



Avaliação da Conformidade

Registro de Objeto

Detalhes do Registro 003469/2025

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Concessão
03/04/2025

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Programa de Avaliação da Conformidade

Sistemas e equipamentos para energia fotovoltaica (módulo, controlador de carga, inversor e bateria)

Portaria Inmetro

nº 140 de 21/03/2022

Nome de Família

Inversor On-Grid - SAJ - Trifásico -30000W

Certificado

Não aplicável

Data	Alteração	Marca	Modelo	Descrição
03/04/2025	Incluido	SAJ	R6-30K-T4-32-LV	Inversor On-Grid - SAJ - R6-30K-T4-32-LV - Trifásico - 30000W



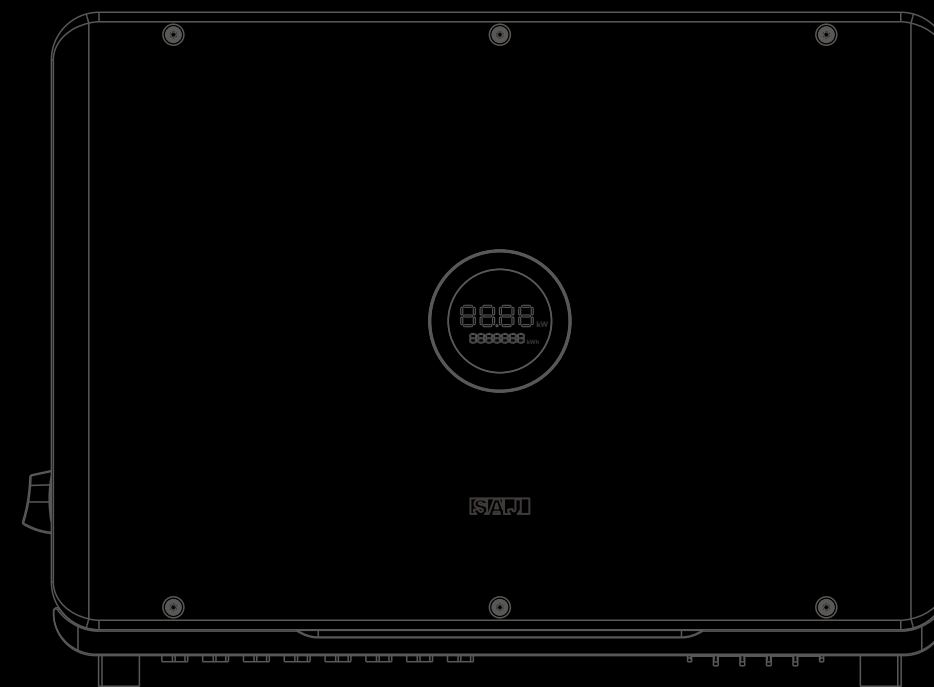
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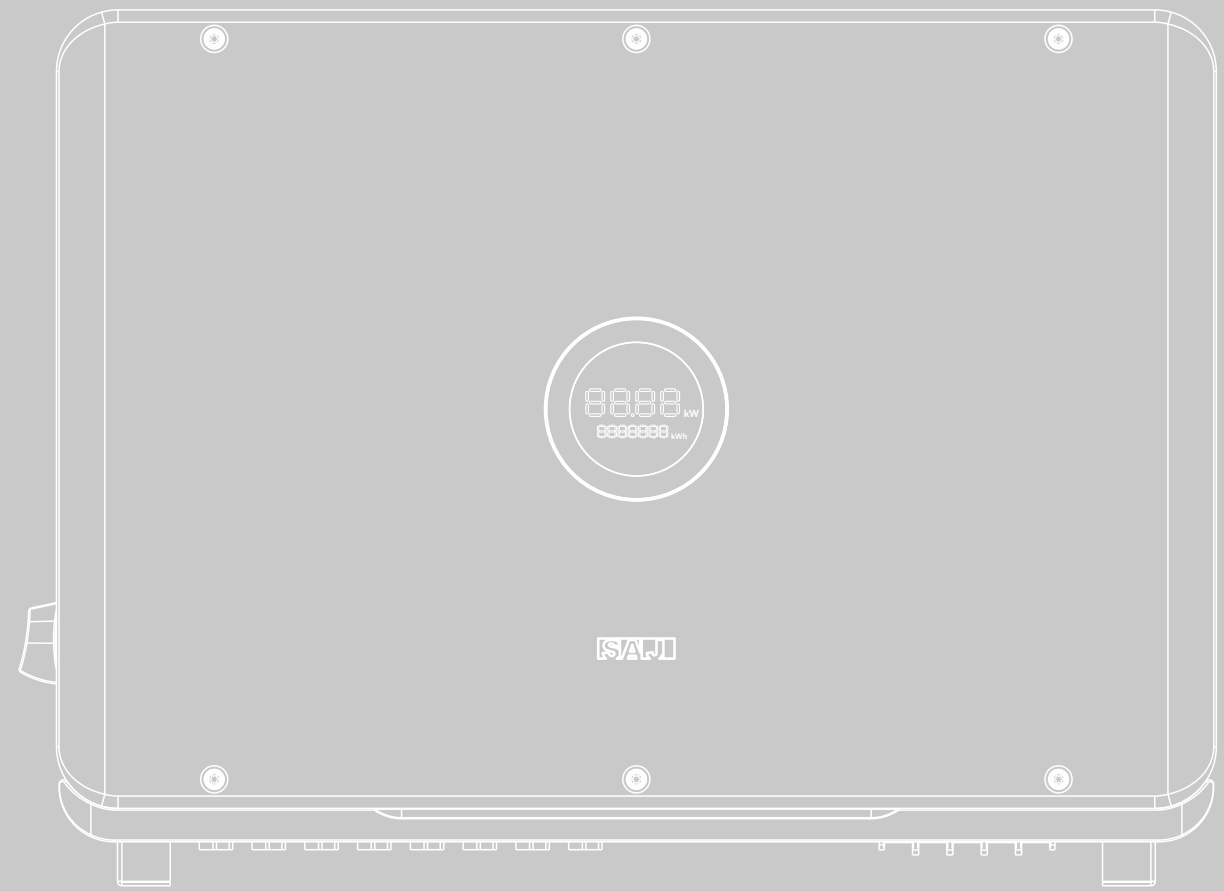


R6 series

ROOFTOP SOLAR INVERTER

user manual

SAJ
SOLAR
APPLIANCE



ROOFTOP SOLAR INVERTER USER MANUAL



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1.

SAFETY

precautions



1.1 Scope of Application

This User Manual describes instructions and detailed procedures for installing, operating, maintaining, and troubleshooting of the following SAJ on-grid inverters:

R6-15K-T2-32, R6-17K-T2-32, R6-20K-T2-32, R6-22K-T2-32, R6-25K-T2-32
R6-25K-T3-32, R6-30K-T3-32, R6-33K-T3-32, R6-36K-T3-32
R6-40K-T4-32, R6-50K-T4-32

Please keep this manual all time available in case of emergency.

1.2 Safety

1.2.1 Safety Instructions



DANGER

· DANGER indicates a hazardous situation, which, if not avoided, will result in death or serious injury.



WARNING

· WARNING indicates a hazardous situation, which, if not avoided, can result in death or serious injury or moderate injury.



CAUTION

· CAUTION indicates a hazardous condition, which, if not avoided, can result in minor or moderate injury.



NOTICE

· NOTICE indicates a situation that can result in potential damage, if not avoided.

1.2.2 Explanations of Symbols

Symbol	Description
	Dangerous electrical voltage This device is directly connected to public grid, thus all work to the inverter shall only be carried out by qualified personnel.
	Danger to life due to high electrical voltage! There might be residual currents in inverter because of large capacitors. Wait 5 minutes before you remove the front lid.
	Notice, danger! This is directly connected with electricity generators and public grid.
	Danger of hot surface The components inside the inverter will release a lot of heat during operation. Do not touch metal plate housing during operating.
	An error has occurred Please go to Chapter 6 "Troubleshooting" to remedy the error.
	This device SHALL NOT be disposed of in residential waste Please go to Chapter 7 "Recycling and Disposal" for proper treatments.
	Without Transformer This inverter does not use transformer for the isolation function.
	CE Mark With CE mark & the inverter fulfills the basic requirements of the Guideline Governing Low-Voltage and Electro-magnetic Compatibility.
	CQC Mark The inverter complies with the safety instructions from China's Quality Center.
 ATTENTION! Risk of electric shock! Only authorized personnel are allowed to do disassembly, modification or maintenance. Any resulting defect or damage (device/person) is not covered by SAJ guaranty.	No unauthorized perforations or modifications Any unauthorized perforations or modifications are strictly forbidden, if any defect or damage (device/person) occurred, SAJ shall not take any responsibility for it.

1.2.3 Safety Instructions

 DANGER
· There is possibility of dying due to electrical shock and high voltage. · Do not touch the operating component of the inverter; it might result in burning or death. · To prevent risk of electric shock during installation and maintenance, please make sure that all AC and DC terminals are plugged out. · Do not touch the surface of the inverter while the housing is wet, otherwise, it might cause electrical shock. · Do not stay close to the inverter while there are severe weather conditions including storm, lighting, etc. · Before opening the housing, the SAJ inverter must be disconnected from the grid and PV generator; you must wait for at least five minutes to let the energy storage capacitors completely discharged after disconnecting from power source.

 WARNING
· The installation, service, recycling and disposal of the inverters must be performed by qualified personnel only in compliance with national and local standards and regulations. · Any unauthorized actions including modification of product functionality of any form may cause lethal hazard to the operator, third parties, the units or their property. SAJ is not responsible for the loss and these warranty claims. · The SAJ inverter must only be operated with PV generator. Do not connect any other source of energy to the SAJ inverter. · Be sure that the PV generator and inverter are well grounded in order to protect properties and persons.

 CAUTION
· The solar inverter will become hot during operation. Please do not touch the heat sink or peripheral surface during or shortly after operation. · Risk of damage due to improper modifications.

 NOTICE
· Public utility only. · The solar inverter is designed to feed AC power directly to the public utility power grid; do not connect AC output of the inverter to any private AC equipment.

2.

PRODUCT overview

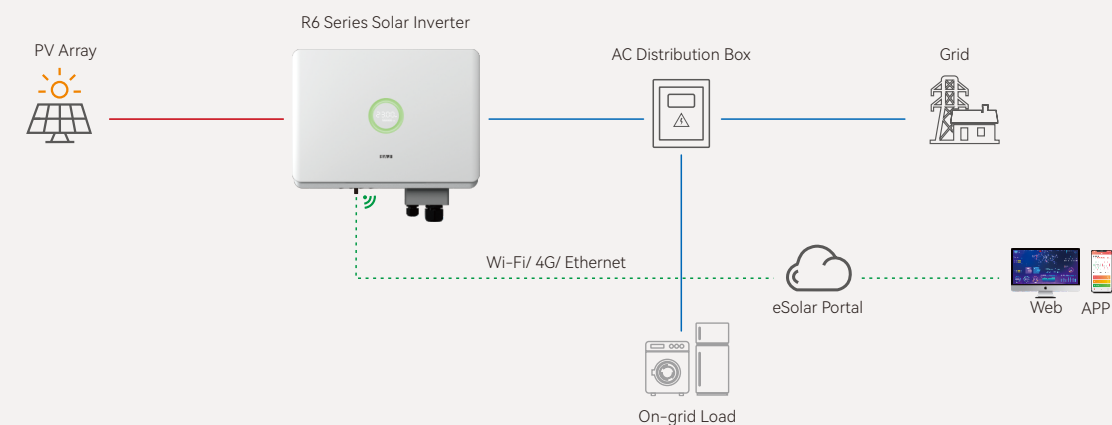


R6 series

R6-XK-TX-32 products are grid-tied three phase inverters without transformers, and the inverters are important components of grid-tied solar power systems.

The R6 inverter converts the DC generated by solar panels into AC which is in accordance with the requirements of public grid and send the AC into the grid, Figure 2.1 shows the structural diagram of the typical application system.

Figure 2.1
System overview



2.1 Specification for Product Model

R6 - XK - TX - 32

① ② ③ ④

- ① R6 represents for product name.
- ② XK represents rated power XkW of inverter, for example 4K means 4kW.
- ③ T means three phase; X represents the inverter has the function of X MPP trackers.
- ④ 32 means that max. DC input current of per MPP tracker is 32A

2.2 Appearance

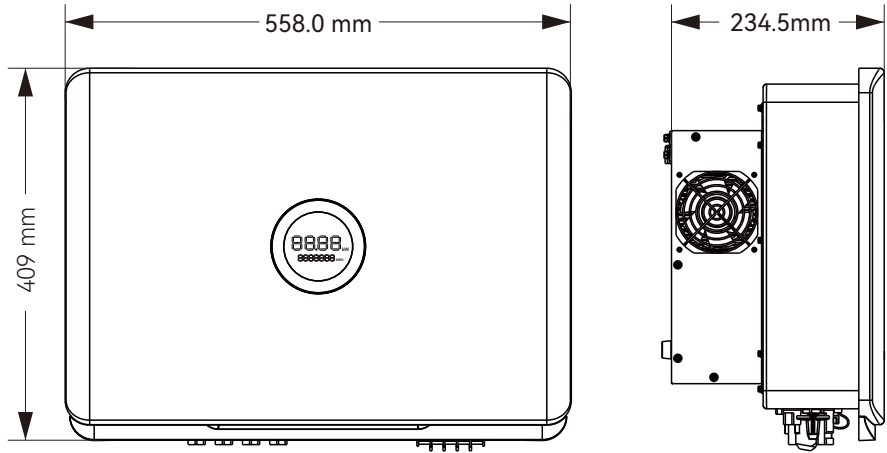


Figure 2.2
Dimensions of
R6-15K/17K/20K/22K/25K-T2-32

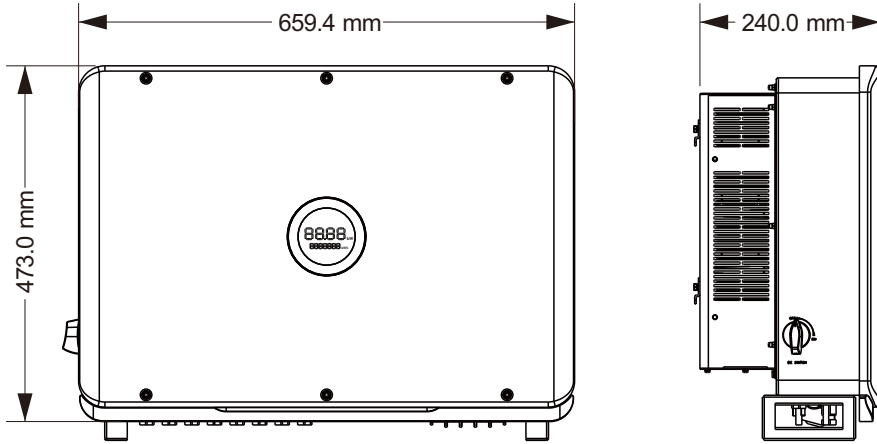


Figure 2.3
Dimensions of
R6-25K/30K/33K/36K-T3-32

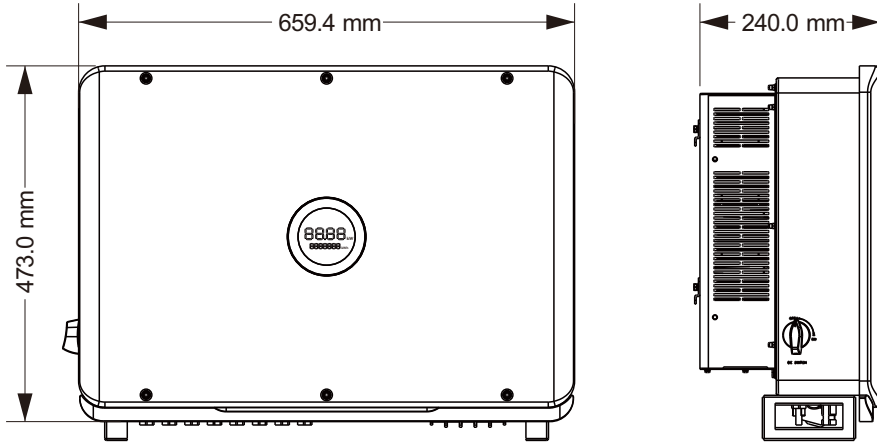


Figure 2.4
Dimensions of
R6-40K/50K-T4-32

2.3 Datasheet

R6-15K/17K/20K/22K/25K-T2-32

Model	R6-15K-T2-32	R6-17K-T2-32	R6-20K-T2-32	R6-22K-T2-32	R6-25K-T2-32
Input (DC)					
Max. PV Array Power [Wp]@STC	22500	25500	30000	33000	37500
Max. Input Voltage [V]	1100				
MPP Voltage Range [V]	180-1000				
Nominal Input Voltage [V]	600				
Start-up Voltage [V]	200				
Max. Input Current [A]	32/32				
Max. Short-Circuit Current[A]	38.4/38.4				
Number of MPP Trackers	2				
Number of Strings per MPP Tracker	2/2				
Output (AC)					
Rated AC Output Power [W]	15000	17000	20000	22000	25000
Max. AC Output Power [VA] *1	16500	18700	22000	24200	27500
Rated AC Output Current [A]@230Vac	21.7	24.6	29	31.9	36.2
Max. AC Output Current [A]	25.0	28.3	33.3	36.7	41.7
Nominal AC Voltage/ Range [V]	3L+N+PE, 220/380, 230/400, 240/415; 180-280/312-485				
Nominal AC Grid Frequency/ Range [Hz]	50, 60/44-55, 54-65				
Total Distortion Harmonic [THDi]	< 3%				
Power Factor	0.8 leading ~ 0.8 lagging				
Feed-in Phases/AC Connection Phases	3/3				
Efficiency					
Max. Efficiency	98.8%				
Euro Efficiency	98.5%				
Protection					
DCI Monitoring	Integrated				
GFCI Monitoring	Integrated				
Grid Monitoring	Integrated				
AC Grounding Detection	Integrated				
AC Short-Circuit Protection	Integrated				
DC Insulation Resistance Detection	Integrated				
DC Surge Protection	Type III				
AC Surge Protection	Type III				

Model	R6-15K-T2-32	R6-17K-T2-32	R6-20K-T2-32	R6-22K-T2-32	R6-25K-T2-32
Anti-islanding Protection	AFD				
AFCI Protection	Optional				
Interface					
AC Connection	Terminal Block				
DC Connection	MC4				
Display	LED+APP (Bluetooth)				
Communication Port	RS232(USB)+RS485(RJ45)+DRM(RJ45)				
Communication Mode	Wi-Fi/Ethernet/4G				
Load Monitoring	24/7 (Optional)				
General Data					
Topology	Transformerless				
Nighttime Power Consumption [W]	<0.6				
Operating Temperature Range	-40°C ~ +60°C				
Cooling Method	intelligent fan Cooling				
Ambient Humidity	0% ~ 100% non-condensing				
Max. Operating Altitude [m]	4000m (>3000m power derating)				
Noise [dBA]	<50				
Ingress Protection	IP65				
Mounting	Rear Panel				
Dimensions [H*W*D] [mm]	409*558*234				
Weight [kg]	23.7				
Warranty [Year]	5 (Standard)/10/15/20/25 (Optional)				
Certifications	IEC/EN62109-1/2, EN61000-6-1/2/3/4, IEC61683, IEC60068-2, IEC62116, IEC61727, PEA/MEA, VDE0126-1-1/A1, CEI 0-21, VDE-AR-N 4105, AS/NZS4777.2, CQC NB/T 32004, G98/G99, NBR 16149, NBR 16150, C10/11, RD1669, UNE206006, UNE206007, EN50438				

R6-25/30K/33K/36K-T3-32, R6-40K/50K-T4-32

Model	R6-25K-T3-32	R6-30K-T3-32	R6-33K-T3-32	R6-36K-T3-32	R6-40K-T4-32	R6-50K-T4-32
Input (DC)						
Max. PV Array Power [Wp]@STC	37500	45000	49500	54000	60000	75000
Max. Input Voltage [V]	1100					
MPP Voltage Range [V]	180-1000					
Nominal Input Voltage [V]	600					
Start-up Voltage [V]	200					
Max. Input Current [A]	32/32/32				32/32/32/32	
Max. Short-Circuit Current[A]	38.4/38.4/38.4				38.4/38.4/38.4/38.4	
Number of MPP Trackers	3				4	
Number of Strings per MPP Tracker	2/2/2				2/2/2/2	
Output (AC)						
Rated AC Output Power [W]	25000	30000	33000	36000	40000	50000
Max. AC Output Power [VA] *1	27500	33000	36300	39600	44000	50000
Rated AC Output Current [A]@230Vac	37.9	43.5	47.8	52.2	58	72.5
Max. AC Output Current [A]	41.7	50	55	60	66.7	75.8
Nominal AC Voltage/ Range [V]	3L+N+PE, 220/380, 230/400, 240/415; 180-280/312-485					
Nominal AC Grid Frequency/ Range [Hz]	50, 60/44-55, 54-65					
Total Distortion Harmonic [THDi]	< 3%					
Power Factor	0.8 leading ~ 0.8 lagging					
Feed-in Phases/AC Connection Phases	3/3					
Efficiency						
Max. Efficiency	98.8%					
Euro Efficiency	98.5%					
Protection						
DCI Monitoring	Integrated					
GFCI Monitoring	Integrated					
Grid Monitoring	Integrated					
AC Grounding Detection	Integrated					
AC Short-Circuit Protection	Integrated					
DC Insulation Resistance Detection	Integrated					
DC Surge Protection	Type II					
AC Surge Protection	Type III					

Model	R6-25K-T3-32	R6-30K-T3-32	R6-33K-T3-32	R6-36K-T3-32	R6-40K-T4-32	R6-50K-T4-32
Anti-islanding Protection	AFD					
AFCI Protection	Optional					
Interface						
AC Connection	Terminal Block					
DC Connection	MC4					
Display	LED+APP (Bluetooth)					
Communication Port	Rs232(USB)+RS485(RJ45)+DRM(RJ45)					
Communication Mode	Wi-Fi/Ethernet/4G					
Load Monitoring	24/7 (Optional)					
General Data						
Topology	Transformerless					
Nighttime Power Consumption [W]	<0.6					
Operating Temperature Range	-40°C ~ +60°C					
Cooling Method	intelligent fan Cooling					
Ambient Humidity	0% ~ 100% non-condensing					
Max. Operating Altitude [m]	4000m (>3000m power derating)					
Noise [dBA]	<50					
Ingress Protection	IP65					
Mounting	Rear Panel					
Dimensions [H*W*D] [mm]	473*659.4*240					
Weight [kg]	35.5				37	37.5
Warranty [Year]	5 (Standard)/10/15/20/25 (Optional)					
Certifications	IEC/EN62109-1/2, EN61000-6-1/2/3/4, IEC61683, IEC60068-2, IEC62116, IEC61727, PEA/MEA, VDE0126-1-1/A1, CEI 0-21, VDE-AR-N 4105, AS/NZS4777.2, CQC NB/T 32004, G98/G99, NBR 16149, NBR 16150, C10/11, RD1669, UNE206006, UNE206007, EN50438					

3.

INSTALLATION instruction



DANGER

- Dangerous to life due to potential fire or electricity shock.
- Do not install the inverter near any inflammable or explosive items.
- This inverter will be directly connected with HIGH VOLTAGE power generation device; the installation must be performed by qualified personnel only in compliance with national and local standards and regulations.

NOTICE

- This equipment meets the pollution degree II.
- Inappropriate or the harmonized installation environment may jeopardize the life span of the inverter.
- Installation directly exposed under intensive sunlight is not recommended.
- The installation site must be well ventilated.

3.1 The Determination of the Installation Position

The equipment employs intelligent fan Cooling, and it can be installed indoor or outdoor.
(1) Do not expose the inverter to direct solar irradiation as this could cause power derating due to overheating.

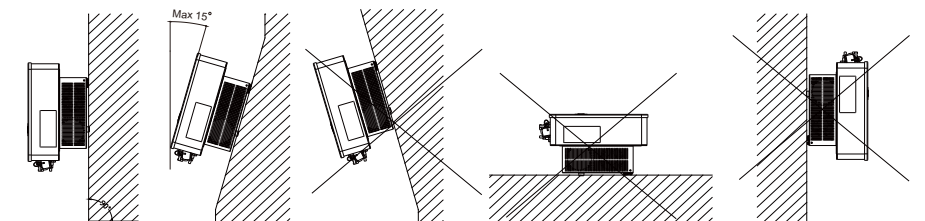


Figure 3.1
Mounting Method

(2) Mount vertically or tilted backwards by max. 15°. Never install the inverter tilted forwards, sideways, horizontally or upside down.

(3) Install the inverter at eye level for convenience when checking the LCD display and possible maintenance activities.

(4) When mounting the inverter, please consider the solidness of wall for inverter, including accessories. Please ensure the Rear Panel mount tightly.

To make sure the installation spot is suitably ventilated, if multiple SAJ on-grid solar inverters are installed same area.

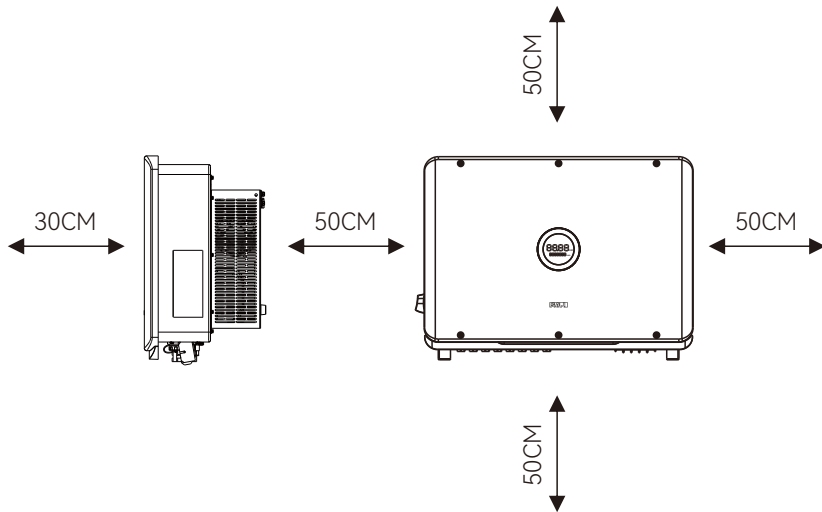


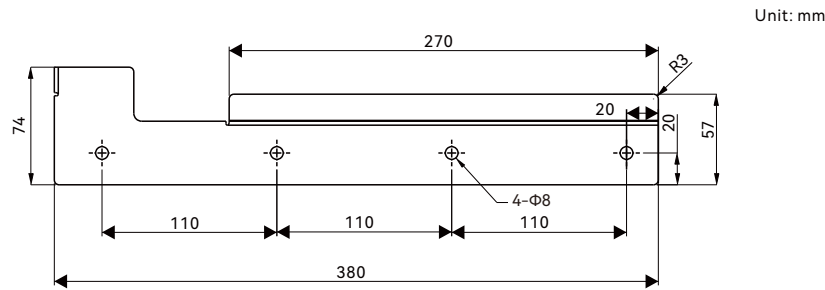
Figure 3.2
Minimum Clearance

3.2 Mounting Procedure

Figure 3.3
Dimensions of rear panel of
R6-15K/17K/20K/22K/25K-T2-32

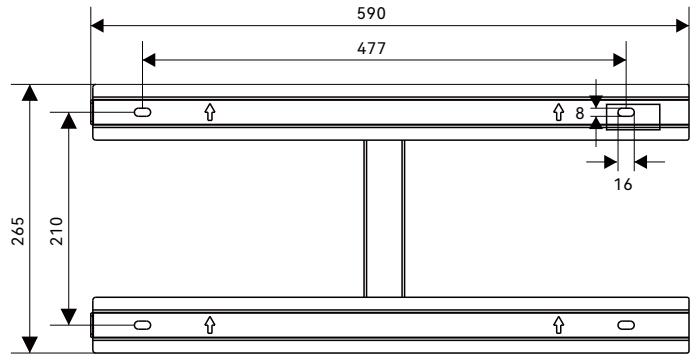
(1) Mark the Positions of the Drill Holes of the Rear Panel

The mounting position should be marked as shown in Figure 3.3& Figure 3.4.



Unit: mm

Figure 3.4
Dimensions of rear panel of
R6-25K/30K/33K/36-T3-32, R6-40K/50K-T4-32



(2) Drill Holes and Place the Expansion Tubes

Drill 4 holes in the wall (in conformity with position marked in Figure 3.5 & Figure 3.6), and then place expansion tubes in the holes using a rubber mallet.

Unit: mm

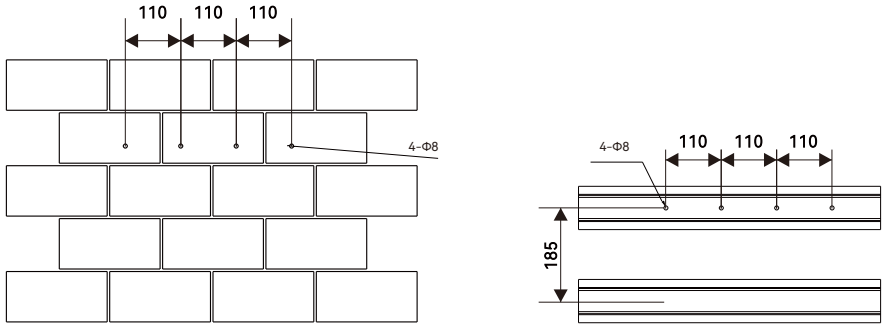


Figure 3.5
Drill holes' dimensions of
R6-15K/17K/20K/22K/25K-T2-32

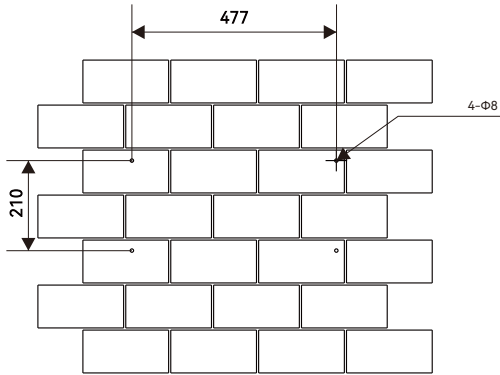


Figure 3.6
Drill holes' dimensions of
R6-25K/30K/33K/36K-T3-32, R6-40K/50K-T4-32

(3) Secure the Screws and the Rear Panel

The panels should be secured onto the mounting position by screws as shown in Figure 3.7.

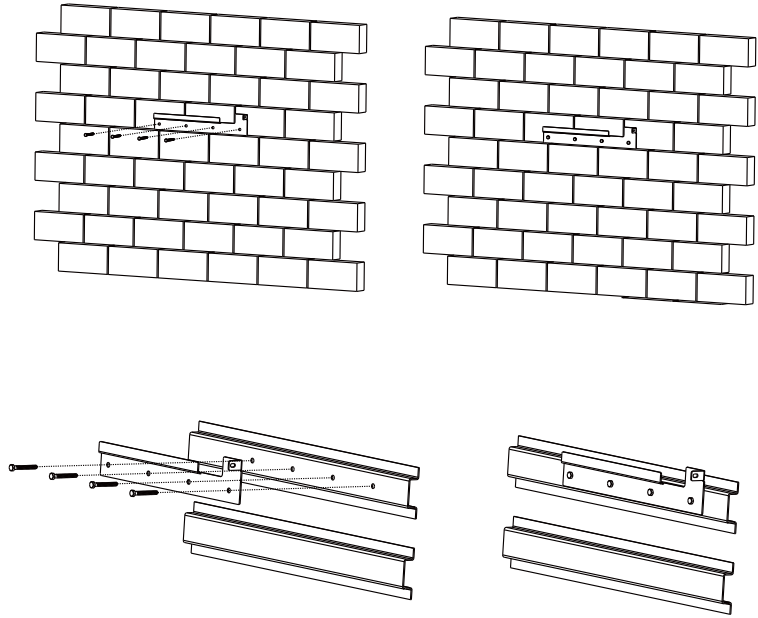


Figure 3.7
Mount the rear panel

(4) Mount the Inverter

Carefully mount the inverter to the rear panel as shown in Figure 3.8 and 3.9, Make sure that the rear part of the equipment is closely mounted to the rear panel.

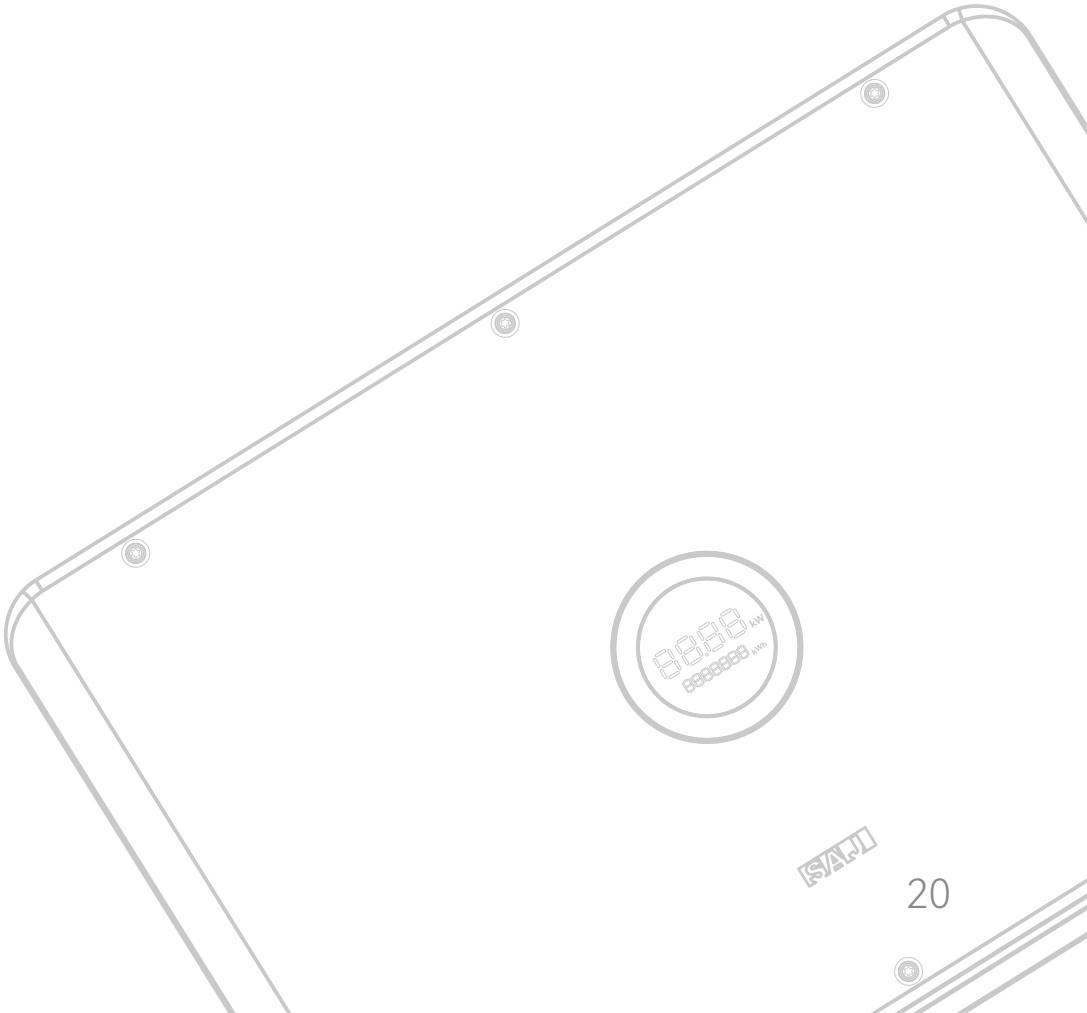
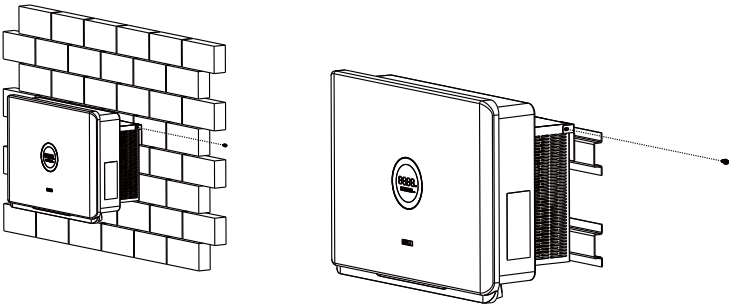
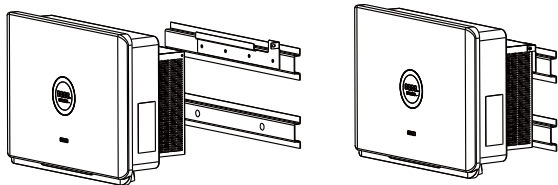
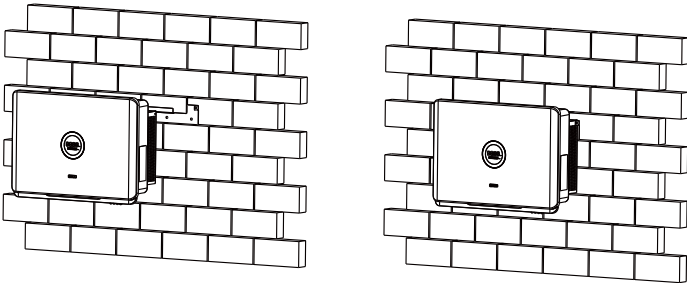


Figure 3.8
Mount inverter

Figure 3.9
Fasten the inverter and
hanging panel with screws

4.

ELECTRICAL connection



4.1 Safety Instruction

Electrical connection must only be operated on by professional technicians. Please keep in mind that the inverter is a bi-power supply equipment. Before connection, necessary protective equipment must be employed by technicians including insulating gloves, insulating shoes and safety helmet.

 **DANGER**

- Dangerous to life due to potential fire or electricity shock.
- When power-on, the equipment should in conformity with national rules and regulations.
- The direct connection between the inverter and high voltage power systems must be operated by qualified technicians in accordance with local and national power grid standards and regulations.
- The PV arrays will produce lethal high voltage when exposed to sunlight.

 **NOTICE**

- Electrical connection should in conformity with proper stipulations, such as stipulations for cross-sectional area of conductors, fuse and ground protection.
- The overvoltage category on DC input port is , on AC output port is .

4.2 Specifications for Electrical Interface

Figure 4.1
Electrical interface of
R6-15K/17K/20K/22K/25K-T2-32

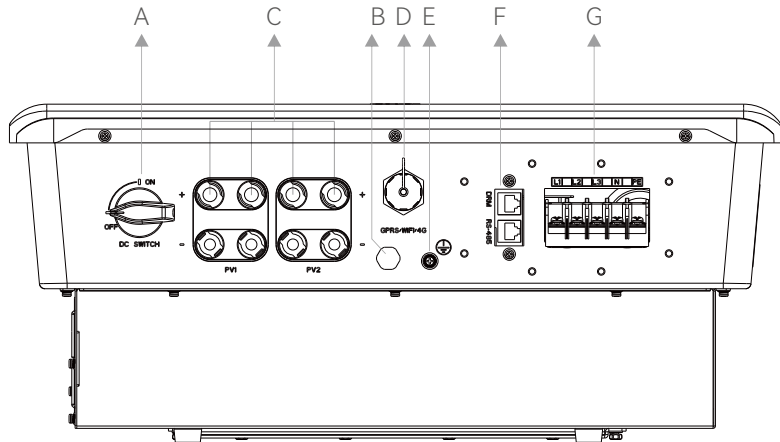


Figure 4.2
Electrical interface of
R6-25K/30K/33K/36K-T3-32

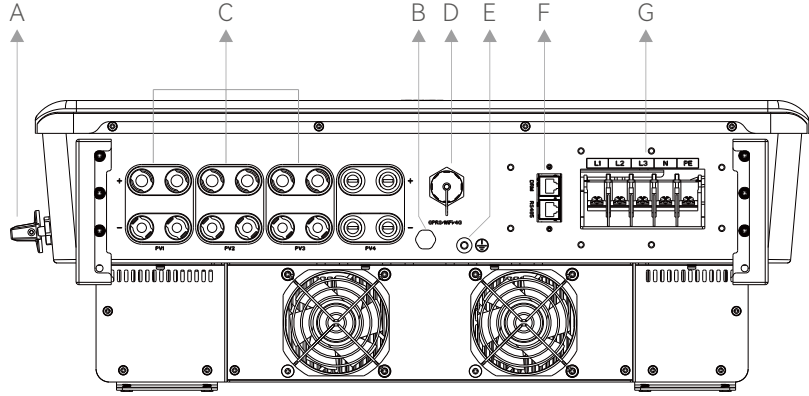
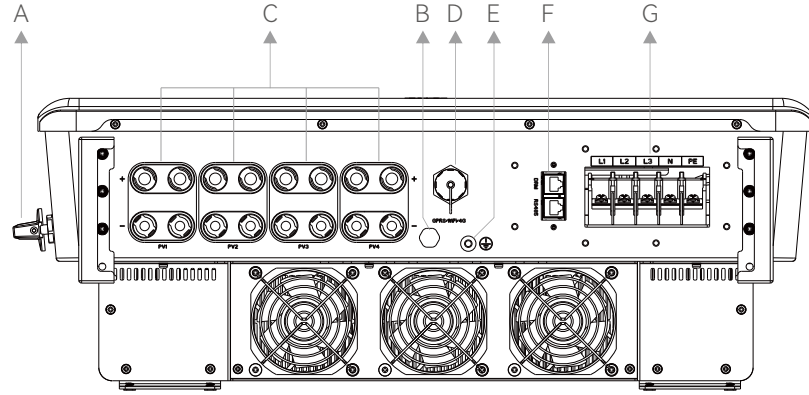


Figure 4.3
Electrical interface of
R6-40K/50K-T4-32



Code	Name
A	DC Switch
B	Decompression Valves
C	DC Input
D	RS232 Communication
E	Ground Connection
F	RS485 Communication+DRM
G	Terminal Block

Table 4.1
Specifications for interface

4.3 AC Connection

Table 4.2
Recommended power grid connecting
cable specification

Type	Cross-sectional area of cables (mm ²)	
	Scope	Recommended value
R6-15K/17K/20K/22K/25K-T2-32	10.0-16.0	16.0
R6-25K/30K/33K/36K-T3-32	16.0-35.0	25.0
R6-40K/50K-T4-32	16.0-35.0	25.0

If the grid-connection distance is too far, please select AC cable with larger diameter as per the actual condition.

(1)Ground of the inverter. After penetrating the external hex head screw through OT terminal of the grounding line, screw in the grounding port of enclosure of the inverter in clockwise direction and make sure it's screwed up tightly.

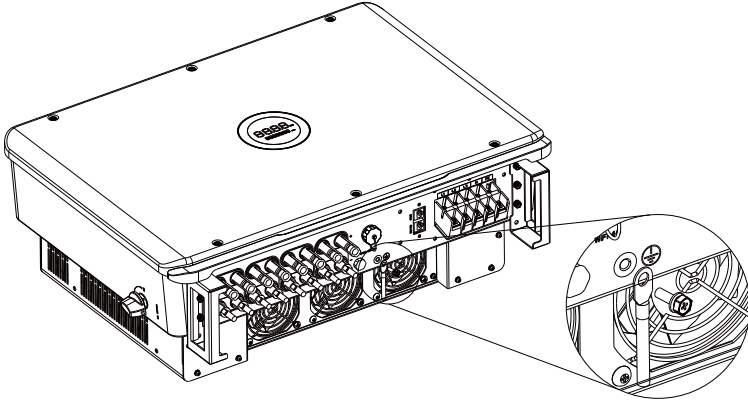


Figure 4.4
Inverter ground protection

(2) Screw off the screws at the AC output wire cover and take out the cover.
Penetrate the AC cable of which the insulation layers has been peeled off through the AC waterproof locking screw hole of the cover. Lock L1 wire, L2 wire, L3 wire, N wire and PE wire tightly as per the marked connection positions on the interface board.

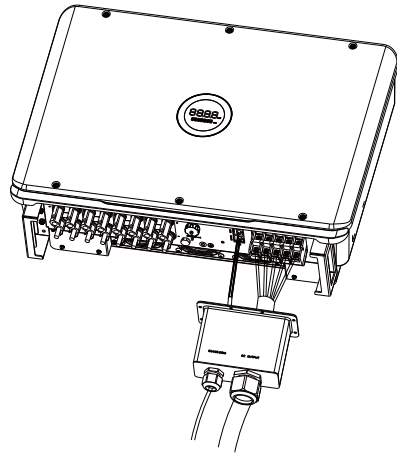


Figure 4.5
Connect cable

(3) After fixing the cover at the AC output wire terminal with screws, tighten up the AC waterproof nut.

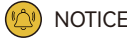
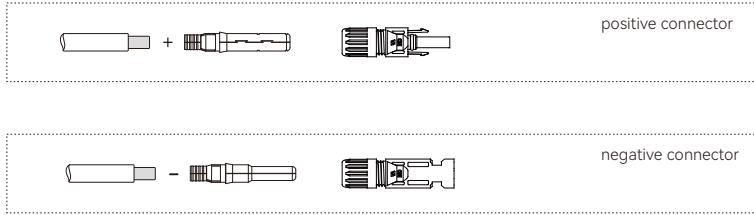
4.4 DC Side Connection

Table 4.3
Recommended specifications of DC cables

Cross-sectional area of cables (mm ²)		Outside diameter of the cables (mm)
Scope	Recommended value	
4.0~6.0	4.0	4.2~5.3

Figure 4.6
Positive and negative connectors

DC connector is made up of one positive connector and one negative connector



NOTICE

- Please place the connector separately after unpacking in order to avoid confusion for connection of cables.
- Please connect the positive connector to the positive side of the solar panels, and connect the negative connector to the negative side of the solar side. Be sure to connect them in right position.

Connecting Procedures:

(1) Use specified strip tool to strip the insulated enclosure of the positive and negative cables with appropriate length (8~10mm).

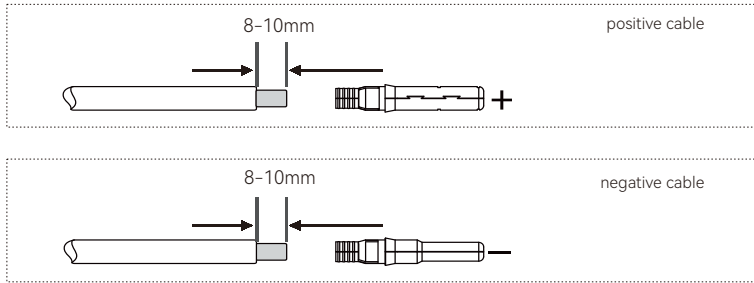
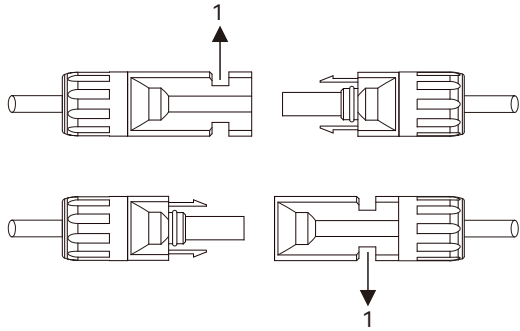


Figure 4.7
Connecting Cables

- (2) Feed the positive and negative cables into corresponding lock screws and crimp them tightly with a wire crimper. Make sure that the withdrawal force of the pressed cable is larger than 400N.
- (3) Plug in the pressed positive and negative cables into relevant insulated enclosure, a “click” sound should be heard when the contact cable assembly is seated correctly.
- (4) Fasten the lock screws on positive and negative connectors into corresponding insulated enclosure and make them tight.
- (5) Connect the positive and negative connectors into positive and negative DC input terminals of the inverter, a “click” sound should be heard when the contact cable assembly is seated correctly.



1. Connection Port

Figure 4.8
Connect the Inverter



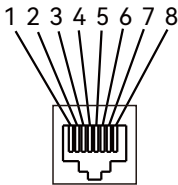
NOTICE

- Before insert the connector into DC input terminal of the inverter, please make sure that the DC switch of the inverter is OFF.
- Please use the original terminal to install.

4.5 Communication Connection

Figure 4.9
RS485 pin

Table 4.4
RS485 pin port definition



Pin Number	Description	Effect
1	NC	
2	GND_W	Ground wire
3	+7V_W	Power supply
4	NC	
5	NC	
6	NC	
7	RS485-A	Transmission RS485 differential signal
8	RS485-B	Transmission RS485 differential signal

Figure 4.10
RS232 pin

Table 4.5
USB pin port definition



Pin Number	Description	Effect
1	+7V	Power supply
2	RS-232 TX	Send data
3	RS-232 RX	Receive data
4	GND	Ground wire

- (1) USB interface could be externally connected with eSolar AIO3 module, for operation in details please refer to eSolar AIO3 module Quick Installation Guide in www.saj-electric.com
- (2) USB interface could be externally connected with eSolar 4G module, for operation in details please refer to eSolar 4G module Quick Installation Guide in www.saj-electric.com
- (3) USB interface could be externally connected with eSolar WiFi module, for operation in details please refer to eSolar WiFi module Quick Installation Guide in www.saj-electric.com

5.

DEBUGGING instructions



5.1 Introduction of HMI (Human-Machine Interface)

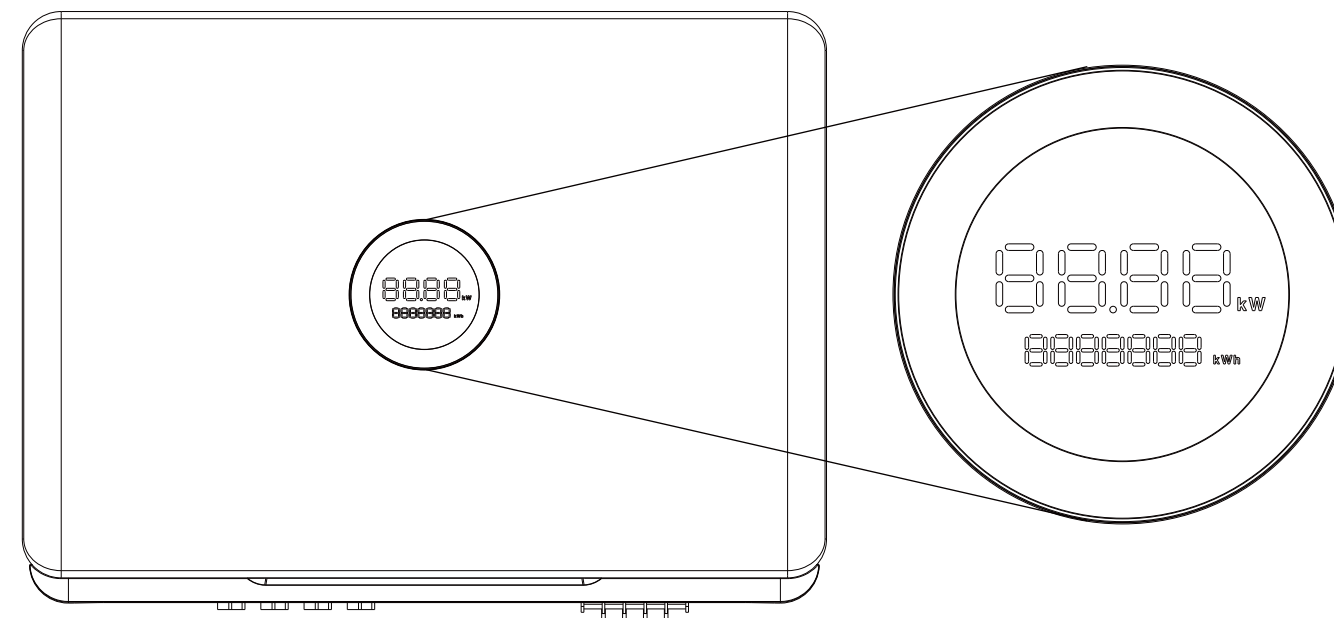


Figure 5.1
Human-Machine Interface

Talbe 5.1
Interface description

Display	Status		Description
Ring Light		Solid Green	The inverter is in normal on-grid state
		Breathing Mode	The inverter is in the initialization or waiting state
		Solid Red	An error occurs
		Breathing Mode	Software is upgrading in the inverter
		OFF	Power off
LED Panel 1	8888. / E036		Current power (kW) / Error code
LED Panel 2	8888888 kWh		Total yield (kWh)

5.2
Monitoring
Operation

- R6 series products could be monitored through eSolar APP.
- This equipment is standardly equipped with a USB interface which could transfer AIO3/4G module and Wi-Fi module to monitor running state of the equipment.

5.2.1
APP Introduction

eSolar could achieve communication with the equipment via Bluetooth, Cellular network and Wi-Fi and it is an APP for nearby and remote monitoring.

Download APP

Installers using iOS system could search for “eSolar O&M” in App Store and download this App. Installers using Android system could search for “eSolar O&M” in Google play and download this App.

For iOS / Android system, Installers could visit SAJ official website: www.saj-electric.cn and scan the QR code to download “eSolar O&M” APP.

Account---Please use the installer account to login.

Note: For the end user, please download and install the “eSolar Air” APP and log in to the APP or SAJ official website to register your account.

5.2.2
Nearby Monitoring

Bluetooth connection

After installing the eSolar AIO3/4G/WiFi module, the mobile phone could be directly connected with the inverter via Bluetooth.

Connection setting

Step 1

Log in eSolar O&M APP.

Plant

Total Energy (GWh)

4548.99

83191 Total plants

1922 Total errors (pcs)

5738 Normal 88 Error 77365 Off-line 1922 Pending 0 Handling

Today Energy 31.97 MWh

Montly Energy 100.74 GWh

Total Capacity 104.56 GWp

Plant Message User

Step 2

Choose "User" interface
→ choose "Remote control".

User

Warranty check

My collection

Authorisation management

Configuration

End User

Plant Message User

Step 3

Choose connection way as
"Bluetooth" → choose "next step".

Way of connection

Bluetooth WIFI Cloud

Tips:

(1)Please turn on the inverter and mobile phone bluetooth;
(2)Determine the connection of the communication module;

NEXT STEP

Step 4

Search for equipment → click the Bluetooth name matched with the inverter.

Bluetooth connection

Devices

BlueLink:11100

BlueLink:03440

BlueLink:00201

Step 5

Select the configuration method of the module network connection.

Bluetooth connection

Devices

BlueLink:11100

BlueLink:03440

Hint

Please choose the way to access internet

WI-FI CONFIGURATION

ETHERNET

SKIP

Step 6

Connect successfully → set country and grid code for first start-up → after inverter start, users can view inverter's information.

Devices list

Communication module

Internet status

M5380Y2053003440

Model eSolar AIO3

Device(1)

R6T4403G2101C01234

Model R6-40K-T4

Equipment information

Connection way, running state, basic information, running information, Power information and events information of the communication of the inverter could be checked.

Step 1: Click “Basic info”

Inverter model, Module SN code, Module firmware version, Communication board firmware version, Main board firmware version, Slave board firmware version could be checked.

< Device info ⚙

Bluetooth connection:BlueLink:03440

SN:

Basic info

Running info

Power info

Event info

Model	BlueLink
Module SN	M5380Y2053003440
Module firmware version	V1.007
Communication board firmware version	V6.122
Main board firmware version	V1.009
Slave board firmware version	N/A

< Device info ⚙

Bluetooth connection:BlueLink:03440

SN: Running status

Basic info

Running info

Power info

Event info

DC input

Inverter

AC output

PV information

String current

PV1	478.9V	19.83A	N/A/N/A/N/A/N/A
PV2	0.0V	0.0A	N/A/N/A/N/A/N/A
PV3	0.0V	0.0A	N/A/N/A/N/A/N/A
PV4	N/A	N/A	N/A/N/A/N/A/N/A

Grid power information

AC1	221.5V	13.49A	49.99Hz
AC2	221.5V	13.28A	50.01Hz
AC3	221.9V	12.99A	49.88Hz

8634

Current power(W)

18.79

Today energy (kWh)

889.19

Total energy (kWh)

Update time: 2021-08-26 11:30:09

Step 2: Click “Running info”

PV information (voltage and current at PV terminal), Grid power information (voltage, current and frequency at AC terminal), etc.

33

34

Step 3: Click "Power info"

Current power, today energy, monthly energy, yearly energy, total energy could be checked.

Device info	
Bluetooth connection:BlueLink:03440	
SN:	Running status
Basic info	Running info
Power info	
Event info	
Current power	8752W
Today Energy	18.81kWh
Monthly Energy	889.21kWh
Yearly Energy	889.21kWh
Total Energy	889.21kWh
Update time: 2021-08-26 11:30:15	

5.2.3 Remote Monitoring

(1) Connect the internet via the eSolar AIO3 module and upload the inverter data onto the server and customers could monitor running information of the inverter remotely via the eSolar Web Portal or their mobile customer terminals.

(2) Connect the internet via the eSolar 4G module and upload the inverter data onto the server and customers could monitor running information of the inverter remotely via the eSolar Web Portal or their mobile customer terminals.

(3) Connect the internet via the eSolar WiFi module and upload the inverter data onto the server and customers could monitor running information of the inverter remotely via the eSolar Web Portal or their mobile customer terminals.

Device info	
Bluetooth connection:BlueLink:03440	
SN:	Running status
Basic info	Running info
Power info	
Event info	
1	Event time: 2021-08-26 09:32:32 No: 24 Content: Master No Grid Error
2	Event time: 2021-08-25 17:01:21 No: 24 Content: Master No Grid Error
3	Event time: 2021-08-23 17:13:43 No: 24 Content: Master No Grid Error
4	Event time: 2021-08-23 17:12:07 No: 24 Content: Master No Grid Error
Event time: 2021-08-23 16:33:28	

Step 4: Click "Event info"

Time of the events, events sequence number (referring to fault codes details in Chapter 7 Fault Codes and Common Troubleshooting) and events content of the faults of the inverter could be checked.



Fault Code & Troubleshooting



Error Code	Explanation
01	Master Relay Error
02	Master EEPROM Error
03	Master Temperature High Error
04	Master Temperature Low Error
05	Master Lost Communication
06	Master GFCI Device Error
07	Master DCI Device Error
08	Master Current Sensor Error
09/11/13	Master Phase1/ Phase2/ Phase3 Voltage High
10/12/14	Master Phase1/ Phase2/ Phase3 Voltage Low
15	Master Voltage 10Mins High
18	Master Grid Frequency High
19	Master Grid Frequency Low
24	Master No Grid Error
27	Master GFCI Error
28/29/30	Master Phase1/ Phase2/ Phase3 DCI Error
31	Master ISO Error
32	Master Bus Voltage Balance Error
33	Master Bus Voltage High
34	Master Bus Voltage Low
35	Master Grid Phase Error
36	Master PV Voltage High Error
37	Master Islanding Error
38	Master HW Bus Voltage High
39	Master HW PV Current High
41	Master HW Inv Current High
44	Master Grid NE Voltage Error
45/46/47/48	Master Fan1/Fan2/Fan3/Fan4 Error

Talbe 6.1
Error Code

Error Code	Explanation
49	Lost Communication between DSP and PowerMeter
81	Lost Communication
83	Master Arc Device Error
84	Master PV Input Error
85	Authority expires
86	Master DRMO Error
87	Master Arc Error

General troubleshooting methods for inverter are as follows:

Fault Information	Troubleshooting
Relay Error	If this error occurs frequently, please contact your distributor or call SAJ technical support.
Storer Error	If this error occurs frequently, please contact your distributor or call SAJ technical support.
High Temperature Error	Check whether the radiator is blocked, whether the inverter is in too high or too low temperature, if the above mentioned is in normal, please contact your distributor or call SAJ technical support.
Master Lost Communication	If this error occurs frequently, please contact your distributor or call SAJ technical support.
GFCI Devices Error	If this error occurs frequently, please contact your distributor or call SAJ technical support.
DCI Devices Error	If this error occurs frequently, please contact your distributor or call SAJ technical support.
Current Sensor Error	If this error occurs frequently, please contact your distributor or call SAJ technical support.
AC Voltage Error	·Check the volt. of the grid ·Check the connection between the inverter and the grid. ·Check the settings of the on-grid standards of the inverter. ·If the volt. of the grid is higher than the volt. regulated by local grid, please inquire the local grid workers whether they can adjust the volt. at the feed point or change the value of the regulated volt. ·If the volt. of the grid is in regulated range as allowed and LCD still in this error, please contact your distributor or call SAJ technical support.

Talbe 6.2
Troubleshooting

Fault Information	Troubleshooting
Frequency Error	Check the setting of country and check the frequency of the local grid. If the above mentioned are in normal, please contact your distributor or call SAJ technical support.
Grid Lost Error	Check the connection status between the AC side of the inverter and the grid, if the above mentioned are in normal, please contact your distributor or call SAJ technical support.
GFCI Error	Check the insulation resistance of the positive side and negative side of the solar panel; check whether the inverter is in wet environment; check the grounding of the inverter. If the above mentioned are in normal, please contact your distributor or call SAJ technical support.
DCI Error	If this error exists always, please contact your distributor or call SAJ technical support.
ISO Error	Check the insulation resistance of the positive side and negative side of the solar panel; check whether the inverter is in wet environment; check whether the grounding of the inverter is loose or not. If the above mentioned are in normal, please contact your distributor or call SAJ technical support.
Overcurrent	Check the connection status between the inverter and the grid and test whether the volt. of the grid is stable or not, if the above mentioned are in normal, please contact your distributor or call SAJ technical support.
Over Bus Voltage	Check the settings of the solar panel. SAJ designer can help you. If the above mentioned are in normal, please contact your distributor or call SAJ technical support.
PV Overcurrent	If this error always exists, please contact your distributor or call SAJ technical support.
PV Voltage Fault	Check the settings of the solar panel. SAJ designer can help you. If the above mentioned are in normal, please contact your distributor or call SAJ technical support.
Lost Communication	Check the connection of communication cables between control board and display board. If the above mentioned are in normal, please contact your distributor or call SAJ technical support.
Null line-to-earth voltage fault	Check if connection of the AC output grounding terminal is stable and reliable. If the content mentioned as above is normal, please contact your distributor or call SAJ technical support.



This device should not be disposed as residential waste. An Inverter that has reached the end of its life and is not required to be returned to your dealer, it must be disposed carefully by an approved collection and recycling facility in your area.



7.

Recycling & Disposal

CERTIFICATE



of Conformity Low Voltage Directive 2014/35/EU

Registration No.: AN 50539979 0001

Report No.: CN220TXF 001

Holder: Guangzhou Sanjing Electric Co., Ltd.
No.9, Lizhishan Road, Science City,
Guangzhou High-tech Zone,
Guangdong
P.R. China

Product: PV-Inverter
(Grid-connected PV Inverter)

Identification: Type Designation: R6-50K-T4-32, R6-40K-T4-32, R6-36K-T4-32,
R6-36K-T3-32, R6-33K-T3-32, R6-30K-T3-32,
R6-25K-T3-32, R6-30K-T4-32-LV,
R6-25K-T4-32-LV, R6-20K-T3-32-LV
Serial Number : Engineering samples
Remark : Refer to report CN220TXF 001 for details.

This certificate of conformity is based on an evaluation of a sample of the above mentioned product. Technical Report and documentation are at the Licence Holder's disposal. This is to certify that the tested sample is in conformity with Annex I of Council Directive 2014/35/EU, referred to as the Low Voltage Directive. This certificate does not imply assessment of the series-production of the product and does not permit the use of a TÜV Rheinland mark of conformity. The holder of the certificate is authorized to use this certificate in connection with the EC declaration of conformity according to Annex IV of the Directive.



Date 20.04.2022

A handwritten signature in blue ink.
A. Chen

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg

The CE marking symbol, consisting of the letters 'C' and 'E' in a stylized font.
The CE marking may be used if all relevant and effective EC Directives are complied with.



Guangzhou Sanjing Electric Co.,
Ltd.
Mr. Li Yun

Date : 20.04.2022
Our ref. : YY 02
Your ref.: 168346650

No.9, Lizhishan Road, Science City,
Guangzhou High-tech Zone,
Guangdong
P.R. China

Ref : AN Certificate of Conf. Low Voltage D.

Type of Equipment : Grid-connected PV inverter
Model Designation : See Certificate
Certificate No. : AN 50539979 0001
Report No. : CN220TXF 001

Dear Mr. Li Yun,

We herewith confirm that a sample of the above mentioned technical equipment has been tested and was found to be in accordance with the relevant requirements.

Enclosed please find your Certificate of Conformity.

We appreciate your kind support and would like to offer our assistance and continuous services in the future.

With kind regards,

Certification Body


A. Chen

Enclosure

证书的详细信息请登陆www.certipedia.com查阅,或拨打我司客服热线800 999 3668 / 400 883 1300咨询

[Voltar](#)[Imprimir](#)

Certificado de Regularidade do FGTS - CRF

Inscrição: 65.763.144/0001-45
Razão Social: RISAN GESTAO INTEGRADA LTDA
Endereço: R JOAQUIM ABREU LUZ 51 / PARQUE SAO LUCAS / SAO PAULO / SP / 03263-020

A Caixa Econômica Federal, no uso da atribuição que lhe confere o Art. 7, da Lei 8.036, de 11 de maio de 1990, certifica que, nesta data, a empresa acima identificada encontra-se em situação regular perante o Fundo de Garantia do Tempo de Serviço - FGTS.

O presente Certificado não servirá de prova contra cobrança de quaisquer débitos referentes a contribuições e/ou encargos devidos, decorrentes das obrigações com o FGTS.

Validade: 19/05/2026 a 17/06/2026

Certificação Número: 2026051907456536620902

Informação obtida em 20/05/2026 15:01:19

A utilização deste Certificado para os fins previstos em Lei esta condicionada a verificação de autenticidade no site da Caixa:
www.caixa.gov.br



Sistema de Cadastramento Unificado de Fornecedores - SICAF

Certificado de Registro Cadastral - CRC

(Emissão conforme art. 17 da Instrução Normativa nº 03, de 26 abril de 2018)

CNPJ: **65.763.144/0001-45**

Razão Social: **RISAN GESTAO INTEGRADA LTDA**

Atividade Econômica Principal:

4789-0/99 - COMÉRCIO VAREJISTA DE OUTROS PRODUTOS NÃO ESPECIFICADOS ANTERIORMENTE

Endereço:

RUA JOAQUIM ABREU LUZ, 51 - PARQUE SAO LUCAS - 03.263-020 - São Paulo / São Paulo

Observações:

A veracidade das informações poderá ser verificada no endereço <https://comprasnet.gov.br>.
Este certificado não substitui os documentos exigidos em lei.

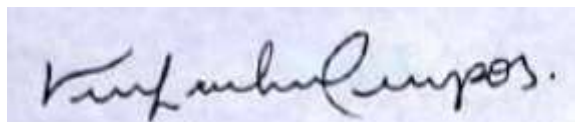
DECLARAÇÃO DE INEXISTÊNCIA DE FATOS SUPERVENIENTES

A empresa **RISAN GESTÃO INTEGRADA LTDA**, inscrita no CNPJ sob o nº **65.763.144/0001-45**, sediada na **Rua Joaquim Abreu Luz, 51, Parque São Lucas, São Paulo - SP, CEP 09110-120**, por intermédio de seu representante legal abaixo assinado, declara, sob as penas da lei, que:

Até a presente data, **inexistem fatos supervenientes** impeditivos para sua habilitação em procedimentos licitatórios ou contratações com a Administração Pública, ciente da obrigatoriedade de declarar ocorrências posteriores, conforme exigido pela legislação vigente (Art. 32, § 2º, da Lei nº 8.666/93 ou Art. 63, § 1º, da Lei nº 14.133/21).

Declara ainda que a empresa não foi declarada inidônea nem está suspensa do direito de licitar ou contratar com o Poder Público.

São Paulo, 28/04/2026



RISAN GESTÃO INTEGRADA LTDA

Vanessa Ap C Gaidargi

CPF 218695488-50

Contatos para conferência:

E-mail: contato@risangestao.com.br

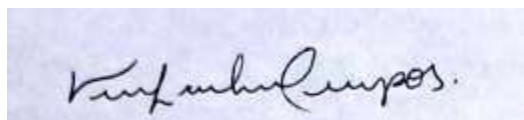
Celular: +55 (11) 92121-8979

DECLARAÇÃO UNIFICADA

A empresa **RISAN GESTÃO INTEGRADA LTDA EPP**, inscrita no CNPJ sob o nº **65.763.144/0001-45**, por intermédio de sua representante legal, Sra. **Vanessa Aparecida Campos Gaidargi**, portadora do CPF nº **218.695.488-50**, declara para os devidos fins que:

1. **Validade da Proposta enviada:** A validade desta proposta é de 60 (sessenta) dias a contar da data de sua apresentação;
2. **Habilitação e Ciência:** Inexistem fatos impeditivos para sua habilitação no certame, estando ciente da obrigatoriedade de declarar ocorrências posteriores, e concorda plenamente com as condições do Aviso de Contratação Direta e seus anexos;
3. **Responsabilidade:** Responsabiliza-se pelas transações efetuadas no sistema, assumindo-as como firmes e verdadeiras;
4. **Reserva de Cargos:** Cumpre as exigências de reserva de cargos para pessoa com deficiência e reabilitados da Previdência Social (Art. 93 da Lei nº 8.213/91);
5. **Trabalho Infantil e Escravo:** Não emprega menor de 18 anos em trabalho noturno, perigoso ou insalubre, nem menores de 16 anos, salvo na condição de aprendiz a partir dos 14 anos (Art. 7º, XXXIII, da CF);
6. **Enquadramento ME/EPP:** Cumpre os requisitos legais do Art. 3º da LC nº 123/2006, estando apta a usufruir do tratamento favorecido dos Arts. 42 a 49 da referida Lei, observado o disposto na Lei nº 14.133/2021.

São Paulo, 8/04/2026.



Vanessa Aparecida Campos Gaidargi
CPF nº 218.695.488-50
Representante Legal da Risan Gestão Integrada Ltda EPP

DECLARAÇÃO UNIFICADA DE CUMPRIMENTO DE REQUISITOS

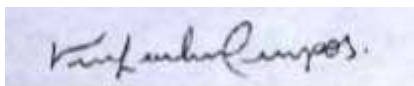
A empresa Risan Gestão Integrada Ltda EPP, inscrita no CNPJ sob o nº 65.763.144/0001-45, por intermédio de sua representante legal, Sra. Vanessa Aparecida Campos Gaidargi, portadora do CPF nº 218.695.488- 50, para fins de participação no certame acima identificado, **DECLARA**, sob as penas da lei:

1. **INEXISTÊNCIA DE FATO IMPEDITIVO:** Que, até a presente data, inexistem fatos impeditivos para sua habilitação, não tendo sido declarada inidônea ou suspensão de licitar/contratar com a Administração Pública.
2. **CONHECIMENTO DO EDITAL:** Que tem pleno conhecimento e aceitação de todas as regras, condições e especificações técnicas contidas no Aviso de Dispensa Eletrônica e seus Anexos.
3. **RESERVA DE CARGOS (LEI 8.213/91):** Que cumpre, se devidamente obrigada, as exigências de reserva de cargos para pessoa com deficiência e para reabilitado da Previdência Social.
4. **TRABALHO DE MENORES E ESCRAVO:** Que não utiliza mão de obra de menores de 18 anos em trabalho noturno, perigoso ou insalubre, nem menores de 16 anos em qualquer trabalho (salvo na condição de aprendiz), e que não foi condenada nos últimos 5 anos por exploração de trabalho infantil ou análogo ao escravo.
5. **INTEGRALIDADE DOS CUSTOS:** Que os preços ofertados em sua proposta compreendem a integralidade dos custos operacionais, encargos previdenciários, trabalhistas, tributários, comerciais e quaisquer outros necessários para o cumprimento fiel do objeto.
6. **VALIDADE DA PROPOSTA:** Que a proposta apresentada possui validade de **90 (noventa) dias**, a contar da data de sua apresentação.

Por ser expressão da verdade,

firmamos a presente.

São Paulo, 5 de Maio de 2026.



Risan Gestão Integrada Ltda EPP

Vanessa Aparecida Campos Gaidargi

CPF nº 218.695.488-50

Representante Legal



DECLARAÇÃO DE CONFORMIDADE

Conformity Declaration

A Guangzhou Sanjing Electric Co., Ltd garante que os seguintes inversores fotovoltaicos conectados à rede estão em conformidade com as normas vigentes no Brasil:

Guangzhou Sanjing Electric Co. hereby confirms that the following PV Grid connected inverters are comply with the Brazilian standard:

ABNT NBR 16149:2013 Sistemas fotovoltaicos (FV) – Características da interface de conexão com a rede elétrica de distribuição – Primeira edição (01.03.2013)
[Photovoltaic (PV) systems – Characteristics of the utility interface
– first edition, March 01-2013]

ABNT NBR 16150:2013 Sistemas fotovoltaicos (FV) — Características da interface de conexão com a rede elétrica de distribuição — Procedimento de ensaio de conformidade - Primeira edição (04.03.2013) [Photovoltaic (PV) systems – Characteristics of the utility interface – Conformity test procedure. - First edition, March 04-2013]

ABNT NBR IEC 62116:2012 Procedimento de ensaio de anti-ilhamento para inversores de Sistemas fotovoltaicos conectados à rede elétrica. – Primeira edição (06.03.2012) [Test procedure of islanding prevention measures for utility-interconnected photovoltaic inverters - First edition, March 06-2012]

No.	Inverter Type	Rated Power	Grid Voltage/Frequency	Notes
1	R5-9K-T2-15	9K	380V, 60 Hz	Trifásico
2	R5-9K-T2	9K	380V, 60 Hz	Trifásico
3	R5-10K-T2-15	10K	380V, 60 Hz	Trifásico
4	R5-10K-T2	10K	380V, 60 Hz	Trifásico
5	R5-12K-T2-15	12K	380V, 60 Hz	Trifásico
6	R5-12K-T2	12K	380V, 60 Hz	Trifásico
7	R5-13K-T2-15	13K	380V, 60 Hz	Trifásico



广州三晶电气股份有限公司
Guangzhou Sanjing Electric Co., Ltd.

Tel : 400-159-0088 Fax : 020-66608589
Web : www.saj-electric.cn / www.saj-electric.com
地址：广州高新技术产业开发区科学城荔枝山路9号三晶创新园

Add: SAJ Innovation Park, No.9, Lzhishan Road, Science City, Guangzhou High-tech Zone, Guangdong, P.R.China.

8	R5-13K-T2	13K	380V, 60 Hz	Trifásico
9	R5-15K-T2-15	15K	380V, 60 Hz	Trifásico
10	R5-15K-T2	15K	380V, 60 Hz	Trifásico
11	R5-17K-T2-15	17K	380V, 60 Hz	Trifásico
12	R5-17K-T2	17K	380V, 60 Hz	Trifásico
13	R5-20K-T2-15	20K	380V, 60 Hz	Trifásico
14	R5-20K-T2	20K	380V, 60 Hz	Trifásico
15	Suntrio Plus 25K	25K	380V, 60 Hz	Trifásico
16	Suntrio Plus 33K	30K	380V, 60 Hz	Trifásico
17	Suntrio Plus 40K	40K	380V, 60 Hz	Trifásico
18	Suntrio Plus 50K	50K	380V, 60 Hz	Trifásico
19	Suntrio Plus 60K	60K	380V, 60 Hz	Trifásico
20	Suntrio Plus 25K-LV	25K	220V, 60 HZ	Trifásico
21	Suntrio Plus 30K-LV	30K	220V, 60 HZ	Trifásico
22	Suntrio Plus 35K-LV	35K	220V, 60 HZ	Trifásico
23	R6-15K-T2-32	15K	380V, 60 Hz	Trifásico
24	R6-17K-T2-32	17K	380V, 60 Hz	Trifásico
25	R6-20K-T2-32	20K	380V, 60 Hz	Trifásico
26	R6-22K-T2-32	22K	380V, 60 Hz	Trifásico
27	R6-25K-T2-32	25K	380V, 60 Hz	Trifásico
28	R6-30K-T3-32	30K	380V, 60 Hz	Trifásico
29	R6-33K-T3-32	33K	380V, 60 Hz	Trifásico
30	R6-36K-T3-32	36K	380V, 60 Hz	Trifásico
31	R6-40K-T4-32	40K	380V, 60 Hz	Trifásico
32	R6-50K-T4-32	50K	380V, 60 Hz	Trifásico
33	C6-75K-T6	75K	380V, 60 Hz	Trifásico
34	C6-100K-T9	100K	380V, 60 Hz	Trifásico
35	C6-110K-T12	110K	380V, 60 Hz	Trifásico
36	C6-125K-T12	125K	380V, 60 Hz	Trifásico
37	R6-15K-T2-32-LV	15K	220V, 60 HZ	Trifásico
38	R6-20K-T3-32-LV	20K	220V, 60 HZ	Trifásico
39	R6-25K-T4-32-LV	25K	220V, 60 HZ	Trifásico
40	R6-30K-T4-32-LV	30K	220V, 60 HZ	Trifásico
41	C6-50K-T6-LV	50K	220V, 60 HZ	Trifásico
42	C6-60K-T9-LV	60K	220V, 60 HZ	Trifásico
43	C6-70K-T12-LV	70K	220V, 60 HZ	Trifásico



Julho, 2022

Guangzhou Sanjing Electric Co., Ltd.

No. 9 Lzhishan Road, Science City Guangzhou High-tech Zone, Guangdong, P.R. China

Identificação do Contribuinte - CNPJ Matriz

CNPJ: **65.763.144/0001-45**

A opção pelo Simples Nacional e/ou SIMEI abrange todos os estabelecimentos da empresa

Nome Empresarial: **RISAN GESTAO INTEGRADA LTDA**

Situação Atual

Situação no Simples Nacional: **Optante pelo Simples Nacional desde 18/03/2026**

Situação no SIMEI: **NÃO enquadrado no SIMEI**

+ Mais informações