# DPM series DC charging module

Application: All charging piles

DPM series DC charging module is an intelligent DC charging module that promoted by SICON to meet market demands. It adopts advanced modular structure design concept and cutting-edge electronic circuit technology, is suitable for high-power off-board fast DC charging of electric cars, taxis, engineering vehicles and coaches.

## Overview:

DPM series charging module is the internal DC power module of out-door integrated DC charging stations, which converts AC to DC and then charge electric vehicles, providing reliable DC supply for equipment requires DC power. The input of charging module is three-phase mains, output DC is adjustable200VDC-500VDC /350VDC-750VDC, to meet various voltage demands of different battery packs. The module has start-up self- detect function, AC input over/under voltage protection, over temperature protection, multi modules can constitute parallel redundant systems and realize multiple charging module using in parallel within the cabinet. Adopts three-phase active power factor calibration technology and DC-DC conversion technology, both of which adopt full digital DSP control technology. The DC-DC power circuit uses interlaced tri-level series resonance soft switch technology, the efficiency of which can reach 300KHz, with high reliability, high availability, high maintainability and high efficiency.

## Product View:

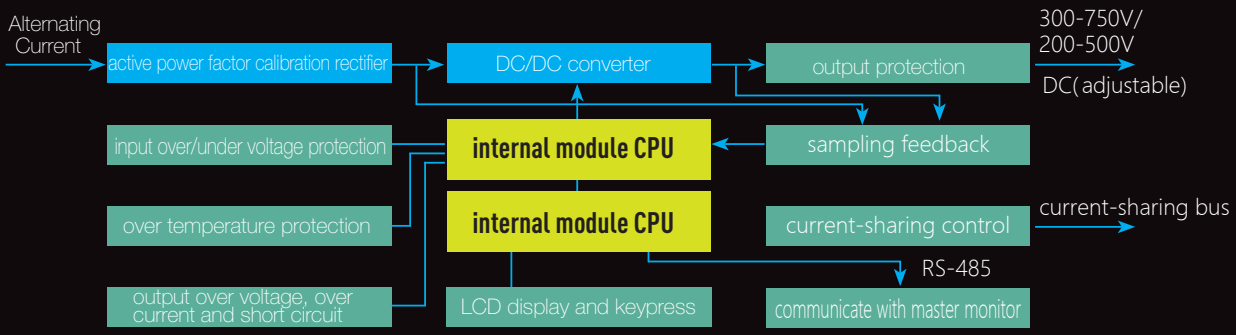
Charge module: 15KW

Charge module: 30KW

## Features:

- High power density saves system space; Power of each module is 15KW, 30KW.
- Wide range of input voltage, 260V~530V, input surge protection design.
- DSP control, achieves pure digital control from input to output; adopts interlaced series resonance soft switch technology to reduce the tolerance of power devices.
- Input THDI <3%, input PF is 0.99, 95% and above efficiency.
- Ultra-wide range of output voltage, 200V-500VDC / 300VDC-750VDC (adjustable), to meet various voltage demands of different battery packs.
- Low output DC ripple wave, has no influence on battery's working lives.
- standard CAN communication interface, can easily exchange data with external devices.
- Input over voltage protection, under voltage alarming, output over current and short circuit protection functions.
- Can constitute parallel redundancy systems and has hot-swapped function, which improves the availability, reliability and maintainability of the system.

## Module Diagram:




## Specification:

| DPM model | DPM500/30 | DPM700/22 | DPM750/20 | DPM500/60 | DPM700/43 | DPM750/40 |
|---|---|---|---|---|---|---|
| Output capacity | 15KW | | | 30KW | | |
| Input voltage | 380Vac three-phase three-wire | | | | | |
| Range of input voltage | 260V~530V (260~304VAC ,output power derating 50% ) | | | | | |
| Input frequency Input | 50/60HZ | | | | | |
| power factor Input | > 0.99 | | | | | |
| current harmonic | ≤ 3% | | | | | |
| Efficiency | ≥ 95% | | | | | |
| Output voltage | 200VDC-500VDC / 300VDC-750VDC | | | | | |
| Current regulation accuracy | < 1% | | | | | |
| Voltage regulation accuracy | < 0.5% | | | | | |
| Peak-to-Peak noise voltage of DC output | < 0.5% | | | | | |
| Startup & Shutdown overshoot | < 1% | | | | | |
| Soft start time | ≤ 5S | | | | | |
| Operating temperature | -20℃ ~+60℃ , (during 50℃~60℃ derating to 60%) | | | | | |
| Storage temperature | -40℃ ~+70℃ | | | | | |
| Ambient temperature | 0~90% , 40±2℃ non-condensing | | | | | |
| Altitude | 2000 m | | | | | |
| Dimension ( W*D*H ) mm | 220*500*88 | | | 220*502*132 | | |
| Weight | 9kg | | | 15kg | | |