

HYPER-RETRO SERIES

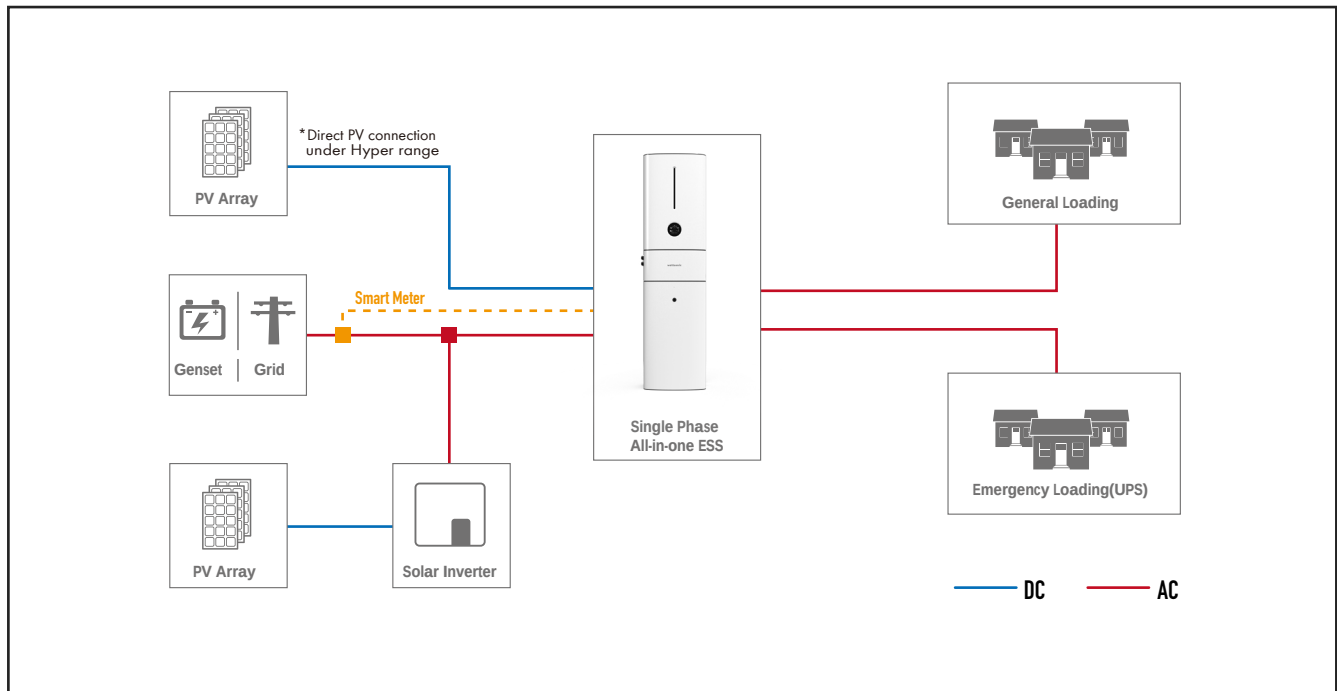
Declare your energy independence



WATTSONIC ALL-IN-ONE LFP ENERGY STORAGE

STORING SOLAR ENERGY SIMPLY AND COST-EFFECTIVELY

THE WATTSONIC ALL-IN-ONE ESS is simple to install, safe, very reliable, and provides the lowest lifetime energy cost for both new solar customers and retrofit customers. As an installer, you can design the right system size to meet the need of the homeowner.



*Unique Color Approval for selected partners



SIMPLER

- › Quick and easy single person installation
- › Plug and play installation, all necessary components included
- › Interconnects with standard household AC Wiring

SAFER

- › No high voltage for battery installation
- › Cells safety tested and certified by Dekra
- › Prismatic LFP cells are highly stable over time

GREAT RELIABILITY

- › Lithium iron phosphate(LFP) chemistry for long cycles life
- › 10-year warranty
- › Modular design promotes redundancy

WATTSONIC ALL-IN-ONE ESS

Technical Specifications

DEVICE SHORT NAME	Hyper/Retro-3KW	Hyper/Retro-3.68KW	Hyper/Retro-5KW(4.6KW)
PV STRING INPUT(DC)(Applicable to Hyper Series)			
Max. DC Input Power [W]	3900W	4600W	6500W
Max. DC Input Voltage [V]	580V	580V	580V
MPPT Voltage Range [V]	125V~500V	125V~500V	125V~500V
Max. Input Current [A]	12.0A	11.0A/11.0A	11.0A/11.0A
Max. Short Circuit Current [A]	15.0A	14.0A/14.0A	14.0A/14.0A
NO. of MPP Trackers	1	2	2
Strings per MPP Tracker	2	1	1
Galvanic Isolation for PV Modules	NO	NO	NO

BATTERY INPUT SIDE

Battery Capacity Options	LiFePO4 2.5KWH~25KWH for options(Modular Parallel based on 2.5KW/5KWH modules)		
Nominal Battery Voltage [V]	48V	48V	48V
Battery Voltage Range [V]	40-60V	40-60V	40-60V
Galvanic Isolation for Battery	YES	YES	YES
Max. Charge Current [A]	60A	60A(Optional 75A)	100A
Max. Discharge Current [A]	60A	60A(Optional 75A)	100A
Protection	Over Voltage, Less Voltage, Over Current, Short Circuit, Over Temperature		
Depth of Discharge	10%~100% SOC		

GRID AC OUTPUT(ON-GRID)

Nominal Apparent Power Output to Utility Grid [VA]	3000 VA	3680 VA	*2 5000 VA
Maximum Apparent Power Output to Utility Grid [VA]	3000 VA	3680 VA	5100 VA
Max. Apparent Power from Utility Grid [VA]	6000 VA	7360 VA	9200 VA
Nominal Output Voltage [V]	230 V	230 V	230 V
Nominal Output Frequency [HZ]	50/60 HZ	50/60 HZ	50/60 HZ
Max. AC Current Output to Utility Grid [A]	16 A	16A	24.5 A *3
Max. AC Current From Utility Grid [A]	32 A	32A	40 A
Output Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)		
Output THDi [@Nominal Output]	<3%	<3%	<3%

EPS AC OUTPUT DATA(BACK-UP)

Max. Output Apparent Power [VA]	3000VA	3680 VA	5000 VA
Peak Output Apparent [VA] *4	4.5KVA, 10S; 9KVA, 100MS	5.52KVA, 10S; 11KVA, 100MS	6.5 KVA, 10S; 15 KVA, 100MS
Max. Output Current [A]	16 A	16 A	21.7 A
Nominal Output Voltage [V]	230(±2%)	230(±2%)	230(±2%)
Nominal Output Frequency [HZ]	50/60(±2%)	50/60(±2%)	50/60(±2%)
Output THDv [@Linear Load]	<3%	<3%	<3%

EFFICIENCY

MPPT Efficiency	99.9%	99.9%	99.9%
Euro Efficiency	97.0%	97.0%	97.0%
Max. Efficiency	97.8%	97.8%	97.8%
Max. Battery to Load Efficiency	95%	95%	95%
Standby Power Losses	<0.5W	<0.5W	<0.5W
Topology	High Frequency Isolation	High Frequency Isolation	High Frequency Isolation

PROTECTION

Anti-islanding Protection	YES	YES	YES
PV Sting Input Reverse Polarity Protection	YES	YES	YES
Insulation Resistor Dection	YES	YES	YES
Residual Current Monitoring Unit	YES	YES	YES
Output Over Current Protection	YES	YES	YES
Output Short Protection	YES	YES	YES
Output Over Voltage Protection	YES	YES	YES

GENERAL DATA

DC Switch	Optional	Optional	Optional
Dimensions(W*H*D)(mm)	*1 414*N/1242/145mm	414*N/1374/145mm	414*N/1374/145mm
Net Weight(KG)	66KG/104KG/142KG	66KG/104KG/142KG	73KG/111KG/149KG
Protection Degree	IP 65	IP 65	IP 65
Mounting Information	Wall Bracket	Wall Bracket	Wall Bracket
Operation Temperature Range [°C]	-20 °C~+60 °C(45 °C derating)	-20°C~+60 °C(45 °C derating)	-20°C~+60°C(45°C derating)
Noise Emission (typical) [dB]	<25dB	<25dB	<25dB
User Interface	LCD Display/APP	LCD Display/APP	LCD Display/APP
Communication with BMS *5	RS 485 & CAN	RS 485 & CAN	RS 485 & CAN
Communication with Meter	RS 485	RS 485	RS 485
Communication with Portal	Wi-Fi/GPRS/WLAN	Wi-Fi/GPRS/WLAN	Wi-Fi/GPRS/WLAN
Relative Humidity [%]	0~95%	0~95%	0~95%
Site Altitude [m]	<4000m	<4000m	<4000m
Cooling Concept	Natural Convection	Natural Convection	Natural Convection

CERTIFICATIONS& STANDARDS

Grid Regulation	VDE-AR-N 4105, VDE0126-1-1, AS4777.2, G83/2, G59, CEI 0-21, NRS 097-2-1, En50438
Safety Regulation	IEC/EN62109-1&2, IEC62040-1
EMC Standard	EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4, EN61000-4-16, EN61000-4-18, EN61000-4-29
Warranty	5-10 years standard warranty (depend on territory)

*1 N is the numbers of battery modules.

*2 4600 for VDE 0126-1-1 & VDE-AR-N4105, 4950 for AS4777.2: 4050 for CEI 0-21

*3 21.7A for AS4777.2

*4 Can be reached only if PV and battery power is enough.

*5 The standard configuration is CAN.