

# **SINEXCEL**

# **EV CHARGING SOLUTIONS**

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Everything about profitability  
and charging experience

## About Sinexcel



**Established**  
2007

### **Business**

- EV Charger
- Energy Storage
- Power Quality



Everything about profitability and charging experience

## 10+ years

Since 2010, Sinexcel starts R&D and production of EV charger module, nowadays it is one of the biggest EV charger module manufacturer in the world.

## 330000+ sets

Charging modules running.

## 100+ kinds

Control Algorithms

## 800+ employess

With 200+ R&D engineers

## 50+ Countries

Coverage of Sinexcel operations.

## 21000+ sets

EV Fast chargers.

## 100+ Cities

Business covers more than 100 cities.

## Pubilc Listed

Stock Cod 300693, listed at Growth Enterprise Market of China, value 300million USD, value and financial can be tracked at google.

SER1000V Series  
20kW EV Charger Module

<b>Environmental conditions</b>	Operating temperature	-30℃~65℃ , Derating above 50℃
	Cooling method	Air cooling
	Altitude	≤2000m , Derating out put above 2000m
<b>Input Characteristics</b>	Input	Three phase + PE
	Input rated voltage	380V AC
	Input voltage range	268—479V AC
	Frequenc	45Hz—65Hz
	Starting inrush current	≤110% rated input current
<b>Mechanical Dimensions</b>	Communication method	CAN BUS
	Size	W238mm)*D(411mm)*H(86 mm)
	Weight	10kg

Everything about profitability and charging experience

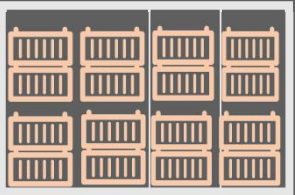




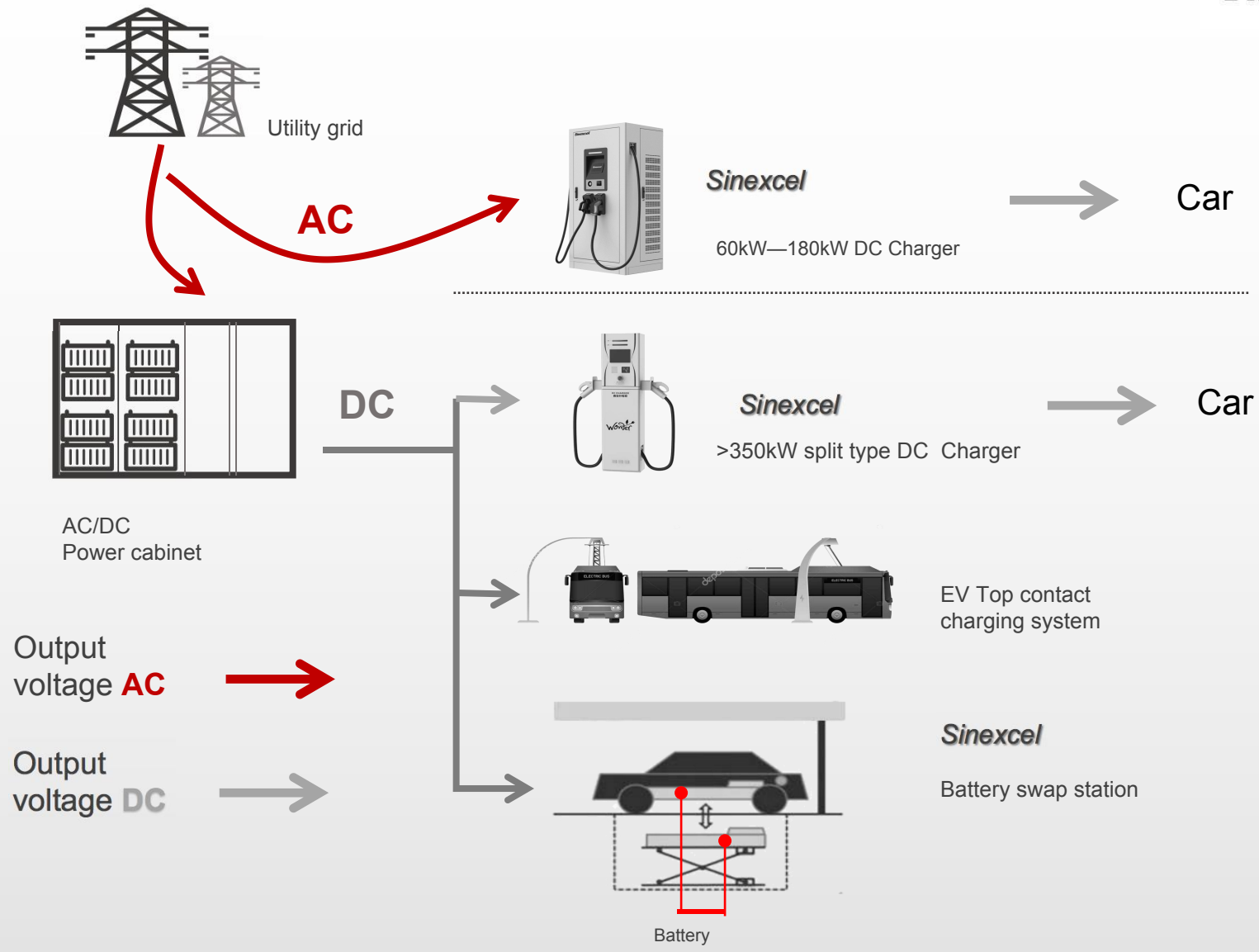
# Application Scenarios



Intergtated DC charger



Flexible Power cabinet



Everything about profitability and charging experience



## **Part 01**

### **Application-level**

**Ultra wide  
output  
voltage  
range**

**Constant  
power output  
speed up  
charging  
process**

## **Parts 02**

### **Technical aspects of product**

**High  
Efficiency  
and Energy  
Conservation**

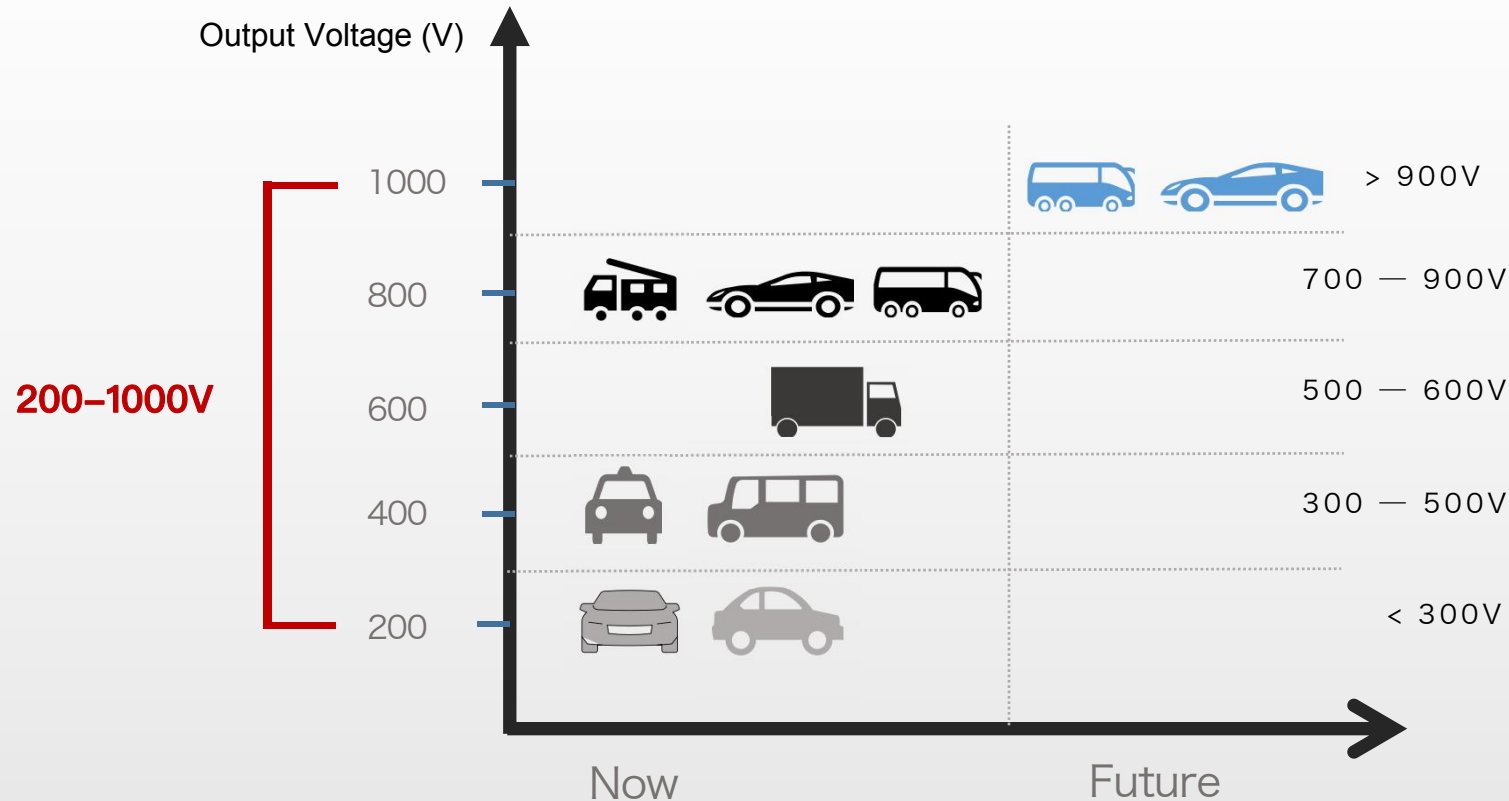
**Intelligent  
control**

**Safety &  
High  
Reliability**

**Low noise,  
Supporting  
Mute mode**

# **Application - Level**

## Appliation-level

**Ultra wide output voltage range adapt to more types of automotive**

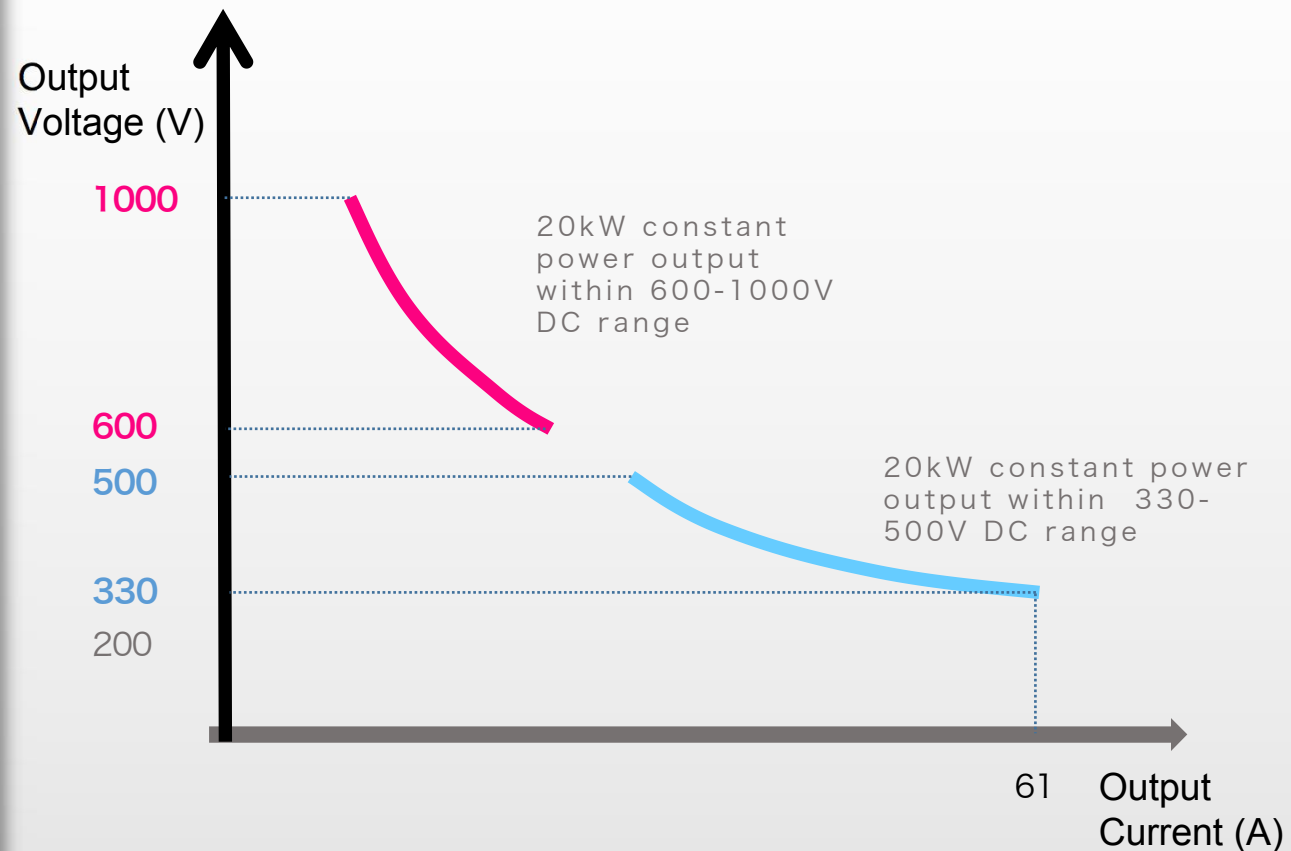
200–1000V, compatible with the vast majority of voltage platforms and vehicle charging requirement from now to future.

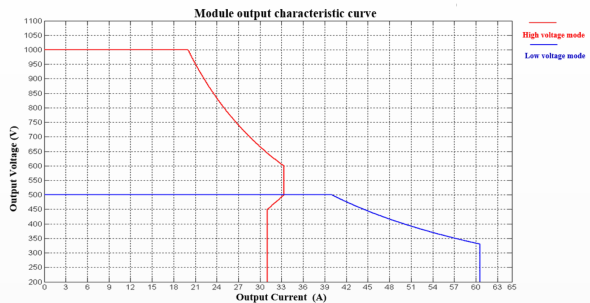
**Reduces operating expenses, increases carrier earnings, and meets the next 5–10 years of technology.**

## Constant power output speed up charging process

330-500V&600-1000V constant power dual output segment, achieves the maximum constant power range;

improves the power utilization ratio of DC charger, raises the operation efficiency, and maximizes carrier revenue.





**↑**  
**144%**  
Maximum output current

MAX 60kW  
1000V  
3\*61A

60kW



**60kW. h**

600V, 100A



constant power range 800-1000V

MAX 60kW  
1000V  
3\*25A

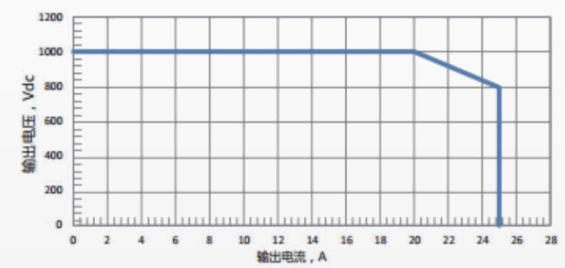
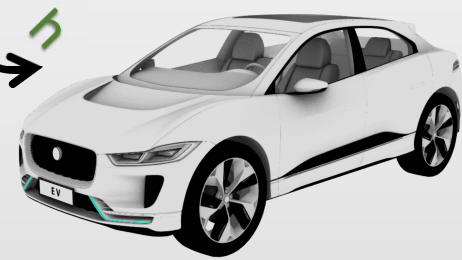
60kW

Normal 20kW EV charger power module



**45kW. h**

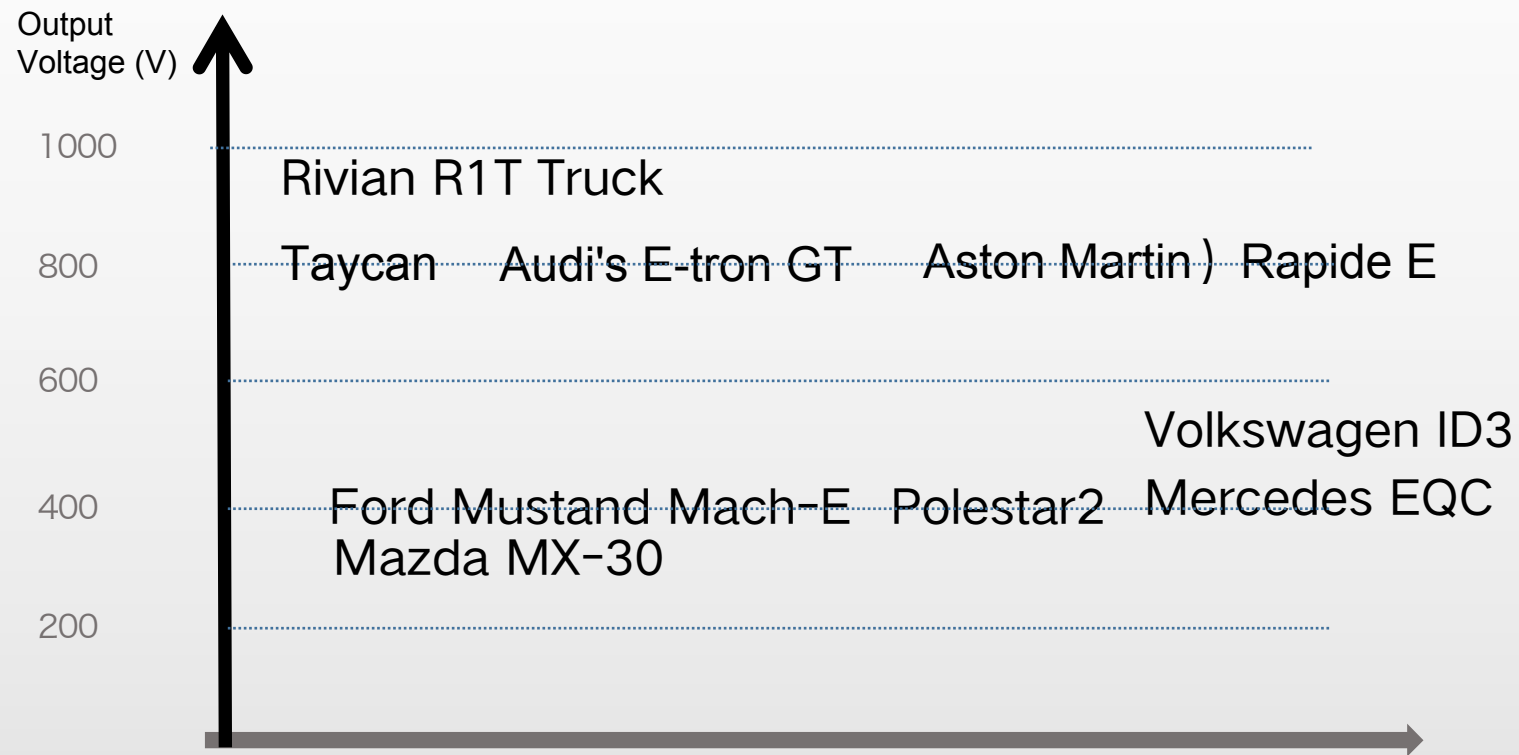
600V, 100A



**25A**

## EV Models

### 20kW Full power charging in Sinexcel charger module





# **Technical aspects of product**

## High Efficiency and Energy conservation Reduce operating costs.

*Peak efficiency*

**$\geq 95.6\%$**

Reduce energy consumption loss,  
meet the requirements of energy  
saving and emission reduction .

*Power factor*

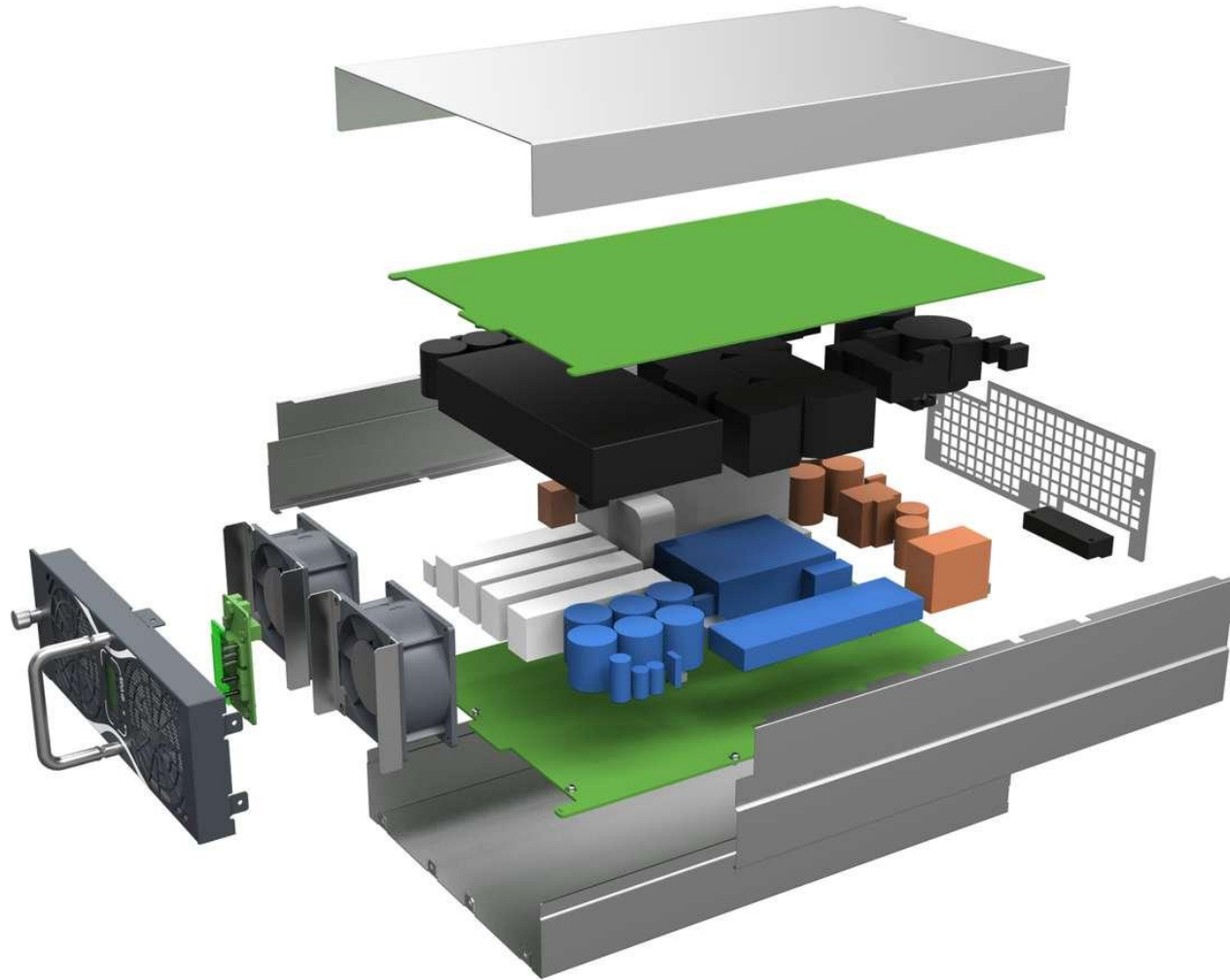
**$\geq 0.99$**

Infinitely close to the  
pure resistive load,

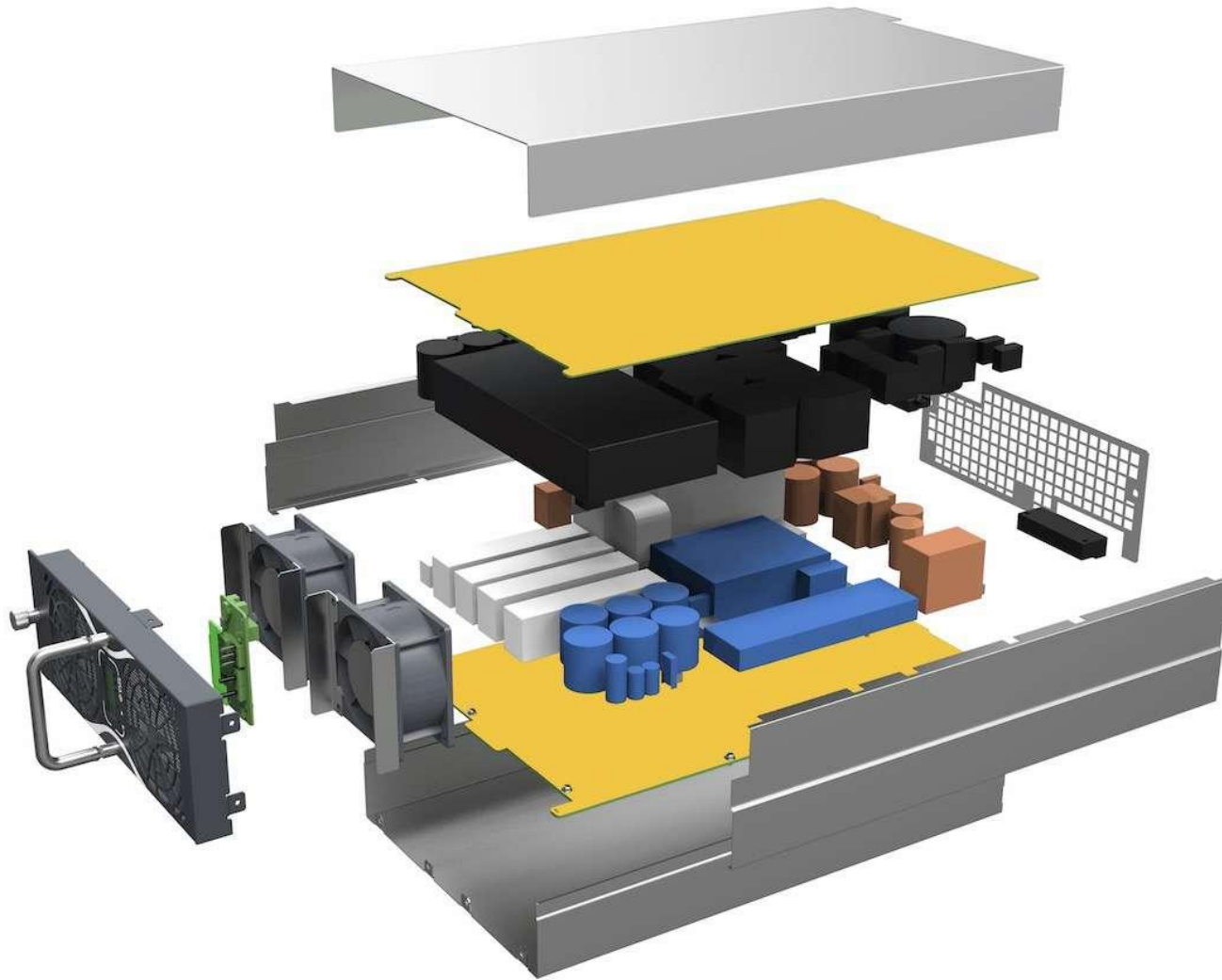
*THDi*

**$< 5\%$**

Lower than the standard  
documentation requirement, such  
as the standard of Power Grid,  
achieve rational allocation of  
energy



The whole module design consideration of updated topology, using Full-Bridge Three-Level LLC topology.



Using Conformal coating thick film process to protection of electronic circuits.

**Safety & High Reliability**  
Ease of use and maintenance

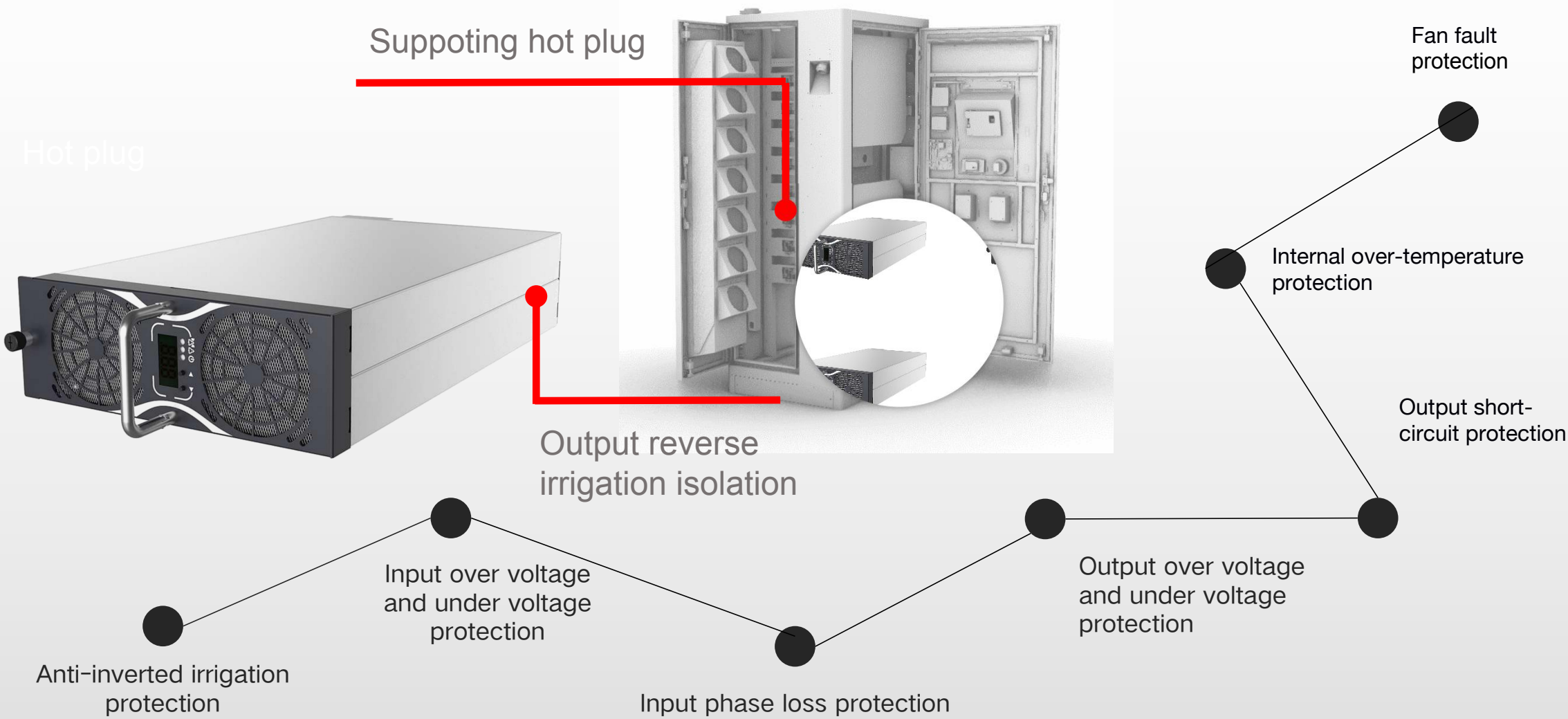
Isolation  
design

Output reverse  
irrigation isolation

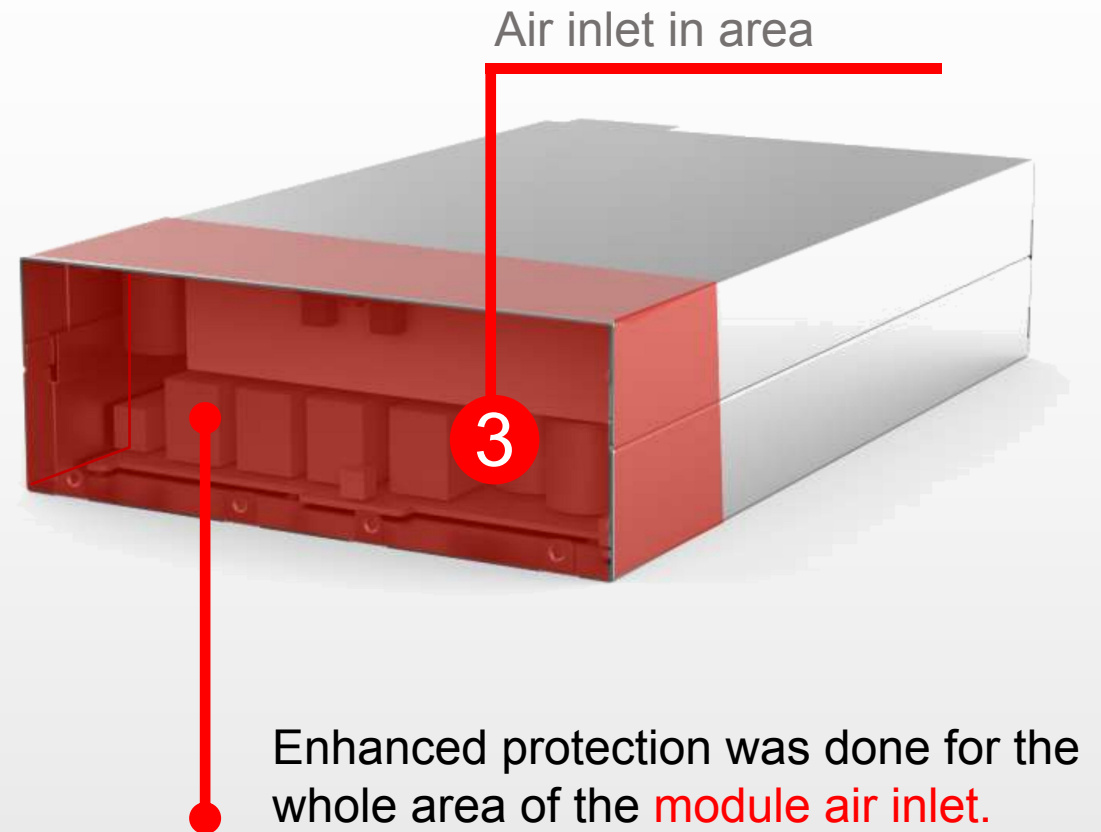
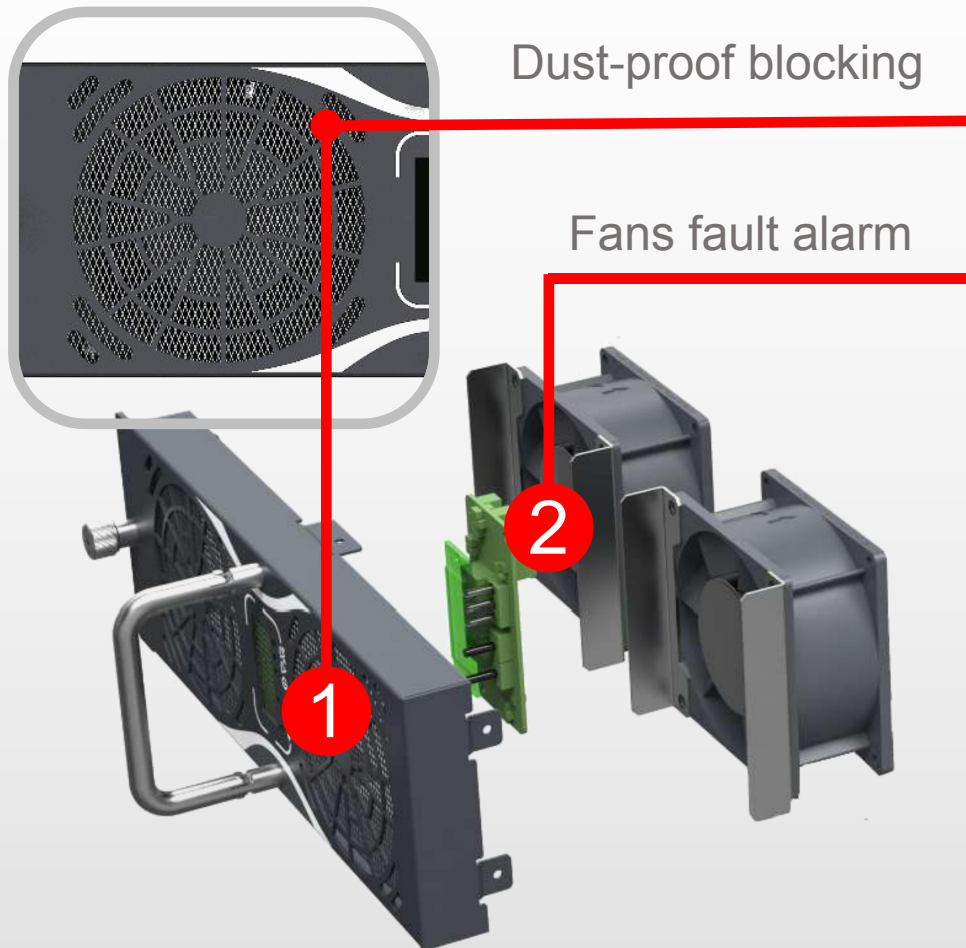
Hot plug

multiple-  
protection  
functions.

**Safety & High Reliability**



## Intelligent control





# Intelligent control

With the support of system, platform and network, the remote upgrade function can be realized based on module communication protocol.



Reports the status information

Support automatic OTA update.

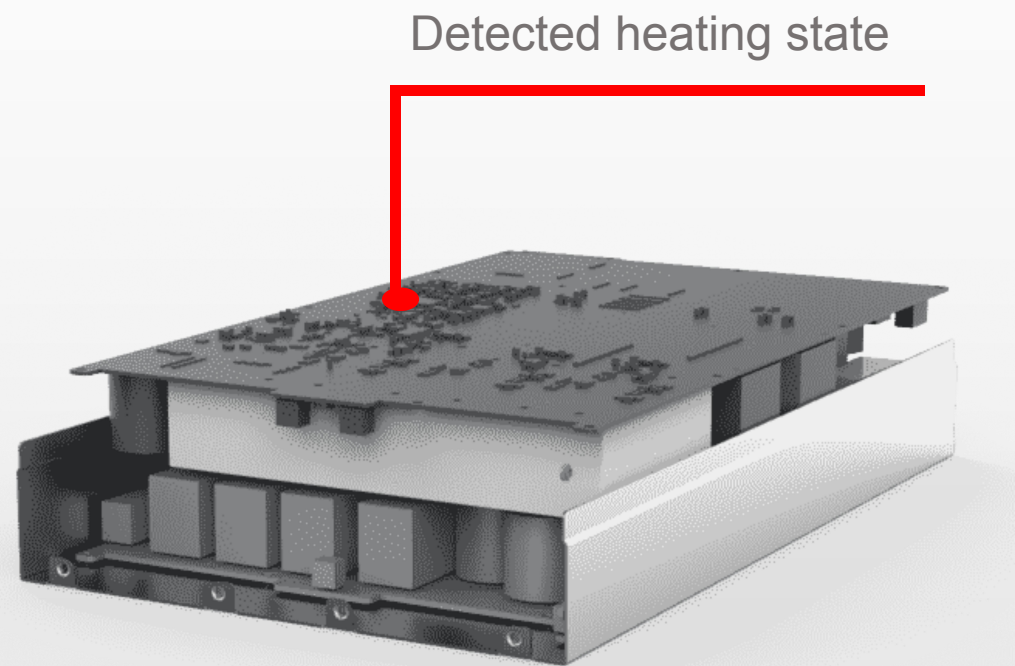
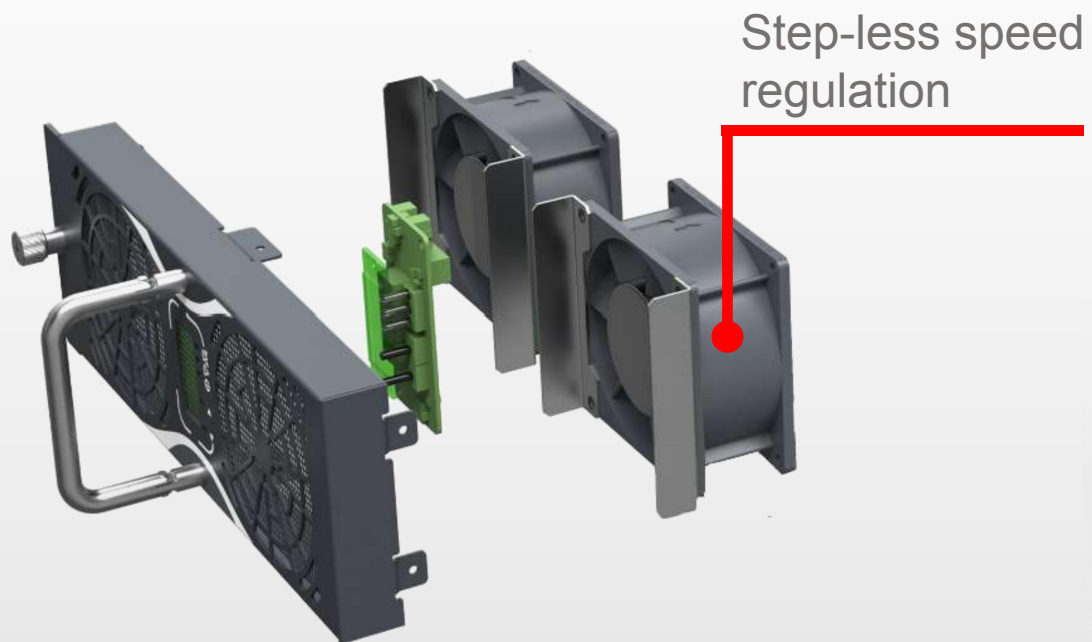
Achieve orderly switching.

Supports remote fault detection and recovery.



## Low noise, Supporting Mute mode

- The noise can be reduced and maintained <55 dB.
- Solved the charging problem of noise-sensitive area.



# Case study

## Global Applications

- France
- Poland
- Germany
- Hong Kong, China
- Taiwan, China
- Singapore
- South Korea
- Brazil
- Russia
- Malaysia
- Spain
- Italy
- Norway
- .....

### Application scenario

- Public charging station
- Bus charging station
- Battery swap station
- Ultra power charging stack
- .....



**Case study**

**Power applications**



## 60-180kW Series



**Taxi**



**Ride-hailing**



**Logistics vehicles**



**Bus**

- Flexible configuration dual- connector
- For conventional public charging stations



**60-180kW  
DC charger**

## 240-360kW Series

- Supports one Electric truck using two connectors charging simultaneously.
- Maximum flexible configuration four-connectors .



**240-360kW  
DC Charger**





## 360kW DC Flexible Charging Stack



- Super bus Charging
- Supports up to 12 port outputs
- Flexible power distribution
- For super bus charging stations



## 1800kW Intelligent flexible charging system



Equipment power up to 1800kW  
Smart power distribution  
All-in-one system solution  
Enhance the profitability of charging stations, reduce investment costs and risks.

**Sinexcel**



**Case study**

**Scene applications**



## Public charging station

- Station owners can expand charging capacity without any stranded investment by adding Power Modules.
- Meet mainstream vehicle charging needs, Offering a premium charging experience.





## Battery swap station

- Connect the battery directly
- High current charging
- Low voltage requirements <100V





## Bus Charging station

- High power charging >180kW.
- High charging voltage, large demand current.





## E-mobile charging station

- Charging services respond to demand more quickly, such as road rescue or other emergency charging services;
- EV Charger needs DC input, and also needs to have high seismic capacity.

