



Dropbeats

Supply Equipment Communication Controller

Megawatt Charging System(MCS)

DB-SECC-602

Datasheet

Rev 1.0.1, July 2026



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1 Overview

The DB-SECC-602 is a compact, ISO 15118-10 and ISO 15118-20-compliant SECC designed for Megawatt Charging System (MCS) DC fast charging stations with power levels up to 1 MW. It manages communication between the DC charging station and electric vehicles (EVs) that comply with ISO 15118-10 and ISO 15118-20 standards. For EVSE-to-PEV communication, it supports ID and CE signaling, as well as 10BASE-T1S Ethernet communication.

Powered by a high-performance MCU running RTOS, the DB-SECC-602 integrates a full ISO 15118-10/-20 software stack, enabling seamless communication and precise control for MCS-level DC fast charging.



Figure 1: Image of DB-SECC-602 Product

1.1 Features

- Supported Charging Standards: IEC 61851-1/23/24
- Supported Charging Communication Standards: ISO 15118-10
- Supported Charging Communication Standards: ISO 15118-20
- Ethernet (IEEE 802.3) for network connectivity
- CAN2.0B for Communication protocol with the charge controller unit(CCU)
- Debug Interface: RS232 and Ethernet

- Digital Output for emergency event signaling

1.2 CE Certificates

- EN 61000-6-2:2009
- EN 61000-6-4:2012
- EN 62368-1:2014
- RoHS V2.0

2 Interface

2.1 CAN

Pin	Name	Description
1	H	CAN2.0B High
2	L	CAN2.0B Low
3	GND	CAN isolated Ground

Notes: A 120-ohm termination resistor is populated between CAN_H and CAN_L.

2.2 MCS

Pin	Name	Description
1	AUX_IN	Auxiliary Power Supply, 12V or 24v
2	PE	Protected Ground
3	ID	Insertion Detection
4	CE	Charge Enable
5	PE	Protected Ground
6	PHY2	10base-T1S PHY-
7	PHY1	10base-T1S PHY+
8	PE	Protected Ground

2.3 RS232

Pin	Name	Description
1	TX	RS232 Transmitter;
2	RX	RS232 Receiver;
3	GND	Ground
Notes: Speed 115200bps; Data bits 8; Stop bits 1; No parity; No Flow Control		

2.4 ETH 10/100Mbps

Pin	Name	Description
1	Ethernet	Ethernet for backend, 100M

2.5 Digital Output

Pin	Name	Description
1	DO	Digital Output: Disabled as default. CP/PP lost triggers Emergency shutdown, Active High while enable.
2	GND	Ground

2.6 Power Supply

Pin	Name	Description
1	DC+	10V~30V Power Supply
2	DC-	Ground of Power Supply

3 Mechanical Dimensions

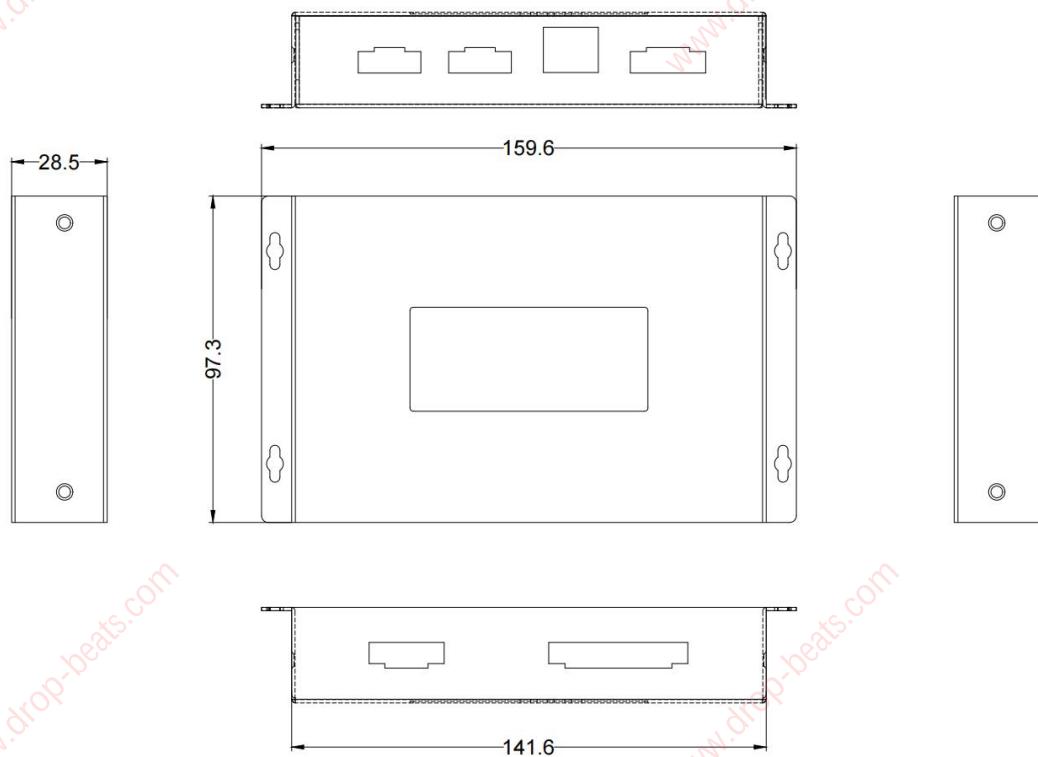


Figure 3: DB-SECC-602 Dimensions

Notes:

1. All dimensions are in mm.

4 Electrical Characteristics

4.1 Maximum Parameters

MAX PARAMETER	MIN	MAX	UNIT
DC supply voltage	+10	+30	V
CANH, CANL	-12	12	V

4.2 Recommended operating conditions

SUPPLY PARAMETER	MIN	TYP	MAX	UNIT
DC supply voltage	+11	+12/24	+26	V

Max PARAMETER	Value
Power Dissipation	260mA@12V

4.3 Physical Feature

Feature	Description
Operation Temperature	-40°C +85 °C
Dimensions (L*W*H)	159.6 * 97.3 * 28.5mm
Protection Class	Housing IP40
Assembly	Wall-Mounted



5 Application Example

5.1 Wiring with External DC Charging Control Unit

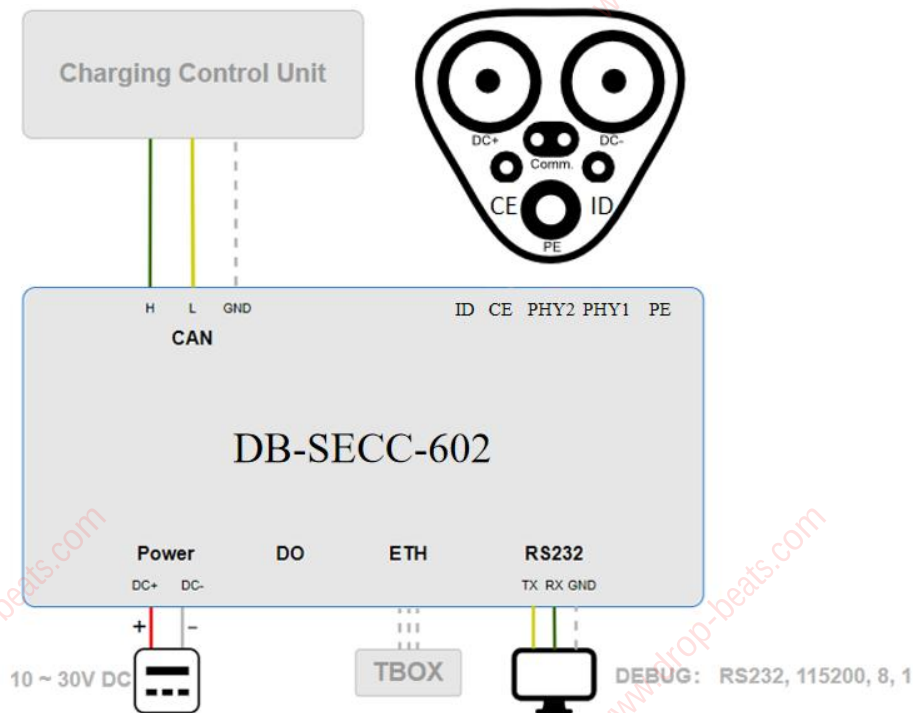


Figure 5: Wiring with External DC Charging Control Unit

Note:

- The CAN interface is the main communication way between DB-SECC-602 and Charging Control Unit. The communication protocol is now supported as:
 - **Dropbeats' Communication Matrix**
- The ETH interface is optionally wired to device, which has uplink capability, such as, 4G gateway, TBOX. By using ETH, more advance feature could be gotten, such the firmware updating, log file uploading, certificate installing and updating, and etc.
- The DO (Digital Output) interface is optionally used to report emergency event.

6 Order Information

Order Code	HW	SW
DB-SECC-602	1.2.0	ISO 15118-20

Legal Information

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Revision History

Revision	Date	Descriptions
1.0.0	2025.7.31	Initial
1.0.1	2026.7.1	Update dimension.