

Technical Solution of The BESS EV Charging Station

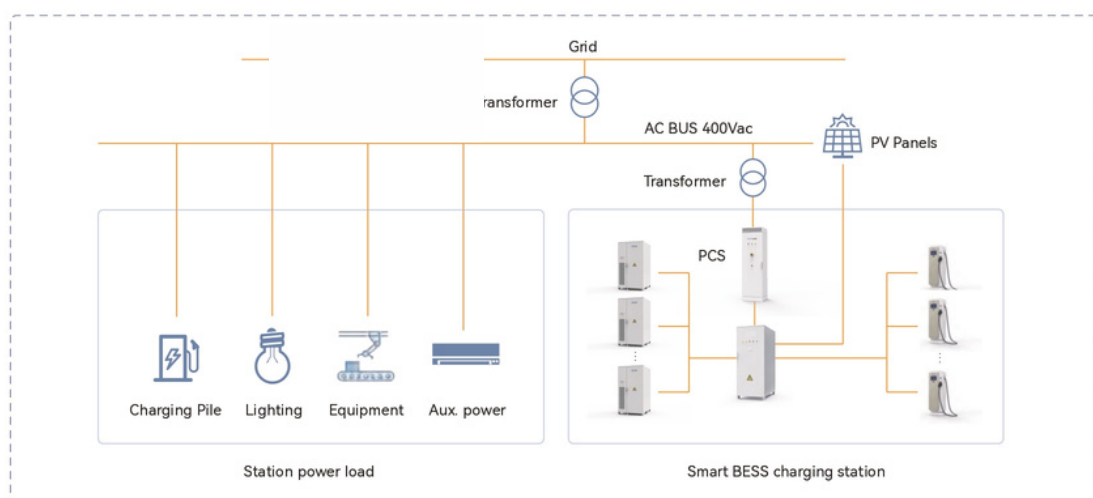
- Installation with equipments and cables
- Flexible installation
- High efficiency of installation
- Easily transportation
- CATL LFP, safer and longer cycle life
- Reduce installation cost



Application Scenario

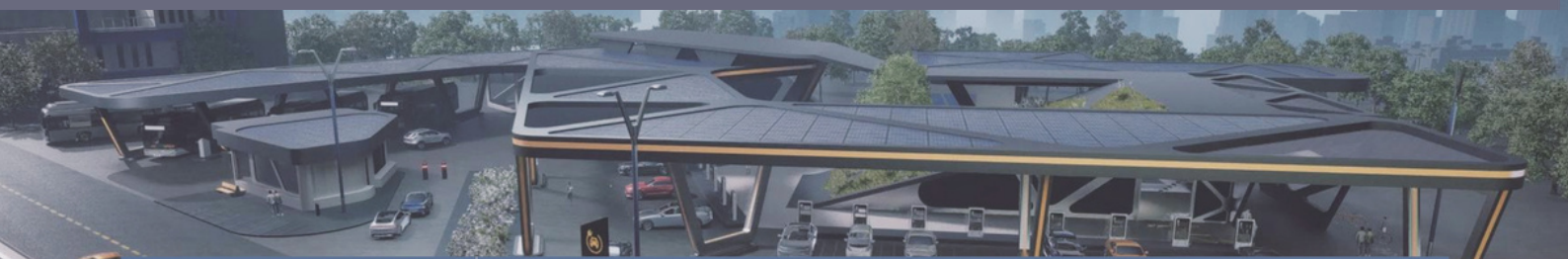
- Commerical ESS: Peak Shaving
- PV Power Store
- Smart BESS Charging Station
- Provide Backup Power

Topology



DC Coupling VS AC Coupling

Items	AC Coupling	DC Coupling
Countercurrent to Power Grid	High-power charging load disturbance affect power grid directly	Complete isolate load impact caused by high-power charging
System Efficiency	Battery - DC/AC - AC/DC - charger Low efficiency	Battery - DC/DC - charger High efficiency
Charging Speed	Low charging power	180kW Super-charging
Expand Capacity	Limited by transformer capacity	DC Bus provide extra power to expand max. charging power
Utilization of Clean Energy	AC side clean energy needs to transfer into DC side through AC/DC converter	DC load directly consume the clean energy
On/ Off-grid	Short circuit risk on off-grid mode	Zero short circuit risk on off-grid mode



Product Model	Nimbus
BATTERY SPECIFICATION	
Battery Type	LFP
Battery Model	280Ah
Energy Capacity	824kWh
Voltage Range	646.8 ~ 831.6Vdc
P-rate	1P
Cooling Method	Liquid cooling
Ingress Protection	IP55
Weight	≈2.5T
Compliance	UN 38.3, UN 3480, IEC 62619, IEC 61000-6-2/-4, IEC 62477-1, IEC 63056, IEC 60730-1
CHARGING PILE	
Max. Output Current	250A
Max. Power	180kW
Output Voltage Range	200 ~ 1000Vdc
Payment Method	RFID, Credit Card
Max. Number	18
PCS SPECIFICATION	
Rated AC Power	100kW×N(N≤6)
Rated Grid Voltage	400Vac
Rated Grid Frequency	50/60Hz
Peak Efficiency	98%
Ingress Protection	IP54
System Dimensions (W×D×H)	810×275×845
Weight	≈1T
Compliance	EN 50549, G99, VDE AR-N 4105, VDE AR-N 4110, NTS Spain, IEC 62477, IEC 61000-6-2, IEC 61000-6-4
GENERAL SPECIFICATION	
Operating Temperature Range	-25 ~ 55 °C (>45°C derating)
Relative Humidity Range	0 ~ 95% (No Condensation)
Max. Working Altitude	4000m (>2000m derating)
Fire Safety Equipment	Aerosol or NVAC1230, Smoke detector, Heat detectors