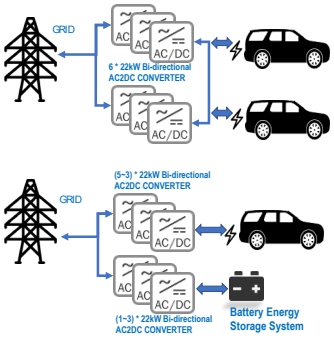
V2G Charging Solution

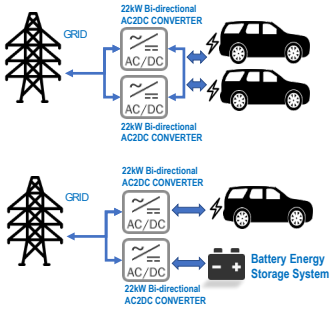
22kW/44kW/132kW V2G DC Fast Charger

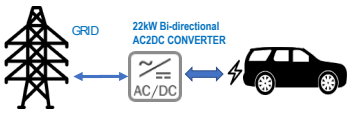
■ EXP132K3E-FD 132kW V2G charger

■ EXP44K3E-FDW 44kW V2G charger

■ EXP22K3E-FSW 22kW V2G charger







Introduction

The V2G charger ensures the power supply and demand in good balance between the grid and EV battery by taking the EV battery as an energy storage device and through the help of local or remote Energy Management System. It also supports flexible PV energy access to optimize grid peak-valley electricity usage, supplement the grid capacity and provide backup power supply. It can be a core node to smart grid or micro grid access and also an important supplement to the user-side energy storage system.

Main Features

- Flexible change of the system configuration, capacity and the direction of power flow, customization support
- WEB/APP Maintenance Backend System enhances the operation and maintenance effectiveness
- Total electric isolation between the grid, battery and EV
- Fully compatible with different system configurations
- Global V2G standard support
- Unified EMS strategy

Solution Values

- Grid peak valley electricity using
- Grid capacity supplement
- Grid quality and safety improvement
- Supplement to the user-side energy storage

Technical Parameters

		EXP22K3E	EXP44K3E	EXP132K3E
AC grid access	AC mode	45-65Hz/3-phase+(N)+PE/260Vac-530Vac		
	Max AC feedback power	22 kW	44 kW	132 kW
	Power factor	>0.99		
	Total harmonic current	<3% (rated input)		
EV charging	Max charging power	22 kW	44 kW	132 kW
	Charging power switch	Single charging connector	Charging in parallel with half power or in series with full power between 2 charging connectors	
	Charging voltage	150V~1000V		
EV discharging	Max V2G feedback power	22 kW	44 kW	132 kW
	V2G protocol standard	CCS: DIN70121, IEC15118/-2/-20, CHAdeMO V1.2, EVPOSSA		
Optional battery energy storage access	Battery voltage	/	300~1000V	
	Max dis/charging power	/	22 kW	66kW configuration
	BES BMS access	CAN communication		
Metering	AC Grid side (optional)	One bidirectional AC energy meter		
	Charging side	Bidirectional DC energy meter	Two bidirectional DC energy meter	
Dimensions	W * H * D mm	610 * 640 * 270 mm	705 * 1100 * 240 mm	700 * 1750 * 750 mm
Weight	kg	65 kg	120 kg	250 kg
Protection class		IP55/IK10	IP55/IK10	IP55/IK10
Thermal management		Air cooled		
Ambient temp	-30 ~ +70°C, full power output below 50°C, power derating 5%/°C above 50°C			
EMC/safety	cTUVus, UL2202, TUV CE/RED EN62909, EN61000-6-3/EN61000-6-1 Class A; EN 61851-1/EN 61851-23/EN 61851-24			
Grid connection	VDE-AR-N 4105, EN50549, UL1741SB			

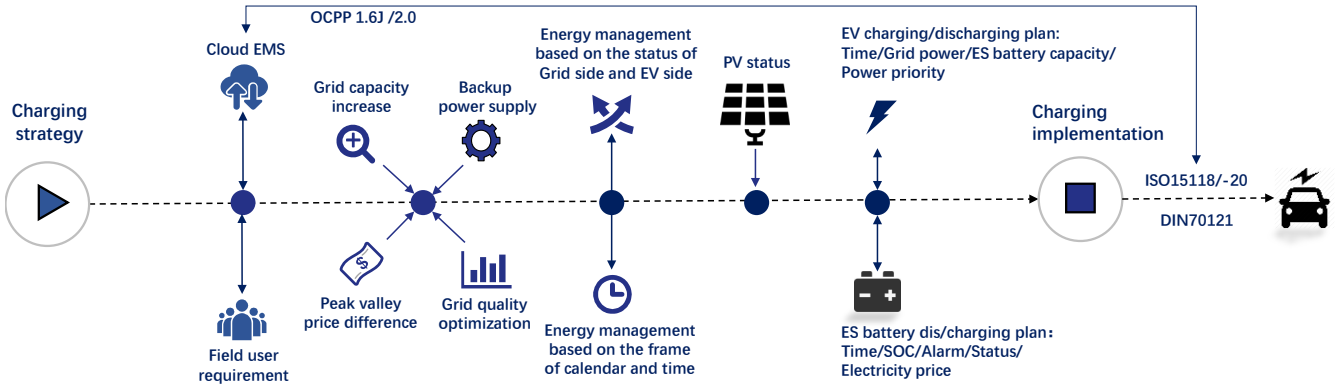
Configuration

Power module configuration	1 * 22kW power module	2 * 22kW power modules	6 * 22kW power modules
Charging connector configuration	1 CCS +1 CHAdeMO or 2 CCS or 1 CCS or 1 CHAdeMO		

Function and Interface

HMI	Tempered glass protective 7" TFT touch screen LCD, RFID, RGB panel LED, POS (opt)
Back-end platform	OCPP 1.6J, support firmware update to 2.0x, OTA support, P&C/smart charge/power management support
MBE function support	WEB side Maintenance Backend System enhances the operation and maintenance effectiveness
Charging management	Pedestal with two cable retractors and the light bar

V2G Charging System Running Strategy



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