

EV CHARGER

- AC EV Charger 7kw - 21kw
- DC EV Charger 20kw - 240kw



In our world, everything is built to last.

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About Voltronic Power

With over 20 years of experience in power products and management, Voltronic Power has committed to providing high quality products and services to meet diverse customer requirements in eMobility market.

Strong Product Development

Every EV charging station is developed and highly verified for product reliability. Patent fully modularized design and ECO energy saving provide cost-efficient operation and maintenance. All charging modules have passed environmental tests such as sand and dust test, transportation test, salt spray test and EMC test.



Solid R&D Team



Accredited Lab

Quality Manufacturing

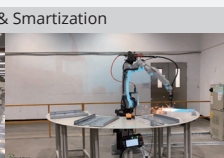
We have scalable and proficient manufactured factories located in Shenzhen and Zhongshan, China. Quality manufacturing is implemented by utilizing automation equipment, highly vertical integration upstream and downstream and rigorous product verification process.



Efficient Production Line



Automation & Smartization



Vertical Integration



EVA 5420W, EVA 5430W IP54, 20kw & 30kw DC EV charger

- In-house developed controllers, CCS and OCPP charging modules
- Wider DC voltage range 300v to 1000v constant power, faster charging efficiency
- The charger had successfully passed 33 sets of rigorous environmental and thermal shock tests from -35°C to 55°C to ensure the system reliability
- Adapting OCPP network security protocol to implement the OTA feature
- Passed cloud network protocol test and was verified by OCTT
- Passed vehicle end protocol DIN 70121, ISO15118, and was verified by TUV
- Multilingual support for 7" colored touch LCD
- The Linux 5.10 OS and CPU conformed with cybersecurity standards
- Third-party certificated CE EN61851



Specification

MODEL		EVA 5420W	EVA 5430W
Charging Type		DC fast charging	
Outlet Options		C: CCS2 cable , A: CCS1 cable , J: CHAdeMO cable , G: GBT cable	
AC Input Power		31A, 22 kVA @ 400V 50Hz	48 A, 33 kVA @ 400V 50Hz
Input Voltage Range		400 VAC or 380 VAC +/- 10%	
Input Frequency		50 Hz or 60 Hz	
DC Output Power Rating (MAX)		20 kW	30 kW
DC Output Voltage		200-1000 Vdc (Constant power from 300-1000Vdc)	
Number of EV Served		Up to 2 (JC, JA models) ; Up to 1 (C, A,J, G models)	
Cable Length		5.0 m, Optional: 6.0 m / 7.0 m	
Maximum Current	CCS Cables	80A	100A
	CHAdeMO Cables	80A	100A
	GBT cables	80A	100A
Electro-Magnetic Compatibility		Class A (optional Class B) according to EN 61000-6-3:2007	
Distribution Systems		TN-S, TN-C, TN-C-S, TT (required external RCD)	
Connector Type		3P + N + PE	
Protection		Overcurrent, overvoltage, undervoltage, integrated surge protection, ground fault including DC leakage protection, door opening protection	
Overvoltage Category		Type II	
Power Factor (Full Load)		≥ 0.98	
THDi		≤ 5%	
Efficiency		93% (peak)	
Standby Power		< 35 W	
Short Circuit Current		10 kA	
Pre-charge Current		< 1 A	
Inrush Current		< 55 A	
Leakage Current		0.8 mA	
Energy Metering		Standard: Meter for DC outlet, Optional: AC inlet	
Cellular Communication		GSM, 4G, LTE	

USER INTERFACE

Connectivity	Internet access via 4G/3G/Ethernet (RJ45)
User Authentication	RFID, QR code
User Interface	7" LCD high-contrast touchscreen
Communication Protocols	Proprietary and OCPP 1.6J
RFID Reader	ISO/IEC 14443 A/B Mifare RFID reader
Emergency Button	Yes
Language System	English, Chinese, French, Spanish

GENERAL CHARACTERISTIC

Protection Rating	IP54 and IK10 (cabinet) / IK8 (touchscreen)
Housing Material	SGCC, Optional: SUS430
Operating Altitude	Up to 2000 m
Operating Temperature	-35 °C to 55 °C
Storage Temperature	-40 °C to 70 °C
Humidity	< 95%, non-condensing
Mounting	Wall-mount or pedestal stand
Dimensions (D x W x H) mm	200 x 450 x 600
Net Weight (kgs)	44

COMPLIANCE STANDARDS

Codes & Standards	IEC 61851-21-2, IEC 61000, IEC/EN 61851-1, IEC 61851-23, IEC 61851-24, IEC 62196-1, IEC 62196-3, GBT18487, GBT20234, NB/T 33008.1, NB/T 33001
Communication to the EV	DIN 70121, ISO/IEC 15118, CHAdeMO 1.6J, GBT27930, GBT 34657, GBT 34658

Product specifications are subject to change without further notice

EVA 5430G, EVA 5460G, EVA 54120G, EVA 54142G, EVA 54180G, EVA 54240G IP54, 30kw-240kw DC EV charger

- In-house developed controllers, CCS and OCPP charging modules
- Supports multiple charging standards: GB, CCS1, CCS2 and CHAdeMO
- Wider DC voltage range 300v to 1000v at 30KW constant output power per module, faster charging efficiency
- The charger has passed 33 sets of rigorous environmental and thermal shock tests from -35°C to 55°C to ensure the system reliability
- The DC power module is equipped with UL approved epoxy resin automatic injection to sustain the dusty and salty air tests to improve environmental adaptability
- IP54 protection, IK10 vandal-proof enclosure and IK8 touch screen
- Each charging mode with dedicated LED status indicator light (easy and intuitive charging experience)
- Multilingual support for 7" colored touch LCD
- Built-in RFID card reader
- Supports OCPP 1.6 JSON network and 3G/4G
- Remote firmware upgrade with APP (OTA)
- Adapting OCPP network security protocol to implement the OTA feature
- Passed cloud network protocol test and was verified by OCTT
- Passed vehicle end protocol DIN 70121, ISO 15118, and was verified TUV
- The Linux 5.10 OS and CPU performed with cybersecurity standards
- Third-party certified CE EN61851



EVA 5430G / EVA 5460G



EVA 54120G

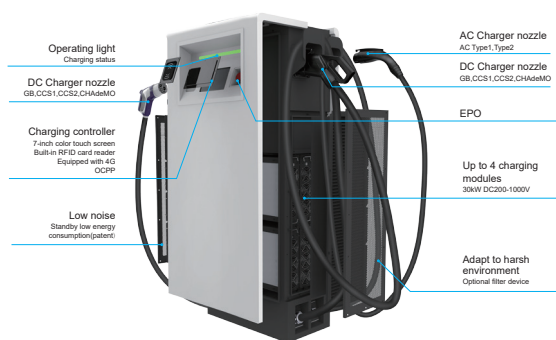


EVA 54142G

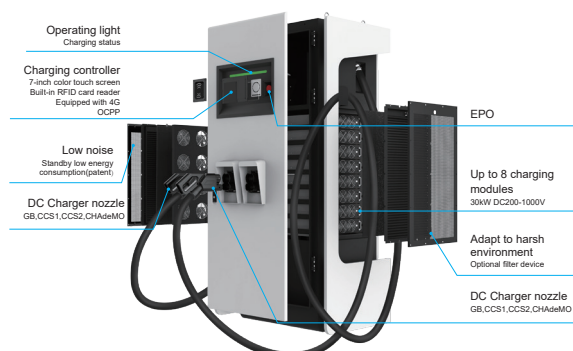


EVA 54180G / EVA 54240G

Product Outlook



EVA 54142G



EVA 54240G

Product Selection Guide

Model	Power module #	DC charger nozzle #	AC charger nozzle #	Dimension (D x W x H, mm)
EVA 5430G	1	up to 2	N/A	235.5 x 660 x 1250
EVA 5460G	2	up to 2	N/A	
EVA 54120G	4	up to 2	N/A	360 x 660 x 1500
EVA 54142G	4	up to 2	1	
EVA 54180G	6	up to 2	N/A	600 x 700 x 1600
EVA 54240G	8	up to 2	N/A	

Specification

MODEL		EVA 5430G	EVA 5460G	EVA 54120G	EVA 54142G	EVA 54180G	EVA 54240G	
Charging Type		DC fast charging	DC fast charging	DC fast charging	DC fast charging and AC charging	DC fast charging	DC fast charging	
Outlet Options		T2: AC Type 2 , C: CCS2 cable , A: CCS1 cable , J: CHAdeMO cable , G: GBT cable						
AC Input Power @ 400V 50Hz		48 A, 33 kVA	93 A, 64 kVA	192 A, 128 kVA	225 A, 150 kVA	288A,192kVA	384A,256kVA	
Input Voltage Range		380/400/415 VAC						
Input Frequency		50 Hz or 60 Hz						
DC Outlet	DC Output Power Rating	30 kW	60 kW	120 kW	120 kW	180 kW	240 kW	
	DC Output Voltage	200-1000 Vdc (Constant power from 300-1000Vdc)						
	Number of EV Served	Up to 2 (JC, JA models) Up to 1 (C, A, J, G models)	Up to 2(CC, AA, JC, JJ, GG models) Up to 1 (C, A, G models)	Up to 2 (C, A, G, CC, AA, JC, JA, GG models)	Up to 3 (JCT2, JAT2, GCT2, GAT2 models)	Up to 2 (C, A, G, CC, AA, JC, JA, GG models)		
	Cable Length	5.0 m, Optional: 6.0 m / 7.0 m						
	Maximum Current*	CCS Cables	100A	200A	200A	200A	200A	200A
		CHAdeMO Cables	100A	125A	125A	125A	125A	125A
GBT Cables		100A	200A	250A	250A	250A	250A	
AC Outlet	AC Output Power Rating	N/A	N/A	N/A	Up to 23 kW	N/A	N/A	
	AC Output Voltage				380/400/415 VAC			
Electro-Magnetic Compatibility		Class A (optional Class B) according to EN 61000-6-3:2007						
Distribution Systems		TN-S, TN-C, TN-C-S, TT (required external RCD)						
Connector Type		3P + N + PE						
Protection		Overcurrent, overvoltage, undervoltage, integrated surge protection, ground fault including DC leakage protection, door opening protection						
Overvoltage Category		Type II						
Power Factor (Full Load)		≥ 0.98	≥ 0.99	≥ 0.99				
THDi		≤ 5%						
Efficiency		≥ 93% (peak)			≥ 94% (peak)			
Standby Power		< 35 W						
Short Circuit Current		10 kA						
Pre-charge Current		< 1 A						
Inrush Current		< 55 A	< 100 A	< 100 A				
Leakage Current		0.8 mA						
Energy Metering		Standard: Meter for DC outlet, Optional: AC inlet						
Cellular Communication		GSM / 4G/ LTE						
USER INTERFACE								
Connectivity		Internet access via 4G/3G/Ethernet (RJ45)						
User Authentication		RFID, QR code						
User Interface		7" LCD high-contrast touchscreen						
Communiation Protocols		Proprietary and OCPP 1.6J						
RFID Reader		ISO/IEC 14443 A/B Mifare RFID reader						
Emergency Button		Yes						
CONFIGURATION								
Software Upgrade		Yes						
Language System		English, Chinese, French, Spanish						
GENERAL CHARACTERISTICS								
Protection Rating		IP54 and IK10 (cabinet) / IK8 (touchscreen)						
Housing Material		SGCC, Optional: SUS430						
Operating Altitude		Up to 2000 m						
Operating Temperature		-35 °C to +55 °C						
Storage Temperature		-40 °C to +70 °C						
Humidity		<95%, non-condensing						
Mounting		Free-standing cabinet						
Dimensions (D x W x H) mm		235.5 × 660 × 1250		360 x 660 x 1500		600 x 700 x 1600		
Net Weight (kgs)		80	105	175	182	326	370	
COMPLIANCE STANDARDS								
Codes & Standards		IEC 61851-21-2, IEC 61000, IEC/EN 61851-1, IEC 61851-23, IEC 61851-24, IEC 62196-1, IEC 62196-3, GBT18487, GBT20234, NB/T 33008.1, NB/T 33001						
Communication to the EV		DIN 70121, ISO/IEC 15118, CHAdeMO 1.6J, GBT27930, GBT 34657, GBT 34658						

*Cable can be customized upon request.

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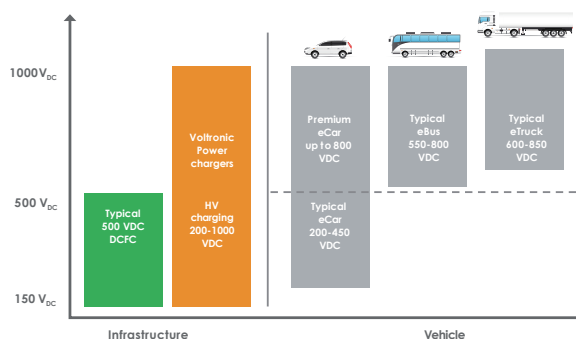
EVA 5460S, EVA 5490S, EVA 54120S, EVA 54150S, EVA 54180S IP54, 60kw-180kw DC EV charger

- Patent ECO energy saving mode: Once vehicle charging is complete, the charging station will go into sleep mode (consumption < 12W) even with nozzle connected. The charging station will resume charging if the nozzle is connected to another vehicle
- Patent full-modularized design including control system, power source system, distributed power system, power factor system
- In-house developed controllers, CCS and OCPP charging modules
- Supports multiple charging standards: GB, CCS1, CCS2 and CHAdeMO
- The charger had successfully passed 33 sets of rigorous environmental and thermal shock tests from -35°C to 55°C to ensure the system reliability
- The DC power module is equipped with UL approved epoxy resin automatic injection to sustain the dusty and salty air tests to improve environmental adaptability
- IP54 protection, IK10 for cabinet and IK08 for touch screen
- Each charging mode with dedicated LED status indicator light (easy and intuitive charging experience)
- Multilingual support for 7" colored touch LCD
- Maximum efficiency up to 95%
- Input power factor >0.99
- THDi < 5% at full load
- Built-in RFID card reader
- Supports OCPP 1.6 JSON network and 3G/4G
- Adapting OCPP network security protocol to implement the OTA feature
- The charger had successfully passed cloud network protocol test and was verified by OCTT
- The charger had passed vehicle end protocol DIN 70121, ISO15118, and was verified by TUV
- The Linux 5.10 OS and CPU conformed with cybersecurity standards
- Third-party certified CE EN61851



High Voltage Charging Capability

Charging systems for electric vehicles, which are capable to charge battery with high voltage in short load times become more and more important. Therefore in the industry the effort had been increased to specify and develop DC (Direct Current) fast charging systems of the new generation, especially with increased charging power and decreased load times.



		Charging time (minutes)					
		60 kW	90 kW	120 kW		180 kW	
CAR	60 kWh BEV 400 VDC	50	25	40	20	25	13
	90 kWh BEV 400 VDC	70	40	60	30	40	20
	100 kWh BEV 800 VDC	80	45	65	33	45	22
BUS/Truck	120 kWh BEV School Bus 400 VDC	95	53	80	40	55	26
	150 kWh BEV Delivery Van 800 VDC	120	65	100	50	65	33
	200 kWh BEV Work Truck 800 VDC	160	88	133	66	88	44
	300 kWh BEV 60' Transit Bus 800 VDC	240	130	200	100	130	66

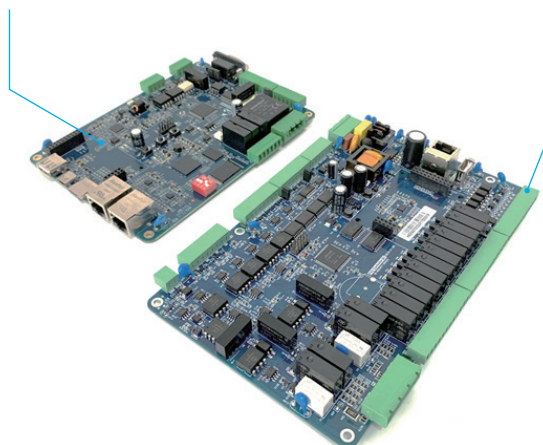
Product Outlook

Patent full modularized design



In-house developed CCS and OCPP

- Integrated dual-gun control system with insulated circuits
- Integrated with protocol converter to implement GB, CCS1, CCS2 and CHAdeMO charging
- Software supports OCPP protocol to compliance with international standard
- Supports remote OTA to allow easy maintenance
- Supports to charge two vehicles simultaneously
- Hardware design meets the IV grade EMC standard to support 4G, Ethernet and DPU network connectivity.



In-house developed controllers

- CPU 120Mhz
- PN-OS embedded operating system
- Large capacity Flash & RAM
- 8 inputs and 15 outputs
- 6 analog
- 9-channel communication
- 2-channel insulation resistance test
- 2-channel control pilot
- 1-channel power source
- IV-grade EMC standard

Specification

MODEL	EVA 5460S	EVA 5490S	EVA 54120S	EVA 54150S	EVA 54180S
Charging Type	DC fast charging				
Outlet Options	C: CCS2 cable, A: CCS1 cable, J: CHAdEMO cable, G: GBT cable				
AC Input Power	93 A, 64 kVA @ 400V 50 Hz	139 A, 96 kVA @ 400V 50 Hz	185 A, 128 kVA @ 400V 50Hz	224A,160kVA @ 400V 50Hz	278 A, 192 kVA @ 400V 50Hz
Input Voltage Range	400 VAC or 380 VAC ± 10%				
Input Frequency	50 Hz or 60 Hz				
DC Output Power Rating	60 kW	90 kW	120 kW	150 kW	180 kW
DC Output Voltage	200-1000 Vdc (Constant power from 300-1000Vdc)				
Number of EV Served	Up to 2 (CC, AA, JC, JJ ,GG models) Up to 1 (C, A, J, G models)				
Cable Length	5 m default, optional 6.0 m/ 7.0 m				
Maximum Current	CCS Cables	200 A	200 A, Optional: 300 A		
	CHAdEMO Cables	125 A, Optional: 200 A			
	GBT Cables	200 A	250 A		
Electro-Magnetic Compatibility	Class A (optional Class B) according to EN 61000-6-3:2007				
Network Type	TN-S, TN-C, TN-C-S, TT (required external RCD)				
Connector Type	3P + N + PE				
Protection	Overcurrent, overvoltage, undervoltage, integrated surge protection, grounding fault including DC leakage protection, door opening protection				
Overvoltage Category	Type II				
Power Factor (Full Load)	≥ 0.99				
THDi	≤ 5%				
Efficiency	94% (peak)				95% (peak)
Standby Power	< 35W				
Short Circuit Current	10 kA				
Pre-charge Current	< 1 A				
Inrush Current	< 100 A				
Leakage Current	0.8 mA				
Energy Metering	Standard: Meter for DC outlet, Optional: AC inlet				
Cellular Communication	GSM, 4G, LTE				

USER INTERFACE

Connectivity	Internet access via 4G/3G/Ethernet (RJ45)
User Authentication	RFID, QR code
User Interface	7" LCD high-contrast touchscreen
Communication Protocols	Proprietary and OCPP 1.6J
RFID Reader	ISO/IEC 14443 A Mifare RFID reader
Emergency Button	Yes
Language System	English, Chinese, French, Spanish

GENERAL CHARACTERISTICS

Protection Rating	IP54 and IK10 (cabinet) / IK08 (touchscreen)				
Housing Material	SGCC, Optional: SUS430				
Operating Altitude	Up to 2000m				
Operating Temperature	-35 °C to 55 °C				
Storage Temperature	-40 °C to 70 °C				
Humidity	< 95%, non-condensing				
Mounting	Free-standing cabinet				
Dimensions (D x W x H) mm	750 x 740 x 1830				
Net Weight (kgs)	295	335	355	375	395

COMPLIANCE STANDARDS

Codes & Standards	IEC 61851-21-2, IEC 61000, IEC/EN 61851-1, IEC 61851-23, IEC 61851-24, IEC 62196-1, IEC 62196-3, GBT18487, GBT20234, NB/T 33008.1, NB/T 33001				
Communication to the EV	DIN 70121, ISO/IEC 15118, CHAdeMO 1.6J, GBT27930, GBT 34657, GBT 34658				

Product specifications are subject to change without further notice

EVA 6520W IP65, 20kw DC EV charger

- Self-developed controller for CHAdeMO and CCS
- Supports multiple charging standards: GB, CCS1, CCS2 and CHAdeMO
- Supports up to 2 EVs
- Built-in RFID card reader
- Supports OCPP 1.6 JSON network and 3G/4G
- Remote firmware upgrade with APP (OTA)
- Remote diagnostic function simplifies data collection and analysis process
- IP65 protection, IK10 vandal-proof enclosure and IK8 touch screen
- 7" colored touch LCD display for easy configuration



Specification

MODEL		EVA 6520W
Charging Type		DC fast charging
Outlet Options		C: CCS2 cable , A: CCS1 cable , J: CHAdeMO cable , G: GBT cable
AC Input Power		32 A, 22 kVA @ 400V 50Hz
Input Voltage Range		400 VAC or 380 VAC +/- 10%
Input Frequency		50 Hz or 60 Hz
DC Output Power Rating (MAX)		20 kW
DC Output Voltage		200-1000 Vdc
Number of EV Served		Up to 2 (JC, JA models) ; Up to 1 (C, A,J, G models)
Cable Length		5.0 m, Optional: 6.0 m / 7.0 m
Maximum Current	CCS Cables	80A
	CHAdeMO Cables	60A
	GBT cables	60A
Electro-Magnetic Compatibility		Class A (optional Class B) according to EN 61000-6-3:2007
Distribution Systems		TN-S, TN-C, TN-C-S, TT (required external RCD)
Connector Type		3P + N + PE
Protection		Overcurrent, overvoltage, undervoltage, integrated surge protection, ground fault including DC leakage protection
Overvoltage Category		Type II
Power Factor (Full Load)		≥ 0.98
THDi		≤ 5%
Efficiency		93% (peak)
Standby Power		< 35 W
Short Circuit Current		10 kA
Pre-charge Current		< 1 A
Inrush Current		< 55 A
Leakage Current		0.8 mA
Energy Metering		Standard: Meter for DC outlet, Optional: AC inlet
Cellular Communication		GSM, 4G, LTE
USER INTERFACE		
Connectivity		Internet access via 4G/3G/Ethernet (RJ45)
User Authentication		RFID, QR code
User Interface		7" LCD high-contrast touchscreen
Communication Protocols		Proprietary and OCPP 1.6J
RFID Reader		ISO/IEC 14443 A/B Mifare RFID reader
Emergency Button		Yes
Language System		English, Chinese
GENERAL CHARACTERISTIC		
Protection Rating		IP65 and IK10 (cabinet) / IK8 (touchscreen)
Housing Material		SGCC, Optional: SUS430
Operating Altitude		Up to 2000 m
Operating Temperature		-35 °C to 55 °C
Storage Temperature		-40 °C to 70 °C
Humidity		< 95%, non-condensing
Mounting		Wall-mount or pedestal stand
Dimensions (D x W x H) mm		200 x 450 x 600
Net Weight (kgs)		44
COMPLIANCE STANDARDS		
Codes & Standards		IEC 61851-21-2, IEC 61000, IEC/EN 61851-1, IEC 61851-23, IEC 61851-24, IEC 62196-1, IEC 62196-3, GBT18487, GBT20234, NB/T 33008.1, NB/T 33001
Communication to the EV		DIN 70121, ISO/IEC 15118, CHAdeMO 1.6J, GBT27930, GBT 34657, GBT 34658

Product specifications are subject to change without further notice

EnerSys 123

- All-in-one home energy system to integrate 10kW solar inverter, 30kW EV Charger and 20kWh battery storage system
- Integrate 10kW Grid-Tie inverter and backup AC output for home storage system
- DC couple and AC couple to integrate existing solar system
- Lithium-Iron phosphate battery for long life and stable operation
- Supported 30KW DC EV charger to reduce charging time
- Support multiple EV protocol including GBT/CCS1/CCS2/CHAdemo
- Integrate OCPP and RF reader for remote payment & control
- IP65 protection level to extend the life time under critical environment
- Optional energy meter to establish self-consumption system



EnergyCube 405

ESS_EV

System Diagram



Store energy from solar energy and utility



Use stored energy at night



Use stored energy during power failure

Dimensions



EnerSys 123 specification

MODEL	ESS_EV_EU
PV INPUT PARAMETERS	
Maximum PV Input Power	14500 W
Maximum PV Input Voltage	1000 VDC
MPPT Voltage Range	350~900 VDC
MPPT Voltage Range @ full load	500~900 VDC
Start-up Voltage	320 VDC
Nominal Input Voltage	720 VDC
Maximum Input Current	A: 18 A ; B: 18 A
Max. Short-circuit Current	25 A
Number of MPPT Trackers	2
Number of Input Strings per MPPT Tracker	1
AC INPUT PARAMETERS	
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC per phase / 180 VAC per phase
Acceptable Input Voltage Range	170 - 280 VAC per phase
Maximum AC Input Current	20 A
GRID-TIE OUTPUT PARAMETERS	
Nominal Output Power	10000VA/10000W
Max. Output Power	10000W
Nominal Output Voltage	230 VAC (Phase to N), L1/L2/L3/N/PE
Output Frequency	50/60 Hz
Max. Grid-tie Output Current	18 A per phase
Power Factor	0.8 lead to 0.8 lag
Maximum Input Current Distortion (THDi)	<5%
BACK UP OUTPUT PARAMETERS	
Rated Output Power	10000VA/10000W
Nominal Output Voltage	230 VAC (Phase to N), L1/L2/L3/N/PE
Nominal Output Frequency	50/60 Hz
Maximum Conversion Efficiency (SOLAR TO GRID)	96%
Maximum Conversion Efficiency (SOLAR TO BATTERY)	97%
Maximum Conversion Efficiency (BATTERY TO LOAD)	96%
EV CHARGER OUTPUT PARAMETERS	
Charging Type	DC Fast Charging
Outlet Options	C:CCS2; A:CCS1; J:CHAdeMO; G: GBT
Number of EV Served	Up to 1
DC Output Voltage	250~1000 VDC
DC Output Power Rating (Max.)	30KW
DC Output Current (Max)	80 A
Charging Cable Length	3.5m (6m Optional)
Rated Output Power	30 KW
Voltage Regulation Precision	± 0.5%
Current Regulation Precision	≤ ±1%
Short Circuit Current	≤ 10KA
Inrush Current	≤ 100 A
Leakage Current	≤ 0.8mA
Efficiency (DC-DC)	97% Peak
Energy Metering	Metering for DC outlets
Protection	OCp, OVP, UVL, Surge, DC Leakage
INTERFACE AND CONTROL	
Supported Charging Protocol	GB/CCS1/CCS2/CHAdeMO
User Interface	7" LCD high-contrast touchscreen
BMS Communication	RS485
Communication	OCPP 1.6 Core and Smart Charging Profiles
RFID System	ISO/IEC 14443A/B, ISO/IEC 15393, FeliCa™ 1, NFC reader mode
Emergency Button	Yes
Protective Class	IP65 with external smart fan
GENERAL	
Operating Temperature Range (°C)	0~55°C
Storage Temperature Range (°C)	-20~70°C
Relative Humidity Range	0~95%
Max. Altitude	Up to 2000m
Mounting	Free-standing cabinet
Dimension, D x W x H (mm)	220 x 700 x 1310
Net Weight (kgs)	80

Battery Module specification

MODEL	EnergyCube 405
BATTERY MODULE PARAMETERS	
Battery Type	Lithium-Iron Phosphate Battery
Nominal Voltage	409.6 VDC
Full Charge Voltage(FC)	460.8 VDC
Discharge Cut-off Voltage	384 VDC
Typical Capacity	50 Ah
Typical Energy	20KWH
Max Continuous Discharging Current	60 A
Max Discharging Current	75 A
Charge Current	10 A
Max. Charge Power	25 A
Protection	BMS
Protective Class	IP20
Dimension, D x W x H (mm)	220 x 630 1600
Net Weight (kgs)	221

Product specifications are subject to change without further notice

EnerSys 123 specification

MODEL	ESS_EV_US
PV INPUT PARAMETERS	
Maximum PV Input Power	14500 W
Maximum PV Input Voltage	1000 VDC
MPPT Voltage Range	350-900 VDC
MPPT Voltage Range @ full load	500-900 VDC
Start-up Voltage	320 VDC
Nominal Input Voltage	720 VDC
Maximum Input Current	A: 18 A ; B: 18 A
Max. Short-circuit Current	25 A
Number of MPPT Trackers	2
Number of Input Strings per MPPT Tracker	1
AC INPUT PARAMETERS	
AC Start-up Voltage / Auto Restart Voltage	85VAC(P-N), 170VAC(P-P) / 90VAC(P-N), 180VAC(P-P)
Acceptable Input Voltage Range	85 - 140 VAC (P-N)/ 170 - 280 VAC (P-P)
Maximum AC Input Current	40 A
GRID-TIE OUTPUT PARAMETERS	
Nominal Output Power	10000VA/10000W
Max. Output Power	10000W
Nominal Output Voltage	110/120 VAC (Phase to N), L1/L2/N/PE
Output Frequency	50/60 Hz
Max. Grid-tie Output Current	41.5 A per phase
Power Factor	0.8 lead to 0.8 lag
Maximum Input Current Distortion (THDi)	<5%
BACK UP OUTPUT PARAMETERS	
Rated Output Power	10000VA/10000W
Nominal Output Voltage	110/120 VAC (Phase to N), L1/L2/N/PE
Nominal Output Frequency	50/60 Hz
Maximum Conversion Efficiency (SOLAR TO GRID)	96%
Maximum Conversion Efficiency (SOLAR TO BATTERY)	97%
Maximum Conversion Efficiency (BATTERY TO LOAD)	96%
EV CHARGER OUTPUT PARAMETERS	
Charging Type	DC Fast Charging
Outlet Options	C:CCS2; A:CCS1; J:CHAdEMO; G: GBT
Number of EV Served	Up to 1
DC Output Voltage	250-1000 VDC
DC Output Power Rating (Max.)	30KW
DC Output Current (Max)	80 A
Charging Cable Length	3.5m (6m Optional)
Rated Output Power	30KW
Voltage Regulation Precision	± 0.5%
Current Regulation Precision	≤ ±1%
Short Circuit Current	≤ 10KA
Inrush Current	≤ 100 A
Leakage Current	≤ 0.8mA
Efficiency (DC-DC)	97% Peak
Energy Metering	Metering for DC outlets
Protection	OCP, OVP, UVL, Surge, DC Leakage
INTERFACE AND CONTROL	
Supported Charging Protocol	GB/CCS1/CCS2/CHAdEMO
User Interface	7" LCD high-contrast touchscreen
BMS Communication	RS485
Communication	OCPP 1.6 Core and Smart Charging Profiles
RFID System	ISO/IEC 14443A/B, ISO/IEC 15393, FeliCa™ 1, NFC reader mode
Emergency Button	Yes
Protective Class	IP65 with external smart fan
GENERAL	
Operating Temperature Range (°C)	0-55°C
Storage Temperature Range (°C)	-20-70°C
Relative Humidity Range	0-95%
Max. Altitude	Up to 2000m
Mounting	Free-standing cabinet
Dimension, D x W x H (mm)	220 x 700 x 1310
Net Weight (kgs)	80

Battery Module specification

MODEL	EnergyCube 405
BATTERY MODULE PARAMETERS	
Battery Type	Lithium-Iron Phosphate Battery
Nominal Voltage	409.6 VDC
Full Charge Voltage(FC)	460.8 VDC
Discharge Cut-off Voltage	384 VDC
Typical Capacity	50 Ah
Typical Energy	20KWH
Max Continuous Discharging Current	60 A
Max Discharging Current	75 A
Charge Current	10 A
Max. Charge Power	25 A
Protection	BMS
Protective Class	IP20
Dimension, D x W x H (mm)	220 x 630 1600
Net Weight (kgs)	221

Product specifications are subject to change without further notice

ATM 6507W, ATM 6511W, ATM 6521W IP65, 7kw-21kw AC EV charger

- In-house developed OPCC controller
- Passed rigorous environmental and thermal shock tests from -35°C to 55°C to ensure the system reliability
- Each charging mode with dedicated LED status indicator light (easy and intuitive charging experience)
- Multilingual support for 4.3" colored touch LCD
- Adapting OCPP network security protocol to implement the OTA feature
- Passed cloud network protocol test and was verified by OCTT
- The Linux 5.10 OS and CPU conformed with cybersecurity standards
- Third-party certificated CE EN61851, RCD EN62955 and MID EN50470 certification



Specification

MODEL	ATM 6507W-EU		ATM 6511W-EU	ATM 6521W-EU
Charging Type	Charging Mode 3 Case C, Optional: Case B			
Outlet Options	AC Type 2 (IEC 62196-2)			
Input/Output Current rating	32A ,Single phase	16A, three phase		32A, three phase
Input/Output Power rating	Up to 7.4 kW	Up to 11 kW		Up to 23 kW
Input/ouput voltage	220/230/240 VAC	380/400/415 VAC		380/400/415 VAC
Input Frequency	50 Hz or 60 Hz			
Number of EV Served	Up to 1			
Cable Length	5.0 m, Optional: 7.6 m			
Distribution Systems	TT, TN , Split-phase			
Connector Type	1P + N + PE	3P + N + PE		3P + N + PE
Protection	Overcurrent, overvoltage, undervoltage, ground fault, integrated surge protection			
Overvoltage Category	Type III			
Energy Metering	Revenue grade energy meter			
Cellular Communication	GSM, 4G, LTE			
USER IN INTERFACE				
Connectivity	Ethernet (RJ45), Optional: 4G / 3G or WiFi			
User Authentication	RFID (Optional)			
User Interface	4.3" touchscreen LCD, Optional: 5" touchscreen			
Status indication	3 indicators			
Communiation Protocols	Proprietary and OCPP 1.6J (Optional)			
RFID Reader	ISO/IEC 14443 A/B Mifare RFID reader			
Emergency Button	Yes			
CONFIGURATION				
Software Upgrade	OTA (Over the air)			
Language System	English, Chinese			
GENERAL CHARACTERISTICS				
Protection Rating	IP65 and IK10 (cabinet) / IK8 (touchscreen)			
Housing Material	Standard: SGCC, Optional: SUS430			
Operating Altitude	Up to 2000 m			
Operating Temperature	-35 °C to +55 °C			
Storage Temperature	-40 °C to +80 °C			
Humidity	< 95%, non-condensing			
Mounting	Wall-mount or pedestal stand (Cable can be wrapped around the hanger)			
Dimensions (D x W x H) mm	150 x 280 x 400	240 x 360 x 600		240 x 360 x 600
Net Weight (kgs)	12.5	33		45
COMPLIANCE STANDARDS				
Codes & Standards	IEC 61851-21-2, EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4, EN 61000-3-11, EN 61000-3-12, IEC 61008-1, IEC 61008-2-1, EN 62423, IEC 62196-1, IEC 62196-2			
Safety Standards	IEC/EN 61851-1, EN 62311, EN 62479, IEC/EN 62955			

Product specifications are subject to change without further notice

Ordering Information

Part Number	Scenarios	Max. charging power	Housing material	No. of chargers	Network interface	OCPP
ATM 6507W-EUHA1W	Private charging	7 kW	Metal A class	1	WiFi	No
ATM 6511W-EUHA1W	Private charging	11 kW	Metal A class	1	WiFi	No
ATM 6521W-EUHA1W	Private charging	21 kW	Metal A class	1	WiFi	No
ATM 6521W-EUBA14GOCPP	Public operation	21 kW	Metal A class	1	4G	Yes

ATM 6507W, ATM 6511W, ATM 6521W IP54, 7kw-21kw AC EV charger

- In-house developed OPCC controller
- Passed rigorous environmental and thermal shock tests from -35°C to 55°C to ensure the system reliability
- Each charging mode with dedicated LED status indicator light (easy and intuitive charging experience)
- Multilingual support for 5" colored touch LCD
- Adapting OCPP network security protocol to implement the OTA feature
- Passed cloud network protocol test and was verified by OCTT
- The Linux 5.10 OS and CPU conformed with cybersecurity standards
- Third-party certificated CE EN61851, RCD EN62955 and MID EN50470 certification



Specification

MODEL	ATM 6507W-US		ATM 6511W-US		ATM 6521W-US	
Charging Type						Charging Mode 3 Case C, level 2
Outlet Options						AC Type 1 (SAE J1772)
Input/Output Current rating	32A ,Single phase		48A, single phase		80A, single phase	
Input/Output Power rating	7.7 kW		11.5 kW		19.2 kW	
Input/ouput voltage	208~240 VACC		208~240 VAC		208~240 VAC	
Input Frequency						50 Hz or 60 Hz
Number of EV Served						Up to 1
Cable Length						5.0 m, Optional: 7.6 m
Distribution Systems						TT, TN
Connector Type						L1 + L2 + PE
Protection						Overcurrent, overvoltage, undervoltage, ground fault, integrated surge protection
Overvoltage Category						Type III
Energy Metering						Revenue grade energy meter
Cellular Communication						GSM, 4G, LTE
USER IN INTERFACE						
Connectivity						Ethernet (RJ45), Optional: 4G / 3G or WiFi
User Authentication						RFID (Optional)
User Interface						4.3" touchscreen LCD, Optional: 5" touchscreen
Status indication						3 indicators
Communiation Protocols						Proprietary and OCPP 1.6J (Optional)
RFID Reader						ISO/IEC 14443 A/B Mifare RFID reader
Emergency Button						Yes
CONFIGURATION						
Software Upgrade						OTA (Over the air)
Language System						English, Chinese
GENERAL CHARACTERISTICS						
Protection Rating						IP54 and IK10 (cabinet) / IK8 (touchscreen)
Housing Material						Standard: SGCC, Optional: SUS430
Operating Altitude						Up to 2000 m
Operating Temperature						-35 °C to +55 °C
Storage Temperature						-40 °C to +80 °C
Humidity						< 95%, non-condensing
Mounting						Wall or floor using a pedestal (Cable can be wrapped around the hanger)
Dimensions (D x W x H) mm	150 x 280 x 400		240 x 360 x 600		240 x 360 x 600	
Net Weight (kgs)	12.5		33		45	
COMPLIANCE STANDARDS						
Codes & Standards						IEC 60068-2-11, NEMA 3R, AC156, ISTA-3A and ISTA-3B FCC Part 15 Class B, ENERGY STAR
Safety Standards						UL 2594, UL 2231-1, UL 2231-2, UL 1998, UL 991, CSA C22.2 No. 280-16, CSA C22.2 No. 281.1-12, CSA C22.2 No. 281.2-12

Product specifications are subject to change without further notice

Ordering Information

Part Number	Scenarios	Max. charging power	Housing material	No. of chargers	Network interface	OCPP
ATM 6507W-USHA1W	Private charging	7 kW	Metal A class	1	WiFi	No
ATM 6511W-USHA1W	Private charging	11 kW	Metal A class	1	WiFi	No
ATM 6521W-USHA1W	Private charging	21 kW	Metal A class	1	WiFi	No
ATM 6521W-USBA14GOCPP	Public operation	21 kW	Metal A class	1	4G	Yes

ATP 6507W, ATP 6511W, ATP 6521W IP65, 7kw-21kw AC EV charger

- In-house developed OPCC controller
- Passed rigorous environmental and thermal shock tests from -35°C to 55°C to ensure the system reliability
- Each charging mode with dedicated LED status indicator light (easy and intuitive charging experience)
- Adapting OCPP network security protocol to implement the OTA feature
- Passed cloud network protocol test and was verified by OCTT
- The Linux 5.10 OS and CPU conformed with cybersecurity standards
- Third-party certified CE EN61851, RCD EN62955 and MID EN50470 certification



Specification

MODEL	ATP 6507W_EU		ATP 6511W_EU	ATP 6521W_EU
Charging Type	Charging Mode 3 Case B & Case C			
Outlet Options	AC Type 2 (IEC 62196-2)			
Input/Output Current rating	32A ,Single phase	16A, three phase		32A, three phase
Input/Output Power rating	Up to 7.4 kW	Up to 11 kW		Up to 23 kW
Input/ouput voltage	220-240 VAC	380-415 VAC		380-415 VAC
Input Frequency	50 Hz or 60 Hz			
Number of EV Served	Up to 1			
Cable Length	5.0 m, Optional: 7.5 m			
Distribution Systems	TT, TN , Split-phase			
Connector Type	1P + N + PE	3P + N + PE		3P + N + PE
Protection	Overcurrent, overvoltage, undervoltage, ground fault, integrated surge protection			
Overvoltage Category	Type III			
Energy Metering	Revenue grade energy meter			
Cellular Communication	GSM, 4G, LTE			
USER IN INTERFACE				
Connectivity	Ethernet (RJ45)			
User Authentication	RFID (only for public operation)			
Status indication	Colored indicator for status			
Comuniation Protocols	Proprietary and OCPP 1.6J (Optional)			
RFID Reader	ISO/IEC 14443 A/B Mifare RFID reader			
Emergency Button	Yes			
GENERAL CHARACTERISTICS				
Protection Rating	IP65 and IK10 (cabinet)			
Housing Material	Standard: SGCC			
Operating Altitude	Up to 2000 m			
Operating Temperature	-35 °C to +55 °C			
Storage Temperature	-40 °C to +80 °C			
Humidity	< 95%, non-condensing			
Mounting	Wall-mount or pedestal stand (Cable can be wrapped around the hanger)			
Dimensions (D x W x H) mm	110 x 282 x 407			
Net Weight (kgs)	7			
COMPLIANCE STANDARDS				
Codes & Standards	IEC 61851-21-2, EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4, EN 61000-3-11, EN 61000-3-12, IEC 61008-1, IEC 61008-2-1, EN 62423, IEC 62196-1, IEC 62196-2			
Safety Standards	IEC/EN 61851-1, EN 62311, EN 62479, IEC/EN 62955			

Product specifications are subject to change without further notice

Ordering Information

Part Number	Scenarios	Max. charging power	Housing material	No. of chargers	Network interface	OCPP
ATP 6507W-EUHA1W	Private charging	7 kW	Plastic A class	1	WiFi	No
ATP 6511W-EUHA1W	Private charging	11 kW	Plastic A class	1	WiFi	No
ATP 6521W-EUHA1W	Private charging	21 kW	Plastic A class	1	WiFi	No
ATP 6521W-EUBA14GOCPP	Public operation	21 kW	Plastic A class	1	4G	Yes

ATP 6507W, ATP 6511W, ATP 6521W IP65, 7kw-21kw AC EV charger

- In-house developed OPCC controller
- Passed rigorous environmental and thermal shock tests from -35°C to 55°C to ensure the system reliability
- Each charging mode with dedicated LED status indicator light (easy and intuitive charging experience)
- Adapting OCPP network security protocol to implement the OTA feature
- Passed cloud network protocol test and was verified by OCTT
- The Linux 5.10 OS and CPU conformed with cybersecurity standards
- Third-party certificated CE EN61851, RCD EN62955 and MID EN50470 certification



Specification

MODEL	ATP 6507W_US	ATP 6511W_US	ATP 6521W_US
Charging Type	Charging Mode 3 Case C, level 2		
Outlet Options	AC Type 1 (SAE J1772)		
Input/Output Current rating	32A, Single phase	48A, single phase	80A, single phase
Input/Output Power rating	7.7 kW	11.5 kW	19.2 kW
Input/output voltage	208~240 VAC		
Input Frequency	50 Hz or 60 Hz		
Number of EV Served	Up to 1		
Cable Length	5.0 m, Optional: 7.5 m		
Distribution Systems	TT, TN		
Connector Type	L1 + L2 + PE		
Protection	Overcurrent, overvoltage, undervoltage, ground fault, integrated surge protection		
Overvoltage Category	Type III		
Energy Metering	Revenue grade energy meter		
Cellular Communication	GSM, 4G, LTE		

USER IN INTERFACE

Connectivity	Ethernet (RJ45), Optional: 4G / 3G or WiFi
User Authentication	RFID (only for public operation)
Status indication	Colored indicator for status
Communication Protocols	Proprietary and OCPP 1.6J (Optional)
RFID Reader	ISO/IEC 14443 A/B Mifare RFID reader
Emergency Button	Yes

GENERAL CHARACTERISTICS

Protection Rating	IP65 and IK10 (cabinet)
Housing Material	Standard: SGCC, Optional: SUS430
Operating Altitude	Up to 2000 m
Operating Temperature	-35 °C to +55 °C
Storage Temperature	-40 °C to +80 °C
Humidity	< 95%, non-condensing
Mounting	Wall-mount or pedestal stand (Cable can be wrapped around the hanger)
Dimensions (D x W x H) mm	110 x 282 x 407
Net Weight (kgs)	7

COMPLIANCE STANDARDS

Codes & Standards	IEC 60068-2-11, NEMA 3R, AC156, ISTA-3A and ISTA-3B FCC Part 15 Class B, ENERGY STAR
Safety Standards	UL 2594, UL 2231-1, UL 2231-2, UL 1998, UL 991, CSA C22.2 No. 280-16, CSA C22.2 No. 281.1-12, CSA C22.2 No. 281.2-12

Product specifications are subject to change without further notice

Ordering Information

Part Number	Scenarios	Max. charging power	Housing material	No. of chargers	Network interface	OCPP
ATP 6507W-USHA1W	Private charging	7 kW	Plastic A class	1	WiFi	No
ATP 6511W-USHA1W	Private charging	11 kW	Plastic A class	1	WiFi	No
ATP 6521W-USHA1W	Private charging	21 kW	Plastic A class	1	WiFi	No
ATP 6521W-USBA14GOCPP	Public operation	21 kW	Plastic A class	1	4G	Yes