ENERGY METER GUIDE

01. EM112 Wiring Connection

EMS board inside PCS (Hybrid Inverter)

RS485 A-

RS485 B+

L (Grid)

L (Load)

EM112

Optional

N (Grid)

Fuse = 315mA

N (Load)

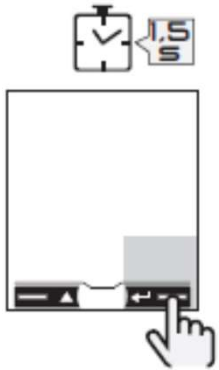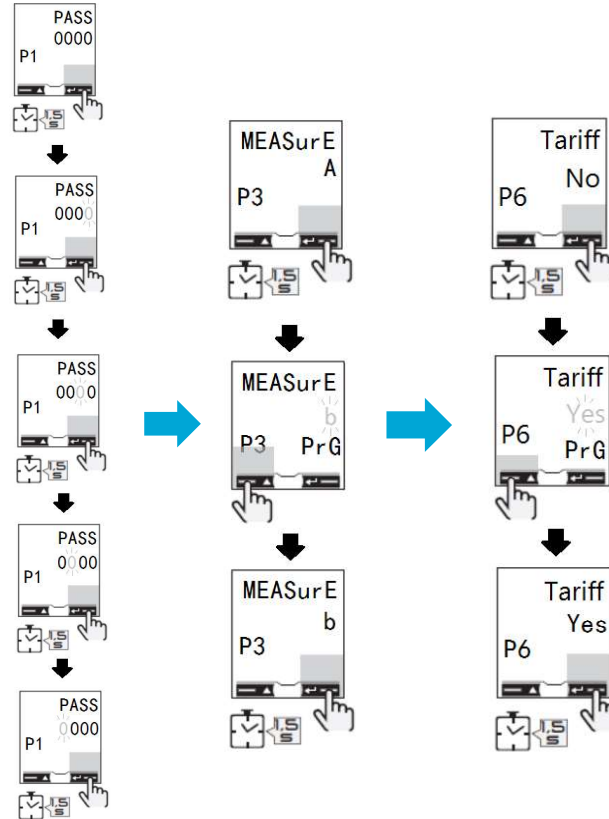N (Grid)
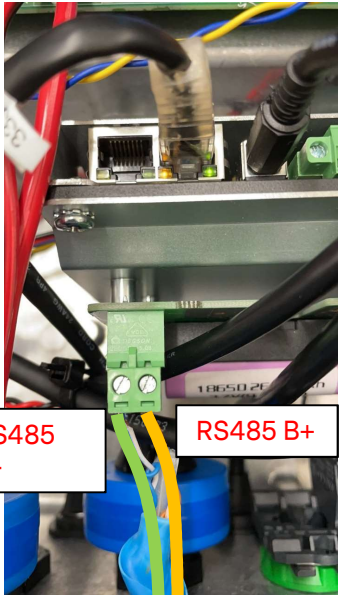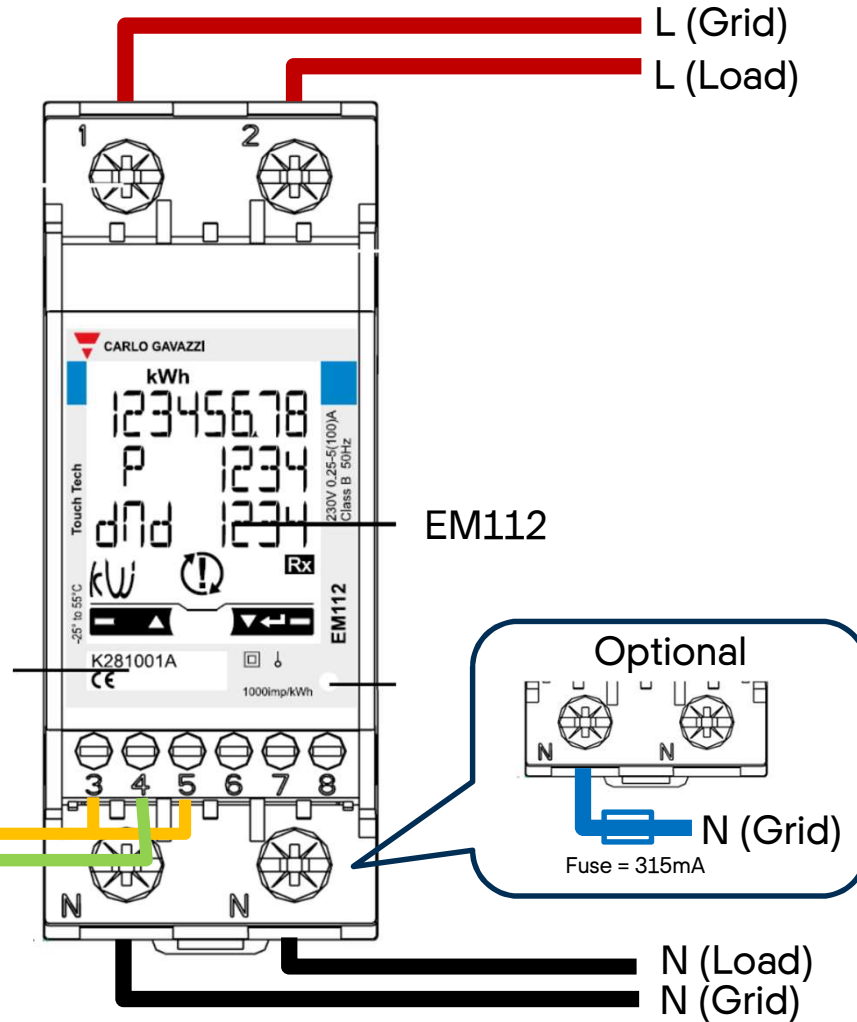
01.1 EM112 Settings Configuration

To enter programming mode

Steps to change parameters

PARAMETERS	CODE	Default	New SETTINGS
PASS	P1	0000	0000
nPASS	P2	0000	0000
MEASurE	P3	A	b
P int	P4	1	1
Mode	P5	Full	Full
Tariff	P6	No	Yes
Home	P7	0	0
Address (S1 option)	P10	1	1
bAud (S1)	P11	9.6	9.6
ParItY (S1)	P12	No	No
RESET	P13	No	No
End		Exit	Exit

Demo: https://www.youtube.com/watch?v=wm-aX0imqTc

02.1 EM24 Wiring connections (Three Phase)

EMS board inside PCS (Hybrid Inverter)
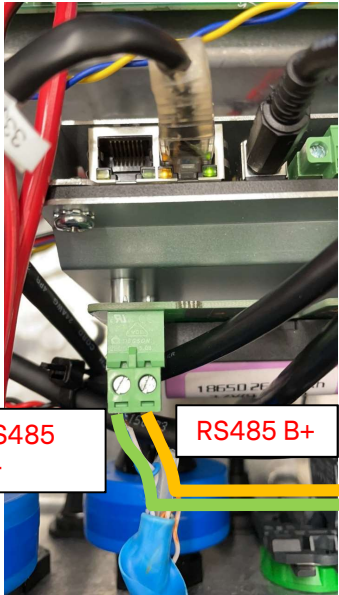
RS485 A-

RS485 B+

OUT connector board inside PCS (Hybrid Inverter)
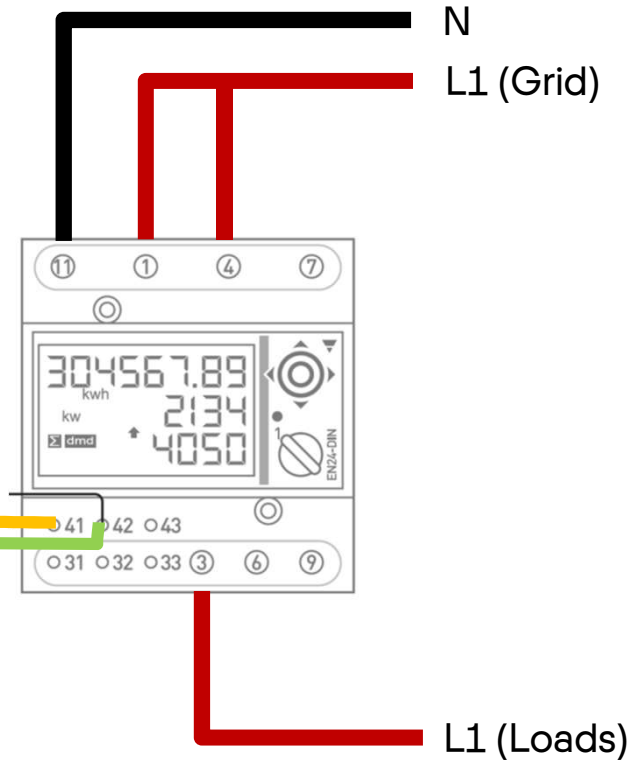
N
L1 (Grid)
L2 (Grid)
L3 (Grid)

304567.89 kwh
kw   2134
dmd   4050

⑪ ① ④ ⑦

○41 ○42 ○43
○31 ○32 ○33 ③ ⑥ ⑨

L3 (Loads)
L2 (Loads)
L1 (Loads)
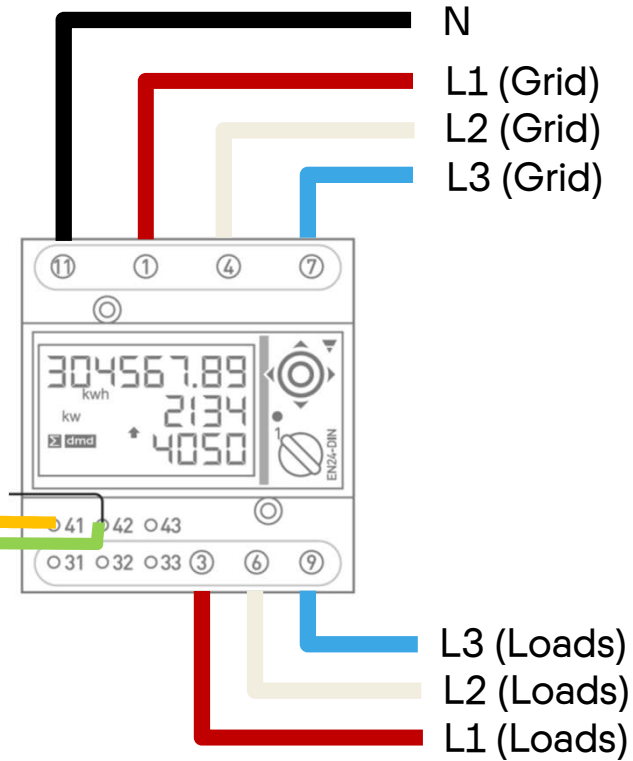
02.2 EM24 Wiring connections (Single Phase)
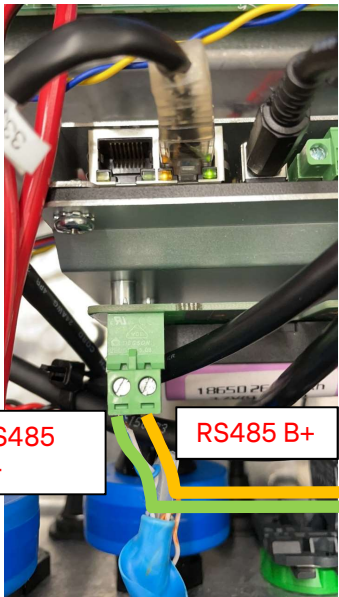
02.3 EM24 Settings configuration

PARAMETERS	CODE	Default	New SETTINGS
Password	Pass	0000	0000
Application type	APPLICAt	b	F
Page selection	Selector 1;2;3	1;28;31	1;28;31
System	SyS	3P.n	3P.n, 2 or 1
Power integration time	P int.ti	15	1
Digital input 1	diG in 1	Sync	Sync
Digital Input 2	diG in 2	Sync	Sync
Digital Input 3	diG in 3	Sync	Sync
Address	AddrESS	1	1
Reset of all counters (PW 1357)	Ene t.rEs	No	No
Exit and save	End		
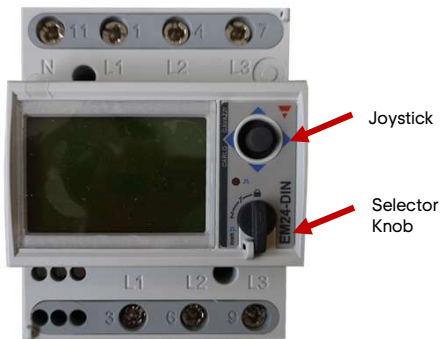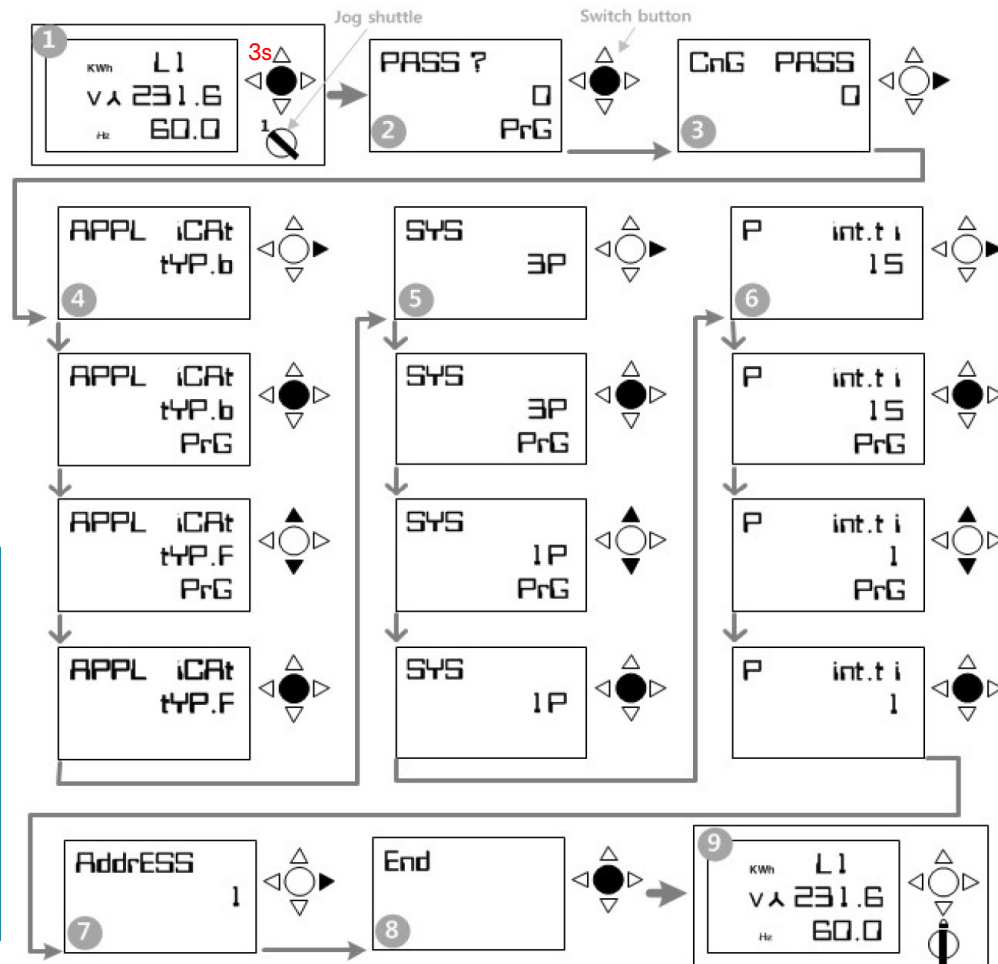
Legend

3s — Press & hold for 3 seconds

Press once

Push up, down, left or right

Joystick

Selector Knob

EM24-DIN

03. EM24 CT wiring connections

EMS board inside PCS (Hybrid Inverter)

RS485 A-

RS485 B+

L/L₁ L₂ L₃   N
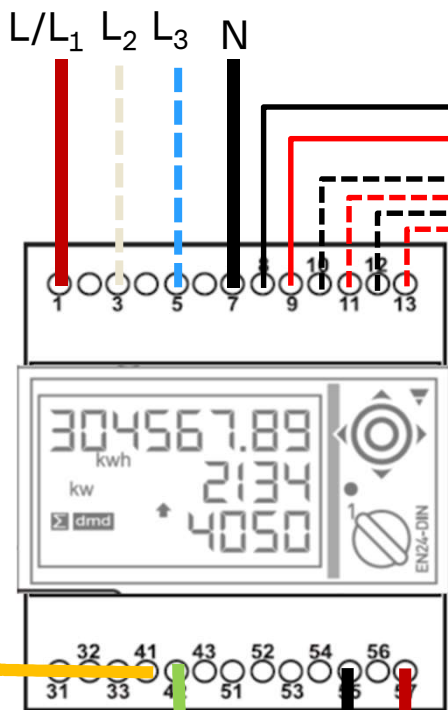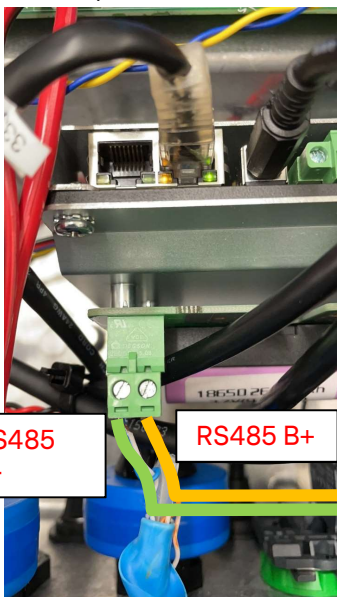
CT5x (24mm2) – 100A*
CT6x (36mm2) – 200A*

304567.89 kwh
kw   2134
Σ dmd   4050

L (Grid)

N
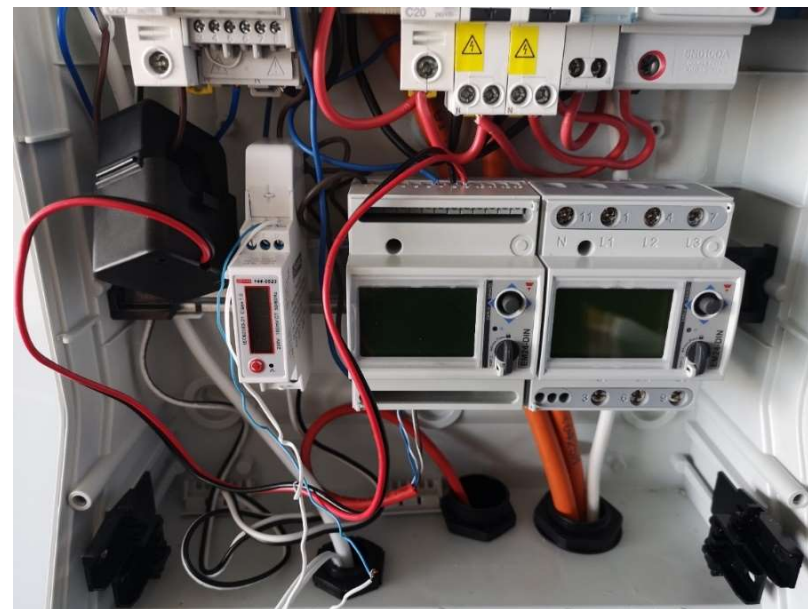
*higher rating is available upon request

PARAMETERS	CODE	Default	New SETTINGS
Password	Pass	0000	0000
Application type	APPLICAt	b	F
Page selection	Selector 1;2;3	1;28;31	1;28;31
System	SyS	3P.n	3P.n, 2 or 1
Voltage transformer ratio	Ut rAtio	1	1
Current transformer ratio	Ct rAtio	1	20 (CT5X100A)
Power integration time	P int.ti	15	1
Digital input 1	diG in 1	Sync	Sync
Digital Input 2	diG in 2	Sync	Sync
Digital Input 3	diG in 3	Sync	Sync
Digital filter (%)	FiLtErS	2	8
Digital filter coefficient	FiLtEr.Co	2	32
Address	AddrESS	1	1
Reset of all counters (PW 1357)	Ene t.rEs	No	No
Exit and save	End		

Based on CT version 5X - 100A rating
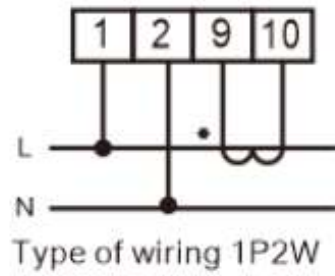(Primary : 100A, Secondary : 5A)
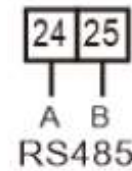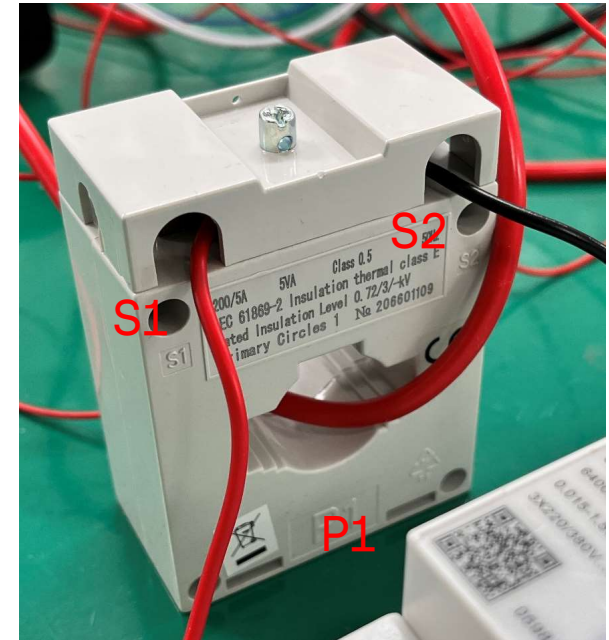Ex) CT ratio = Primary / Secondary, 100A/5A = 20
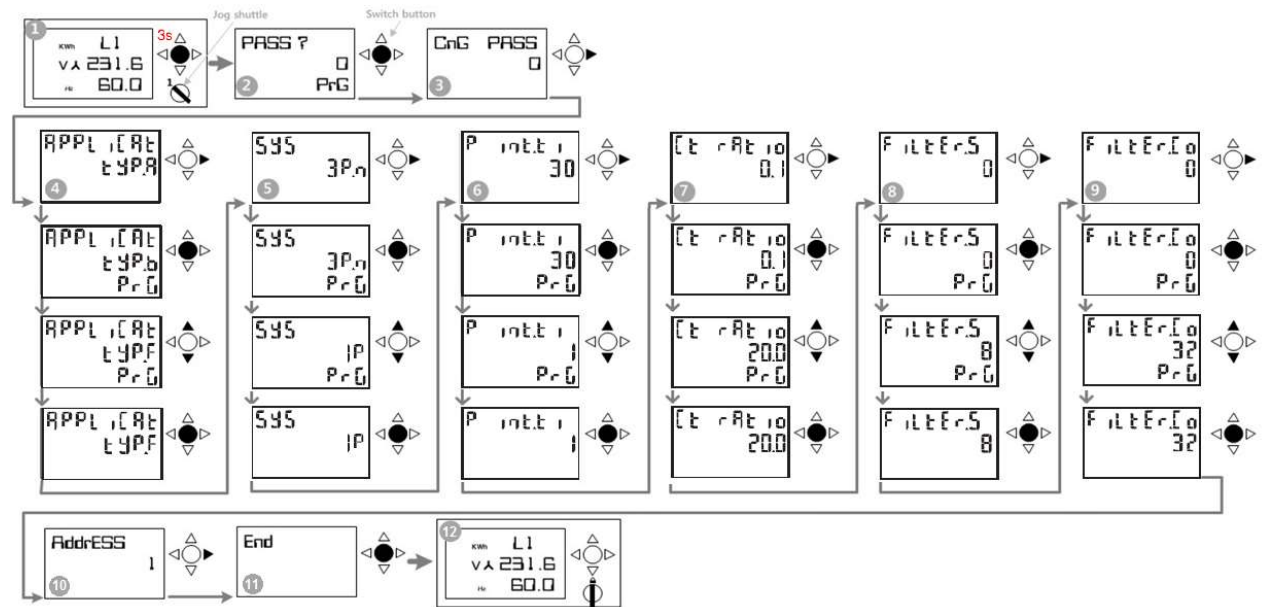
04. DDSU666 Wiring connections
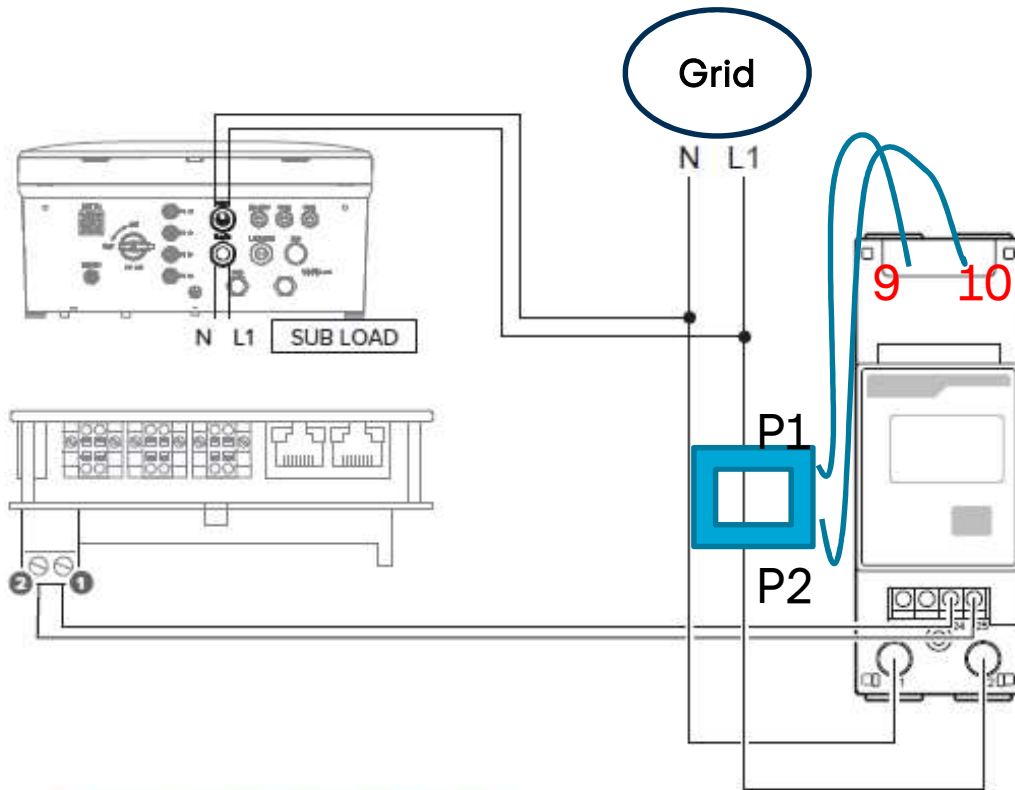
CT : BH-0.66I
ratio - 200/5A

Q.VOLT(EMS port)	Energy Meter
1 : RS485_NEG	25: B+
2 : RS485_POS	24: A−

Grid

N L1

SUB LOAD

N L1

9   10

P1

P2

1	2	9	10

L

N

Type of wiring 1P2W

24	25

A   B
RS485

S1   S2

P1

qcells

05. DTSU666 Wiring connections
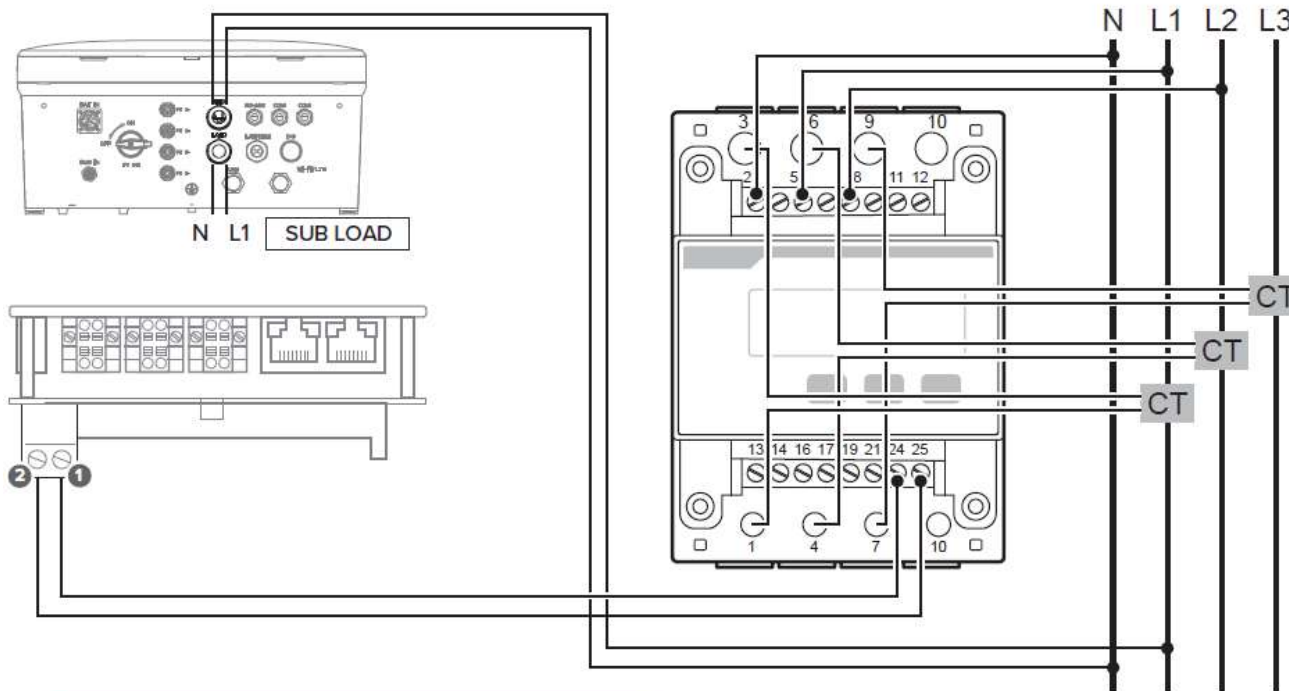
CT : BH-0.66I
ratio - 200/5A
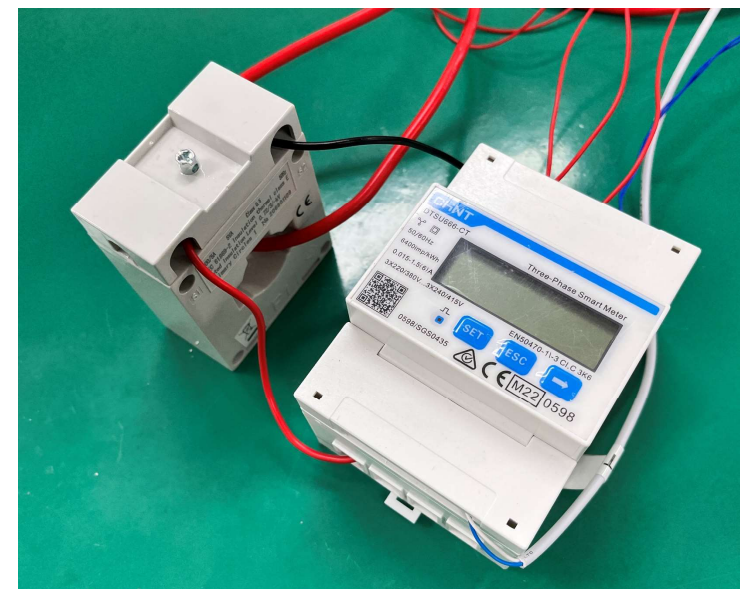
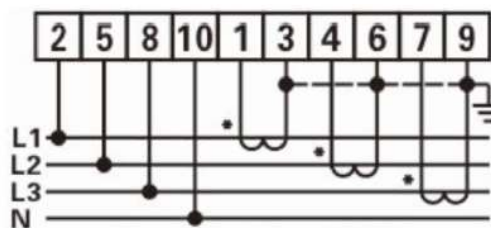| Q.VOLT(EMS port)	Energy Meter
1: RS485_NEG	25: B+
2: RS485_POS	24: A−

Figure 12 Three phase four wire: Connection through current transformers

Installer should set up the CT Ratio. The value is 40.