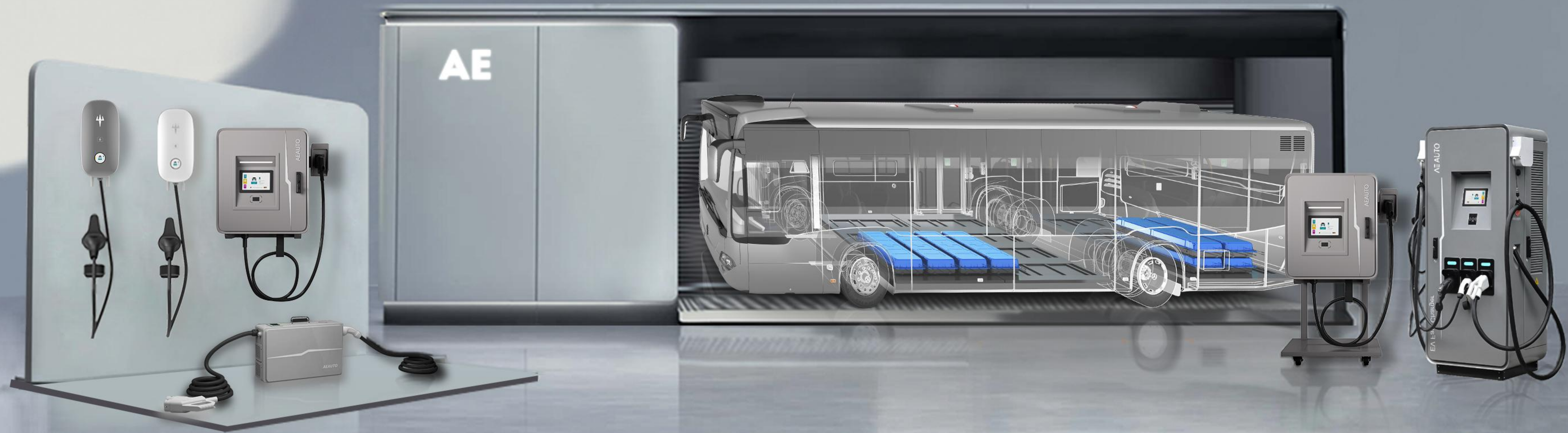


AE AUTO



TURNKEY SOLUTIONS FOR EV INDUSTRY

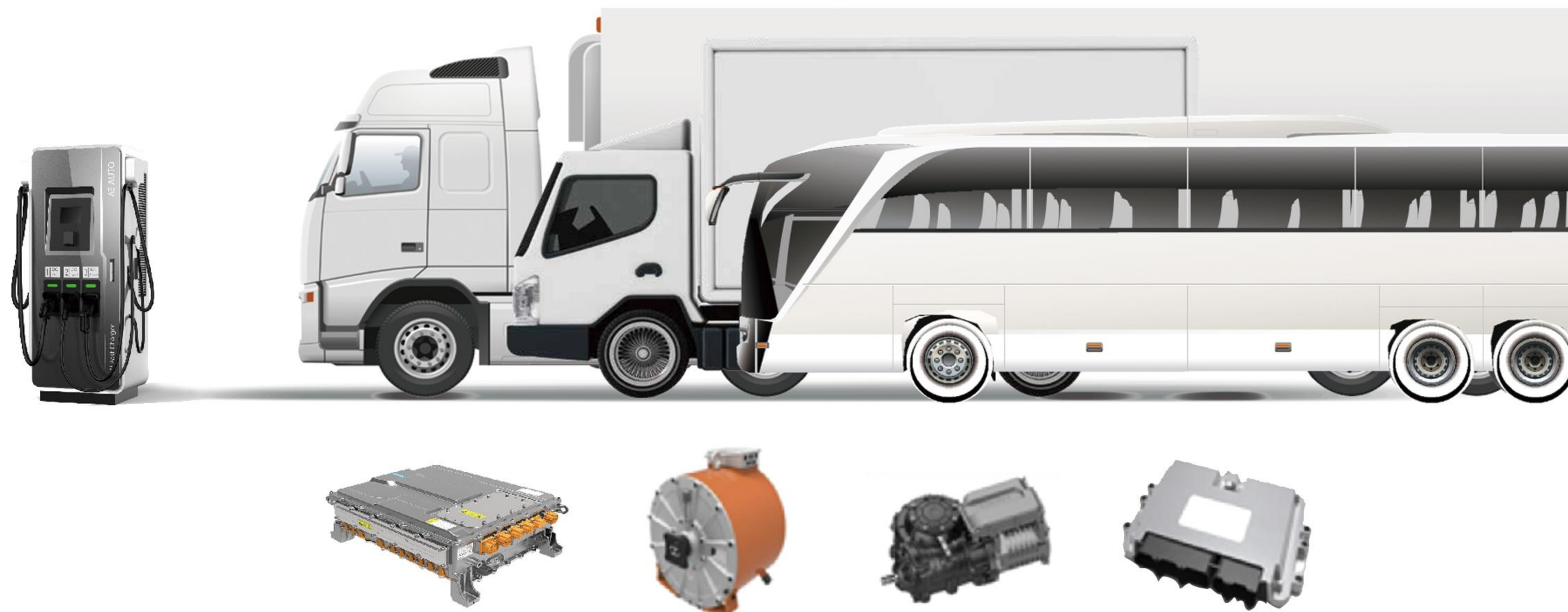
EV KIT • CHARGERS • EV POWERBANK • ESS

COMPANY PROFILE

AE AUTO

- AE has more than 10 years of experience in the development of new energy vehicles and supporting solutions in China and overseas.

With its comprehensive industry knowledge, our company can clearly judge the current technology trends, to help customers develop competitive products.



COMPANY HISTORY



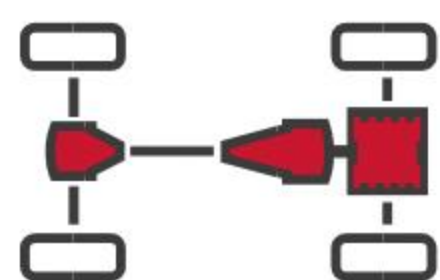
BUSINESS SCOPE



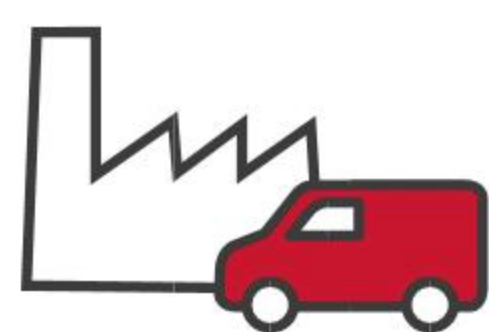
- As a EV power system designer and EV provider, we provide holistic solutions to manufacturers in Europe, Southeast Asia and South America.
- Provide charging pile overall solutions and licensing production services for Europe, CIS, Southeast Asia and South America commercial vehicle manufacturers and charging pile operators.



Build CAN network system



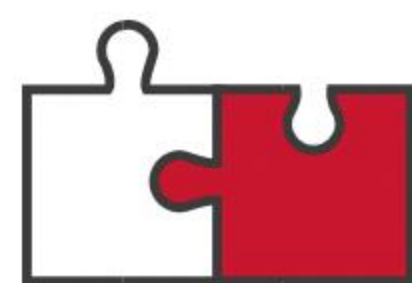
Intelligent and electric drive systems



Intelligent of electric vehicle



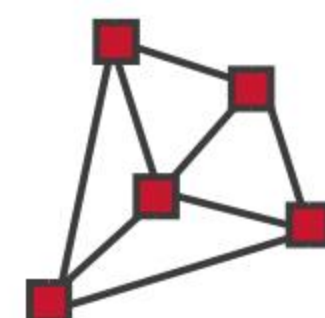
Vehicle Networking System



Build CAN network system



LCC Management Solution



Charging Station and Management System



Modular Design

CHARGER PRODUCTS

AE AUTO

DC Fast Charger

20min Charging
400km Driving

95% High Efficiency

APP/OCPP/RFID

SOLAR/V2G





60-160KW

60-160KW Floor Mounted

DC Output Power	60KW~160KW
DC Output Voltage Range	CCS: 200 – 1000VDC□CHAdemo: 200 – 500VDC
DC Output Current Range	CCS: 0 – 200A□CHAdemo: 0 – 125A
AC Output Power	22kW max
AC Output Current	3-phase 32A max
Input Voltage	400Vac +/-10%□50/60Hz, 3-phase + N + PE
Input Current	0 - 250A
Net weight	370KG
Dimension (H x W x D)	1880 x 580 x 750mm
Cable Length	5m
Protection Class	IP55
Communications Interface	CAN, 485, 4G or Ethernet
Backstage Monitoring	OCPP1.6 JSON support

CHARGER PRODUCTS



40KW



20KW

Item	40KW Wall Mounted/Stand	20KW Portable
Maximum Output Power	42KW	20KW
DC Output Voltage Range	200~750VDC	200~750VDC
Max. Output Current	60A	26.7A
Charging Standard	CCS Type 2	CCS Type 2
Efficiency	Above 95%	Above 95%
Protection Class	IP55	IP55
Net Weight	146KG	58KG
Dimension (H x W x D)	1277 x 848 x 576mm	782 x 472 x 312mm
Cable Length	5m	5m
Communications Interface	CAN, 485, 4G or Ethernet	CAN, 485, 4G or Ethernet
Backstage Monitoring	OCPP1.6 JSON support	OCPP1.6 JSON support

CHARGER PRODUCTS

AE AUTO

AC Charger

Commercial or Home Use

CE Certificate

APP/OCPP/RFID

IP55

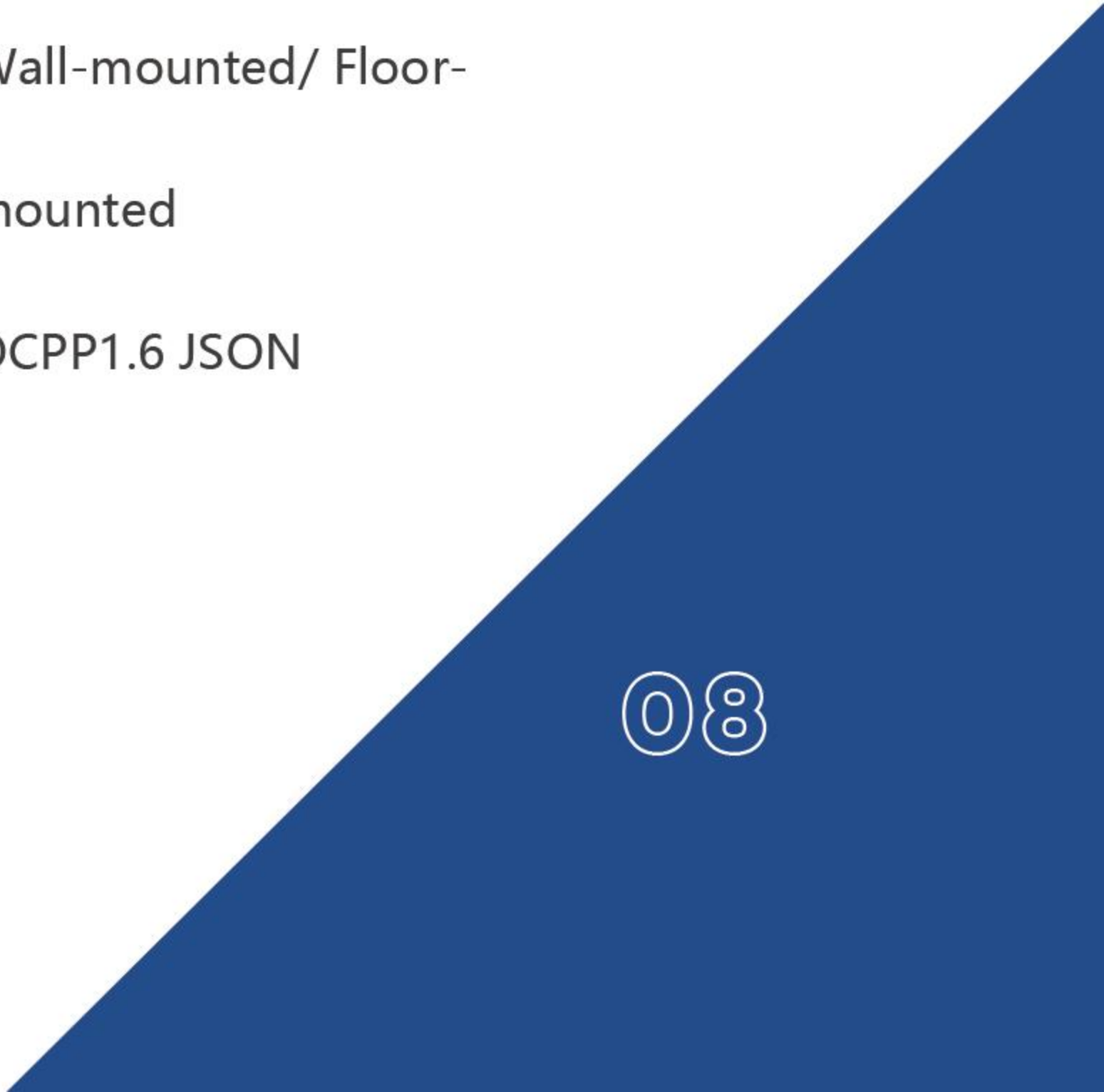


CHARGER PRODUCTS



7/11/22KW

Item	22KW Commercial/HOME	11KW Commercial/HOME	7KW Commercial/HOME
Input Voltage	AC220V±15%	AC220V±15%	AC220V±15%
Input Frequency	50HZ	50HZ	50HZ
Rated Power	22KW	11KW	7KW
Rated Output Current	32A	16A	32A
Cabinet Material	Plastic	Plastic	Plastic
Dimension(H x W x D)	350 x 100 x 175mm	350 x 100 x 175mm	350 x 100 x 175mm
Charging Groups	Single Shot	Single Shot	Single Shot
Cable Length	5m	5m	5m
Protection Class	IP55	IP55	IP55
Installation Method	Wall-mounted/ Floor-mounted	Wall-mounted/ Floor-mounted	Wall-mounted/ Floor-mounted
Backstage Monitoring	OCPP1.6 JSON	OCPP1.6 JSON	OCPP1.6 JSON
★ Communications Interface CAN, 485, 4G or Ethernet (Commercial)			



CHARGER PRODUCTS



Charger Pal

Charging power rate	180kw
Output voltage range	200 ~ 750V
Max. output current	200A
Storage battery capacity	186.71 kwh
Weight (kg)	<3500
Dimensions (LxWxH, mm)	5450×2190×1903
Noise (dp(A))	<65@1m
Working temperature	- 20 ~ + 55℃
Working humidity	5%~95% □no condensation
Working altitude	2000m
Protection level	IP55
Cooling method	Charger: Air cooling□Battery: Liquid cooling
Input voltage range	AC: 400VAC±10%,50/60Hz□DC: 250VDC~ 800VDC
Max. power rate	180KW(DC)
Output voltage range	200 ~ 750V
Constant power range voltage	300 ~ 750V

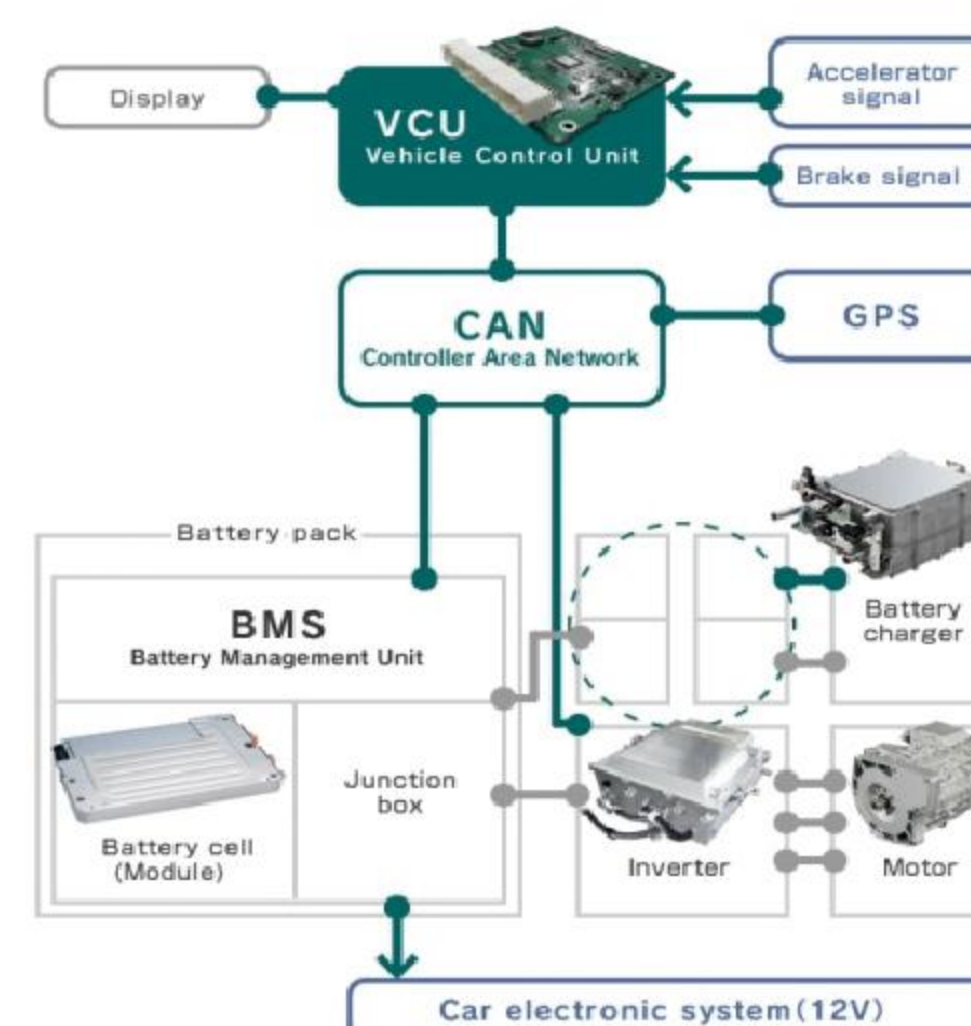


ELECTRIC POWERTRAIN SYSTEM SOLUTION

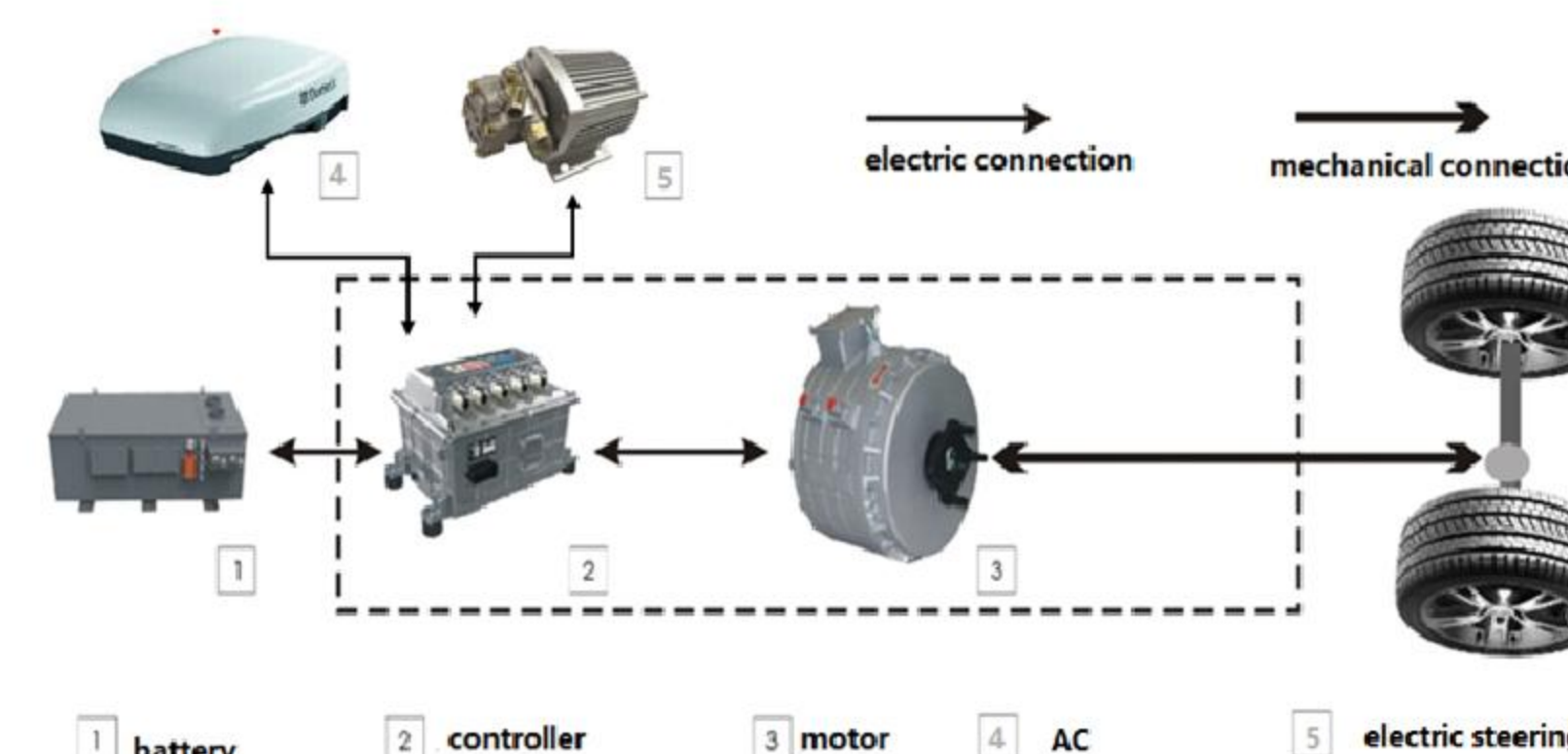
- With more than 10 years of experience in the development of new energy vehicles and supporting solutions all over the world, AE can provide a turnkey project based on the different product application scenarios of different customers, such as: Road Passengers Transport Solution, Vessel Solution, Heavy-duty Transport Solution, Urban Delivery Solution, Construction Machinery Solution, Urban Street Cleaning Solutions, etc. AE's product solutions are safer, more reliable, and more durable, which will effectively help customers reduce costs and increase efficiency. Furthermore, they will promote the electrification process in various fields and create a more beautiful and green environment.



VCU



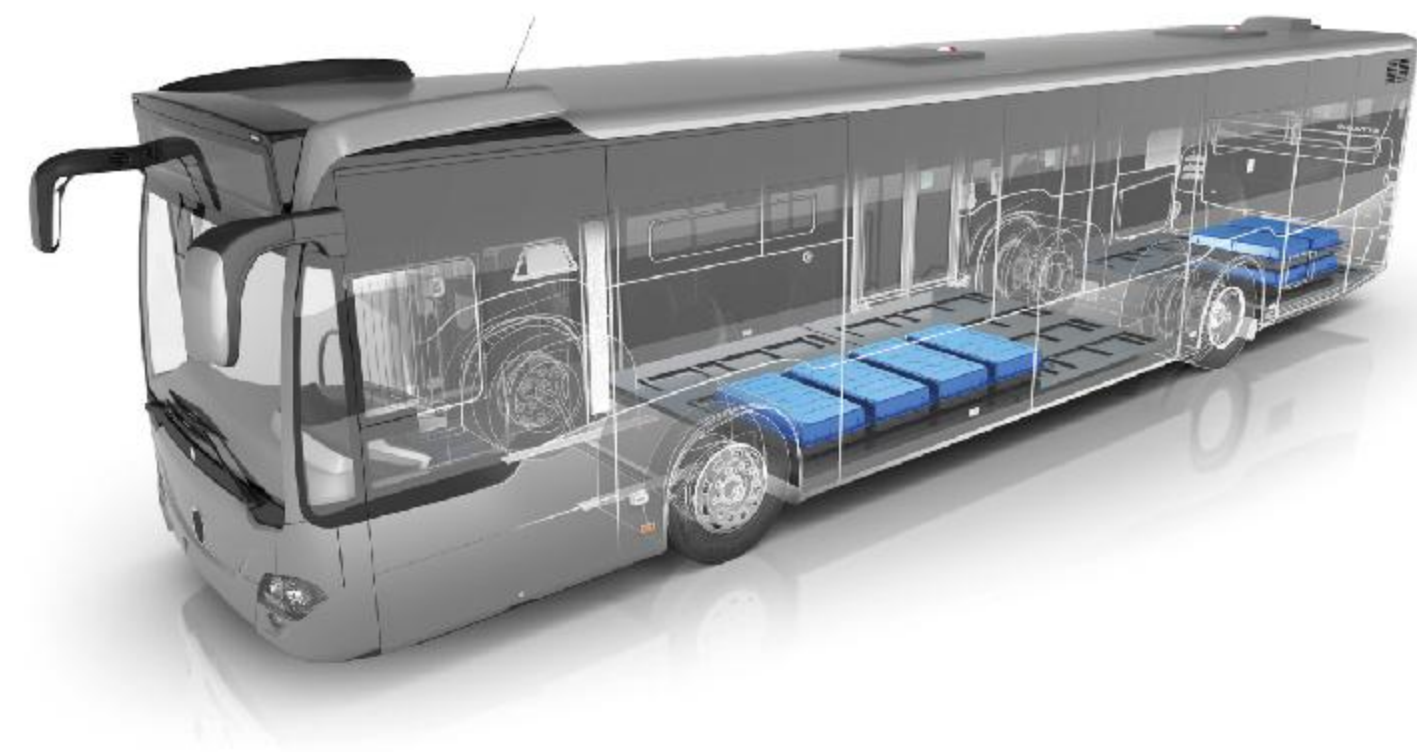
System electrical architecture



System hardware architecture

ELECTRIC POWERTRAIN SYSTEM SOLUTION

AE AUTO



Road Passengers Transport Solution



Heavy-duty Transport Solution



Electric yacht



Construction Machinery Solution



Urban Delivery Solution



Urban Street Cleaning Solutions

ESS SOLUTION

AE AUTO

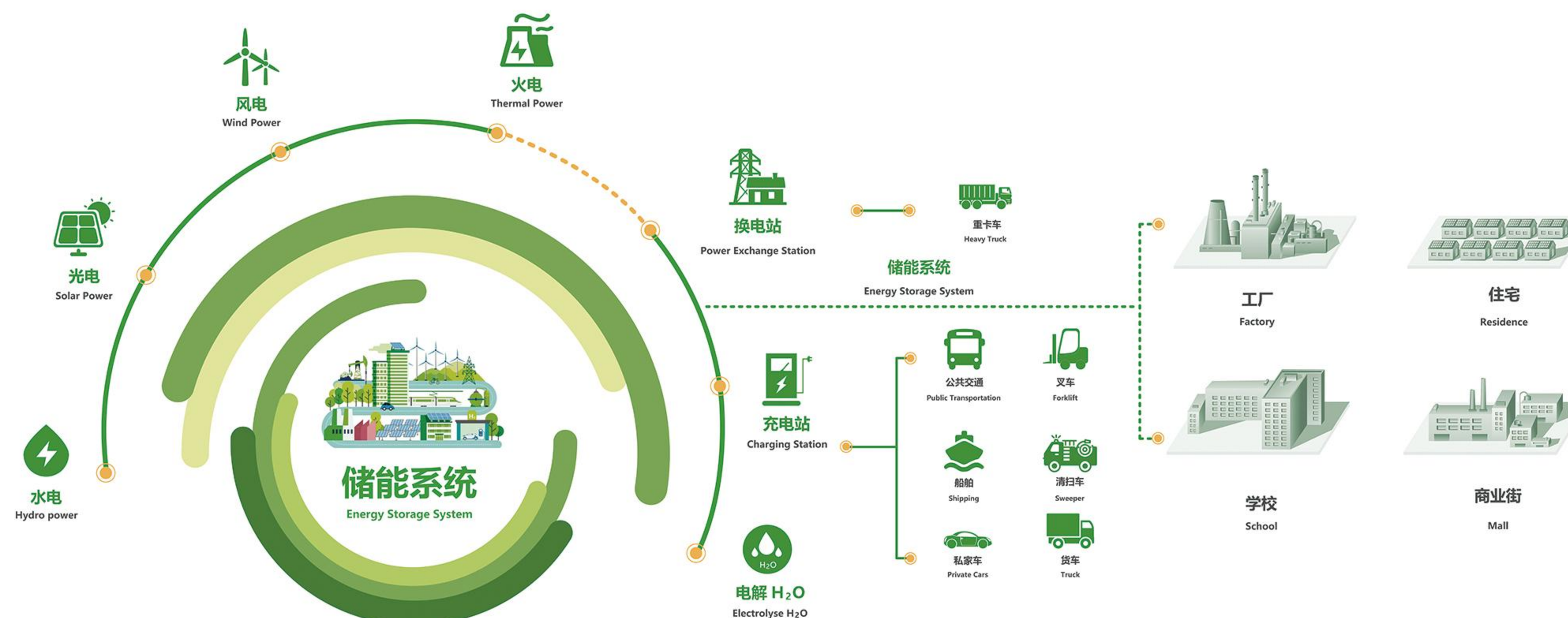
- ESS (Energy Storage System) is a system that can store and supply electricity, which has functions such as peak shaving and valley filling, frequency and voltage regulation, and smooth transition.

Cooperating with solar, wind, and other power generation devices, it can effectively reduce the impact of randomness, intermittency, and volatility on the power grid and users

Charging during peak price periods and discharging during peak price periods can reduce users' electricity bills;

When the power grid is cut off, it can operate in isolation, ensuring uninterrupted power supply to users.

The application scenarios include solar and wind power generation energy storage supporting facilities, industrial enterprise energy storage, commercial buildings and data center energy storage, energy storage charging stations, communication base station backup batteries, household energy storage, etc.



ESS SOLUTION



Battery



Battery: Lithium iron phosphate
battery (LiFePO4)
Capacity: 3MWh/5MWh/7MWh
Life: 8000 times (90%DOD)



Energy Management System

Monitor, detect, and control equipment operating status
Emit energy or Store energy

Container specifications	20HC	30HC	40HC
Container specifications	3.01MWh	5.27MWh	7.53MWh
Capable capacity	2.67-3.01	4.52-5.27	6.67-7.53
Adapted voltage range	1000-1500V		
Charge and discharge multiplier	0.5CP		
Cell parameters	LFP-3.2V-280Ah-896Wh		
Module parameters	LFP-38.4V-560Ah-21.504kWh/LFP-76.8V-280Ah-21.504kWh		
Cycle life	8000次 (90%DOD, 270%EOL)		
Circulation efficiency	≥94%(DC side)		
BMS scheme	Active Balance + Three-level Architecture		
Communication interface	Ethernet/RS-485/CAN		
Communication specifications	Modbus-TCP/IEC61850/104		
Temperature control scheme	Intelligent Frequency Conversion Air Cooling		
Fire protection plan	Gas/Smoke/Temperature Detection + Heptafluoropropane + Water Fire Protection + Perfluorohexanone (Optional) + Active Ventilation		
Insulation resistance	>10MQ		
Auxiliary power	AC380V-50Hz		
Height above sea level	≤5000m (>3000m Reduce The Capacity)		
Allowable ambient temperature	-40~+55℃		
Allow relative humidity	0-95%Rh(No Condensation)		
Level of protection	IP65		
Anti-corrosion level	C4(C5 Selection And Matching)		
Size L*W*H	6058*2438*2896mm	9125*2438*2896mm	12192*2438*2896mm
Full weight	28T	48T	69T
Product certification	GB/T36276、GB/T34131、UL1973、UL9540A、IEC62619、UN38.3		

ESS SOLUTION



Battery



Battery: Lithium iron phosphate battery (LiFePO4)
Single Capacity: 215kWh
Series Capacity: 215kWh -1MWh
Life:8000 times (90%DOD)

Energy Management System



Monitor, detect, and control equipment operating status
Emit energy or Store energy

ESS Product parameter

System Spec.			
DC side	System capacity (kWh)	60/120	200/215
	Rate voltage (Vdc)	600	750
	Voltage range (Vdc)	537-691	672~864
AC side	System power (kW)	30/60	100 (standard configuration)
	Rate voltage (Vac)	380	
	Rate frequency (Hz)	50/60	
	Power factor	-1~+1	
	Output AC connection	3phase 3P+N+PE	
	Operation mode	PQ/VF	
	Communication	RS485/LAN	
	Enclosure Protection	IP54	
Others	Altitude	≤2000m	
	Efficiency to AC side	88%	
	Operation humidity range	5%~95% (non-condensing)	
	Cycles endurance	≥ 4000 (25℃, 0.5C charger and discharge, 90%DOD, EOL≥80%)	≥ 6000 (25℃, 0.5C charger and discharge, 90%DOD, EOL≥80%)
	weight (kg)	1400/1850	1850
	Certification	GBT36276 (IEC 62619, IEC61000-6-2/4, IEC62477Functional safety: IEC60730-1 AH-CLASS B. UL: UL9540A, UL9540, UL1973 in process)	



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