

# Method for Adjusting Charging Current via RS485 Modbus

## 1. RS485 Connection Method

RS485 is used to connect the HUB or DLB controller with all charging stations. The RS485 bus network typically employs a bus topology with terminal matching. The first charger is connected to the HUB or DLB controller via RS485, and other chargers are connected to the previous charger's RS485. A 120-ohm terminal resistor should be added between the A and B of the last charger's RS485. If there are few chargers, this terminal resistor can be omitted.

## 2. RS485 Modbus Description

The baud rate for Modbus RS485 is 9600bps.

The DLB control device sends the maximum charging current for each charger and each connector on the current line to all chargers via broadcast.

The command is as follows:

Address	Function Code	Register Addr	Register Number	Data Length	L1 Max Current	L2 Max Current	L3 Max Current	CRC Low Byte	CRC High Byte
0x00	0x10	0x0000	0x0003	0x06	0x00ia	0x00ib	0x00ic	0xXX	0xXX

For example: 00 10 00 00 00 03 06 00 20 00 10 00 06 E4 01

The above command sets the maximum current for L1 to 32A (00 20), for L2 to 16A(00 10), and for L3 to 6A(00 06).

If the charger is three-phase, it will select the smallest limiting current among L1/L2/L3 as the charging current.

If the charger is single-phase, it will select the limiting current corresponding to its phase as the charging current.

## 3. Configuring Charger to Support Current Adjustment via CP Tool APP

As shown in the figure below, enable DLB mode; disable Power Distribution Enable; select Disable for Solar Mode.

Choose the corresponding value for Phase Rotation based on the phase wire connection of the charging station's incoming line:

For a three-phase charging station: Select RST/RTS/SRT/STR/TRS/TSR according to the actual wiring.

- If the charging station's L1/L2/L3 are connected to the grid's L1/L2/L3: Select RST or NotApplicable.
- If the charging station's L1/L2/L3 are connected to the grid's L1/L3/L2: Select RTS.

- If the charging station's L1/L2/L3 are connected to the grid's L2/L1/L3: Select SRT.
- If the charging station's L1/L2/L3 are connected to the grid's L2/L3/L1: Select STR.
- If the charging station's L1/L2/L3 are connected to the grid's L3/L1/L2: Select TRS.
- If the charging station's L1/L2/L3 are connected to the grid's L3/L2/L1: Select TSR.

For a single-phase charging station:

- Connect to Grid L1: Select RST or RTS or NotApplicable.
- Connect to Grid L2: Select SRT or STR.
- Connect to Grid L3: Select TRS or TSR.

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Configuration
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Output Current:

Charge Mode:

Power Distribution Enable:

Sampling Method:

Home Power Current:

Power Meter Address:

Phase Rotation:

Solar Mode:

Solar Current From Grid:

Solar Stable Time:

DLB Mode: