



DC CHARGE UNIT | DCU

DC Charging Unit for CCS Fast Charging

HIGH-POWER DC CHARGING FOR DEMANDING MOBILE APPLICATIONS

The DC Charge Unit (DCU) from Stercom Power Solutions is the essential interface between high-voltage batteries and DC charging infrastructure. Designed for demanding e-mobility applications, it enables efficient and robust high-power DC charging with flexible system integration.

As part of Stercom's charging portfolio, the DCU can be supplied either as a compact integrated solution (**DCU Basic**) or as a standalone, modular platform (**DCU Enhanced**) with **scalable configuration options**.



HIGHLIGHTS



Stand-Alone DC Fast Charging

A fully integrated DC charging solution for high-voltage battery systems – reduced system complexity and simplified vehicle integration.



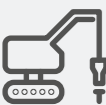
Modular & Scalable Platform

A flexible system architecture that adapts to different vehicle concepts, power classes and application requirements.



Seamless CCS Integration

Compatible with modern DC charging infrastructure for reliable and interoperable fast-charging operation.



Engineered for Harsh Environments

Robust design for reliable operation in off-highway and heavy-duty environments.

KEY FEATURES

- Connects and switches DC charge port pins safely to the high-voltage (HV) battery
- DC charging current up to 250 A, optional 500 A
- Supports battery voltages up to 1000 V
- Open frame or IP66 enclosure available
- DC connection possible via cable glands or HV plug

DCU VARIANTS

Two configurations of the DCU to match different system architectures and integration levels.



DCU Basic

- Contactor box for DC charging, perfect in combination with / controlled by **Stercom OBC**
- Can be integrated in any vehicle DC charging system
- Communication with the DC charging station via external power line communication (PLC) module (eg. Stercom OBC)



DCU Enhanced

- Stand-alone DC charging unit
- AC charging controlled by the DCU Enhanced in server mode with the OBC in client mode
- Direct PLC communication with the DC charging station (EVSE)
- High-level communication compliant with DIN 70121 and ISO 15118
- Safe disconnection compliant with ISO 26262, up to ASIL B
- CAN communication following SAE J1939
- Optional insulation monitoring device (IMD) integrated
- Optional current and voltage sensors integrated
- V2X-ready

CONFIGURATION OPTIONS

Optional modules extend the DCU Enhanced with additional monitoring and system functions.

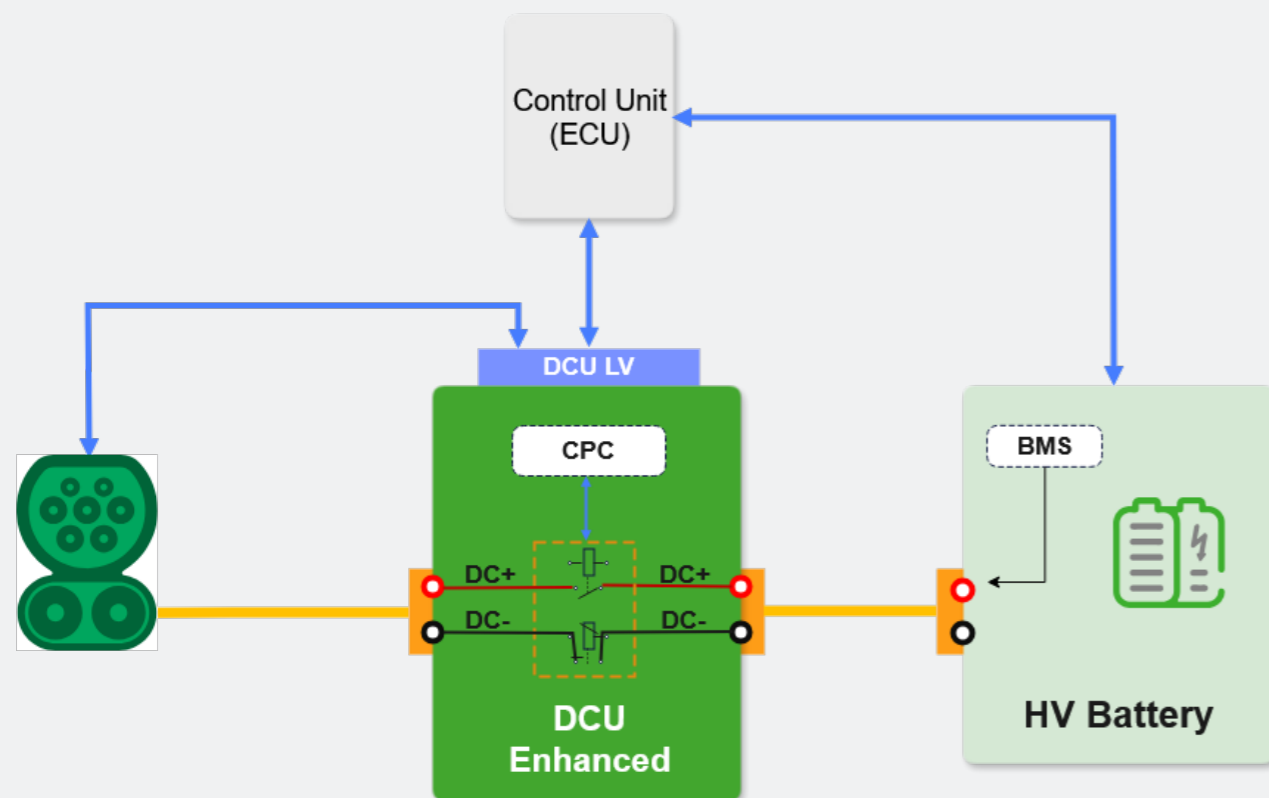
Variants	DCU BASIC	DCU ENHANCED
Power Options	Controlled Externally	Charge Port Controller (CPC)
Power Options	Up to 900 V / 250 A	Up to 1000 V / 500 A
HV Connection Options	Automotive HV Connector	Fixed Cable w/Interface
Configuration Options	No Modular Extensions	Current & Voltage Measurement IMD Insulation Monitoring Device

SYSTEM OVERVIEW

DCU Enhanced

Stand-alone DC charging architecture with integrated control and communication.

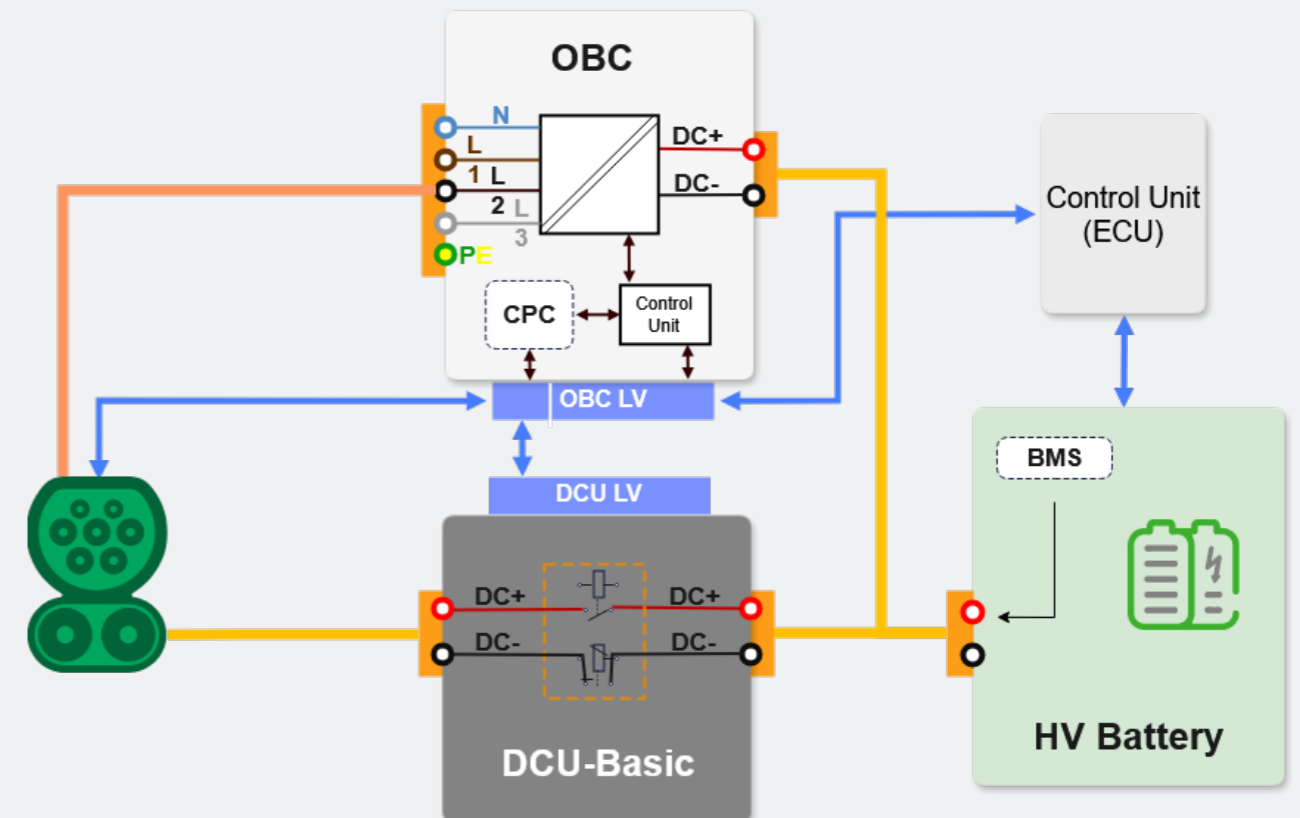
The DCU Enhanced directly interfaces with the DC charging station and the HV battery, reducing system complexity and enabling a compact, modular vehicle integration.



DCU Basic

Externally controlled DC charging architecture for integrated charging systems.

DCU Basic is designed to operate in combination with an external controller or OBC, enabling flexible integration into existing vehicle architectures.



*all information in this brochure is preliminary and subject to change without prior notice

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