

DPU-600 Electric Vehicle Charger Power Unit

Ultra-Rapid, 600kW Distributed Power Unit

Motion Applied's electric vehicle (EV) charging architecture harnesses our decade long involvement in the development of high-performance batteries and power electronics.

The complete charging solution provides ultra-rapid, distributed EV charging with superior reliability, low noise, high efficiency, and long life.

Motion Applied's DPU-600 power unit is at the core of the ultra-rapid 600kW DC charging system. It can support up to 12 charging connectors and is suitable for public and private charging stations that demand distributed, ultra-rapid charging.



GENERAL SPECIFICATIONS

- Dimensions (W x D x H) 1700 x 800 x 2150 mm
- Power Configuration 600 kW
- Installation mode Floor mounted
- System Efficiency 94.7% (Full load)
96.0% (Max efficiency)
- Cooling Liquid
- IP Rating IP55
- Communication interface 4G, FE1

INPUT SPECIFICATIONS

- Rated Input Voltage 2 x 400 Vac²
- Rated Frequency 45-66 Hz
- Rated Input Current ≤ 931 A (600 kW)
- Input Module 120 kW AC/DC³
- Power Factor ≥ 0.99 (Load ≥ 50%)
- THDi ≤ 5% (Load ≥ 50%)

¹ Northbound communication
² Three-phase five-wire system
³ Liquid-cooled module

OUTPUT SPECIFICATIONS

- Output Voltage 200 to 1000 Vdc
- Output Power 600 kW
- Output Module 60 kW DC/DC³
- Output Current Tolerance ≤ ±1% (Load: 20% to 100%)
- Output Voltage Tolerance ≤ 0.5%
- Charging Connectors Max 12 (Max 8 x 500A)

ENVIRONMENTAL SPECIFICATIONS

- Operating Temperature -35 °C to +50 °C
- Storage Temperature -35 °C to +70 °C
- Altitude ≤ 4000 m
- Relative Humidity 5% to 95% (Non-condensing)
- Noise ≤ 55 dB @ 25°C (Mute mode)
≤ 60 dB @ 25°C (Full load at 1m)

COMPLIANCE

- IEC 61851-1, IEC 61851-23, IEC 61851-21-2

DPU-600 PRELIMINARY PRODUCT SUMMARY

Motion Applied offers the full range of white-labelled charging solutions from 7/22kW AC units to 720kW DC distributed charging with a 1.5 MW DC charger coming soon¹

- 1** MAC-722
Untethered
and tethered
variants



7.4 / 22 kW AC
Combined
unit

Screen:
7" or 5"

or no-screen

1x or 2x CCS2

- 2** MDC-80
/120/160
/200/240



80 kW DC
120 kW DC
160 kW DC
200 kW DC
240 kW DC

Screen: 21.5"

2 x CCS2

- 3** DPU-240
power units
HCD-500
dispensers



240 kW
distributed DC
with **500A**
dispensers

Screen: 10.1"

Up to 6x CCS2

- 4** DPU-600/720
power units
HCD-500
dispensers



600 / 720 kW
distributed DC
with **500A**
dispensers

Screen: 10.1"

Up to 12x CCS2

- 5** 1.5MW
Power Unit



1,500 kW
distributed DC

Screen and
connectors
TBC

**ON THE PRODUCT
ROADMAP**

Source: Motion Applied; Note1: 1.5 MW DC charging capable of charging 300kWh in 15 minutes