



H3 PRO Product Introduction

March 29, 2024





H3-Pro/AC3-Pro



three-Phase Inverter 10-30kW

H3-Pro 10.0 / 12.0 / 15.0 / 20.0
/ 22.0 / 24.9 / 25.0 / 29.9 / 30.0

AC-Pro 10.0 / 12.0 / 15.0 / 20.0
/ 22.0 / 24.9 / 25.0 / 29.9 / 30.0



Easy Installation

Flexible configuration, plug and play set-up, built-in fuse protection.



High Voltage

Connects to high-voltage batteries for maximum round-trip efficiency.



IP65 Rated

Engineered to last with maximum flexibility. Suitable for outdoor installation.



Remote Monitoring

Monitor your system remotely via smartphone app or web portal.

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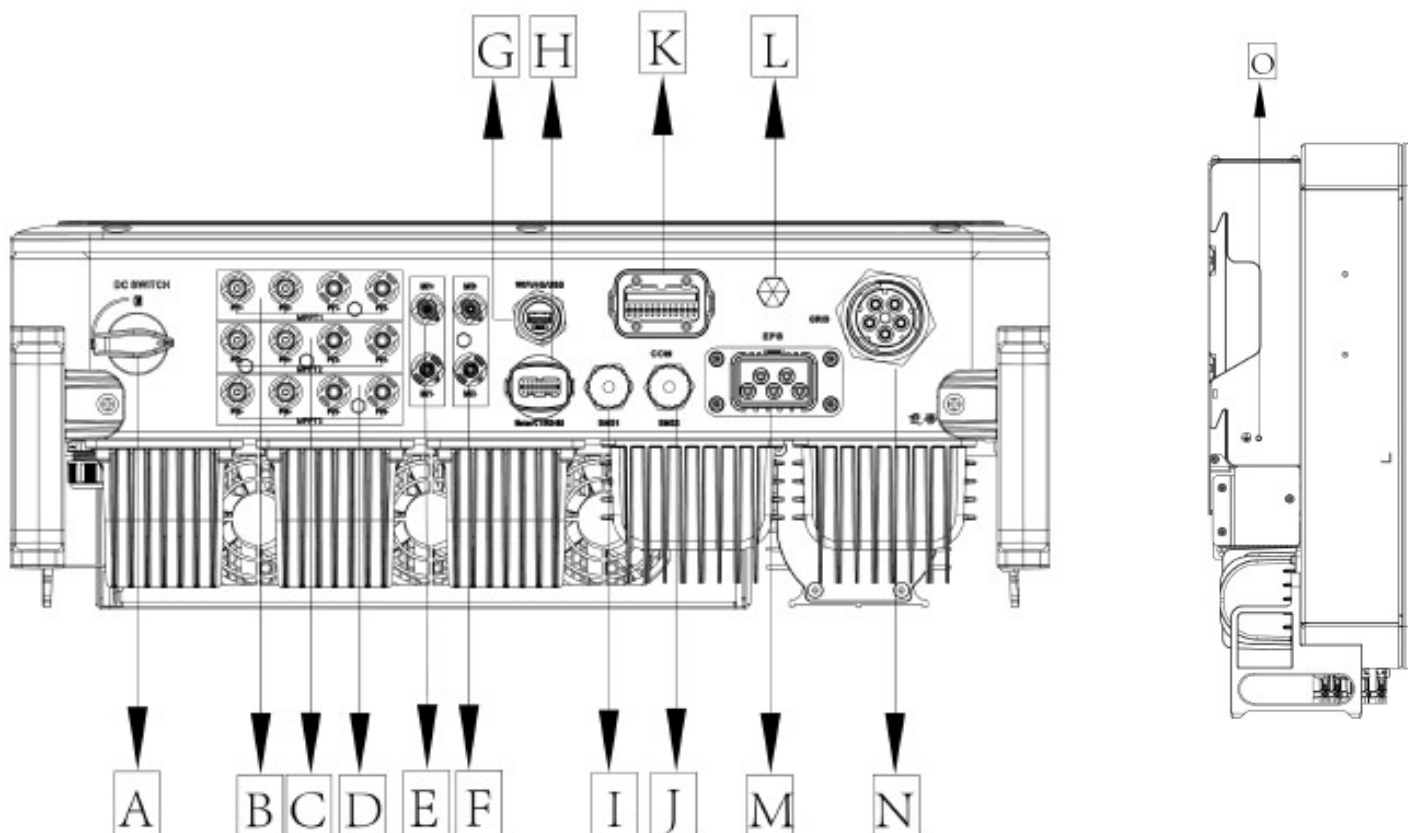
01



Product Overview



Product Overview: Inverter



Item	Description
A	DC Switch
B	MPPT1
C	MPPT2
D	MPPT3
E	BAT1
F	BAT2
G	USB/WIFI/GPRS/LAN
H	METER/CT/RS485
I	BMS1
J	BMS2
K	COM
L	Waterproof
M	EPS
N	GRID
O	Grounding



Product Overview



H3-Pro Series Inverter

Advantages:

- Three Phase Hybrid Inverter
 - Nominal Output: 15-30KW
 - Nominal MPPT range: 150-850V
 - Maximum 10 system parallel (838.8kWh) (EMS required*)
 - Asymmetric loads up to 50%
 - Up to 50A Charging/Discharging Current
 - Black start function (>4 battery)
 - High output power density and lighter
 - 3 MPPTs + independent Battery port (Dual) design for simple installation;
 - Maximum 4 system in off-grid parallel (EMS required*)
 - Ripple control (being developed), DRM, SG Ready
 - **Certification:** Germany (VED4105), South Africa, Czech, Sweden, India, Pakistan, Slovenia, Netherlands , UK
 - **In process:** Italy, Spain, Switzerland, Croatia, Portugal, Israel, Australia, VED4110
-

Glossary

Ripple control: a form of grid management control in Europe (mostly Germany) through high frequency control to achieve the regulation on the inverter output power and frequency.

RCR: Ripple Control Receivers

Switching state	Output active power (%Pn)
No contact closed	100%
Several contacts closed	100%
Contact DRM1 to +3.3V	60%
Contact DRM2 to +3.3V	30%
Contact DRM3 to +3.3V	0%
Contact DRM4 to +3.3V	Immediate OFF

Glossary

DRMs (Demand Response Modes): a key requirement of Australia AS4777.2:2015, which enables the inverter to response to external signal by turning off, on, or power ramp up or down.

Mode	Requirement
DRM0	Operate the disconnection device.
DRM1	Do not consume power.
DRM2	Do not consume at more than 50% of rated power.
DRM3	Do not consume at more than 75% of rated power and source reactive power if capable.
DRM4	Increase power consumption (subject to constraints from other active DRMs).
DRM5	Do not generate power.
DRM6	Do not generate at more than 50% of rated power.
DRM7	Do not generate at more than 75% of rated power and sink reactive power if capable.
DRM8	Increase power generation (subject to constraints from other active DRMs).

Note: Currently only supports DRM0 function, other functions are under development.

SG Ready:

- Heat pump control requirement SG Ready label
 - Four operating modes
- Interface-compatible system components (Inverter, EMS)
 - Needs support on 2 of the four modes
 - 4 Functional requirements for the inverter
- Purpose:
 - self-sufficiency optimization
 - price sensitive operation
 - grid-supportive operation



Technical specifications for H3-Pro/AC3-Pro

HYBRID INVERTER MODEL: AC INVERTER MODEL:	H3-Pro-10.0 AC3-Pro-10.0	H3-Pro-12.0 AC3-Pro-12.0	H3-Pro-15.0 AC3-Pro-15.0	H3-Pro-20.0 AC3-Pro-20.0	H3-Pro-22.0 AC3-Pro-22.0	H3-Pro-24.9 AC3-Pro-24.9	H3-Pro-25.0 AC3-Pro-25.0	H3-Pro-29.9 AC3-Pro-29.9	H3-Pro-30.0 AC3-Pro-30.0
PV INPUT(ONLY FOR HYBRID)									
Max.Recommended DC Power [W] ^[1]	15000	18000	22500	30000	33000	37500	37500	45000	45000
Max.DC Voltage [V] ^[2]					1000				
Normalinal DC Operating Voltage [V]					750				
Max. Input Current [A]	16	16	32	32	32	32	32	32	32
Max. Short Circuit Current [A]	20	20	40	40	40	40	40	40	40
MPPT Voltage Range [V]					150 ~ 850				
MPPT Voltage Range [V] (full load)	230 ~ 850	270 ~ 850	170 ~ 850	230 ~ 850	250 ~ 850	280 ~ 850	280 ~ 850	340 ~ 850	340 ~ 850
Start-up Voltage [V]					160				
No. of MPP Trackers					3				
Strings Per MPP Tracker	1/1/1	1/1/1	2/2/2	2/2/2	2/2/2	2/2/2	2/2/2	2/2/2	2/2/2
Max. Inverter Backfeed Current to the Array					0				
BATTERY									
Battery Type					Lithium Battery				
Battery Voltage [V]					150 ~ 800				
Full AC Load Battery Voltage [V]	220 ~ 790	260 ~ 790	160 ~ 790	220 ~ 790	240 ~ 790	270 ~ 790	270 ~ 790	330 ~ 790	330 ~ 790
Max. Charge/ Discharge Current [A]	50	50	50+50	50+50	50+50	50+50	50+50	50+50	50+50
Number of Battery Input	1	1	2	2	2	2	2	2	2
Communication Interface					CAN				
AC OUTPUT									
Normalinal AC Power [VA]	10000	12000	15000	20000	22000	24900	25000	29900	30000
Max. Apparent AC Power [VA]	11000	13200	16500	22000	24200	24900	27500	29900	30000
Rated Grid Voltage (AC Voltage Range) [VAC]					400 / 230 ; 380 / 220 , 3L / N / PE				
Rated Grid Frequency [Hz]					50 / 60 , ±5				
Max. AC Current [A] (Per Phase)	16.7	20.0	25.0	33.3	36.7	37.7	41.7	45.4	45.5
Power Factor					1(Adjustable from 0.8 Leading to 0.8 Lagging)				
Export Control					YES				
AC Inrush Current [A]					15A@0.5ms				
Max. Output Fault Current[A]					150A@0.5ms				
Max. Output Overcurrent Protection[A]					77.1				
THDI [%]					<3 @Rated Power				
AC INPUT									
Max. AC Power [VA]	15000	18000	22500	30000	33000	35000	35000	35000	35000
Rated Grid Voltage (AC Voltage Range) [V]					400 / 230 ; 380 / 220 , 3L / N / PE				
Rated Grid Frequency [Hz]					50 / 60 , ±5				
Max. AC Current [A] (Per Phase)	22.7	27.3	34.1	45.5	50.0	53.0	53.0	53.0	53.0
AC Inrush Current [A]					15 @0.5ms				
Power Factor					1(Adjustable from 0.8 Leading to 0.8 Lagging)				

Continue

EPS OUTPUT									
Max Apparent AC Power [VA]	10000	12000	15000	20000	22000	25000	25000	30000	30000
Peak Apparent AC Power [VA] (60s)	12000	14400	18000	24000	26400	30000	30000	36000	36000
Rated Output Voltage [V]	400 / 230 ; 380 / 220 , 3L / N / PE								
Rated Grid Frequency [Hz]	50 / 60								
EPS Max Current [A] (Per Phase)	15.2	18.2	22.7	30.3	33.3	37.9	37.9	45.5	45.5
Power Factor	1(Adjustable from 0.8 Leading to 0.8 Lagging)								
Parallel Operation	Yes @Max10PCS								
Switch Time [ms]	<20								
THDV [%]	<3 @Rated Power								
EFFICIENCY									
MPPT Efficiency [%]	99.90	99.90	99.90	99.90	99.90	99.90	99.90	99.90	99.90
Max. Efficiency [%]	97.80	97.80	97.80	97.80	97.80	97.80	97.80	97.80	97.80
Max. Battery to AC Efficiency [%]	97.60	97.60	97.60	97.60	97.60	97.60	97.60	97.60	97.60
Max. PV to Battery Efficiency [%]	98.10	98.10	98.10	98.10	98.10	98.10	98.10	98.10	98.10
Euro-Efficiency [%]	97.30	97.30	97.30	97.40	97.40	97.40	97.40	97.40	97.40
PROTECTION									
PV Reverse Polarity Protection	YES								
Battert Reverse Protection	YES								
Anti-Islanding Protection	YES								
Output Short Protection	YES								
Leakage Current Protection	YES								
Insulation Resistor Detection	YES								
Over Voltage Category	III (AC Side) , II (DC Side)								
Reverse Connect Protection	YES								
Over-current Protection / Over-temperature Protection	YES								
AC/DC Surge Protection	Type III/Type II								
AFCI Protection	Optional								
DC SWITCH	Optional								
String Monitoring Function	Optional								



Continue

GENERAL DATA									
Dimension (WxHxD) [mm]	600*560*225								
Dimension of Packing (WxHxD) [mm]	720*680*370								
Net Weight [kg]	52.5								
Gross Weight [kg]	57.5								
Installation	Wall-mounted								
Operating Temperature Range [°C]	-25 ~ +60 (Derating at 45)								
Storage Temperature [°C]	-40 ~ +70								
Noise Emission(typical) [dB]	<45	<45	<45	<45	<60	<60	<60	<60	<60
Storage/Operation Relative Humidity [%]	0 ~ 95 (Without Condensation)								
Altitude [m]	<4000								
Protective Class	I								
Ingress Protection	IP65 (for Outdoor Use)								
Standby Consumption [W]	200 for Hot Standby , 15 for Cold Standby								
Idle Mode	YES								
Cooling	Smart FAN Cooling								
Inverter Topology	Non-isolated								
Communication Interface	Meter, WIFI, 4G(optional), DRM, USB, BMS(CAN), RS485								
LCD Display	Backlight 16*4 Character								
Button	Capacitive Touch Sensor *4								
Buzzer	1 , Inside (EPS&Earth Fault)								

*More technical characteristics are available on demand and customized.

[1] Per MPP max. PV input power 15kW.

[2] For 1000V system, Maximum operating voltage is 950V.PV input voltage greater than 955V, PV overvoltage error will be reported.

Version1.4 | 2023/10/09

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GENERAL DATA									
Dimension (WxHxD) [mm]	600*560*225								
Dimension of Packing (WxHxD) [mm]	720*680*370								
Net Weight [kg]	52.5								
Gross Weight [kg]	57.5								
Installation	Wall-mounted								
Operating Temperature Range [°C]	-25 ~ +60 (Derating at 45)								
Storage Temperature [°C]	-40 ~ +70								
Noise Emission(typical) [dB]	<45	<45	<45	<45	<60	<60	<60	<60	<60
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Altitude [m]	<4000								
Protective Class	I								
Ingress Protection	IP65 (for Outdoor Use)								
Standby Consumption [W]	200 for Hot Standby , 15 for Cold Standby								
Idle Mode	YES								
Cooling	Smart FAN Cooling								
Inverter Topology	Non-isolated								
Communication Interface	Meter, WIFI, 4G(optional), DRM, USB, BMS(CAN), RS485								
LCD Display	Backlight 16*4 Character								
Button	Capacitive Touch Sensor *4								
Buzzer	1 , Inside (EPS&Earth Fault)								



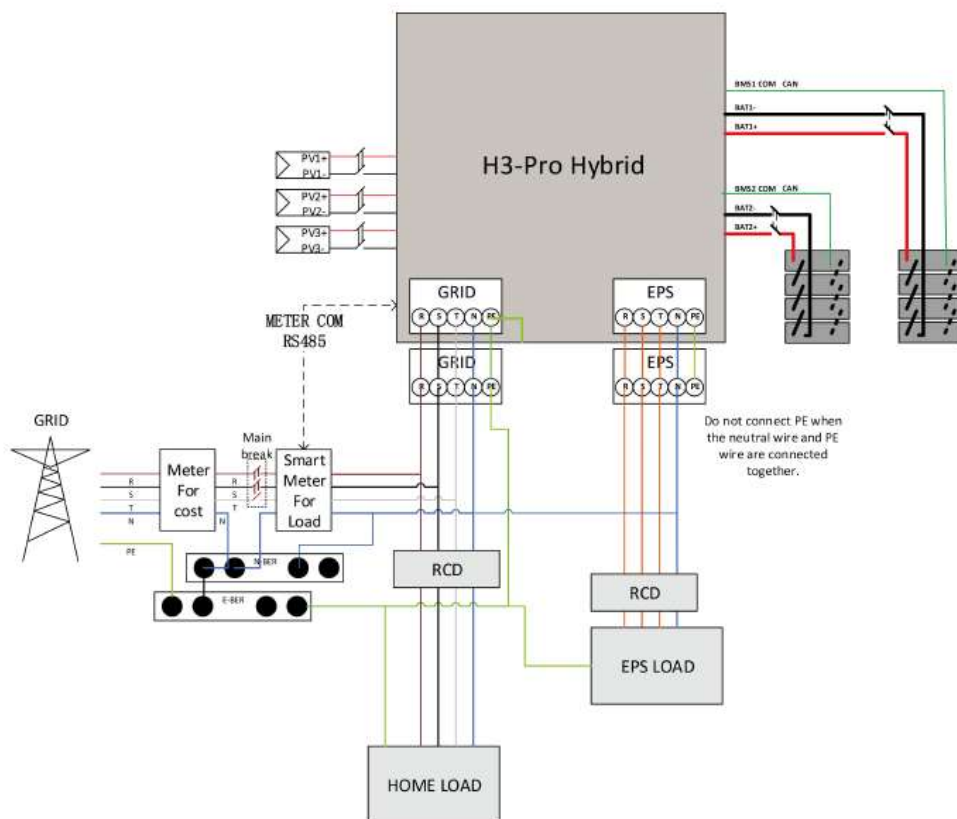


Application

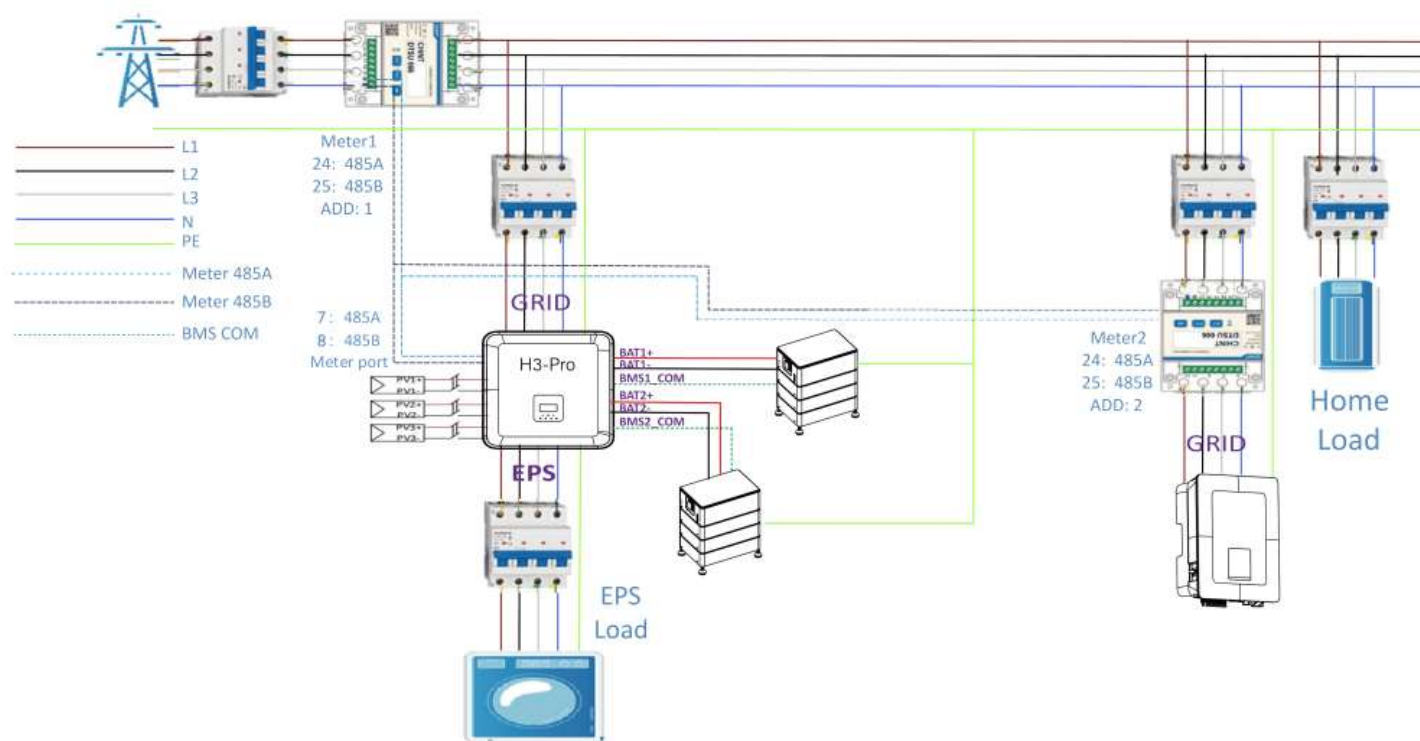


Single Device Application

H3-Pro system diagram for household

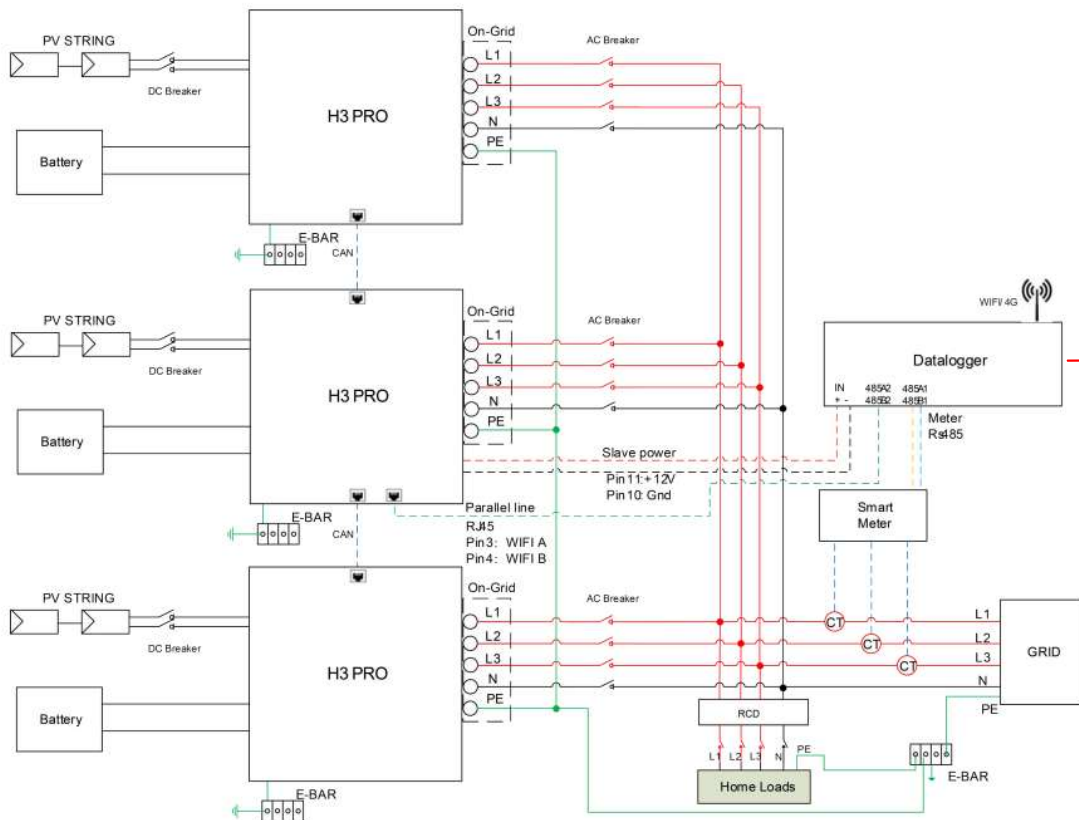


AC Couple Solution



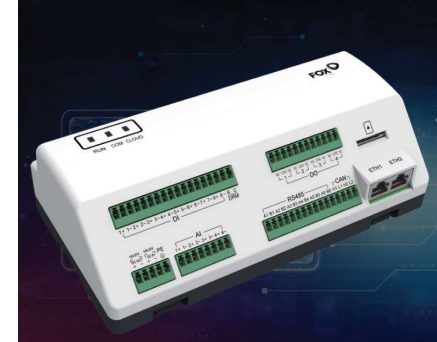
Wiring diagram of H3 in AC Couple

On-grid Parallel

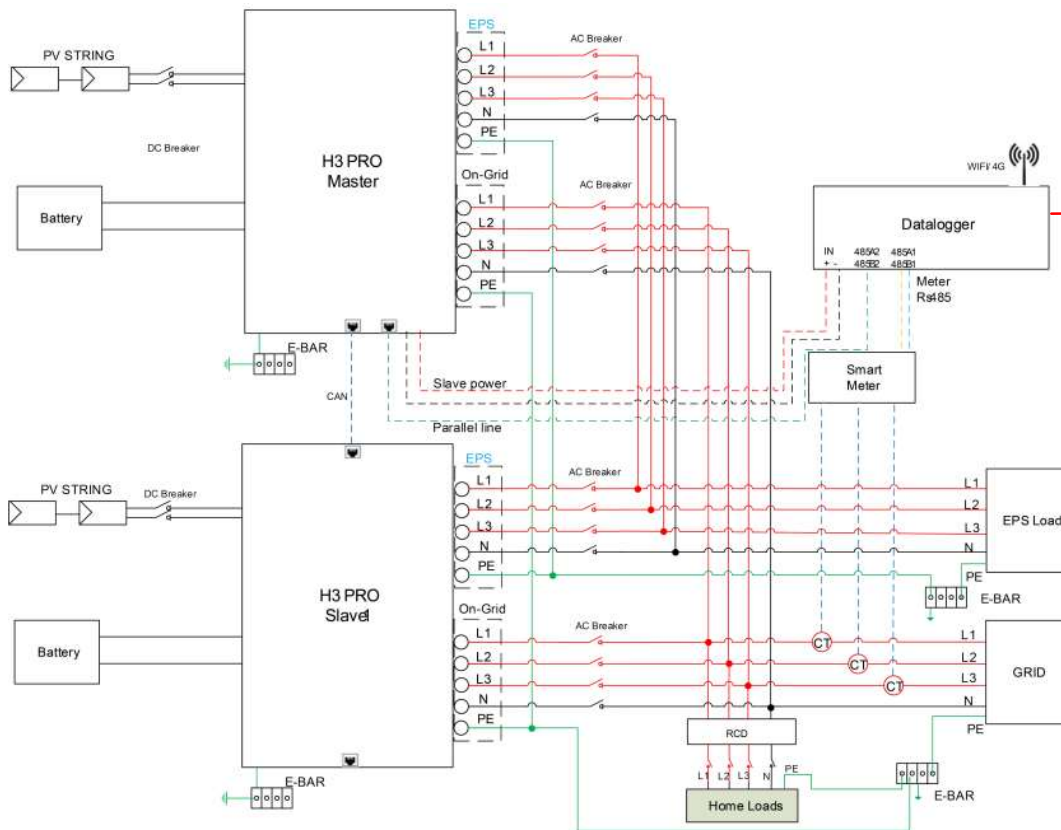


On-Grid Parallel System Without EPS
Max. PCS : 10

Required



Off-grid Parallel



On-Off Grid Parallel
System

Max. PCS : 4

03



Product Functions





Work Modes

Work Mode	Operating states	Description
Self-use (with PV Power)	load>battery>grid (charge)	Surplus is used to charge battery, then exported to grid.
Self-use (without PV Power)	load>battery>grid (discharge)	Uses battery power for load when no PV power, and charge battery when there is other generation source.
Feed in	load>grid>battery	Surplus power is exported to grid first
Back up	Battery>load>grid	PV and battery power for off-grid load (battery required).
PeakShaving	Import from grid	Based on 'Import limit' , 'Threshold SOC' , 'Charging time' , the system will import from grid to the load and to charge the battery.





Work Modes

* WorkMode

SelfUse

Feedin

Backup

PeakShaving

Inverter SN : 60MJ30303ALP002



After setting Safetycountry/Safetytype/GridCode, please click the Clear and Refresh Page.

RTCTime
BasicParameters1
OperationMode
ChargingTime
BasicParameters2
PowerLimit
ExportLimit
OffGridParameters
SafetyStartParameters
SafetyVoltage
SafetyFrequency
Safety-P(f)
Safety-P(u)
Safety-Reactive
PeakShavingSet
Operation
OperationMode

* Importlimit	0.000	(0~100)kW
* ThresholdSOC	40	(10~100)%
* Exportpeaklimit	0.000	(0~100)kW
* ChrInLowImport	NOMode	
* ChrInLowStartTime1Hour	0	(0~23)
* ChrInLowStartTime1Minute	0	(0~59)
* ChrInLowEndTime1Hour	0	(0~23)
* ChrInLowEndTime1Minute	0	(0~59)
* ChrInLowStartTime2Hour	0	(0~23)
* ChrInLowStartTime2Minute	0	(0~59)
* ChrInLowEndTime2Hour	0	(0~23)
* ChrInLowEndTime2Minute	0	(0~59)

OK



Inverter State

State	Behavior	Description
Normal	Green light	Inverter is producing power, AC output, EPS output, battery charging/discharging
Fault	Red light	Inverter is in fault state. Please refer to the LCD screen or website for reasons.
Waiting	Standby	If a slaver inverter is disconnected with other inverter but not be set to "Free" mode, this inverter will stop working and maintain "waiting" status.
Idle	Cold Standby	Device enters idle mode if load <300W, returns to normal work mode if load >300W. Self consumption < 18W
Off mode	Software shut down	Press and hold the "✓" button on the top of the screen and select "stop" to stop the machine. Stope the device before changing settings.





Parallel State

State In parallel	Behavior	Description
Free	Independent	The device is no in parallel connection mode
Master	Parallel	The device is set as the master unit. The master unit is to be connected to the EMS and the meter
Slaver	Parallel	Once one inverter is set as a “Master” , all other inverters will enter slaver mode automatically. Slaver mode cannot be changed from other modes by LCD setting.

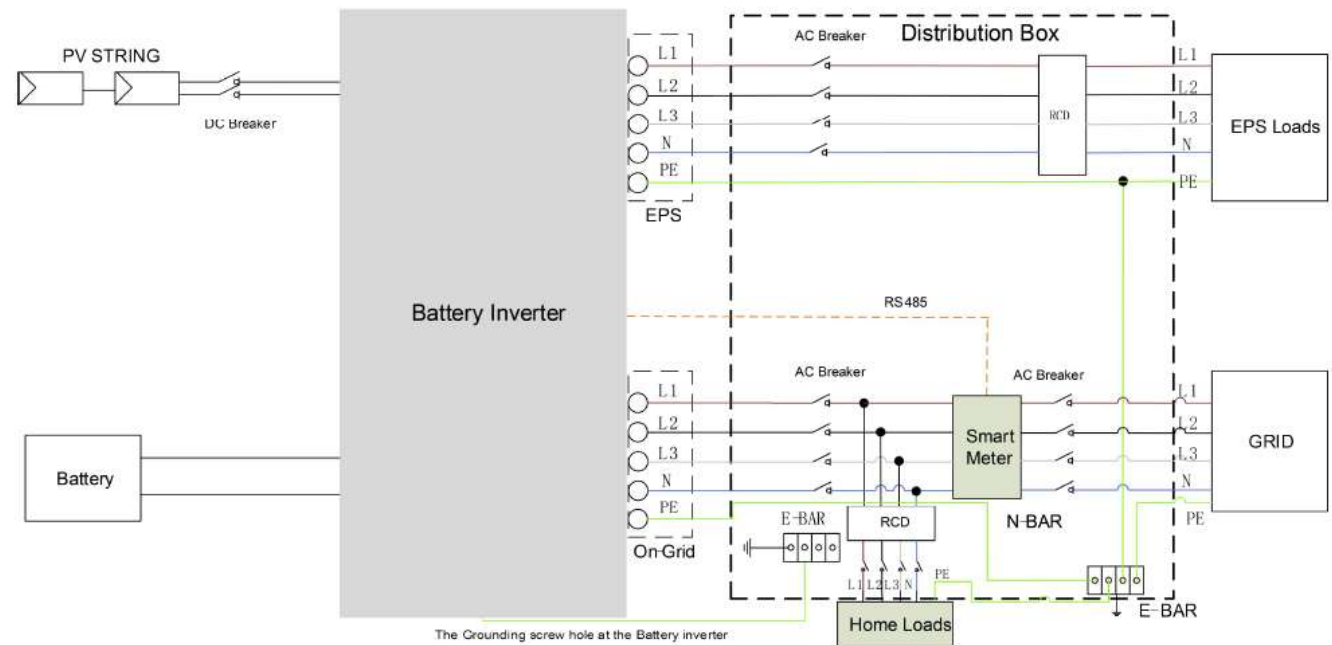
8.2 Function Tree



EPS Mode Operation

- Enable EPS function via LCD
- Phase wiring is correspondent
 - Grid L1 - EPS L1
 - Grid L2 - EPS L2
 - Grid L3 - EPS L3
 - Grid N - EPS N

For countries such as **China, Germany, the Czech Republic, Italy, etc.**, please follow local wiring regulations. This diagram is an example for an application in which neutral is separated from the PE in the distribution box.





Charge Time Operation

- Enable ChargeTime function via LCD
- The charging period is mainly used to set the charging time from the power grid to the battery

Inverter SN : 60MJ30303ALP002  After setting Safetycountry/Safetytype/GridCode, please click the Clear and Refresh Page.

RTCTime
BasicParameters1
OperationMode
ChargingTime
BasicParameters2
PowerLimit
ExportLimit
OffGridParameters
SafetyStartParameters
SafetyVoltage
SafetyFrequency
Safety-P(f)
Safety-P(u)
Safety-Reactive
PeakShavingSet
Operation
OperationMode

 1.Only filling the four period settings with all zero can disable force-charge period.
2.The following two checkboxes means:
(checked) During force-charge period, both grid and PV can charge battery.
(unchecked) During force-charge period, only PV can charge battery.

* ChargeStartTime1Hour (0~23)

* ChargeStartTime1Minute (0~59)

* ChargeEndTime1Hour (0~23)

* ChargeEndTime1Minute (0~59)

P1GridChargeFlag ☐

* ChargeStartTime2Hour (0~23)

* ChargeStartTime2Minute (0~59)

* ChargeEndTime2Hour (0~23)

* ChargeEndTime2Minute (0~59)

P2GridChargeFlag ☐



Export Control

- Enable Export control function via LCD of Fox Cloud
- Meter connection is required

Inverter SN : 60MJ30303ALP002



After setting Safetycountry/Safetytype/GridCode, please click the Clear and Refresh Page.

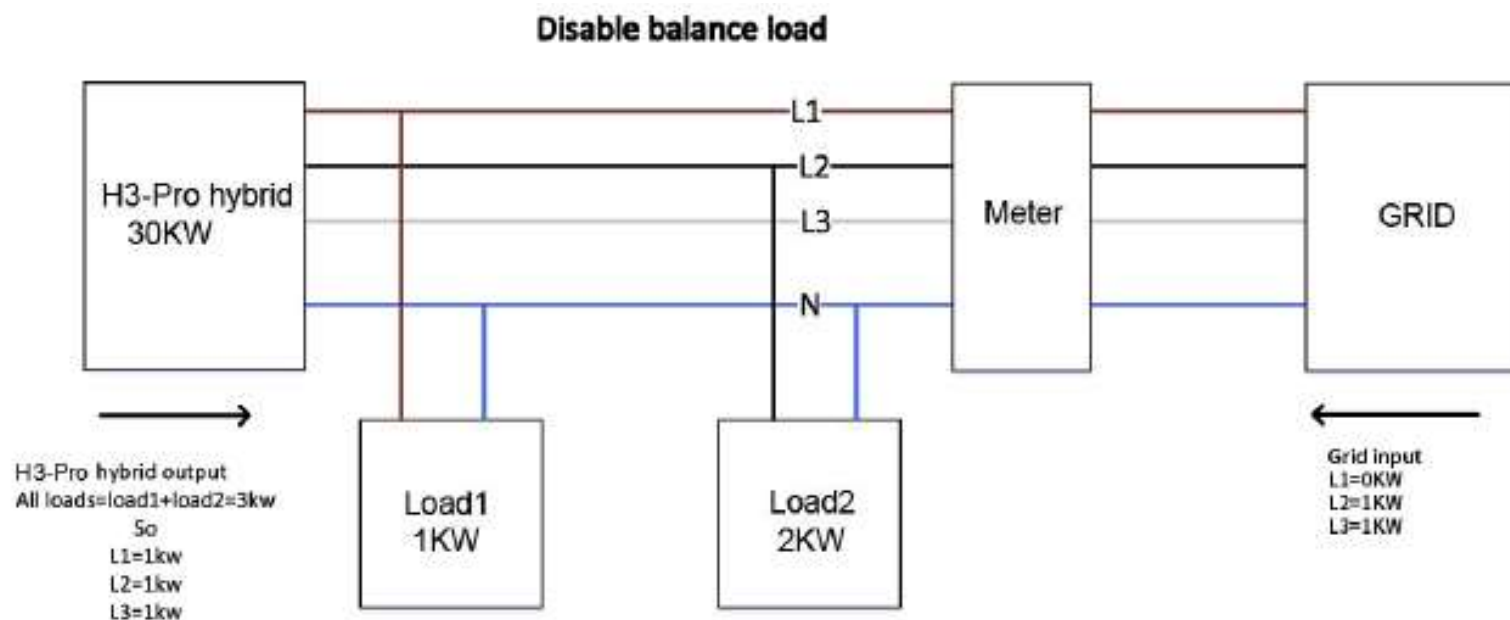
RTCTime
BasicParameters1
OperationMode
ChargingTime
BasicParameters2
PowerLimit
ExportLimit

* ExportLimit (0~300000)W

OK

Imbalance Load Operation

Condition:
Export limit = 0 W

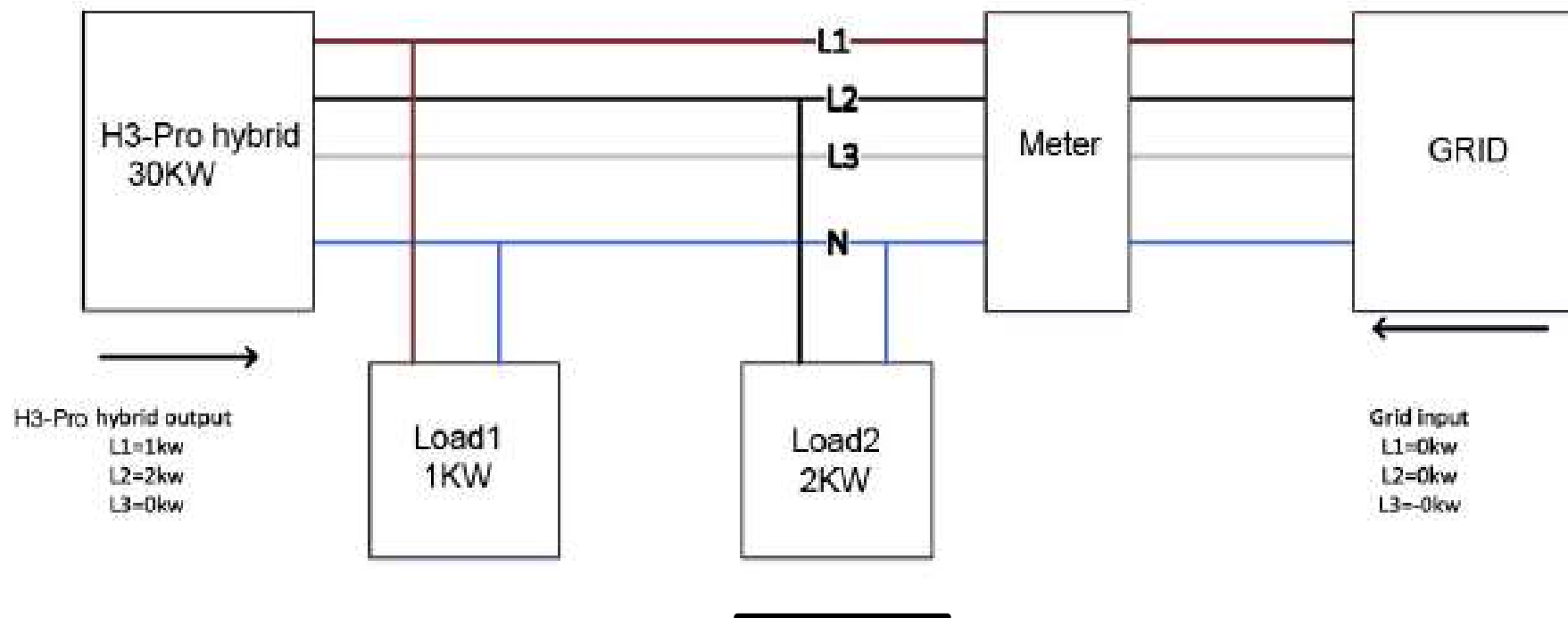


Imbalance Load Operation

Condition:

Export limit = 0 W

Enable balance load



Parallel Connection

- From LCD display only

Settings



Enter Password



Parallel



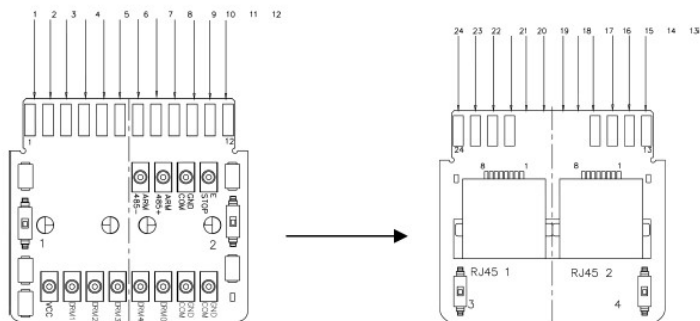
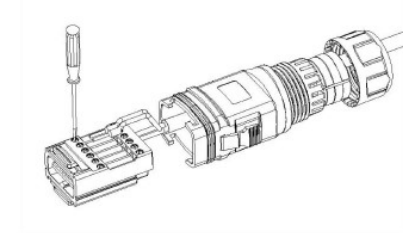
Master/ Free Mode





Master Mode inverter

Note: PV and battery should both be connected to the inverter with meter cable plugged.



- Connect all inverters by CAN ports
- Push the DIP switch to "ON" position (from down to up) by a suitable tweezers
- DIP switches need to be set on the master and the last slave.



Battery

Fox ESS Inverter & Battery Configuration Guide

For All countries except Italy and US:

Inverter Model Battery Model	H1/AC1 H1-G2/AC1-G2 (Battery Qty Min.~Max.)	H3/AC3 (Battery Qty Min.~Max.)	H3 PRO (Battery Qty Min.~Max.)	KH/KA (Battery Qty Min.~Max.)
HV2600	2~7	3~8	3~16	2~8
Mira-HV25	2~7	3~8	3~16	2~8
CM2800&CS2800	(1CM+1CS)~(1CM+6CS)	(1CM+2CS)~(1CM+6CS)	(1CM+2CS)~(2CM+12CS)	(1CM+1CS)~(1CM+6CS)
CM2900&CS2900	(1CM+1CS)~(1CM+6CS)	(1CM+2CS)~(1CM+6CS)	(1CM+2CS)~(2CM+12CS)	(1CM+1CS)~(1CM+6CS)
CM4100&CS4100	(1CM+1CS)~(1CM+6CS)	(1CM+2CS)~(1CM+6CS)	(1CM+2CS)~(2CM+12CS)	(1CM+1CS)~(1CM+6CS)
CM4300&CS4300	(1CM+1CS)~(1CM+6CS)	(1CM+2CS)~(1CM+6CS)	(1CM+2CS)~(2CM+12CS)	(1CM+1CS)~(1CM+6CS)
EQ4800	(1EQ-M+1EQ-S)~(1EQ-M+8EQ-S)	(1EQ-M+2EQ-S)~(1EQ-M+8EQ-S)	(1EQ-M+1EQ-S)~(2EQ-M+16EQ-S)	(1EQ-M+1EQ-S)~(1EQ-M+8EQ-S)
EP5	1-4	1-4	1-4	1-4
EP11	1-4	1-4	1-4	1-4

Inverter Model Battery Model	AIO-H1/AIO-AC1 (Battery Qty Min.~Max.)	AIO-H3/AIO-AC3 (Battery Qty Min.~Max.)
HV2600	2~4	4

1. When 1CM+2CS or 3 HV/Mira-HV batteries connected with H3: Black Start of system is not supported.
2. Black Start: Start inverter without PV and Grid, only start with battery.



Accessory

Accessory	Description	PN



Monitoring Solution





Datalogger



SMART WIFI



SMART GPRS



SMART LAN



SMART 4G



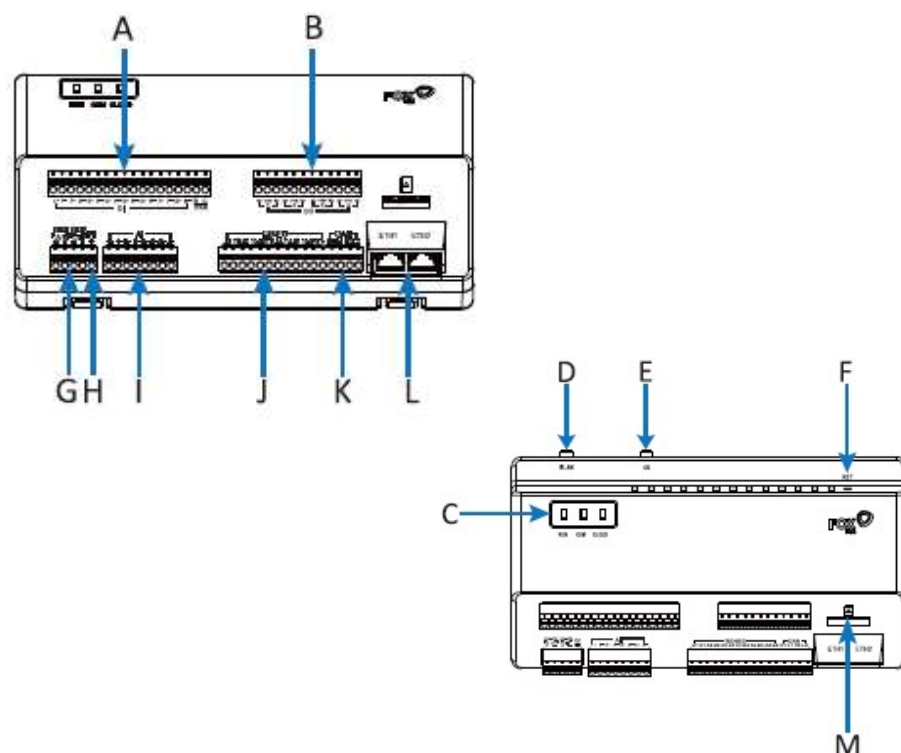
EMS Feature

- Operates with up to 80 Devices
- Up to Six (6) 485 Interfaces
- Up to Two(2) Ethernet Connections and Two(2) CAN Ports
- Wi-Fi/4G for External Communication
- Smart Energy Control
- Local Configuration and Monitoring
- Automatic Modbus Address Distribution
- Fox ESS Product Batch Parameter Setting & Firmware Upgrades
- Active & Reactive Power Control
- Compatible with Fox ESS Cloud, No extra APP required

Waiting for ROHS certification



Product Overview: Smart Logger

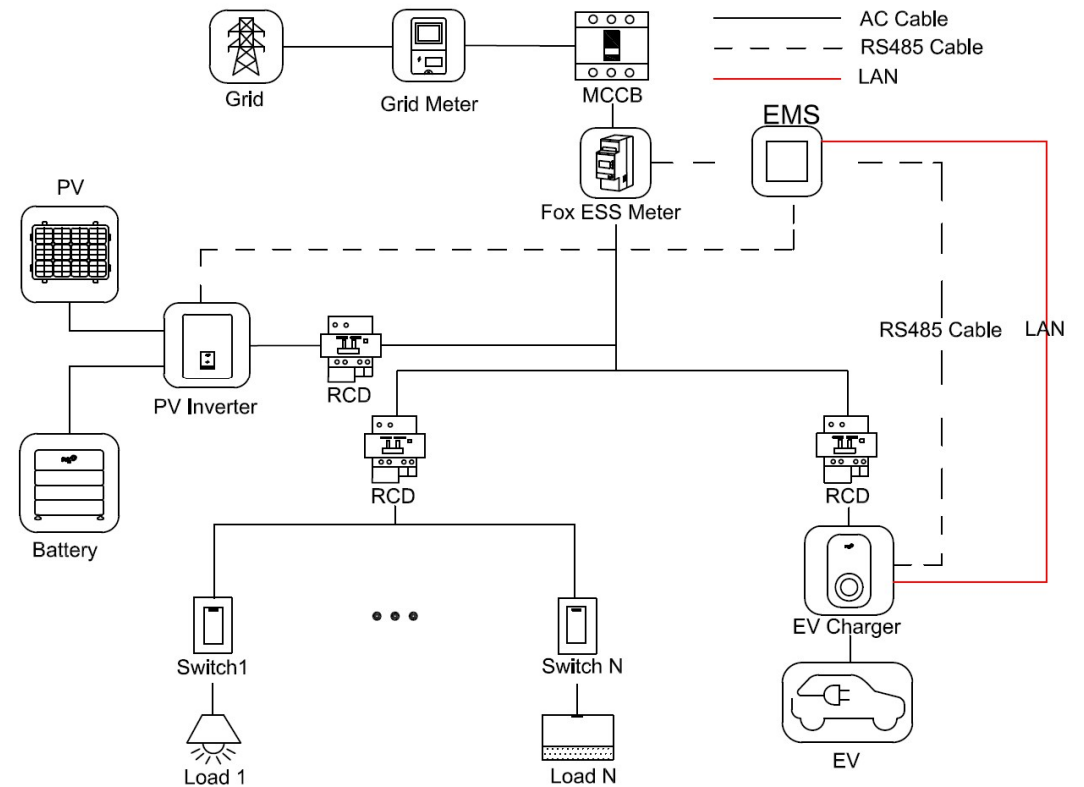


OBJ	LABE	DESC
A	DI/DRM	Digital Input/Demand Response Modes Function
B	DO	Digital Output
C	RUN/COM/CLOUD	Indicators
D	WLAN	WLAN Antenna
E	4G	4G Antenna
F	RST	Reset Button
G	DC OUT/IN (10~27V)	Power Output/Power Input
H	PE	Grounding
I	AI	Analog Input
J	RS485	RS485 Communication Port
K	CAN	CAN Communication Port
L	ETH	Ethernet Port
M		SIM Card Slot

EMS Application

EMS serves as smart energy hub in residential application:

1. Compatible with:
 - 1) Storage Inverters;
 - 2) Solar Inverters;
 - 3) EV Chargers;
 - 4) Heat Pumps
2. Dynamic energy allocation between all devices
3. Online energy management monitoring



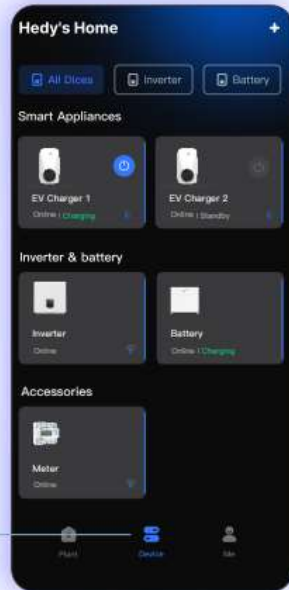


FoxApp 2.0 Monitoring



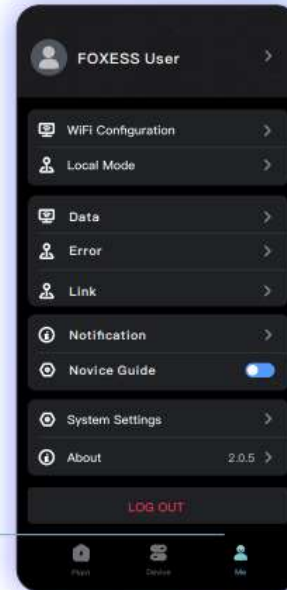
Plant

- System Energy Flow
- Essential data
- Quick setting



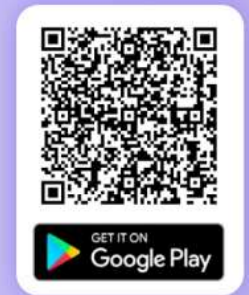
Device

- Devices overview
- Real-time data information
- Device control settings



Me

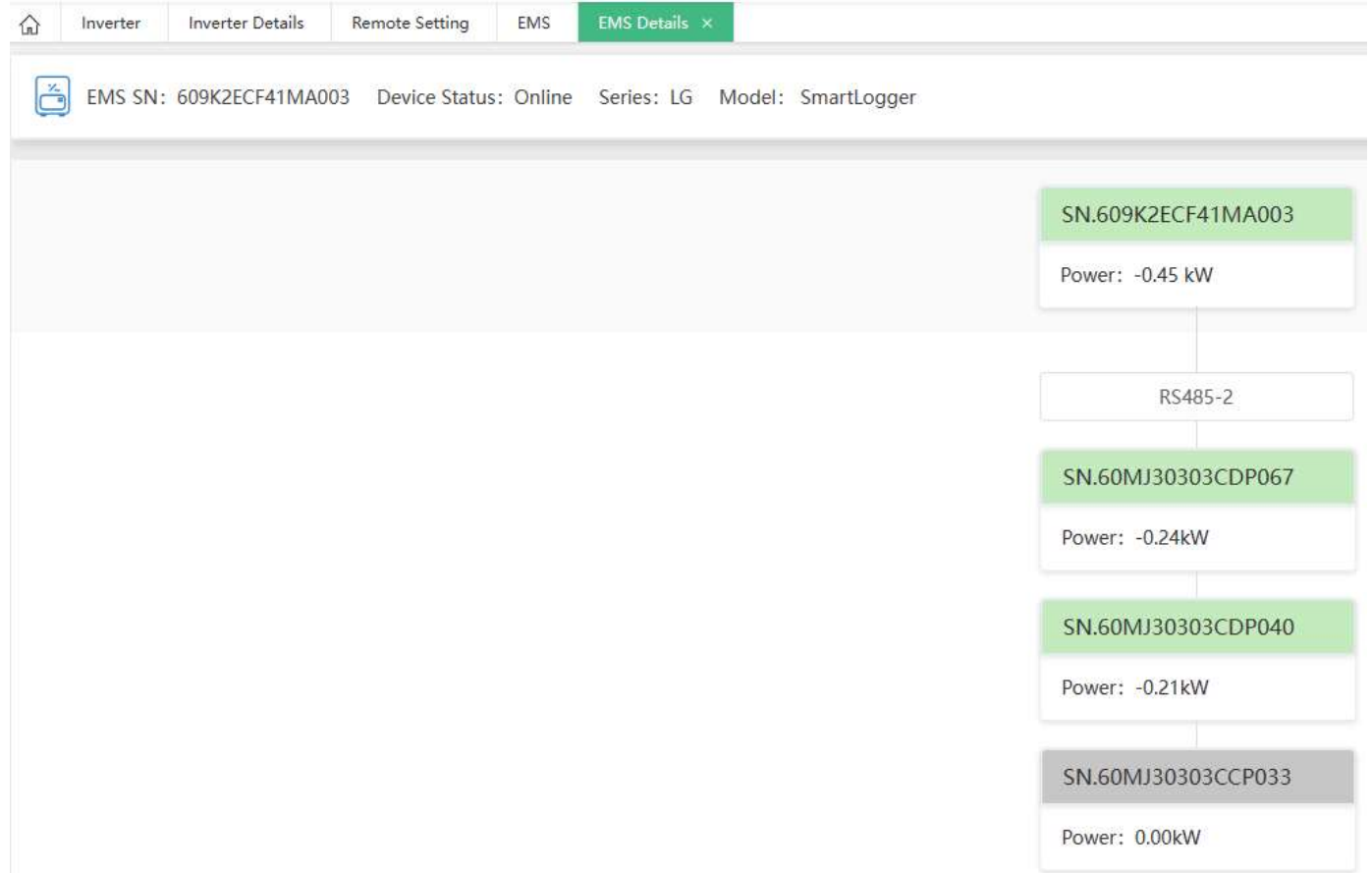
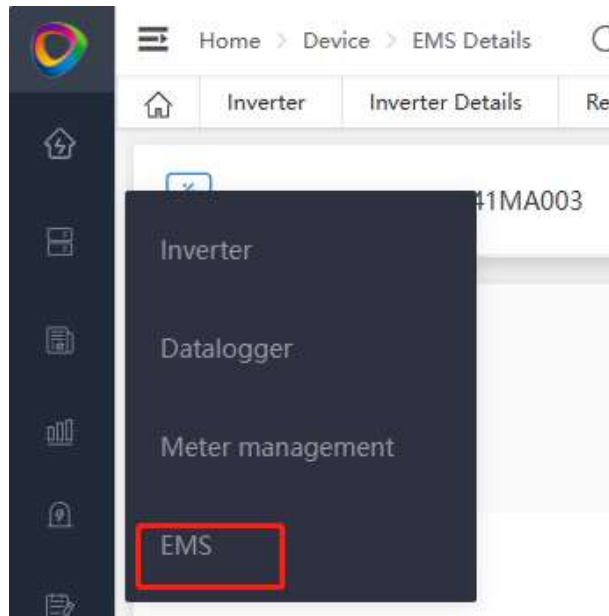
- Edit Personal Information
- Report and error summary
- Network Configuration



<https://www.fox-ess.com>



Fox Cloud Monitoring





Fox Cloud Monitoring

Home > Device > EMS Configuration

- Inverter
- Inverter Details
- Remote Setting
- EMS
- EMS Details
- EMS Configuration

More Options

- Restart
- Remote maintenance
- Address allocation
- Parallel power control

Device IO

- RS485-1
- RS485-2
- RS485-3
- RS485-4

ID:	1
SN:	60MJ30303CDP067
Series:	
Address...	000000000004
Search ...	Automation

ID:	2
SN:	60MJ30303CDP040
Series:	
Address...	000000000005
Search ...	Automation

ID:	3
SN:	60MJ30303CCP033
Series:	
Address...	000000000006
Search ...	Automation



Fox Cloud Monitoring

Home > Device > EMS Configuration

Home

Inverter

Inverter Details

Remote Setting

EMS

EMS Details

EMS Configuration

More Options

Restart

Remote maintenance

Address allocation

Parallel power control

Device IO

RS485-1

RS485-2

RS485-3

RS485-4

ID: 1

SN: 60MJ30303CDP067

Series:

Address... 0000000000004

Search ... Automation

ID: 2

SN: 60MJ30303CDP067

Series:

Address... 0000000000004

Search ... Automation

Parallel power control

☒ Open ☐ Close

* Output power control

0 W

* Input power control

0 W

* Feed-in power control

0 W

Cancel

OK

04



Installation Introduction





Site Visit

Site Visit before generating any proposal/schematics drawing is extremely IMPORTANT!

In the site visit, you will need to:

Verify the main panel amperage

Identify the wiring of main panel and subpanels

Verify large loads, such as AC, pool pump, EV chargers, etc.

Verify if there is any generator and its wiring

Identify where to install inverters, smart logger and batteries



Tool List



Safety Goggles



Steel Toe Boots



Dust Mask



Adjustable Wrench



Hex Wrench Set



Hole Punch



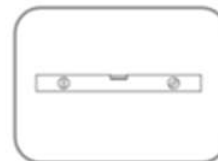
Helmet



Insulating Gloves



Phillips-Head
Screwdriver



Level



Tape



Sleeve



Flat-Head
Screwdriver



Wire Stripper



Electric Drill



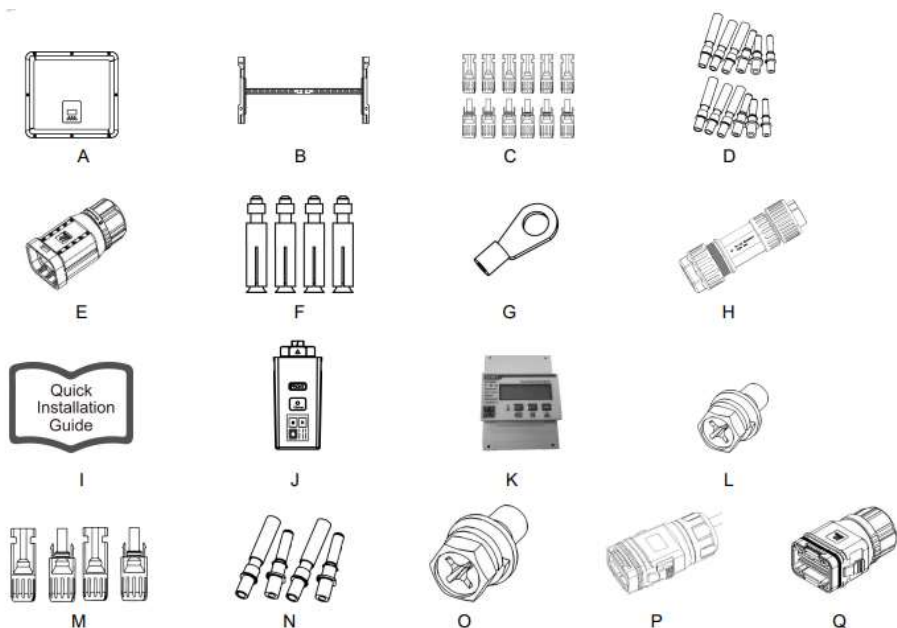
Multimeter

Tool List





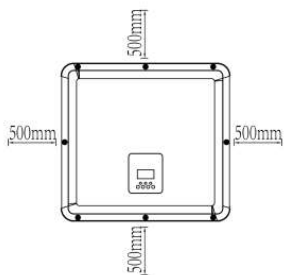
Mounting Inverter



Object	Quantity	Description	Object	Quantity	Description
A	1	Inverter	J	1	WiFi/GPRS/LAN (Optional)
B	1	Bracket	K	1	Meter
C	12	PV connectors (Only for H3-Pro) (6*positive, 6*negative)	L	1	Hexagonal screw M4*16
D	12	PV pin contacts (Only for H3-Pro) (6*positive, 6*negative)	M	4	Battery connectors (2*positive, 2*negative)
E	1	AC connectors-EPS	N	4	Battery pin contacts (2*positive, 2*negative)
F	4	Expansion tubes & Expansion screws	O	1	Hexagonal screw M5*10 grounding screw
G	1	Earth terminal	P	1	COM1-24PIN
H	1	AC connectors-Grid	Q	1	COM2-20PIN
I	1	Quick installation guide			

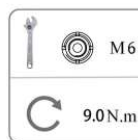
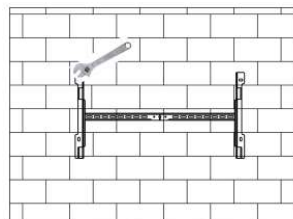
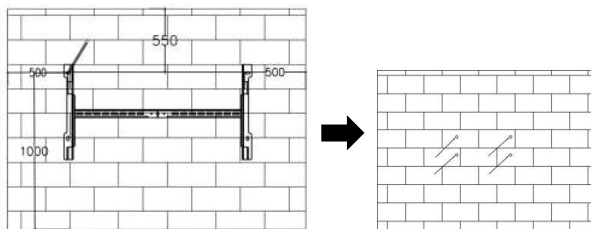
Please check if anything is missing in the box !

Mounting Inverter

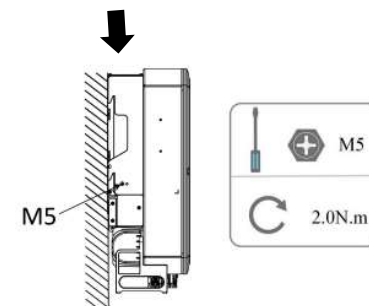
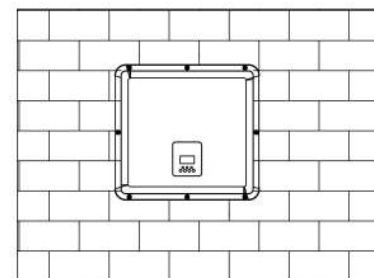


Position	Min Distance
Left	500mm
Right	500mm
Top	500mm
Bottom	500mm

Step 1: Fix the bracket on the wall



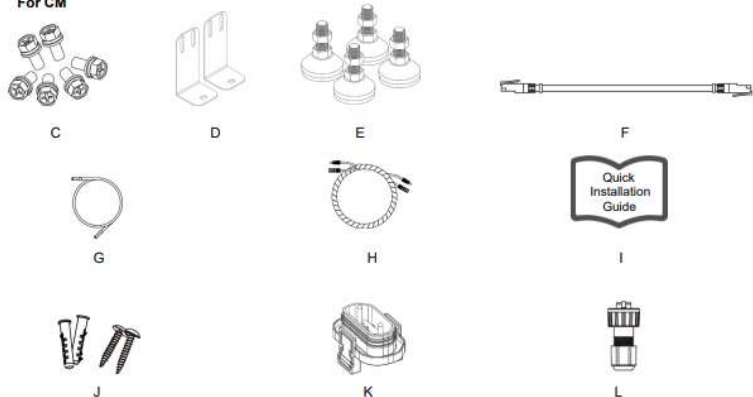
Step 2: Match the inverter with wall bracket





Mounting ECS

For CM



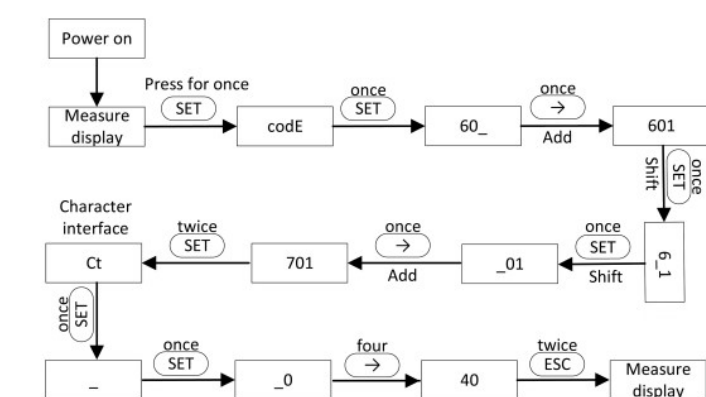
No.	Items	No.	Items
C	Mounting screw pack	J	Expansion tube*2 & Expansion screw*2
D	Fixing bracket	K	Waterproof cover
E	Footstand	L	RJ45
F	Communication cable (BMS-Inverter)		
G	Grounding cable		
H	DC output cable		
I	Installation guide		

For CS



No.	Items
A	Mounting screw pack
B	Installation guide

Please check if anything is missing in the box !



24: 485A
25: 485B

7: 485A
8: 485B
Meter port
Only to Master

ON-GRID

H3-Pro

RS485+
RS485-
RS485+
RS485-

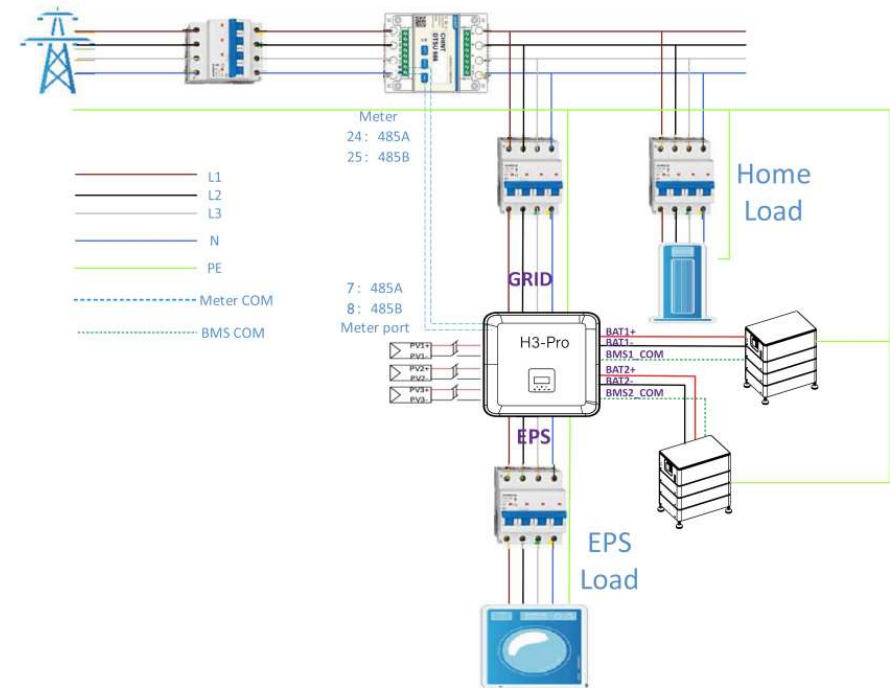
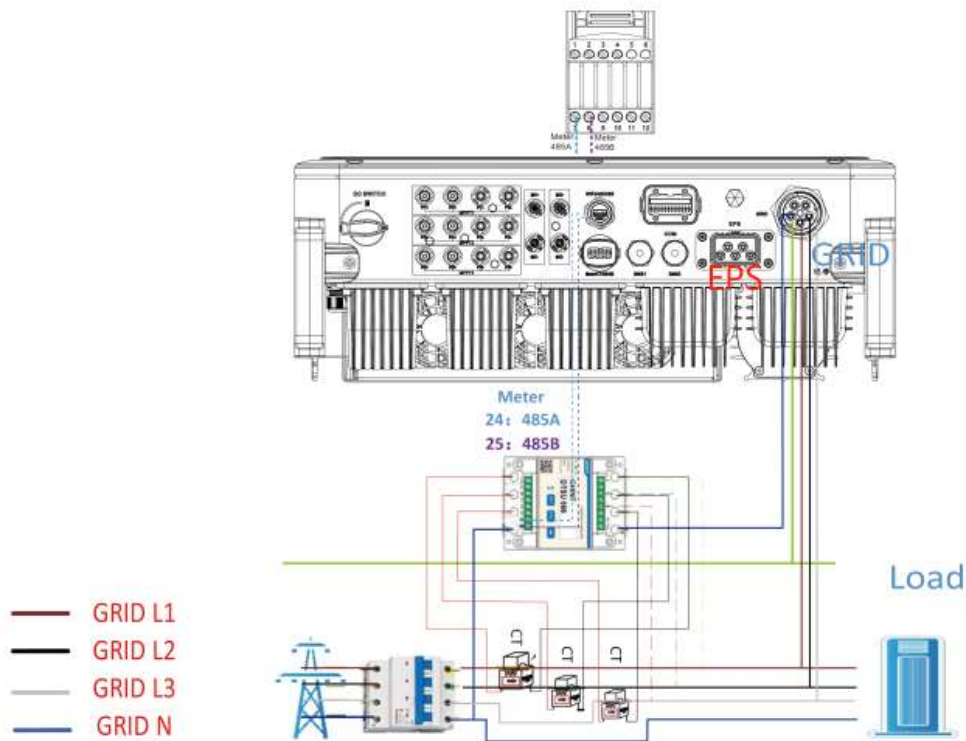
PV1
PV2
PV3

Legend:
L1
L2
L3
N
PE
Meter COM

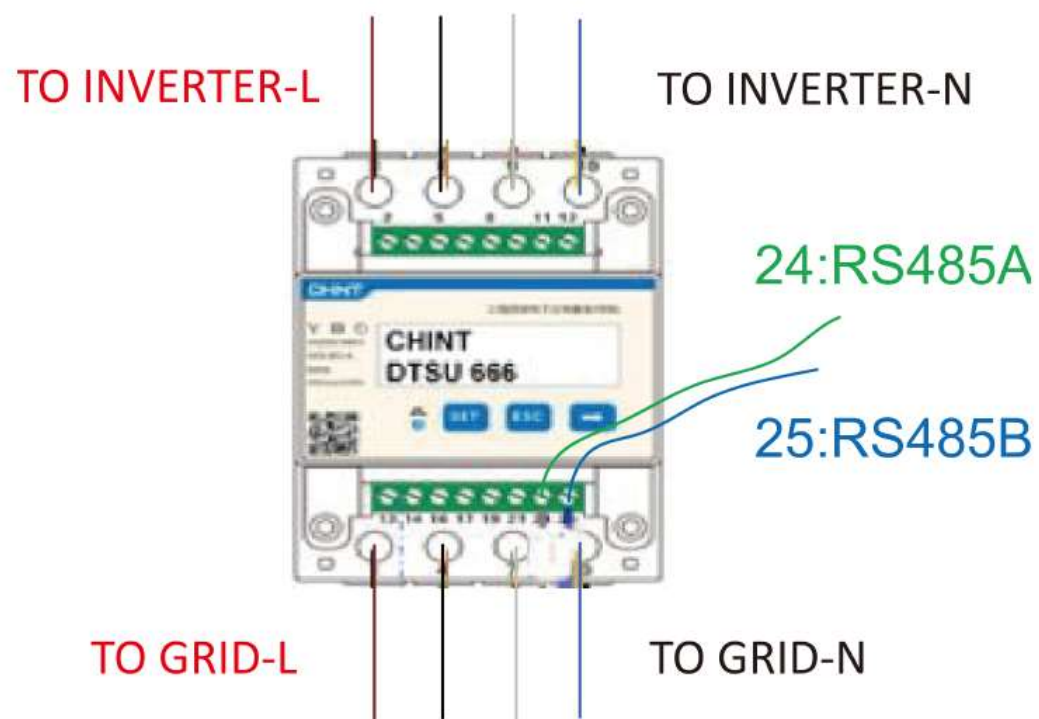
In order to realize the 'O feed-in' feature, please make sure to install Fox ESS designated meter model;
Please connect the pin24, pin25 of meter to the pin7, pin8 of comm port on pcs, the meter will read out the the power consumption from grid or power exportation to the grid, set 'export limit' to 0 on the device led screen, or on Fox ESS

In order to realize the '0 feed-in' feature, please make sure to install Fox ESS designated meter model; Please connect the pin24, pin25 of meter to the pin7, pin8 of comm port on pcs, the meter will read out the the power consumption from grid or power exportation to the grid, set 'export limit' to 0 on the device led screen. or on Fox ESS cloud, will limit the export power to 0.

Whole Home With EPS Wiring



Meter Wiring





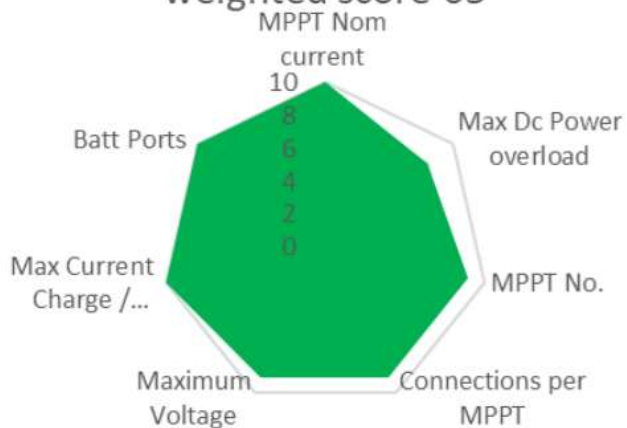
THANKS



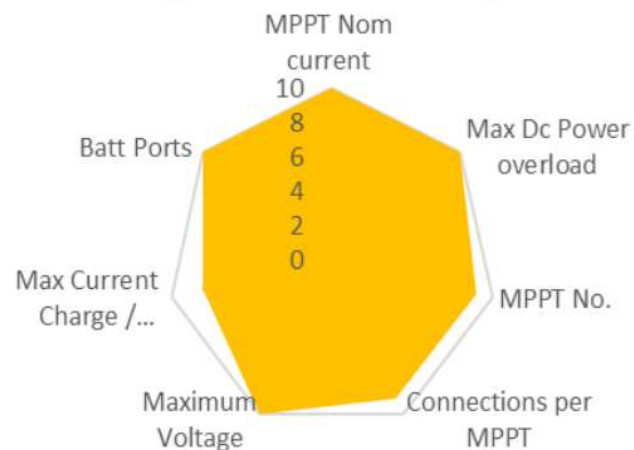


Comparison

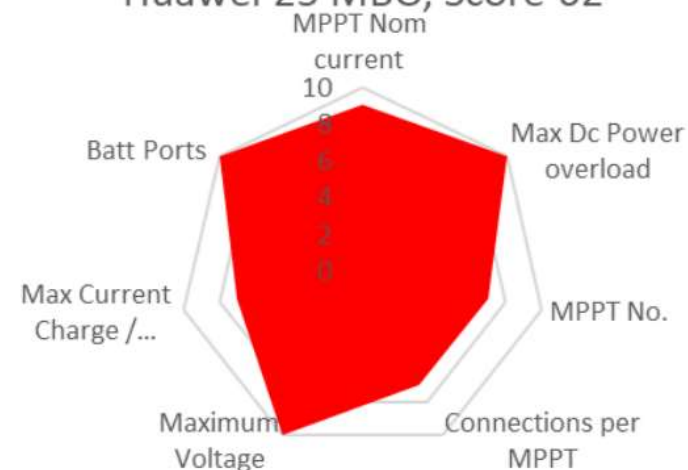
Fox-ESS 30 kw
weighted score 65



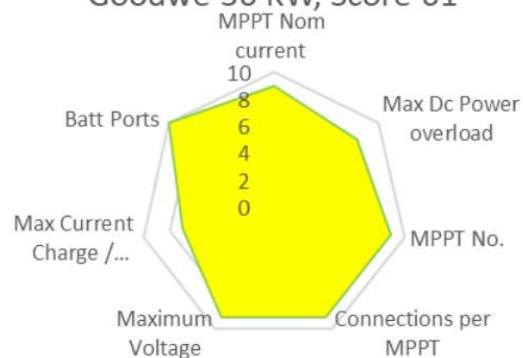
Solax X3 gen 4 ULTRA30 kw, score 64



Huawei 25 MBO, Score 62



Goodwe 30 KW, Score 61





H3-Pro vs Competitors

Brand	MODEL NAME	power range	POWER	DC					
				Maximum PV input power	input I max/MPPT	input U/MPPT	PV rated input voltage	MPPT	Number of strings /MPPT
FOX ESS	H3 PRO	15-30kW	15,000	22,500	32	150 V ~ 850 V	750	3	2/2/2
			20,000	30,000					
			22,000	33,000					
			24,900	37,500					
			25,000	37,500					
			29,900	45,000					
HUAWEI	SUN2000-12/15/17/20/25K-MB0	12-25kW	12,000	18,000	30 A (two strings) / 20 A (single string)	200 V ~ 1,000 V	600	2	4
			15,000	22,500					
			17,000	22,500					
			20,000	30,000					
			25,000	37,500					
GOODWE	SDT G2 Series	17-25kW	17,000	/	25	200~950	620	2	2
			20,000	/	25				2
			25,000	/	37.5 / 25.0				3/2
FRONIUS	Fronius Symo Advanced	10-15kW	10,000	15,000	27.0/16.5	200-1000	/	2	1/1
			12,500	18,800	27.0/16.5				
			15,000	22,500	33.0/27.0				
SAJ	R6 series three phase inverter	15-25kW	15,000	22,500	32/32	180-1000	600	2	2/2
			17,000	25,500					
			20,000	30,000					
			22,000	33,000					
			25,000	37,500					
			25,000	37,500					

◆ Advantages:

- MPPT input current: Higher current, ensuring wide module compatibility;
- DC start up voltage: Lower start up voltage, ensuring longer work hour especially early morning and late afternoon;
- 3 MPPT with 6 strings: More flexible application for PV design for orientations, inclination angles.
- Rated power: Allows 1.5-to-1 DC-AC ratio for over design, maximizing PV production.



H3-Pro vs Competitors

Brand	MODEL NAME	power range	POWER	DC	PROTECTION											
				Maximum PV input power	PV String Current Monitoring	PV Insulation Resistance Detection	PV Reverse Polarity Protection	PV over voltage protection	Battery Reverse Polarity Protection	Anti-islanding Protection	AC Overcurrent Protection	AC Short Circuit Protection	DC Switch	DC Surge Protection	AC Surge protection	AFCI
FOX ESS	H3 PRO	15-30kW	15,000	22,500	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated	Optional
			20,000	30,000												
			22,000	33,000												
			24,900	37,500												
			25,000	37,500												
			29,900	45,000												
HUAWEI	SUN2000-12/15/17/20/25K-MB0	12-25kW	12,000	18,000	Integrated	Integrated	Integrated	Integrated		Integrated	Integrated			Integrated	Integrated	Integrated
			15,000	22,500												
			17,000	22,500												
			20,000	30,000												
GOODWE	SDT G2 Series	17-25kW	25,000	37,500		Integrated	Integrated			Integrated	Integrated	Integrated	Integrated	Type III (Type II Optional)	Type III	Optional
			17,000	/												
			20,000	/												
FRONIUS	Fronius Symo Advanced	10-15kW	25,000	/			Integrate	Operating point shift, power		Integrate	Operating point shift, power limiter		Integrate			Integrate
			10,000	15,000												
			12,500	18,800												
SAJ	R6 series three phase inverter	15-25kW	15,000	22,500	Integrated	Integrated		Integrated		Integrated		Integrated		Integrated	Integrated	Optional
			17,000	25,500												
			20,000	30,000												
			22,000	33,000												
			25,000	37,500												
			25,000	37,500												

◆ Advantages:

- High protect level: multiple DC / AC side protection
- Anti-island, AFCI function allows safe operation.