

Fox ESS Standard Solutions and Metering Selection Advise

DC Couple

Residential				Commercial
	1 Phase Site	2 Phase Site	3 Phase Site	3 Phase Site
H1-G2 / KH	1 x CT only	DTSU666 100A/40mA (6CT)	DTSU666 100A/40mA (6CT)	1x DTSU666 - CT Changeable 1x 400A CT sets (3CTs/set)
H3 Smart / H3 Pro	N/A	N/A	DTSU666 100A/40mA (6CT)	1x DTSU666 - CT Changeable 1x 400A CT sets (3CTs/set)

Meter & CT Selection Note:

- DTSU666 - 100/40mA (6CT), Fixed pairing with 100/40mA CT; the meter CT ratio is not adjustable.
- DTSU666 - CT Changeable

- 1.No CTs are included in the package and need to be ordered separately. Fox ESS provides 400A/40mA CTs as optional accessories, which can be purchased through authorized distributors.
- 2.100A/40mA, 200A/40mA, 300/40mA, 500A/40mA, and 600A/40mA are available on the market.
- 3.When the DTSU666 meter is installed far away from the inverter and a direct hardwired connection is not feasible, a wireless gateway can be used as a solution.

AC Couple

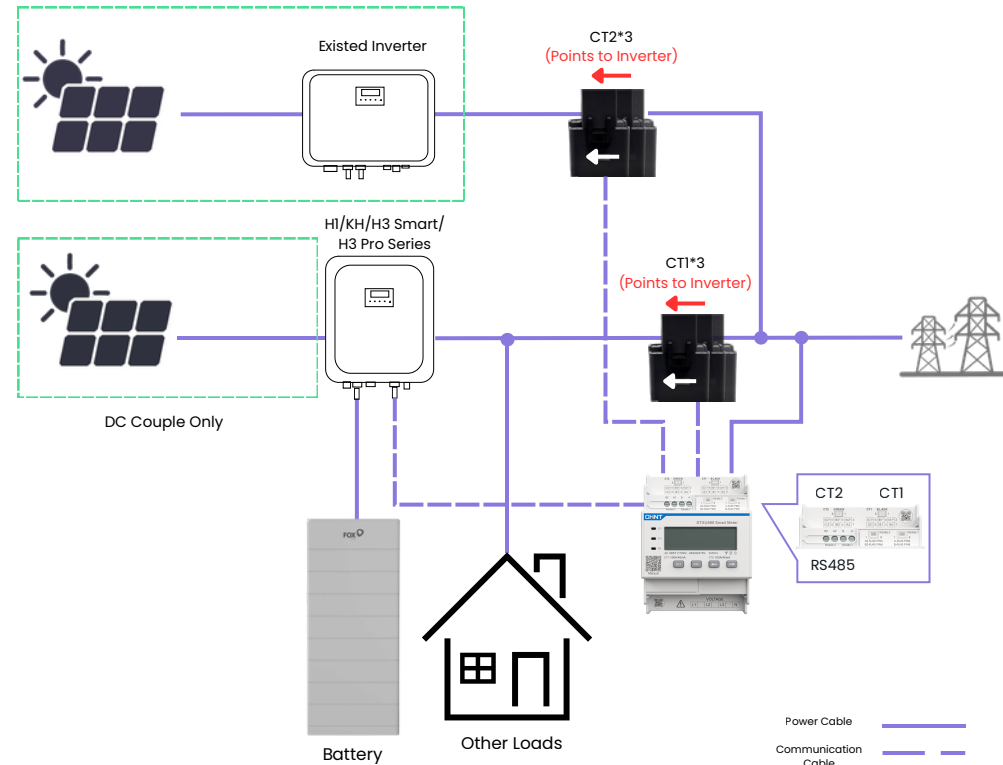
Residential				Commercial
	1 Phase Site	2 Phase Site	3 Phase Site	3 Phase Site
H1-G2 / KH	2 x CTs	DTSU666 100A/40mA (6CT)	DTSU666 100A/40mA (6CT)	1x DTSU666 - CT Changeable 2x 400A CT sets (3CTs/set)
H3 Smart / H3 Pro	N/A	N/A	DTSU666 100A/40mA (6CT)	1x DTSU666 - CT Changeable 2x 400A CT sets (3CTs/set)

	Include in the Inverter Package
	Need to order Separately
	Solution not applicable

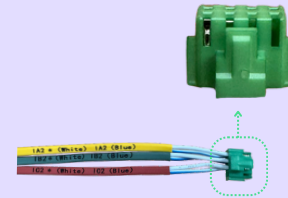
Fox ESS Metering Connection

Single/Three Phase Hybrid Inverter

H1/KH/H3 Smart/H3 Pro + 6CTs Meter & Wireless Gateway

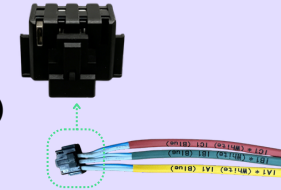


IA2* IA2(Yellow) - L1 of existing inverter
IB2* IB2(Green) - L2 of existing inverter
IC2*IC2(Red) - L3 of existing inverter



**CT2 for existing PV inverter
(Green terminal)**
Optional

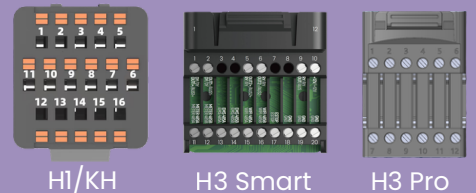
**CT1 for Grid
(Black terminal)**



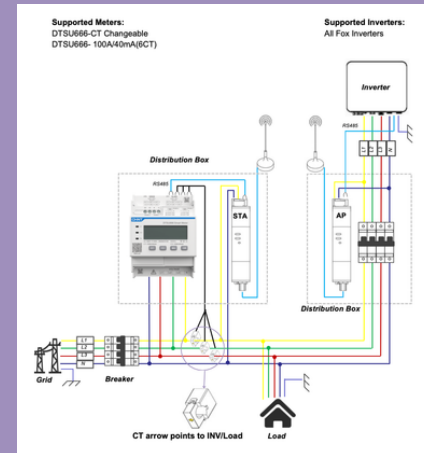
IA1* IA1(Yellow) - Grid L1
IB1* IB1(Green) - Grid L2
IC1*IC1(Red) - Grid L

- DTSU666 smart meter
RS485-1 A&B
Fox Hybrid Inverter Comm Port

INV Meter	H1-G2	KH	H3 Smart	H3 Pro
RS485-1 "A"	Pin 1	Pin 1	Pin 11	Pin 7
RS485-1 "B"	Pin 2	Pin 2	Pin 12	Pin 8

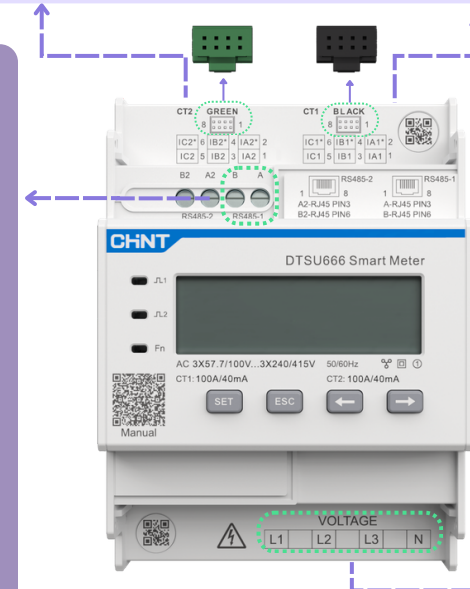


- WI-BR AP 485A&B
WI-BR AP — Fox Hybrid inverter
WI-BR STA — DTSU666-CT Changeable & 100A/40mA(6CT)



If the distance between the inverter and the main switchboard is too far for direct hard wiring, the wireless gateway can be used for communication.

Note: For detailed connection, please refer to Wireless Gateway Solution Guide.



- Voltage Reference and power supply**

1 Phase - L1+N
2 Phase - L1+L2+N
3 Phase - L1+L2+L3+N

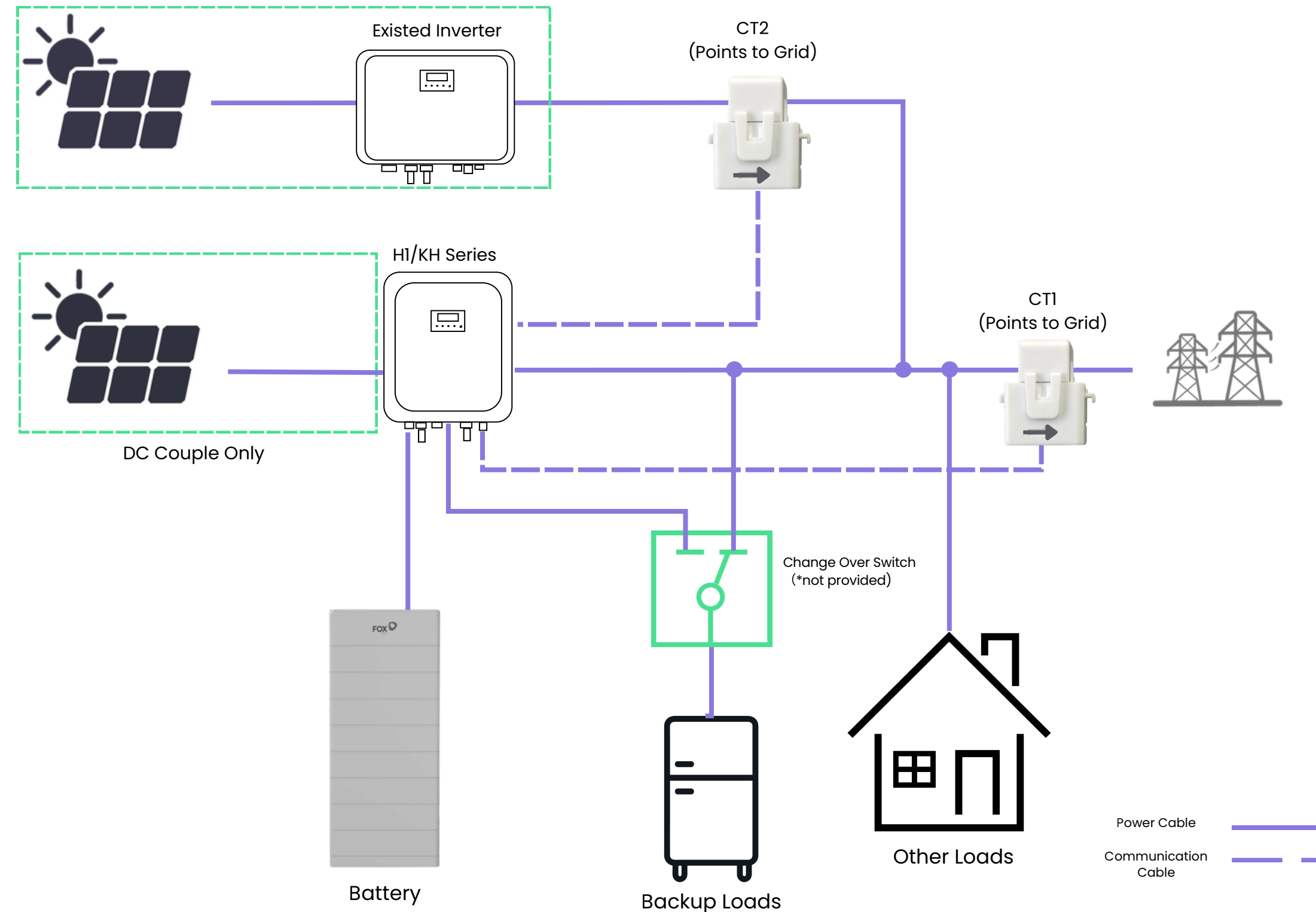
CT must match the meter voltage reference phase sequence.

CT1/2 A — Voltage L1
CT1/2 B — Voltage L2
CT1/2 C — Voltage L3

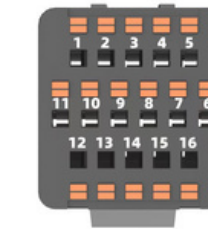
1.1 Recommended Option: One Phase Site

Single Phase Hybrid Inverter

Solution: H1/KH + 2CTs



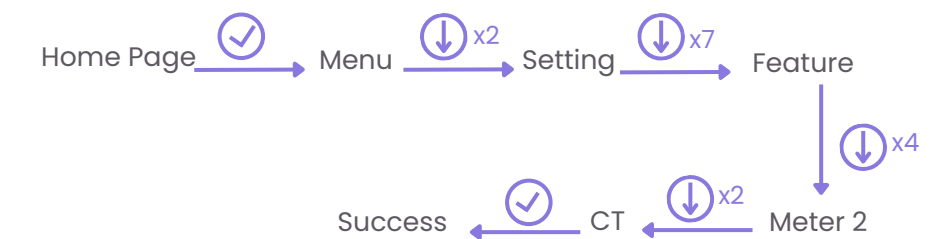
• Comm Port Definition



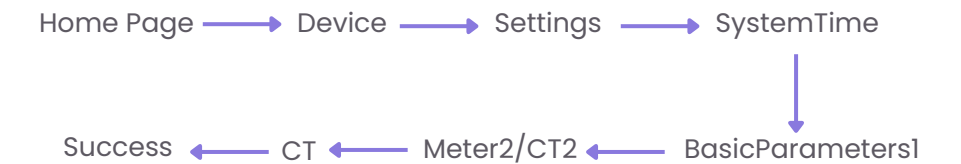
For H1/KH Series

Pin	5	6	7	8
Def	CT2+ (Red)	CT2- (Black)	CT1- (Black)	CT1+ (Red)

• Enable Meter2 from Display



• Enable Meter2 from Fox APP



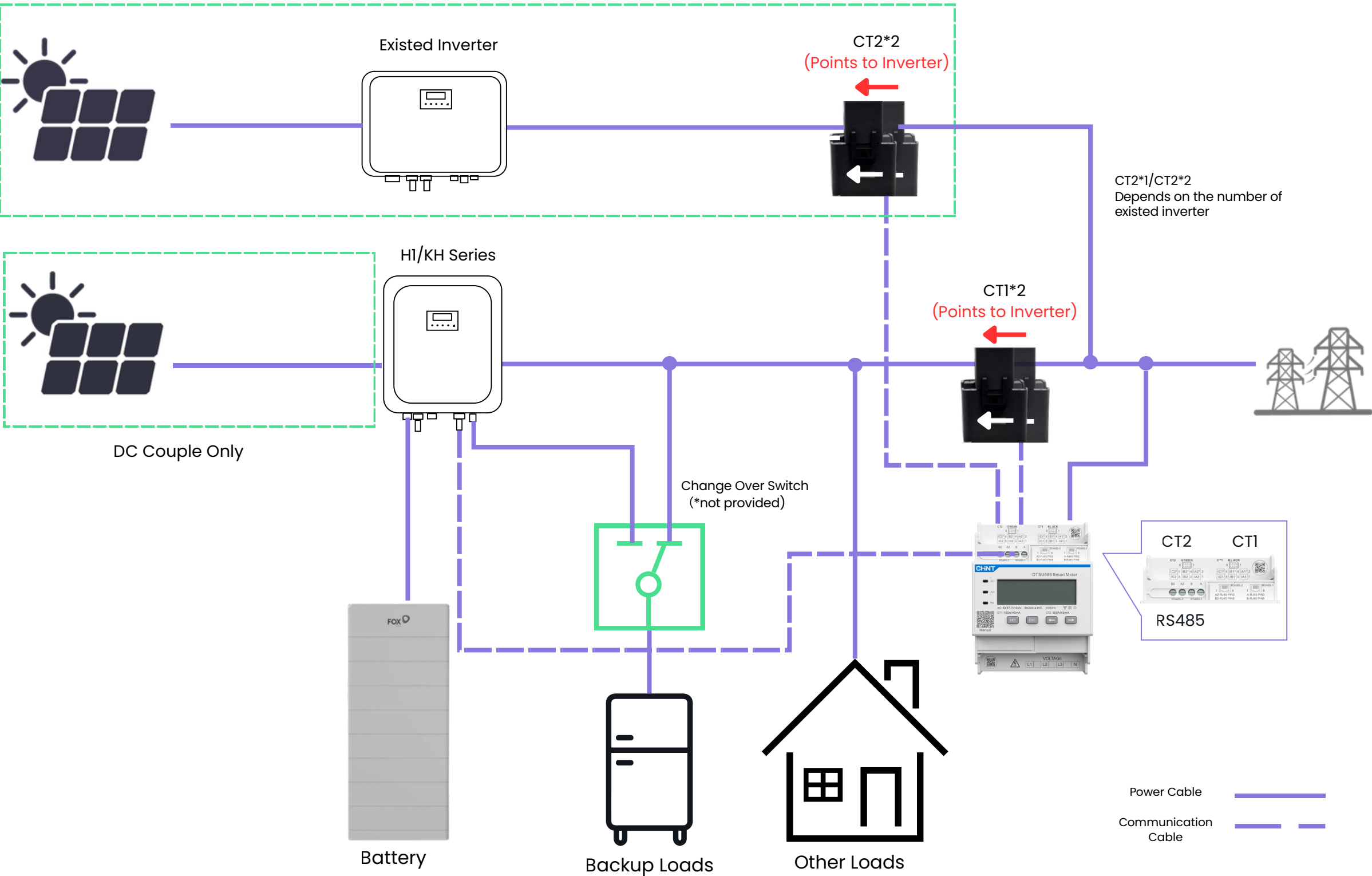
• CT points to Grid

1.2 Recommended Option: Two Phase Site

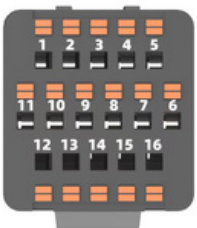
Single Phase Hybrid Inverter

Solution: H1/KH + 6CTs Meter

Meter is connected on L1/L2/N, CT1 should have two clamps on L1/L2 on the grid side, and CT2 should have two clamps on L1/L2 on the existing inverter side.



• Comm Port Definition



For H1/KH Series:

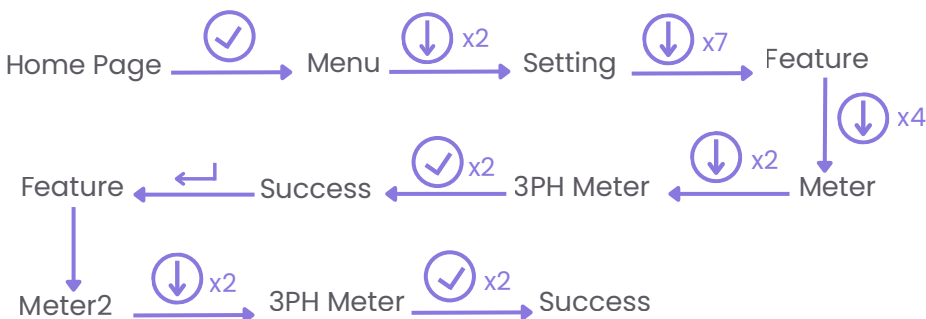
Pin	1	2
Def	Meter 485A	Meter 485B

• Enable Meter1&2 from Display

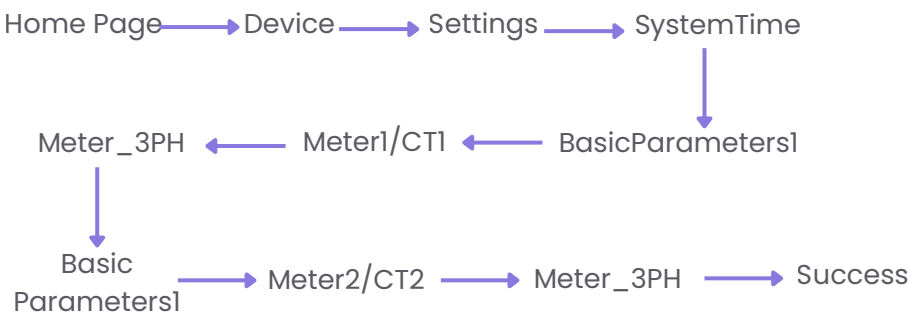


*KH HMI Ver. ≥ 1.49

*H1 HMI Ver. ≥ 1.60



• Enable Meter1&2 from Fox APP



- CT wiring to each phase: L1-Yellow; L2-Green
- CT points to Inverter

Solution: H1/KH/H3 Smart/H3 Pro + 6CTs Meter

The diagram illustrates a hybrid inverter system with battery backup and load management. It features two solar panels, each connected to an inverter. The top inverter is labeled 'Existed Inverter' and the bottom one is labeled 'H1/KH/ H3 Smart/ H3 Pro Series'. Both inverters are connected to a common DC bus. A 'DC Couple Only' label is placed near the bottom inverter. The system includes a 'Change Over Switch (*not provided)' and a 'Battery' (FOX brand). The output of the system is connected to 'Backup Loads' (represented by a refrigerator icon) and 'Other Loads' (represented by a house icon). The system also includes a 'CT1*3 (Points to Inverter)' and a 'CT2*3 (Points to Inverter)' (both labeled 'CT1*3 (Points to Inverter)' in red text). A 'CHNT' CT1000 Smart Meter is connected to the system. A legend indicates that solid blue lines represent 'Power Cable' and dashed blue lines represent 'Communication Cable'. A note states 'CT2*1/CT2*2 Depends on the number of existed inverter'.



- For HI/KH Series:
- | Pin | 1 | 2 |
|-----|------------|------------|
| Def | Meter 485A | Meter 485B |

Pin	1	2
Def	Meter 485A	Meter 485B



*For both Meter 1 and 2, 485A cables go to pin 7, 485B cables go to pin 8

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- A black, square-shaped Foxconn thermostat is centered on a light gray background. The device has a digital display screen in the middle, which is currently blank. Above the screen, the 'FOXCONN' logo is visible. Below the screen, there are several touch-sensitive control buttons, including a power button, a plus/minus button, a fan speed button, and a mode button.

A black, square-shaped digital scale with rounded corners. At the top, the 'FOX' logo is printed in white, followed by a circular icon containing a stylized 'D'. Below the logo is a small, rectangular LCD screen. At the bottom of the device, there are four small, white, circular buttons arranged horizontally. The scale is shown against a plain white background.

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graph LR
 HP[Home Page] --> Device
 Device --> Settings
 Settings --> ST[SystemTime]
 ST --> BP1[BasicParameters1]
 BP1 --> M1[Meter1/CT1]
 M1 --> M3PH[Meter_3PH]
 M3PH --> BP2[BasicParameters1]
 BP2 --> M2[Meter2/CT2]
 M2 --> M3PH
 M3PH --> Success

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- CT points to Inverter