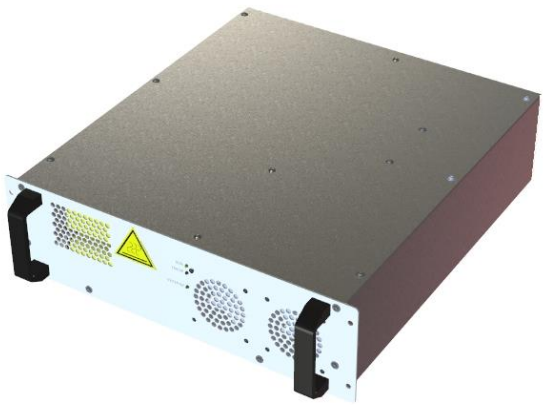
Electromobility

DC Fast charger module for electrified vehicles 500V - 25 kW

DCM525

Main Features

- DC Fast charger for electrical vehicles
- Power rating: 25 kW
- Output DC Voltage (single): 150-500V
- Serializable (up to 2 modules ≡ 1000 V)
- Parallelizable (up to 400 kW with 16 modules)
- 400V three phase grid
- Galvanic insulation
- Forced air cooling
- High efficiency
- Class A EMC compliant
- IP20
- CAN 2.0B
- Bootloader for field upgradeable firmware

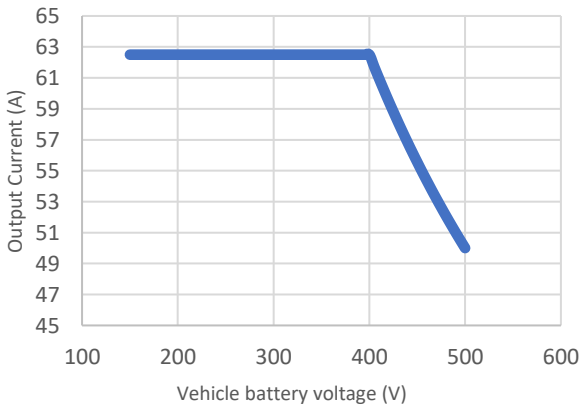


DCM525 description

DCM525 is a galvanic insulated AC-DC converter dedicated to electrical and hybrid vehicles charging. Connected to 400V line to line three phase grid, DCM525A provides an output DC voltage from 150V up to 500V dc. DCM525 have an extremely optimized design based on the most efficient power electronics leading to low energy losses and an efficiency up to 96,7%. The DCM525 module is air forced cooled and furthermore designed to be easy to install.

Up to 16 DCM525A modules can be connected in parallel / series in order to deliver a maximum power of 400 kW. The modules are EMC compliant with the norm IEC 61851 class A (Emissions and conductions) for all the module configurations (25 kW to 400 kW).

Maximum output current for one DCM525A depending on the vehicle battery voltage



Technical data

GENERAL	
Weight	28 kg
Volume	135 x 450 x 505 mm
Sealing	IP20
Housing	Aluminum and iron
MTBF	105000 hours*
ELECTRICAL CHARACTERISTICS	
Input voltage	Three phases Line-to-Line 360 Vac to 440 Vac @45 - 65 Hz
Output Voltage	150 V dc – 500 V dc
Power factor	> 0,99 @25 kW
Efficiency	> 96,7 % Peak
Auxiliary power	24 V, 45 W max
Acoustic noise	70 dB
Earthing mode	TT
Pollution degree	PD3
ENVIRONMENTAL AND COOLING FEATURES	
Operating temperature range	-15 to +55°C
Storage temperature range	-30 to +70°C
Coolant	Forced air cooling with integrated fans
Maximum environment temperature	55°C, DC current derating from 40°C to 55°C

* in standard usage conditions with properly ventilated cabinet

Connections

- **DC port** 4 cts SPC 16/ 4-STF-10,16 (1711394).
- **AC port** 3 cts SPC 16/ 3-STF-10,16 (1711381).
- **First signal port** : 1-794617-2 from TE connectivity.
- **Second signal port**: 1-794617-4 from TE connectivity.

Standards

- Designed according to IEC 61851-1-23
- EMC standards according to IEC 61851-1-21 EMC conducted emissions, Class A on AC port, radiated emission class A
- Mechanical vibrations & shock according to IEC 60068-2 & IEC60068-27
- NF EN 61000-3 Limitation of voltage variations, voltage fluctuations and flicker in public low-voltage supply networks.
- ROHS, REACH, WEEE

Protections

- Overcurrent protection (DC and AC).
- Short-circuit.
- Thermal protection.
- Over load.
- Output over-voltage
- Reverse polarity protection.
- CAN bus malfunction.
- Possibility to perform an auto test.

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