The product data referred to in the company shall be subject to material object.
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GEYA POWER

www.geya.net

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Create green value
create customer value

GEYA POWER

Energystorage Products And Solutions

All in One Solar ESS | Inverter | Lithium Battery Series
BESS | Energy Storage Container



Company Profile

Zhejiang Geya Electrical Co., Ltd. [hereinafter referred to as: Geya Electrical GEYA. GEYA Electrical was established in February 2007 and is located in Wenzhou City, China. It is a scientific and technological private enterprise integrating R&D, production, sales and service, focusing on the independent research and development of low-voltage electrical appliances and automation control products. After years of operation, the company's annual turnover has exceeded CNY 100 million.

The company's product series involve a variety of low-voltage electrical appliances and automation control products, including miniature circuit breakers, molded case circuit breakers, leakage circuit breakers, isolating switches, contactors, relays, timers, distribution boxes and other products and related accessories . With a wide range of products and a wide range of applications, it is widely recognized and praised by customers at home and abroad. The company currently has a comprehensive and mature online sales platform system. The four major sales regions of the products cover six continents in the world. More than 40 foreign companies choose and trust GEYA Electrical products.

Since the establishment of the company, GEYA Electrical has always adhered to the corporate motto of "Getting what you need, knowing what you are doing", adhering to the development concept of quality first and continuous innovation, and adhering to the product concept of high standards and high quality. Since then, a number of national patents have been obtained, and the GEYA brand has been deployed in most countries around the world. In addition, according to industry standards and certification requirements, the company has obtained authoritative EU certifications including CCC, CE, SAA, SEMKO, TUV, EN, etc., and its products fully comply with European and American product quality standards. In addition to providing OEM and ODM services to global customers, GEYA Electrical has established cooperative relationships with many internationally renowned brand companies. At the same time, the company's experienced sales team is gradually promoting GEYA Electric's products to larger domestic and overseas markets, making more contributions to the world's low-voltage electrical appliances and automation control product industries and customers.

GEYA Electrical sincerely welcomes customers to act as agents to promote the GEYA brand in domestic and overseas markets. We will provide our customers with better products, better services and more competitive sales policies.

GEYA Electrical looks forward to creating a better future with you!



GEYA POWER

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All in One Solar ESS
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Contactor



1200VA / 1200W

OFF-GRID SOLAR INVERTER

Energy Independence

Continuous Power Supply

Flexible Installation

FEATURES

- Lithium battery activation function.
- Compatible work with lifepo4 battery via RS485（Except 12V models）.
- Pure sine wave; Power factor 1.0.
- PV Input Voltage 500Vdc Max; Built-in MPPT 60A/100A/120A.
- Capable to work without battery（Except 12V models）.
- Detachable dust cover for harsh environment.
- WiFi remote monitoring optional.
- Support multiple output priority: UTL,SOL,SBU, SUB.
- EQ function to optimize battery performance and extend lifecycle.

Model	GYSM-1.2K
AC Input	
Rated Input Voltage (VAC)	208 / 220 / 230 / 240; L + N + PE
Voltage Range (VAC)	90~280V Settable (Appliance/Generator mode)； 170~264V Settable (UPS mode)
Frequency (Hz)	40~70Hz, Default
Power Factor (PF)	≥0.95
AC Output	
Rated Capacity (kW)	1.2KW
Voltage (VAC)	208 / 220 / 230 / 240; L + N + PE
Voltage Regulation	≤ ±5%
Power Factor (PF)	1
Frequency Range	Line Mode: Synchronized range; Battery Mode: 50/60Hz
Transfer Time	Line Mode to Battery Mode 10ms(Typical)； Line Mode to Battery Mode 10ms(Typical)
Harmonic Distortion	≤3% (Linear Load)； ≤5% (Non-linear Load PF=0.7)
Overload Capacity (Battery Mode)	10min@102%~120%Load, 1min@120%~150%Load 10s@150%~200%Load, 10s@ > 200%Load
Max. Ef ciency (Battery Mode)	90.5%@12VDC
Charger (PV / AC)	
Solar Charger Type	MPPT
Max PV Input Current / Input Power	14A / 1000W
MPPT Range@Operating Voltage (VDC)	20~100
Max PV Open Circuit Voltage (VDC)	105
Max PV Charge Current (A)	60
Max AC Charge Current (A)	60
Max. Charge Current (PV + AC) (A)	120
Battery	
Numbers	1
Charging Mode	Two stage/three stage charging
Charging Current	2-120A Settable
Interface	
HMI	LCD
Interface	RS232
Monitoring	WiFi (Optional)
General Data	
Ingress Protection	IP21
Operating Temperature	-10 °C ~ 50 °C
Relative Humidity	20% ~ 95% (Non-condensing)
Storage Temperature	-15 °C ~ 60 °C
Net Weight (kg)	5
Dimensions (W*H*D)	330*228*90mm
Max. Operating Altitude	4000m (Derating above 1000m)

Product speci cations are subject to change without prior notice.



1500VA / 2500W

OFF-GRID SOLAR INVERTER

Energy Independence

Continuous Power Supply

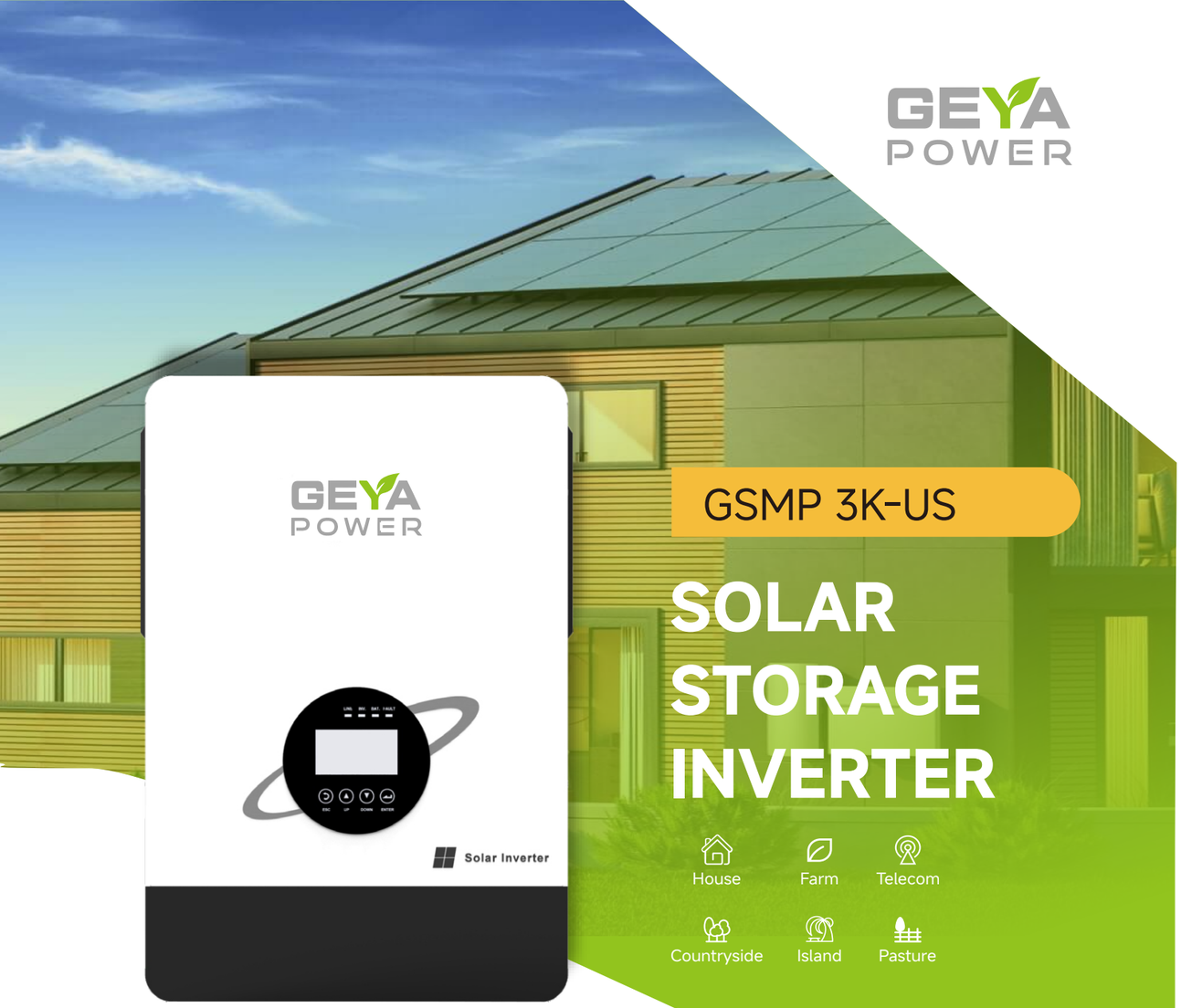
Flexible Installation

FEATURES

- Rated power 1.2kW, power factor 1.
- MPPT ranges 20V~100V, 125Voc.
- High frequency inverter with small size and light weight.
- Pure sine wave AC output.
- Solar and utility grid can power loads at the same time.
- With RS485 for BMS communication.
- Con gurable AGM FLD LlB battery types via LCD setting.

Model	GYSM-1.5KW-12V	GYSM-1.5KW-24V	GYSM-2.5KW
Capacity	1500VA/1500W	1500VA/1500W	2500VA/2500W
Parallel Capability	No		
Lithium Battery activation	YES(By PV only)		
Lithium Battery Communication	NO	YES(RS485)	YES(RS485)
Input			
Nominal Voltage	230 Vac		
Acceptable Voltage Range	170 - 280 Vac (For Personal Computer); 90 - 280 Vac (For Home Appliances)		
Frequency	50/60 Hz (Auto Sensing)		
Output			
Nominal Voltage	220Vac / 230Vac ±5%		
Surge Power	3000VA	3000VA	5000VA
Frequency	50/60 Hz		
Waveform	Pure Sine Wave		
Transfer Time	10ms (For Personal Computers)， 20ms (For Home Appliances)		
Peak Efficiency(PV to INV)	96%		
Peak Efficiency(BAT to INV)	93%		
Overload Protection	5s @>= 140% Load; 10s @100% ~ 140% Load		
Crest Factor	3 : 1		
Admissible Power Factor	0.6 ~ 1 (inductive or capacitive)		
Battery			
Battery Voltage	12VDC	24VDC	24VDC
Floating charge Voltage	13.5VDC	27VDC	27VDC
Overcharge Protection	16.5VDC	33VDC	33VDC
Charging Method	CC/CV	CC/CV	CC/CV
Solar Charge & AC Charge			
Solar Charger Type	MPPT	MPPT	MPPT
Max.PV Array Power	2000W	2000W	3000W
Max.PV Array Open Circuit Voltage	500VDC	500VDC	500VDC
PV Array MPPT Voltage Range	30VDC~500VDC	60VDC~500VDC	60VDC~500VDC
Max.Solar Input Current	15A	15A	15A
Max.Solar Charge Current	100A	60A	100A
Max.AC Charge Current	60A	60A	60A
Max.Charge Current(PV+AC)	100A	60A	100A
Physical			
Dimensions, D x W x H(mm)	330*278*98	358*295*100	358*295*100
Package Dimensions, D x W x H(mm)	400*365*174	465*380*175	465*380*175
Net Weight(kg)	3.8	6	6.5
Communication interface	RJ45 OR WIFI	RS232/RS485	RS232/RS485
Environment			
Operating Temperature Range	- 10 °C to 50 °C		
Storage Temperature	- 15 °C to 50 °C		
Humidity	5% to 95% Relative Humidity (Non-condensing)		

Product speci cations are subject to change without further notice.



GSMP 3K-US

SOLAR STORAGE INVERTER

House Farm Telecom

Countryside Island Pasture

FEATURES

- Adopt DSP full digital control mode
- High precision MPPT controller.
- The battery has a balanced charging mode
- Battery can use PV maximum to input voltage 500Vdc or not use.
- Both are con gured the grid and PV prioritize.
- Monitoring system WIFI/GPRS option
- Support 6 machines in parallel, constitute three-phase four-wire power generation system.
- If the photovoltaic power is insu cient, the photovoltaic can be combined with the power grid and battery to supply the load
- Economic model can be used to charge and discharge the inverter.
- Power grid and oil machine can be freely selected.

Model	GYSMP-3K-US
Battery Input/ Output Data	
Battery Voltage	24VDC
Hybrid Charging	80A
Maximum Charging Curren	
Battery Type	Lithium/Lead-acid
Solar Input Data	
Maximum PV Input Power	4550W
MPPT Range @ Operating Voltage	120VDC ~450VDC
Maximum PV Input Current	25A
Number of Independent MPP Trackers/ Strings Per MPP Tracker	1/1
Maximum PV Open-circuit Voltage	500VDC
Maximum Solar Charge Current	80A
AC Output Data Rated	
Power	3600VA/3000W
Parallel Capabilitye	.NO
AC Voltage Regulation	US(120VAC ± 5% @ 50/60Hz)
Surge Power	6000VA
Efficiency (Peak)	93%
Waveform	Pure sine wave
Transfer Time	10ms typical, 20ms Max
AC Charger Data	
Charge Current	60A
AC Input Voltage	US(120 VAC)
Selectable Voltage Range	170-280 VAC (For Personal Computers) ; 90-280 VAC (For Home Appliances) 50Hz/60Hz
Frequency Range	50HZ/60HZ(Auto sensing)
PHYSICAL Data	
Protection Degree	IP20
Dimension (L/W/D)	460(L)x285(W)x113(D)mm
Packaging Dimension (L/W/D)	590 (L)x365(W)x200(D)mm
Net Weight	8KG
OPERATING ENVIRONMENT Data	
Certificate	US(UL1741/FCC)
Humidity	5% to 95% Relative Humidity(Non-condensing)
EMC Certification Leve (EMC)	US(FCC)
Altitude	<2000m
Operating Temperature	0°C~+55°C
Storage Temperature	-15°C~+60°C



FEATURES

- Wide range of accepted input voltages.
- Smart design and unique lithium battery wake-up function.
- Support WFI/GPRS remote monitoring, setting and upgrade.
- Built-in MPPT controller, PV array input voltage can be up to 500v.
- Flexible working modes with settable AC/Solar Input priority and output priority.
- Advanced battery management; supports lithium batteries and lead-acid batteries.
- Support mirco grid system with seperate generator input terminal, and can remote control generator.

Model	GYSM-3.6KW	GYSM-B-3.6K	GYSM-BT-3.6K
Rate Power	3600W/3600VA	3600W/3600VA	3600W/3600VA
Surge Power	Bypass 5700VA	Bypass 5700VA	Bypass 5700VA
Parallel Function	NO	NO	NO
BMS	NO	Yes	Yes
Touch Screen	NO	NO	Yes
Input			
Main Topology	L+N+PE		
Nominal Voltage	230Vac，50/60Hz±0.1%		
Power Factor	1		
Input Voltage Range	90~280Vac±3V(Normal mode) / 170~280Vac±3V(UPS mode)		
Frequency Range	40~70Hz±0.1%（Auto Sensing）		
Output			
Output Voltage	208Vac / 220Vac / 230Vac / 240Vac±5%，50/60Hz±0.1%		
Transfer Time	10ms (For Personal Computers)， 10ms (For Home Appliances)		
Overlord Capacity（Battery Mode）	1min@102%~110%Load；10s@110%~130%Load；3s@130%~150%Load；0.2s@>150% Load		
Peak Ef ciency （Battery Mode）	92.70%		
Standby Power	< 60W		
Waveform	Pure sine wave		
Battery			
Battery Voltage	24VDC		
Start Voltage	23VDC		
Constant Charging Voltage (adjustable)	28.2VDC		
Overcharge Voltage	30.5VDC		
Float Charging Voltage (adjustable)	27VDC		
Charge			
Charging method	MPPT		
Maximum input current	18A		
Max. PV Array Power	5000W		
PV Array Voltage Range	500VDC		
Charging current	2-100A（adjustable）		
Max Charging Current (AC charger)	100A		
Max Charging Current (solar charger)	100A		
Tracking efficiency	99.5% max		
MPPT Range	40~430VDC		
Display			
LCD	Operating mode/load/input/output, etc		
Interface			
RS232	5PIN / Pitch2.0mm, Baud 2400		
Expansion Slots	2X5 PIN / Pitch2.54mm ; SNMP card、USB、Dry junction card、Lithium battery BMS communication card、WIFI（5KW）		
Parallel interface (optional)	/		
Environment			
Temperature and humidity	-10°C~50°C（Derating when ambient temperature>40 °C） ; 20%~95%（No condensation）		
Noise	≤50dB		
Storage temperature	-15~60°C		
Altitude	The altitude should not exceed 1000m, with a reduction of 1000m or more and a maximum of 4000m. Refer to IEC62040		
Physical			
Dimension D*W*H (mm)	595*390*215		
Net weight（KG）	7.4		
Gross weight （KG）	8.5		

Product specications are subject to change without further notice.

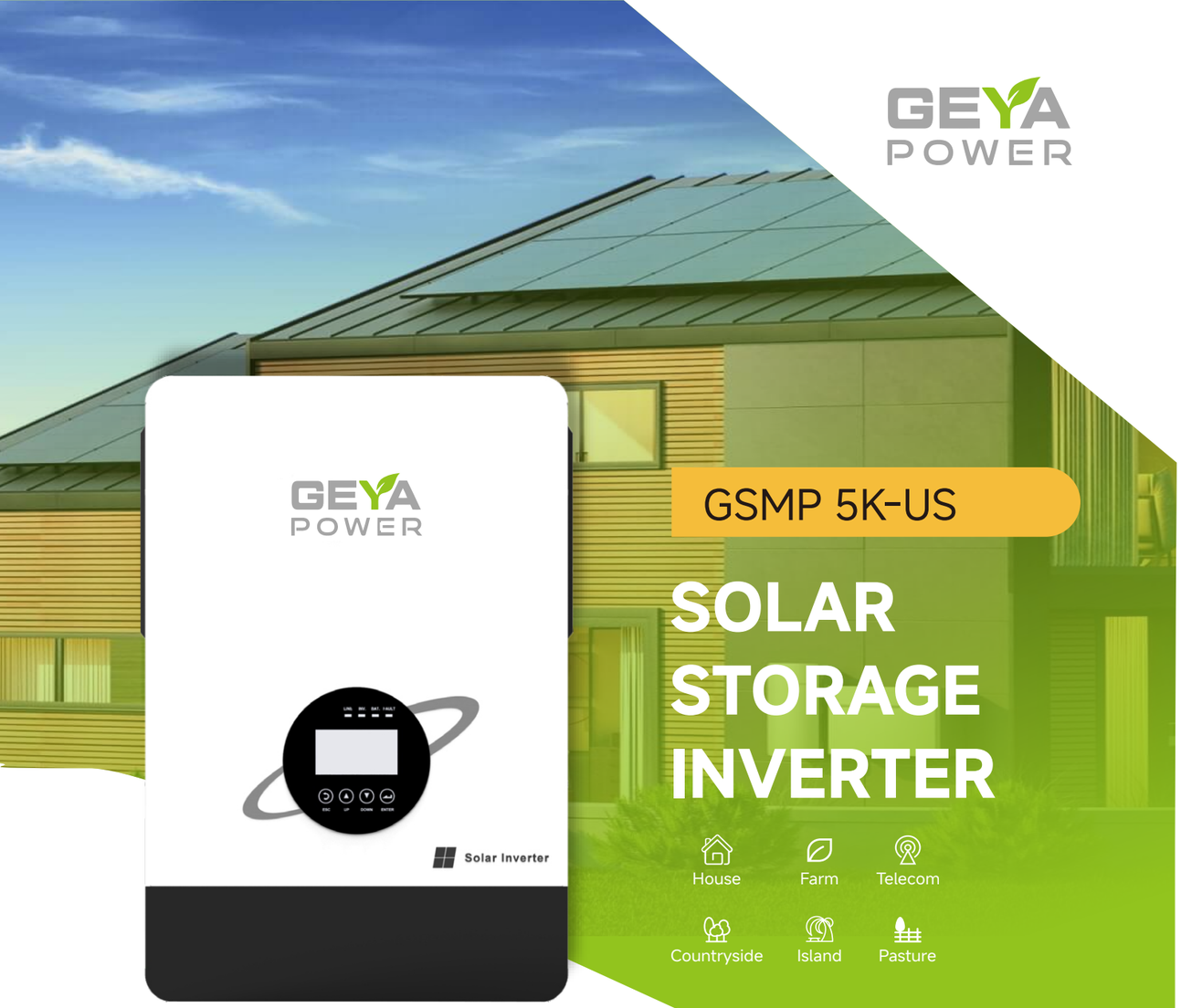


FEATURES

- Wide range of accepted input voltages.
- Smart design and unique lithium battery wake-up function.
- Support WFI/GPRS remote monitoring, setting and upgrade.
- Built-in MPPT controller, PV array input voltage can be up to 500v.
- Flexible working modes with settable AC/Solar Input priority and output priority.
- Advanced battery management; supports lithium batteries and lead-acid batteries.
- Support mirco grid system with seperate generator input terminal, and can remote control generator.

Model	GYSM-5KW	GYSM-B-5K	GYSM-BT-5K
Rate Power	5000W/5000VA	5000W/5000VA	5000W/5000VA
Surge Power	Bypass 9200VA	Bypass 9200VA	Bypass 9200VA
Parallel Function	Yes	Yes	Yes
BMS	NO	Yes	Yes
Touch Screen	NO	NO	Yes
Input			
Main Topology	L+N+PE		
Nominal Voltage	230Vac，50/60Hz±0.1%		
Power Factor	1		
Input Voltage Range	90~280Vac±3V(Normal mode) / 170~280Vac±3V(UPS mode)		
Frequency Range	40~70Hz±0.1%（Auto Sensing）		
Output			
Output Voltage	208Vac / 220Vac / 230Vac / 240Vac±5%，50/60Hz±0.1%		
Transfer Time	10ms (For Personal Computers)， 10ms (For Home Appliances)		
Overlord Capacity（Battery Mode）	1min@102%~110%Load；10s@110%~130%Load；3s@130%~150%Load；0.2s@>150% Load		
Peak Ef ciency （Battery Mode）	94%		
Standby Power	< 60W		
Waveform	Pure sine wave		
Battery			
Battery Voltage	48VDC		
Start Voltage	46VDC		
Constant Charging Voltage (adjustable)	56.4VDC		
Overcharge Voltage	60.4VDC		
Float Charging Voltage (adjustable)	54VDC		
Charge			
Charging method	MPPT		
Maximum input current	18A		
Max. PV Array Power	6000W		
PV Array Voltage Range	120V~500VDC		
Charging current	2~80A（adjustable）		
Max Charging Current (AC charger)	80A		
Max Charging Current (solar charger)	80A		
Tracking efficiency	99.5% max		
MPPT Range	120~430VDC		
Display			
LCD	Operating mode/load/input/output, etc		
Interface			
RS232	5PIN / Pitch2.0mm, Baud 2400		
Expansion Slots	2X5 PIN / Pitch2.54mm ; SNMP card、USB、Dry junction card、Lithium battery BMS communication card、WIFI（5KW）		
Parallel interface (optional)	DB9,Parallel card		
Environment			
Temperature and humidity	-10°C~50°C（Derating when ambient temperature>40 °C） ; 20%~95%（No condensation）		
Noise	≤50dB		
Storage temperature	-15~60°C		
Altitude	The altitude should not exceed 1000m, with a reduction of 1000m or more and a maximum of 4000m. Refer to IEC62040		
Physical			
Dimension D*W*H (mm)	595*390*215		
Net weight（KG）	8.5		
Gross weight （KG）	9.7		

Product specications are subject to change without further notice.



GSMP 5K-US

SOLAR STORAGE INVERTER

House Farm Telecom

Countryside Island Pasture

FEATURES

- Adopt DSP full digital control mode
- High precision MPPT controller.
- The battery has a balanced charging mode
- Battery can use PV maximum to input voltage 500Vdc or not use.
- Both are con gured the grid and PV prioritize.
- Monitoring system WIFI/GPRS option
- Support 6 machines in parallel, constitute three-phase four-wire power generation system.
- If the photovoltaic power is insu cient, the photovoltaic can be combined with the power grid and battery to supply the load
- Economic model can be used to charge and discharge the inverter.
- Power grid and oil machine can be freely selected.

Model	GYSMP-5K-US
Battery Input/ Output Data	
Battery Voltage	48VDC
Hybrid Charging	100A
Maximum Charging Curren	
Battery Type	Lithium/Lead-acid
Solar Input Data	
Maximum PV Input Power	7700W
MPPT Range @ Operating Voltage	120VDC ~450VDC
Maximum PV Input Current	22A
Number of Independent MPP Trackers/ Strings Per MPP Tracker	1/2
Maximum PV Open-circuit Voltage	500VDC
Maximum Solar Charge Current	100A
AC Output Data Rated	
Power	5000VA/5000W
Parallel Capabilitye	Yes, 6 units maximum
AC Voltage Regulation	120VAC ± 5% @ 50/60Hz
Surge Power	10000VA
Efficiency (Peak)	93%
Waveform	Pure sine wave
Transfer Time	10ms typical, 20ms Max
AC Charger Data	
Charge Current	60A
AC Input Voltage	120 VAC
Selectable Voltage Range	170-280 VAC (For Personal Computers) ; 90-280 VAC (For Home Appliances) 50Hz/60Hz
Frequency Range	50HZ/60HZ(Auto sensing)
PHYSICAL Data	
Protection Degree	IP20
Dimension (L/W/D)	485(L)x345(W)x124(D)mm
Packaging Dimension (L/W/D)	612(L)x424(W)x208(D)mm
Net Weight	16KG
OPERATING ENVIRONMENT Data	
Certificate	UL1741/FCC
Humidity	5% to 95% Relative Humidity(Non-condensing)
EMC Certification Leve (EMC)	FCC
Altitude	<2000m
Operating Temperature	0°C~+55°C
Storage Temperature	-15°C~+60°C



GEYA POWER

5000W ~ 6000W

HYBRID SOLAR INVERTER

Energy Independence

Continuous Power Supply

Flexible Installation

FEATURES

- Pure sine wave solar inverter.
- Output power factor 0.99.
- Parallel operation up to 10 units.
- High PV input voltage range.
- Battery independent design.
- Built-in 100A MPPT solar charger and anti-dusk kit for harsh environment.
- Battery equalization function to optimize battery performance and extend lifecycle.

INPUT (PV DC)	MGYSP 5000W	MGYSP 6000W
Max. PV array power(W)	8000（4000/4000）	
Rated PV input voltage(V)	320	
Number of independent MPPT inputs	2	
PV input voltage range(V)	100~480	
MPPT voltage range(V)	120~385	
Start-up voltage(V)	100	
Max. PV input current per MPPT(A)	17/17	
Max. PV short-circuit current input per MPPT(A)	25/25	
Battery		
Compatible battery type	Lithium-ion/Lead-Acid	
Rated battery voltage(V)	48	
Battery voltage range(V)	38.4~60	
Max. charging/discharging current(A)	110	140
Max. discharging/discharging power(W)	5000	6000
Recomand capacity of battery per inverter	>200AH	>200AH
Force wake up battery from PV function	YES	YES
Force wake up battery from Grid function	YES	YES
Grid		
Rated AC voltage(V)	230	
Rated AC frequency(Hz)	50/60	
Rated AC output current(A)	22	26.5
Rated AC output power(W)	5000	6000
Max. AC intput current(A)	35	39.5
Max. AC intput power(W)	9000	9000
PF	0.99	0.99
THDI	<5%	<5%
Rated AC current of BYPASS relays(A)	40	40
UPS		
Rated output power(W)	5000	6000
Rated output voltage(V)	230	230
Rated output current(A)	22	26.5
Rated output frequency(Hz)	50/60	
Surge power, duration	2Pn, <2S	
Switching time	<15ms@Single/ <30ms@Parallel	
Wave form	Sine wave	
THDV	0.03	
Efficiency		
Max. MPPT efficiency	0.99	
Max. efficiency	0.93	
EU efficiency	/	
Max. charging efficiency	0.93	
Max. discharging efficiency	0.93	
Protection		
Over current/voltage protection	YES	
AC Short-circuit current protection	YES	
Grid monitoring	YES	
AC Surge protection Type III	YES	
Battery reverse polarity protection	YES	
General		
Dimensions(W*H*D)	303*505*135mm/11.9*19.9*5.3inch	
Weight	14.5kg/32lbs	
Ingress protection rating	IP20	
Operating environment temperature range	0~50°C	
Storage temperature range	-15~60°C	
Relative humidity	5%~95%	
Display & Communication interface	LCD+LED, RS485/Wi-Fi/CAN	
Warranty	2 Years	
Cooling method	FAN	
Topology	Transformer-less	
Altitude	<2000m	
Noise emission(typical)	<50dB	
Standards & Certification	IEC 62109-1, IEC 62109-2, IEC 61000	

Product speci cations are subject to change without prior notice.



FEATURES

- Smart Load Control.
- Suitable for grid-tied and off-grid applications.
- Supports multiple energy management strategies.
- A variety of protection functions, safe and reliable
- With the integrated energy management system(EMS)
- With two maximum power point trackers (MPPT), the conversion ef ciency is higher.
- Advanced battery management system, compatible with li-ion and lead-acid batteries.

Model	GYSHN6KS
PV INPUT	
Max.PV Input Power	9000 Wp
Max. PV Input Voltage	d.c. 550V
MPPT Voltage Range	d.c. 80-520V
Max. PV Input Current	d.c. 2*19A
Min.Start-up Voltage	d.c. 100V
Isc PV(Absolute Max.)	d.c. 2*25A
BATTERY INPUT	
Rated Battery Voltage	d.c.48V
Battery Voltage Range	d.c.40~60V
Max. Battery Charge Current	d.c.120A
Max. Battery Discharge Current	d.c.120A
Battery Type	Li-ion /Lead-Acid
GRID OUTPUT	
Rated Grid Voltage	a.c.230V
Rated Grid Frequency	50Hz/60HZ
Rated Grid Output Active Power	6000 W
Rated Grid Output Apparent Power	6000 VA
Max. Grid Output Apparent Power	6000 VA
Max. Grid Output Current	a.c.26.1A
GENERATOR INPUT	
Rated Voltage	a.c.230V
Rated Frequency	50Hz/60HZ
Generator Input Voltage Range	a.c.176-280 Vac
Rated Input Apparent Power	6000 VA
Max. Input Apparent Power	6000 VA
Max. Input Current	a.c.26.1A
EPS OUTPUT	
Rated Output Frequency	50Hz/60Hz
Rated Output Apparent Power	6000 VA
Max. Output Apparent Power	6000 VA
Max. Output Current	a.c.26.1A
GENERAL INFO	
Adjustable Cos(φ)	0.8ind...0.8cap
Operating Temperature Range	-25°C...60°C
Inverter Topology	Non-Isolated
Enclosure	IP66
Protection Class	I
Overvoltage Category	II (PV), III (MAINS)
Weight (kg)	24
Size(mm)	485*527*230

Product specifications are subject to change without prior notice



6200VA / 6200W

OFF-GRID SOLAR INVERTER

Energy Independence

Continuous Power Supply

Flexible Installation

FEATURES

- Compatible work with lifepo4 battery.
- Parallel operation up to 12 units in 1 phase or 3 phase.
- Direct Plug WIFI Dongle Supported-No additional cables required, just plug and play.
- Pure sine wave; Power factor 1.0.
- PV input 500Vdc Max; Built-in MPPT 120A.
- Capable to work without battery.
- Detachable dust cover for harsh environment.
- WiFi remote monitoring optional.
- Support multiple output priority:UTL,SOL,SBU,SUB.
- EQ function to optimize battery performance and extend lifecycle.

Model	GYSMP-6.2KW
Capacity	6200VA/6200W
Parallel Capability	YES, 12 Units
Lithium Battery activation	YES(By PV or Utility)
Lithium Battery Communication	Yes(RS485)
Input	
Nominal Voltage	230 Vac
Acceptable Voltage Range	170-280 Vac(For Personal Computer); 90-280 Vac (For Home Appliances
Frequency	50/60 Hz(Auto Sensing)
Output	
Nominal Voltage	220Vac/230Vac +5%
Surge Power	12400VA
Frequency	50/60 Hz
Waveform	Pure Sine Wave
Transfer Time	10ms (For Personal Computers),20ms(For Home Appliances
Peak Efficiency	94%
Overload Protection	5s @>= 140% Load; 10s @100%~140% Load
Crest Factor	3:1
Admissible Power Factor	0.6~1(inductive or capacitive)
Battery	
Battery Voltage	48VDC
Floating charge Voltage	54VDC
Overcharge Protection	63VDC
Charging Method	CC /CV
Solar Charge & AC Charge	
Solar Charger Type	MPPT
Max.PV Array Power	6500W
Max.PV Array Open Circuit Voltage	500VDC
PV Array MPPT Voltage Range	60VDC~500VDC
Max.Solar Input Current	27A
Max.Solar Charge Current	120A
Max.AC Charge Current	80A
Max.Charge Current	120A
Physical	
Dimensions,DxWxH(mm)	450*300*130
Package Dimensions,D xWx H(mm)	540*390*210
Net Weight(Kg)	12
Communication interface	RS232/RS485
ENVIRONMENT	
Operating Temperature Range	-10°C to 50 °C
Storage Temperature	.15 'C to 50°C
Humidity	5% to 95% Relative Humidity(Non-condensing)

Product specifications are subject to change without further notice



FEATURES

- Dual output function, exible backup.
- Wide range of accepted input voltages.
- Smart design and unique lithium battery wake-up function.
- Support WFI/GPRS remote monitoring,setting and upgrade.
- Built-in MPPT controller, PV array input voltage can be up to 500V.
- Flexible working modes with settable AC/Solar Input priority and output priority.
- Advanced battery management; supports lithium batteries and lead-acid batteries.
- Support mirco grid system with seperate generator input terminal,and can remote control generator.

Model	GYSM-B-TWIN 6.5KW
AC Input	
Rated Input Voltage (VAC)	208 / 220 / 230 / 240; L + N + PE
Voltage Range (VAC)	90~280±3 (normal mode); 170~280±3 (UPS mode)
Frequency (Hz)	50 / 60 (Auto Adaptive)
AC Output	
Rated Capacity (kW)	6.5
Surge Power (kVA)	12
Voltage (VAC)	208/220/230/240
Power Factor (PF)	1
Frequency	50/60Hz+0.1%
Switch Time (ms)	10(normal mode)/10(UPS mode)
Wave Form	Pure Sine Wave
Overload Capacity (Battery Mode)	10min@102%~120%Load, 1min@120%~150%Load,10S@150%~200%Load,5s@>200%Load
Max. Ef ciency (Battery Mode)	93%@48VDC
Charger (PV / AC)	
Solar Charger Type	MPPT
Max PV Input Current / Input Power	28A/9000W
MPPT Range@Operating Voltage (VDC)	60~450
Max PV Open Circuit Voltage (VDC)	500
Max PV Charge Current (A)	120
Max AC Charge Current (A)	120
Max. Charge Current (PV + AC) (A)	120
Battery	
Rated Voltage (VDC)	48
Floating Charge Voltage (VDC)	54
Overcharge Protection (VDC)	61
Battery Type	Lithium and Lead-acid
Interface	
HMI	LCD
Interface	RS485 / USB / Dry Contact / CT / Meter
Monitoring	WiFi (Optional)
General Data	
Ingress Protection	IP21
Operating Temperature	-10°C~50°C
Relative Humidity	5%~95%(Non-condensing)
Storage Temperature	-15°C°C~60°C
Net Weight (kg)	10
Dimensions (W*H*D)	595*390*215 mm
Max. Operating Altitude	4000m(Derating above 1000m)

Product specifications are subject to change without prior notice.



GSMP 8/10K-US

SOLAR STORAGE INVERTER

House Farm Telecom

Countryside Island Pasture

FEATURES

- Adopt DSP full digital control mode
- High precision MPPT controller.
- The battery has a balanced charging mode
- Battery can use PV maximum to input voltage 500Vdc or not use.
- Both are con gured the grid and PV prioritize.
- Monitoring system WIFI/GPRS option
- Support 6 machines in parallel, constitute three-phase four-wire power generation system.
- If the photovoltaic power is insu cient, the photovoltaic can be combined with the power grid and battery to supply the load
- Economic model can be used to charge and discharge the inverter.
- Power grid and oil machine can be freely selected.

Model	GYSMP-8K-US	GYSMP-10K-US
Battery Input/ Output Data		
Battery Voltage	48VDC	48VDC
Hybrid Charging Maximum Charging Curren	8K(180A)	10K(200A)
Battery Type	Lithium/Lead-acid	Lithium/Lead-acid
Solar Input Data		
Maximum PV Input Power	2*7700W	2*7700W
MPPT Range @ Operating Voltage	120VDC ~450VDC	120VDC ~450VDC
Maximum PV Input Current	22A*2	22A*2
Number of Independent MPP Trackers/ Strings Per MPP Tracker	2/2	2/2
Maximum PV Open-circuit Voltage	500VDC	500VDC
Maximum Solar Charge Current	8K(160A)	10K(200A)
AC Output Data Rated		
Power	8000VA/8000W	10000VA/10000W
Parallel Capabilitye	Yes, 6 units maximum	Yes, 6 units maximum
AC Voltage Regulation	120VAC ± 5% @ 50/60Hz	
Surge Power	16000VA	20000VA
Efficiency (Peak)	93%	93%
Waveform	Pure sine wave	Pure sine wave
Transfer Time	10ms typical, 20ms Max	10ms typical, 20ms Max
AC Charger Data		
Charge Current	100A	120A
AC Input Voltage	US(120 VAC)	US(120 VAC)
Selectable Voltage Range	170-280 VAC (For Personal Computers) ; 90-280 VAC (For Home Appliances) 50Hz/60Hz	
Frequency Range	50HZ/60HZ(Auto sensing)	
PHYSICAL Data		
Protection Degree	IP20	
Dimension (L/W/D)	645(L)x450(W)x133(D)mm	
Packaging Dimension (L/W/D)	802(L)x567(W)x240(D)mm	
Net Weight	28KG	
OPERATING ENVIRONMENT Data		
Certificate	UL1741/FCC	
Humidity	5% to 95% Relative Humidity(Non-condensing)	
EMC Certification Leve (EMC)	US(FCC)	
Altitude	<2000m	
Operating Temperature	0°C~+55°C	
Storage Temperature	-15°C~+60°C	

Product specifications are subject to change without further notice



GEYA POWER

8500VA ~ 11000W

OFF-GRID SOLAR INVERTER

Energy Independence

Continuous Power Supply

Flexible Installation

FEATURES

- Dual AC output; Built-in 2 MPPT; Parallel max up to 6 units.
- Lithium battery activation function by PV or Utility.
- Compatible work with LiFePO4 battery via Rs485.
- Pure Sine Wave; Power factor 1.0.
- PV Input 500Vdc Max; Built-in MPPT 140A/160A.
- Capable to work without battery.
- Detachable dust cover for harsh environment.
- Wifi remote monitoring optional.
- Support multiple output priority: UTL,SOL,SBU,SUB.
- EQ function to optimize battery performance and extend lifecycle.

Model	GYSMP-8.5KW	GYSMP-11KW
Capacity	8.5KVA/8.5KW	11KVA/11KW
Maximum PV input Power	10KW	11KW
Twin AC Output Function	YES	YES
Maximum Main Output Power	8.5KVA/8.5KW	11KVA/11KW
Maximum Second Output Power	5KVA/5KW	5KVA/5KW
Maximum Total Output Power	8.5KVA/8.5KW	11KVA/11KW
Parallel Capability	YES, 6 Units	YES, 6 Units
Lithium Battery Communication	Yes (Rs485)	Yes (Rs485)
Lithium Battery Activation	Yes,(By PV or Utility)	Yes,(By PV or Utility)
Input		
Nominal Voltage	230 Vac	
Acceptable Voltage Range	170 - 280 Vac (For Personal Computer); 90 - 280 Vac (For Home Appliances)	
Frequency	50/60 Hz (Auto Sensing)	
Output		
Nominal Voltage	220Vac / 230Vac / 240Vac	
Surge Power	17000VA	22000VA
Frequency	50/60 Hz	
Waveform	Pure Sine Wave	
Transfer Time	10ms (For Personal Computers), 20ms (For Home Appliances)	
Peak Efficiency (PV to INV)	96%	
Peak Efficiency (BAT to INV)	93%	
Overload Protection	5s @>= 140% Load; 10s @100% ~ 140% Load	
Crest Factor	3 : 1	
Admissible Power Factor	0.6 ~ 1 (inductive or capacitive)	
Grid-tie Operation	NO	
Battery		
Battery Voltage	48VDC	
Maximum Discharge Current	180A	220A
Floating charge Voltage	54VDC	
Overcharge Protection	63VDC	
Charging Method	CC / CV	
Solar Charge & AC Charge		
Solar Charger Type	MPPT	
Max.PV Array Power	5000W*2	
Max.PV Array Open Circuit Voltage	500VDC	
PV Array MPPT Voltage Range	60VDC~500VDC	
Max.Solar Input Current	18A*2	
Max.Solar Charge Current	140A	160A
Max.AC Charge Current	120A	120A
Max.Charge Current(PV+AC)	140A	160A
Physical		
Dimensions,D*W*H(mm)	540*415*122	540*415*122
Net Weight(Kgs)	14.5	15.5
Communication interface	RS232/RS485/Dry-contact	
LCD	YES	
ENVIRONMENT		
Operating Temperature Range	- 10 °C to 50 °C - 15 °C to 50 °C	
Storage Temperature	5% to 95% Relative Humidity (Non-condensing)	
Humidity		

Product specifications are subject to change without further notice.



300W ~ 350W ~ 400W

GSMI SERIES MICRO SOLAR INVERTER

Energy Independence

Continuous Power Supply

Flexible Installation

FEATURES

- IP65~lP67 waterproof level.
- Integrated AC bus cable, Ready-To-Use.
- WIFl communication and cloud monitoring.
- Output voltage is automatically recognized.
- Compatible with a variety of conventional solar panels.
- Unique reverse transmission technology gives priority to the load.
- Excellent low light lock function (APL) and higher conversion ef ciency.

Model	GYSMI-300W	GYSMI-350W	GYSMI-400W
Input Data (DC, PV)			
Number of Input MC4 Connector	1 sets		
MPPT Voltage Range	16V-48V		
Operation Voltage Range	20V-50V		
Maximum Input Voltage	50V		
Startup Voltage	22V		
Maximum Input Power	300W	350W	400W
Maximum input Current	12A	14A	16A
Output Data(AC)			
Single-Phase Grid Type	120V&230V	120V&230V	120V&230V
Rated Output Power	300W	350W	400W
Maximum Output Power	300W	350W	400W
Nominal Output Current	@120VAC:2.5A/@230VAC:1.3A	@120VAC:2.9A/@230VAC:1.5A	@120VAC:3.3A/@230VAC:1.7A
Nominal Output Voltage	120VAC/230VAC		
Default Output Voltage Range	@120VAC:80V-160V/@230VAC:180V-270V		
Nominal Output Frequency	50Hz/60Hz		
Default Output Frequency Range	@50Hz:48Hz-51Hz/@60Hz:58Hz-61Hz		
Power Factor	>0.99%		
Total Harmonic Distortion	THD <5%		
Maximum Units per Branch	@120VAC:5units /@230VAC: 10units		
Efficiency			
Peak Efficiency	95%		
Nominal MPPT Efficiency	99.5%		
Night Power Consumption	<1W		
Mechanical Data			
Operating Ambient Temperature Range	-40°Cto +65°C		
Storage Temperature Range	-40°Cto +85°C		
Dimensions(W*H *D)	240mmx185mm x 45mm (not include connectors and cable)		
Weight	1.6kg		
Max Current of AC Bus Cable	20A		
Waterproof Grade	IP66		
Cooling Mode	Natural Convection- No Fans		
Other Features			
Communication	WIFI (Cloud monitoring)		
Transformer Design	High Frequency Transformers, Galvanically Isolated		
Integrated Ground	Equipment ground is provided by the PE in the AC cable. No additional ground is required.		
Protection Functions	Isolated Island Protection, Voltage Protection, Frequency Protection, Temperature Protection, Current Protection, etc.		
Design Compliance	EN IEC61000-3-2:2019+A1:2021,EN 61000-3-3:2013+A1:2019+A2:2021, EN IEC55014-2:2021,EN IEC55014-2:2021.		

Product specifications are subject to change without prior notice.



600W ~ 700W ~ 800W

GSMI SERIES MICRO SOLAR INVERTER

Energy Independence

Continuous Power Supply

Flexible Installation

FEATURES

- IP65~lP67 waterproof level.
- Integrated AC bus cable, Ready-To-Use.
- WIFI communication and cloud monitoring.
- Output voltage is automatically recognized.
- Compatible with a variety of conventional solar panels.
- Unique reverse transmission technology gives priority to the load.
- Excellent low light lock function (APL) and higher conversion ef ciency.

Model	GYSMI-600W	GYSMI-700W	GYSMI-800W
Input Data (DC, PV)			
Number of Input MC4 Connector	2 sets		
MPPT Voltage Range	22V-48V		
Operation Voltage Range	18V-60V		
Maximum Input Voltage	60V		
Startup Voltage	22V		
Maximum Input Power	600W	700W	800W
Maximum input Current	12A*2	14A*2	16A*2
Output Data(AC)			
Single-Phase Grid Type	120V&230V	120V&230V	120V&230V
Rated Output Power	600W	700W	800W
Maximum Output Power	600W	700W	800W
Nominal Output Current	@120VAC:5A/@230VAC:2.6A	@120VAC:5.8A/@230VAC:3A	@120VAC:6.6A/@230VAC:3.4A
Nominal Output Voltage	120VAC /230VAC		
Default Output Voltage Range	@120VAC:80V-160V/@230VAC:180V-270V		
Nominal Output Frequency	50Hz/60Hz		
Default Output Frequency Range	@50Hz:48Hz-51Hz/@60Hz:58Hz-61Hz		
Power Factor	>0.99%		
Total Harmonic Distortion	THD <5%		
Maximum Units per Branch	@120VAC:5units /@230VAC: 6units		
Efficiency			
Peak Efficiency	95%		
Nominal MPPT Efficiency	99.5%		
Night Power Consumption	<1W		
Mechanical Data			
Operating Ambient Temperature Range	-40°Cto +65°C		
Storage Temperature Range	-40°Cto +85°C		
Dimensions(W*H *D)	310mmx185mm x 45mm (not include connectors and cable)		
Weight	2kg		
Max Current of AC Bus Cable	20A		
Waterproof Grade	IP66		
Cooling Mode	Natural Convection- No Fans		
Other Features			
Communication	WIFI (Cloud monitoring)		
Transformer Design	High Frequency Transformers, Galvanically Isolated		
Integrated Ground	Equipment ground is provided by the PE in the AC cable. No additional ground is required.		
Protection Functions	Isolated Island Protection, Voltage Protection, Frequency Protection, Temperature Protection, Current Protection, etc.		
Design Compliance	EN IEC61000-3-2:2019+A1:2021,EN 61000-3-3:2013+A1:2019+A2:2021, EN IEC55014-2:2021,EN IEC55014-2:2021.		

Product specifications are subject to change without prior notice.



1200W ~ 1400W ~
1600W ~ 2000W

GSMI SERIES MICRO SOLAR INVERTER

Energy Independence

Continuous Power Supply

Flexible Installation

FEATURES

- IP65~lP67 waterproof level.
- Integrated AC bus cable, Ready-To-Use.
- WIFl communication and cloud monitoring.
- Output voltage is automatically recognized.
- Compatible with a variety of conventional solar panels.
- Unique reverse transmission technology gives priority to the load.
- Excellent low light lock function (APL) and higher conversion ef ciency.

Model	GYSMI-1200W	GYSMI-1400W	GYSMI-1600W	GYSMI-2000W
Input Data (DC, PV)				
Number of Input MC4 Connector	4 sets			
MPPT Voltage Range	22V-48V			
Operation Voltage Range	18V-60V			
Maximum Input Voltage	60V			
Startup Voltage	22V			
Maximum Input Power	1200W	1400W	1600W	2000W
Maximum input Current	12A*4	14A*4	15A*4	16A*4
Output Data(AC)				
Single-Phase Grid Type	120V&230V	120V&230V	120V&230V	120V&230V
Rated Output Power	1200W	1400W	1600W	2000W
Maximum Output Power	1200W	1400W	1600W	2000W
Nominal Output Current	@120VAC:10A/@230VAC:5.2A		@120VAC:11.6A/@230VAC:6A	
	@120VAC:13.3A/@230VAC:6.9A		@120VAC:16.6/@230VAC:8.6A	
Nominal Output Voltage	120VAC /230VAC			
Default Output Voltage Range	@120VAC:80V-160V/@230VAC:180V-270V			
Nominal Output Frequency	50Hz/60Hz			
Default Output Frequency Range	@50Hz:48Hz-51Hz/@60Hz:58Hz-61Hz			
Power Factor	>0.99%			
Total Harmonic Distortion	THD <5%			
Maximum Units per Branch	1200W@120VAC:2units /@230VAC:3units(AC cable 3*1.5mm²) 1400W/1600@120VAC:1units /@230VAC:2units(AC cable 3*1.5mm²) 2000W@120VAC:1units /@230VAC:1units(AC cable 3*1.5mm²)			
Efficiency				
Peak Efficiency	95%			
Nominal MPPT Efficiency	99.5%			
Night Power Consumption	<1W			
Mechanical Data				
Operating Ambient Temperature Range	-40°Cto +65°C			
Storage Temperature Range	-40°Cto +85°C			
Dimensions(W*H *D)	255mmx340mm x 45mm (not include connectors and cable)			
Weight	3.65kg			
Max Current of AC Bus Cable	20A			
Waterproof Grade	IP66			
Cooling Mode	Natural Convection- No Fans			
Other Features				
Communication	WIFI (Cloud monitoring)			
Transformer Design	High Frequency Transformers, Galvanically Isolated			
Integrated Ground	Equipment ground is provided by the PE in the AC cable. No additional ground is required.			
Protection Functions	Isolated Island Protection, Voltage Protection, Frequency Protection, Temperature Protection, Current Protection, etc.			
Design Compliance	EN IEC61000-3-2:2019+A1:2021,EN 61000-3-3:2013+A1:2019+A2:2021, EN IEC55014-2:2021,EN IEC55014-2:2021.			

Product specifications are subject to change without prior notice.



FEATURES

- High energy density, Long cycle life
- Certain energies are high, Good safety performance.
- Rapid charge and discharge, Low self-discharge rate.
- Parallel connection up to 15, Large capacity, long life.
- Can be wall hanging, can be stacked.
- Excellent high and low temperature performance

Model	GYSWT-3KW	GYSWT-5KW
Rated Power	3000VA/3000W	5000VA/5000W
INPUT		
Voltage	230 Vac	
Selectable Voltage Range	170 - 280 Vac (For Personal Computer); 90 - 280 Vac (For Home Appliances)	
Frequency Range	50/60 Hz (Auto Sensing)	
OUTPUT		
AC Voltage Regulation (Batt. Mode)	230VAC±5%	
Surge Power	6000VA	10000VA
Efficiency (Peak)	up to 93.5%	
Transfer Time	10 ms (For Personal Computers) ; 20 ms(For Home Appliances)	
Waveform	Pure sine wave	
BATTERY		
Battery Voltage	24VDC	48VDC
Floating Charge Voltage	27VDC	54VDC
Overcharge Protection	33VDC	63VDC
SOLAR CHARGER & AC CHARGER		
Maximum PV Array Open Circuit Voltage	150VDC	500VDC
Maximum PV Array Power	2500WV	5000W
MPPT Range @ Operating Voltage	40~150VDC	120~450VDC
Maximum Solar Charge Current	100A	100A
Maximum AC Charge Current	80A	80A
Maximum Charge Current	100A	100A
PHYSICAL		
Dimension, D*W*H(mm)	860*515*150	
Net Weight (kgs)	60	
Communication Interface	USB/RS232	
ENVIRONMENT		
Humidity	5% to 95% Relative Humidity (Non-condensing)	
Operating Temperature	-10°C to 50°C	
Storage Temperature	-15°C to 60°C	
LITHIUM BATTERY		
Batteries materials	Lithium iron phosphate	
Series parallel mode(s series,P parallel)	16S1P	
Nominal voltage	51.2V	
Nominal capacity	100Ah	
Color	Optional	
Charging way	CP/VP	
Charging current	0.2C(standard)	
Maximum charging current	Max 0.5C@25°C	
Charge cut-off voltage	58.4V/CELL	
Discharge way	CP/VP	
Discharge current	1C	
Maximum discharge current	Max 1C@25°C	
Discharge cut-off voltage	44.8V	
Display	LCD	
Charging operating temperature	Charging:0~+50°C	
Discharge operating temperature	Discharge:-20~+55°C	

Product specifications are subject to change without prior notice.



GEYA POWER

600W / 537.6WH

PORTABLE POWER STATION

Energy Independence

Continuous Power Supply

Portable use

FEATURES

- Lifecycle > 4000 times, with longer Service Life.
- Three charging modes: it can be charged by AC electricity, Py Module,and Automobile Cigarette lighter.
- Inteligent Battery Management System (BMS), multiple safety protection for over current. over voltage, over charger, over discharge, over temperature, short circuit etc.
- Rich types of interfaces, more convenient for charging and discharging.

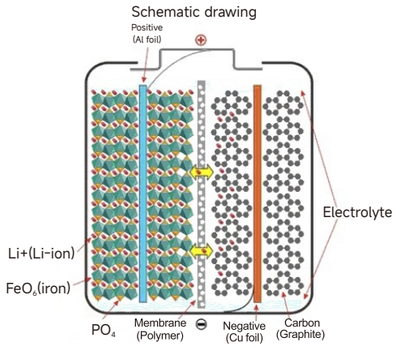
Model	600L
Capacity	537.6WH
AC Voltage	220V
Frequency	50HZ
Rated Power	600w
Peak Power	1200w
THD	S3%
Battery Cell	LiFePO4 (32700 3.2V 6AH)
Working Temp.	Discharging Temp.-10--40°C/Charging Temp. 0-40°C
Charging Voltage	11-30v
Wall Charging Power	Standard 126(Optional 300w)
DC Charging Power	MAX30V 200W
Charging Method	
Wall Charging Time	Standard charge 6-7h/Quick charge 2h 80%(Optional)
Solar Charging Time	7-8h 80%(max 200w)
Generator Charging Time	Standard charge 6-7h/Quick charge 2h 80%(Optional)
Car Charging Time	7-8h 80%(12V 8A)
Control Panel	
Main Switch	YES
AC	600w*2
AC-2(30A)	/
AC Power Swtich	YES
USB-A	5V 2.4A(12w)*2
USB-A(Quick Charge)	12V 1.5A(18wmax)*1
USB-C	100W*1
Cigarette Lighter	120W*1(12V 10A)
DC	12V 5A*2
Wireless Charging	Optional as cost adder
AC Charging Port	300W*1
Solar Charging Port	200W*1
Parallel Port	/
LCD Screen	Black& White Screen: 1.Remaining power (1% step) 2.output power 3.input power 4.Warning 5. defect code 6. working status icon
Bidirectional inverter convert technology (AC-DC)	Quick charge yes/Slow charge no
MPPT	Including
Illuminating Light	Yes
Overload Protection	/
12V DC Charge Switch	yes
Function	
Parallel	/
UPS	/
Power the car (with adaptor)	YES
LCD Display Accurancy	1%
Fault code on LCD	YES
Dimension and Pacakges	
Unit Dimension	320*230*260mm
Package Dimension	430*265*300mm
Unit Weight	8KG
Package Weight	9.5KG
40HQ Loading QTY	2052
Accessories	Adaptor, Manual, Car charger wire
Certification	UN38.3, CE,EMC
Life Cycle	4000 Cycle

Product specifications are subject to change without prior notice.

Energystorage
products and solutions

Create green value, create customer value, and make energy more efficient Make the environment better and development sustainable





Lifepo4 Battery Cell

Lithium lron Phosphate Battery (lifepo) has A Nominal Voltage Of 48 vdc. it is Comprised By 16 Cells Of 3.2v Each. The internal Structure Of Lifepo4 Battery Cellls Shown In The Figure On The Right. Shown ls: The Olivine Structure Of Lifepo4 As The Positive Electrode Of cell. Aluminum Foil Functions As Current Collector Of Positive Pole. A Polymer Membrane Separates Positive And Negative Electrodes Of The Cell. The Electron (e-) Can't Pass Through The Polymer Separator But Li+ Can Pass Through it Freely. The Negative Electrode Which Consists Of Graphite is Shown in The Figure On The Right. Copper Foil is:The Current Collector Of Negative Electrode. There ls Organic Electrolyte In The Cell Which is Sealed By Al-plastic Composite Film.

General features

Lithium iron phosphate (LiFeP04) is used as positive material, which offers extended cycle life and good safety performance.
Embedded BMS offers voltage, current, temperature protection and alarm functions.
BMS can communnicate with other device by modbus protocol.
Embedded BMS unit measures current, voltage, single cellsurface temperature and the ambient temperature of the battery.
Embedded BMS offers four remote functions which can communicate with far-end central control center by computer management.
The combination of BMS and computer management technology can achieve real-time monitoring and control of variousparameters and status.
off the support from The power system has secondary cut-off protection and when the voltageis too low thesystem will cut battery to protect the battery service life.
Under normal operating conditions, the entire system emits very little noise due to their passive cooling design.

Advantages

Low self-discharge rate(per month):<2%,no memory effect.
Low weight, Specific Energy is 2-3 times larger than conventional lead acid batteries. small size, Volumetric specific Energy is about 2 times larger than lead acid battery.
Safety, LiFeP04 battery completely solves the safety problems of traditional lithium battery.
Wide operating temperature range (-20°C-+60°C) and good high temperature performance.
Excellent fast charging performance, after fast charging with 1C current, the capacity can reach 95% of rate capacity in half-hour.
Flexible configuration, a plurality of modules in parallel can support expansion of capacity to extend backup time.
Easy installation, the battery can be installed in 19"standard cabinet or wall-mounted Being in sleep mode to reduce energy loss when storage and transport.
Convenient interface design,all wiring harness is connected with plug.
Environment-friendly,not containingheavy metals.
Safety, LiFeP04 battery completely solves the safety problems of traditional lithium battery.
Having FTTH usually supersedes FTTB (FTTx) could be simpler to use.



51.2V

Wall-mounted Lithium Battery Series

Product features

- Space-saving: Mounts directlyon walls, ideal for compact homes.
- Aesthetic integration: Sleek design blends with home decor.
- Flexible installation: Indoor/outdoor options with no extra brackets.

> Context of Use

Residence Farm Base station

Model	YY51100LW	YY51200LW	YY51280LW	YY51300LW	YY51320LW
Total Energy(kWh)	5.12KWh	10.24KWh	14.336KWh	15.36KWh	16.384KWh
Capacity(Ah)	100Ah	200Ah	280Ah	300Ah	320Ah
NominalVoltage(V)	51.2V	51.2V	51.2V	51.2V	51.2V
Float Voltage(V)	58.4V	58.4V	58.4V	58.4V	58.4V
Equalization Voltage(V)	56V	56V	56V	56V	56V
Discharge CuttingVoltage(V)	44.8V	44.8V	44.8V	44.8V	44.8V
Max.Charge & Discharge Current(A)	100A	200A	200A	200A	200A
Max.C Rating	1C	1C	0.7C	0.65C	0.6C
Dimension(mm)	570*410*160	830*500*160	830*500*250	830*500*250	860*500*250
Net Weight(kg)	45.2kg	91.6kg	122kg	125kg	132kg
Max. Scalable	15 in parallel				
Communication Ports	CAN/RS485/RS232				
Communicated inverter	“Goodwe/Victron/Sofar/Deye/Voltronic/Pylon /Luxpower Afore/Must/ SakoSorotec/Sma/Solis/Phocos /Kstar/Mpp Solar/Growatt/Megarevo/Srne”				
Charging Temp Range(°C)	0-55°C				
Discharging Temp Range(°C)	-10~55°C				
Cycle Lifes	≥6000 cycles@80%DOD/0.5C/25°C				
Warranty	5 years				
Certifications	CE,UN38.3,MSDS				
Function	WIFI、Display screen				

GEYA POWER



48V

Wall-mounted Lithium Battery Series

Product features

- Space-saving: Mounts directlyon walls, ideal for compact homes.
- Aesthetic integration: Sleek design blends with home decor.
- Flexible installation: Indoor/outdoor options with no extra brackets.

> Context of Use

Residence Farm Base station

Model	YY48100LW	YY48200LW	YY48280LW	YY48300LW	YY48320LW
Total Energy(kWh)	4.8KWh	9.6Kwh	13.44KWh	14.4KWh	15.36KWh
Capacity(Ah)	100Ah	200Ah	280Ah	300Ah	320Ah
NominalVoltage(V)	48V	48V	48V	48V	48V
Float Voltage(V)	54.75V	54.75V	54.75V	54.75V	54.75V
Equalization Voltage(V)	52.5V	52.5V	52.5V	52.5V	52.5V
Discharge CuttingVoltage(V)	42V	42V	42V	42V	42V
Max.Charge & Discharge Current(A)	100A	200A	200A	200A	200A
Max.C Rating	1C	1C	0.7C	0.65C	0.6C
Dimension(mm)	570*410*160	830*500*160	830*500*250	830*500*250	860*500*250
Net Weight(kg)	42.2kg	87.6kg	117kg	120kg	126kg
Max. Scalable	15 in parallel				
Communication Ports	CAN/RS485/RS232				
Communicated inverter	“Goodwe/Victron/Sofar/Deye/Voltronic/Pylon /Luxpower Afore/Must/ SakoSorotec/Sma/Solis/Phocos /Kstar/Mpp Solar/Growatt/Megarevo/Srne”				
Charging Temp Range(°C)	0~55°C				
Discharging Temp Range(°C)	-10~55°C				
Cycle Lifes	>6000 cycles@80%DOD/0.5C/25°C				
Warranty	5 years				
Certifications	CE,UN38.3,MSDS				
Function	WIFI、Display screen				

Residence Farm Base station

GEYA POWER



25.6V

Wall-mounted Lithium Battery Series

Product features

- Space-saving: Mounts directlyon walls, ideal for compact homes.
- Aesthetic integration: Sleek design blends with home decor.
- Flexible installation: Indoor/outdoor options with no extra brackets.

Model	YY25100LW	YY25200LW	YY25280LW	YY25300LW	YY25320LW
Total Energy(kWh)	2.56KWh	5.12Kwh	7.168KWh	7.68KWh	8.192KWh
Capacity(Ah)	100Ah	200Ah	280Ah	300Ah	320Ah
NominalVoltage(V)	25.6V	25.6V	25.6V	25.6V	25.6V
Float Voltage(V)	29.2V	29.2V	29.2V	29.2V	29.2V
Equalization Voltage(V)	28V	28V	28V	28V	28V
Discharge CuttingVoltage(V)	22.4V	22.4V	22.4V	22.4V	22.4V
Max.Charge & Discharge Current(A)	100A	200A	200A	200A	200A
Max.C Rating	1C	1C	0.7C	0.65C	0.6C
Dimension(mm)	410*370*155	700*420*170	560*400*248	560*400*248	670*450*220
Net Weight(kg)	25.3kg	51.9kg	69.8kg	70.5kg	75.5kg
Max. Scalable	15 in parallel				
Communication Ports	CAN/RS485/RS232				
Communicated inverter	“Goodwe/Victron/Sofar/Deye/Voltronic/Pylon /Luxpower Afore/Must/ SakoSorotec/Sma/Solis/Phocos /Kstar/Mpp Solar/Growatt/Megarevo/Srne”				
Charging Temp Range(°C)	0~55°C				
Discharging Temp Range(°C)	-10~55°C				
Cycle Lifes	≥6000 cycles@80%DOD/0.5C/25°C				
Warranty	5 years				
Certifications	CE,UN38.3,MSDS				
Function	WIFI、Display screen				

Residence Farm Base station

GEYA POWER

Blade LiFeP04 Wall mount series



Product features

- Space-saving: Mounts directlyon walls, ideal for compact homes.
- Aesthetic integration: Sleek design blends with home decor.
- Flexible installation: Indoor/outdoor options with no extra brackets.

Model	YY51138BW	YY51276BW
Total Energy(kWh)	7.065KWh	14.131KWh
Capacity(Ah)	138Ah	276Ah
NominalVoltage(V)	51.2V	51.2V
Float Voltage(V)	58.4V	58.4V
Equalization Voltage(V)	56V	56V
Discharge CuttingVoltage(V)	44.8V	44.8V
Max.Charge & Discharge Current(A)	150A	200A
Max.C Rating	1C	0.7C
Dimension(mm)	1125*340*170	1125*500*170
Net Weight(kg)	75kg	135kg
Max. Scalable	15 in parallel	
Communication Ports	CAN/RS485/RS232	
Communicated inverter	“Goodwe/Victron/Sofar/Deye/Voltronic/Pylon /Luxpower Afore/Must/ SakoSorotec/Sma/Solis/Phocos /Kstar/Mpp Solar/Growatt/Megarevo/Srne”	
Charging Temp Range(°C)	0~55°C	
Discharging Temp Range(°C)	-10~55°C	
Cycle Lifes	>6000 cycles@80%DOD/0.5C/25°C	
Warranty	5 years	
Certifications	CE,UN38.3,MSDS	
Function	WIFI、Display screen	

Residence Farm Base station

GEYA POWER

51.2V Sitting lithium battery series



Product features

- High-capacity: Single unit provideslarge energy storage (e.g., 10kWh+) for high-demand households or off-grid use.
- Stable& Safe: Low-center-of-gravity design with anti-tip features; some modelsinclude wheels for mobility.
- Plug-and-Play: No installation required; place directly on floors(e.g., garages, basements).
- Scalable: Optional parallel connection for future capacity expansion.
- Weather-resistant: Wide operating temperature (-20°C~50°C) and high IP rating (e.g., IP55) for harsh conditions.

Model	YY51280FS	YY51300FS	YY51320FS	YY51460FS
Total Energy(kWh)	14.336KWh	15.36KWh	16.384KWh	23.55KWh
Capacity(Ah)	280Ah	300Ah	320Ah	460Ah
NominalVoltage(V)	51.2V	51.2V	51.2V	51.2V
Float Voltage(V)	58.4V	58.4V	58.4V	58.4V
Equalization Voltage(V)	56V	56V	56V	56V
Discharge CuttingVoltage(V)	44.8V	44.8V	44.8V	44.8V
Max.Charge & Discharge Current(A)	200A	200A	200A	200A
Max.C Rating	0.7C	0.65C	0.6C	0.6C
Dimension(mm)	790*520*265	840*500*250	682*385*912	385*682*1030
Net Weight(kg)	131.6kg	137.8kg	151.5kg	213.5kg
Max. Scalable	15 in parallel			
Communication Ports	CAN/RS485/RS232			
Communicated inverter	“Goodwe/Victron/Sofar/Deye/Voltronic/Pylon /Luxpower Afore/Must/ SakoSorotec/Sma/Solis/Phocos /Kstar/Mpp Solar/Growatt/Megarevo/Srne”			
Charging Temp Range(°C)	0~55°C			
Discharging Temp Range(°C)	-10~55°C			
Cycle Lifes	≥6000 cycles@80%DOD/0.5C/25°C			
Warranty	5 years			
Certifications	CE,UN38.3,MSDS			
Function	WIFI、Touch Screen、Battery light、Display screen			

Residence Farm Base station

GEYA POWER



51.2V

Rack storage lithium battery series

Product features

- Large single capacity: Standalone tower for high consumption.
- Sturdy design: Low center of gravity, anti-toppling.
- Plug-and-play: No installation required.

Model	YY51100LR	YY51200LR	YY51280LR	YY51300LR	YY51320LR
Total Energy(kWh)	5.12Kwh	10.24Kwh	14.336KWh	15.36KWh	16.384KWh
Capacity(Ah)	100Ah	200Ah	280Ah	300Ah	320Ah
NominalVoltage(V)	51.2V	51.2V	51.2V	51.2V	51.2V
Float Voltage(V)	58.4V	58.4V	58.4V	58.4V	58.4V
Equalization Voltage(V)	56V	56V	56V	56V	56V
Discharge CuttingVoltage(V)	44.8V	44.8V	44.8V	44.8V	44.8V
Max.Charge & Discharge Current(A)	100A	200A	200A	200A	200A
Max.C Rating	1C	1C	0.7C	0.65C	0.6C
Dimension(mm)	470*450*177	560*482*245	750*440*245	750*440*245	830*500*250
Net Weight(kg)	44kg	88.1kg	114kg	118kg	125kg
Max. Scalable	15 in parallel				
Communication Ports	CAN/RS485/RS232				
Communicated inverter	“Goodwe/Victron/Sofar/Deye/Voltronic/Pylon /Luxpower Afore/Must/ SakoSorotec/Sma/Solis/Phocos /Kstar/Mpp Solar/Growatt/Megarevo/Srne”				
Charging Temp Range(°C)	0~55°C				
Discharging Temp Range(°C)	-10~55°C				
Cycle Lifes	>6000 cycles@80%DOD/0.5C/25°C				
Warranty	5 years				
Certifications	CE,UN38.3,MSDS				
Function	WIFI、Display screen				

Residence Farm Base station

GEYA POWER



48V

Rack storage lithium battery series

Product features

- Space-saving: Mounts directlyon walls, ideal for compact homes.
- Aesthetic integration: Sleek design blends with home decor.
- Flexible installation: Indoor/outdoor options with no extra brackets.

Model	YY48100LR	YY48200LR	YY48280LR	YY48300LR	YY48320LR
Total Energy(kWh)	4.8KWh	9.6Kwh	13.44KWh	14.6KWh	15.36Kwh
Capacity(Ah)	100Ah	200Ah	280Ah	300Ah	320Ah
NominalVoltage(V)	48V	48V	48V	48V	48V
Float Voltage(V)	54.75V	54.75V	54.75V	54.75V	54.75V
Equalization Voltage(V)	52.5V	52.5V	52.5V	52.5V	52.5V
Discharge CuttingVoltage(V)	42V	42V	42V	42V	42V
Max.Charge & Discharge Current(A)	100A	200A	200A	200A	200A
Max.C Rating	1C	1C	0.7C	0.65C	0.6C
Dimension(mm)	470*450*177	560*482*245	750*440*245	750*440*245	830*500*250
Net Weight(kg)	41.5kg	84.9kg	109kg	112kg	118kg
Max. Scalable	15 in parallel				
Communication Ports	CAN/RS485/RS232				
Communicated inverter	“Goodwe/Victron/Sofar/Deye/Voltronic/Pylon /Luxpower Afore/Must/ SakoSorotec/Sma/Solis/Phocos /Kstar/Mpp Solar/Growatt/Megarevo/Srne”				
Charging Temp Range(°C)	0~55°C				
Discharging Temp Range(°C)	-10~55°C				
Cycle Lifes	≥6000 cycles@80%DOD/0.5C/25°C				
Warranty	5 years				
Certifications	CE,UN38.3,MSDS				
Function	WIFI、Display screen				

Residence Farm Base station

GEYA POWER

25.6V

Rack storage lithium battery series



Product features

- Large single capacity: Standalone tower for high consumption.
- Sturdy design: Low center of gravity, anti-toppling.
- Plug-and-play: No installation required.

Model	YY25100LR	YY25200LR	YY25280LR	YY25300LR	YY25320LR
Total Energy(kWh)	2.56Kwh	51.2KWh	7.168KWh	7.68KWh	8.192Kwh
Capacity(Ah)	100Ah	200Ah	280Ah	300Ah	320Ah
NominalVoltage(V)	25.6V	25.6V	25.6V	25.6V	25.6V
Float Voltage(V)	29.2V	29.2V	29.2V	29.2V	29.2V
Equalization Voltage(V)	28V	28V	28V	28V	28V
Discharge CuttingVoltage(V)	22.4V	22.4V	22.4V	22.4V	22.4V
Max.Charge & Discharge Current(A)	100A	200A	200A	200A	200A
Max.C Rating	1C	1C	0.7C	0.65C	0.6C
Dimension(mm)	545*530*215	595*440*176	460*440*243	460*440*243	460*440*243
Net Weight(kg)	32.2kg	65.4kg	91.3kg	95.6kg	104.5kg
Max. Scalable	15 in parallel				
Communication Ports	CAN/RS485/RS232				
Communicated inverter	“Goodwe/Victron/Sofar/Deye/Voltronic/Pylon /Luxpower Afore/Must/ SakoSorotec/Sma/Solis/Phocos /Kstar/Mpp Solar/Growatt/Megarevo/Srne”				
Charging Temp Range(°C)	0~55°C				
Discharging Temp Range(°C)	-10~55°C				
Cycle Lifes	≥6000 cycles@80%DOD/0.5C/25°C				
Warranty	5 years				
Certifications	CE,UN38.3,MSDS				
Function	WIFI、Display screen				

Residence Farm Base station

GEYA POWER

48V

UL storage lithium battery series



Product features

- Modular expansion: Vertical stacking for scalable capacity.
- High energy density: Compact single module for medium demand.
- Cost-effective upgrade: Expand without replacing main unit.

Model	YY48100UL	YY48200UL	YY48280UL	YY48300UL	YY48320UL
Total Energy(kWh)	4.8KWh	9.6Kwh	13.44KWh	14.6KWh	15.36Kwh
Capacity(Ah)	100Ah	200Ah	280Ah	300Ah	320Ah
NominalVoltage(V)	48V	48V	48V	48V	48V
Float Voltage(V)	54.75V	54.75V	54.75V	54.75V	54.75V
Equalization Voltage(V)	52.5V	52.5V	52.5V	52.5V	52.5V
Discharge CuttingVoltage(V)	42V	42V	42V	42V	42V
Max.Charge & Discharge Current(A)	100A	200A	200A	200A	200A
Max.C Rating	1C	1C	0.7C	0.65C	0.6C
Dimension(mm)	470*450*177	560*482*245	750*440*245	750*440*245	830*500*250
Net Weight(kg)	41.5kg	84.9kg	109kg	112kg	118kg
Max. Scalable	15 in parallel				
Communication Ports	CAN/RS485/RS232				
Communicated inverter	“Goodwe/Victron/Sofar/Deye/Voltronic/Pylon /Luxpower Afore/Must/ SakoSorotec/Sma/Solis/Phocos /Kstar/Mpp Solar/Growatt/Megarevo/Srne”				
Charging Temp Range(°C)	0~55°C				
Discharging Temp Range(°C)	-10~55°C				
Cycle Lifes	≥6000 cycles@80%DOD/0.5C/25°C				
Warranty	5 years				
Certifications	CE,UN38.3,MSDS				
Function	WIFI				



Product features

Friendly and flexible

- 2-in-1 design: Built-ininverter+ battery in stackable units.
- Smart synergy: Auto-load balancing for off-grid use.
- Minimal setup: Reduced cabling for quick deployment.

Safe and reliable

- High operational reliability
- BMS battery protection
- In line with the RoHS

Rich configuration

- Easy to transport and integrate
- High quality battery cells
- WiFi remote monitoring

Intelligent and efficient

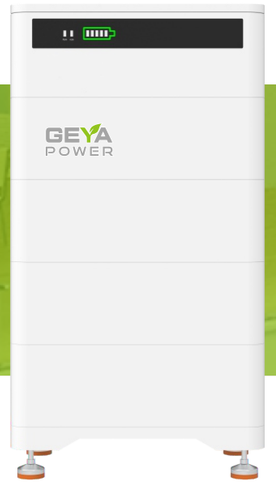
- Larger capacity supply equipment cabinet
- No active cooling system is required
- They live for more than 10 years at +25°C

Model		YY51100SA	YY51200SA	YY51300SA
Inverter Mode		5KW DC48V		
Rated Output Power		Pure sine wave		
Output Voltage Waveform Output Voltage Regulation		220Vac/230Vac/240Vac±5%,50/60Hz±0.1%		
Output Frequency		40~70Hz±0.1%(Auto Sensing)		
Peak Efficiency		94%		
Overload Protection		1min@102%~110%Load;10s@110%~130%Load;3s@130%~150%Load;0.2s@>150% Load		
Surge Capacity		5.12KWh	10.24KWh	15.36KWh
Nominal DC input Voltage		48VDC		
Cold start Voltage		46VDC		
Low DC Warning VoltageLow DC Cut-off Voltage		44.8VDC		
High DC Recovery Voltage		58VDC		
High DC Cut-off Voltage		60.4VDC		
Charge Mode Specifications				
Charging Current @ Nominalinput Voltage		5KW:1-80A		
Absorption	AGM/FLD/LIB/CUs Battery	50VDC		
Voltage	Flooded battery	50VDC		
Floating charging	AGM/FLD/LIB/CUs Battery	58.4VDC		
Voltage	Flooded battery	58.4VDC		
Bulk charging	AGM/FLD/LIB/CUS Battery	57.6VDC		
Voltage(c.V voltage)	Flooded battery	56.8VDC		
Charging Algorithm		CC/CP/VP		
Solar Charging Mode				
Rated Power		5KW		
MPPT charger		60A		
Solar charging current		80A		
Max.PVArray Open Circuit Voltage		450VDC		
PV Array MPPT Voltage Range		120~430VDC		
Min battery voltage for PV charge		42VDC		
Standby Power Consumption		60W		
Line mode charger				
Charging current		60A 80A		
Line Voltage Range		90~280Vac+3V(Normal mode)/170~280Vac±3V(UPS mode)		
BatteryVoltage Accuracy		±0.3%		
Voltage Accuracy		±2V		
ChargingAlgorithm		CC/CP/VP		
Joint Utility and Solar charging		MPPT		
Max. Charging Current		120A		
Default Charging Current		60A		
Battery Model				
Total Energy		5.12KWh	10.24KWH	15.36KWH
Capacity		100Ah*1	100Ah*2	100Ah*3
Nominal Voltage		51.2V	51.2V	51.2V
Float Voltage		58.4V	58.4V	58.4V
Equalization Voltage		56V	56V	56V
Discharge CuttingVoltage		44.8V	44.8V	44.8V
Max,Charge & Discharge Current		100A	100A	100A
Max.C Rating		1C	1C	1C
Dimension		740*430*195mm	1170*430*195mm	1600*430*195mm
Net Weight		65kg	115kg	165kg
Communication Ports		CAN/RS485/RS232		
ChargingTemp Range		0-55°C		
DischargingTemp Range		-10~55°C		
Parallel		support		
Cycle Lifes		≥6000cycles @80%DOD/0.5C/25°C		
Warranty		5 years		
Certifications		CE,UN38.3.MSDS		
Function		WIFI、Display screen		

Residence Farm Base station

GEYA POWER

384V
High voltage stacked lithium battery series



Product features

- Modular expansion: Vertical stacking for scalable capacity.
- High-voltage efficiency: Minimizes energy conversion loss.
- Commercial-grade:Handles heavy loads for homes/small businesses
  Enhanced safety: Multi-layer protection for high-voltage operation.

Model	YY38427HVS
Total Energy(kWh)	10.368KWh
Capacity(Ah)	384Ah
NominalVoltage(V)	27V
Float Voltage(V)	438V
Equalization Voltage(V)	420V
Discharge CuttingVoltage(V)	336V
Max.Charge & Discharge Current(A)	27A
Max.C Rating	1C
Dimension(mm)	260*350*975
Net Weight(kg)	158kg
Max. Scalable	8 in parallel
Communication Ports	CAN/RS485/RS232
Communicated inverter	“Goodwe/Victron/Sofar/Deye/Voltronic/Pylon /Luxpower Afore/Must/ SakoSorotec/Sma/Solis/Phocos /Kstar/Mpp Solar/Growatt/Megarevo/Srne”
Charging Temp Range(°C)	0~55°C
Discharging Temp Range(°C)	-10~55°C
Cycle Lifes	≥6000 cycles@80%DOD/0.5C/25°C
Warranty	5 years
Certifications	CE,UN38.3,MSDS
Function	WIFI、 Battery light

Residence Farm Base station

GEYA POWER

384V
High voltage stacked lithium battery series



Product features

- High-voltage efficiency: Minimizes energy conversion loss.
- Commercial-grade: Handles heavy loads for homes/small businesses.
- Enhanced safety: Multi-layer protection for high-voltage operation.
  Flexible installation: Indoor/outdoor options with no extra brackets.

Model	YY38427HVW
Total Energy(kWh)	10.368KWh
Capacity(Ah)	384Ah
NominalVoltage(V)	27V
Float Voltage(V)	438V
Equalization Voltage(V)	420V
Discharge CuttingVoltage(V)	336V
Max.Charge & Discharge Current(A)	27A
Max.C Rating	1C
Dimension(mm)	520*230*1060mm
Net Weight(kg)	155kg
Max. Scalable	8 in parallel
Communication Ports	CAN/RS485/RS232
Communicated inverter	“Goodwe/Victron/Sofar/Deye/Voltronic/Pylon /Luxpower Afore/Must/ SakoSorotec/Sma/Solis/Phocos /Kstar/Mpp Solar/Growatt/Megarevo/Srne”
Charging Temp Range(°C)	0~55°C
Discharging Temp Range(°C)	-10~55°C
Cycle Lifes	≥6000 cycles@80%DOD/0.5C/25°C
Warranty	5 years
Certifications	CE,UN38.3,MSDS
Function	WIFI、 Battery light



Office electricity

Residence

Farm

Base Station

Product features

High-voltage Efficiency

- Supports high-voltage DC outpu(e.g.,200V~600V), reducing transmission loss and improving system efficiency by 5%~10%.

Industrialintegration

- 19-inch rack standard,scalable parallel connection for data centers or commercial use

High Power Density

- Delivers 20kWh~100kWh perrack, maximizing space utilization.

Advanced safety

- Multi-layer BMS protection (over-voltage/current/isolation)

Enterprise Management

- Compatible with SNMP/Modbus for EMS integration and remote monitoring

Easy deployment

- Integrated design, waterproof for outdoor use

Model	SUN-20K-SG01HP3-EU-AM2	SUN-25K-SG01HP3-EU-AM2	SUN-30K-SG01HP3-EU-AM3	SUN-40K-SG01HP3-EU-AM4	SUN-50K-SG01HP3-EU-AM4
Battery Input Data					
Battery Type	Lithium-ion				
Battery Voltage Range (V)	160~700	160~700	160~800	160~800	160~800
Max. Charging Current (A)	37	50	50	50	50
Max. Discharging Current (A)	37	50	50	50	50
Number of Battery input	1	1	2	2	2
Charging Strategy for Li-Ion Battery	Self-adaption to BMS				
PV String Input Data					
Max. Dc input Power (W)	26000	32500	39000	52000	65000
Max. DC Input Voltage (V)	1000	1000	1000	1000	1000
Start-up Voltage (V)	180	180	180	180	180
MPPT Range (V)	150-850	150-850	150-850	150-850	150-850
Full Load Dc Voltage Range (V)	500-850	625-850	360-850	360-850	450-850
Rated Dc Input Voltage (V)	600	600	600	600	600
PV Input Current (A)	26+26	26+26	36+36+36	36+36+36+36	
Max. PV ISC (A)	39+39	39+39	55+55+55	55+55+55+55	
No.of MPP Trackers	2	2	3	4	
No.of Strings per MPP Tracker	2+2	2+2	2+2+2	2+2+2+2	
AC Output Data					
Rated AC Output Active Power (W)	20000	25000	30000	40000	50000
Max. AC Output Active Power (W)	22000	27500	33000	44000	55000
AC Output Rated Current (A)	30.4/29	37.9/36.3	45.5/43.5	60.7/58	75.8/72.5
Max. AC Output Current (A)	33.4/31.9	41.7/39.9	50/47.8	66.7/63.8	83.4/79.7
Max. Three-phase Unbalanced Output Current (A)	35	41.7	60	70	83.3
Max. Continuous AC Passthrough (A)	80	80	200	200	200
Peak Power (Off Grid)	1.5 time of rated power, 10 S				
Generator Input/Smart Load /Ac Couple Current (A)	30.4/80/30.4	37.9/80/37.9	45.5/200/45.5	60.7/2000/60.7	75.8/200/75.8
Power Factor Adjustment Range	0.8 leading to 0.8 lagging				
Output Frequency and Voltage	50/60Hz;3L/N/PE 220/380,230/400Vac				
Grid Type	Three Phase				
Total Harmonics Current Distortion (THDi)	<3% (of nominal power)				
DC Current Injection	<0.5% In				
Efficiency					
Max. Efficiency	97.60%				
Euro Efficiency	97.00%				
MPPT Efficiency	99.90%				
Protection					
Integrated	Anti-islanding Protection, Pv String Input Reverse Polarity Protection,insulation Resistor Detection, Residual current Monitoring Unit Output Over Current Protection,Output Shorted Protection, Surge Protection, Arc Fault Circuit interruption (AFCI optional)				
Over Voltage Category	DC Type II/AC Type I				
certifications and Standards					
Grid Regulation	IEC 61727,IEC 62116, CE1 0-21,EN 50549, NRS 097, RD 140, UNE 217002, OVE-Richtlinie R25, G99, VDE-AR-N 4105				
Safety EMC/Standard	IEC/EN 61000-6-1/2/3/4,IEC/EN 62109-1,IEC/EN 62109-2				
General Data					
Operating Temperature Range (iæ)	-40-60°C,>45°C Derating				
Cooling	Smart Cooling				
Noise (dB)	≤55dB	≤55dB	≤65dB	≤65dB	≤65dB
Communication with BMS	Can	Can	Can	Can	Can
Weight (kg)	30.5	30.5	80	80	80
Cabinet Size (W*H*D mm)	408*638*237		527*894*294		
Protection Degree	Ip65				
Installation Style	Wall-mounted				
Warranty	5 Years(10 Years Optional)				
Battery Model	YY512100HVA	YY512200HVA	YY512300HVA		
Energy	51.2kwh	102.4kwh	153.6KWH		
Capacity	100Ah	200Ah	300Ah		
Nominal Voltage	512V	512V	512V		
Float Voltage	584V	584V	584V		
Equalization Voltage	560V	560V	560V		
Discharge Cutting Voltage	448V	448V	448V		
Max.Charge& Discharge Current	100A	100A	100A		
Max.C Rating	1C	1C	1C		
Dimension	600*650*2100mm	1170*430*195mm	1600*430*195mm		
Net Weight	530kg	1080kg	1650kg		
Communication Ports	CAN/RS485/RS232				
ChargingTemp Range	0-55°C				
Discharging Temp Range	-10-55°C				
Parallel	Support				
Cycle Lifes	≥6000 cycles@80%DOD/0.5C/25°C				
Warranty	5 years				
Certifications	CE,UN38.3,MSDS				
Function	WIFI				

All in One Solar ESS



• Steps to start up •

Connect the battery that meets the requirements (battery voltage needs to beyond23V)or AC (AC needs to confirm the suitable input range depend on the output mode), then you can start up the inverter.

➢ **Mains power on**

Connect to normal AC power, press the switch, the system will automatically turn on. If you set AC output power priority, after waiting for a period of time, the panel will display AC mode that represents turn on the machine successfully, then will enter the AC mode.
When the normal mains power is connected and press the power-on button then the system will automatically power on. If it is set as AC output priority, after a period of time, the panel will display the AC mode to indicate that the power-on is complete and enter the AC mode

➢ **Battery boot**

Connect to battery, press the power-on button to establish a working power source.
The system will automatically turn on, after waiting for a period of time, the panel will display battery mode that represents turn on the machine successfully, then will enter the battery mode.

• Shutdown steps •

When the system is in battery mode or AC mode output, press the switch again, then the system will be turned off.

• Fault and alarm description •

Faults Descriptions

➢ Fault: The inverter enters the fault mode, the red LED light is always on and the LCD displays the fault code.

Faults Reference Code

Code	Fault Event	Icon on
01	Fan is locked when inverter is off.	
02	Over temperature or NTC is not connected well.	
03	Battery voltage is too high.	
04	Battery voltage is too low.	
05	Output short circuited or over temperature is detected by internal converter components.	
06	Output voltage is too high.	
07	Over load time out.	
08	Bus voltage is too high	
09	Bus soft start failed	
51	Over currents or urge	
52	Bus voltage is too low	
53	Inverter soft start failed	
55	Over DC voltage in AC output	
57	Current sensor failed	
58	Output voltage is too low	
59	PV voltage is over limitation	

Alarm Descriptions

➢ Alarm

The red LED flashes, and the LCD displays an alarm code, the inverter does not enter the failure mode

Alarm Code	Alarm Event	Audible Alarm	Icon flashing
01	Fan is locked when inverter is on.	Beep three times every second	
02	Over temperature	None	
03	Batery is over-charged	Beep once every second	
04	Low battery	Beep once every second	
07	Overload	Beep once every 0.5 second	
10	Output power derating	Beep twice every 3 seconds	
15	PV energy is low.	Beep twice every 3 seconds	
16	High AC input (>280VAC) during BUS soft start	None	
E9	Battery equalization	None	
bP	Battery is not connected	None	

Code Reference

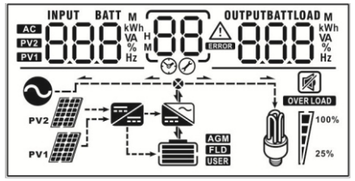
Related information code will be displayed on LCD screen. Please check inverter LCD screen for the operation

Code	Description
60 ⚠	If battery status is not allowed to charge and discharge after the communication between the inverter and battery is successful, it will show code 60 to stop charging and discharging battery.
61 ⚠	Communication lost • After battery is connected, communication signal is not detected for 1 minutes, buzzer will beep. • Communication lost occurs after the inverter and battery is connected successfully, buzzer beeps immediately.
69 ⚠	If battery status is not allowed to charge after the communication between the inverter and battery is successful, it will show code 69 to stop charging battery
70 ⚠	If battery status must to charge after the communication between the inverter and battery is successful, it will show code 70 to charge battery.
71 ⚠	If battery status is not allowed to discharge after the communication between the inverter and battery is successful, it will show code 71 to stop discharge battery.

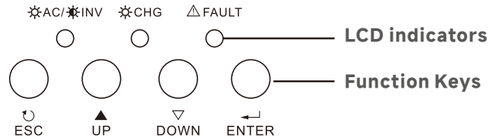
Trouble removeal

Problem	LCD/LED/Buzzer	Explanation/Possible cause	What to do
Unit shuts down automatically during startup process.	LCD/LEDs and buzzer will be active for 3 seconds and then complete off	The battery voltage is too low (<1.91V/Cell)	1.Re-charge battery. 2.Replace battery.
No response after power on.	No indication	1. The battery voltage is fartoo low.(<1.4V/Cell) 2.Internal fuse tripped.	1.Contact repair center for replacing the fuse. 2.Re-charge battery. 3. Replace battery. Check if AC breaker is tripped and AC wiring is connected wel.
Mains exist but the unit works in battery mode.	Input voltage is displayed as 0 on the LCD and green LED is flashing	Input protector is tripped	
	Green LED is flashing	Insufficient quality of Acpower. (Shore or Generator)	1.Check if AC wires are too thin and/or too long. 2.Check if generator (if applied)is working well or if input voltage range setting is correct. (UP-->sppliance)
	Green LED is flashing	Set"Solar First" as the priority of output source	Change output source priority to Utility first.
When the unit is turned on, internal relay is switched on and off repeatedly.	LCD display and LEDs are flashing	Battery is disconnected.	Check if battery wires are connected well.
Buzzer beeps continuously and red LED is on.	Fault code 07	Overload error. The inverter is overload 105% and time is up.	Reduce the connected load by switching off some equipment.
		If PVinput voltage is higher than specification, the output power will be derated.At this time, if connected loads is higher than derated output power, it will cause overload.	Reduce the number of PV modules in series or the connected load.
	Fault code 05	Output short circuited	Check if wiring is connected well and remove abnorma load.
		Temperature internal converter component is over 120°C.	Check whether the air flow of the unit is blocked or whether the ambient temperature is too high.
	Fault code 02	Internal temperature of inverter component is over 100°C	
	Fault code 03	Batteryis over-charged	Return to repair center.
		The battery voltage is too high.	Check if spec and quantity of batteries are meet requirements
	Fault code 01	Fan fault	Replace the fan.
	Fault code 06/58	Output abnormal(Inverter voltage below than 190Vac or is higher than 260Vac)	1.Reduce the connected load. 2. Return to repair center
	Fault code 08/09/53/57	Internal components failed.	Return to repair center.
	Fault code 51	Over current or surge	Restart the unit, if the error happens again, please return to repair center.
	Fault code 52	Bus voltage is too low.	
	Fault code 55	Output voltageis unbalanced	
	Fault code 59	PV input voltage is beyond the specification.	Reduce the number of PV modules in series.

The operation and display panel, shown in below chart , is on the front panel of the inverter. It includes three indicators , four function keys and a LCD display, indicating the operating status and input/output power information.



LCD Display



LCD indicators

LED Indicator			Messages
AC INV	Green	Solid On	Output is powered by utility in Line mode.
		Flashing	Output is powered by battery or PV in battery mode.
CHG	Green	Solid On	Battery is fully charged.
		Flashing	Battery is charging.
FAULT	Red	Solid On	Fault occurs in the inverter.
		Flashing	Warning condition occurs in the inverter.

Function Keys

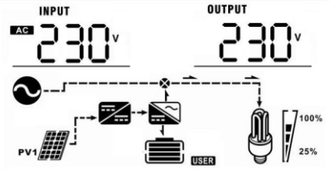
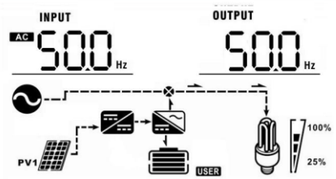
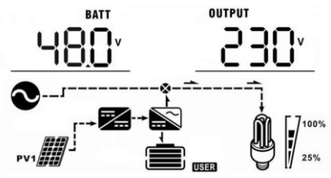
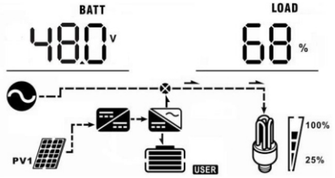
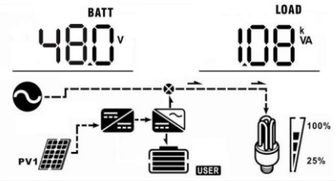
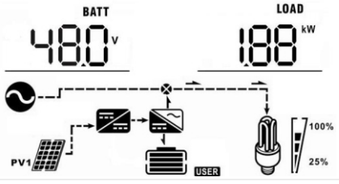
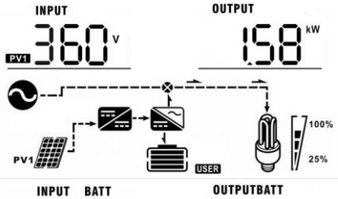
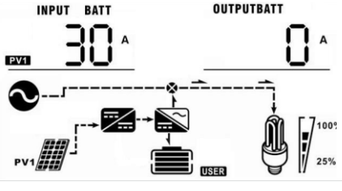
Function Key	Description
ESC	To exit setting mode
UO	To go to previous selection
DOWN	To go to next selection
ENTER	To confirm the selection in setting mode or enter setting mode

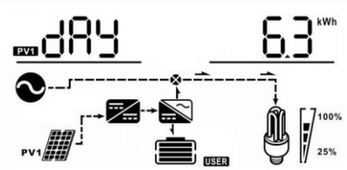
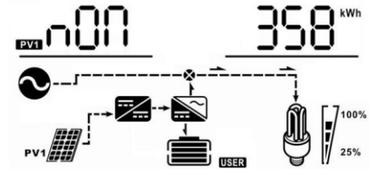
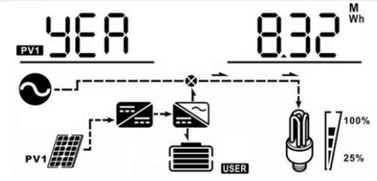
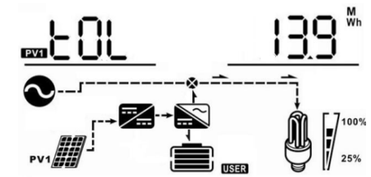
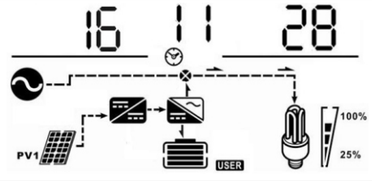
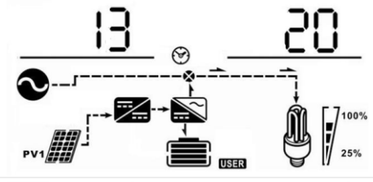
LCD Display Icons

Icon	Function
Input source information	
AC	Indicates the AC input
Pv2	Indicates the 1s PV panel input
Pv1	Indicates the 2" PV panel input
Left digital display information	
INPUT BATT	Indicate input voltage, input frequency, battery voltage V1 voltage, PV2 voltage, charger current
Middle digital display information	
	Indicates the setting programs.
	Indicates the warning and fault codes Warning: Flashing with warning code Fault: display with fault code
Right digital display information	
OUTPUT BATT LOAD	Indicate the output voltage, output frequency, load percent. load VA, load W, PV1 charger power, PV2 charger power, DC discharging current.
Battery information	
	Indicates battery level by 0-24%, 25-49%, 50-74% and 75-100% and charging status.
AGM FLD USER	Indicates the battery type: AGM, Flooded or User-definedbattery.
Load information	
OVER LOAD	Indicates overload.
100% 25%	Indicates the load level by 0-24%,25-50%,50-74%,and 75-100%
	0%~25% / 25%~50% / 50%~75% / 75%~100%
Mode operation information	
	Indicates unit connects to the mains
PV1	Indicates unit connects to the 1s PV panel
	Indicates the solar charger is working
	Indicates the DC/AC inverter circuit is working
Mute operation	
	Indicates unit alarm is disabled

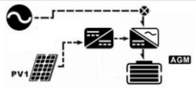
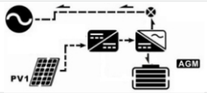
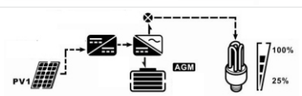
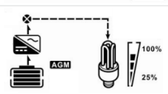
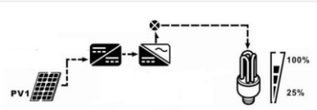
• Display Setting •

The LCD display information will be switched in turns by pressing "UP" or "DOWN" key. The selectable information is switched as below order: input voltage, input frequency, PV voltage, charging current, battery voltage, output voltage, output frequency, load percentage, load in Watt, load in VA, load in Watt, DC discharging current, main board firmware version and SCC firmware version.

Select item	LCD Display	
Input voltage and output voltage (Default Display Screen)	Input Voltage=230V, output voltage=230V	
Input frequency and output frequency	Input frequency=50.0Hz, output frequency=50.0Hz	
Battery voltage and output voltage	Battery Voltage=48.0V, output voltage=230V	
Battery voltage and load percentag	Battery Voltage=48.0V, load percentage 68%	
Battery voltage and load in VA	Battery Voltage=48.0V, load in VA=1.08kVA	
Battery voltage and load in Watt	Battery Voltage=48.0V, load in Watt=1.88kW	
PV1 voltage and PV1 charger power	PV1 Voltage=360V, charging power=1.58kW	
Charger current and DC discharging current	Charging current=30A, discharging current=0A	

Select item	LCD Display	
PV energy generated today	Today energy= 6.3kWh	
PV energy generated this month	This month energy= 358kWh	
PV energy generated this year	This year energy=8.32MWh	
PV energy generated totally	Total energy=13.9MWh	
Real date	Real date Nov 28, 2016	
Real time	Real time 13:20	
Main board firmware version	Version 00001.00	

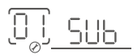
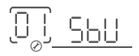
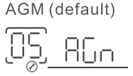
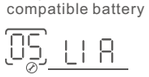
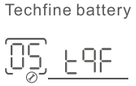
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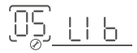
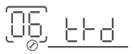
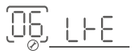
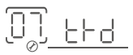
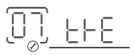
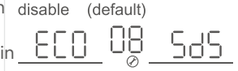
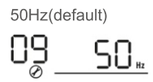
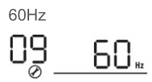
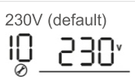
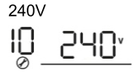
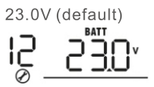
Operating mode	Behaviors	LCD display	
Standby mode Note:*Standby mode: The inverter is not turned on yet but at this time. the inverter can charge battery without AC output. *Power swing mode: If enabled, the output of inverter will be off when connected load is pretty low or not detected.	No output power, solar or utility charger available	Battery is charged by utility.	
		Battery is charged by PV energy.	
		Battery is charged by utility and Pv energy.	
		Battery is charged by Pv energy and feed Pv energy grid.	
		No charging.	
Line mode	Output power from utility. Charger available	Utility charges battery and provides power to load.	
		Utility and battery power provide power to load.	
		PV energy, battery power and utility provide power to load.	
	Output power from utility. Charger available	PV energy and utility charge battery, and utility provides power to load.	
		Pv energy charges battery, utility and PV energy provide power to the load	
		PV energy charges battery, PV energy provides power to the load and feeds remaining energy to the grid.	
Battery mode	Output power from battery or PV	PV energy charges battery, PV energy provides power to the load and feeds remaining energy to the grid.	
		PV energy and battery energy supply power to the load.	
		Battery provides power to the load	
Only PV mode	Output power from PV	PV provides power to the load.	

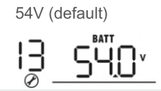
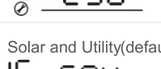
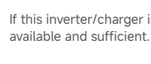
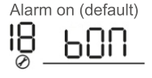
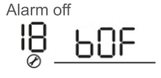
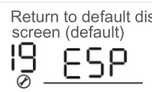
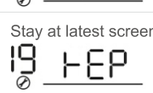
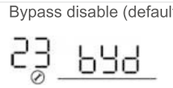
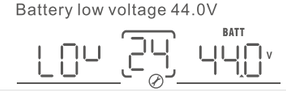
LCD Setting

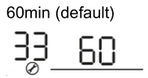
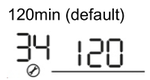
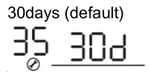
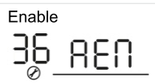
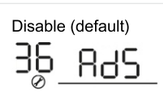
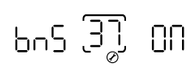
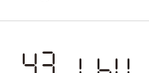
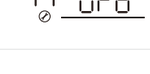
After pressing and holding ENTER button for 3 seconds, the unit will enter setting mode. Press “UP" or "DOWN" button to select setting programs. And then, press "ENTER" button to confirm the selection or ESC button exit.

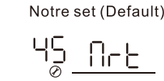
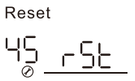
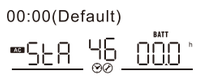
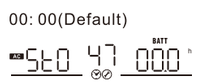
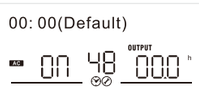
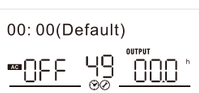
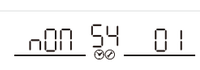
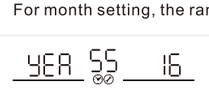
Setting Programs

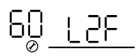
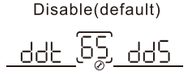
Program	Description	Selectable option	
00	Exit setting mode	Escape 	
01	Output source priority selection		Solar energy provides power to the loads as first priority. If solar energy is not sufficient to power all connected loads, Utility energy will supply power to the loads at the same time.
			Solar energy provides power to the loads as first priority. If solar energy is not sufficient to power all connected loads, battery energy will supply power to the loads at the same time. Utility provides power to the loads only when battery voltage drops to either low-level warning voltage or the setting point in program 12 or solar and battery is not sufficient.
02	Maximum charging current: To configure total charging current for solar and utility chargers. (Max. charging current =utility charging current +solar charging current)	60A(default) 	Setting range is from 10A to maximum charging current. Increment of each click is 10A.
03	AC input voltage range	Appliances (default) 	If selected, acceptable AC input voltage range will be within90-280VAC.
		UPS 	If selected, acceptable AC input voltage range will be within170-280VAC.
05	Battery type	AGM (default) 	Flooded 
		User-Defined 	If"User-Defined" is selected, battery charge voltage, low DC cut-off voltage and dual cut -off voltage can be set up in program 24,26,27,29 and 61.
		LIA-protocol compatible battery 	If selected, programs of 24,26,27 and 29 will be automatically set up No need for further setting.
		Pylontech battery 	
		Techfine battery 	
		Growatt battery 	

Program	Description	Selectable option	
05	Battery type	LIB-protocol compatible battery 	Select "LIB if using Lithium battery compatible to Lib protocol. If selected, programs of 26,27 and 29 will be automatically se up. No meed for further setting
		3rd party lithium battery 	If selected, programs of 26,27and 29 will be automatically set up No need for further setting. Please contact the battery supplier for installation procedure.
06	Auto restart when overload occurs	Restart disable(default) 	Restart enable 
07	Auto restart when over temperature occurs	Restart disable (default) 	Restart enable 
08	ECO function: System will temporarily stop when the load is low in battery mode.	disable (default) 	
		enable 	
09	Output frequency	50Hz(default) 	60Hz 
10	Output voltage	220V 	230V (default) 
		240V 	
11	Maximum utility charging current Note: If setting value in program 02 is smaller than that in program in 11, the inverter will apply charging current from program 02 for utility charger.	30A(default) 	Setting range is 2A, then from 10A to max. AC charging current. Increment of each click is 10A.
12	Setting voltage point back to utility source when selecting"SBUpriority"in program 01.	Available options in 24 system model:	
		23.0V (default) 	Setting range is from 22V to 25.5 V Increment of each click is 0.5V.
		Available options in 48 system model:	
		46V (default) 	Setting range is from 44V to 51V Increment of each click is 1V.

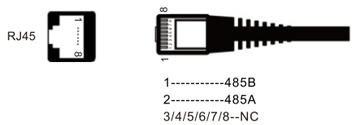
Program	Description	Selectable option	
13	Setting voltage point back to battery mode when selecting"SBU priority"in program 01.	Available options in 24 system model:	
		Battery fully charged 	27V(default) 
		Setting range is from 24V to 29V. Increment of each click is 0.5V.	
		Available options in 48 system model	
		Battery fully charged 	54V (default) 
		Setting range is from 48V to 58V. Increment of each click is 1V.	
16	Charger source priorit: To configure charger source priority	If this inverter/charger is working in Line, Standby or Fault mode, charger source can be programmed as below:	
		Solar first 	Solar energy will charge battery as first priority. Utility will charge battery only when solar energy is not available.
		Solar and Utility(default) 	Solar energy and utility will charge battery at the same time.
		Only Solar 	Solar energy will be the only charger source no matter utility is available or not.
		If this inverter/charger is working in Battery mode, only solar energy can charge battery. Solar energy will charge battery if it's available and sufficient.	
18	Alarm control	Alarm on (default) 	Alarm off 
19	Auto return to default display screen	Return to default display screen (default) 	If selected, no matter how users switch display screen, it will automatically return to defaultl display screen (Input voltage/output voltage) after no button is pressed for 1 minute.
		Stay at latest screen 	If selected, the display screen will stay at latest screen user finally switches.
20	Backlight control	Backlight on (default) 	Backlight off 
22	Beeps while primary source is interrupted	Alarm on (default) 	Alarm off 
23	Overload bypass: When enabled, the unit will transfer to line mode if overload occurs in batterymode.	Bypass disable (default) 	Bypass enable 
24	Battery low voltage If battery power is only power source available inverter will alarm.	Battery low voltage 44.0V 	
		Setting range is from 20.0V-27.0V for 24V system and 40.0V-54.0V for 48V system.	

Program	Description	Selectable option	
33	Battery equalized time	60min (default) 	Setting range is from 5min to 900min Increment of each click is 5min.
34	Battery equalized timeout	120min (default) 	Setting range is from 5min to 900min Increment of each click is 5min.
35	Equalization interval	30days (default) 	Setting range is from 0 to 90 days Increment of each click is 1 day
36	Equalization activated immediately	Enable 	Disable (default) 
		If equalization function is enabled in program 30, this program can be set up. If "Enable" is selected in this program, it's to activate battery equalization immediately and LCD main page will shows " ",If "Disable"is selected, it will cancel equalization function until next activated equalization time arrives based on program 35 setting. At this time,"[" will not be shown in LCD main page.	
37	BMS Function Switch	off(default) 	Whether to enable the BMS communication function
			
38	Bat Soc Under Lock		If any type of lithium battery is selected in program 5.BMS low voltage SOC value, if the BMS SOC value is lower than the setvalue, the inverter will shut down to protect the battery.
39	Bat Soc Turn To Ac		If any type of lithium battery is selected in program 5.When the working mode of the inverter is set to the battery priority mode, the inverter will be forced to enter the mains charging when the SOC of the BMS is lower than the set value.
40	Bat Soc Turn To Dc		If any type of lithium battery is selected in program 5.When the working mode of the inverter is set to the battery priority mode, the inverter resumes the DC working mode when the SOC of the BMS is higher than the set value
41	Bat Restart Soc		If any type of lithium battery is selected in program 5.When the inverter is turned on, the SOC must be higher than the set value to work normally.
43	Solar supply priority		Solar energy provides power to charge battery as first priority.
			Solar energy provides power to the loads as first priority.
44	Solar energy feed to grid configuration		Solar energy feed to grid disable.
			Solar energy feed to grid enable.

Program	Description	Selectable option	
45	Reset PV energy storage	Notre set (Default) 	Reset 
46	Start charging time for AC charger	00:00(Default) 	The setting range of start charging time for AC charger is from 00:00 to 23:00,increment of each click is 1 hour.
47	Stop charging time for AC charger	00: 00(Default) 	The setting range of scheduled Time for AC output on is from 00:00 to 23:00,increment of each click is 1 hour.
48	Scheduled time for AC output on	00: 00(Default) 	The setting range of scheduled Time for AC output off is from 00:00 to 23:00,increment of each click is 1 hour.
49	Stop charging time for AC charger	00: 00(Default) 	The setting range of scheduled Time for AC output off is from 00:00 to 23:00,increment of each click is 1 hour.
50	Set country customized regulations	Mode 1 	If selected, acceptable feed-in grid voltage range will be 195.5-253VAC. Acceptable feed-in grid frequency range will be 49-51Hz.
		Mode 2 	If selected, acceptable feed-in grid voltage range will be 184-264.5VAC. Acceptable feed-in grid frequency range will be 47.5-51.5Hz
		Mode 3 	If selected, acceptable feed-in grid voltage range will be 184-264.5VAC. Acceptable feed-in grid frequency range will be 57-62Hz
		Mode 4(Default) 	If selected, acceptable feed-in grid voltage range will be 170-264.5VAC. Acceptable feed-in grid frequency range will be 47.5-51.5Hz
51	Time setting-Minute	 For minute setting, the range is from 00 to 59.	
52	Time setting-Hour	 For hour setting, the range is from 00 to 23.	
53	Time setting-Day	 For day setting, the range is from 00 to 31.	
54	Time setting-Month	 For month setting, the range is from 1 to 12	
55	Time setting-Year	 For year setting, the range is from 16 to 99.	
56	GRID-tie current		Increment of each click is 1A.

Program	Description	Selectable option	
60	Dual output	Disable(default) 	Use 
61	Enter the dual output functional voltage point	Default setting:44.0V 	
		Default setting:22.0V 	
		If battery voltage lower than inverter setting, second output will be cutted of, Increment of each click is 0.1V.	
62	Enter the dual output functional SOc point		If any type of lithium battery is selected in program 5.If BMS capacity lower than SOC setting, second output will be cutted of.
63	Dual battery voltage recever		Default 52V/26V,if the battery voltage is higher than the inverter setting, the dual will be restored.
64	Dual battery SOC Recever		If any type of lithium battery is selected in program 5.Default 50%,if the BMS capacity is higher than the SOC setting, the second output will be restored
65	Setting discharge time on the second output	Disable(default) 	Setting range is disable and then from 0 min to 990 min. Increment of each dick is 5 min.*If the battery discharge time achieves the setting time in program 61 and the program 60function is not triggered, the output will be turned off.
66	Dual Recover Delay Time		The value ranges from 0-60min.
			
67	Output Open Time		The value ranges from 0 to 23.
68	Output Stop Time		The value ranges from 0 to 23.

When the BMS/485 communication interface is externally connected, as shown in the following figure:



Communication Connection

Please use supplied communication cable to connect to inverter and PC. Please install a monitoring software on the computer.

Dry Contact Signal

There is one dry contact (3A/250VAC)available on the rear panel. it could be used to deliver signal to external device when battery voltage reaches warning level.

Unit Status	Condition			Dry contact port: NC C NO	
				NC & C	NC & C
Power Off	Unit is off and no output is powered.			Close	Open
Power On	Output is powered from battery or solar.	Normal mode	Battery voltage< Low DC warning voltage	Open	Close
			Battery voltage> Float charging voltage	Close	Open
		Solar first mode	Battery voltage< Solar to AC voltage	Open	Close
			Battery voltage> AC to DC voltage	Close	Open

• Battery Equalization Description •

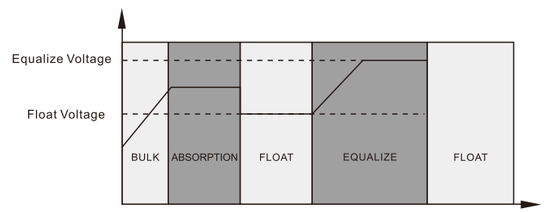
Equalization function is added into charge controller, It reverses the buildup of negative chemical effects like stratification, a condition where acid concentration is greater at the bottom of the battery than at the top. Equalization also helps to remove sulfate crystals that might have built up on the plates. If left unchecked, this condition, called sulfation, will reduce the overall capacity of the battery Therefore, it's recommended to equalize battery periodically.

※ How to Apply Equalization Function

You must enable battery equalization function in monitoring LCD setting program 30 first. Then, you may apply this function in device by either one of following methods:
1.Setting equalization interval in program 35.
2.Active equalization immediately in program 36.

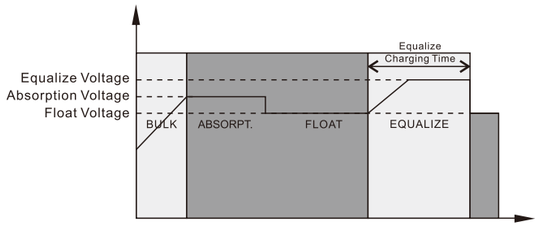
※ When to Equalize

In stage, when the setting equalization interval(battery equalization cycle) is arrived, or equalization is active immediately, the controller will start to enter Equalize stage.

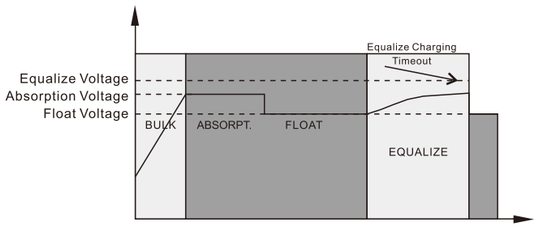


※ Equalize charging time and timeout

In Equalize stage, the controller will supply power to charge battery as much as possible until battery voltage raises to battery equalization voltage. Then, constant-voltage regulation is applied to maintain battery voltage at the battery equalization voltage. The battery will remain in the Equalize stage until setting battery equalized time is arrived.



However, in Equalize stage, when battery equalized time is expired and battery voltage doesn't rise to battery equalization voltage point, the charge controller will extend the battery equalized time until battery voltage achieves battery equalization voltage, If battery voltage is still lower than battery equalization voltage when battery equalized timeout setting is over, the charge controller will stop equalization and return to float stage.



• Technical Datasheet •

Model			3000W	3600W	4000W	5500W	6200W	11000W
Input	Input Sources		L+N+PE					
	Rated Input Voltage		220/230/240VAC					
	Voltage Range		90-280VAC±3V(APL Mode)170-280VAC±3V(UPS Mode)					
	Freqency		50Hz/60Hz(Auto Adaptive)					
Output	Rated power	The battery inverts	3000W	3600W	4000W	5500W	6200W	11000W
		Photovoltaic inverter	3000W	4500W	4500W	6500W	6500W	11000W
	Output Voltage		220/230/240VAC±5%					
	Output Frequency		50/60Hz±0.1%					
	Waveform		Pure Sine Wave					
	Transfer Time (adjustable)		Computers(UPS Mode)10ms, Appliance(APL Mode)20ms					
	Peak Power		6000VA	7200VA	8000VA	11000VA	12400VA	22000VA
	Overload capacity		Battery mode11s@105%~150% Load;2s@150%~200% Load; 400ms@＞200% Load					
Grid-connected operation	Output Voltage		220/230/240VAC±5%					
	Feed into the grid voltage range		195-253VA					
	Feed into the grid frequency range		49-51±1Hz/59-61±1Hz					
	Nominal output current		13A	15.7A	17.4A	23.9A	26.9A	47.8A
	Power Factor Range		＞0.99					
	Maximum conversion efficiency (DC/AC)		98%					
Battery	Battery Votage		24Vdc	24Vdc	24Vdc	48Vdc	48Vdc	48Vdc
	Constant Charging Voltage(Adjustable)		28.2Vdc	28.2Vdc	28.2Vdc	56.4Vdc	56.4Vdc	56.4Vdc
	Floate Charging Voltage(Adjustable)		27Vdc	27Vdc	27Vdc	54Vdc	54Vdc	54Vdc
Chargers	PV Charging Mode		MPPT	MPPT	MPPT	MPPT	MPPT	MPPT Dual MPPT
	MAX.PV Input Power		5000W	5000W	6500W	7500W	7500W	2*5500W
	MPPT Tracking Range		60~500Vdc					90~500Vdc
	Best voltage		300~400V	300~400V	300~400V	300~400V	300~400V	300~400V
	MAX.PV Input Voltage		500Vdc	500Vdc	500Vdc	500Vdc	500Vdc	500Vdc
	PV max input current		18A	18A	27A	27A	27A	18A/18A
	MAX.PV Charging Current		100A	120A	120A	100A	120A	150A
	MAX.AC Charging Current		60A	100A	100A	100A	100A	150A
	MAX.Charging Current		100A	120A	120A	100A	120A	150A
Display	LCD interface		CAN display running mode/load/input/output, etc.					
Interface	RS232		Baud Rate2400					
	Extend the socket communication interface		Lithium Battery BMS Communication Card WifiCard, Dry Contact					
	Parallel machine interface		No parallel function	Parallel Machine (network) function				
Environments	Operating Temperature		-10~50℃					
	Humidity		20%~95%(Non-condensing)					
	Storage Temperature		-15~60℃					
	Altitude		Altiude Not Over 1000m,Derating over 1000m,Max 4000m					
	Noise		≤50db					

Residence Farm Base station

GEYA POWER



410V
High Voltage Cabinet Energy Storage Series

Product features

- High-voltage Efficiency: Supports high-voltage DC output (e.g.,200V~600V), reducing transmission loss and improving system efficiency by5%~10%.
- Industrial integration:19-inch rack standard, scalable parallel connection for data centers or commercial use.
- High Power Density: Delivers 20kWh~100kWh per rack, maximizing space utilization.
- Advanced Safety: Multi-layer BS protection (over-voltage/current/isolation)+ forced air cooling for high-voltage stability.
- Enterprise Management: Compatible with SNMP/Modbus for EMS integration and remote monitoring.

Model	YY410280HVR	YY410300HVR	YY410320HVR
Total Energy(kWh)	114.8kwh	123kwh	131.2kwh
Capacity(Ah)	280Ah	300Ah	320Ah
NominalVoltage(V)	409.6V	409.6V	409.6V
Float Voltage(V)	467.2V	467.2V	467.2V
Equalization Voltage(V)	448V	448V	448V
Discharge CuttingVoltage(V)	358.4V	358.4V	358.4V
Max.Charge & Discharge Current(A)	100A	100A	100A
Max.C Rating	1C	1C	1C
Dimension(mm)	1996.5*1200*660	1996.5*1200*660	1996.5*1200*710
Net Weight(kg)	990kg	1140kg	1380kg
Max. Scalable	6 in parallel		
Communication Ports	CAN/RS485/RS232		
Communicated inverter	“Goodwe/Victron/Sofar/Deye/Voltronic/Pylon /Luxpower Afore/Must/ SakoSorotec/Sma/Solis/Phocos /Kstar/Mpp Solar/Growatt/Megarevo/Srne”		
Charging Temp Range(°C)	0~55°C		
Discharging Temp Range(°C)	-10~55°C		
Cycle Lifes	≥6000 cycles@80%DOD/0.5C/25°C		
Warranty	5 years		
Certifications	CE,UN38.3,MSDS		
Function	WIFI		

GEYA POWER



512V
High Voltage Cabinet Energy Storage Series

Product features

- High-voltage Efficiency:Supports high-voltage DCoutput(e.g.,200V~600V), reducing transmission loss and improving system efficiency by 5%~10%.
- Industrial integration:19-inch rack standard,scalable parallel connection for data centers or commercial use.
- High Power Density: Delivers 20kWh~100kWh per rack, maximizing space utilization.
- Advanced Safety:Multi-layer BMS protection (over-voltage/current/isolation)+forced air cooling for high-voltage stability.
- Enterprise Management:Compatible with SNMP/Modbus for EMS integration and remote monitoring.

Model	YY512280HVR	YY512300HVR	YY512320HVR
Total Energy(kWh)	143.36kwh	153.6kwh	163.84kwh
Capacity(Ah)	280Ah	300Ah	320Ah
NominalVoltage(V)	512V	512V	512V
Float Voltage(V)	584V	584V	584V
Equalization Voltage(V)	560V	560V	560V
Discharge CuttingVoltage(V)	448V	448V	448V
Max.Charge & Discharge Current(A)	100A	100A	100A
Max.C Rating	1C	1C	1C
Dimension(mm)	1996.5*1200*930	1996.5*1200*930	1996.5*1200*980
Net Weight(kg)	1180kg	1330kg	1570kg
Max. Scalable	6 in parallel		
Communication Ports	CAN/RS485/RS232		
Communicated inverter	“Goodwe/Victron/Sofar/Deye/Voltronic/Pylon /Luxpower Afore/Must/ SakoSorotec/Sma/Solis/Phocos /Kstar/Mpp Solar/Growatt/Megarevo/Srne”		
Charging Temp Range(°C)	0~55°C		
Discharging Temp Range(°C)	-10~55°C		
Cycle Lifes	≥6000 cycles@80%DOD/0.5C/25°C		
Warranty	5 years		
Certifications	CE,UN38.3,MSDS		
Function	WIFI		

GEYA POWER

Residence Farm Base station

410V
High Voltage Cabinet Energy Storage Series



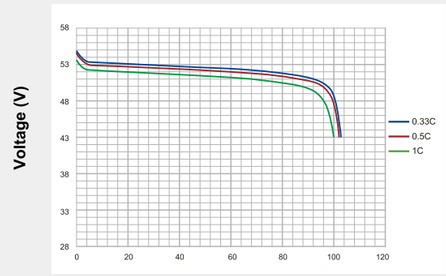
Product features

- High-voltage Efficiency: Supports high-voltage DC output (e.g.,200V~600V), reducing transmission loss and improving system efficiency by5%~10%.
- Industrial integration:19-inch rack standard, scalable parallel connection for data centers or commercial use.
- High Power Density: Delivers 20kWh~100kWh per rack, maximizing space utilization.
- Advanced Safety: Multi-layer BS protection (over-voltage/current/isolation)+ forced air cooling for high-voltage stability.
- Enterprise Management: Compatible with SNMP/Modbus for EMS integration and remote monitoring.

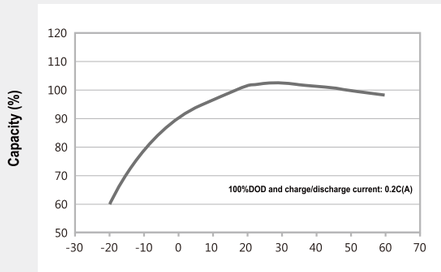
Model	YY614280HVR	YY614300HVR	YY614320HVR
Total Energy(kWh)	171.92kwh	184.2kwh	196.48kwh
Capacity(Ah)	280Ah	300Ah	320Ah
NominalVoltage(V)	614.4V	614.4V	614.4V
Float Voltage(V)	700.8V	700.8V	700.8V
Equalization Voltage(V)	672V	672V	672V
Discharge CuttingVoltage(V)	537.6V	537.6V	537.6V
Max.Charge & Discharge Current(A)	100A	100A	100A
Max.C Rating	1C	1C	1C
Dimension(mm)	1996.5*1200*1200	1996.5*1200*1200	1996.5*1200*1468
Net Weight(kg)	1325kg	1520kg	1760kg
Max. Scalable	6 in parallel		
Communication Ports	CAN/RS485/RS232		
Communicated inverter	“Goodwe/Victron/Sofar/Deye/Voltronic/Pylon /Luxpower Afore/Must/ SakoSorotec/Sma/Solis/Phocos /Kstar/Mpp Solar/Growatt/Megarevo/Srne”		
Charging Temp Range(°C)	0~55°C		
Discharging Temp Range(°C)	-10~55°C		
Cycle Lifes	≥6000 cycles@80%DOD/0.5C/25°C		
Warranty	5 years		
Certifications	CE,UN38.3,MSDS		
Function	WIFI		

Characteristic Curves

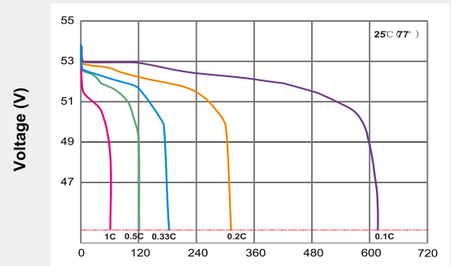
Discharge Capacity in relation to Discharge Rate



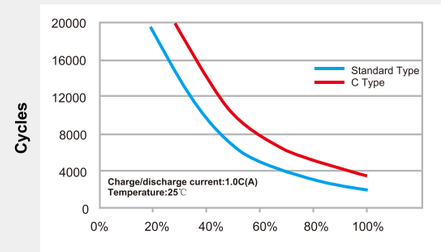
Temperature Effect in relation to Battery Capacity



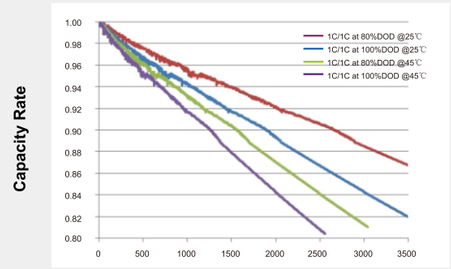
Discharge Time in relation to Discharge Rate



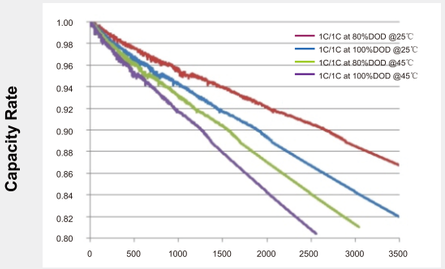
Depth of Discharge in relation to Cycle Life



Cycle Curves at different DOD & Temp of C Type



Cycle Curves at different DOD & Temp of C Type



verload protection	Temperature protection	Short circuit protection	Batteries to protect
The overcharge protection	Put protection	Over current protection	Over voltage protectionO

UN38.3

This product meets the requirements of GB/T31486-2015GB/T31485-2015 standard

Household appliance

Outdoor backup power supply

GEYA POWER

12.8V

LiFePO4 Plastic Case Series



Product features

- Enhanced Energy Density and Longer Lifespan
- Improved Efficiency and Faster Charging
- Reduced Weight and Space Requirements
- Lower Environmental Impact and Safer Operation

Model	YY12100S	YY12100S	YY12100S	YY12100S	YY12100S	YY12100S
Cell	4	4	4	4	4	4
Nominal Voltage(V)	12.8V	12.8V	12.8V	12.8V	12.8V	12.8V
Nominal capacity(Ah)	100Ah	150Ah	200Ah	230Ah	300Ah	460Ah
Energy(kWh)	1.28kwh	1.92kwh	2.56kwh	2.944kwh	3.84kwh	5.888kwh
Cycle Life	≥6000 cycles@80%DOD/0.5C/25°C					
Operating temperature	Charge:0~55°C Discharge:-10~55°C					
Protection	Electronic circuit breaker, BMS voltage protection, current limiting					
Water dust resistance	Ip65					
Net Weight(kg	11kg	15.5kg	19.5kg	23.8kg	28.1kg	39.2kg
Dimension(mm)	339*185*218	502*185*242	502*185*242	502*185*242	522*185*242	640*245*220
Warranty	5 years					
Certifications	CE,UN38.3,MSDS					

Household appliance

Outdoor backup power supply

GEYA POWER

25.6V

LiFePO4 Plastic Case Series



Product features

- Enhanced Energy Density and Longer Lifespan
- Improved Efficiency and Faster Charging
- Reduced Weight and Space Requirements
- Lower Environmental Impact and Safer Operation

Model	YY25100S	YY25150S	YY25200S	YY25230S	YY25300S	YY25460S
Cell	8	8	8	8	8	16
Nominal Voltage(V)	25.6V	25.6V	25.6V	25.6V	25.6V	25.6V
Nominal capacity(Ah)	100Ah	150Ah	200Ah	230Ah	300Ah	460Ah
Energy(kWh)	2.56kwh	3.84kwh	5.12kwh	5.888kwh	7.68kwh	11.776kwh
Cycle Life	≥6000 cycles@80%DOD/0.5C/25°C					
Operating temperature	Charge:0~55°C Discharge:-10~55°C					
Protection	Electronic circuit breaker, BMS voltage protection, current limiting					
Water dust resistance	Ip65					
Net Weight(kg	11.5kg	31.4kg	37.9kg	40kg	46.2kg	59.5kg
Dimension(mm)	330*170*215	523*229*218	523*229*218	523*229*218	640*245*220	670*250*220
Warranty	5 years					
Certifications	CE,UN38.3,MSDS					



LiFePo4 Battery- Power Battery

- High operational reliability
- Optimal management
- In line with the RoHS
- They live for more than 10 years at+25°C

Two -wheeler

Tricycle

Golf Cart

Model	YY51100P	YY60100P	YY73100P
Cell	16	16	23
Nominal Voltage(V)	51.2V	60.8V	73.6V
Nominal capacity(Ah)	100Ah	100Ah	100Ah
Energy(Kwh)	5.12kwh	6.08kwh	7.36kwh
Cycle Life	≥3000 cycles@80%DOD/0.5C/25°C		
Operating temperature	Charge:0~55°C Discharge:-10~55°C		
Protection	Electronic circuit breaker, BMS voltage protection, current limiting		
Water dust resistance	Ip65		
Warranty	5 years		
Certifications	CE,UN38.3,MSDS		

GEYA POWER



LiFePo4 Battery- Street Lamp Series

- High operational reliability
- Optimal management
- In line with the RoHS
- They live for more than 10 years at +25°C

Home Lighting

Urban Lighting

Model	YY1210SL	YY1230SL	YY1210SL	YY1230SL	YY1210SL	YY1230SL
Rate voltage(Vdc)	12.8	12.8	12.8	12.8	12.8	12.8
Rate capacity(AH)	10	30	50	100	120	200
Energy storage(KWH)	0.128	0.384	0.64	1.28	1.536	2.56
MPPT(A)	12V-5A	12V-5A	12V-5A	12V-10A	12V-15A	12V-20A
Cycle Life	≥3000 cycles@80%DOD/0.5C/25°C					
Charge voltage	14.6±0.1V					
Charge current(A)	2	6	10	20	24	40
Max. Charge current(A)	3	9	15	30	36	60
Charge cut-off voltage(VDC)	14.6±0.1V					
Contiunous current(A)	3	9	15	30	36	60
Discharge cut-off voltage(VDC)	10					
Charge temperature	0'C to 45°C(32F to 113F)@60±25% Relative humidity					
Discharge temperature	-20°C to 60°C(-4Fto 140F)@60±25% Relative humidity					
Storage temperature	0°C to 40°C(32Fto 104F)@60±25% Relative humidity					
Water dust resistance	Ip64					
Warranty	5 years					
Certifications	CE,UN38.3,MSDS					

INSTALLATION CASE

We focus on photovoltaic grid-connected power generation, off-grid power generation, firewood storage and charging design and installation engineering, serving customers from all walks of life. By fully understanding the needs and pursuits of customers, We provide reliable and efficient power supply to our customers as they pursue their goals.






















GEYA POWER

Energystorage Products And Solutions

Create green value, create customer value,and make energy more efficient Make the environment better and development sustainable





Industrial Park

Villa Residence

Farm

Data Center

Product features

Efficient Air-Cooling System

These energy storage cabinets use an air-cooling system to maintain optimal temperatures for the battery modules. This cooling method is cost-effective, requires minimal maintenance, and is suitable for most industrial and commercial environments with moderate climate control needs.

High Capacity and Reliable Power Supply

Air-cooled storage cabinets provide substantial energy capacity, making them ideal for applications that require consistent, high-power output. They support energy-intensive operations, peak load management, and backup power in case of grid instability.

Enhanced Durability and Environmental Resistance

Built with durable materials and designed to protect internal components, air-cooled storage cabinets are resistant to dust and moisture, ensuring reliable performance even in challenging industrial environments. Many models include IP-rated enclosures for added protection.

Smart Monitoring and Safety Features

These systems are equipped with advanced monitoring technology that tracks key metrics like temperature, voltage, and charge levels in real-time. Safety features, such as overvoltage, overcurrent, and temperature controls, enhance operational safety and extend the battery lifecycle by preventing overheating and other potential hazards.

Technical Specification for 2 hours Backup (0.5C)

Model	30kW 100kwh(16S*7)	50kW 100kwh(16S*7)	50kW 112kwh(16S*7)	50kW 140kwh(20S*7)	50kW 160kwh(20S*8)
DC (Battery)					
Cells Type	LiFePO4 Lithium Iron Phosphate				
Cell specfication	3.2V280Ah	3.2V280Ah	3.2V314Ah	3.2V314Ah	3.2V314Ah
Configuration of Battery	112S1P	112S1P	112S1P	140S1P	160S1P
Battery Capacity	100kWh	100kWh	112kWh	140kWh	160kWh
Max. Power	30KW	50KW	50KW	50KW	50KW
Max. Current	140A	140A	140A	140A	157A
Battery Rated Voltage	358.4V	358.4V	358.4V	448V	512V
Battery Voltage Range	313.6V-403.2V	313.6V-403.2V	313.6V-403.2V	392V-504V	448V-576V
AC (On/Off Grid)					
Max. Power(kVA)	33KVA	55KVA	55KVA		
Active Power(kW)	30KW	50KW	50KW		
Rated Voltage(V)	400V	400V	400V		
Rated Current(A)	43A	86A	86A		
Voltage Range	320V-460V				
Rated Frequency	50/60Hz				
Range of Frequency	45-55/55-65Hz				
THDI	<3%				
Power factor	1.0(Adjustable from 0.8 leading to 0.8 lagging)				
AC System	3 phase 4 wires				
Overload capability	110%				
Solar Side (PV)	Optional				
Max. Power	100KW(30KW*2)				
High Volage side Voltage	560V-1000V				
High Voltage side Current	80A				
Low Voltage side Voltage	500V-900V				
Low Voltage side Current	100A				
Uninterrupted Load (STS)	Optional				
STS Power	50KW				
STS Voltage	400V 50HZ/60HZ				
Overload Power	110%				
Shift Time	<20mS				
System operation strategy					
Functional	Anti Backflow and Black Start				
Operation Mode Selections	Power peak shaving and valley filling, electricity price peak valley arbitrage, photovoltaic priority for electricity cost savings, wind power generation priority for electricity cost savings, off grid power supply for remote areas				
Operation scenario	Photovaltaic and diesel storage project, Wind power and diesel storage project, Wind and photovoltaic diesel storage project, Charging Station + Energy storage project, On-grid electricity selling project				
Specificaiton					
Cabinet Size (W * D * H)	1150*1246*2050mm				
Weight	⩽1.65T				⩽1.90T
Max. cycle efficiency	>90%				
Protection	IP55				
Auxiliary Power Supply	Self-powered, Externally powered				
Corrosion resistance rating	C3/C5				
Operating Humidity Range	0%-100%(Non-condensing)				
Operating Temperature Range	-30°C-50°C(>45°Cderating)				
Max. Operation Altitude	2000m				
Battery cabinet cooling method	Intelligent Air Cooling				
Fire safety configuration	Smoke detector, Heat detector, Gas-based fire extinguishing system, Pressure relief valve, Pack-level fire protection, Cluster-level fire protection, Water-based fire protection, Automoatic pressure relief				
Communication	Ethernet、485、CAN				
Communication Protocal	Modbus TCP				

Note: Some spare parts are available. For details, please consult with our sales for further communicatioN.

GEYA POWER



Industrial Park

Villa Residence

Farm

Data Center

Product features

Efficient Air-Cooling System

These energy storage cabinets use an air-cooling system to maintain optimal temperatures for the battery modules. This cooling method is cost-effective, requires minimal maintenance, and is suitable for most industrial and commercial environments with moderate climate control needs.

Enhanced Durability and Environmental Resistance

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High Capacity and Reliable Power Supply

Air-cooled storage cabinets provide substantial energy capacity, making them ideal for applications that require consistent, high-power output. They support energy-intensive operations, peak load management, and backup power in case of grid instability.

Smart Monitoring and Safety Features

These systems are equipped with advanced monitoring technology that tracks key metrics like temperature, voltage, and charge levels in real-time. Safety features, such as overvoltage, overcurrent, and temperature controls, enhance operational safety and extend the battery lifecycle by preventing overheating and other potential hazards.

Technical Specification for 2 hours Backup (0.5C)

Model	100kW 197kwh	100kW 215kwh	100kW 232kwh	125kW 252kwh	125kW 261kwh
DC (Battery)					
Cells Type	LiFePO4 Lithium Iron Phosphate				
Cell specfication	3.2V280Ah	3.2V280Ah	3.2V280Ah	3.2V304Ah	3.2V314Ah
Configuration of Battery	220S1P	240S1P	260S1P	260S1P	260S1P
Battery Capacity	197kWh	215kWh	232kWh	252kWh	261kWh
Max. Power	100KW	100KW	100KW	100KW	100KW
Max. Current	140A	140A	157A	152A	157A
Battery Rated Voltage	704V	768V	768V	832V	832V
Battery Voltage Range	616V-792V	672V-864V	672V-864V	728V-936V	728V-936V
AC (On/Off Grid)					
Max. Power(kVA)	110KVA			137KVA	
Active Power(kW)	100KW			125KW	
Rated Voltage(V)	400V			400V	
Rated Current(A)	144A			180A	
Voltage Range	320V-460V				
Rated Frequency	50/60Hz				
Range of Frequency	45-55/55-65Hz				
THDI	<3%				
Power factor	1.0(Adjustable from 0.8 leading to 0.8 lagging)				
AC System	3 phase 4 wires				
Overload capability	110%				
Solar Side (PV)	Optional				
Max. Power	100KW(50KW*2)				
High Volage side Voltage	560V-1000V				
High Voltage side Current	160A				
Low Voltage side Voltage	500V-900V				
Low Voltage side Current	200A				
Uninterrupted Load (STS)	Optional				
STS Power	200KW				
STS Voltage	400V 50HZ/60HZ				
Overload Power	110%				
Shift Time	<20ms				
System operation strategy					
Functional	Anti Backflow and Black Start				
Operation Mode Selections	Power peak shaving and valley filling, electricity price peak valley arbitrage, photovoltaic priority for electricity cost savings, wind power generation priority for electricity cost savings, off grid power supply for remote areas				
Operation scenario	Photovaltaic and diesel storage project, Wind power and diesel storage project, Wind and photovoltaic diesel storage project, Charging Station + Energy storage project, On-grid electricity selling project				
Specificaiton					
Cabinet Size (W * D * H)	1696*1408*2055mm				
Weight	≤2.7T				
Max. cycle efficiency	>90%				
Protection	IP55				
Auxiliary Power Supply	Self-powered, Externally powered				
Corrosion resistance rating	C3/C5				
Operating Humidity Range	0%-100%(Non-condensing)				
Operating Temperature Range	-30°C-50°C(>45°Cderating)				
Max. Operation Altitude	2000m				
Battery cabinet cooling method	Intelligent Air Cooling				
Fire safety configuration	Smoke detector, Heat detector, Gas-based fire extinguishing system, Pressure relief valve, Pack-level fire protection, Cluster-level fire protection, Water-based fire protection, Automoatic pressure relief				
Communication	Ethernet、485、CAN				
Communication Protocal	Modbus TCP				

Note: Some spare parts are available. For details, please consult with our sales for further communicatioN.

GEYA POWER



Industrial Park

Villa Residence

Farm

Data Center

Product features

Advanced Liquid-Cooling System for Optimal Thermal Management

Liquid cooling provides superior heat dissipation compared to air cooling, maintaining consistent battery temperatures even during heavy operation. This enhances efficiency, extends battery life, and enables high-power performance with minimal thermal degradation.

High Energy Density and Power Output

Designed for energy-intensive applications, liquid-cooled storage cabinets offer high energy density and large power output. This makes them well-suited for industries and facilities with large energy demands, peak shaving, and continuous backup power requirements.

Enhanced Safety and Longevity

Liquid-cooled systems operate at stable temperatures, reducing risks of overheating and thermal stress, which in turn enhances safety. This stability also prolongs the battery's operational lifespan, resulting in fewer replacements and lower long-term maintenance costs.

Real-Time Monitoring and Intelligent Controls

Equipped with advanced monitoring and control systems, these cabinets track temperature, voltage, and performance metrics in real time. The intelligent controls allow for remote management, predictive maintenance, and automated safety responses, ensuring efficient and reliable operation.

Technical Specification for 2 hours Backup (0.5C)

Model	100kW 215kwh	100kW 232kwh	125kW 241kwh	125kW 252kwh	125kW 261kwh
DC (Battery)					
Cells Type	LiFePO4 Lithium Iron Phosphate				
Cell specfication	3.2V280Ah	3.2V280Ah	3.2V314Ah	3.2V304Ah	3.2V314Ah
Configuration of Battery	240S1P	260S1P	240S1P	260S1P	260S1P
Battery Capacity	215kWh	232kWh	241kWh	252kWh	261kWh
Max. Power	100KW	100KW	100KW	100KW	100KW
Max. Current	140A	140A	157A	152A	157A
Battery Rated Voltage	768V	832V	768V	832V	832V
Battery Voltage Range	672V-864V	728V-936V	672V-864V	728V-936V	728V-936V
AC (On/Off Grid)					
Max. Power(kVA)	110KVA		137KVA		
Active Power(kW)	100KW		125KW		
Rated Voltage(V)	400V		400V		
Rated Current(A)	144A		180A		
Voltage Range	320V-460V				
Rated Frequency	50/60Hz				
Range of Frequency	45-55/55-65Hz				
THDI	<3%				
Power factor	1.0(Adjustable from 0.8 leading to 0.8 lagging)				
AC System	3 phase 4 wires				
Overload capability	110%				
Solar Side (PV)	Optional				
Max. Power	100KW(50KW*2)				
High Volage side Voltage	560V-1000V				
High Voltage side Current	160A				
Low Voltage side Voltage	500V-900V				
Low Voltage side Current	200A				
Uninterrupted Load (STS)	Optional				
STS Power	200KW				
STS Voltage	400V 50HZ/60HZ				
Overload Power	110%				
Shift Time	<20ms				
System operation strategy					
Functional	Anti Backflow and Black Start				
Operation Mode Selections	Power peak shaving and valley filling, electricity price peak valley arbitrage, photovoltaic priority for electricity cost savings, wind power generation priority for electricity cost savings, off grid power supply for remote areas				
Operation scenario	Photovaltaic and diesel storage project, Wind power and diesel storage project, Wind and photovoltaic diesel storage project, Charging Station + Energy storage project, On-grid electricity selling project				
Specificaiton					
Cabinet Size (W * D * H)	1585/1366/2055mm				
Weight	≤2.7T				
Max. cycle efficiency	>90%				
Protection	IP55				
Auxiliary Power Supply	Self-powered, Externally powered				
Corrosion resistance rating	C3/C5				
Operating Humidity Range	0%-100%(Non-condensing)				
Operating Temperature Range	-30°C-50°C(>45°Cderating)				
Max. Operation Altitude	2000m				
Battery cabinet cooling method	Intelligency Liquid Cooling				
Fire safety configuration	Smoke detector, Heat detector, Gas-based fire extinguishing system, Pressure relief valve, Pack-level fire protection, Cluster-level fire protection, Water-based fire protection, Automoatic pressure relief				
Communication	Ethernet、485、CAN				
Communication Protocal	Modbus TCP				

Note: Some spare parts are available. For details, please consult with our sales for further communicatioN.



Industrial Park

Data Center

Photovoltaic Plant

Power Plant

Product features

Efficient liquid cooling system

These storage cabinets use liquid cooling systems to maintain the optimal temperature of the battery modules. This cooling method is economical, requires minimal maintenance and is suitable for most industrial and commercial environments with moderate climate control needs.

Large capacity reliable power supply

Designed for high power applications, the liquid-cooled storage cabinet supports high current fast charge and stable power output, making it the ideal solution for high power density and continuous discharge requirements. It is suitable for energy-intensive operations, dynamic peak load management, and backup power when the grid is unstable

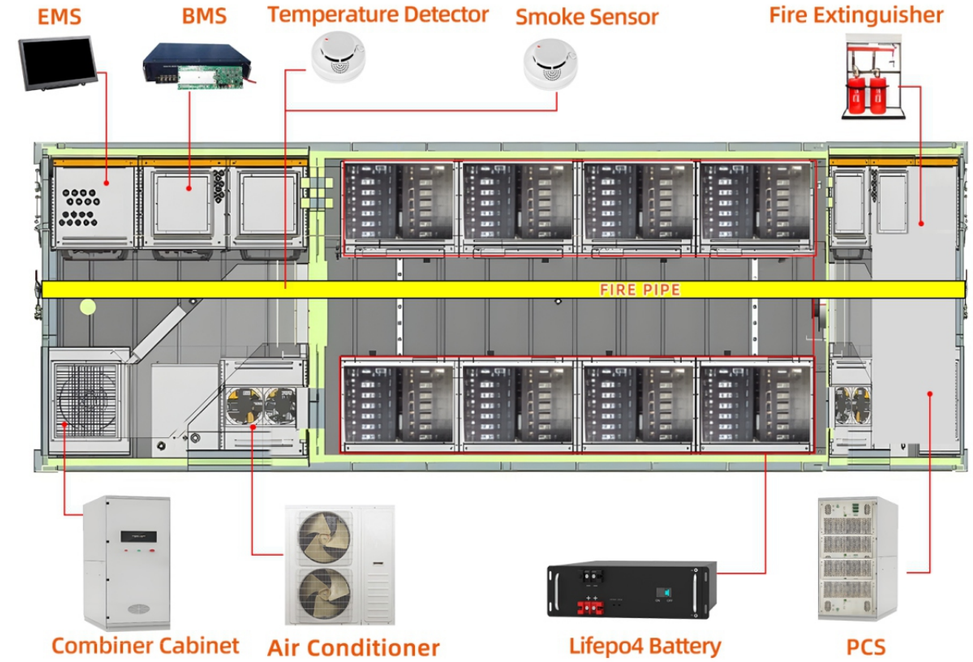
Enhanced durability and environmental resistance

The efficient liquid cooling system is built with high-strength corrosion-resistant materials that effectively protect the internal core components, provide dust and water resistance, and ensure stable and reliable performance even in extreme industrial environments such as high vibration, high altitude, etc. Equipped with IP67 protection grade, further enhance durability and extend the service life of the equipment.

Intelligent monitoring and security features

These systems are equipped with advanced monitoring technology to enable real-time remote data monitoring, anomaly alarm, remote upgrade and other key indicators. Safety features such as overvoltage, overcurrent, and temperature control improve operating safety and extend battery life by preventing overheating and other potential hazards.

LITHIUM BATTERY ESS CONTAINER 500KW/1MW/2MW



Specifications

Model	YY5016K
Cell material	LifePO4
Series & parallel mode	416S12P
Nominal voltage	1331.2V
Nominal capacity	3768AH (214AH*12P)
Support in parallel	Max.32 clusters (314AH*32P)
Output port	Play and plug connector
Charger port	Dual gun DC fast charge
Size(mm)	6500*2580*3000
Weight	43T
Charging mode	DC charging pile-CC/CV
Charging current	1884A(standard)
Max. Charge current(A)	Max.1884A@25°
Charging cut-off voltage	1497.6V
Discharge mode	CC/CP
Discharge current	1884A
Max. Discharge current(A)	Max.1884A@25°
Discharge cut-off voltage	1164.8V
Charging Temp Range(°C)	0~+55°C
Discharging Temp Range(°C)	-20~+65°C
Cooling method	Liquid cooling



Rail transport vehicle

Mining transport vehicle

Product features

Efficient liquid cooling system

The high-capacity power cell uses a liquid cooling system to maintain the optimal temperature of the battery module. This cooling method is economical, requires minimal maintenance and is suitable for most industrial and commercial environments with moderate climate control needs.

Large capacity reliable power battery cell

Large capacity power cells support high current charging and discharging, high power scenarios, is the ideal solution for high power density, continuous discharge needs. It applies to device operation in multiple scenarios.

Enhanced durability and environmental resistance

The efficient liquid cooling system is built with high-strength corrosion-resistant materials that effectively protect the internal core components, provide dust and water resistance, and ensure stable and reliable performance even in extreme industrial environments such as high vibration, high altitude, etc. Equipped with IP67 protection grade, further enhance durability and extend the service life of the equipment.

Intelligent monitoring and security features

These systems are equipped with advanced monitoring technology to enable real-time remote data monitoring, anomaly alarm, remote upgrade and other key indicators. Safety features such as overvoltage, overcurrent, and temperature control improve operating safety and extend battery life by preventing overheating and other potential hazards.

Specifications

Model	YY645K
Cell material	LifePO4
Series & parallel mode	180S4P
Nominal voltage	576V
Nominal capacity	1120AH (280AH*4P)
Support in parallel	Max.16 clusters (280AH*16P)
Output port	Play and plug connector
Charger port	Dual gun DC fast charge
Size(mm)	4300*1480*1388MM
Weight	6100KG
Charging mode	DC charging pile-CC/CV
Charging current	560A(standard)
Max. Charge current(A)	Max.1120A@25°
Charging cut-off voltage	657V
Discharge mode	CC/CP
Discharge current	560A
Max. Discharge current(A)	Max.1120A@25°
Discharge cut-off voltage	450V
Charging Temp Range(°C)	0~+55°°C
Discharging Temp Range(°C)	-20~+65°C
Cooling method	Liquid cooling

GEYA POWER

Special car lithium battery series-YY481K





Large excavator

Large mining truck

Large agricultural equipment

industrial equipment

Product features

Efficient liquid cooling system

The high-capacity power cell uses a liquid cooling system to maintain the optimal temperature of the battery module. This cooling method is economical, requires minimal maintenance and is suitable for most industrial and commercial environments with moderate climate control needs.

Large capacity reliable power battery cell

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Intelligent monitoring and security features

These systems are equipped with advanced monitoring technology to enable real-time remote data monitoring, anomaly alarm, remote upgrade and other key indicators. Safety features such as overvoltage, overcurrent, and temperature control improve operating safety and extend battery life by preventing overheating and other potential hazards.

Specifications

Model	YY481K
Cell material	LifePO4
Series & parallel mode	188S5P
Nominal voltage	601.6V
Nominal capacity	800Ah(160AH*5P)
Support in parallel	Max.30 clusters (160AH*30P)
Output port	Play and plug connector
Charger port	Dual gun DC fast charge
Size(mm)	L2080*W1089*H1498mm
Weight	3.5T
Charging mode	DC charging pile-CC/CV
Charging current	400A(standard)
Max. Charge current(A)	Max.500A @25°
Charging cut-off voltage	676.8V
Discharge mode	CC/CP
Discharge current	400A
Max. Discharge current(A)	Max.600A @25°
Discharge cut-off voltage	526.4V
Charging Temp Range(°C)	0~+55°C
Discharging Temp Range(°C)	-30~+65°C
Cooling method	liquid cooling

GEYA POWER



Truck

Sanitation Truck

Forklift Truck

Road Roller

Product features

Efficient liquid cooling system

The high-capacity power cell uses a liquid cooling system to maintain the optimal temperature of the battery module. This cooling method is economical, requires minimal maintenance and is suitable for most industrial and commercial environments with moderate climate control needs.

Large capacity reliable power battery cell

Large capacity power cells support high current charging and discharging, high power scenarios, is the ideal solution for high power density, continuous discharge needs. It applies to device operation in multiple scenarios.

Enhanced durability and environmental resistance

The efficient liquid cooling system is built with high-strength corrosion-resistant materials that effectively protect the internal core components, provide dust and water resistance, and ensure stable and reliable performance even in extreme industrial environments such as high vibration, high altitude, etc. Equipped with IP67 protection grade, further enhance durability and extend the service life of the equipment.

Intelligent monitoring and security features

These systems are equipped with advanced monitoring technology to enable real-time remote data monitoring, anomaly alarm, remote upgrade and other key indicators. Safety features such as overvoltage, overcurrent, and temperature control improve operating safety and extend battery life by preventing overheating and other potential hazards.

Specifications

Model	YY423K
Cell material	LifePO4
Series & parallel mode	192S3P
Nominal voltage	614.4V
Nominal capacity	690AH (230AH*3P)
Support in parallel	Max.16 clusters (230AH*16P)
Output port	Play and plug connector
Charger port	Dual gun DC fast charge
Size(mm)	2600*2200*1100MM
Weight	4500KG
Charging mode	DC charging pile-CC/CV
Charging current	345A(standard)
Max. Charge current(A)	Max.690A@25°
Charging cut-off voltage	691.2V
Discharge mode	CC/CP
Discharge current	345A
Max. Discharge current(A)	Max.690A@25°
Discharge cut-off voltage	480V
Charging Temp Range(°C)	0~+55°°C
Discharging Temp Range(°C)	-20~+65°C
Cooling method	Liquid cooling

INSTALLATION CASE

We specialize in the design and installation of industrial and commercial energy storage systems, container energy storage systems, and special engineering systems, serving customers from various industries. By fully understanding our customers needs and pursuits, we provide reliable and efficient power sources to meet their goals.



















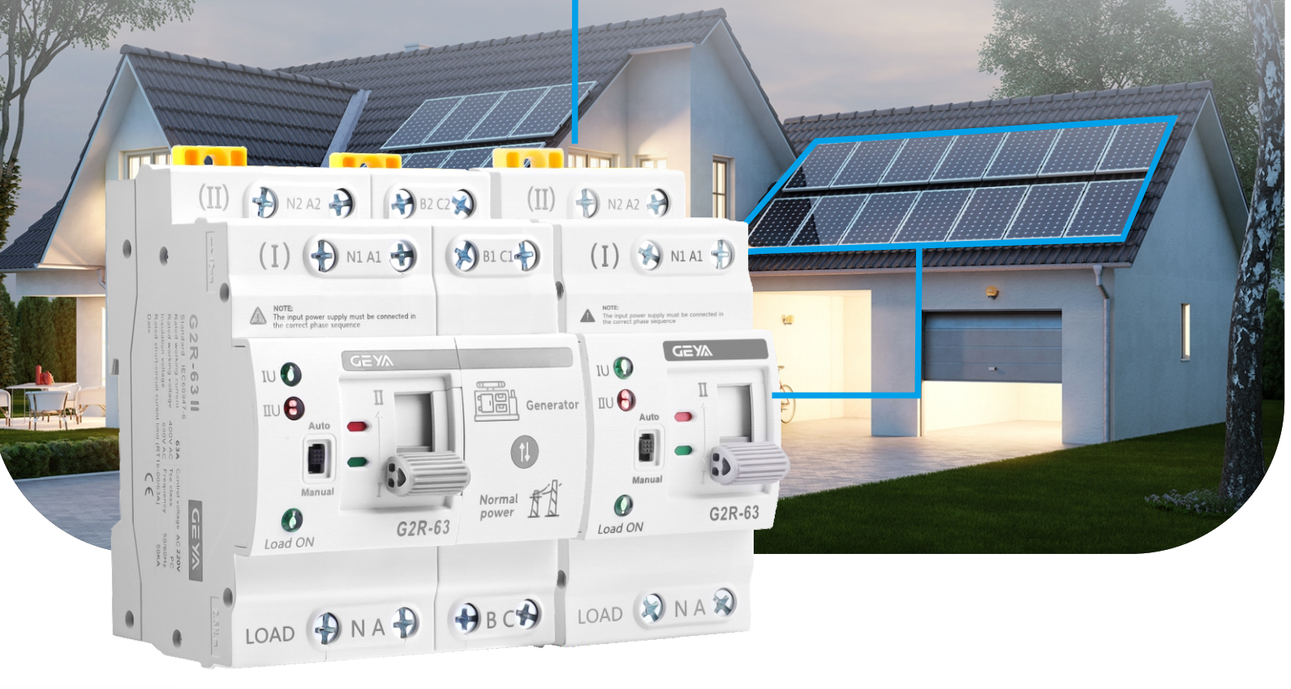
GEYA POWER

G2R

Automatic Transfer Switch



G2R-63 automatic transfer switch is a PC class infrequent change-over switch, with two-station design (commonly used for A and standby for B), suitable for AC systems with AC 50-60hz and rated current 6A-63A. The main function of the automatic transfer switch is when the main power (common power supply A) fails, the ATS will automatically switch to the backup power (Backup power supply B) to continue working, which can effectively solve the troubles caused by power outages.



Working Conditions

The temperature range of the operating environment is -5°C~+40°C, and the average temperature within 24 hours shall be lower than +35°C, and the temperature range of the storage environment is -25°C~+55°C, which can be reached +70°C in a short time (within 24 hours)
The altitude of the installation site should be lower than 2000m.
The relative temperature at the installation site shall not exceed 50% when the ambient air temperature is +40°C.Higher relative humidity is possible at lower temperatures. For example: when the average minimum temperature of the wettest month is +20°C,the monthly average maximum relative humidity of that month can reach90% . Appropriate measures should be taken to prevent condensation due to temperature changes.
Pollution level 3 (conductive pollution, or dry non-conductive pollution becomes conductive due to condensation). ATS can be installed vertically or horizontally in the cabinet, if there are special installation requirements, contact us.
The protection grade of ATS case is IP30.
Overvoltage category
Main circuit category III; control and auxiliary circuit category II.

Product model and meaning

G	2	R	—	63	□	□
Company code	Product Category	Installation method		Case grade	Pole	
ZHEJIANG GEYA ELECTRICAL CO.,LTD	PC class automatic transfer switch (two stations)	Din-rail installation		63	2P/4P	Rated working voltage: AC220V，AC110V Rated operating current: 6A/10A/16A/20A/25A/ 32A/40A/50A/63A

Technical Specification

	63								
Rated operating current Ie(A)	06A	10A	16A	20A	25A	32A	40A	50A	63A
Rated insulation voltage Ui	690V								
Rated impulse withstand voltage Uimp	8kV								
Rated operating voltage Ue	AC220V/AC110V								
Rated frequency	50/60Hz								
Class	PC class: can be switched on and loaded without generating short-circuit current								
Pole number	2P				4P				
Rated short-circuit current Iq	5kA								
Short circuit protection device (fuse)	RT16-00-63A								
Rated impulse withstand voltage	8kV								
Control circuit	Rated control voltageUs:AC220V/110V,50/60Hz Normal working conditions:85%Us-110%Us You must use an inverter with a power output of at least 3000W (please use a sine wave Severe electromagnetic interference may cause the product to malfunction.)								
Auxiliary circuit	AC220V/110V 50/60Hz Ie=5A								
Overvoltage/undervoltage protection range	220V/50Hz Undervoltage value: 175V (±5V) Recovery value: 190V (±5V). Overvoltage value: 270V (±5V) Recovery value: 250V (±5V) 110V/50Hz Undervoltage value: 85V (±5V) Recovery value: 90V (±5V). Overvoltage value: 140V (±5V) Recovery value: 135 (±5V)								
Mechanical life	≥8000 times								
Electrical life	≥1500 times								
Usage category	AC-31B								

Notes

The input power supply must be connected inthe correct phase sequence

ATS can share N lines but cannot use a 1p circuit breaker to independently control N lines and L lines. To switch the power supply. you need to operate N lines and L lines at the same time. Otherwise, product faults may occur

Manual/automatic operation can ensure the opening and closing performance of electrical operation, but in manual operation, there is no guarantee due to the different opening/closing speeds of the operators. in manual operation, there's possible for excessive silver alloy loss . Therefore, the selector switch should only be puled to the manual position after all power has been cut of for inspection and maintenance of the operating system and contact information.

Normally, pull the selector switch to the electric position. When manual operation is required, pull the selector switch to the manual position. After manual operation is complete, pull the selector switch from the manual position to the automatic position.

The dual power supply belongs to the emergency switching switch, and the switching speed and frequency should not be too high .

If testing is required, the switching time should not be less than a frequency of once every minute.

The dual power switch is equipped with a interlocking mechanism. and it is strictly prohibited for non professionals to manually switch the switch when powered on. Incorrect operation can cause contact loss and reduce service life.

Manual/automatic operation can ensure the opening and closing performance of electrical operation, but in manual operation , there is no guarantee due to the different opening/closing speeds of the operators. in manual operation, there's possible for excessive silver alloy loss . Therefore, the selector switch should only be pulled to the manual position after all power has been cut off for inspection and maintenance of the operating system and contact information.

Normally, pull the selector switch to the electric position, When manual operation is required, pul the selector switch to the manual position. After manual operation is complete, pull the selector switch from the manual position to the automatic position.

Install

The installation and debugging of ATS should be carried out by professionals and personnel familiar with the switchgear, and corresponding protection and preventive measures must be considered during the work. The wiring method of the main circuit of the switch must ensure that the leads are not subjected to any pressure or strong force. Before installation and debugging, the switch should be checked for any damage or other harmful environmental effects. At the same time, any loose wire heads that may be caused during transportation should be checked to remove dirt, especially on the surface of insulation parts. These dirt may be caused by passing through packaging materials during transportation or during storage. When connecting the primary circuit, attention should be paid to ensuring that the phase sequence of the two power sources is consistent. When connecting the secondary circuit, strict adherence to the wiring diagram listed in this manual should be followed, and attention should be paid to controlling the voltage level of the power supply; The switch must be installed with good grounding. Considering personal safety and the speed of switch switching, the debugging handle is only for trial use. Users should not use the debugging handle to operate under load. When debugging, the switch should be operated with a handle first. If there are no abnormalities, the manual button should be used for electric operation. After there are no abnormalities, the official operation can be carried out.

Installation environment: Install ATS on a clean, dry, and well ventilated surface. Electrical connections: Ensure that all connections are secure to prevent overheating and fire hazards. Avoid neutral wire grounding connection: Do not connect the neutral wire to the grounding system as this can cause danger. Comply with local regulations: Ensure compliance with applicable local electrical codes to ensure safety and reliability. Adhering to these guidelines can ensure the safe operation of ATS,

Maintenance

Maintenance and inspection should be carried out by professionals.

In order to ensure the good performance of the ATS, the first maintenance and inspection should be carried out within 6 months after use. Then do the maintenance and inspection at least once a year. In

harsh installation conditions, the frequency of maintenance and inspection should be increased.

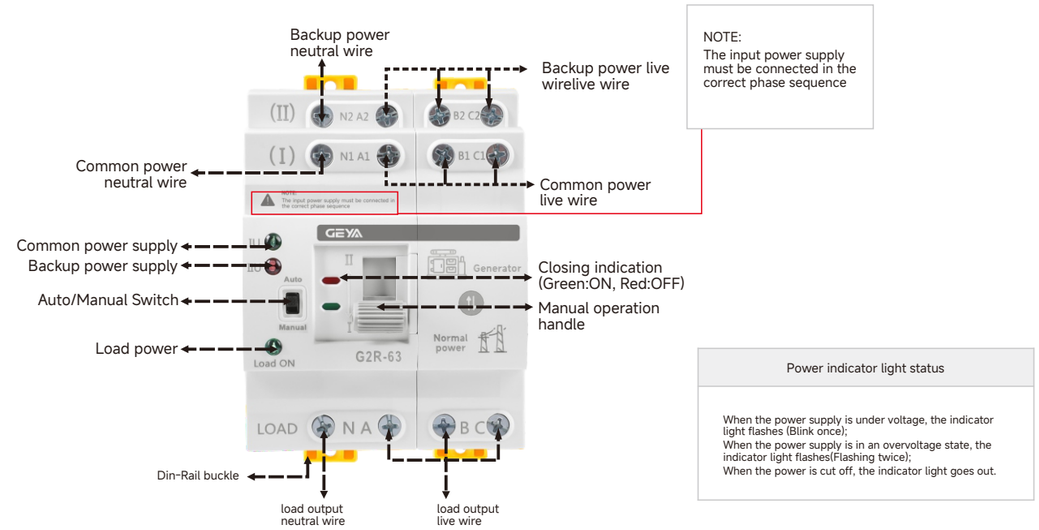
If the maintenance and inspection items fail, please remove the dust. b: Please check whether the electrical contact parts are deformed and damaged, and clean the surface. c: metal particles and burnt around it. Rust, acidification and dust on the contact surfaces can cause poor contact, so do some manual work and measure the necessary contact resistance. d: If the ATS is wet or left unused for a long time, please dry it before turning on the power.

After removing the dust, use a 500V megohmmeter to measure the insulation resistance of the normal

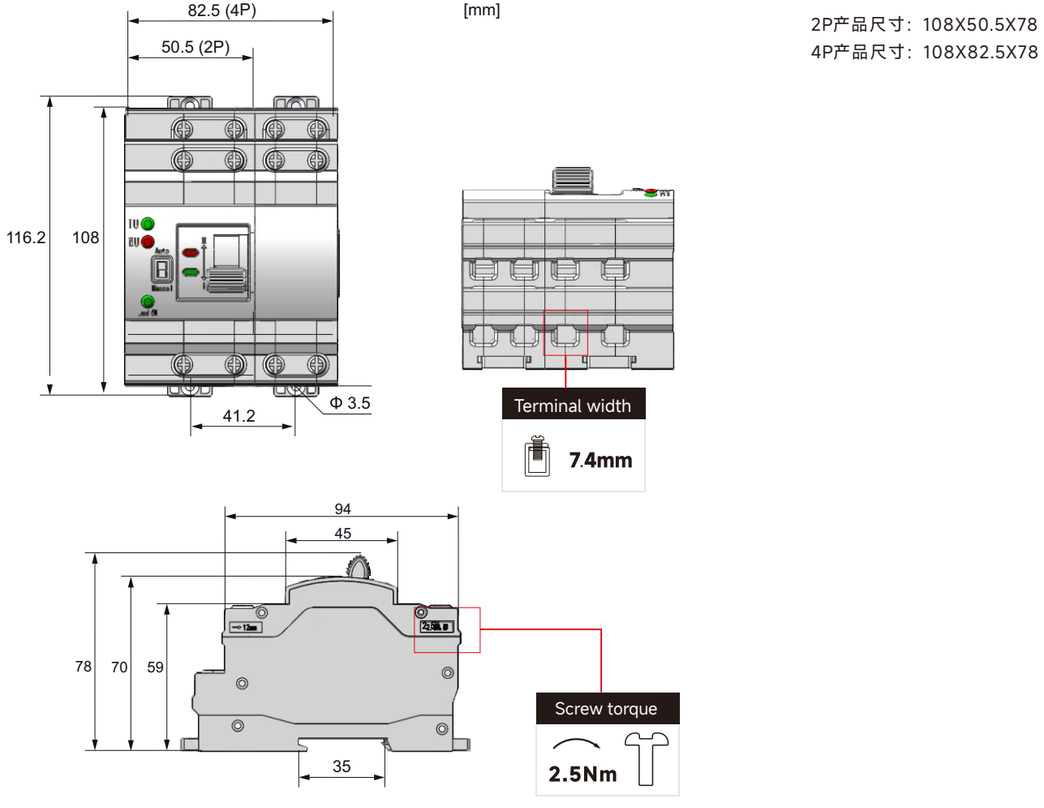
power supply and the AC power supply. The load side and two poles, including the insulation resistance, when using live parts and metal plates, the insulation resistance should not be less than 10MQ.

Professional Inspection: Engage qualified personnel to regularly inspect the ATS, verifying proper operation.
Routine Cleaning: Periodically remove dust and debris to ensure optimal performance.
Electrical Contact Check: Inspect electrical contacts for wear or damage and tighten any loose connections to maintain reliable operation.
Humidity Control: Maintain a dry environment to prevent moisture-related malfunctions
Insulation Testing: Routinely test insulation resistance to verify adherence to safety standards.
Proper Storage: Store the ATS in a protected environment, shielded from dust, humidity, and physical harm when not in use.
Adhering to these refined maintenance procedures ensures the safe and effective functionality of ATS.

Wiring instructions



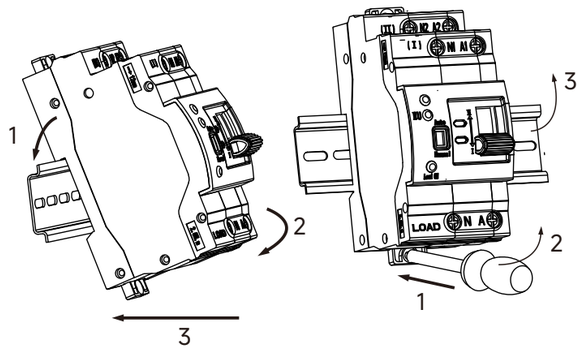
Product Size



2P产品尺寸：108X50.5X78
4P产品尺寸：108X82.5X78

DIN Rail Installation

1. Insert the upper end of the ATS base into the DIN rail.
2. Push the lower end of the ATS base into the DIN rail until the snap fastener locks securely.

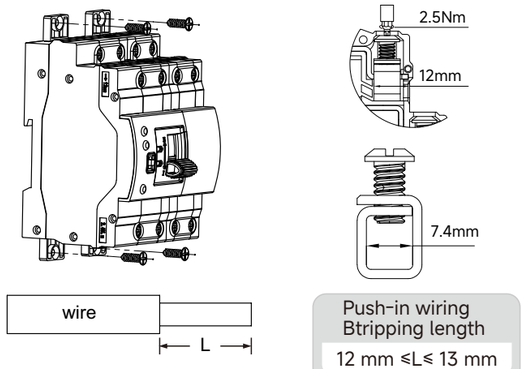


DIN Rail Disassembly

1. Insert a screwdriver into the round hole of the DIN rail snap fastener at the bottom of the ATS.
2.Use a screwdriver to pry the DIN rail snap fastener downward.
3. Tilt the ATS upwards and remove it from the DIN rail.

Screw Mounting

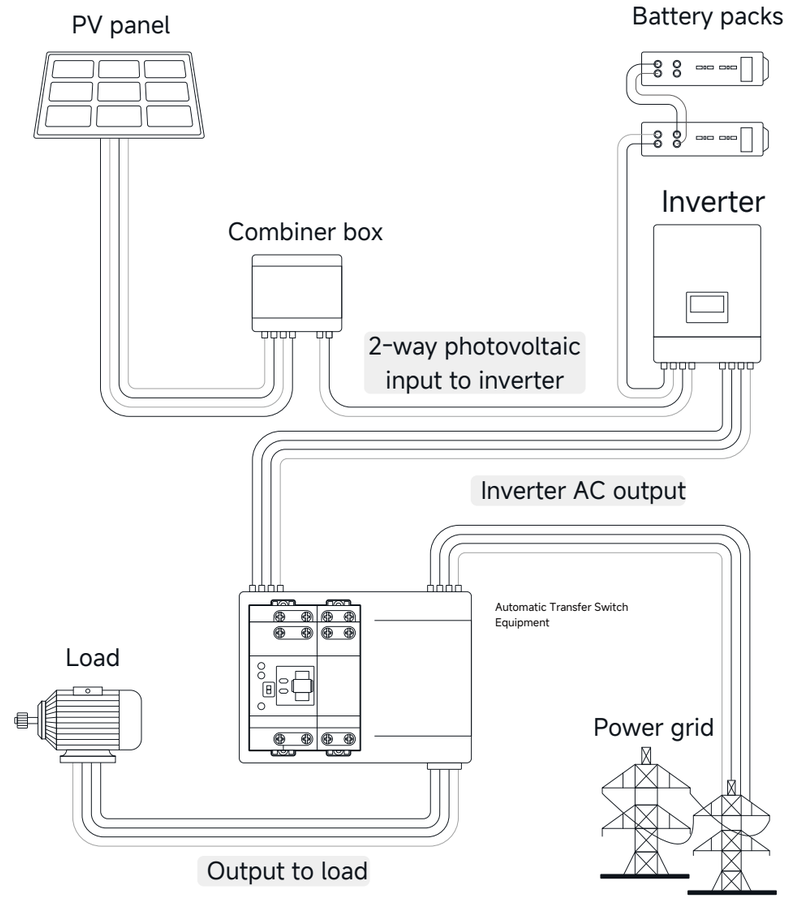
1. Pull out the upper and lower snap fasteners located at the bottom of the ATS.
2. Secure the ATS to the panel with screws.



Wiring

1. The ATS is equipped with screw-type terminals, each with a width of 7.4 mm, suitable for copper wires with a cross-sectional area of 1 to 16 mm^2
2. When wiring, strip the wire to a length of 12 to 13 mm; it is recomm ended to use a duckbill-shaped terminal for secure connection.
3. Tighten the screws with a recommended torque of 2.5 Nm to ensure proper tightening without damaging the terminals.

Easy Installation Instructions



This product has undergone insulation testing before leaving the factory. Incorrect dielectric testing will damage the control system, and it is strictly prohibited to conduct dielectric testing with ATS.



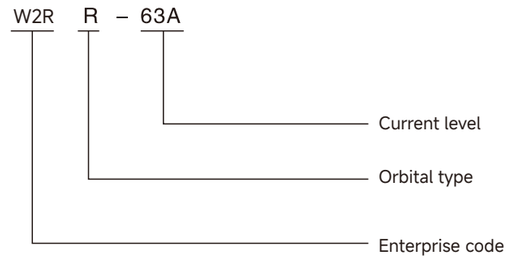
W2R

Automatic Transfer Switch

The dual power automatic transfer switch is a newly developed miniature household power transfer switch. This switch is mainly used to test whether the main or backup power supply is working properly. When the normal power supply is abnormal, the backup power supply will immediately start working to ensure the continuity, reliability, and safety of power supply. This product is designed specifically for household rail installation and is specifically used for PZ30 distribution boxes.
According to GB/t14048.11, Part 6-1: Multifunctional Equipment and Switchgear specifies that ATSE is the most compliant low-voltage switchgear and control device.



Product Model and Classification



Normal operating time and installation conditions

- Surrounding air temperature: The highest temperature shall not exceed 40 , the lowest shall not be lower than -5 , and the average temperature within 24 hours shall not exceed 35
- Altitude: The sea level at the installation site should not exceed 2000m
- Atmospheric conditions: When the highest temperature reaches 40 °C, the relative humidity of the installation site should not exceed 50%; When the temperature reaches the lowest temperature of -5 °C and the relative humidity is high, for example, when the temperature is 25 °C, the relative humidity is 90%. Due to temperature changes, special measures should be taken to address occasional condensation on the surface of the product.
- Pollution level: TSE pollution level meets the specified level 3 of GB/t14048.11
- Installation category: The installation type of TSE complies with the specified category in GB/t14048.11
- Installation conditions: TSE can be vertically installed in control cabinets or distribution cabinets. Ensure that the installation distance meets the requirements in Figure 1.

Installation and wiring

- Please check the integrity of TSE before installation. Then use the joystick to turn on and off TSE, check the flexibility of the transmission device, and detect the generation and disconnection conditions of the load at each stage of the normal and backup power supply
- Control voltage detection: AC50HZAC220V. The coil in the control circuit should not be too long. The cross-sectional area of copper wire should not exceed2.0mm^2
- According to the installation requirements of the power distribution system, please equip appropriate circuit breakers to ensure the safety of personnel and equipment.

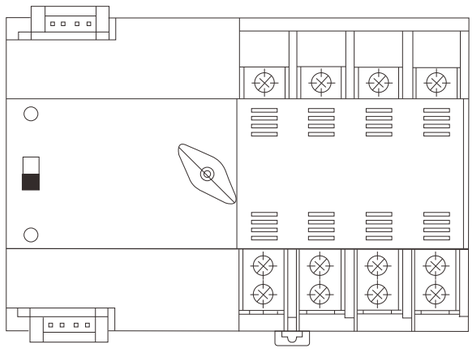
Basic information

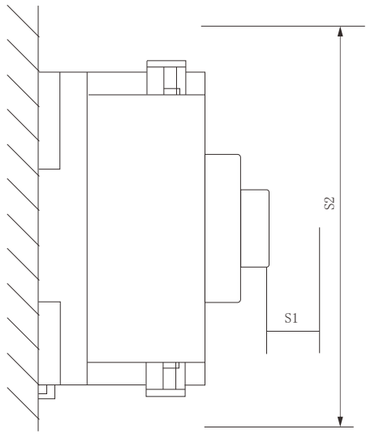
model	W2R-63A							
Rated current Ie A	16	20	25		32	40	50	63
Insulation voltage Ui	AC 690V,50Hz							
Rated voltage Ue	AC 400V,50Hz							
level	PC level: capable of manufacturing and withstanding without generating short-circuit current							
Usage category	AC-33iB				AC-31B			
Measuring rod	2P		3P		4P			
Weight (kg)	1.7		2.1		2.6			
Electrical lifespan	2000 times: manual operation: 5000 times							
Rated short-circuit current Iq	5kA							
Short circuit protection device (fuse)	RT16-00-63A							
Rated impulse withstand voltage	8kV							
control circuit	Rated control voltage Us: AC220V, 50Hz Normal working conditions: 85% Us -110% Us							
Auxiliary circuit	2 relays, each with two sets of contact converter contact capacity: AC220V 50Hz Ie=5y							
Contactor conversion time	<50ms							
Operation conversion time	<50ms							
Return conversion time	<50ms							
Power off time	<50ms							

Note

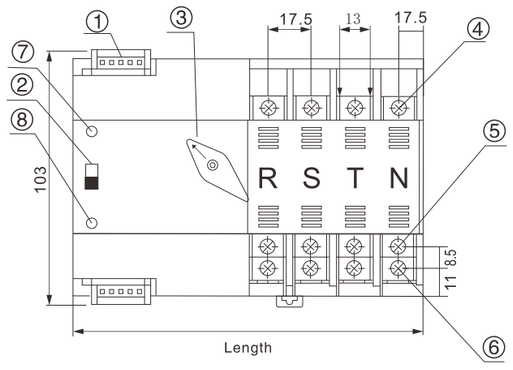
- Manual/Automatic Operation
  SE can ensure the performance of power generation and power-off in circuit operation, but TSE cannot guarantee the above performance for manual operation due to differences in power generation and power-off speed or operator. Excessive silver alloy loss may occur during manual power generation and power outages. Therefore, when all power is cut off to check and maintain the operating system and contacts, simply pull the
- selection switch to the manual position. Generally, please turn the selection switch to the automatic position. When operating manually, pull the selection switch to the manual position. After completing the manual operation, pull the selection switch from the manual position to the automatic position.
  control circuit
  SE will instantly become active. After the conversion is completed, the coils in the control circuit will be disconnected by the internal converter. At rated voltage of 80% to 110%, the coil can operate normally. Low voltage can cause the coil to heat up or even self ignite.

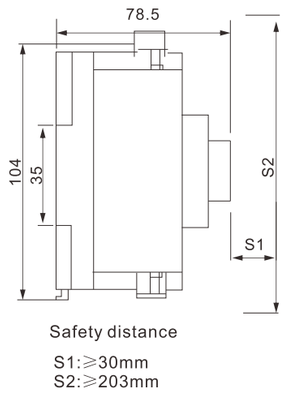
Correct installation instructions





Appearance and installation dimensions





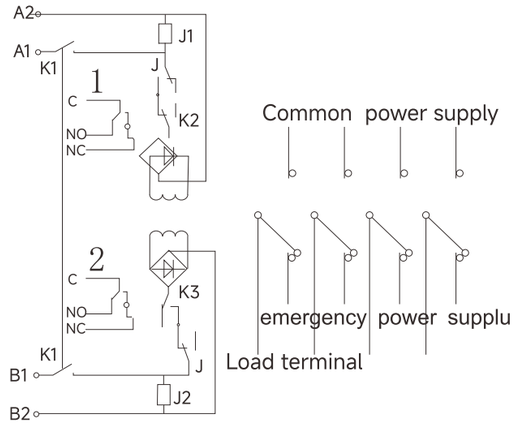
Safety distance
S1:≥30mm
S2:≥203mm

Table 2 dimensions

pole numbers	2P	3P	4P
Length	107.5	125	142.5

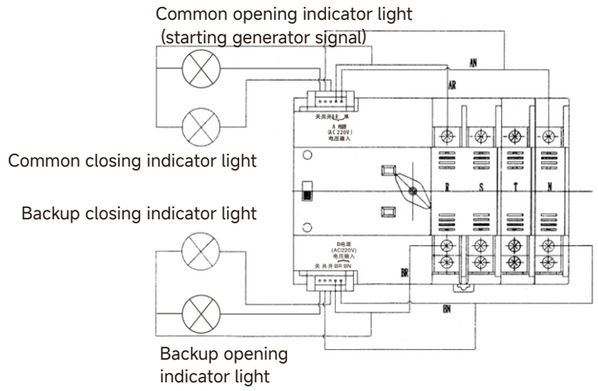
① Control power
② Selection switch (Auto/manual)
③ Manual knob
④ Normal power main circuit terminal
⑤ Altemative powermain circuit terminal
⑥ Load side main circuit terminal
⑦ Power A indicator
⑧ Power B indicator

Internal wiring diagram



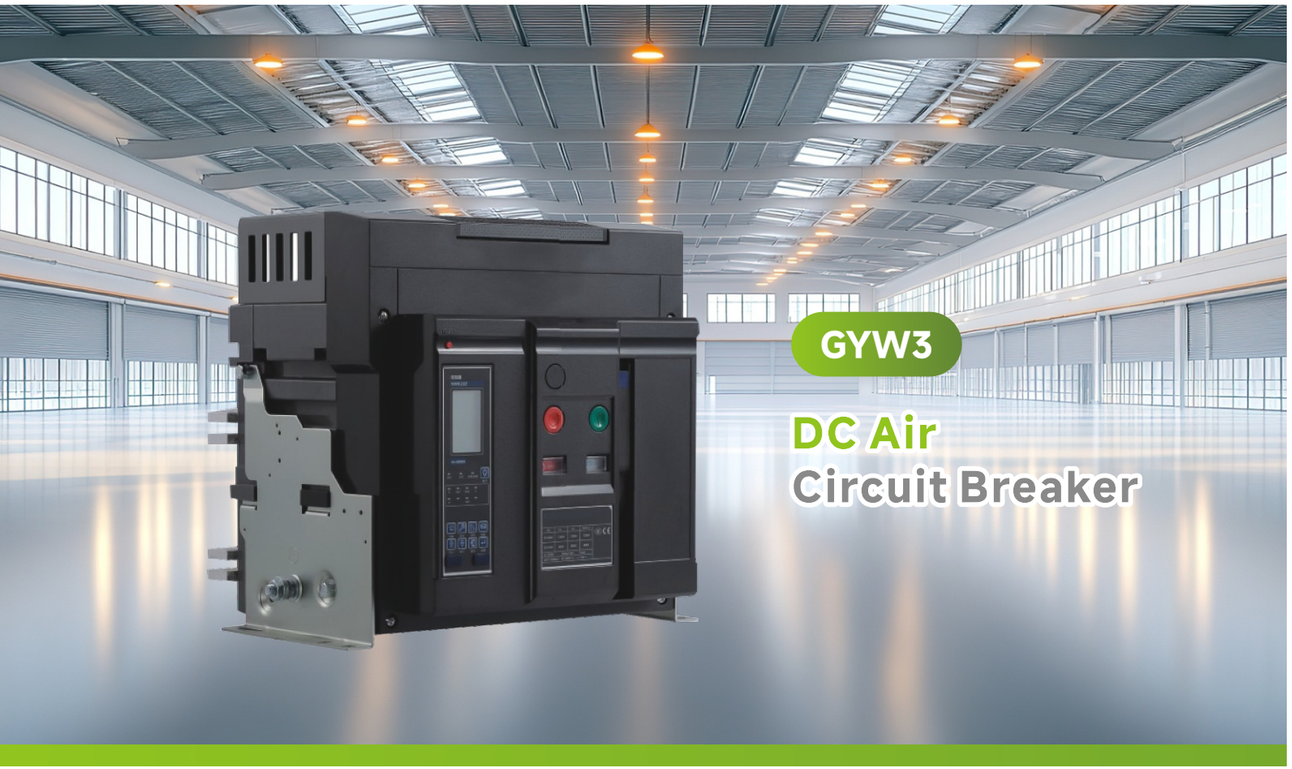
K1:Manual/Electric selection switch
K2、K3:Product internal position seitch
J1:Power A 220V relay
J2:Power B 220V relay
1:Power A passive signal output
2:Power B passive signal output

Controller wiring diagram



Maintenance, inspection, and storage

- Maintenance and inspection should be carried out by professional personnel, and all power sources should be cut off in advance.
- To ensure the good performance of TSE, the first maintenance and inspection should be carried out within 6 months after use, and at least once a year. In harsh installation conditions, maintenance and inspection frequency should be increased.
- TSE should be stored in an environment equivalent to normal working conditions, with dust, moisture, and anti-collision measures.
- Maintenance and inspection items
  a. Please remove dust and dirt when a malfunction occurs.
  b. Please check if the electrical contact parts are deformed or damaged, and remove any burnt metal particles attached to the surface and surroundings.
  c. Rust, acidification, and dust on the contact surface may cause poor contact. Please manually operate multiple times and measure the contact resistance if necessary.
  d. Due to prolonged exposure to moisture and being in a suspended state, please dry the TSE before use. After removing dust and dirt, use a 500V megohmmeter to measure the insulation resistance between the normal supply, alternating supply, load side pole, including the insulation resistance between live parts and metal plates. And the insulation resistance should not be less than 10M Ω.



Product features

high breaking capacity
It has a number of invention patents for the design of circuit breaker arc-extinguishing chamber and contact system. Using the principles of narrow slit, air blowing, and magnetic blowing arc extinguishing, optimizing the shape of the arc extinguishing grid and the layout of the arc extinguishing grid, increasing the driving force for the arc, reducing the resistance of entering the arc extinguishing chamber, and improving the breaking capacity of the product, and realize reliable arc extinguishing lower than Dc1500v, The time for the controller to collect signals and issue commands is optimized, and when a large fault current occurs, the total breaking time can be greatly shortened.

Long lifespan
Made of high-strength DMC material, which has extremely high impact strength and insulation properties. The design of the arc contact structure improves the electrical life of the product; the contact system and operating mechanism are greatly optimized, the strength of the metal structure is higher, and the compensation of the contact pressure is realized, which improves the reliability of the product and short-term tolerance.

Small size
The phase spacing is the smallest among the same frame, and the shunt is built-in, which is conducive to reducing the size of the complete cabinet and making the product more beautiful.

Critical current
The first non-polar frame circuit breaker at home and abroad that meets the critical DC load, realizes reliable arc extinguishing in the full current range, and can meet the photovoltaic PV2 level isolation requirements. Various safety protection devices
It has protective devices such as drawer-type circuit breaker door interlock, drawer-type three-position locking and unlocking device, key lock at off position, terminal shield, closing ready device, etc.

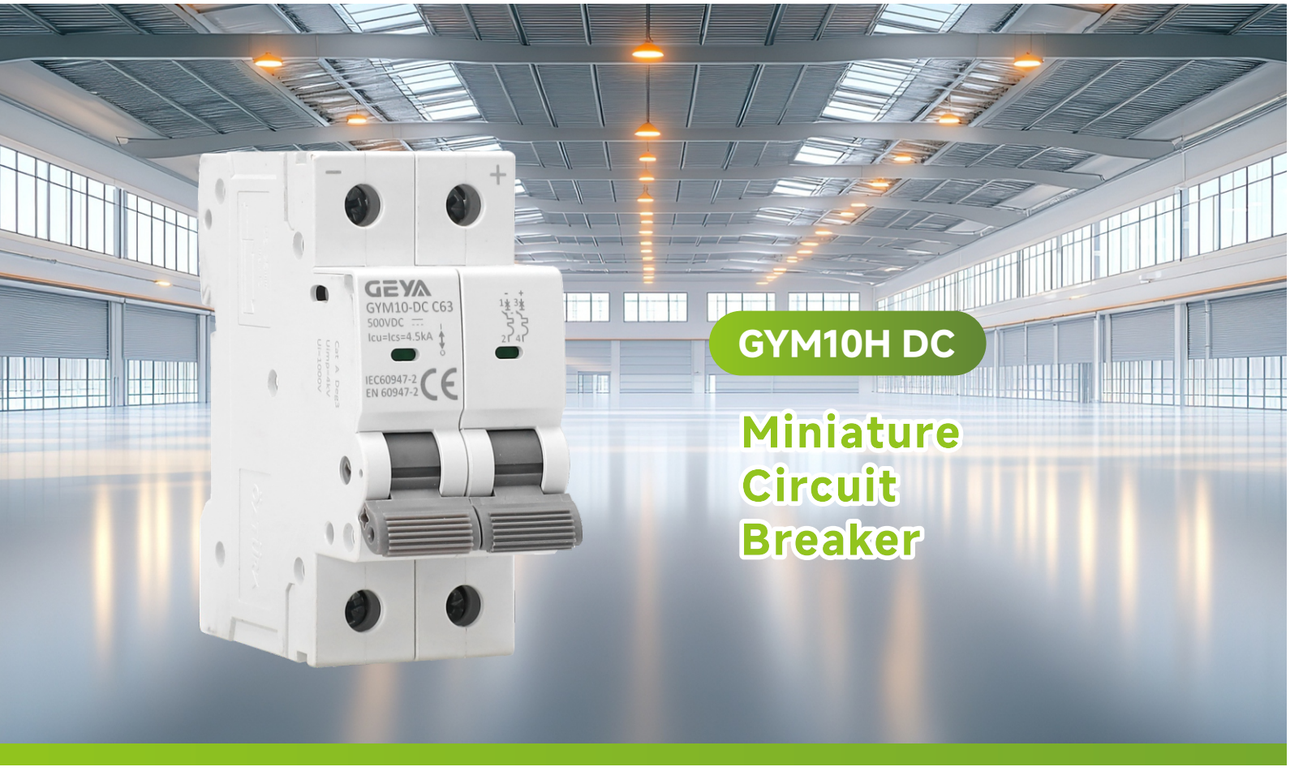
		GYW3-2500		GYW3-4000	
Number of poles in series (P)		2/3/4		3/4	
Rated current In(A)		800/1000/1250/1600/2000/2500		1600/2000/2500/3200/3600/4000	
Rated working voltage Ue(V)		DC500V/750V(2P/3P) DC1000V/1500V(4P)		DC500V/750V(3P) DC1000V/1500V(4P)	
Breaking type		/		S	H
Rated ultimate short-circuit breaking capacity Icu(kA)	DC500V	2P	50	/	/
		3P	65	80	120
	750V DC	2P	40	/	/
		3P	55	65	80
	DC1000V	4P	50	55	75
	DC1500V	4P	40	50	60
Rated operating short-circuit breaking capacity Ics(kA)		100%Icu		100%Icu	
Rated short-circuit making capacity Icm(kA)		100%Icu		100%Icu	
Rated short-time withstand current Icw(kA)/1s		100%Icu		100%Icu	
controller	NWK20Z controller	●		●	
	NWK22Z controller	●		●	
installation method	fixed	●		●	
	Drawer type	●		●	

Application scope

GYW3-2500/4000 DC-type universal circuit breaker (hereinafter referred to as circuit breaker) is suitable for Dc, rated current 800A~4000A, rated insulation voltage Dc1500v, rated working voltage DC500V/750V, DC1000V/1500V power distribution network, used to distribute power and protect circuit and power equipment from overload, undervoltage, short circuit and other faults: it also has a reliable isolation function. The circuit breaker has a variety of protection functions. While achieving high-precision selective protection, it can also avoid unnecessary power outages and improve the reliability and safety of the power supply system.

Product Certification

GB/T 14048.1-2012 Low-voltage switchgear and controlgear Part 1: General principles (IEC60947-1:2001, MOD)
GB/T14048.2-2020 Low-voltage switchgear and controlgear Part 2: Circuit breakers (EC60947-2:2019,IDT)
GB/T 14048.7-2016 Low-voltage switch and control settings Part 7-1: Terminal blocks for copper conductors of auxiliary devices
GB/T 34581-2017 General Technical Requirements for DC Circuit Breakers for Photovoltaic Systems
GB/T 2423.1-2008 Environmental testing for electrical and electronic products - Part 2: Test methods Test A: Low temperature
GB/T2423.2-2008 Environmental testing for electrical and electronic products - Part 2: Test methods Test B: High temperature test methods
GB/T 2423.4-2008 Environmental testing for electric and electronic products - Part 2: Test method Test Db alternating damp heat (12h + 12h cycle)



The GYM10H DC circuit breaker is designed for DC circuits with rated voltage up to 1000V and rated current up to 63A, providing overload and short-circuit protection, and can also be used for infrequent circuit switching operations.
This breaker is suitable for DC system applications such as telecommunications and photovoltaic (PV) systems.
Compliant with standards: IEC/EN 60947-2, GB/T 14048.2

- Contact Position Indication Function
- Maximum Wiring Capacity 16mm^2
- Dual busbar and no busbar options available

Technical Specification

Rated Current(In):	6、10、16、20、25、32、40、50、63A	Breaking Capacity:	4.5kA
Rated Voltage(Ue):	1P:250VDC;2P:500VDC; 3P:750VDC;4P:1000VDC	Poles:	1P、2P、3P、4P
		Mechanical life:	20000 times
		Electrical life:	10000 times
Rated insulation voltage:	500V	Tightening moment:	2.0N.m
Rated impulse withstand voltage (Uimp):	4kV	Class of protection:	Ip20
Tripping Curves:	B:(6±20%)In、C:(8.5±20%)In、D:(12±20%)In		

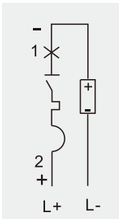
Temperature Compensation

When the ambient temperature is not the baseline temperature of 30℃, the reference Correction coefficientis as follows:

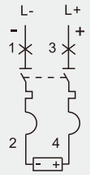
Ambient Temperature	-20℃	-10℃	0℃	10℃	20℃	30℃	40℃	50℃	60℃
Current Correction Factor	1.25	1.2	1.15	1.10	1.05	1.00	0.95	0.90	0.85

Wiring diagram

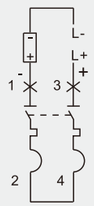
1P Down Line



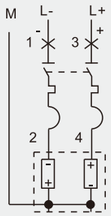
Up Line-A



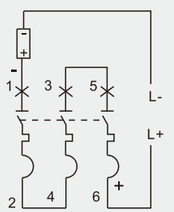
2P Up Line-B



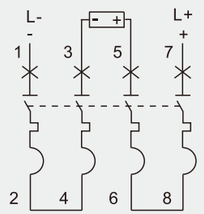
Up Line-C



3P Down Line



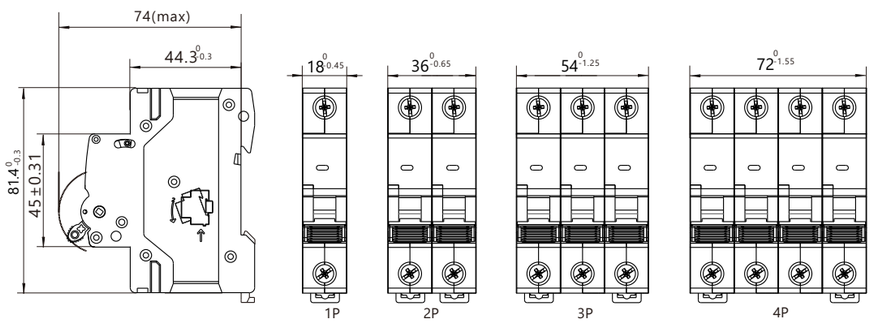
4P Up Line

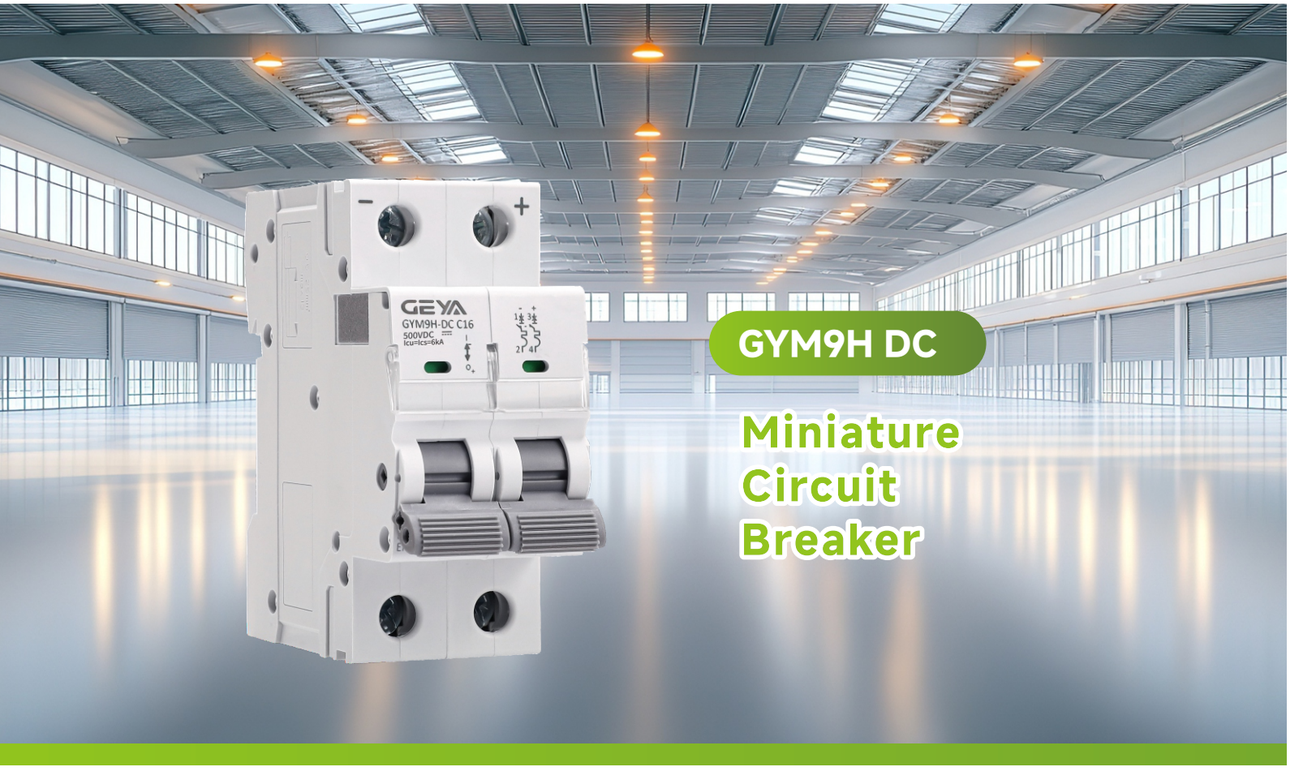


Remark

1 . L+:Positive Pole, L-:Negative Pole;
2 . +:MCB of positive pole, -: MCB of negative pole;
3 . —[+ -]—: Load;
4 . DC power supply usually "L-" ground lead, Neutral pole of positive and negative power supply system"M"ground lead;

Outline Overall And Installing Dimensions





GYM9 DC Circuit Breaker is designed for DC circuits with a rated voltage up to 1000V and a rated current up to 63A. It provides overload and short-circuit protection and can also be used for infrequent switching operations of circuits.
This circuit breaker is suitable for DC system applications, such as communications and photovoltaic (PV) systems.
Compliance Standards: IEC/EN 60947-2 GB/T 14048.2

- RoHS 2.0 compliant
- Dual busbar wiring function
- Transparent marking feature
- Contact position indicator
- Max. wire capacity: 16mm²

Technical Specification

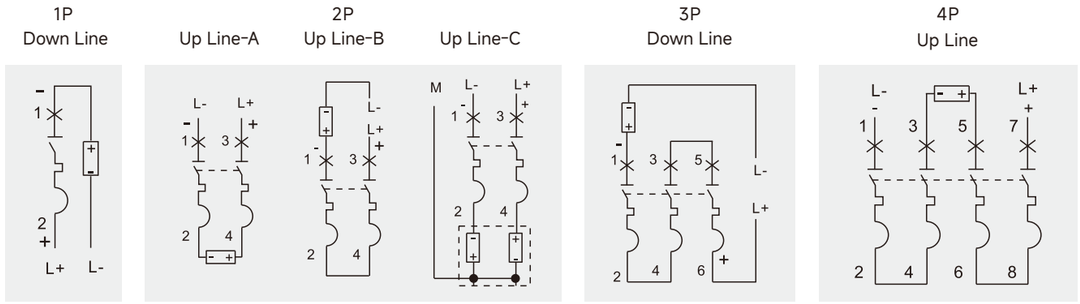
Rated Current(In):	1-63A	Poles:	1P、2P、3P、4P
Rated Voltage(Ue):	1P:250VDC;2P:500VDC; 3P:750VDC;4P:1000VDC	Mechanical Life:	20000 times
		Electrical Life:	10000 times
Tripping Curves:	B、C、D	Tightening moment:	2.0N.m
Rated insulation voltage (Ui)	500V	Class of protection:	Ip20
Breaking Capacity:	6kA		

Temperature Compensation

When the ambient temperature is not the baseline temperature of 30°C, the reference Correction coefficientis as follows:

Ambient Temperature	-20°C	-10°C	0°C	10°C	20°C	30°C	40°C	50°C	60°C
Current Correction Factor	1.25	1.2	1.15	1.10	1.05	1.00	0.95	0.90	0.85

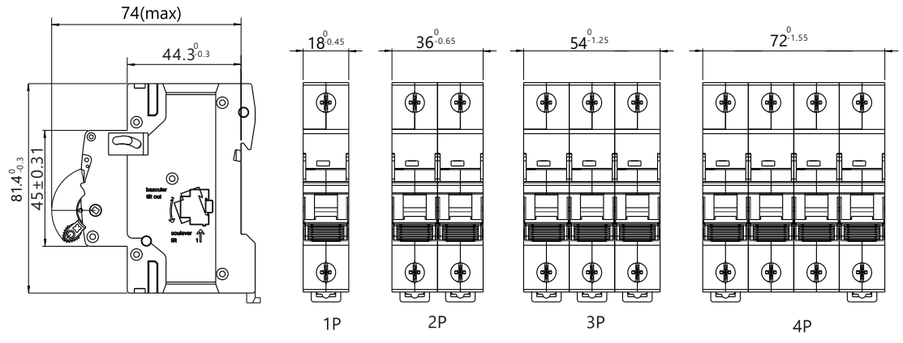
Wiring diagram

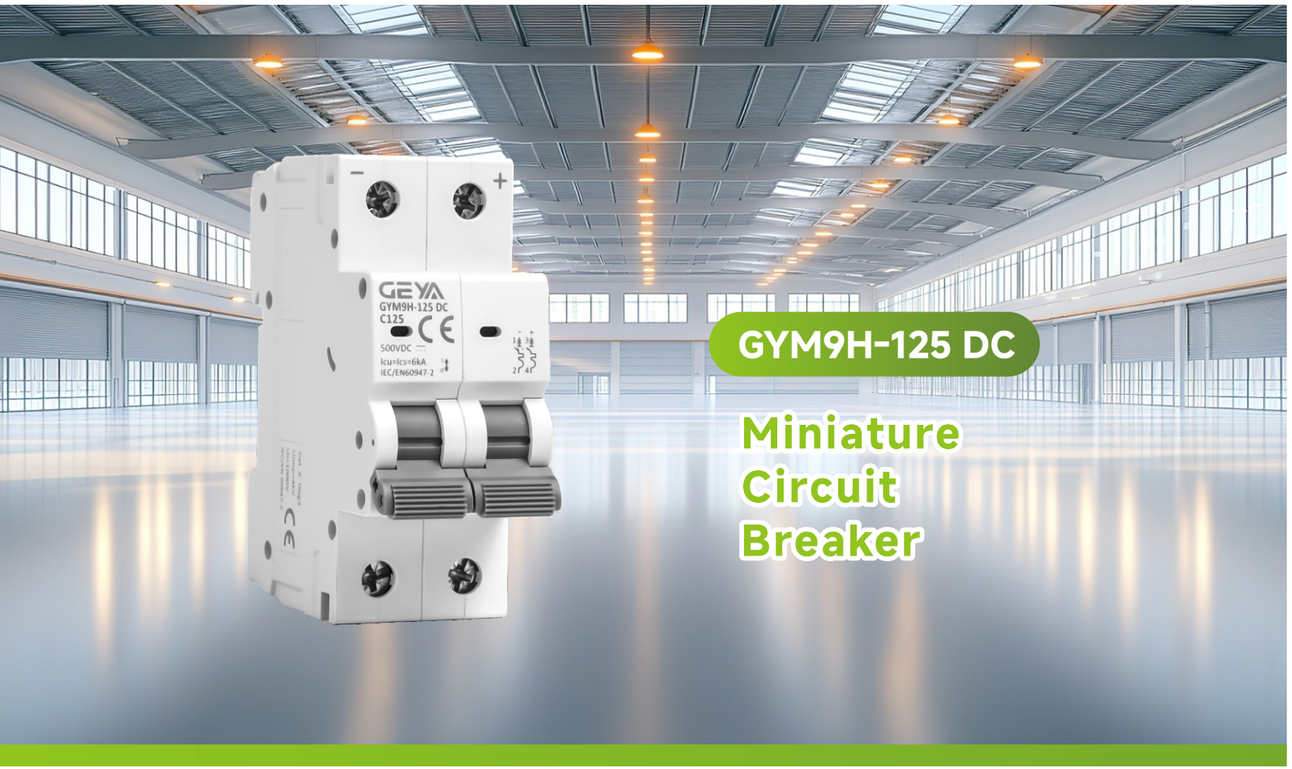


Remark

1 . L+:Positive Pole, L-:Negative Pole;
2 . +:MCB of positive pole, -: MCB of negative pole;
3 . —[+ -]—: Load;
4 . DC power supply usually "L-" ground lead, Neutral pole of positive and negative power supply system"M"ground lead;

Outline Overall And Installing Dimensions





Functions and Applications

Overload, short circuit, isolation; Suitable for communication, photovoltaic and other DC system applications.

Product Feature

Standard：IEC/EN60947、GB/T 14048.2
Contact Position Indication Function
Maximum Wiring Capacity 35mm2

Technical Specification

- Rated Current（In）： 63、80、100、125
- Rated Voltage（Ue）： 1P:250VDC;2P:500VDC；3P:750VDC;4P:1000VDC；
- Working Frequency: 50/60Hz；
- Tripping Curves: Ii=6In(B)，Ii=8.5In(C)，Ii=12In(D)
- Rated ultimate shortcircuit breaking capacity(Icu) 6kA
- Poles: 1P、2P、3P、4P
- Mechanical Life: 10000 times
- Rated impulse withstand voltage (Uimp): 4kV

Performance Characteristic

Test	Test current	Initial Condition	Limits of tripping or non-tripping time	Result to be obtained	Remarks	Fiducial temperature
B/C/D	1.05In	Cold	t≤1h(In≤63)	No tripping		30℃
	1.3In	Immediately following	t≤1h(In≤63)	Tripping	Current steadily increased within 5s	
	2.55In	Cold	1s<t<60s(In≤32A) 1s<t<120s(In≤32A)	Tripping		
B	4.8In	Cold	t≤0.1S	No tripping		
C	6.8In	Cold				
D	9.6In	Cold				
B	7.2In	Cold	t≤0.1S	Tripping		
C	10.2In	Cold				
D	14.4In	Cold				

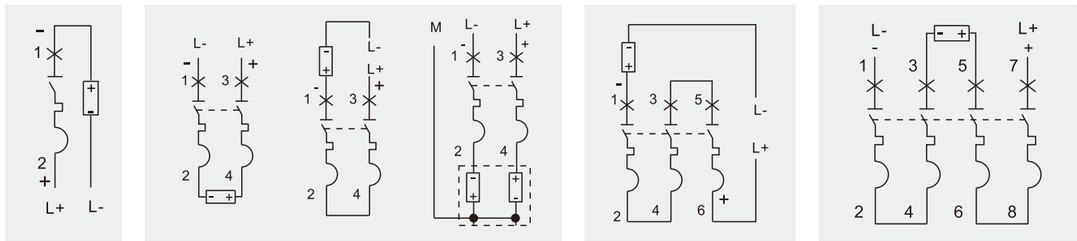
Temperature Compensation

When the ambient temperature is not the baseline temperature of 30℃, the reference Correction coefficientis as follows:

Ambient Temperature	-20℃	-10℃	0℃	10℃	20℃	30℃	40℃	50℃	60℃
Current Correction Factor	1.25	1.2	1.15	1.10	1.05	1.00	0.95	0.90	0.85

Wiring diagram

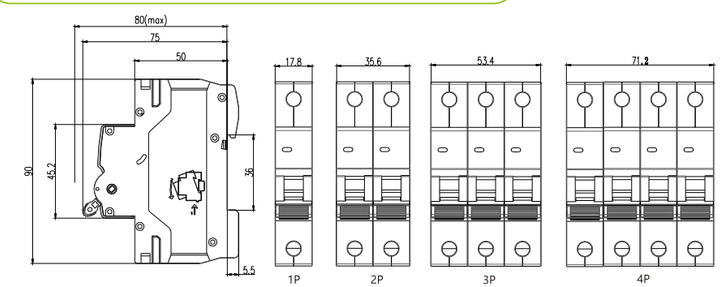
1P Down Line / Up Line-A / 2P Up Line-B / Up Line-C / 3P Down Line / 4P Up Line



Remark

1 . L+:Positive Pole, L-:Negative Pole;
2 . +:MCB of positive pole，-: MCB of negative pole;
3 . —[+ -]—: Load;
4 . DC power supply usually “L-” ground lead, Neutral pole of positive and negative power supply system“M”ground lead;

Outline Overall And Installing Dimensions





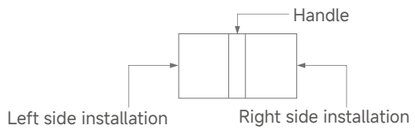
- Zero arc,+50℃
- It complies with UL 489 standard
- Single pole DC 1500V Ics=10kA
- No capacity derating, no polarity, no capacity derating for reversing line

Main performance indicator

Model	GYM7DC-320		GYM7DC-400/630		GYM7DC-1600			
Rated current	63、80、100、125、140、160、180、200、225、250、315、320		225、250、320、350、400、500、630		800A、1000A、1250A、1500A、1600A			
Number of poles	2P		2P		3P		4P	
Rated working voltage Ue DC	1500		1500		1500			
Rated insulation voltage Ui (V)	1800		1800		1800			
Rated impulse withstand voltage Uimp (V)	12		12		12			
Power frequency withstand voltage (1min) (kV)	3500		3500		3500			
Rated ultimate short-circuit breaking capacity Icu (V)	DC1200V	DC1500V	DC750V	DC1000V	DC750V	DC1000V	DC1200V	DC1500V
Rated service short-circuit breaking capacity Ics (kA)	35kA	20kA	85kA	50kA	50kA	30kA	15kA	10kA
Mechanical life (kA)	4000							
Electrical life (times)	10000		10000		500			
Arc distance (times)	50、0 (with arc extinguishing chamber)				100			
Basic dimension W*L*H(mm)	90x215x136		110x275x152		3P:210x340x244 4P:280x340x244			
Instantaneous release (mm)	5in or 10In							
Reference ambient temperature (°C)	50°C							

Installation details of internal accessories for GYM7DCDC series molded case circuit breaker

Internal accessory code and installation location	Model / Number of poles / Accessory name	GYM7DC-320	GYM7DC-400/630	GYM7DC-1600	
		2P	2P	3P	4P
00	None	—	—	—	—
08	Alarm contact	▫	▫	▫	▫
10	Shunt release	●	●	●	●
18	Shunt release+alarm contact	—	▫●	▫●	▫●
20	Single auxiliary contact	◧	◧	◧	◧
27	Dual auxiliary contacts	▮▮	▯▯	▯▯	▯▯
28	Single auxiliary contact+alarm contact	▫◧	▫◧	▫◧	▫◧
29	Dual auxiliary contacts+alarm contact	—	▫▯▯	▫▯▯	▫▯▯
30	Undervoltage release	○	○	○	○
38	Undervoltage release+alarm contact	—	▫○	▫○	▫○
40	Shunt release+single auxiliary contact	—	◧●	◧●	◧●
48	Shunt release+auxiliary alarm contact	—	▫◧●	▫◧●	▫◧●
62	Two sets of dual auxiliary contacts	—	▮▮	▯▯	▯▯
68	Single auxiliary contact+auxiliary alarm contact	▫◧	▫◧	▫◧	▫◧
69	Dual auxiliary contacts+auxiliary alarm contact	—	▫▯▯	▫▯▯	▫▯▯
70	Undervoltage release+single auxiliary contact	—	◧○	◧○	◧○



Alarm contact
Single auxiliary contact (one set of conversion)
Dual auxiliary contacts (two sets of conversions)
Undervoltage release
hunt release (mechanical)

Note 1:
Code 5: 125, 160 require customized left undervoltage release; 250 requires customized left shunt release, with optional range of shunt and undervoltage voltage: DC24y,DC1 10v,DC220V,AC230V,AC400V:conventional:AC230V.



Application

This DC surge protective device is applied low voltage standard IEC/EN 61643-11 to protect against DC power line system and other equipment from over voltage and instantaneous over voltage damage. Widely used in photovoltaic comber box, power inverter, DC distribution cabinet etc. It has advantages of large discharge current, fast respond time, low residual voltage. Max. PV voltage up to UCPV ≤1000V DC.

Main Features

- High discharge capacity, quick response, module pluggable;
- Fast response time, din rail installation;
- Double thermal disconnection devices, provide more reliable protection;
- Green window means normal, red means defect, need to change module;
- Remote alarm terminal optional.
- T1+T2 surge protection.

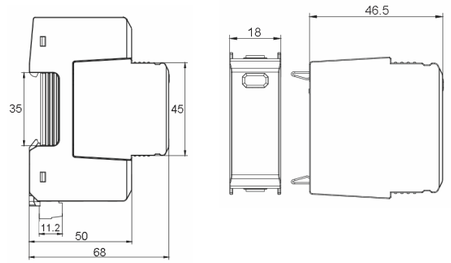
Technical Parameter

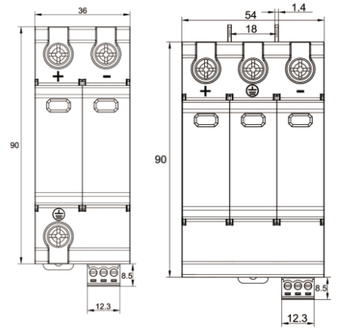
Model	GSP9-C40PV
Test standard	IEC/EN 61643-11;GB 18802.11
SPD type	T1+T2/I+ IIC
Max. PV operating voltage(Uc)	600V DC 1000V DC
Nominal discharge current(8/20μs)	20KA
Max.discharge current(8/20us)	40kA
limp current(10/350μs)	6.25kA
Poles	2P 2P/3P
Voltage protection level Up PV	≤2.6kV ≤3.6kV
Response time Ta	25ns
Connection wire specification	4mm²(L/N);6mm²(PE)
Mounting	35mm Din Rail
Matched fuse or circuit breaker	32A
Type of remote signaling contact(Optional)	C+NC:Normally closed C+NO: Normally open C:Common contact
Max.Voltage/Current for remote signaling	1A/2A/3A 125V AC
Wiring for remote signaling	1.5mm² max.
Operating temperature	-40°C to +85°C

Unit: mm

Dimension details

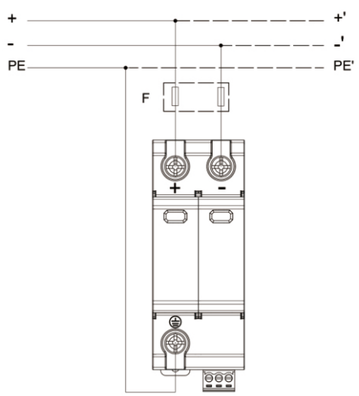
(Remote terminal optional)

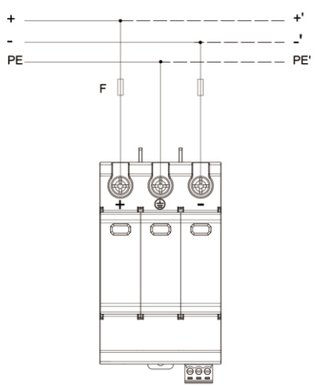




Wiring diagram

(2P&3P)







• Application •

This DC surge protective device is applied low voltage standard IEC/EN 61643-11 to protect against DC power line system and other equipment from over voltage and instantaneous over voltage damage. Widely used in photovoltaic comber box, power inverter, DC distribution cabinet etc. It has advantages of large discharge current, fast respond time, low residual voltage. Max. PV voltage up to UCPV ≤1500V DC.

• Main Features •

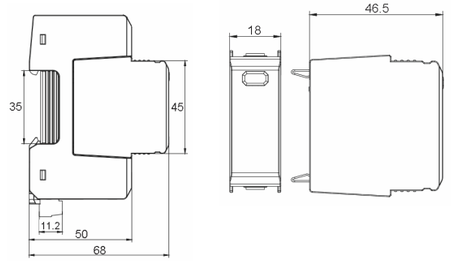
- High discharge capacity, quick response, module pluggable;
- Fast response time, din rail installation;
- Double thermal disconnection devices, provide more reliable protection;
- Green window means normal, red means defect, need to change module;
- Remote alarm terminal optional.
- T1+T2 surge protection.

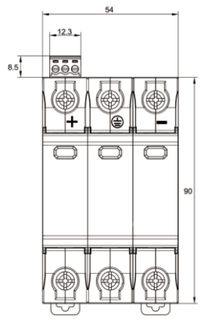
Technical Parameter

Model	GSP9-C40PV
Test standard	IEC/EN 61643-11;GB 18802.11
SPD type	T1+T2/I+ IIC
Max. PV operating voltage(Uc)	1500V DC
Nominal discharge current(8/20μs)	20KA
Max.discharge current(8/20us)	40kA
limp current(10/350μs)	6.25kA
Poles	3P
Voltage protection level Up PV	≤5.6kV
Response time Ta	25ns
Connection wire specification	4mm²(L/N);6mm²(PE)
Mounting	35mm Din Rail
Matched fuse or circuit breaker	32A
Type of remote signaling contact(Optional)	C+NC:Normally closed C+NO: Normally open C:Common contact
Max.Voltage/Current for remote signaling	1A/2A/3A 125V AC
Wiring for remote signaling	1.5mm² max.
Operating temperature	-40°C to +85°C

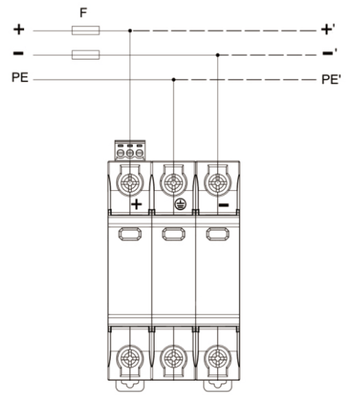
• Dimension details • (Remote terminal optional)

Unit: mm





• Wiring diagram • (3P)





Application

This AC surge protective device is applied low voltage standard IEN/61643-11 to protect against AC power line system and other equipment from over voltage and instantaneous over voltage damage.It has advantages of large discharge current, fast respond time and low residual voltage.

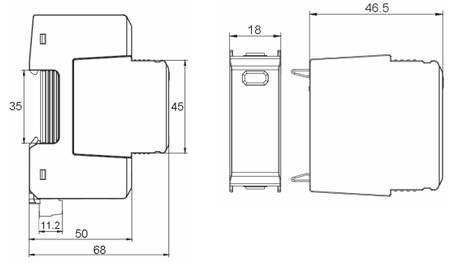
Main Features

- High discharge capacity,quick response,pluggable.
- Fast response time ,din rail installation.
- Double thermal disconnection devices, providing more reliable protection.
- Green window means normal ,red means defect ,need to change module.
- Remote alarm terminal optional.
- Voltage can be customized.

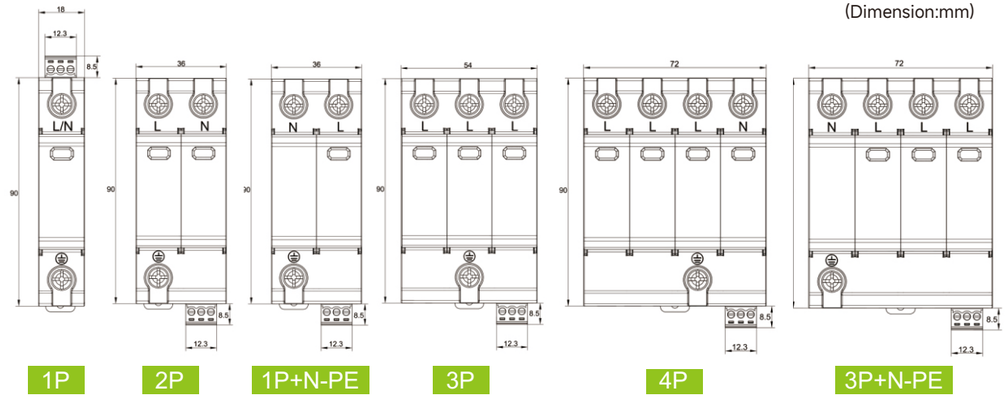
Technical Parameter

Model	GSP9-C40
Test standard	IEC/EN 61643-11;GB 18802.11
SPD type	T1+T2/I+ IIC
Max. PV operating voltage(Uc)	275V/1500V DC
Nominal discharge current(8/20μs)	20KA
Max.discharge current(8/20us)	40kA
limp current(10/350μs)	5kA
Voltage protection level Up	≤1.5kV(275V AC) ≤1.8kV(275V AC)
Response time Ta	25ns
Poles	1P 2P 3P 4P 1P+N-PE 3P+N-PE
Matched fuse or circuit breaker	4mm²(L/N);6mm²(PE)
Connection wire specification	35mm Din Rail
Mounting	32A
Type of remote signaling contact(Optional)	C+NC:Normally closed C+NO: Normally open C:Common contact
Max. Voltage/Current for remote signaling	1A/2A/3A 125V AC
Wiring for remote signaling	1.5mm² max.
Operating temperature	-40°C to +85°C
Shell material	UL94-V0 fireproof material

Dimension details



(Dimension:mm)

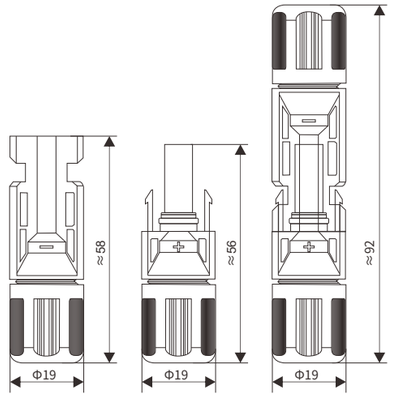


GEYA POWER

Solar DC Connector

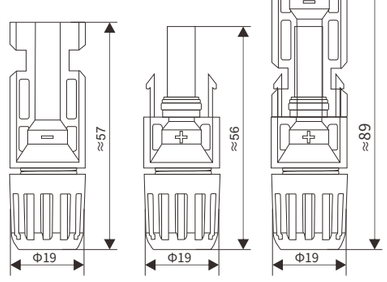
GSC4-TM4(1000V)
GSC4-TM4-1(1000V)





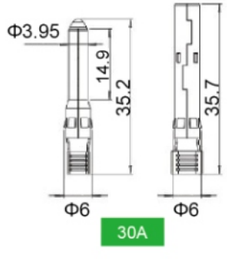
GSC4-TM3(1000V)
GSC4-TM3-1(1000V)

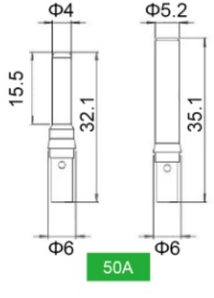




GSC4-TM2(1000V)
GSC4-TM2-1(1000V)

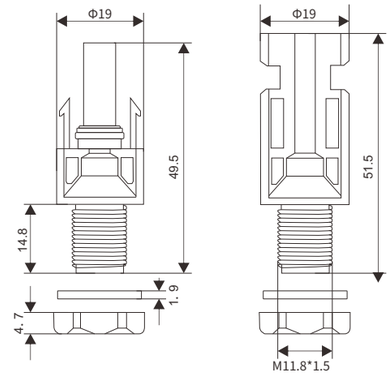






GSC4-TM1(1000V)
GSC4-TM1-1(1000V)



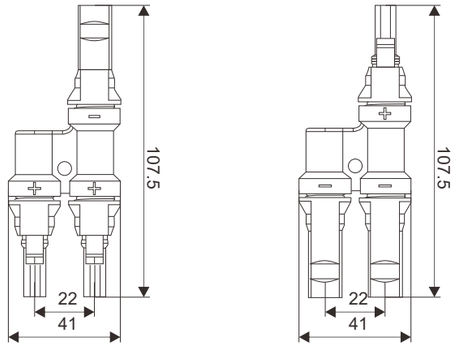


Technical Parameter

Data	
Connector system	Φ4mm
Rated voltage	1000V DC(IEC)1
Rated current	17A(1.5mm²) 22A(2.5mm²;14AWG) 30A(4mm²,6mm²;12AWG,10AWG)
Test voltage	6kV(50HZ,1min)
Ambient temperature range	-40°C...90°C(IEC)-40°C...75°C(IEC)
Upper limiting temper ature	+105°C(IEC)
Degree of protection, mated	Ip67
Unmated	IP2X
Comtact resistance of plug connectors	0.5mΩ
Safety class	II
Contact material	Messing, verzinnt Copper Alloy, tin plated
Insulation material	PC/PPO
Locking system	Snap-in
Flame class	UL-94-VO
Salt mist spray test, degree of severity 5	IEC 60068-2-52

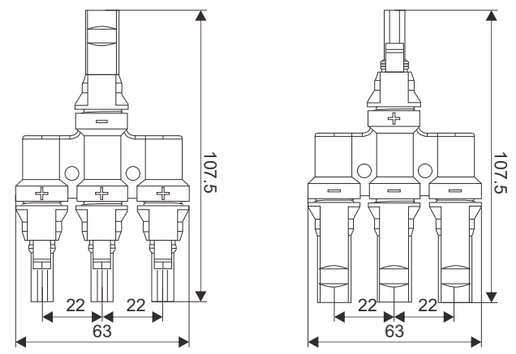
GSC4-T2 Branch Connector





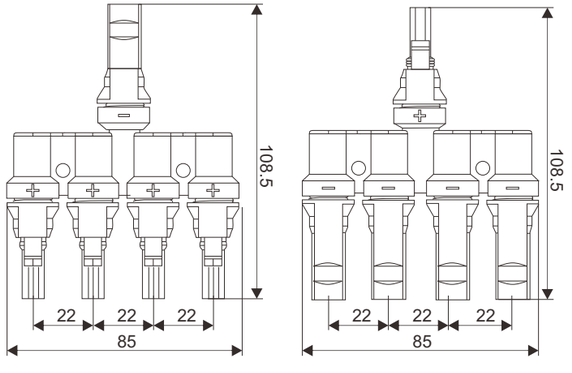
GSC4-T3



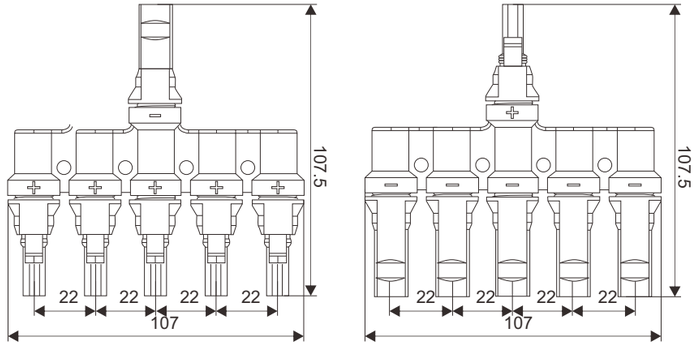


GSC4-T4



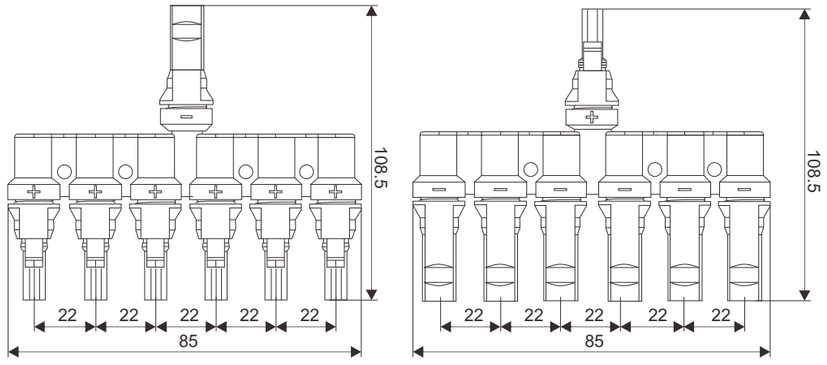


GSC4-T5





GSC4-T6





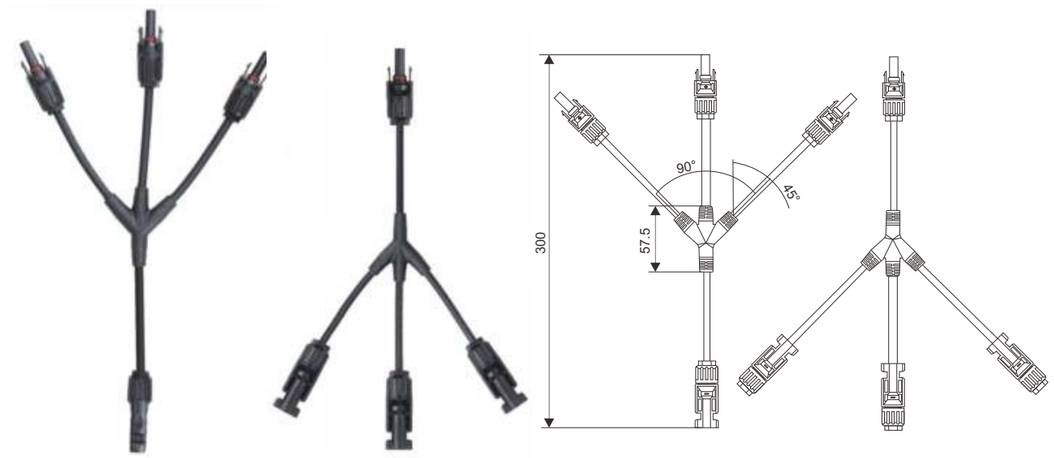
Technical Parameter

Data	
Insulation Material	PPO
Contact Material	Copper, Tin plated
Suitable Current	30A
Rated Voltage	1000V(TUV) 600V(UL)
Test Voltage	6kV(TUV50HZ,1min)
Contact Resistance	<0.5mΩ
Degree Of Protection	IP67
Ambient Temperature Range	-40°C~+85°C
Flame Class	UL 94-VO
Safety Class	II
Pin Dimensions	Φ4mm

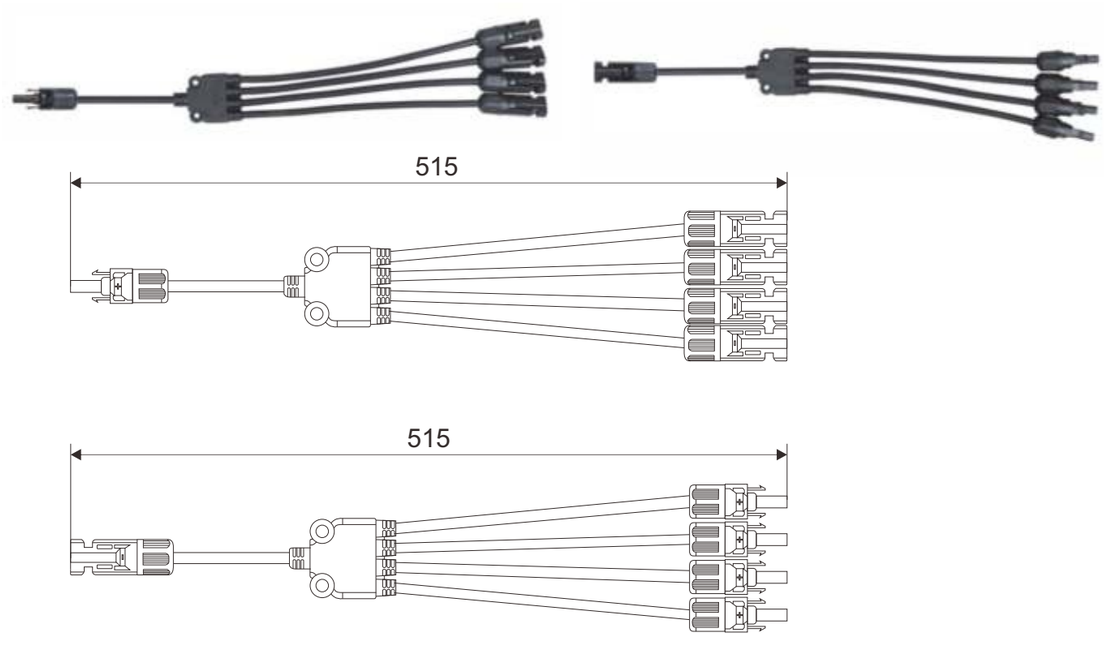
GSC4-TY2



GSC4-TY3



GSC4-TY4



Technical Parameter

Data	
Connector system	Φ4mm
Rated voltage	1000V DC(IEC)1
Rated current	30A
Test voltage	6kV(50HZ,1min)
Ambient temperature range	-40°C...90°C(IEC)-40°C...75°C(IEC)
Upper limiting temper ature	+105°C(IEC)
Degree of protection, mated	Ip67
Unmated	IP2X
Comtact resistance of plug connectors	0.5mΩ
Safety class	II
Contact material	Messing, verzinnt Copper Alloy, tin plated
Insulation material	PC/PA
Locking system	Snap-in
Flame class	UL-94-VO
Salt mist spray test, degree of severity 5	IEC 60068-2-52



Overview

- High reliability
  With DC FUSE
  With DC Surge Protection Device
  With DC Circuit breaker or DC load isolation switch.
- Strong adaptability
  IP65 design, waterproof, anti dust and anti ultraviolet.
  Strict test for high and low temperature, used widely.
  The simple installation, the simplified system wiring, the convenient wiring.
  The box body is made of cold rolled steel and other metal materials.
- Flexible configuration
  Used for single crystal silicon solar modules, polycrystalline silicon solar modules, thin film solar modules. Current rating of the photovoltaic fuse, circuit breaker, load isolation switch is modifed.

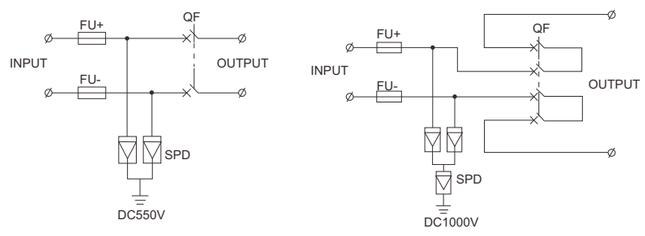
Description

GYPV/1-1 combiner box is suitable for inverter (MAX input voltage DC550V /DC1000V, 1 PV input channel, 1 output channel, single MPPT inverter). Box body is made of PVC engineering materials, with test for fire retardant, temperature rise, anti impact, anti ultraviolet, and other testing. IP65 protection grade.
Design and configuration strictly accordance with the “Technical specification for photovoltaic junction equipment” CGC/GF 037:2014.
Provide users with a safe, brief, beautiful and applicable photovoltaic system products.

Technical Parameter

Data		
Electric parameter		
System maximum dc voltage	550	1000
Maximum input current for each string	15A	
Maximum input strings	1	
Maximum output switch current	16A/20A	
Number of inverter MPPT	1	
Number of output strings	1	
Lightning protection		
Category of test	II Grade protection	
Nominal discharge current	20kA	
Maximum discharge current	40kA	
Voltage protection level	2.5kV	3.8kV
Maximum continuous operating voltage Uc	630V	1050V
Poles	2P	3P
Structure characteristic	Plug-push module	
System		
Protection grade	IP65	
Output switch	DC isolation switch (standard)/DC circuit breaker(optional)	
MC4R waterproof connectors	Standard	
PV DC fuse	Standard	
PV surge protector	Standard	
Monitoring module	Optional	
Preventing diode	Optional	
Box material	PVC	
Installation method	Wall mounting type	
Operating Temperature	-25 ℃~+55℃	
Elevation of temperature	2km	
Permissible relative humidity	0-95%,no condensation	
Mechanical parameter		
Width x High x Depth(mm)	300*260*140	

Schematic diagram





Overview

- High reliability
  With DC FUSE
  With DC Surge Protection Device
  With DC Circuit breaker or DC load isolation switch.
- Strong adaptability
  IP65 design, waterproof, anti dust and anti ultraviolet.
  Strict test for high and low temperature, used widely.
  The simple installation, the simplified system wiring, the convenient wiring.
  The box body is made of cold rolled steel and other metal materials.
- Flexible configuration
  Used for single crystal silicon solar modules, polycrystalline silicon solar modules, thin film solar modules. Current rating of the photovoltaic fuse, circuit breaker, load isolation switch is modifed.

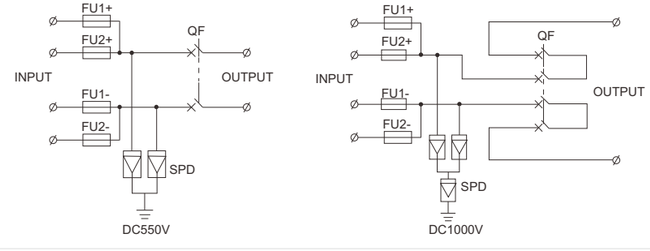
Description

GYPV/2-1 combiner box is suitable for inverter (MAX input voltage DC550V /DC1000V, 2 PV input channel, 1 output channel, single MPPT inverter). Box body is made of PVC engineering materials, with test for fire retardant, temperature rise, anti impact, anti ultraviolet, and other testing. IP65 protection grade.
Design and configuration strictly accordance with the “Technical specification for photovoltaic junction equipment” CGC/GF 037:2014.
Provide users with a safe, brief, beautiful and applicable photovoltaic system products.

Technical Parameter

Data		
Electric parameter		
System maximum dc voltage	550	1000
Maximum input current for each string	15A	
Maximum input strings	1	
Maximum output switch current	20A/32A	
Number of inverter MPPT	1	
Number of output strings	1	
Lightning protection		
Category of test	II Grade protection	
Nominal discharge current	20kA	
Maximum discharge current	40kA	
Voltage protection level	2.5kV	3.8kV
Maximum continuous operating voltage Uc	630V	1050V
Poles	2P	3P
Structure characteristic	Plug-push module	
System		
Protection grade	IP65	
Output switch	DC isolation switch (standard)/DC circuit breaker(optional)	
MC4R waterproof connectors	Standard	
PV DC fuse	Standard	
PV surge protector	Standard	
Monitoring module	Optional	
Preventing diode	Optional	
Box material	PVC	
Installation method	Wall mounting type	
Operating Temperature	-25 ℃~+55℃	
Elevation of temperature	2km	
Permissible relative humidity	0-95%,no condensation	
Mechanical parameter		
Width x High x Depth(mm)	300*260*140	

Schematic diagram





Overview

- High reliability
  With DC FUSE
  With DC Surge Protection Device
  With DC Circuit breaker or DC load isolation switch.
- Strong adaptability
  IP65 design, waterproof, anti dust and anti ultraviolet.
  Strict test for high and low temperature, used widely.
  The simple installation, the simplified system wiring, the convenient wiring.
  The box body is made of cold rolled steel and other metal materials.
- Flexible configuration
  Used for single crystal silicon solar modules, polycrystalline silicon solar modules, thin film solar modules. Current rating of the photovoltaic fuse, circuit breaker, load isolation switch is modifed.

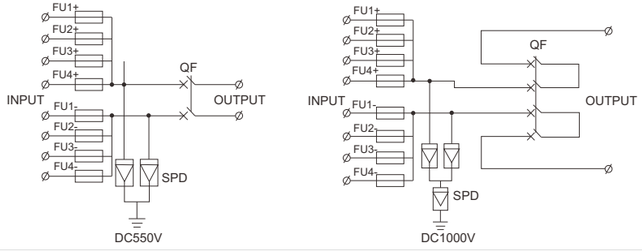
Description

GYPV/4-1 combiner box is suitable for inverter (MAX input voltage DC550V /DC1000V, 4 PV input channel, 1 output channel, single MPPT inverter). Box body is made of PVC engineering materials, with test for fire retardant, temperature rise, anti impact, anti ultraviolet, and other testing. IP65 protection grade.
Design and configuration strictly accordance with the “Technical specification for photovoltaic junction equipment” CGC/GF 037:2014.
Provide users with a safe, brief, beautiful and applicable photovoltaic system products.

Technical Parameter

Data		
Electric parameter		
System maximum dc voltage	550	1000
Maximum input current for each string	15A	
Maximum input strings	1	
Maximum output switch current	50A/63A	
Number of inverter MPPT	1	
Number of output strings	1	
Lightning protection		
Category of test	II Grade protection	
Nominal discharge current	20kA	
Maximum discharge current	40kA	
Voltage protection level	2.8kV	3.8kV
Maximum continuous operating voltage Uc	630V	1050V
Poles	2P	3P
Structure characteristic	Plug-push module	
System		
Protection grade	IP65	
Output switch	DC isolation switch (standard)/DC circuit breaker(optional)	
MC4R waterproof connectors	Standard	
PV DC fuse	Standard	
PV surge protector	Standard	
Monitoring module	Optional	
Preventing diode	Optional	
Box material	PVC	
Installation method	Wall mounting type	
Operating Temperature	-25 ℃~+55℃	
Elevation of temperature	2km	
Permissible relative humidity	0-95%,no condensation	
Mechanical parameter		
Width x High x Depth(mm)	410*285*140	

Schematic diagram





Overview

- High reliability
  With DC FUSE
  With DC Surge Protection Device
  With DC Circuit breaker or DC load isolation switch.
- Strong adaptability
  IP65 design, waterproof, anti dust and anti ultraviolet.
  Strict test for high and low temperature, used widely.
  The simple installation, the simplified system wiring, the convenient wiring.
  The box body is made of cold rolled steel and other metal materials.
- Flexible configuration
  Used for single crystal silicon solar modules, polycrystalline silicon solar modules, thin film solar modules. Current rating of the photovoltaic fuse, circuit breaker, load isolation switch is modifed.

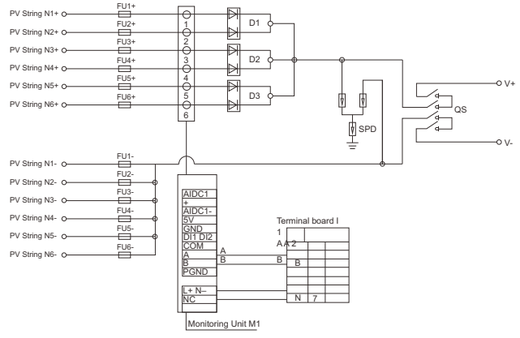
Description

GYPV/6-1 PV combiner box bus synthetic DC input of 6 PV components to 1 output. Each channel is with a fuse. Output side is equipped with lightning protection and circuit breaker. It greatly simplify input wiring of DC power distribution cabinet and inverter.
Realize lightning protection, short circuit protection and grounding protection. PV combiner box divided into two types: intelligent box and non-intelligent box. Intelligent PV combiner box is equipped with monitoring unit, then detect input current of each string, detect inside temperature, detect lightning protection status, detect circuit breaker status and summarize output voltage and so on.
Design and configuration strictly accordance with the “Technical specification for photovoltaic junction equipment” CGC/GF 037:2014.
Provide users with a safe, brief, beautiful and applicable photovoltaic system products.
The product adopts outdoor wall mounted type, which adapt to the harsh environment. In addition to the core components, the other can be customized by user requirements.

Technical Parameter

Data	
Electric parameter	
System maximum dc voltage	1000
Maximum input current for each string	15A
Maximum input strings	6
Maximum output switch current	80A/90A
Number of inverter MPPT	1
Number of output strings	1
Lightning protection	
Category of test	II Grade protection
Nominal discharge current	20kA
Maximum discharge current	40kA
Voltage protection level	3.8kV
Maximum continuous operating voltage Uc	1050V
Poles	3P
Structure characteristic	Plug-push module
System	
Protection grade	IP65
Output switch	DC isolation switch (standard)/DC circuit breaker(optional)
MC4R waterproof connectors	Standard
PV DC fuse	Standard
PV surge protector	Standard
Monitoring module	Optional
Preventing diode	Optional
Box material	PVC
Installation method	Wall mounting type
Operating Temperature	-25 ℃~+55℃
Elevation of temperature	2km
Permissible relative humidity	0-95%,no condensation
Mechanical parameter	
Width x High x Depth(mm)	440*400*180

Schematic diagram





Overview

- High reliability
  With DC FUSE
  With DC Surge Protection Device
  With DC Circuit breaker or DC load isolation switch.
- Strong adaptability
  IP65 design, waterproof, anti dust and anti ultraviolet.
  Strict test for high and low temperature, used widely.
  The simple installation, the simplified system wiring, the convenient wiring.
  The box body is made of cold rolled steel and other metal materials.
- Flexible configuration
  Used for single crystal silicon solar modules, polycrystalline silicon solar modules, thin film solar modules. Current rating of the photovoltaic fuse, circuit breaker, load isolation switch is modifed.

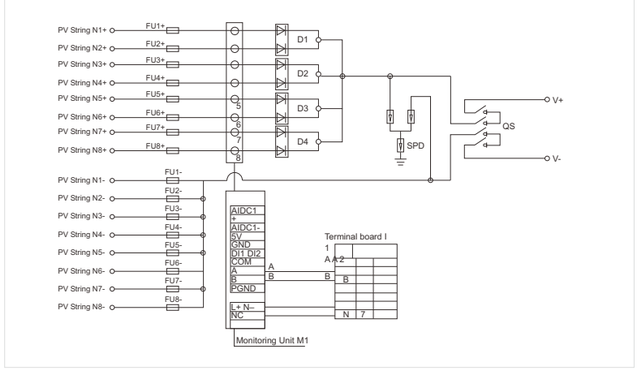
Description

GYPV/8-1 PV combiner box bus synthetic DC input of 8 PV components to 1 output. Each channel is with a fuse. Output side is equipped with lightning protection and circuit breaker. It greatly simplify input wiring of DC power distribution cabinet and inverter.
Realize lightning protection, short circuit protection and grounding protection. PV combiner box divided into two types: intelligent box and non-intelligent box. Intelligent PV combiner box is equipped with monitoring unit, then detect input current of each string, detect inside temperature, detect lightning protection status, detect circuit breaker status and summarize output voltage and so on.
Design and configuration strictly accordance with the “Technical specification for photovoltaic junction equipment” CGC/GF 037:2014.
Provide users with a safe, brief, beautiful and applicable photovoltaic system products.
The product adopts outdoor wall mounted type, which adapt to the harsh environment. In addition to the core components, the other can be customized by user requirements.

Technical Parameter

Data	
Electric parameter	
System maximum dc voltage	1000
Maximum input current for each string	15A
Maximum input strings	8
Maximum output switch current	125A
Number of inverter MPPT	1
Number of output strings	1
Lightning protection	
Category of test	II Grade protection
Nominal discharge current	20kA
Maximum discharge current	40kA
Voltage protection level	3.8kV
Maximum continuous operating voltage Uc	1050V
Poles	3P
Structure characteristic	Plug-push module
System	
Protection grade	IP65
Output switch	DC isolation switch (standard)/DC circuit breaker(optional)
MC4R waterproof connectors	Standard
PV DC fuse	Standard
PV surge protector	Standard
Monitoring module	Optional
Preventing diode	Optional
Box material	PVC
Installation method	Wall mounting type
Operating Temperature	-25 ℃~+55℃
Elevation of temperature	2km
Permissible relative humidity	0-95%,no condensation
Mechanical parameter	
Width x High x Depth(mm)	500*400*190

Schematic diagram





Overview

- High reliability
  With DC FUSE
  With DC Surge Protection Device
  With DC Circuit breaker or DC load isolation switch.
- Strong adaptability
  IP65 design, waterproof, anti dust and anti ultraviolet.
  Strict test for high and low temperature, used widely.
  The simple installation, the simplified system wiring, the convenient wiring.
  The box body is made of cold rolled steel and other metal materials.
- Flexible configuration
  Used for single crystal silicon solar modules, polycrystalline silicon solar modules, thin film solar modules. Current rating of the photovoltaic fuse, circuit breaker, load isolation switch is modifed.

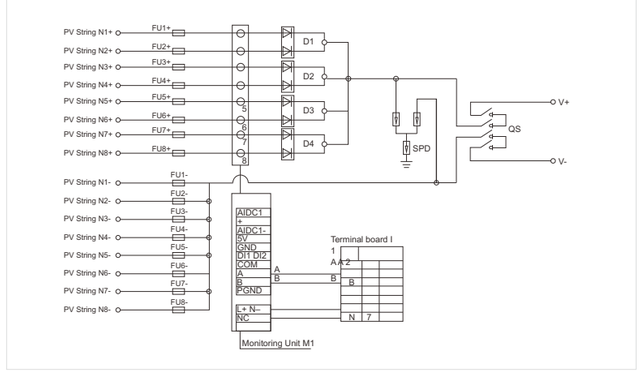
Description

GYPV/12-1 PV combiner box bus synthetic DC input of 12 PV components to 1 output. Each channel is with a fuse. Output side is equipped with lightning protection and circuit breaker. It greatly simplify input wiring of DC power distribution cabinet and inverter.
Realize lightning protection, short circuit protection and grounding protection. PV combiner box divided into two types: intelligent box and non-intelligent box. Intelligent PV combiner box is equipped with monitoring unit, then detect input current of each string, detect inside temperature, detect lightning protection status, detect circuit breaker status and summarize output voltage and so on.
Design and configuration strictly accordance with the “Technical specification for photovoltaic junction equipment” CGC/GF 037:2014.
Provide users with a safe, brief, beautiful and applicable photovoltaic system products.
The product adopts outdoor wall mounted type, which adapt to the harsh environment. In addition to the core components, the other can be customized by user requirements.

Technical Parameter

Data	
Electric parameter	
System maximum dc voltage	1000
Maximum input current for each string	15A
Maximum input strings	12
Maximum output switch current	180A
Number of inverter MPPT	1
Number of output strings	1
Lightning protection	
Category of test	II Grade protection
Nominal discharge current	20kA
Maximum discharge current	40kA
Voltage protection level	3.8kV
Maximum continuous operating voltage Uc	1050V
Poles	3P
Structure characteristic	Plug-push module
System	
Protection grade	IP65
Output switch	DC isolation switch (standard)/DC circuit breaker(optional)
MC4R waterproof connectors	Standard
PV DC fuse	Standard
PV surge protector	Standard
Monitoring module	Optional
Preventing diode	Optional
Box material	PVC
Installation method	Wall mounting type
Operating Temperature	-25 ℃~+55℃
Elevation of temperature	2km
Permissible relative humidity	0-95%,no condensation
Mechanical parameter	
Width x High x Depth(mm)	640*450*180

Schematic diagram





Overview

- High reliability
  With DC FUSE
  With DC Surge Protection Device
  With DC Circuit breaker or DC load isolation switch.
- Strong adaptability
  IP65 design, waterproof, anti dust and anti ultraviolet.
  Strict test for high and low temperature, used widely.
  The simple installation, the simplified system wiring, the convenient wiring.
  The box body is made of cold rolled steel and other metal materials.
- Flexible configuration
  Used for single crystal silicon solar modules, polycrystalline silicon solar modules, thin film solar modules. Current rating of the photovoltaic fuse, circuit breaker, load isolation switch is modifed.

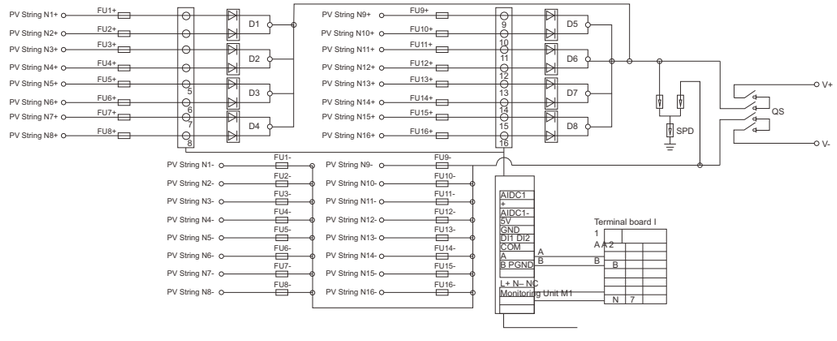
Description

GYPV/16-1 PV combiner box bus synthetic DC input of 16 PV components to 1 output. Each channel is with a fuse. Output side is equipped with lightning protection and circuit breaker. It greatly simplify input wiring of DC power distribution cabinet and inverter.
Realize lightning protection, short circuit protection and grounding protection. PV combiner box divided into two types: intelligent box and non-intelligent box. Intelligent PV combiner box is equipped with monitoring unit, then detect input current of each string, detect inside temperature, detect lightning protection status, detect circuit breaker status and summarize output voltage and so on.
Design and configuration strictly accordance with the “Technical specification for photovoltaic junction equipment” CGC/GF 037:2014.
Provide users with a safe, brief, beautiful and applicable photovoltaic system products.
The product adopts outdoor wall mounted type, which adapt to the harsh environment. In addition to the core components, the other can be customized by user requirements.

Technical Parameter

Data	
Electric parameter	
System maximum dc voltage	1000
Maximum input current for each string	15A
Maximum input strings	16
Maximum output switch current	240A
Number of inverter MPPT	1
Number of output strings	1
Lightning protection	
Category of test	II Grade protection
Nominal discharge current	20kA
Maximum discharge current	40kA
Voltage protection level	3.8kV
Maximum continuous operating voltage Uc	1050V
Poles	3P
Structure characteristic	Plug-push module
System	
Protection grade	IP65
Output switch	DC isolation switch (standard)/DC circuit breaker(optional)
MC4R waterproof connectors	Standard
PV DC fuse	Standard
PV surge protector	Standard
Monitoring module	Optional
Preventing diode	Optional
Box material	PVC
Installation method	Wall mounting type
Operating Temperature	-25 ℃~+55℃
Elevation of temperature	2km
Permissible relative humidity	0-95%,no condensation
Mechanical parameter	
Width x High x Depth(mm)	800*500*180

Schematic diagram





Parameters

Connection and installation
Connecting and installing wires: 1.5-10mm²
Terminal screw: M5
Torque: ≥3Nm
Protection level: IP20

Installation Environment
Fuse specifications:10*38mm <IEC/EN60269-6 >
Installation method: DIN-rail<IEC/EN60715 >
Working temperature:-20°C~+70°C
Pollution level: 3
Relative humidity:+20°C≤95%，+40°C≤50%
Installation level: III

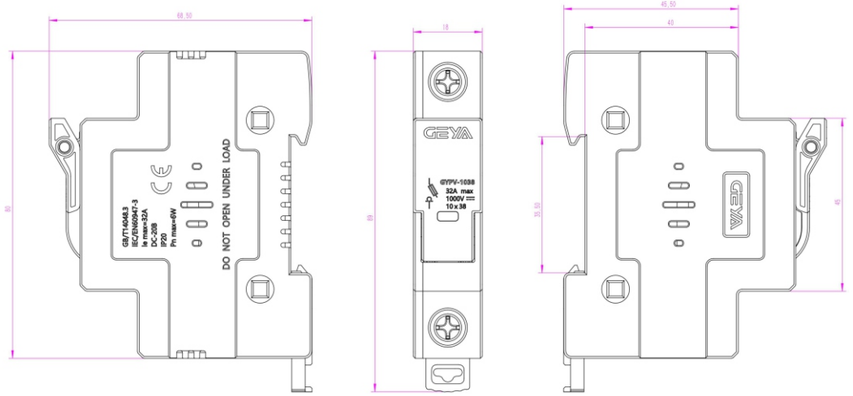
Product specifications
Executive Standard: IEC60947-3、GB/T14048.3
Use category:DC-20B

Standard basis Electrical characteristics
Rated voltage: 1000V DC
Rated current: 32A max
Maximum power consumption: 6W

Product structure parameters

Shell material	PBT plastic
Metal Material	Copper T1 (silver plated£©)
Dimensions<L*W*H>	89mm*18mm* 68mm
Logo and font craftsmanship	Laser Marking
Color	off-white
Net weight	61g/62g(with light)

Product Size



GYDF2

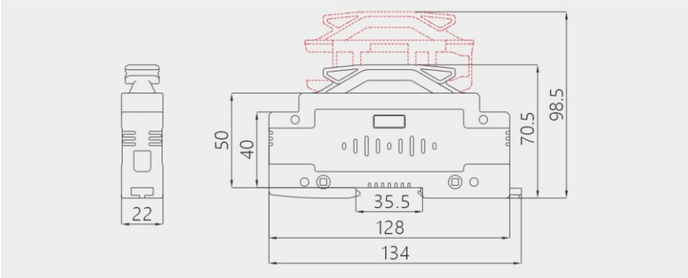
DC Fuse Holder



Parameter

Type	Adapts to fuse size	Rated Voltage	Rated Current	Watts Loss
GYDF2-50	10X85mm	1500V	35A(Max)	16W
	14X85mm	1500V	50A(Max)	16W

Dimensions



Feature

Standard:IEC60947-3、GB/T14048.3
Utilization category: DC-PV0
Ratedvoltage:1500V.DC
Maximum working current: 35Amaxor 50A max
Watts loss: 16W
Housing characteristics: FlammabilityUL94V-0 and Glow wiammability index 960°C



Application range

GDSC100R series PV Switch-disconnector is suitable for rated voltage DC1200V and below, rated current 32A and below power system. The product can be used for infrequent connection and disconnection, which can isolate the disconnection line and disconnect 1~4 MPPT lines at the same time. It is suitable for isolating lines in DC transmission and distribution systems, such as cutting the direct current circuit between solar panels and inverters.

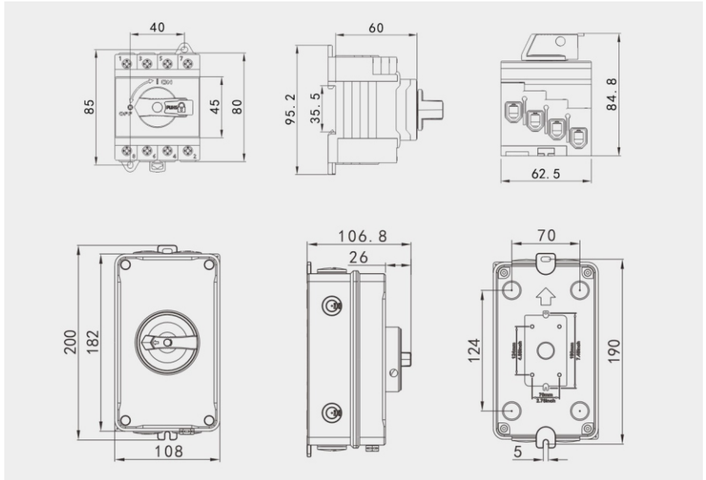
Dimensions



GDSC100R-DB32R



GDSC100R-EL32R



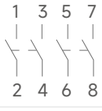
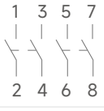
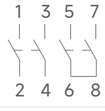
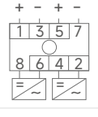
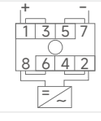
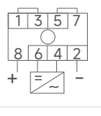
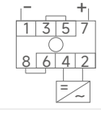
Features

- IEC/EN 60947-3andAS 60947.3
- Utilization category: DC-PV1,DC-PV2
- Non polarity
- IngressProtection:DS1-32(IP20)，DS1-32EL(IP66)
- OFF Lockable
- UV resistant and Flammability UL94 V-0
- Arcing time <2ms

Parameter

Data	
Electrical characteristic	
Model number	GDSC100R-DB32R/GDSC100R-EL32R
Feature	Isolation and control
Standard	IEC60947-3,AS60947.3
Utilization category	DC-PV1/DC-PV2
Pole	4P
Rated frequency	DC
Rated operating voltage (Ue)	300V/600V/800V/1000V/1200V
Rated insulation voltage (Ui)	1200V
Rated short-time withstand current (Icw)	1kA/1s(4,4S,4B),1.7kA/1s(2H)
Rated conditional short-circuit current (Icn)	3kA
Rated impulse withstand voltage (Uimp)	8.0kV
Overvoltage category	II
Polarity	No polarity,“+”and“-”polarities could be interchanged
Service Life/Cycle Operations	
Mechanical	15000
Electrical	300
Installation environment	
Ingress protection	Ip20
Storage temperature	-40°C~+85°C
Mounting type	Vertically or horizontally
Pollution degree	3

Wiring interchange -corresponding figure

Type	4-Pole	2-Pole 4 Paralleled Poles	4-Pole With Input And Output Bottom	4-Pole With Input On Top Output Bottom
	4	2H	4B	4S
Contacts wiring graph				
Switching examples				



• Application scope •

The GHC7 modular contactor (hereinafter referred to as contactor) is mainly suitable for AC 50Hz (or 60Hz), rated working voltage to 400V and rated current operation in the circuit up to 63A, it can control the low-inductance and low-inductance load ofhousehold appliances and similar purposes; it can also be used to control the load of household motors. The power should bereduced accordingly.
The GHC7 contactors according to standard IEC/EN61095，IEC60947-4-1 and are used mainly in buildings for switching and controlling lighting, heating, ventilation and pumps. They are part of the complete range of Din rail products and can beintegrated easily in dedicated panels.

• Model and connotation •

GHC7- □□ /□□□

- Coil Voltage
- Normal Clos
- Normal Open
- Current
- MUTE

(eg. GHC7-25/20 230V . It is 25A , 2NO ,230V AC current coil voltage)

1P,1modules



Contactor Model	Ie Rating AC-7a	AC-1	AC-7b AC-3	Uc	Circuit Diagram
GHC7-16/10	16A		6A	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	
GHC7-20/10	20A		7A		
GHC7-25/10	25A		9A		
GHC7-32/10	32A		12A		
GHC7-16/01	16A		6A	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	
GHC7-20/01	20A		7A		
GHC7-25/01	25A		9A		
GHC7-32/01	32A		12A		

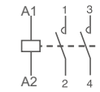
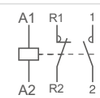
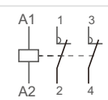
1P,2modules



Contactor Model	Ie Rating AC-7a	AC-1	AC-7b AC-3	Uc	Circuit Diagram
GHC7-40/10	40A		18A	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	
GHC7-63/10	63A		25A		
GHC7-40/01	40A		18A	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	
GHC7-63/01	63A		25A		

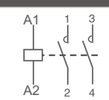
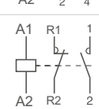
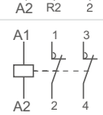
2P,1modules



Contactor Model	Ie Rating AC-7a	AC-1	AC-7b AC-3	Uc	Circuit Diagram
GHC7-16/20	16A		6A	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	
GHC7-20/20	20A		7A		
GHC7-25/20	25A		9A		
GHC7-32/20	32A		12A		
GHC7-16/11	16A		6A	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	
GHC7-20/11	20A		7A		
GHC7-25/11	25A		9A		
GHC7-32/11	32A		12A		
GHC7-16/02	16A		6A	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	
GHC7-20/02	20A		7A		
GHC7-25/02	25A		9A		
GHC7-32/02	32A		12A		

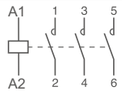
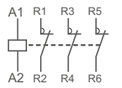
2P,2modules



Contactor Model	Ie Rating AC-7a	AC-1	AC-7b AC-3	Uc	Circuit Diagram
GHC7-40/20	40A		18A	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	
GHC7-63/20	63A		25A		
GHC7-40/11	40A		18A	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	
GHC7-63/11	63A		25A		
GHC7-40/02	40A		18A	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	
GHC7-63/02	63A		25A		

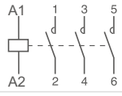
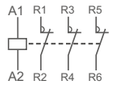
3P,2modules



Contactor Model	Ie Rating		Uc	Circuit Diagram
	AC-7a AC-1	AC-7b AC-3		
GHC7-16/30	16A	6A	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	
GHC7-20/30	20A	7A		
GHC7-25/30	25A	9A		
GHC7-32/30	32A	12A		
GHC7-16/03	16A	6A	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	
GHC7-20/03	20A	7A		
GHC7-25/03	25A	9A		
GHC7-32/03	32A	12A		

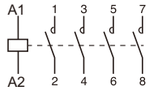
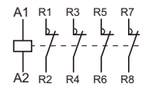
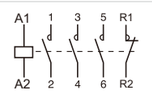
3P,3modules



Contactor Model	Ie Rating		Uc	Circuit Diagram
	AC-7a AC-1	AC-7b AC-3		
GHC7-40/30	40A	18A	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	
GHC7-63/30	63A	25A		
GHC7-40/03	40A	18A	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	
GHC7-63/03	63A	25A		

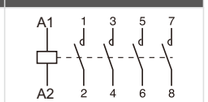
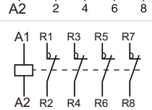
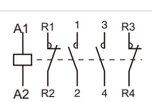
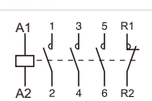
4P,2modules



Contactor Model	Ie Rating		Uc	Circuit Diagram
	AC-7a AC-1	AC-7b AC-3		
GHC7-16/40	16A	6A	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	
GHC7-20/40	20A	7A		
GHC7-25/40	25A	9A		
GHC7-32/40	32A	12A		
GHC7-16/04	16A	6A	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	
GHC7-20/04	20A	7A		
GHC7-25/04	25A	9A		
GHC7-32/04	32A	12A		
GHC7-16/22	16A	6A	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	
GHC7-20/22	20A	7A		
GHC7-25/22	25A	9A		
GHC7-32/22	32A	12A		
GHC7-16/31	16A	6A	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	
GHC7-20/31	20A	7A		
GHC7-25/31	25A	9A		
GHC7-32/31	32A	12A		

4P,3modules

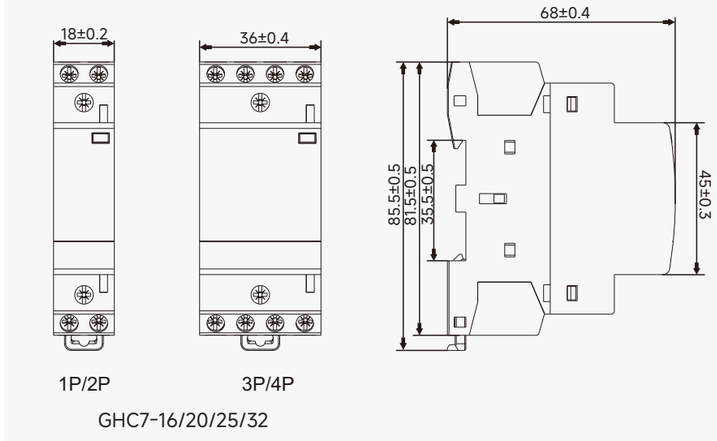


Contactor Model	Ie Rating		Uc	Circuit Diagram
	AC-7a AC-1	AC-7b AC-3		
GHC7-40/40	40A	18A	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	
GHC7-63/40	63A	25A		
GHC7-40/04	40A	18A	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	
GHC7-63/04	63A	25A		
GHC7-40/22	40A	18A	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	
GHC7-63/22	63A	25A		
GHC7-40/31	40A	18A	12V AC/DC 24V AC/DC 48V AC/DC 110V AC/DC 230V AC/DC	
GHC7-63/31	63A	25A		

Modular contactor power consumption

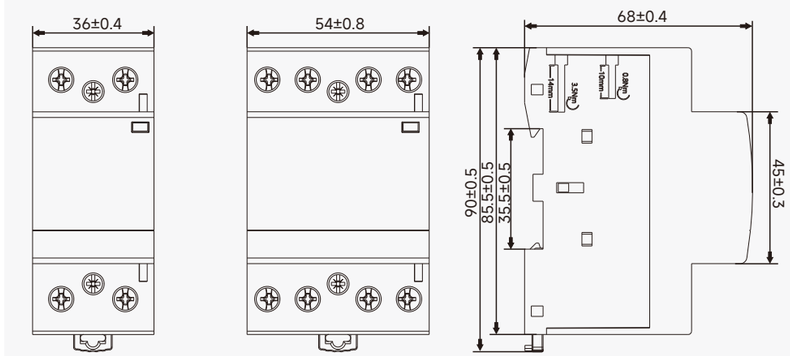
Poles	Ie Rating		Uc (VAC)(50Hz)	Power consumption		Max Power
	AC-7a	AC-7b		Hold on	Pull in	
2P	16A	6A	230	2.1VA	2.1VA	2.0W
	20A	7A	230	2.1VA	2.1VA	2.0W
	25A	9A	230	2.1VA	2.1VA	2.0W
	32A	12A	230	2.1VA	2.1VA	2.0W
	40A	18A	230	2.3VA	2.3VA	2.0W
	63A	25A	230	2.3VA	2.3VA	2.0W
4P	16A	6A	230	2.3VA	2.3VA	2.0W
	20A	7A	230	2.3VA	2.3VA	2.0W
	25A	9A	230	2.3VA	2.3VA	2.0W
	32A	12A	230	2.3VA	2.3VA	2.0W
	40A	18A	230	6.0VA	6.0VA	5.5W
	63A	25A	230	6.0VA	6.0VA	5.5W

Dimensions(mm)



1P/2P 3P/4P

GHC7-16/20/25/32



1P/2P 3P/4P

GHC7-40/63



• Feature •

In circuit of Ac 50\60Hz, voltage up to 1000V, current up to 600A, controlling motors of different types.
Control resistance, inductive, capacitive loads: heating, lighting， power compensation and transformer
Control distribution circuit, industrial distribution, green energy distribution.
For harsh environment and frequent operations, quick operating coils are recommend.

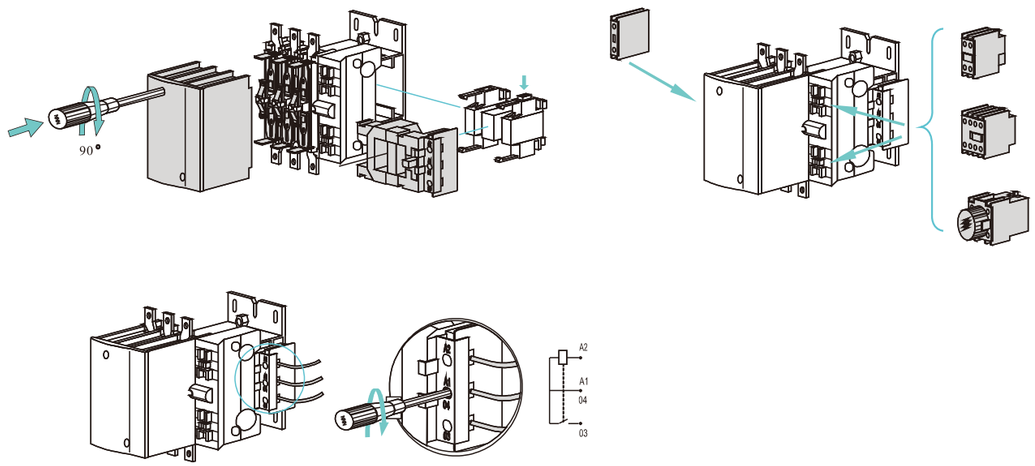
• Technical Specification •

Contactors		GYC1 115	GYC1 150	GYC1 185	GYC1 225	GYC1 265	GYC1 330	GYC1 400	GYC1 500	GYC1 630	GYC1 780	GYC1 800
Rated operational current A	Ie max AC-3(Ue≤440V)	115	150	185	225	265	330	400	500	630	780	800
	Ie max AC-1(θ≤40°C)	200	250	275	315	350	400	500	700	1000	1600	1000
Rated operational voltage V	max	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Number of contacts(N/O)		3 or 4	3 or 4	3 or 4	3 or 4	3 or 4	2,3or4	2,3or4	2,3or4	2,3or4	2,3or4	3
Rated operational power KW AC-3 3、4poles	220/240V	30	40	55	63	75	100	129	147	200	220	220
	380/400V	55	75	90	100	132	160	200	250	335	400	400
	415V	59	80	100	110	140	180	220	280	375	425	425
	440V	59	80	100	110	140	180	220	280	375	425	425
	500V	75	90	110	129	160	200	257	335	400	450	450
	660/690V	80	100	120	129	180	220	280	335	450	475	475
	1000V	65	65	100	140	147	160	185	335	450	450	450
(SCPD) Short-circuit protection by fuse	Model	RT16-1	RT16-1	RT16-2	RT16-2	RT16-2	RT16-3	RT16-3	RT16-3	RT16-3	RT16-5	RT16-4
	Rated current	200	250	315	315	400	500	500	500	630	1600	800
Optional parts		Auxiliary contact blocks: ZTCF3 Air time delay auxiliary contacts: ZTCST、ZTCSR、ZTCSS										
Weight (Kg)		3.6	3.7	4.6	4.7	7.1	8.5	8.5	10.8	17.4	40.0	19.0
Product No.	3 pole	0000	0001	0002	0003	0004	0005	0006	0007	0008	0009	0010
	4 pole	0012	0013	0014	0015	0016	0017	0018	0019	0020	0021	
	2 pole						0025	0026	0027	0028	0029	

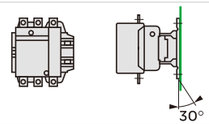
• Functions Diagram •

Contactors			GYC1 115	GYC1 150	GYC1 185	GYC1 225	GYC1 265	GYC1 330	GYC1 400	GYC1 500	GYC1 630	GYC1 780	GYC1 800
Number of Poles			3/4or4	3/4or4	3/4or4	3/4or4	3 4/3 4	2 3 4/2 3 4	2 3 4/2 3 4	2 3 4/2 3 4	2 3 4/2 3 4	2 3 4/2 3 4	3
Rated operational current (Ue≤400V)	In AC-3,θ≤55°C	A	115	150	185	225	265	330	400	500	630	780	800
	In AC-1,θ≤40°C	A	200	250	275	315	350	400	500	700	800	1600	1000
Rated operational voltage (Ue)	Max.	V	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Frequency limits	Frequency under operating current	Hz	$16^{2/3}$ ...200	$16^{2/3}$ ...200	$16^{2/3}$ ...200	$16^{2/3}$ ...200	$16^{2/3}$ ...200	$16^{2/3}$ ...200	$16^{2/3}$ ...200	$16^{2/3}$ ...200	$16^{2/3}$ ...200	$16^{2/3}$ ...200	$16^{2/3}$ ...200
Conventional thermal current	θ≤40°C	A	200	250	275	315	350	400	500	700	900	1600	1000
Making capacity	GB14048.4	A	Making current 10XIe(AC-3) or 12XIe(AC-4)										
Breaking capacity I rms	GB14048.4	A	Making and breaking current 8XIe(AC-3) or 10XIe(AC-4)										
Short time rating From cold state, no current in previous 60 minsθ≤40°C	10s	A	1100	1200	1500	1800	2200	2650	3600	4200	5050	6250	5500
	30s	A	640	700	920	1000	1230	1800	2400	3200	4400	5600	4600
	1min	A	520	600	740	850	950	1300	1700	2400	3400	4600	3600
	3min	A	400	450	500	560	620	900	1200	1500	2200	3000	2600
	10min	A	320	350	400	440	480	750	1000	1200	1600	22200	1700
Average impedance per pole	Ith 50Hz	mΩ	0.37	0.35	0.33	0.32	0.3	0.28	0.26	0.18	0.12	0.10	0.12
Power dissipation per pole for the above operational currents	AC-3	W	5	8	12	16	21	30	42	45	48	60	77
	AC-1	W	15	22	25	32	37	45	65	88	77	250	120
Cablingθ≤55°C	The maximum cross -sectional area number of cables dimension of cables	mm^2	2 20x3	2 25x3	2 25x3	2 32x3	2 32x4	2 30x5	2 30x5	2 40x5	2 60x5	2 100x5	2 60x5
	Cable with tabs	mm^2	95	120	150	185	240	240	2*150	2*240	-	-	-
	Cables with connectors	mm^2	95	120	150	185	240	-	-	-	-	-	-
	Bolt diameter	mm	Φ6	Φ8	Φ8	Φ10	Φ10	Φ10	Φ10	Φ10	Φ12	Φ12	Φ12
Tightening torque	Cable connetion	N.m	10	18	18	35	35	35	35	35	58	58	58

• Scheme •



Characteristic

Contactors			GYC1 115	GYC1 150	GYC1 185	GYC1 225	GYC1 265	GYC1 330	GYC1 400	GYC1 630	GYC1 330	GYC1 400	GYC1 630
Environment	Conforming to standards IEC60947												
Rated insulation voltage（Ui）		V	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated impulse withstand voltage（Uimp）		KV	8	8	8	8	8	8	8	8	8	8	8
Rated operational voltage（Ue）max		V	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Operational current frequency range		Hz	25-400										
Conforming to standards			IEC60947, GB14048, EN60947										
Ambient air temperature	Storage	℃	-60...+80										
	Operatio	℃	-5...+55										
	Permissible for operation	℃	-40...+70										
Maximum operating altitude		m	2000										
	Operating altitude allowed	m	3000										
Humidity			Maximum relative humidity less than 50% below 40℃, Maximum relative humidity less than 90% below 20℃										
Impact resistance capability 1/2 sine wave = 11ms	Contactor opens		9gn	9gn	9gn	9gn	9gn	9gn	9gn	9gn	9gn	9gn	9gn
	Contactor closes		15gn	15gn	15gn	15gn	15gn	15gn	15gn	15gn	15gn	15gn	15gn
Seismic performance	Contactor opens		2gn	2gn	2gn	2gn	2gn	2gn	2gn	2gn	2gn	2gn	2gn
	Contactor closes		4gn	4gn	4gn	4gn	4gn	4gn	4gn	4gn	4gn	4gn	4gn
Anti-seismic performance			Pollution degree III										
Degree of protection	Main circuit		Avoid direct contact with the finger (terminal protectioncap)										
	Coil terminals		Avoid direct contact with the finger										
Mounting method	Without deratin		 GYC1 780例外										
	With derating		 Use derating factors as follows: Operation voltage: 0.75,drop-out voltage: 0.9 AC-1 category operating current: 0.8.  Use derating factors as follows: Operation voltage: 1.15,drop-out voltage: 1.1 AC-1 category operating current: 0.8.										
	Forbidden												
Operating frequency	AC-1,AC-2,AC-3	Cycles/h	1200	1200	1200	1200	1200	600	600	600	600	600	600
	AC-4	Cycles/h	300	300	300	300	300	300	300	300	300	300	300
Control circuit characteristics Rated control voltage (Uc)	50/60Hz	V	Please specify control voltage when placing orders, default voltage is 220V.										
Control voltage limits （AC） (θ≤55°C)	Operation voltage	V	0.85-1.1Uc										
	Drop-out voltage (AC)	V	0.2-0.75Uc										
	Drop-out voltage (DC)	V	0.1-0.75Uc										
Average power 50Hz	Inrush (AC)	VA	550	550	810	810	1200	600	1000	1050	1500	1900	1600
	Sealed (DC)	VA	45	45	55	55	85	10	12	16	20	45	22
	Inrush (DC)	VA	550	550	740	740	660	660	920	1000	1420	1960	1450
	Sealed (AC)	VA	4	4	4.2	4.2	3.7	3.7	4	4.5	6.5	42	7