

## Li-HV Commercial Three Phase Hybrid AIO ESS

**Inverter Options** 

25/30/36/40/50kW-100A-3P HV Battery Options 65/130/195/261/326kWh



Cable-free design inside the cabinet



Simple installation and O&M

Support system parallel to realize upgraded capacity



Up to 98.8% max efficiency

Intelligent operation, keep everything under control in a single click

With remote monitoring and upgrade, worry free from service





# Unburdened by complex procedures.



Simplified installation, all-in-one plug and play. The most recent cable-free design guarantees zero cables inside the cabinet. With packed connectors and cables, Wattsonic prepares all essential products and accessories you may require. No further preparation is needed.



Flexible logistics management supports random collection and delivery. Based on superior compatibility, a single rack could match the battery and BMS loading randomly without checking in advance.





Upgraded Capacity.

Both parallel and off-grid ports can be connected in our commercial energy storage systems, parallel operation capability from kilowatts to megawatts.

Up to 100% Up to 110% AC output overloading

135-750V super wide battery voltage range

 $| \begin{array}{c} \text{Up to} 120\% \\ \text{overloading output} \end{array} for \begin{array}{c} 60 \text{ seconds} \\ \text{at back-up side} \end{array} \\ \\ \end{array} \\$ 

100A charge/Discharge

# More than capable,

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# Intelligent control methods to keep everything in sight.

Comprehensive back-end data —— Inverter/battery system/options with features Easy data check via both OLED display and App Support remote monitoring and update Operating efficiency, one button to switch BMS open interface for direct connection with fire fighting equipment and control Multi external communication methods: WiFi /LAN /GPRS /RS485





## Revolutionizing the way small businesses power their operations.





10 years or 8,000 cycles@90% DoD of battery Detailed monitoring contorl

### 0

Dual Cells Voltage Sensors Channel, 10mA accuracy, 10K sensoring frequency/S Full cells monitoring control BMS full data records 100K/frame

### Multi-scenario customization



Outdoor-proof versions of inverter intensified waterproof design Ultra safety

## P

SPD integrated for DC surge power protection of inverter

Inverter IP65 protection degree

Long designing life



BMS structure capacitor-free designing, 15-20 years of designing life





Customizable running modes

## High-efficient Operation.

To address your unique needs, Wattsonic offers various built-in operating modes. PV Power will adjust the loads, battery, and grid supply in different methods and sequences. Moreover, Cloud-based AI algorithms will continuously analyze the data. Automatically develop a more precise production and consumption pattern for your home.





### Master BMS

Operation Voltage [Vdc]	150~900V/900~1500V
	(Need to confirm upon
Max. Charge/Discharge Current [A]	100
Recommend Charge/Discharge Current [A]	100
Functions	Pre-charge, Over-Less Volta Over-Less Temperature Pro Cells Balancing/SOC-SOH c
Communication Protocol/Connector Type	CAN/RS485 ModBus, TCP/IP/WiFi/LAN/GPR
Power Connection Type	Phoenix
User Interface	LCD Display(Optional, need to confirm upon c
Dimension [W*H*D mm]	465*180*356
Weight	10kg
Operating Temperature [°C]	-20~55
Ingress Protection	IP21
Installation Method	Rack Mounted
Warranty	10 years
Battery Module	
Nominal Voltage/Capacity per Module	38.4V/3.84kWh
Expand Capability	String:Max. 1000V[20*3
	Optional 1500V[34*3.8
DOD Recommended	90%
Max. Charge/Discharge Current[A]	100A Continual
Recommend Charge/Discharge Current[A]	100A Continual
Communication Protocol/Connector Type	CAN/ RJ45
Power Connection Type	Integrated connector
Dimension [W*H*D mm]	465*194*403.5 per mo
Weight	40kg
Charge Temperature Range [°C]	0~45
Discharge Temperature Range [°C]	-20~55
Ingress Protection	IP21
Installation Method	Rack Mounted
Warranty	10 years or 8,000 cycles

#### **Cabinet Frame** 1 2 Dimension [W\*H\*D mm] 640\*2109\*870 1280\*2109\*870 1920\*2109\*870 Battery Capacity 130 65 4 5 Dimension [W\*H\*D mm] 2560\*2109\*870 3200\*2109\*870

Battery Capacity

261 326

(Need to confirm upon order)
100
100
Pre-charge, Over-Less Voltage/
Over-Less Temperature Protection,
Cells Balancing/SOC-SOH calculation etc
CAN/RS485 ModBus,
TCP/IP/WiFi/LAN/GPRS
Phoenix
I CD Display(Optional

Optional, irm upon order) 5 d

38.4V/3.84kWh
String:Max. 1000V[20*3.84kWh],
Optional 1500V[34*3.84kWh]
90%
100A Continual
100A Continual
CAN/ RJ45
Integrated connector
465*194*403.5 per module
40kg
0~45
-20~55
IP21
Rack Mounted
10 years or 8,000 cycles@90% DOD

3

195







### **Three Phase Hybrid Inverter**

	25kW	30kW	36kW	40kW	50kW
PV Input					
Max Input Power (kW)	375	45.0	54.0	60.0	75.0
Start-up Voltage (V)	135	135	135	135	135
Max DC Input Voltage (V)*	1000*	1000*	1000*	1000*	1000*
Pated DC Input Voltage (V)	620	620	620	620	620
MPPT Voltage Paper (V)*	200-850*	200-850*	200-850*	200-850*	200-850*
	200-850	200-850	200-850	200-850	200-850
No. of MFF Hackers	4	4	4	4	4
No. of DC Inputs per MPP 1	20×4	20×4	2	20×4	20×4
Max. Input Current (A)	30×4	30×4	30×4	30×4	30×4
Max. Short-circuit Current (A)	40×4	40×4	40×4	40×4	40×4
Battery Side					
Battery Type		Lith	nium Battery (with BMS	5)	
Battery Voltage Range (V)			135-750		
Max. Charge/Discharge Current (A)			100/100		
Grid Side					
Rated Output Power (kW/)	25.0	30.0	36.0	40.0	50.0
Max Output Apparent Power $(kVA)$	27.5	33.0/30.0.1)	30.6	40.0	55.0
Max. Doublet Apparent Power (kVA)	27.0	36.0	435	44.0	60.0
Max. Input Apparent Fower (KVA)	25.0	20.0	40.0	40.0	50.0
Deted AC Voltage (V)	20.0	3U.U 21 /NI/DE+ 2	30.0 20/200// 220/200//	40.0	50.0
	E0/40	5L/IN/FE, 2	ZU/300V, Z30/400V, Z	E0/40	50/40
Max Output Ourrent (A)	12.0	50/00 E0.0/42 E 2)	50700	50700	30700
Max. Output Current (A)	42.0	0.0/43.0	0.00		03.0
Power Factor					
Max. Total Harmonic Distortion				( ) E %/I=	
DCI	<0.0%IN	0.5%	<0.5%IN	<0.5%m	<0.5%IN
Back-up Side					
Rated Output Power (kW)	25.0	30.0	36.0	40.0	50.0
Max. Output Apparent Power (kVA)	27.5	33.0	39.6	44.0	55.0
Max. Output Current (A)	42.0	50.0	60.0	66.0	83.0
UPS Switching Time	<20ms	<20ms	<20ms	<20ms	<20ms
Rated Output Voltage (V)		3/N/PE; 22	20/380V; 230/400V; 2	40/415V	
Rated Output Frequency (Hz)	50/60	50/60	50/60	50/60	50/60
Peak Output Apparent Power (kVA)***	30, 60s	36, 60s	43.5, 60s	48, 60s	60, 60s
Voltage Harmonic Distortion			<3% @Linear load		
Efficiency			C		
	00.00/	00.00/	00.0%	00.00/	00.0%
	98.8%	98.8%	98.8%	98.8%	98.8%
European Efficiency	98.3%	98.3%	98.3%	98.3%	98.3%
Protection		General	Data		
DC Reverse Polarity Protection	Integrated	Over Vo	Itage Category	PV:Ⅲ; Main:Ⅲ	
Battery Input Reverse Connection Protectio	on Integrated	Dimensio	ons (W×H×D mm)	800×620×300	
Insulation Resistance Protection	Integrated	Weight	KG)	72.0	
Surge Protection	Integrated	Protectio	n Degree	IP65	
Over-temperature Protection	Integrated	Standby	Self-consumption (W)	<15	
Residual Current Protection	Integrated	Topology	/	Transformerless	
Islanding Protection	Integrated	Operatin	g Temperature Range (°C	-30~60 0-100	
AC Over-voltage Protection	Integrated	Relative	Humidity (%)		
Overload Protection	Integrated	Operatin	g Altitude (m)	3000 (>3000m de	erating)
AC Short-circuit Protection	Integrated	Cooling	~ ` ` '	Smart Fan	
		Noise Le	vel (dB)	<50	
		Noise Le Display	evel (dB)	<50 OLED & LED	

\* PV Max. Input voltage is 850V, otherwise inverter will be waiting

\*\* Max apparent power from the grid means the maximum power imported from the utility grid used to satisfy the backup loads and charge the battery

1) AS 4777.2, VDE-AR-N 4105: 30.0kVA; 2) AS 4777.2, VDE-AR-N 4105: 43.5A

Wattsonic reserves the right to modify the technical datasheet and apperance of the product in the catalogue without prior advice to the users.

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