Datasheets

Energieopslag pakket Smart KSTAR 1-fase 5kW/15.3kWh

VDH SOLAR

KSTAR

BluE Residential ESS

All In One Energy Storage System
CATL Battery Solutions

Safety

CATL LFP Battery， stable and safe
Module, pack, system, triple protection
IP65, outdoor installation, away from living room

Simple

Modular design, single person can carry and install it.Plug and play, 30 min quick installation
Space saving; 0.15 sq. m foot print

Intercon -nection

Global cloud plaform & Mobile APP anytime and any where
Open API, support power internet applications

Battery Model	BluE-PACK5.1
Physical	
Battery type	LFP (LiFePO4)
System Weight	58KG
Dimension (W x D x H)	540*500*240
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
Max. Short-circuit Current (Fuse)	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°C charging -10 to 50°C discharging
Humidity	0~95% (No condensation)
BMS	
Modules Connection	4
Capacity	100-400Ah
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

*Maximum 4 battery pack in parallel.

Hybrid Inverter Model	BluE-S 3680D	BluE-S 5000D
PV String Input		
Max. DC Voltage	580	580
Nominal Voltage	400	400
MPPT Voltage Range	80V-560V	80V-560V
Start Voltage	130V	130V
Number of MPP Tracker	2	2
Strings Per MPP Tracker	1	1
Max. Input Current Per MPPT	15A	15A
Max. Short-circuit Current Per MPPT	18A	18A
AC Output (Grid)		
Nominal AC Output Power	3680W	4999W
Max. AC Apparent Power	3680VA(output)/7360VA (from grid)	4999VA(output)/7360VA (from grid)
Max. AC Output Power	3680W	4999W[1]
Nominal AC Voltage	230Vac	230Vac
AC Grid Frequency Range	50 / 60Hz±5Hz	50 / 60Hz±5Hz
Max. Output Current	16A	22A[2]
Max. Input Current	32A	32A
Power Factor (cosΦ)	0.8leading-0.8lagging	0.8leading-0.8lagging
THDi	<3%	<3%
Battery Input		
Battery Type	LFP (LiFePO4)	LFP (LiFePO4)
Nominal Battery Voltage	48V	48V
Max. Charging Voltage Range	40-60V	40-60V
Max. Charging Current	50A	100A
Max. Discharging Current	80A	100A
Battery Capacity	100-400Ah	100-400Ah
Charging Strategy for Li-Ion Battery	Depend on the BMS	Depend on the BMS
AC Output (Backup)		
Max. Output Apparent Power	4000VA	5000VA
Peak Output Apparent Power	6900VA 10sec	6900VA 10sec
Max. Output Current	16A	20A
Nominal Output Voltage	230V±0.2%	230V±0.2%
Nominal Output Frequency	50/60Hz±0.2%	50/60Hz±0.2%
Output THDv (@Linear Load)	<2% (Linear Load)	<2% (Linear Load)
Efficiency		
Max. PV Efficiency	97.6%	97.6%
Euro. PV Efficiency	97.0%	97.0%
Protection		
DC Switch	Bipolar DC Switch (125A/Pole)	Bipolar DC Switch (125A/Pole)
Anti-islanding Protection	Yes	Yes
Output Over Current	Yes	Yes
DC Reverse Polarity Protection	Yes	Yes
String Fault Detection	Yes	Yes
AC/DC Surge Protection	DC Type II;AC Type III	DC Type II;AC Type III
Insulation Detection	Yes	Yes
AC Short Circuit Protection	Yes	Yes
General Specifications		
Dimensions W x H x D	540*590*240mm	
Weight	32kg	
Operating Temperature Range	-25℃~+60℃	
Noise (dB)	<25	
Cooling Type	Natural Convection	
Max. Operation Altitude	2000m	
Max. Operation Humidity	0~95% (No Condensation)	
IP Class	IP65	
Topology	Battery Isolation	
Communication	RS485/CAN2.0/WIFI/4G	
Display	LCD/APP	
Certification & Standard	IEC/EN 62109-1&2;IEC/EN61000-6-1;IEC/EN61000-6-2;EN61000-6-3; IEC/EN61000-6-4;IEC/EN61000-3-11; EN61000-3-12;IEC60529;IEC 60068;IEC61683;IEC62116;IEC61727;EN50549-1; AS 4777.2;NRS 097;VDE-AR-N-4105;CEI0-21;G98;G99;C10/C11	

*1. Nominal AC output power is 4999W for Australia and 4600W for Germany and South Africa.
*2. Maximum output current is 21.7A for Australia and 20A for Germany and South Africa.

KSTAR
Stock code: 002518

VDH SOLAR

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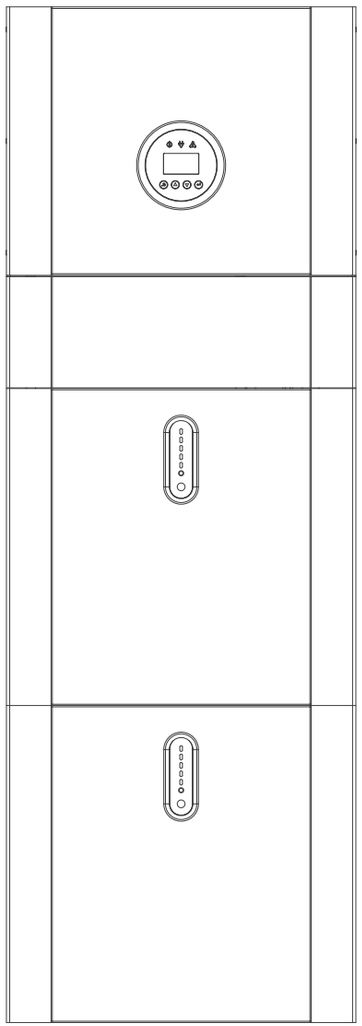
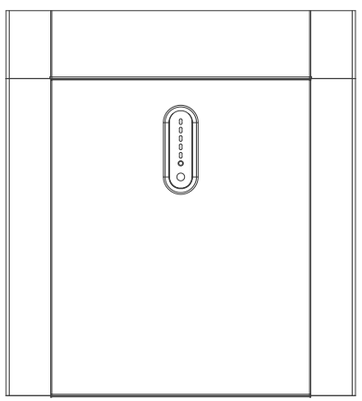
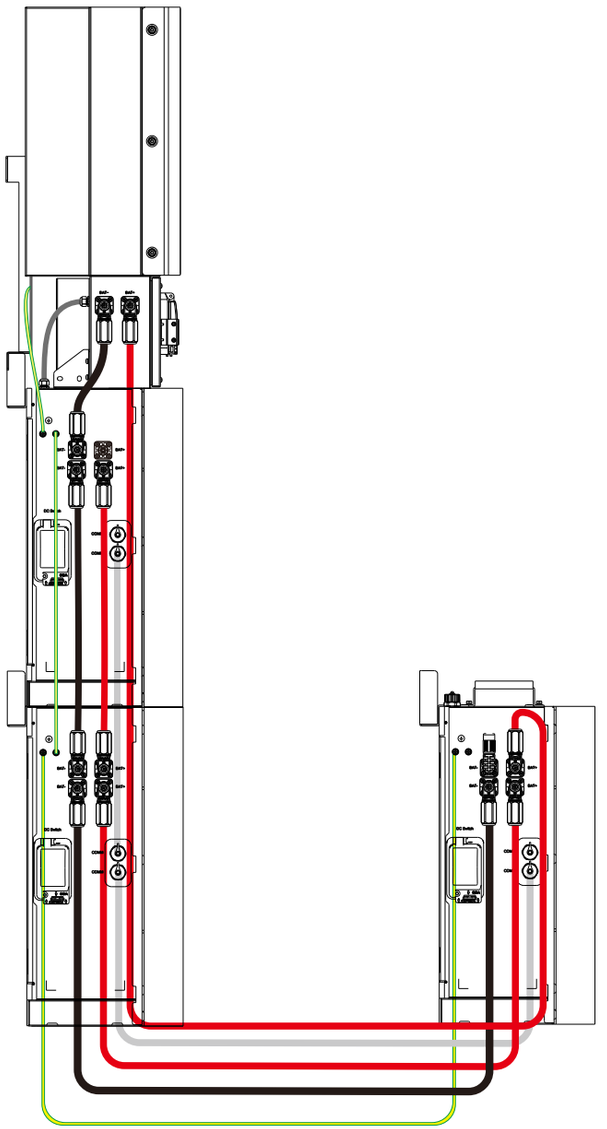
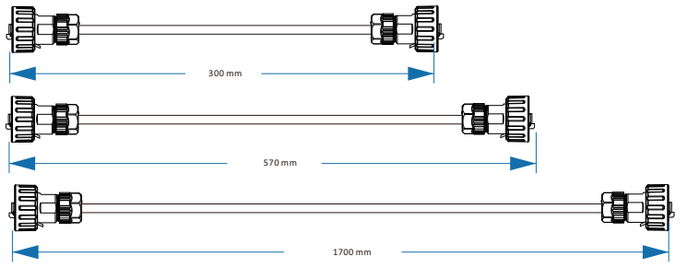


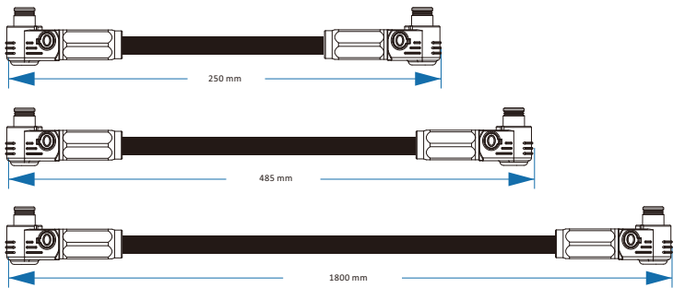




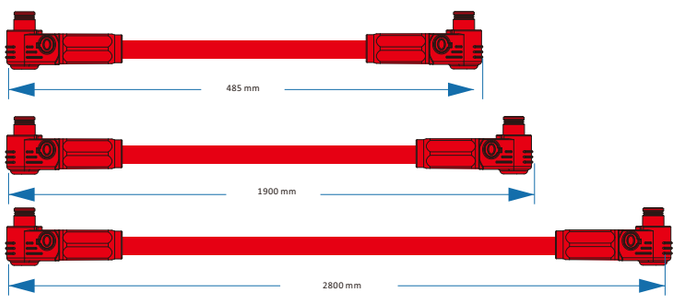
Communication cable



Power cable(Black)



Power cable(Red)



PE cable(1PCS)

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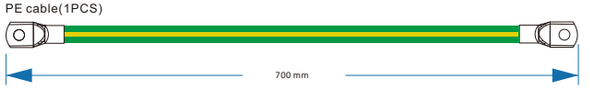
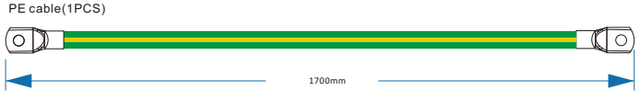


PE cable(1PCS)



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

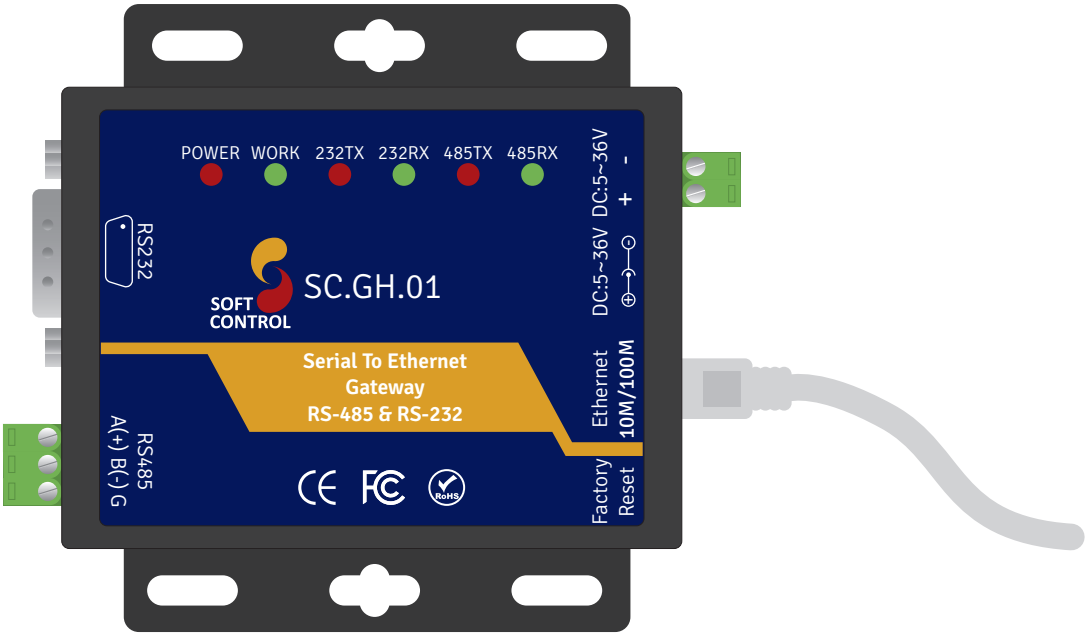
- The MOD-Bus gateway function supports MOD-Bus TCP to RTU in bidirectional mode as master/slave
- Virtual serial channel connecting PC/Servers to remote serial units via ethernet
- MOD-Bus polling function
- HW polling function
- Both serial ports can be used individually and simultaneously
- Supports 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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