		
	Communication method				Wifi / 4G / Ethernet, RS485, CAN		

IEC62109-1/2, IEC61000-6, IEC61000-3, IEC62116, IEC61683, IEC61727, IEC60068, IEC/EN62477, EN62920

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(2) DC input voltage beyond the MPPT operating voltage range will cause the inverter to be out of work.

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# AE 20/25/29.9/30/33HT

Three Phase Hybrid Inverter / 3MPPTs

www.ae-solar.com



## SAFE & RELIABLE

Built-in arc-fault circuit-interrupter  
Accurate string current detection  
Remote fault diagnosis and firmware upgrade capabilities



## HIGH EFFICIENCY

DC/AC ratio up to 1.5  
Extra load capacity under EPS mode  
Switch time to EPS mode within 10ms  
Max charging/discharging current up to 50A (2 terminals)



## USER-FRIENDLY DESIGN

100% three phase unbalanced output  
180~800V Wide battery voltage range  
Adapt to the AC coupling system  
Compatible with charging piles, heat pumps, diesel generators  
Adaptive adjustment of the phase sequence of the meter

Ver. 25. 9. 1

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# AE 20/25/29.9/30/33HT

Three Phase Hybrid Inverter / 3MPPTs

THREE PHASE • 3 MPPTS

Model	AE20HT	AE25HT	AE29.9HT	AE30HT	AE33HT	
<b>PV input</b>	Recommended max. PV power (STC) (Wp)	30000	37500	45000	45000	45000
	Max. PV input voltage (1) (V)			1000		
	Startup voltage (V)			180		
	Rated PV input voltage (V)			620		
	MPPT operating voltage range (2) (V)			160 ~ 950		
	No. of MPP trackers / strings per MPP tracker	3 / (2/2/1)			3 / (2/2/2)	
	Max. input current per MPPT (A)	32 / 32 / 20			40 / 32 / 32	
	Max. short circuit current per MPPT (A)	50 / 50 / 25			50 / 50 / 50	
<b>Battery input</b>	Battery type	LiFePO <sub>4</sub>				
	Battery voltage range (V)	180 ~ 800				
	Max. charge/discharge current (A)	50 / 50				
	Max. charge/discharge power (W)	20000	25000	30000	30000	33000
<b>Grid output</b>	Rated grid output power (W)	20000	25000	29900	30000	33000
	Max. grid output apparent power (VA)	22000	27500	29900	33000	33000
	Max. grid output current (A)	33.4A@220V, 31.9A@230V, 30.6A@240V, 41.7A@220V, 39.9A@230V, 38.2A@240V, 45.4A@220V, 43.4A@230V, 41.6A@240V, 50A@220V, 47.9A@230V, 45.9A@240V, 50A@220V, 47.9A@230V, 45.9A@240V				
	Rated grid voltage (V)	3L / N / PE, 220 / 380 or 230 / 400 or 240 / 415				
	Rated grid frequency (HZ)	50 / 60				
	THDi	< 3%				
	Power factor range	0.8leading ~ 0.8lagging				
<b>Grid input</b>	Max. input apparent power (VA)	37500	37500	42900	42900	42900
	Max. input current (A)	56.9	56.9	65.0	65.0	65.0
	Rated grid voltage (V)	3L / N / PE, 220 / 380 or 230 / 400 or 240 / 415				
	Rated grid frequency (HZ)	50 / 60				
<b>Back-up</b>	Rated output power (W)	20000	25000	30000	30000	33000
	Peak output power, Duration (VA, s)	30000,10; 24000,60	37500,10; 30000,60	42900,10; 36000,60	42900,10; 36000,60	42900,10; 36000,60
	Back up switch time (ms)	10				
	Rated output voltage (V)	3L / N / PE, 220 / 380 or 230 / 400 or 240 / 415				
	Rated output frequency (Hz)	50 / 60				
<b>Efficiency</b>	Max. efficiency	98.3%				
	EU efficiency	97.5%				
<b>Protection</b>	Anti islanding protection	Yes				
	Leakage current protection	Yes				
	PV reverse protection	Yes				
	Short circuit protection	Yes				
	Arc-fault circuit-interrupter	Yes				
	RSD	Optional				
	Surge protection	DC II / AC II				
	Battery reverse protection	Yes				
<b>General data</b>	Dimensions (W*H*D) (mm)	680*554*268				
	Weight (kg)	41		42		
	Installation method	Wall-mounted				
	Topology	Transformerless				
	Protection degree	IP66				
	Operating temperature (°C)	-25 ~ 60				
	Humidity	0 ~ 100%				
	Cooling method	Smart fan cooling				
	Max. operating altitude	4000m (>3000m derating)				
	Display	LED				
	Communication method	Wifi / 4G / Ethernet, RS485, CAN				

IEC61000-6-3/-2, IEC61000-3, IEC62920, IEC62109-1/-2, IEC62116, IEC61727, IEC61683, IEC60068, EN62477

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**AESOLAR**  
Senefelderstraße 23  
86368 Gersthofen, Germany



# AEB Series Battery System

6.4/12.8/19.2/25.7kWh



## SAFE & RELIABLE

Automotive-grade quality battery cells, meet the automotive-grade safety standards

Equipped with a lithium battery breathing valve to effectively adjust the gas pressure inside the battery

Controllable short-circuit current: high-frequency electromagnetic isolation technology between battery packs

Large capacity battery, long cycle life, design life up to 10+years



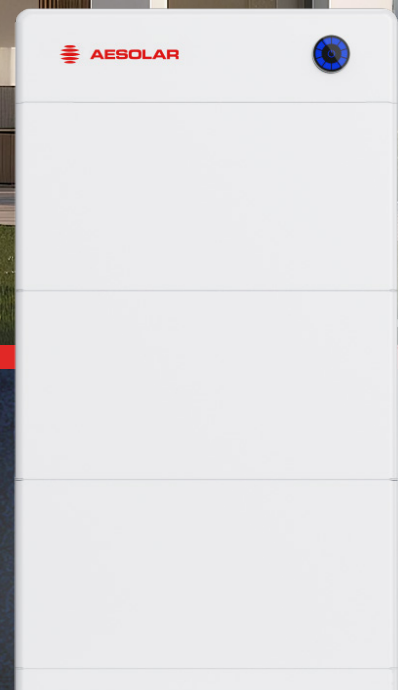
## USER-FRIENDLY DESIGN

Stackable module design, quick plug and play between packs, screw-free installation

Power module built-in each battery pack, batteries parallel connection, flexible extension

AI optimized & fast commissioning, commissioning time less than 5mins

Power module built-in each pack, support mixing of old and new batteries and different SOH/SOC batteries



Ver. 25. 11. 1

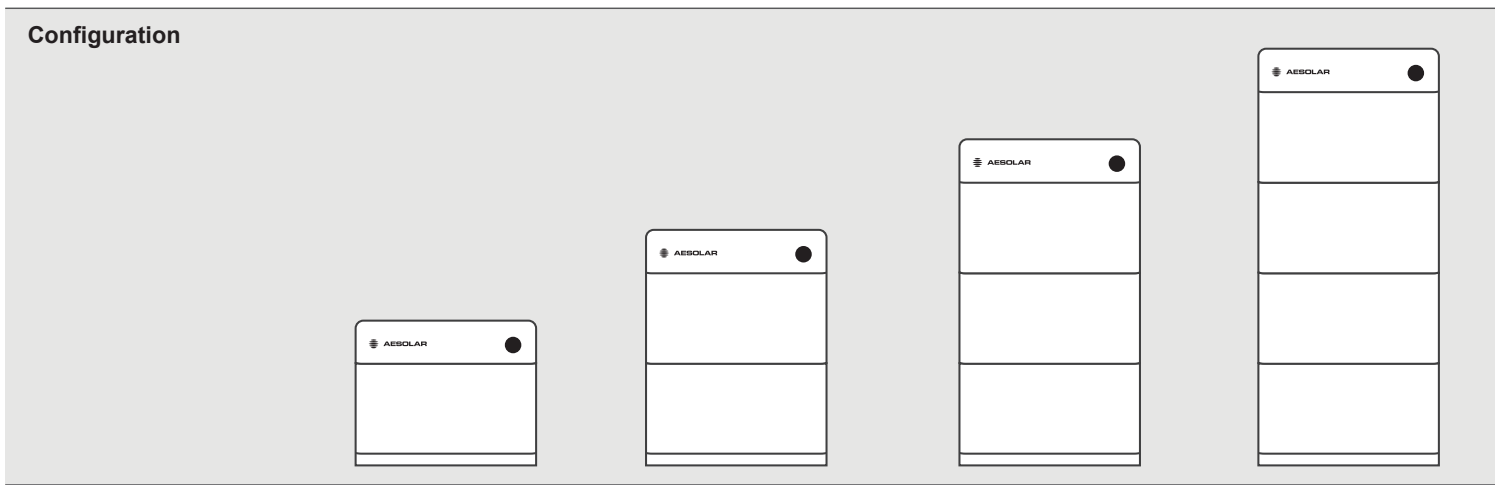
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# AEB Series Battery System

6.4/12.8/19.2/25.7kWh

Residential Battery

Model	AEB-6.4KWH-HA AEB-6.4KWH-HB	AEB-12.8KWH-HA AEB-12.8KWH-HB	AEB-19.2KWH-HA AEB-19.2KWH-HB	AEB-25.7KWH-HA AEB-25.7KWH-HB
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Number of modules	1	2	3	4
Rated battery energy (kWh)	6.53	13.06	19.58	26.11
Usable battery energy (kWh)	6.4	12.8	19.2	25.7
Rated current (A)	7.27	14.53	21.8	29.07
	8.01	16.30	24.04	32.05
Current range (A)	6.62 ~ 8.51	13.23 ~ 17.01	19.85 ~ 25.52	26.46 ~ 34.02
	6.68 ~ 8.72	13.36 ~ 17.44	20.05 ~ 26.15	26.73 ~ 34.87
Dimensions (W*H*D) (mm)	750*605*250.9	750*975*250.9	750*1345*250.9	750*1715*250.9
Weight (kg)	80.8	148.8	216.8	284.8
Operation temperature range (°C)	-15 ~ 50			
Storage temperature range (°C)	-20 ~ 45			
Humidity	0 ~ 95%RH			
Installation method	Ground-mounted			
Protection degree	IP65			
Display	LED			
Noise emission	< 30dB within 1m			
Normal operating conditions	One charge and discharge cycle per day			

Battery Module	AEM-6.4KWH-HA	AEM-6.4KWH-HB
Battery cell type	LFP 3.2V/340Ah 1P6S	LFP 3.2V/340Ah 1P6S
Rated voltage (V)	412.8	374.4
Output voltage range (V)	361.2 ~ 492.75	327.6 ~ 448.95
Rated charging/discharging power (kW)	3	3
Max. charge/discharge current (A)	7.5 / 7.9	8.29 / 8.72
Cycle Life	8000 (@70%EOL 25°C 0.5C)	8000 (@70%EOL 25°C 0.5C)
Weight (kg)	68	68
Topology	Isolated	Isolated

IEC 62477-1, IEC-62619, IEC61000-6-1/-3, UN38.3+MSDS



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+49 8231 978268 0  
 sales@ae-solar.com  
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# Battery with Built-in DC/DC

- ✓ Max. 4 Battery Packs in stack
- ✓ Premium 340Ah cells with 8,000+ cycles, long-lasting & reliable
- ✓ Battery optimizer inside, mix old and new, upgrade with ease
- ✓ 100% depth of discharge, maximum energy utilization
- ✓ Blind-mating stackable modules design for easy expansion



# Ultimate Stability

Automotive-Grade Battery



## BYD Automotive-Grade Battery

- 340Ah Ultra-Safe BYD Blade Cells
- Intelligent 6S1P Topology for Thermal Stability & Voltage Balance
- Higher energy density, efficient storage, compact design

## Ultra Long Life

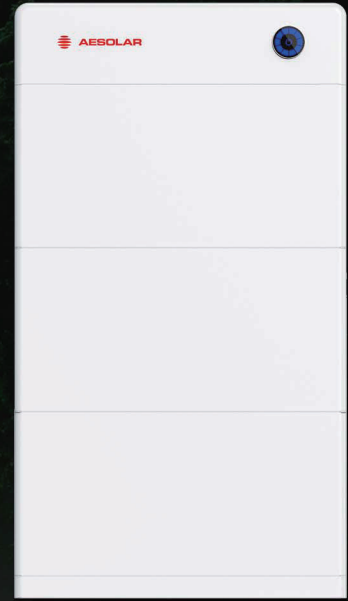
- Industry-leading 8,000+ Cycles, long lasting & reliable
- Intelligent SOC Balancing
- 10+ Years Safe Operation

# IP65 Protection Rating

for outdoor installation

## 10+ years

trouble free operation



Cell level protection



Electrical protection



Structural protection



Active protection



Emergency protection

All-Round Safety

# 24 / 7 Intelligent Monitoring

## Data platform



### Sit Solar

- Remote energy monitoring and management
- Real-time power flow diagram of energy consumption

### For Installers

- Effortless installation & easy troubleshooting
- Supporting plant positioning and navigation
- Prompt and accurate fault alarms
- Intelligent work order system

### For Owners

- Higher availability for lower LCOE
- Historical performance analysis for optimal energy consumption

### Monitoring Platform

- Continuous PV power generation tracking
- Remote control & firmware upgrade
- Simplified monitoring, providing a quick snapshot of the entire system's health
- Continuous improvement for enhancing user experience

A photograph of a modern, two-story house at night. The house has a dark exterior and large glass windows that are illuminated from within, showing a living area with a sofa and chairs. On the roof, there are several solar panels. A white inverter is mounted on the side of the house, connected to the solar panels by a blue line. The text "THANK YOU!" is overlaid in large, white, bold letters across the middle of the image.

**THANK YOU!**

## **AESOLAR Energy GmbH**

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Senefelderstraße 23, 86368, Gersthofen, Germany

Phone: +49(0)8231 978 26 80

Fax: +49(0)8231 978 26 69

E-Mail: [info@ae-solar.com](mailto:info@ae-solar.com)

Web: [www.ae-solar.com](http://www.ae-solar.com)

