Datasheets

Energieopslag pakket Smart KSTAR 3-fase 10kW/30.6kWh

VDH SOLAR

Safety
CATL LFP Battery, Stable and safe
Module, pack, system, triple protection

Adaptable
Adjustable power in each phase
Support diesel generator control(DI/DO)

Simple
Modular design, Plug and play
Mobile APP Monitoring

Efficient
Supporting 200% oversized PV power
On&OFF Grid parallel system

Battery Model	BluE-PACK5.1
Physical	
Battery type	LFP (LiFePO4)
System Weight	54KG
Dimension (W x H x D)	540*490*240mm
IP Protection	IP65
Warranty	5 Year Product Warranty, 10 Year Performance Warranty
Electrical	
Energy Capacity	5.12kwh
Usable Capacity	4.6kwh
Depth of Discharge (DoD)	90%
Nominal Voltage	51.2V
DC Circuit Breaker	125A
Operating Voltage Range	44.8-56.5V
Internal Resistance	<20mΩ
Cycle Life	10000cycle

Operation	
Max. Charge/Discharge Current	50A/80A
Rated DC power	4096W
Max. Charge/Discharge Power	2825W/4096W
Operating Temperature Range	0 to 50℃ charging -10 to 50℃ discharging
Humidity	0~95% (No condensation)
BMS	
Modules Connection	Max.8
Capacity	200/400/600/800Ah
Power Consumption	<2W
Communication	CAN & RS485
Monitoring Parameters	System voltage, current, cell voltage, cell temperature, PCBA temperature measurement
Certificate	
Safety(Cell)	Pack: IEC/EN 62619;UN38.3 Cell: IEC/EN 62619;UN38.3;UL1973

Hybrid Inverter Model	E10KT
PV String Input	
Max. Continuous PV Input Power	20kW
Max. DC Voltage	1100V
Nominal Voltage	720V
MPPT Voltage Range	140V-1000V
MPPT Voltage Range (Full Load)	420V-850V
Start Voltage	200V
Number of MPPT	2
Strings Per MPPT	1
Max. Input Current Per MPPT	15A
Max. Short-circuit Current Per MPPT	20A
AC Output (Grid)	
Nominal AC Output Power	10kW
Max. AC Apparent Power	11kVA
Nominal AC Voltage	400Vac
AC Grid Frequency Range	50 / 60Hz±5Hz
Nominal Output Current	14.5A
Max. Output Current	16A
Power Factor (cosΦ)	0.8leading-0.8lagging *
THDi	< 3%
Battery Input	
Battery Type	LFP (LiFePO4)
Nominal Battery Voltage	51.2V
Charging Voltage Range	44-58V
Max. Charging Current	160A
Max. Discharging Current	200A
Battery Capacity	200/400/600/800Ah
AC Output (Backup)	
Nominal AC Output Power	9.2kW
Max. AC Output Power	10kVA
Nominal Output Current	13.3A
Max. Output Current	14.5A
Nominal Output Voltage	400V
Nominal Output Frequency	50/60Hz
Output THDv (@Linear Load)	<3% (Linear Load)
Efficiency	
Max. PV Efficiency	97.60%
Euro. PV Efficiency	97.00%
Protection	
Anti-islanding Protection	Yes
Output Over Current Protection	Yes
DC Reverse Polarity Protection	Yes
String Fault Detection	Yes
AC/DC Surge Protection	DC Type II;AC Type III
Insulation Detection	Yes
AC Short Circuit Protection	Yes
General Specifications	
Dimensions W x H x D	540*980*240mm
Weight	51kg
Operating Temperature Range	-25℃~+60℃
Cooling Type	Natural Convection
Max. Operation Altitude	2000m
Operation Humidity	0~95% (No Condensation)
IP Class	IP65
Topology	Battery Isolation
Communication	RS485/CAN2.0/WIFI/4G
Display	LCD/APP

* 0.95leading-0.95lagging for Germany

KSTAR

Stock code: 002518

Productsheet - SC.GH.01

Ethernet for serial RS485/RS232 gateway with integrated web-server for simple configuration.

The gateway facilitates the connection of serial units over great distances via local area networks (LAN) or wide area network/internet (WAN) as a virtual serial port.

The gateway is versatile. In combination with a Clever-House controller with a MOD-Bus channel it can be used to collect consumption data from an energy/electrical/water meter in for instance two separate buildings without having to wire it. Two gateways are needed per meter to be connected. Gateways are to be connected to the internet, and it is setup for port forwarding in the server end. A MOD-Bus controller can communicate with several slaves, where one of them must have a fixed Baudrate different from the rest of the network. In this setup, a SC.GH.01 can be used as Baudrate-converter.

VDH Smart-House or other PV systems can be monitored using an SC.GH.01, as a cost-efficient solution.

Ill. 1 - Image of SC.GH.01.

Brief facts

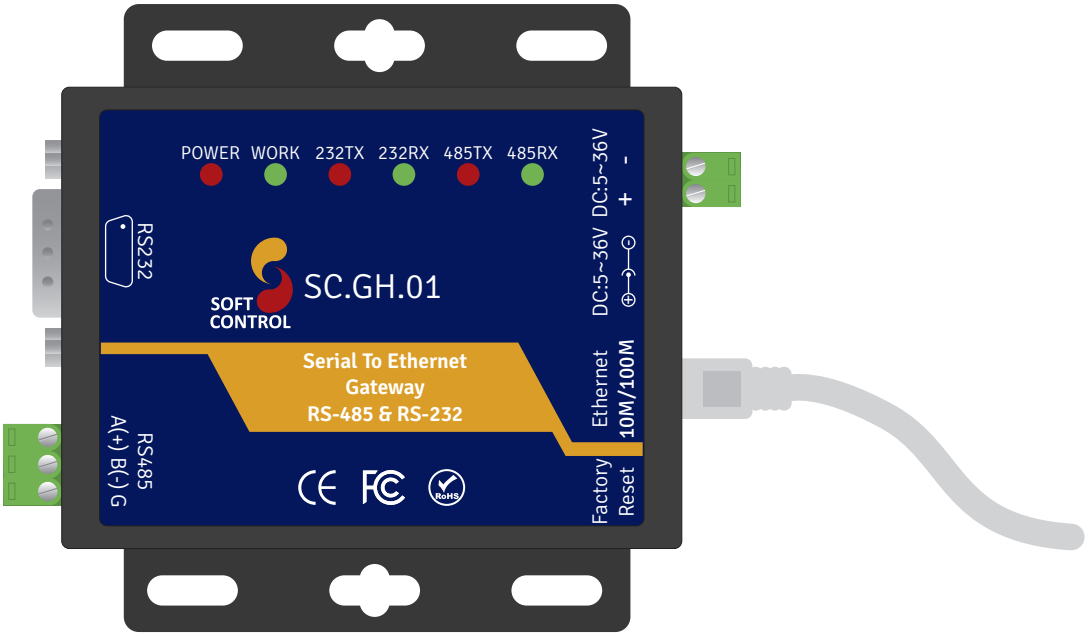
- The MOD-Bus gateway function supports MOD-Bus TCP to RTU in bidirectional mode as master/slave
- Virtual serial channel connecting PC/Servers to remote serial units via ethernet
- MOD-Bus polling function
- HW polling function
- Both serial ports can be used individually and simultaneously
- Supports DNS & DHCP, automatic IP-access
- Max of 8 simultaneously clients as TCP servers
- Reset button for default/factory settings
- Versatile and compatible with 5-36 V power supply with courtesy power supply or existing power supply via 2 screw terminals.
- Can be mounted on DIN-rail with an addon bracket

Specifications

Ethernet	Specification
# of ports	1
Interface standard	8 terminals RJ45
Speed	10/100 Mbsp auto detektion
Receiving buffer	Max. 16 kB buffer
Network protocols	IP, TCP, UDP, DHCP, DNS, HTTP, ARP, ICMP Websocket, HTTPD Client
Protection	2 kV ESD
Auto MDI/MDIX	JA

Software	Specification
Virtuel seriel	Windows 2000 or newer (32 bit/64 bit)
Configuration	Webside/setup software/ Seriel kommando

Basic parameter	Specification
Dimensions (WxHxD)	90 x 84 x 25 mm incl. plug and terminals
Operational temperatures	-40 ~ 85 °C
Ambient temperatures	-40 ~ 85 °C, 5 ~ 95% RH



Ill. 2 - Overview of SC.GH.01 (1:1).

Serial	Specification
# of ports	2
Interface	RS232 x 1 (9 pin D-sub) RS485 x 1 (A+, B-)
Baudrate	RS232: 600bps - 256k bps RS485: 600bps - 256k bps
Databit	5, 6, 7, 8
Stopbit	1; 1,5; 2
Paritybit	None, Equal, Odd
Flowcontrol	Hardware: RTS/CTS
Buffer	Send and receive 2 kB
Protection	RS485 2 kV ESD, light-ning protection
Resistance	RS485 Pull up and -down 2,2k Ω

Supply	Specification
Current	DC 5-36 V
Power consumption	90 mA @ 5 V; < 50 mA @ 12 V
Power consumption	< 1 W

Included accessories	Specification
Power supply	230 VAC to 5 V @ 1 A

Further	Specification
Approvals	CE, FCC, ROHS
Product number	96141615

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Meter(SDM630MCT-40mA&ADW300W)

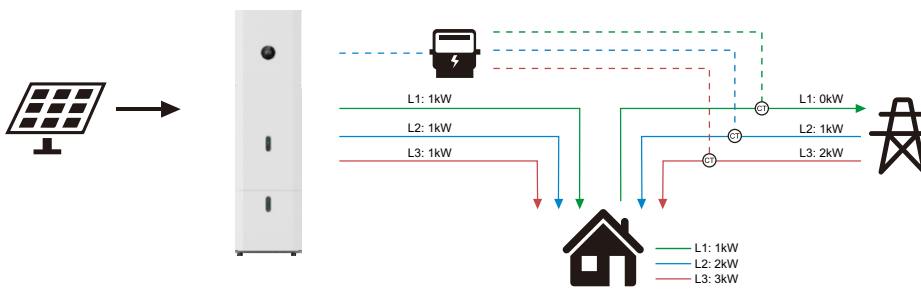
Installation Manual

Three-Phase Power Meter For Three phase inverter

Solution:

Three phase inverters can full the requirement of zero export function with a smart meter and three CTs. The system can implement data-driven decisions to control the inverter's output.

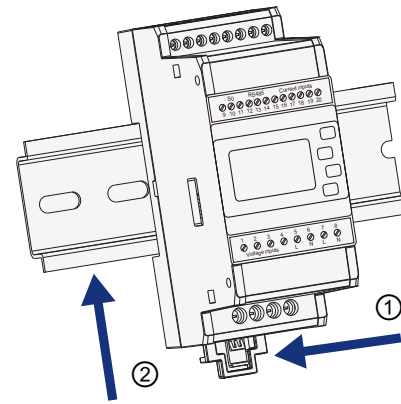
The system conguration diagram below illustrates zero export function and how it works. The inverter's three phase outputs are balanced,and the output will be determined based on the phase which has the minimum power owing through among the three phases. For example, if the load is 1kW/2kW/3kW for phase A/B/C respectively, then the limit power for the inverter is 1kW each phase. The rest of required power will be drawn from the grid.



Meter & CT Installation:

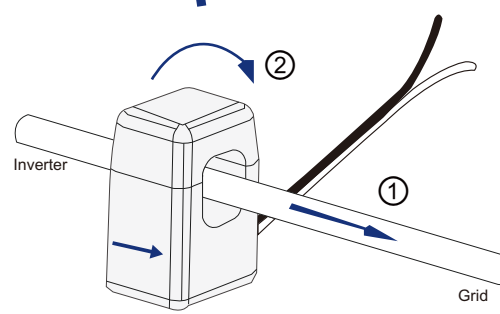
① Pull to release the retaining clip.

② Mount the Meter on the DIN track and push the retaining clip up (a clicksound indicates it is installed well).



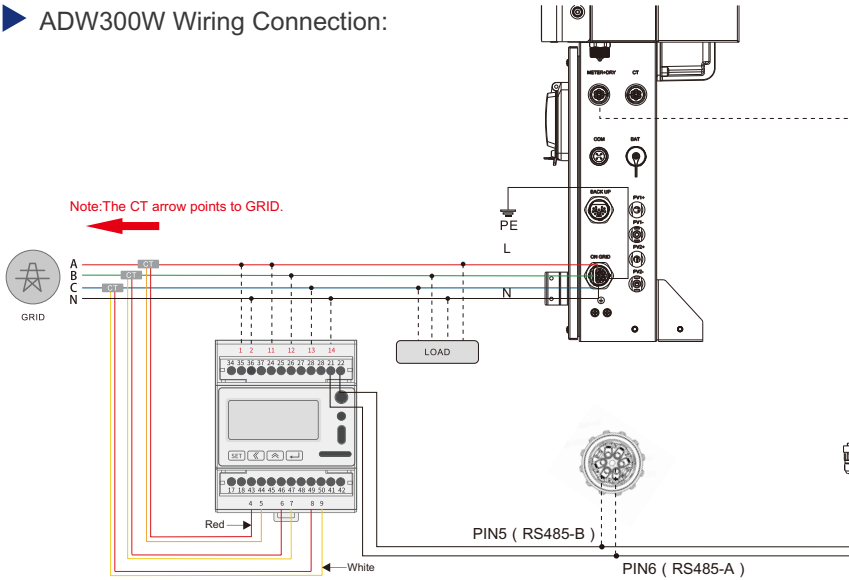
① The current should be consistent with the direction of the arrow,which is from the inverter to the grid.

② Buckle the CT in the direction of the arrow.



- Correct direction of CT: Inverter→Grid.

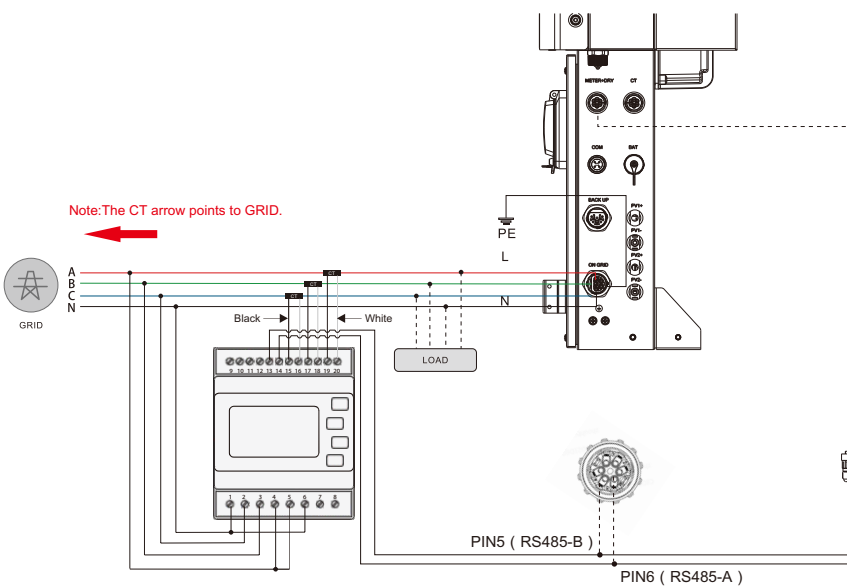
ADW300W Wiring Connection:



- Ensure CT and corresponding supply cable are connected to the same phase.

⚠ Incorrect connection or direction will cause incorrect data and may damage the meter.

SDM630MCT-40mA Wiring Connection

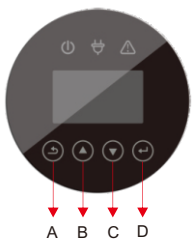


- Ensure CT and corresponding supply cable are connected to the same phase.

⚠ Incorrect connection or direction will cause incorrect data and may damage the meter.

Inverter Setting:

After wiring connection ,all the setting can be done on the inverter. It means there is no need to set the meter. Setting steps of set meter mode and zero export function are as follows:



A: Return Button:Escape from current interface or function,another function is to enter the setting interface.
B: Up button: Move cursor to upside or increase value.
C: Down Button: Move cursor to downside or decrease value.
D: ENTER Button: Confirm the selection.Press ENTER to enter the selected menu.

--USER-- 1 :
→SETUP
2:INQUIRE
3:STATISTIC

step1: Press Return button to enter user setting interface. Then select the"1.SETUP" menu item and conrm your selection with the Enter button. (Press Up button or down button to select different options)

--PASSWORD--
INPUT : XXXXX

step1(2): Before entering the setup interface, enter the password "00000" and confirm the entry by pressing the Enter button.(Press Up button or down button to change the number, and press Enter button to input the next number)

--SETUP--
→1:SYS SETTING
2:BAT SETTING
3:GRID STD

step2:
Select the"1.SYS SETTING"and confirm the entry by pressing the Enter button.

--SYS SETTING--
→12:CT OR METER
13:AC COUPLE

step3:
Press Down button to find the option "12:CT OR METER" and confirm the entry by pressing the Enter button.

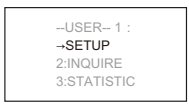
--CT OR METER--
1:CT
→2:METER

step4:
After entering "CT OR METER", press Down button to find the option "2:METER" and confirm the entry by pressing the Enter button.

--METER--
1:Estron
2:Acrel
3:Rayleigh

step5:
Select the correct meter type "Estron" or "Acrel"or"Rayleigh".The meter type is screen printed on the meter.

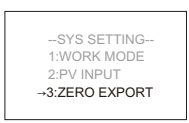
Zero Export Setting



step1: Press Return button to enter user setting interface. Then select the"1.SETUP" menu item and conrm your selection with the Enter button. (Press Up button or down button to select different options)

step1(2): Before entering the setup interface, enter the password "00000" and confirm the entry by pressing the Enter button.(Press Up button or down button to change the number, and press Enter button to input the next number)

step2:
Select the"1.SYS SETTING"and confirm the entry by pressing the Enter button.



step3:
Press Down button to find the option "3:ZERO EXPORT" and confirm the entry by pressing the Enter button.

step4:
After entering "ZERO EXPORT", press Down button to find the option "1: ENABLE" and confirm the entry by pressing the Enter button. Changethe settings to Enable or Disable as required. Note that the "POWER" in step 5 can not be changed if this setting is "DISABLE".

step5:
Press Down button to find the option "2: POWER" and confirm the entry by pressing the Enter button. Set the power using the up and down keys. Note that the minimum power is 10w.

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