

Commercial High Voltage

Wattsonic Li-HV Commercial
Three Phase Hybrid
25kW 30kW 40kW 50kW



Asymmetric output for both on/off-grid loading under zero injection



<20ms UPS level emergency grid power back-up



Open interface for external control and management



Integrated smart EMS support various power applications



Both on & off-grid ports can be paralleled to support bigger loading



Up to 60 kVA peak loading capability for 60 seconds at back-up output



Multiple Standard Running Modes

- Maximum Solar Self-consumption
- Emergency Power Back-up(UPS Level)
- Scheduled Charge-Discharge
- Smart Micro Grid Solution (Off-grid)
- Peak Load Shifting,
one key to optimize grid connection capability
- Zero-injection
- ...

LiFePO4, Superior Safety

Modular Design

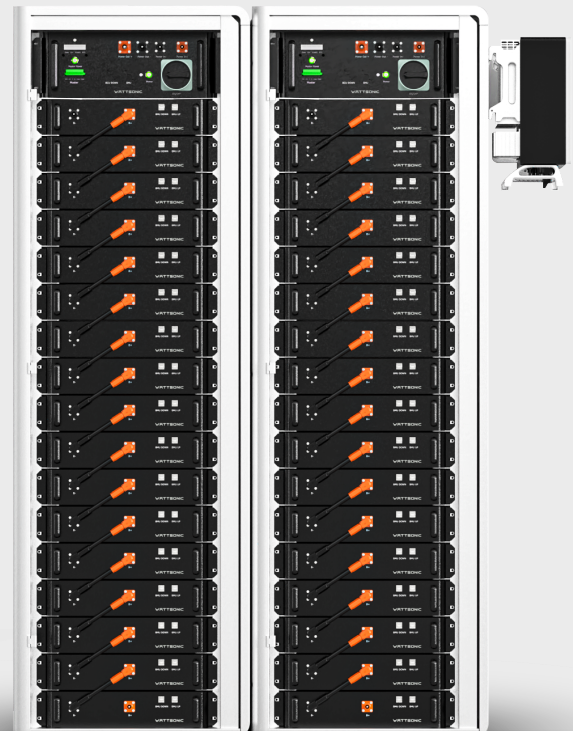
Multiple USP_s

Battery High Voltage, Max. 750V

Three Phase Connection

Zero grid injection function Battery High Voltage, Max. 750V

Always on UPS, <10ms LiFePO4, Superior Safety





Dual Cells Voltage Sensors Channel, 10mA accuracy, 10K sensing frequency/S, full cells monitoring control;



Max. 750mA cells passive balancing(10Ah/day), automatically/manually/local/remote;



Automatically slave BMS(BMU) address series setting, plug in and play;



Remote commissioning/monitoring/firmware update; 64G local data storage, full life data records;



Multi external communication methods: WiFi/LAN/GPRS/RS485;



Master BMS(BCU) integrate back-up power, 20000 hours black startup;



BMS full data records 100K/frame(cold data <2S, hot data <100mS, command data<10mS);



BMS structure capacitor-free designing, 15-20 years' designing life;



Optimized SOC calculation and reset algorithm, less than 2% tolerance;



Low BMS self-consumption, running <5W/rack, standby <2mW/rack;



BMS open interface for direct connection with fire fighting equipment and control;



BMS SPD integrated for DC surge power protection;

Sub-Master BMS

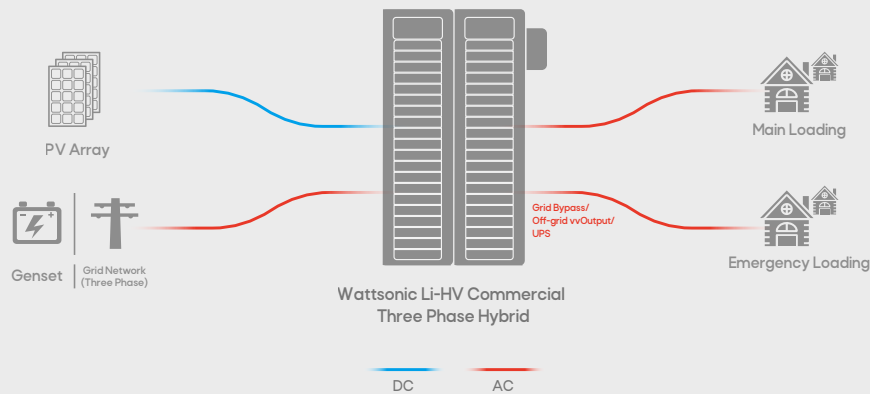


Operation Voltage [Vdc]	150-1000V/700-1500V(Need to confirm upon order)
Max. Charge/Discharge Current [A]	100
Recommend Charge/Discharge Current [A]	100
Functions	Pre-charge, Over-Less Voltage/Over-Less Temperature Protection, Cells Balancing/SOC-SOH calculation etc.
Communication Protocol/Connector Type	CAN/RS485 ModBus, TCP/IP/ RJ45/WiFi/LAN/GPRS
Power Connection Type	Amphenol MC4
User Interface	LCD Display(Optional, need to confirm upon order)
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

38.4V/3.84kWh Battery Module



Nominal Voltage/Capacity per Module	38.4V/3.84KWH
Expand Capability	String:Max. 1000V[20*3.84kWh],Optional 1500V[34*3.84kWh]
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	Amphenol Original with lock
Dimension [W*H*D mm]	465*194*403.5 per module
Weight	40kg
Charge Temperature Range [°C]	0-45
Discharge Temperature Range [°C]	-20-55
Ingress Protection	IP21
Installation Method	Rack Mounted
Cables Connection	Connection at front
Warranty	10 years or 8,000 cycles@90% DOD



PV INPUT(DC)	25KW	30KW	40KW	50KW	EFFICIENCY	
Start-up PV Voltage [Vdc]	135	135	135	135	Max.Efficiency	98.8%
Max. Input DC Voltage [Vdc]	1000	1000	1000	1000	European Efficiency	98.3%
Nominal Input DC Voltage [Vdc]	620	620	620	620	MPPT Efficiency	99.9%
MPPT Voltage Range [Vdc]	200-950	200-950	200-950	200-950	Battery Charge by PV Efficiency	98.5%
Full power MPPT Voltage Range [Vdc]	250-850	250-850	350-850	420-850	Battery Charge by grid Efficiency	97.8%
Number of MPP Trackers	4	4	4	4	Battery Discharge Efficiency	97.8%
PV String per MPPT	2	2	2	2		
Max. PV Input Current [A]	30*4	30*4	30*4	30*4		
Max. Short Current [A]	40*4	40*4	40*4	40*4		
INPUT & OUTPUT DC(BATTERY)					PROTECTION	
Battery Voltage Range [Vdc]	135-750				PV Input Reverse Polarity Protection	YES
Max. Charging/Discharging Current [A]	120/120				Battery Input Reverse Polarity Protection	YES
Inverter Built-in Over-current fuse Capacity [A]	100				Anti-Islanding Protection	YES
Battery Ready Optional Function	YES				Insulation Resistance Detection	YES
AC OUTPUT/INPUT @ (GRID)					Residual Current Monitoring Unit	YES
Nominal Apparent Power Output to Grid [KW]	25	30	40	50	Output Over Current Protection	YES
Max. Apparent Power Output to Grid [KW]	27.5	33	44	55	Grid Output Short Protection	YES
Max. Apparent Power from Grid [KW]	30	36	48	60	Output Over Voltage Protection	YES
Nominal Output Voltage [V]	3L/N/PE.220/380V;230/400V;240/415V				GENERAL DATA	
Nominal Output Frequency [HZ]	50/60	50/60	50/60	50/60	Operating Temperature Range [C]	-30~60
Nominal/Max. AC Current Output to Grid [A]	38/42	43.5/50	60/66	75/83	Relative Humidity	0-100%
Max. AC Output Overcurrent Protection [A]	80	100	120	160	Operating Altitude [m]	4000
Output Power Factor	~1(Adjustable from 0.8 leading to 0.8 lagging)				Cooling	Fan Free
Output THDi (@Nominal Output)	<3%	<3%	<3%	<3%	Noise [dB]	<25
AC OUTPUT @ BACK UP WITH BATTERY					User Interface	LED&APP
Nominal Output Apparent Power [KVA]	25	30	40	50	Communication with BMS	CAN&RS485
Peak Output Apparent Power [KVA]	27.5/30	33/36	44/48	55/60	Communication with Meter	RS485
Nominal Output Voltage [V]	3L/N/PE. 220/380V;230/400V;240/415V				Communication with Portal	Wi-Fi/Ethernet
Automatic Switch Time [ms]	<20	<20	<20	<20	Weight [kg]	45
Nominal Output Frequency [HZ]	50/60	50/60	50/60	50/60	Size (W*H*D) [mm]	600*520*290
Output THDv (@Linear Load)	<3%	<3%	<3%	<3%	Mounting	Wall Mounted
Parallel Capability	Maximum 10 inverters can be paralleled at grid and back-up ports				Protection Degree	IP65
					Standby Self-Consumption [W]	<15
					Topology	Transformerless

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