720KW FLEXIBLE DC CHARGER

绿能慧充
GRESGYING

INTRODUCTION

With Gresgying flexible power sharing and dynamic star-ring power distribution technology. The 720kW flexible charging system fully distributes each power module to meet the charging power requirements of different vehicles, so as to avoid idle power modules. It is ideally suited for highway corridor and EV fleet operations.

FEATURES

Patented Star-Ring Power Distribution Technology

- Maximize equipment utilization:
- Single terminal minimum output 30kw;
- Single terminal maximum output power 240kW, liquid cooling terminal maximum output 500kw;
- Upgradable output power of each connector to meet future needs;
- Applicable to a variety of charging scenarios to meet the power requirements of different vehicles;

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HIGHLIGHTS

For Charge Point **Operator/ Owner**

- ✓ **Patented star-ring power distribution technology, maximize the equipment utilization.**
- ✓ Separated master and slave, **saving installation space.**
- ✓ Various terminals design, suitable for different application scenarios.
- ✓ providing flexible 30kW, 60kW, 90kW, 120kW, 150kW, 180kW, 210kW, 240kW charging power according to vehicle demands, **increasing operation income.**
- ✓ Future Proof, terminals upgradable to **liquid cooling**.
- ✓ The equipment control unit and power modules are designed in different compartments with **high reliability.**
- ✓ Maximum charging efficiency up to 95%, improving the operation efficiency.

For Charge Point **User**

- ✓ Any terminal can charge at the vehicle's required max. power , **saving waiting time & charging time.**
- ✓ Display sunshade protection, cold light assistance, effectively solving the problem of unclear screen display under direct sunlight.
- ✓ **Electrical protections** not only to minimize the human safety risk of electrical shock but also to ensure the maximum uptime due to independent protections per connector.
- ✓ Ultra Rapid charge, max. 500kW charging power from liquid cooling terminal, **saving charge time**.
- ✓ Future proof constant power voltage range 300~1000V, 100% fast charging for all types of electric vehicles in 10 years.
- ✓ Intelligent security guard, real-time monitoring of dynamic data, **high charging safety.**

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SPEIFICATION

Model		
Model Number	F6	
Rated Power	720kW	
Input Parameters		
AC input voltage range	AC380V(AC323V～AC437V)	
AC input current range	≤1368A	
Output Parameters		
DC output voltage range	DC200~750V	DC50~1000V
Constant Power Range	300-750V	300-1000V
DC output current	2400A (system)	
Output Terminals	2~24	
Electrical Parameters		
BMS Auxiliary Power	12V (24V customization)	
Peak efficiency	≥96%	
Power Distribution	Yes, distributed at min. 30kW	
User Interface & Control		
User authentication	APP, QR Code (optional), RFID	
HMI	7-inch touch LCD	
Connectivity	Ethernet/4G (optional)	

Terminals				
Terminal Type	Terminal Type 1	Terminal Type 2 (with screen)	Liquid Cooling Terminal	Liquid Cooling Terminal
Connector	GB/T202343-2015 2 connectors	GB/T202343-2015 2 connectors	GB/T202343-2015/HPC 1 connector	GB/T202343-2015/HPC 2 connectors
Cable Length	5m	5m	3.5m	4.5m
Single Connector Output Current	3~250A	3~250A	3~600A	3~250A
Terminal Size	470*430*1350mm	450*200*1600mm	500*476*1455mm	500*476*1455mm
Terminal Weight	50kg	65kg	67kg	70kg
Mechanical Parameters				
Dimension(W*D*H)	2000mmx915mmx1800mm			
Gross Weight	1500kg			
Protection	IP54			
Environmental				
Operating Temperature	-30 to 50℃ (50~65℃ power degrading)			
Operating Humidity	5%~95% (no condensation)			
Altitude	≤2000m (2000~4000m degrading)			

720 flexible charging solution VS 6pcs 120kW charger

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720kW with 6pcs dual connector terminals

X 1

6pcs 120kW dual connector Charger

X 6

Total Charging Power	720kW	720kW (6*120kW)
Single Gun Max. Charging Power	240kW	120kW
Min. Power Distribution Unit	30kW	30kW
Applicable Scenarios	Serving charging scenarios with various types of vehicles, such as public charge point, multi-vehicle mixed dedicated stations.	Service single charging scenario with certain types of vehicle.

720 flexible charging solution VS 6pcs 120kW charger

720kW = 24pcs * 30kW Charger
= 12pcs * 60kW Charger
= 8pcs * 90kW Charger
= 6pcs * 120kW Charger
= 4pcs * 180kW Charger
= 3pcs * 240kW Charger

- ✓ Each terminal can charge at min. 30kW and max. 240kW according to vehicle demand.
- ✓ Dynamic Power Distribution and future proof.
- ✓ Termianl can be upgraded to liquid cooling terminal with 500kW output.
- ✓ Even if there are idle terminals, other terminals can charge at a total power of 720kw, and the operating income is high.

6pcs 120kW = 12pcs * 60kW Charger
= 6pcs * 120kW Charger
= 6pcs * 30kW Charger + 6pcs * 90kW Charger

- ➢ Not able to support vehicles with charging demand above 120kW.
- ➢ Not able to upgrade high power charging.
- ➢ Operating income of the charge point is low.

720 flexible charging solution
VS 6pcs 120kW charger

120kW EV Charger	#1		#2		#3		#4		#5		#6		Remarks
Vehicle No.	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	
Demand from Vehicle	60	60	30	30	90	120	150	180	empty	empty	empty	empty	Total demand from vehicles is 720kW.
Supply from Charger	60	60	30	30	90	30	120	0	0	0	0	0	Total supply from chargers is only 420kW.

720kW EV Charger	720kW												Remarks
Vehicle No.	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	
Demand from Vehicle	30	60	90	120	150	180	90	empty	empty	empty	empty	empty	Total demand from vehicles is 720kW.
Supply from Charger	30	60	90	120	150	180	90	0	0	0	0	0	Total supply from chargers is 720kW.
Demand from Vehicle	210	240	240	30	empty	empty	empty	empty	empty	empty	empty	empty	Total demand from vehicles is 720kW.
Supply from Charger	210	240	240	39	0	0	0	0	0	0	0	0	Total supply from chargers is 720kW.

- ✓ Star-ring power distribution technology distributes any power module to any terminal.
- ✓ Higher charging efficiency and higher operation income.