

Power. Reboost. One is enough.

# WattMatic AIO Home Series

An all-in-one three phase hybrid BESS solution designed for scalable performance, smart management, and fast installation.

## Hybrid Inverter

10-12-15-20-25kW, 3P

## Li-HV Storage

11.5~34.5kWh (by 3.84kWh step), up to 172.8kWh per inverter



All-in-One, Plug and Play.  
Sleek, wireless, and easy to install.



Whole-House Backup Ready.  
Engineered for Heavy Loading.



Zero-Site O&M:  
Resolve issues remotely, eliminate callback costs.



Scale to 5 parallel inverters (125kW total) & 5 battery  
clusters (862.5kWh) — seamless expansion even after 5+ years.



Multi-scenario Compatibility:  
EV Charger, Heat Pump, DG, Wind Generator via MPPT etc.



Built-in DCDC.  
Active balancing and on-demand expansion even 5 years later.

**Up to 25kW Output · Real Power Built to Scale  
Engineered for Heavy Loading**

Designed to support high-power appliances without compromise. Stable output and fast battery recharge keep systems ready under peak demand.

 40kW Max  
Solar Input

 Ultra-Safe  
LiFePO4 Battery System

 Heavy-load  
Ready

 Auto cashmaker  
Based on dynamic grid pricing



**Network 5 Units. Power a Village.**

Up to 172.8kWh per inverter

Up to 125kW AC power per system



**All-Weather Ready. Built to Endure.**

With built-in cell heating and IP65 protection, WattMatic AIO ESS unit reliably operates in extreme outdoor conditions from -20°C to 50°C.



**Integrates with your energy ecosystem  
Broad Hardware Compatibility.**

Designed for flexible integration with third-party devices, WattMatic AIO Home Series adapts to diverse scenarios to maximize PV self-consumption.

 Smart EV Charger

 WattMate Smart Heater

 Diesel Generator

 SG Ready Heat Pump

 WindMate

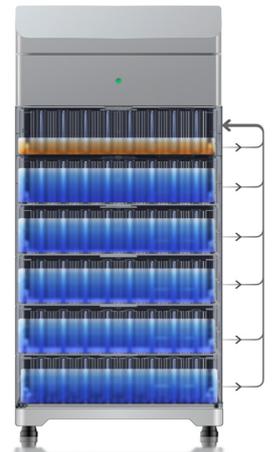
 EEBUS, SunSpec Compatibility

**Future-Proof Scalability,  
No Manual Balance Required.**

Add batteries or inverters anytime—our patented BMS AutoSync™ keeps expansion simple and seamless.

**Fast in. Fast out.**

High C-rate LiFePO4 power—rapid charge and discharge, no overheating, no capacity loss. Instant response, zero compromise.




**WattDesk** Cloud Platform

Zero site visits.  
Increase service efficiency.



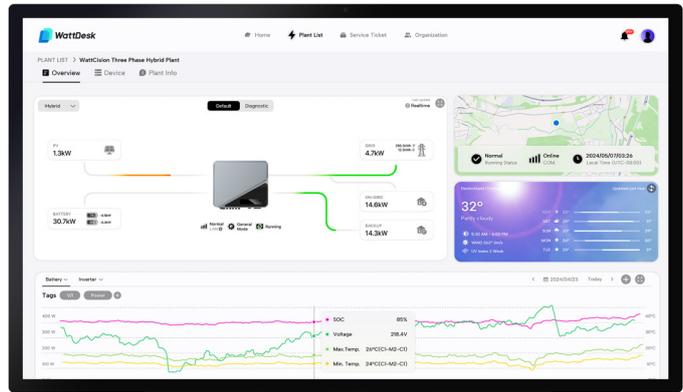
Remote Firmware Updates



Online Diagnostics & Configuration



Lower Service Costs



### Monitor Anywhere, Adjust Anytime

Flexible operating modes for smarter energy use.



### AI-Powered Dynamic Tariff Optimization

The inverter automatically accesses local real-time electricity tariffs and intelligently adjusts operating strategies to maximize savings and energy efficiency.



## Battery Options

3 Phase AIO Hybrid ESS System



Number of Battery Modules	2	3	4	5	6	7	8	9
Battery Capacity	7.68kWh 153V	11.5kWh 230V	15.3kWh 307V	19.2kWh 384V	23kWh 460V	26.8kWh 537V	30.7kWh 614V	34.5kWh 691V
Size(W*D*Hmm)	570*375*628.2	570*375*763.2	570*375*898.2	570*375*1033.2	570*375*1168.2	570*375*1303.2	570*375*1438.2	570*375*1573.2
Weight(kg)	90kg	125kg	160kg	195kg	230kg	265kg	300kg	335kg
DOD Recommended	90%							
Power Connection Type	Hard Connection with Positioner							
Warranty	8,000 Cycles within 10 Years Guarantee							

\*Wattsonic reserves the right to modify the product specifications and appearance described in this datasheet without prior notice.

One Inverter. Total Control.

Model	Matic-10kW-50A	Matic-12kW-50A	Matic-15kW-50A	Matic-20kW-50A	Matic-25kW-50A
<b>PV Input Parameters</b>					
Maximum Input Power	20kW	24kW	30kW	40kW	40kW
Max DC Input Voltage			1000V		
Min Input Voltage / Start-up Voltage			150V/180V		
Rated DC Input Voltage			620V		
MPPT Operating Voltage Range			200~950V (derating >850V)		
Full-load DC Voltage Range	300~850V	300~850V	300~850V	300~850V	300~850V
Max Input Current			20A×4		
Max Short-circuit Current			30A×4		
Number of Strings per MPPT			1		
Number of MPPTs	2	2	4	4	4
<b>Grid Input &amp; Output</b>					
Rated Output Power	10kW	12kW	15kW	20kW	25kW
Max Output Apparent Power	11kVA	13.2kVA	16.5kVA	22kVA	25kVA
Max Grid-tied Input Apparent Power	20kVA	24kVA	30kVA	40kVA	50kVA
Max Grid Charging Power	10kW	12kW	15kW	20kW	25kW
Rated Output Current	14.5A	17.4A	21.7A	29A	36.2A
Max Output Current @230V	16.5A	19.1A	23.8A	31.9A	36.2A
Rated AC Voltage			3L/N/PE; 220/380V; 230/400V; 240/415V		
AC Voltage Range			-15%~+10%		
Rated AC Frequency			50Hz/60Hz		
AC Frequency Range			45~55 Hz/55~65 Hz		
Power Factor			>0.99 (at rated power)		
Adjustable Power Factor Range			0.8 (leading) ~ 0.8 (lagging)		
Grid Current Harmonic (THDi)			<3% @ rated power		
DC Component			<0.5% * IpN (rated current)		
<b>Backup Output</b>					
Rated Output Power	10kW	12kW	15kW	20kW	25kW
Max Output Apparent Power	11kVA	13.2kVA	16.5kVA	22kVA	25kVA
Peak Output Apparent Power (Sufficient PV and Battery Power)			120% × rated power @60s		
Max Output Current	16.5A	19.1A	23.8A	31.9A	39.8A
Rated Output Voltage			3L/N/PE; 220/380V; 230/400V; 240/415V		
Rated Output Frequency			50Hz/60Hz		
Total Voltage Harmonic Distortion (THDv)			<3% @ linear load		
UPS Switching Time (Upon Grid Outage)			<20ms		
<b>Battery Parameters</b>			<b>Basic Parameters</b>		
Battery Type	Lithium Battery		Overvoltage Category	DC Type II/AC Type III	
Battery Voltage Range	180~800V		Dimensions	559*486*259mm	
Start-up Voltage	180V		Weight	<51kg	
Rated Battery Voltage	620V		Protection Grade	IP66	
Max Charge/Discharge Current	50A/50A		Pollution Degree	PCS internal level II	
Max Charge/Discharge Power	30kW/30kW		Corrosion Protection Level	C3 (C5 optional by request)	
Number of Battery Inputs	1		Standby Loss	<15W	
Battery Charging Mode	Controlled by BMS		Topology	Transformerless	
BMS Communication	CAN		Operating Temperature	-30°C to 60°C, derating >45°C	
<b>Efficiency Parameters</b>			Relative Humidity	<100%	
Max Efficiency	98.40%		Storage Temperature	-40~70°C	
European Efficiency	97.90%		Storage Humidity	<80%	
<b>Protection Parameters</b>			Max Operating Altitude	4000m (derating above 2000m)	
PV Input Reverse Polarity Protection	Integrated		Cooling Method	Smart Forced Air Cooling	
Battery Reverse Polarity Protection	Integrated		Mounting Method	Wall-mounted	
Insulation Resistance Protection	Integrated		Display Method	LED indicators; optional LCD screen	
Surge Protection	Integrated ( PV Typell+AC Typelll )		Communication Method	ModBus RTU, ModBus TCP/IP, CAN, WiFi/LAN, BlueTooth	
Overtemperature Protection	Integrated		<b>Standards and Certifications</b>		
Leakage Current Protection	Integrated		Grid Standards	"EN50549-1:2019, EN50549-10:2022, C10/11:2021, TOR Erzeuger Type A:2022, OVE-Richtlinie R25:2020, VDE4105:2018, VDE0124-100:2020, NC RFG , Type ABCD, PTPiREE, NRS097-2-1"	
Anti-islanding Protection	Integrated		Safety and EMC Certifications	E-EMC: IEC/EN61000-6-1/2/3/4 CE-LVD: IEC/EN62109-1:2010, IEC/EN62109-2:2011, IEC/EN62477-1:2022 CE-RoHS: IEC63000:2018	
Overvoltage Protection	Integrated				
Overload Protection	Integrated				
Short Circuit Protection	Integrated				
AFCI Function	Optional				
PID Protection Function	Integrated				
BMS Power Supply	Integrated, 24V (20W)				

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