COMMERCIAL PV/ESS PLANT

SYSTEM SOLUTIONS

SUNGROW
Clean power for all

2021 / 2022

ABOUT SUNGROW

Sungrow Power Supply Co., Ltd. (“Sungrow”) is the world’s most bankable inverter brand with over 182 GW installed worldwide as of June 2021. Founded in 1997 by University Professor Cao Renxian, Sungrow is a leader in the research and development of solar inverters with the largest dedicated R&D team in the industry and a broad product portfolio offering PV inverter solutions and energy storage systems for utility-scale, commercial & industrial, and residential applications, as well as internationally recognized floating PV plant solutions. With a strong 24-year track record in the PV space, Sungrow products power installations in over 150 countries.

As a leader of innovation in the solar industry, Sungrow possesses a dynamic technical R&D team which consists of over 2100 employees. The Company has also invested its own in-house testing center approved by SGS, CSA, and TÜV Rheinland. In 2019, Sungrow launched the world’s largest inverter factory. The company’s global annual production capacity reaches 90 GW, including 10 GW of India factory.

Offering a wide range of solutions and services, Sungrow is committed to providing clean power for all and is steadfast in its efforts to becoming the global leader of clean power conversion technology. Learn more about Sungrow by visiting www.sungrowpower.com.

The World's Most Bankable Inverter Brand

100% bankable for two consecutive years

Source: BloombergNEF

24
Years in the Solar Industry

3100+
Patent Applications

NO.1
Largest PV Inverter R&D Team

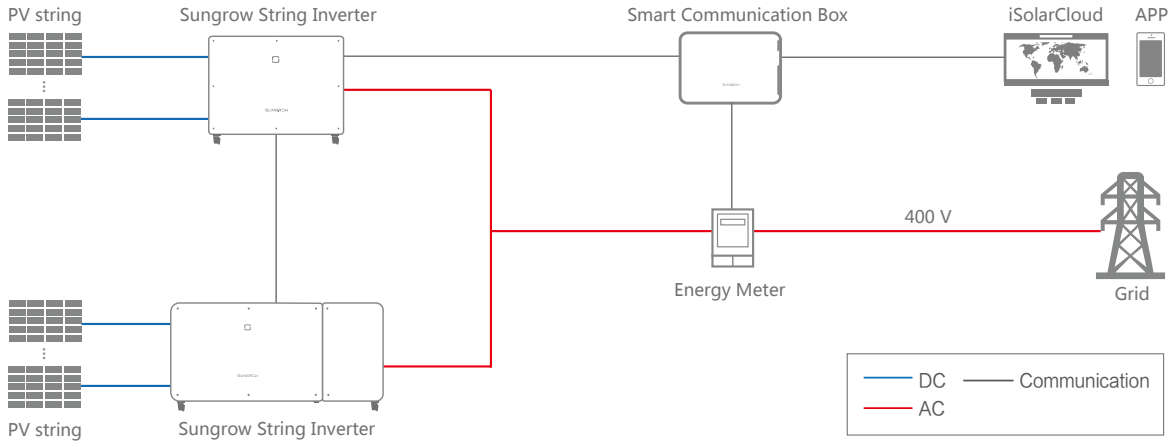
182GW+
Deployed Worldwide

90GW / Year
Global Production Capacity

150+
Countries with Sungrow Installations

C&I PV Plant System Solution

C&I PV Plant System Solution



Recommend Products


SG110CX


SG30/50CX


SG15/20RT

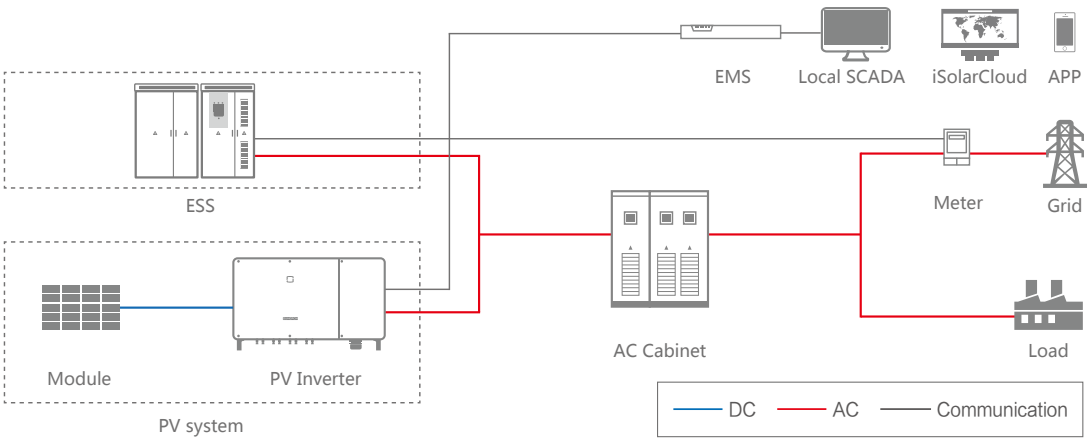

WiNet-S


EyeM4


logger1000

C&I Hybrid (PV+ESS) Solution

C&I Hybrid (PV+ESS) Solution



Recommend Products

ST101/106/111/115/120 /124/129CP-50HV

ST2007kWH(L)-1000TL

SG110CX

SG30/50CX

SG110CX Premium

Multi-MPPT String Inverter for 1000 Vdc System

AU

HIGH YIELD

- 9 MPPTs with max. efficiency 98.7%
- Compatible with bifacial module
- Built-in PID recovery function

SMART O&M

- Touch free commissioning and remote firmware upgrade
- Smart IV Curve Diagnosis *
- Fuse free design with smart string current monitoring

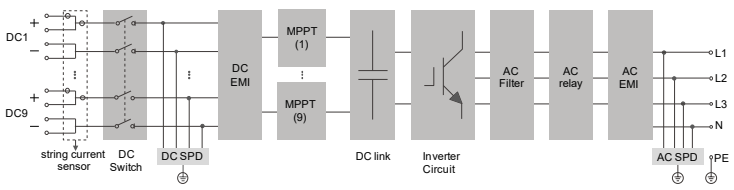
SAVED INVESTMENT

- Compatible with Al and Cu AC cables
- DC 2 in 1 connection enabled
- Q at night function

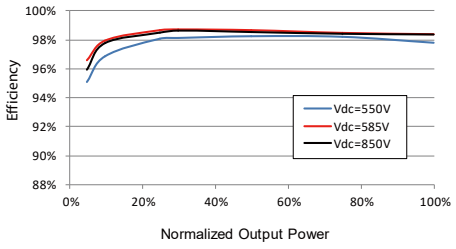
PROVEN SAFETY

- IP66 and C5 anti-corrosion
- Type II SPD for DC and AC

CIRCUIT DIAGRAM



EFFICIENCY CURVE



Type designation	SG110CX
Input (DC)	
Max. PV input voltage	1100 V **
Min. PV input voltage / Start-up input voltage	200 V / 250 V
Nominal PV input voltage	585 V
MPP voltage range	200 – 1000 V
No. of independent MPP inputs	9
No. of PV strings per MPPT	2
Max. PV input current	26 A * 9
Max. DC short-circuit current	40 A * 9
Output (AC)	
AC output power	110 kVA @ 45 ℃ / 100 kVA @ 50 ℃
Max. AC output current	158.8 A
Nominal AC voltage	3 / N / PE, 400 V
AC voltage range	320 – 460V
Nominal grid frequency / Grid frequency range	50 Hz / 45 – 55 Hz, 60 Hz / 55 – 65 Hz
Harmonic (THD)	< 3 % (at nominal power)
Power factor at nominal power / Adjustable power factor	> 0.99 / 0.8 leading – 0.8 lagging
Feed-in phases / AC connection	3 / 3-PE
Efficiency	
Max. efficiency	98.7 %
European efficiency	98.5 %
Protection and Function	
DC reverse polarity protection	Yes
AC short-circuit protection	Yes
Leakage current protection	Yes
Grid monitoring	Yes
Ground fault monitoring	Yes
DC switch	Yes
AC switch	No
PV string monitoring	Yes
Q at night function	Yes
PID recovery function	Yes
DC terminal protective cover	Yes
Surge protection	DC Type II / AC Type II
General Data	
Dimensions (W*H*D)	1051*660*362.5 mm
Weight	89 kg
Topology	Transformerless
Degree of protection	IP66
Night power consumption	< 2 W
Operating ambient temperature range	-30 to 60 ℃ (> 50 ℃ derating)
Allowable relative humidity range	0 – 100 %
Cooling method	Smart forced air cooling
Max. operating altitude	4000 m (> 3000 m derating)
Display	LED, Bluetooth+APP
Communication	RS485 / WLAN / Optional: Ethernet
DC connection type	MC4 (Max. 6 mm²)
AC connection type	OT / DT terminal (Max. 240 mm²)
Compliance	IEC 62109, IEC 61727, IEC 62116, IEC 60068, IEC 61683, AS / NZS 4777.2:2015
Grid Support	Q at night function, LVRT, HVRT, active & reactive power control and power ramp rate control

* Only compatible with Sungrow Logger , EyeM4 and iSolarCloud

** If the maximum DC voltage in the system can exceed 1000V, the MC4 connectors included in the scope of delivery must not be used. In this case MC4 Evo2 connectors must be used.

SG50CX Premium

Multi-MPPT String Inverter for 1000 Vdc System

AU

HIGH YIELD

- Up to 5 MPPTs with max. efficiency 98.7%
- Compatible with bifacial module
- Built-in PID recovery function

SMART O&M

- Touch free commissioning and remote firmware upgrade
- Smart IV curve scanning *
- Fuse free design with smart string current monitoring

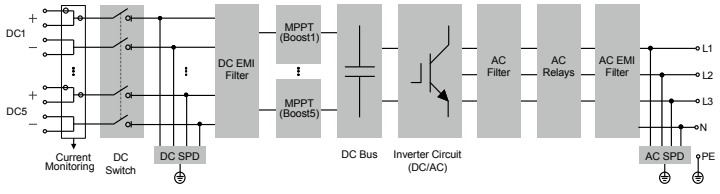
SAVED INVESTMENT

- Compatible with Al and Cu AC cables
- DC 2 in 1 connection enabled
- Cable free communication with optional WLAN

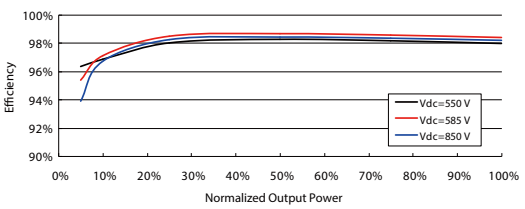
PROVEN SAFETY

- IP66 and C5 anti-corrosion
- Type II SPD for both DC and AC
- Satisfied global safety and grid code

CIRCUIT DIAGRAM



EFFICIENCY CURVE



Type designation	SG50CX
Input (DC)	
Max. PV input voltage	1100 V **
Min. PV input voltage / Start-up input voltage	200 V / 250 V
Nominal PV input voltage	585 V
MPP voltage range	200 – 1000 V
No. of independent MPP inputs	5
No. of PV strings per MPPT	2
Max. PV input current	130 A
Max. DC short-circuit current	200 A
Output (AC)	
AC output power	50 kVA
Max. AC output current	80.5 A
Nominal AC voltage	3 / N / PE, 230 / 400 V
AC voltage range	312 – 528 V
Nominal grid frequency / Grid frequency range	50 Hz / 45 – 55 Hz, 60 Hz / 55 – 65 Hz
Harmonic (THD)	< 3 % (at nominal power)
Power factor at nominal power / Adjustable power factor	> 0.99 / 0.8 leading – 0.8 lagging
Feed-in phases / AC connection	3 / 3-PE
Efficiency	
Max. efficiency / European efficiency	98.7 % / 98.4 %
Protection and function	
DC reverse polarity protection	Yes
AC short-circuit protection	Yes
Leakage current protection	Yes
Grid monitoring	Yes
Ground fault monitoring	Yes
DC switch	Yes
AC switch	No
PV string monitoring	Yes
Q at night function	Yes
PID recovery function	Yes
DC terminal protective cover	Yes
Surge protection	DC Type II / AC Type II
General Data	
Dimensions (W * H * D)	782 * 645 * 310 mm
Weight	62 kg
Topology	Transformerless
Degree of protection	IP66
Night power consumption	≤2 W
Operating ambient temperature range	-30 to 60 ℃ (> 45 ℃ derating)
Allowable relative humidity range	0 – 100 %
Cooling method	Smart forced air cooling
Max. operating altitude	4000 m (> 3000 m derating)
Display	LED, Bluetooth+APP
Communication	RS485 / WLAN / Optional: Ethernet
DC connection type	MC4 (Max. 6 mm²)
AC connection type	OT or DT terminal (Max.70 mm²)
Compliance	IEC 62109, IEC 61727, IEC 62116, IEC 60068, IEC 61683, IEC 61000-6-3, AS/NZS 4777.2:2015
Grid Support	Q at night function, LVRT, HVRT,active & reactive power control and power ramp rate control

*: Only compatible with Sungrow Logger, EyeM4 and iSolarCloud

**: The inverter enters the standby state when the input voltage ranges is between 1,000V and 1,100V. If the maximum DC voltage in the system can exceed 1000V, the MC4 connectors included in the scope of delivery must not be used. In this case MC4 Evo2 connectors must be used.

SG30CX Premium

Multi-MPPT String Inverter for 1000 Vdc System

AU

HIGH YIELD

- 3 MPPTs with max. efficiency 98.6%
- Compatible with bifacial module
- Built-in PID recovery function

SMART O&M

- Touch free commissioning and remote firmware upgrade
- Smart IV curve scanning *
- Fuse free design with smart string current monitoring

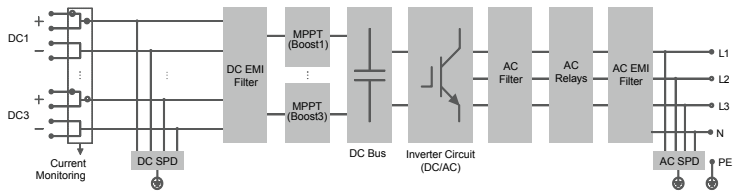
SAVED INVESTMENT

- Compatible with Al and Cu AC cables
- DC 2 in 1 connection enabled
- Cable free communication with optional WLAN

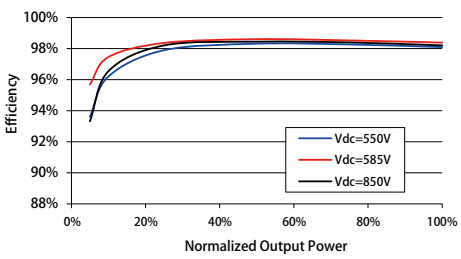
PROVEN SAFETY

- IP66 and C5 anti-corrosion
- Type II SPD for both DC and AC
- Satisfied global safety and grid code

CIRCUIT DIAGRAM



EFFICIENCY CURVE



Type designation	SG30CX
Input (DC)	
Max. PV input voltage	1100 V **
Min. PV input voltage / Start-up input voltage	200 V / 250 V
Nominal PV input voltage	585 V
MPP voltage range	200 – 1000 V
No. of independent MPP inputs	3
No. of PV strings per MPPT	2
Max. PV input current	78 A
Max. DC short-circuit current	120 A
Output (AC)	
AC output power	29.9 kVA
Max. AC output current	48.2 A
Nominal AC voltage	3 / N / PE, 230 / 400 V
AC voltage range	312 – 528 V
Nominal grid frequency / Grid frequency range	50 Hz / 45 – 55 Hz, 60 Hz / 55 – 65 Hz
Harmonic (THD)	< 3 % (at nominal power)
Power factor at nominal power / Adjustable power factor	> 0.99 / 0.8 leading – 0.8 lagging
Feed-in phases / AC connection	3 / 3-PE
Efficiency	
Max. efficiency / European efficiency	98.6 % / 98.3 %
Protection and function	
DC reverse polarity protection	Yes
AC short-circuit protection	Yes
Leakage current protection	Yes
Grid monitoring	Yes
Ground fault monitoring	Yes
DC switch	Yes
AC switch	No
PV string monitoring	Yes
Q at night function	Yes
PID recovery function	Yes
DC terminal protective cover	Yes
Surge protection	DC Type II / AC Type II
General Data	
Dimensions (W * H * D)	702 * 595 * 310 mm
Weight	50 kg
Topology	Transformerless
Degree of protection	IP66
Night power consumption	≤2 W
Operating ambient temperature range	-30 to 60 ℃ (> 45 ℃ derating)
Allowable relative humidity range	0 – 100 %
Cooling method	Smart forced air cooling
Max. operating altitude	4000 m (> 3000 m derating)
Display	LED, Bluetooth+APP
Communication	RS485 / WLAN / Optional: Ethernet
DC connection type	MC4 (Max. 6 mm²)
AC connection type	OT or DT terminal (Max.70 mm²)
Compliance	IEC 62109, IEC 61727, IEC 62116, IEC 60068, IEC 61683, IEC 61000-6-3, AS/NZS 4777.2:2015
Grid Support	Q at night function, LVRT, HVRT,active & reactive power control and power ramp rate control

*: Only compatible with Sungrow Logger, EyeM4 and iSolarCloud
**: The inverter enters the standby state when the input voltage ranges is between 1,000V and 1,100V. If the maximum DC voltage in the system can exceed 1000V, the MC4 connectors included in the scope of delivery must not be used. In this case MC4 Evo2 connectors must be used.

SG15/20RT

Multi-MPPT String Inverter for 1000 Vdc System

NEW

HIGH YIELD

- Lower startup & wider MPPT voltage
- Compatible with bifacial modules
- Built-in PID recovery function

SMART MANAGEMENT

- Smart IV curve scanning
- 24 / 7 Live monitoring
- Over-the-air firmware updates

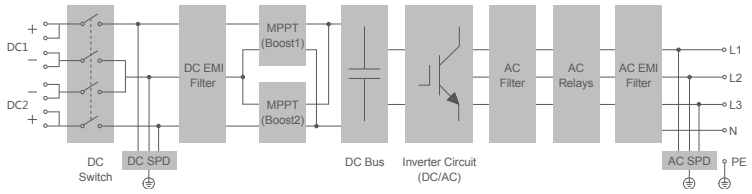
SAFE AND DURABLE

- Quick arc fault circuit interrupter
- Build-in Type II DC & AC SPD
- High anti-corrosion rating at C5

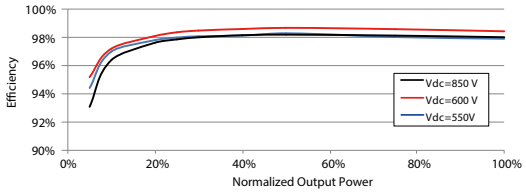
EASY AND USER FRIENDLY

- 21 kg compact design
- Unique push-in connectors
- Fast and easy commissioning via App

CIRCUIT DIAGRAM



EFFICIENCY CURVE



Type designation	SG15RT	SG20RT
Input (DC)		
Recommended max. PV input power	22.5kW	30 kW
Max. PV input voltage	1100 V	
Min. PV input voltage / Start-up input voltage	180 V	
Nominal input voltage	600 V	
MPP voltage range	160 V – 1000 V	
No. of independent MPP inputs	2	
No. of PV strings per MPPT	2 / 2	2 / 2
Max. PV input current	50 A (25 A / 25 A)	
Max. DC short-circuit current	64 A (32 A / 32 A)	
Output (AC)		
Nominal AC power (@230 V, 50 Hz)	15000 W	20000 W
Max. AC output power	16500 VA*	22000 VA*
Max. AC output current	25 A	31.9 A
Nominal AC voltage	3 / N / PE, 220 / 380 V 3 / N / PE, 230 / 400 V 3 / N / PE, 240 / 415 V	
AC voltage range	180 V – 276 V	
Nominal grid frequency /	50 Hz / 45 – 55 Hz	
Grid frequency range	60 Hz / 55 – 65 Hz	
Harmonic(THD)	<3 % (at nominal power)	
Power factor at nominal power / Adjustable power factor	>0.99 / 0.8 leading – 0.8 lagging	
Feed-in phases / AC connection	3 / 3	
Efficiency		
Max. efficiency	98.50 %	
European efficiency	98.10%	98.10%
Protection		
Grid monitoring	Yes	
DC reverse connection protection	Yes	
AC short-circuit protection	Yes	
Leakage current protection	Yes	
Surge Protection	DC Type II / AC Type II	
DC switch	Yes	
Arc fault circuit interrupter (AFCI)	Yes	
PID recovery function	Yes	
General Data		
Dimensions (W*H*D)	370*480*195 mm	
Mounting method	Wall-mounting bracket	
Weight	21 kg	21 kg
Topology	Transformerless	
Degree of protection	IP65	
Operating ambient temperature range	-25 ℃ to 60 ℃	
Allowable relative humidity range	0% – 100%	
Cooling method	Smart forced air cooling	Smart forced air cooling
Max. operating altitude	4000 m (> 2000 m derating)	
Noise (Typical)	45dB(A)	45dB(A)
Display	LED	
Communication	WLAN, Ethernet, RS485, DI, DO	
DC connection type	MC4	
AC connection type	Plug and play	
Compliance	EN 61000-6-1/-3, IEC62109-2, IEC 61727, IEC 62116, AS/NZS 4777.2:2015, VDE-AR-N-4105, DIN VDE0126-1-1, CEI 0-21, EN50549-1	

* : For Australia & Belgium& Germany, max. AC output power: SG15RT is 15000VA,SG17RT is 17000VA, SG20RT is 20000VA.

ST2007kWH(L)-1000TL

Energy Storage System

HIGH INTEGRATION

- Highly integrated ESS with outdoors cabinet design provides high protection class
- Advanced integration technology ensures optimal system performance and lower cost

SAFE AND RELIABLE

- DC electric circuit safety management includes fast breaking and anti-arc protection
- Multi-state monitoring and linkage actions ensure battery system safety

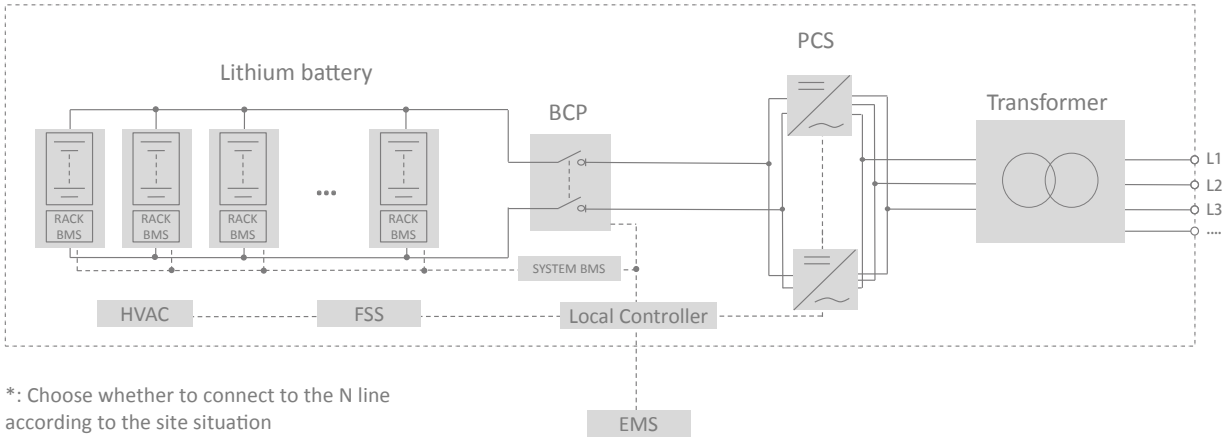
EFFICIENT AND FLEXIBLE

- Top-mounted HVAC and cell-level temperature control ensures longer battery life cycle
- Modular design supports parallel connection and easy system expansion

SMART AND FRIENDLY

- Integrated local controller enables single point of communication interface
- Fast state monitoring and faults record enables prealarm and faults location

CIRCUIT DIAGRAM



*: Choose whether to connect to the N line according to the site situation

System Type	ST2007kWH(L)-1000TL
Battery Data	
Cell type	LFP, 280Ah / 302Ah
Configuration of system	224S10P / 208S10P
Battery capacity (BOL)	2,007 kWh
Battery voltage range	604.8 – 817.6 V / 561.6 – 759.2 V
BMS communication interfaces	RS485, Ethernet
BMS communication protocols	Modbus RTU, Modbus TCP
AC Data	
Nominal AC power	1000 kVA
Max. THD of current	< 3 % (at nominal power)
DC component	< 0.5 % (at nominal power)
Nominal grid voltage	400 V (with transfomer)
Grid voltage range	360 – 440 V
Power factor	> 0.99
Adjustable power factor	1 leading – 1 lagging
Nominal grid f requency	50 Hz
Grid f requency range	45 – 55 Hz
Isolation method	With transformer
General Data	
Dimensions (W * H * D)	12,192 * 2,896 * 2,438 mm
Weight (with / without battery)	38 T / 23 T
Degree of protection	IP54
Operating temperature range	-30 to 60 ℃ (> 50 ℃ derating)
Relative humidity	0 ~ 95 % (non-condensing)
Max. working altitude	1,000 m (standard) / > 1,000 m (optional)
Cooling concept of battery chamber	Heating, ventilation and air conditioning
Cooling concept of PCS chamber	Temperature controlled forced air cooling
Fire suppression system of battery unit	FM-200 extinguishment system
Communication interfaces	RS485, Ethernet
Communication protocols	Modbus RTU, Modbus TCP, IEC 104
Certificates	AS4777.2 / AS62040.1.1

ST556KWH-200UD

Energy Storage System

HIGH INTEGRATION

- Highly integrated ESS with outdoors cabinet design provides high protection class
- Advanced integration technology ensures optimal system performance and lower cost

SAFE AND RELIABLE

- DC electric circuit safety management includes fast breaking and anti-arc protection
- Multi-state monitoring and linkage actions ensure battery system safety

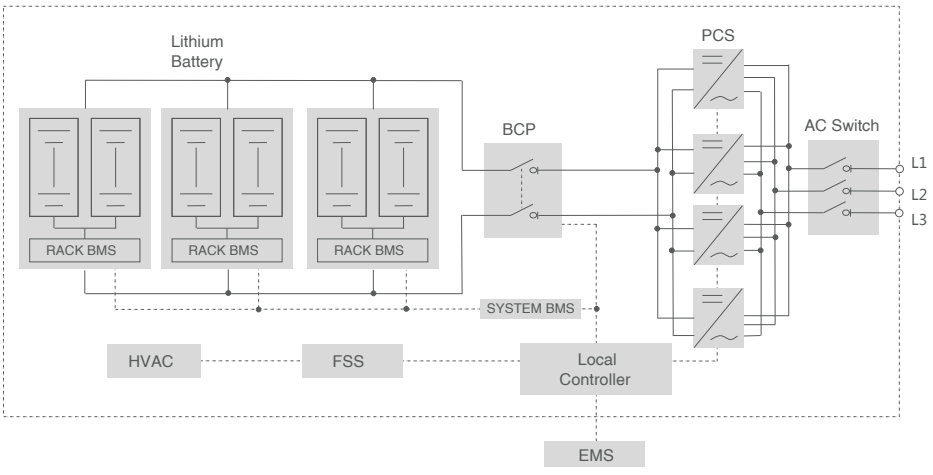
EFFICIENT AND FLEXIBLE

- Top-mounted HVAC and cell-level temperature control ensures longer battery life cycle
- Modular design supports parallel connection and easy system expansion

SMART AND FRIENDLY

- Integrated local controller enables single point of communication interface
- Fast state monitoring and faults record enables prealarm and faults location

CIRCUIT DIAGRAM



System Type	ST556KWH-200UD
Battery Data	
Cell type	Samsung SDI Mega E3, 3.68 V / 100 Ah
Configuration of system	252S6P
Battery capacity (BOL)	556 kWh
Battery voltage range	806 – 1,046 V
BMS communication interfaces	RS485, Ethernet
BMS communication protocols	Modbus RTU, Modbus TCP
AC Data	
Nominal AC power	200 kVA
Max. AC power	220 kVA
Max.THD of current	< 3 % (at nominal power)
DC component	< 0.5 % (at nominal power)
Nominal grid voltage	400 V
Grid voltage range	360 – 440 V
Power factor	> 0.99 (at nominal power)
Adjustable power factor	1 leading – 1 lagging
Nominal grid frequency	50 Hz
Grid frequency range	45 – 55 Hz
Isolation method	Transformerless
Nominal output voltage of off-grid	400 V
Max.THD of off-grid output voltage	< 3 % (linear load)
General Data	
Dimensions (W * H * D)	4,600 * 2,400 * 1,000 mm
Weight (with / without battery)	5.7 T / 2.5 T
Degree of protection	IP54 / NEMA 3R
Operating temperature range	-30 to 50 ℃ / -22 to 122 ℉
Relative humidity	0 – 95 % (non-condensing)
Max. working altitude	3,000 m
Cooling concept of battery chamber	Heating, Ventilation and Air Conditioning
Cooling concept of PCS chamber	Temperature controlled forced air cooling
Fire suppression system of battery unit	Novec1230 extinguishment system
Communication interfaces	RS485, Ethernet
Communication protocols	Modbus RTU, Modbus TCP, IEC 104
Compliance	AS4777.2 / AS62040.1.1

ST101/106/111/115/120/124/129CP-50HV

NEW

Battery Outdoor Cabinet / AC Outdoor Cabinet

SCALABLE CONFIGURATION

- Support the parallel use of multiple systems, covering wide power range from 50 KW to 1 MW
- 2-5 hours for a variety of configuration options

EASY INSTALLATION

- Outdoor cabinet design, easy for transportation and on-site installation
- C5 anti-corrosion grade to meet off-shore scenarios

SMART AND FRIENDLY

- Cloud technology enables remote maintenance and monitoring
- Built-in EMS, multiple operation mode selection increasing revenue

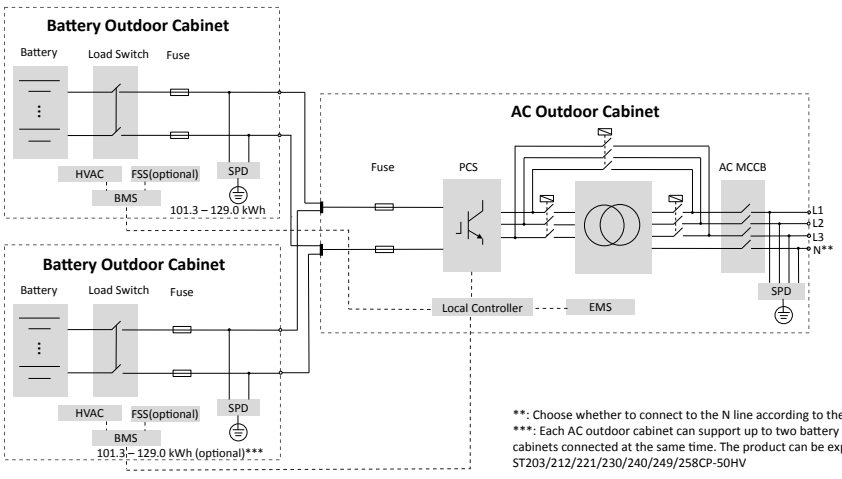
ECONOMIC AND RELIABLE

- 100% DOD, 15 years performance life under standard conditions
- Efficient thermal management design, hierarchical linkage protection to ensure system safety

Type designation	ST101CP-50HV	ST106CP-50HV	ST111CP-50HV	ST115CP-50HV	ST120CP-50HV	ST124CP-50HV	ST129CP-50HV
Battery outdoor cabinet data							
Battery type	LiFePO4 Prismatic Cell						
Battery module	4.6 kWh, 40 kg						
Battery module number	22 modules	23 modules	24 modules	25 modules	26 modules	27 modules	28 modules
Nominal energy	101.3 kWh	105.9 kWh	110.5 kWh	115.2 kWh	119.8 kWh	124.4 kWh	129.0 kWh
Nominal voltage	844.8 V	883.2 V	921.6 V	960.0 V	998.4 V	1036.8 V	1075.2 V
Operating voltage	712.8 – 963.6 V	745.2 – 1007.4 V	777.6 – 1051.2 V	810.0 – 1095.0 V	842.4 – 1138.8 V	874.8 – 1182.6 V	907.2 – 1226.4 V
Max. charging/discharging rate	≤0.5C						
Depth of discharge	100 %						
Dimensions (W*H*D)	1300*2400*1000 mm						
Weight	1760 kg	1800 kg	1840 kg	1880 kg	1920 kg	1960 kg	2000 kg
Installation location	Outdoor						
Degree of protection	IP54						
Anticorrosion grade	Standard C5 (optional: C4)						
Allowable relative humidity range	0% to 95% (non-condensing)						
Operating temperature range	-30 ℃ to 50 ℃ (> 45 ℃ derating)						
Max. operating altitude	3000 m (> 2000 m derating)						
Communication interfaces	CAN2.0B						
Cooling concept	Heating, ventilation and air conditioning						
Certificates	IEC63056, IEC62619, IEC62477, IEC62040, IEC61000, UN38.3						
Ac outdoor cabinet data	SC50UD						
Nominal AC power	50 kVA						
Max. THD of current	< 3 % (at nominal power)						
DC component	< 0.5 % (at nominal power)						
Nominal grid voltage	400 V						
Grid voltage range	360 – 440 V						
Nominal grid frequency	50 Hz						
Grid frequency range	45 – 55 Hz						
Isolation method	Transformer*						
Dimensions (W*H*D)	1000*2400*1000 mm						
Weight	1000 kg						
Degree of protection	IP54						
Anticorrosion grade	Standard C5 (optional: C4)						
Allowable relative humidity range	0% to 95% (non-condensing)						
Operating temperature range	-30 ℃ to 50 ℃ (> 45 ℃ derating)						
Operating altitude	3000 m (> 2000 m derating)						
Communication interfaces	RS485, Ethernet						
Communication protocols	Modbus RTU, Modbus TCP						
Certificates	IEC61000, IEC62477, AS4777.2, NRS 097-2-1						

*: This transformer can be optional for non-off-grid use scenarios.

CIRCUIT DIAGRAM



ST72KWH-50HV

Storage System

HIGH INTEGRATION

- Highly integrated ESS with outdoors cabinet design provides high protection class
- Advanced integration technology ensures optimal system performance and lower cost

SAFE AND RELIABLE

- DC electric circuit safety management includes fast breaking and anti-arc protection
- Multi-state monitoring and linkage actions ensure battery system safety

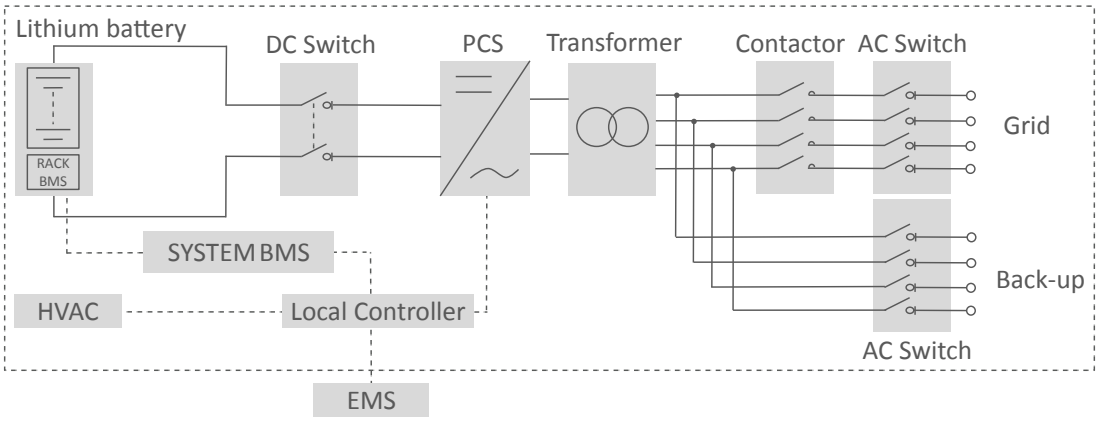
EFFICIENT AND FLEXIBLE

- Top-mounted HVAC and cell-level temperature control ensures longer battery life cycle
- Modular design supports parallel connection and easy system expansion

SMART AND FRIENDLY

- Integrated local controller enables single point of communication interface
- Fast state monitoring and faults record enables pre-alarm and faults location

CIRCUIT DIAGRAM



SUNGROW
Clean power for all

System Type	ST72KWH-50HV
Battery Data	
Cell type	Samsung SDI Mega M3, 3.68V/100Ah
Configuration of system	198S1P
Battery capacity (BOL)	72.9 kWh
Battery voltage range	633 – 822 V
BMS communication interfaces	RS485, Ethernet
BMS communication protocols	Modbus RTU, Modbus TCP
AC Data	
Nominal AC power	50 kVA
Max. AC power	55 kVA
Max.THD of current	< 3 % (at nominal power)
DC component	< 0.5 % (at nominal power)
Nominal grid voltage	400 V
Grid voltage range	360 – 440 V
Power factor	> 0.99 (at nominal power)
Adjustable power factor	1 leading – 1 lagging
Nominal grid f requency	50 Hz
Grid f requency range	45 – 55 Hz
Isolation method	Transformer
Nominal output voltage of off-grid	400 V
Max.THD of off-grid output voltage	< 3 % (linear load)
General Data	
Dimensions (W * H * D)	1600*2400*1000 mm
Weight (with / without battery)	2.3 T / 1.8 T
Degree of protection	IP54
Degree of anti-corrosion	C5
Operating temperature range	-25 to 45 ℃
Relative humidity	0 – 95 % (non-condensing)
Max. working altitude	3,000 m
Cooling concept of battery chamber	Heating, Ventilation and Air Conditioning
Cooling concept of PCS chamber	Temperature controlled forced air cooling
Communication interfaces	RS485, Ethernet
Communication protocols	Modbus RTU, Modbus TCP, IEC 104
Compliance	AS4777.2 / AS62040.1.1

WiNet-S

LAN Communication Module

SMART AND FLEXIBLE

- WLAN or Ethernet, flexible compatibility of plant networking, one-click access to iSolarCloud
- Automatic network configuration with DHCP, transmission without configuration
- Free WLAN configuration, easy and time saving

SIMPLE AND EFFICIENT

- Plug and play, quick installation
- Data interval in seconds, quick glance for what you want
- Support of Smart IV Curve Diagnosis[1]
- Support of local and remote parameter setting and firmware updates

SAFE AND RELIABLE

- Password and encrypted transmission for data protection
- IP66, wide temperature range

Type designation	WiNet-S
Communication	
Max. number of devices	1
LED display	LED * 3
Communication Mode	
Internet communication	Channel * 1, 10/100Mbps self-adaption, Communcation distance ≤100m
WLAN commnunicatoin	802.11 b/g IEEE802.11n HT20@2.4GHz IEEE802.11n HT40@2.4GHz 2.4 GHz
Power Supply	
DC input	5 VDC, 2.1 A
Power consumption	≤5 W
Ambient conditions	
Operating Temperature	-30 °C to 60 °C
Relative air humidity	≤95 % (non-condensing)
Elevation	≤4000 m
Protection class	IP66
Mechanical parameters	
Dimensions (W * H * D)	48 mm * 132 mm * 36 mm
Mounting type	Plug and play

EyeM4

Wireless Communication Module for Multiple Inverter

SMART AND FLEXIBLE

- One-click access to iSolarCloud
- One module can manage up to 10 inverters for remote maintenance and control
- Plug and play, easy installation

CONVENIENT O&M

- Built-in Web server for monitoring and configuration, by PC or smartphone browser no App required
- Support of plant maintenance by remote Web access, optimized OPEX
- Support of local and remote parameter setting and firmware updates

Type designation	EyeM4
Communication	
Max. number of devices	10
LED display	LED × 3
Wireless communication	
4G communication	LTE(FDD): B1, B3, B5, B8 LTE(TDD): B38, B39, B40, B41 TD-SCDMA: B34, B39 CDMA: BC0 GSM: 900MHz/1800MHz WCDMA: B1, B8
WLAN commnunicatoin	802.11 b/g/n/ac HT20/40/80 MHz 2.4 GHz / 5 GHz
Power supply	
DC input	5 VDC, 0.8 A
Power consumption	<4 W
Ambient conditions	
Operating Temperature	-30 °C ~ 60 °C
Relative air humidity	≤95 % (non-condensing)
Elevation	≤4000 m
Protection class	IP66
Mechanical parameters	
Dimensions (W * H * D)	48 mm * 130 mm * 36 mm
Mounting type	Plug and Play
Ordering information	
EyeM4A	Supports 4G and WLAN communication
EyeM4C	Supports WLAN communication

Logger1000

FLEXIBLE NETWORKING

- Support of RS485, Ethernet, WLAN communication
- Support of energy meter, meteo station, sensors and other equipment access

ASSIST MAINTENANCE

- Support of inverter batch parameter setting and firmware updates
- Support of plant maintenance by remote Web access, optimized OPEX
- Active and reactive power control
- Support of local monitoring

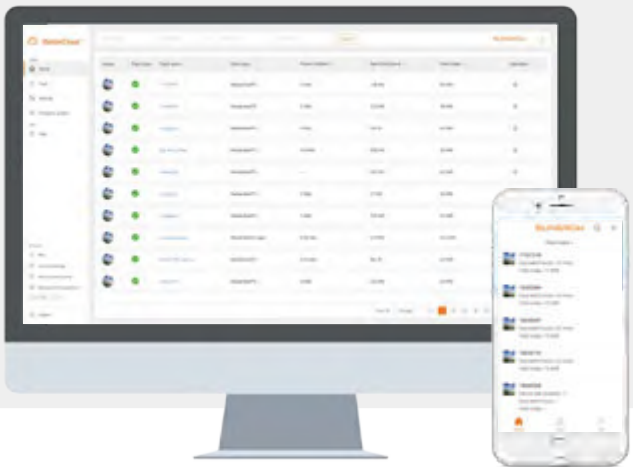
EASY OPERATION

- Automatic Modbus address distribution
- Built-in Web server for monitoring and configuration, by PC or smartphone browser, no App required

Type designation	Logger1000
Communication	
Max. number of devicest	30
Communication ports	
RS485 interface	3
Ethernet	1×RJ45, 10/100/1000 Mbps
Digital input	5, Max. 24V DC
Analog input	4, support 4~20 mA or 0~10 VDC
Wireless communication	
WLAN communicatio	802.11 b/g/n/ac; HT20/40/80MHz; 2.4GHz / 5GHz
Power Supply	
DC input	24 VDC, 1.2 A
DC output	24 VDC, 0.5 A
Power consumption	<10 W
Ambient Conditions	
Operating Temperature	-30 °C ~ 60 °C
Storage Temperature	-40 °C ~ 80 °C
Relative air humidity	≤95 % (non-condensing)
Elevation	≤4000 m
Protection class	IP20
Mechanical parameters	
Dimensions (W * H * D)	200 * 110 * 60 mm
Weight	500 g
Mounting type	Top-hat rail mounting / wall mounting
Ordering information	
Logger1000B	Support of Ethernet and WLAN communication

iSolarCloud

Remote Monitoring and O&M Platform



FLEXIBLE AND FRIENDLY

- Centralized power plant management, optimized OPEX
- Flexible data access, Web portal and App, remote or local maintenance
- Easy account management, share plants with co-workers and friends

SIMPLE AND EFFICIENT

- Scan QR to create plant or get support, devices automatic access
- Accurate positioning of faults, quick trouble shooting, real-time push of information, reducing time to resolve faults
- Parameter setting, firmware updates, IV curve diagnosis, data analysis and automated reports
- Support of plant maintenance by remote Web access of local data logger

SAFE AND RELIABLE

- Hierarchical access management
- Cyber security and redundant data storage over the lifecycle of plants, certified data security
- Full log for trace and audit

Type designation	iSolarCloud
Monitoring Device	
Device type	Inverter, combiner box, meteo station, energy meter, transformer and other plant devices
Monitoring Capacity	More than 100 GW (scalable)
Data Collection	
Time interval	5 minutes
General Data	
Language	Chinese, English, German, French, Spaish, Portuguese, Italian, Dutch, Polish, Japanese, Korean, Vietnamese, Traditional Chinese
Data storage time	> 25 years
Storage capability	> 100PB
System reliability	99.99%
Minimum Web requirements	
Browser	IE 11, Chrome 65, Safari 11, Firefox 60
Resolution	1366 * 768, 1920 * 1080 recommended
Minimum Operating Environment for App	
Dimensions (W * H * D)	1920 * 1080, 2001 * 1125, 1280 * 720
Mounting type	Android 5.0, iOS 10.0

Global Reference

99kW PV Plant Hallam, VIC Australia

303kW PV Plant Cannonvale, QLD Australia

65.34kW PV Plant Everton Park, QLD Australia

99.63kW PV Plant Creswick, VIC Australia

520kW PV Plant Truganina, VIC Australia

99kW PV Plant Dandenong, VIC Australia

66kW PV Plant Prestons, NSW Australia

500kW / 755kWh Mircro-grid project, WA, Australia

100kW / 411kWh Peak-shaving & Ramp rate control , Bundaberg, QLD, Australia

250kW / 548kWh C&I, grid connected, Adelaide, SA, Australia

68kW / 137kWh Peak-shaving, Ramp rate control & Backup, Birchip, VIC, Australia

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RE100

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