SAFECHARGER

Wallbox - AC charger station

ModBus protocol

JHE9-40032W

V04 30.6.2026

RS485 Operation Guide

Format requirement:

RS485 1: for communication with DIN rail meter, baud rate: **2400**, Check bit: **E**

RS485 2: MODBUS RTU protocol, Slave wallboxes, baud rate: **9600**, data bit: **8**, Check bit: **none**， stop bit: **1**

Default Device ModBus ID **– 1**, if you not sure use **FF**

Wallbox FW version: V1.15

Function code 03 read							
Address	**Parameter**	**R/W**	**Numerical range**	**Scaler**	**Unit**	**Type**	**Data Types**
0001	Temperature	R	-32768～32767	0.1	°C	int16	word
0130	L1 Phase voltage **U**	R	0～65535	0.1	V	uint16	word
0131	L2 Phase voltage **U**	R	0～65535	0.1	V	uint16	word
0132	L3 Phase voltage **U**	R	0～65535	0.1	V	uint16	word
0133	L1 Phase current **I**	R	0～65535	0.001	A	uint16	word
0134	L2 Phase current **I**	R	0～65535	0.001	A	uint16	word
0135	L3 Phase current **I**	R	0～65535	0.001	A	uint16	word
0136	L1 Power **P**	R	-32768～32767	1	W	int16	integer
0137	L2 Power **P**	R	-32768～32767	1	W	int16	integer
0138	L3 Power **P**	R	-32768～32767	1	W	int16	integer
0139	Total Power	R	-32768～32767	1	W	int16	integer
0140	Charging pile status	R/W	**high byte:** **00** Charging gun not plugged **01** Charging gun plugged in **low byte:** **01** Fault **02** Standby **03** Charging **05** Charge complete **06** Wait for vehicle to start			uint16	word
0156	Accumulated active energy	R	0 ~ 4294967295	0.001	kWh	Uint32	dword
A000	Active energy of this charge	R	0 ~ 4294967295	0.001	kWh	Uint32	dword
	Peg address	R	0000000000000000~ 9999999999999999				

600E	Currently set current, voltage	R	0～65535		A, V	uint16	word
Function code 50 write							
4400	Charging starts and stops	W	**01** Start charging **00** Stop charging			uint16	word
Function code 06 write							
0101	Device ModBus ID Change	R/W	1～247			uint16	word
Function code 66 write							
	Configure the stake card binding	W	**00** not bind **01** card bind			uint16	word
6016	Charge Mode Switch	R/W	**8th byte:** **01** APP (swipe to start) **02** Plug and charge			uint16	word
	Change IP address	R/W	XXX.XXX.XXX.XXX				ASCII
	Change TCP Port	R/W	XXXX				ASCII
600E	Change Current and Voltage	R/W	**7th byte**: Current 6-32A **8th byte**: Voltage			Uint32	word
	SET Peg Address	R/W	0000000000000000~ 9999999999999999				BCD

Examples and explanations:

Read temperature

Send: FF 03 00 01 00 01 C0 14

Receive： 01 03 02 01 21 79 CC // 33℃ for ModBus ID 1

Read voltage L2

Send: FF 03 01 31 00 01 C1 E7

Receive： 01 03 02 09 19 7F DE // 232.9V Range 7d0-a28

Reading three-phase voltage (L1 - L3)

Send： FF 03 01 30 00 03 11 E6

Receive： FF 03 06 09 25 09 30 09 20 20 54 // L1 Phase voltage 234.1V, L2 Phase voltage 235.2V，L3 Phase voltage 233.6V

Read the three-phase current (L1 - L3)

Send： FF 03 01 33 00 03 E1 E6

Receive： 01 03 06 00 EE 00 00 00 00 C9 62 // L1 Phase current 0.238A, L2 Phase current0，L3 Phase current 0

Read power

Send： FF 03 01 36 00 04 B0 25

Receive： 01 03 08 00 2B 00 00 00 00 00 2B 4E CA // L1 Phase power 0.043kW，L2 Phase power 0，L3 Phase power 0，Total Power 0.043kW

Read three-phase Voltage, Current, Activ Power, Total Power (L1 - L3)

Send： FF 03 01 30 00 0A D1 E0

Receive： 01 03 14 09 24 00 00 00 00 00 E0 00 00 00 00 00 1C 00 00 00 00 00 1C A7 61// L1-Phase voltage 234V，L2-Phase voltage 0，L3-Phase voltage 0，L1-Phase current 0.224A，L2-Phase current 0，L3-Phase current 0, L1-Phase active power 0.028kW, L2-Phase active power 0, L3-Phase active power 0，Total active power 0.028kW

Read charging pile status

Send： FF 03 01 40 00 01 91 FC

Receive： 01 03 02 00 01 79 84 // **01** Charging gun not plugged ， **03** Charging (more in table *1)

Read the accumulated active energy

Send： FF 03 01 56 00 02 30 39

Receive： 01 03 04 0E 23 FA 79 8A 53// Active energy 237238.905kWh

Read the active energy of this charge

Send： FF 03 A0 00 00 02 F3 D5

Receive： 01 03 04 00 00 00 05 3A 30 // Active energy 0.005kWh

Start charging

Send： FF 50 44 00 00 01 00 01 C0 4E

Receive： 01 50 44 00 00 01 14 F6

Stop charging

Send： FF 50 44 00 00 01 00 00 01 8E

Receive： 01 50 44 00 00 01 14 F6

Set the ModBus device ID

Send： FF 06 01 01 00 01 00 02 85 1F // set ModBus ID to 2

Send： FF 06 01 01 00 01 00 01 C5 1E // set ModBus ID to 1

Receive： 02 06 01 01 00 01 18 05

Charge mode switch

Send: FF 66 60 16 00 02 00 02 69 6B **// The 8th byte 2 plug and charge, 1app (swipe to start)**

Receive: 01 66 60 16 00 02 77 C7

Set the rated voltage, current

Note: current can be changed in steps of 1A (6A, 7A, 8A....32A))

Send: FF 66 60 0E 00 02 **10 6E** 44 84 **// 7th byte current，8th byte voltage**

01 66 60 0E 00 02 **10 6E** 44 84

Receive: 01 66 60 0E 00 02 F7 C0 (6E=110V, E6=230V)

FF 66 60 0E 00 02 06 E6 4A 82 （6A 230V）

FF 66 60 0E 00 02 07 E6 4B 12 （7A 230V）

01 66 60 0E 00 02 06 E6 C4 4A （6A 230V）// for ModBus ID 1

FF 66 60 0E 00 02 0A E6 4F 82（10A 230V）

FF 66 60 0E 00 02 10 E6 44 E2 （16A 230V）

FF 66 60 0E 00 02 20 E6 50 E2 （32A 230V）

Read currently set <u>current and voltage</u>

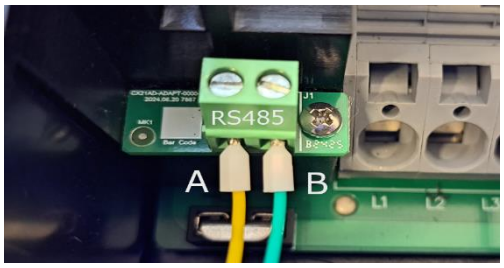
Send: FF 03 60 0E 00 01 **EE 17**

Receive: 01 03 02 07 E6 3B FE (7A a 230V)

RS485 PINOUT:

<u>Older version</u>

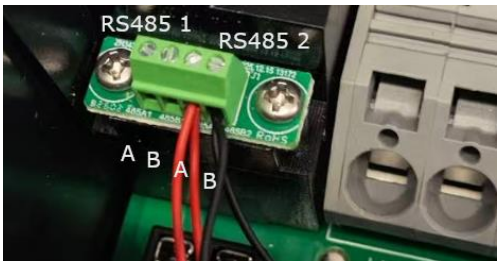
RS485 : for ModBus commands



<u>New version</u>

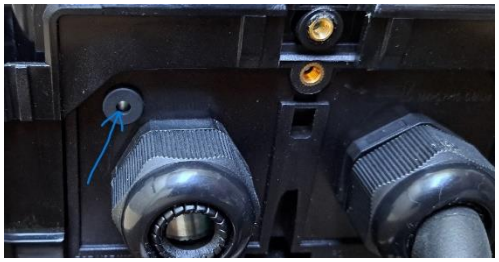
RS485 1: for DIN rail meter

RS485 2: for SLAVE wallboxes or ModBus commands



To connect a two-wire cable to RS485,

use the grommet at the bottom of the charger.



Under the top cover

Important information regarding DIN Rail meter **LK03B04 (previously DTSU8003-D4)**

Entering the DIN Rail meter settings:

1. Long press FUN

2. Password is 0001 (confirm FUN)

3. Move to the next position and item with the FUN button

4. Bus - **2400** (confirm FUN)

5. Prot - **E** (confirm FUN)

6. Press the FUN button to go to the end and exit the settings

7. The handset symbol means successful communication with the wallbox

Note: this is only for possible checking, the DIN Rail meter is set correctly from the factory

Contact:

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