

NINGBO Sunways TECHNOLOGIES CO., LTD

sunways



Sunways Company & Products Introduction

July, 2026

www.Sunways-tech.com

202607V1.6

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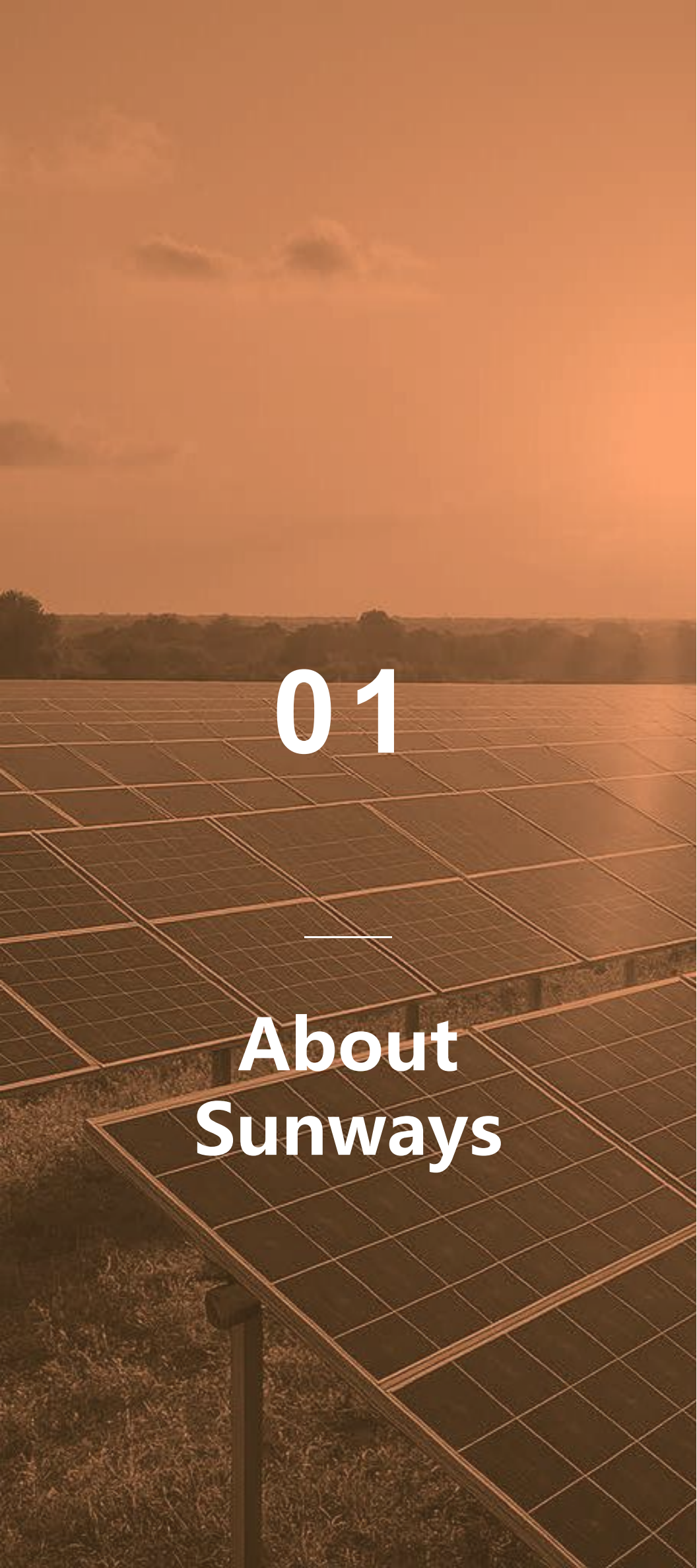
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About Sunways

1993



Established in 1993
in Constance, Germany

2018



Investment
by China Puze Group

30+

YEARS



in Solar Inverter

10GW

Smart Factory



10,000+ Units Monthly
capacity

150+



150+ Countries
Certification Covered

Company Profile

Sunways, founded in 1993 in Konstanz, Germany, is a technology-based company focused on the research, development, production, and sales of inverters. Its products mainly cover **Grid-tied Inverters, Hybrid Inverters, Energy Storage Batteries & Energy Management Systems.**



HQ & Manufacturer Base

Ningbo, China

Operation Center

Frankfurt, Germany
Suzhou, China

Warehouse

Netherlands

Service Center

Europe

- Frankfurt, Germany
- Italy
- United Kingdom
- Poland
- Czech Republic

Australia

- Sydney, Australia

Africa

- Johannesburg, South Africa

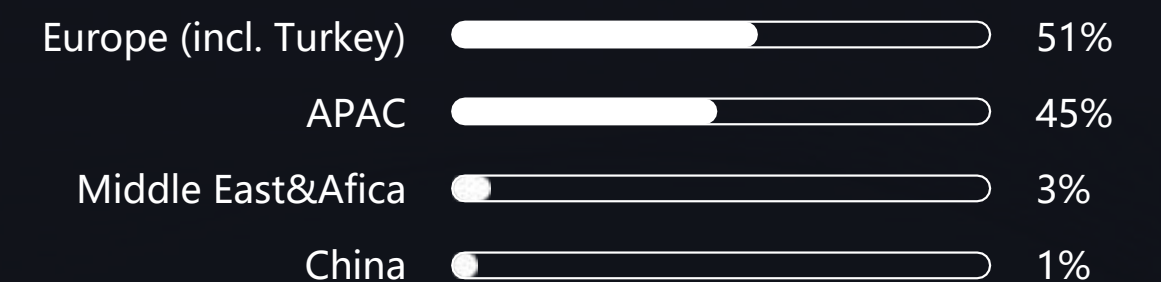
Asia

- Ahmadabad, India
- Dhaka, Bangladesh
- Ho Chi Minh, Vietnam
- Jakarta, Indonesia
- Antipolo, Philippines
- Lahore Pakistan

The Americas

- Campinas, Brazil

Global Market Distribution



Dual operation centers



Finance
Center

Manufacturing
Center

Training
Center

Supply Chain
Center

R & D
Center

Data
Center

Experienced
Engineers

Sales & Marketing
Center

Branding
Center



Story in timeline

1993

Foundation of Sunways GmbH in Constance



2005

Sunways has established a dedicated manufacturing and production facility in Arnstadt



2021

Sunways expands into the 1–125 kW On-Grid and 3–33 kW Hybrid range, entering a new stage

2024

- Launched New Products: STS-3-6KTL-SE & STT-15-30KTL-SE
- Established India Office & Pakistan Service Center
- Awarded SGS Qualified Testing Lab



2001

Listing on the Frankfurt stock exchange



2018

Puze Group invested Sunways and started new products development at its advanced facility



2023

- Activate new manufacturing center
- launch new low-voltage hybrid series

2025

- Launched New Products:
- Low-voltage Hybrid Inverter STH-3~8KTL-LS
 - On-grid Inverter 100~150K

30th Anniversary

Why Sunways

6 Core Technologies + Sunways Cloud Platform

AI-driven technologies integrated into one smart energy platform for monitoring, dispatch, trading, and grid adaptation.



Why Sunways

Advanced R&D Capabilities

International R&D Team

8%⁺

R&D investment

50%⁺

R&D personnel ratio

100⁺

Patent Certificate



Frankfurt R&D Center, Germany



Suzhou R&D Center, China



On-grid inverter R&D team



Hybrid inverter R&D team



Energy storage R&D team

Advanced R&D Equipment



Solar simulator



Power grid simulator / AC analog power supply



Battery simulator / bidirectional DC power supply



Multi functional power analyzer



Digital signal oscilloscope



AC/DC electronic load



AC/DC voltage withstand tester



Anti islanding test load



Automatic Test Equipment (ATE)

Why Sunways

Germany industry 4.0 smart factory



60,000 m²
production base



Smart
Workshop



Automated Robotic Arm
Production Line



Smart Robotic
Workshop



Product assembly
line



Product assembly
line



Product assembly
line



Load aging
center



Finished product
testing area



Functional testing
line

Quality data visualization dashboard



Full-process Quality
Control

Real-time Data
Monitoring

Continuous
Improvement and
Enhancement

Why Sunways

Recognized by authoritative institutions worldwide

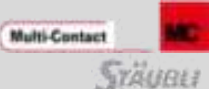
Collaboration with globally authoritative testing institutions



Product certification covers over 150+ countries

EN		EMC	IEC	IP	UN38.3		IEC/EN62109-1/2 AS/NZS4777.2:2020 AS 60947.3:2020
		4105					
		CEI:016	CEI:021				
		G98	G99				MEA PEA IEC62920
		VDE0126	VFR 2019	DIN VDE 0216-1-1			IS16169 & IS16221 IEC 61727 IEC 62116 IEC 60068-2-1/2/14/30 IEC 61683 IS17980: 2022 IEC 62891:2020
		UNE217001	UNE217002	RD647	PVVC P.O.12.3 NTS631 EMC61000		
		PN50549-1:2019	2016/631(NC RfG)				ORDIANCE NO.140 & 515 IEC61727 IEC/EN62109-1/-2 IP66
		OVER25	TOR Erzeuger(Austria)				PPDS
		C10:11					

Strategic partners

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Present products

ON-GRID INVERTER



Residential Commercial C & I Utility Scale

1kW~170kW

HV HYBRID INVERTER



Residential Commercial

3 ~ 80kW

LV HYBRID INVERTER



3-20kW

HV BATTERY



5.12-216kWh

LV BATTERY



Residential

CHARGING STATION



EV Charging Station

7/11/22/44
30/40/60/80kW

MONITORING DEVICE



Single Inverter Monitoring

WiFi/LAN/GPRS/4G Module

MONITORING DEVICE



Multi Inverters Monitoring

Data Logger

EXPORT LIMIT CONTROL



Single Inverter Export Control

Smart Meter/Energy Manager

EXPORT LIMIT CONTROL



Multi Inverters Export Control

DTS Meter

Product family

Hybrid Inverter Series



LV Single-phase Hybrid

STH-3~8KTL-LS

LV Three-phase Hybrid

STH-5~20KTL-LT

HV Single-phase Hybrid

STH 3~3.6KTL-HSS
STH 4~8KTL-HS

HV Three-phase Hybrid

STH 4~12KTL-HT-P
STH 15~33KTL-HT
STH-40~80KTL-HT

On-Grid Inverter Series



Single-phase String

STS 1~3.3KTL-S-P
STS 3~6KTL-SE
STS 7.5~8KTL-SE
STS 7~11KTL

Three-phase String

STT 5~30KTL-SE
STT 30~60KTL
STT100~150KTL

HV Three-phase String

STT130~170KTL-HV

LV Three-phase String

STT-10~20KTL-SE-LV
STT-15~37.5KTL-LV
STT-55~80KTL-SE-LV

Batteries



LV Battery

STE-MS 5 5.12kWh
STE-MS 10 10.24kWh
STE-MS L10kWh
STE-NS 16 16.4kWh
STE-OS 5~20kWh
STE-QS 16kWh

HV Battery

STE-BS 5~20KWh
STE-ES 5~30KWh
STE-FS 10~60KWh
STE-GS 96kWh
STA-HT 125/261
STA-HT 215/418



Charging Stations



AC

STP-7/11/22kW
STP-44kW

DC

STP-30kW
STP-40kW
STP-60kW
STP-80kW

Accessories



WIFI Module

GPRS Module

LAN Module

4G Module

Data Logger

Smart Meter

Energy Manager

LV hybrid inverter

STH-3~8KTL-LS
Single-phase



 **40~60V**
Battery Voltage Range

STH 5~20KTL-LT
Three-phase



 **40~60V**
Battery Voltage Range

HV hybrid inverter

STH-3~8KTL-HS
Single-phase



 **85~500V**
Battery Voltage Range

STH-4~12KTL-HT
Three-phase



 **140~750V**
Battery Voltage Range

STH-15~33KTL-HT
Three-phase



 **200~800V**
Battery Voltage Range

STH-40~80KTL-HT
Three-phase



 **200~950V**
Battery Voltage Range

ON-GRID inverter

STT-15~30KTL-SE
Three-phase



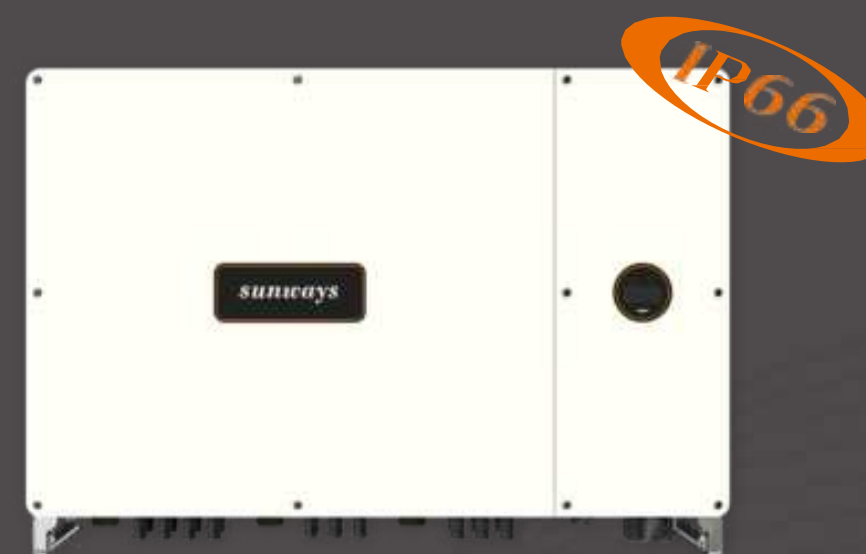
20A
Single string maximum
current input

STT-30~60KTL-M
Three-phase



16A
Single string maximum
current input

STT-80~110KTL
Three-phase



16A
Single string maximum
current input

STT-100~150KTL-SE
Three-phase



20A
Single string maximum
current input

HV lithium battery

STE-ES 5~30kWh Stacking HV



Nominal capacity
5.12kWh
(102.4V* 50Ah)

Cycle life @ 90% DoD
6000

STE-FS 10~61kWh Stacking HV



Nominal capacity
10.24kWh
(102.4V* 100Ah)

Cycle life @ 90% DoD
6000

LV lithium battery

STE-MS 5/10.2kWh
Wall-mounted



6000

Cycle life @ 90% DoD

44~58.4

rated voltage(V)

16

Maximum parallel operation

100A/150A

Max Charge and discharge current

STE-NS16 16.4 kWh
floor standing



6000

Cycle life @ 90% DoD

44~58.4

rated voltage(V)

16

Maximum parallel operation

51.2V 320AH

Nominal capacity

200A

Max Charge and discharge current

STE-OS 5~20kWh
Stackable Batteries



6000

Cycle life @ 90% DoD

44~58.4

rated voltage(V)

3

Maximum parallel operation

51.2V 100AH

Nominal capacity

100-120A

Max Charge and discharge current

STE-QS 16kWh
free standing



8000

Cycle life @ 10 + years

51.2

rated voltage(V)

15

Maximum parallel operation

51.2V 314AH

Nominal capacity

200A

Max Charge and discharge current

C&I ESS

STE-GS 96kWh



Nominal capacity
96.5kWh

Rated Voltage
307.2V

STA-HT 125/261kWh



Nominal capacity
261kWh

Rated Voltage
832V

STA-HT 215/418kWh



Nominal capacity
418kWh

Rated Voltage
1331.2V

Charging station

**STP-7/11/22kW
AC**



**220V/380V
Input voltage**

**STP-44kW
AC**



**220V/380V
Input voltage**

**STP-30kW
DC**



**400V
Input voltage**

**STP-40kW
DC**



**400V
Input voltage**

**STP- 60kW
DC**



**400V
Input voltage**

**STP-80kW
DC**



**400V
Input voltage**

ACCESSORIES

WIFI/LAN/GPRS/4G Accessories



WIFI

LAN

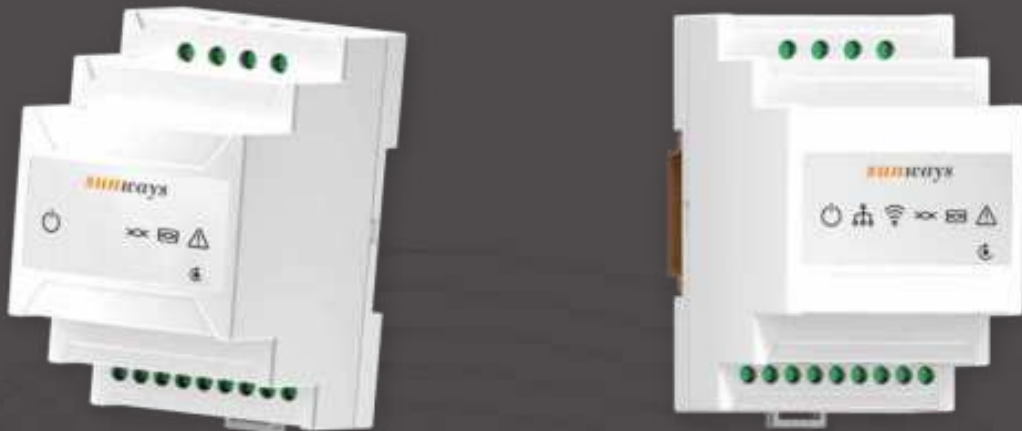
GPRS/4G

Data Logger



ST Logger 1000

Smart Meter/Energy Manager STM/STK



STM Smart Meter

STK Energy Manager

Monitoring portal

Web Monitoring Portal:
www.Sunways-portal.com



App: Sunways Portal
Google play & Apple store



One click
diagnose
devices



Multi-
dimensional
data
visualization



Customized
dynamic data &
energy flow
presentation



Support
multiple
languages
operation



One App for all
roles, UI auto
changed
according to
user's role



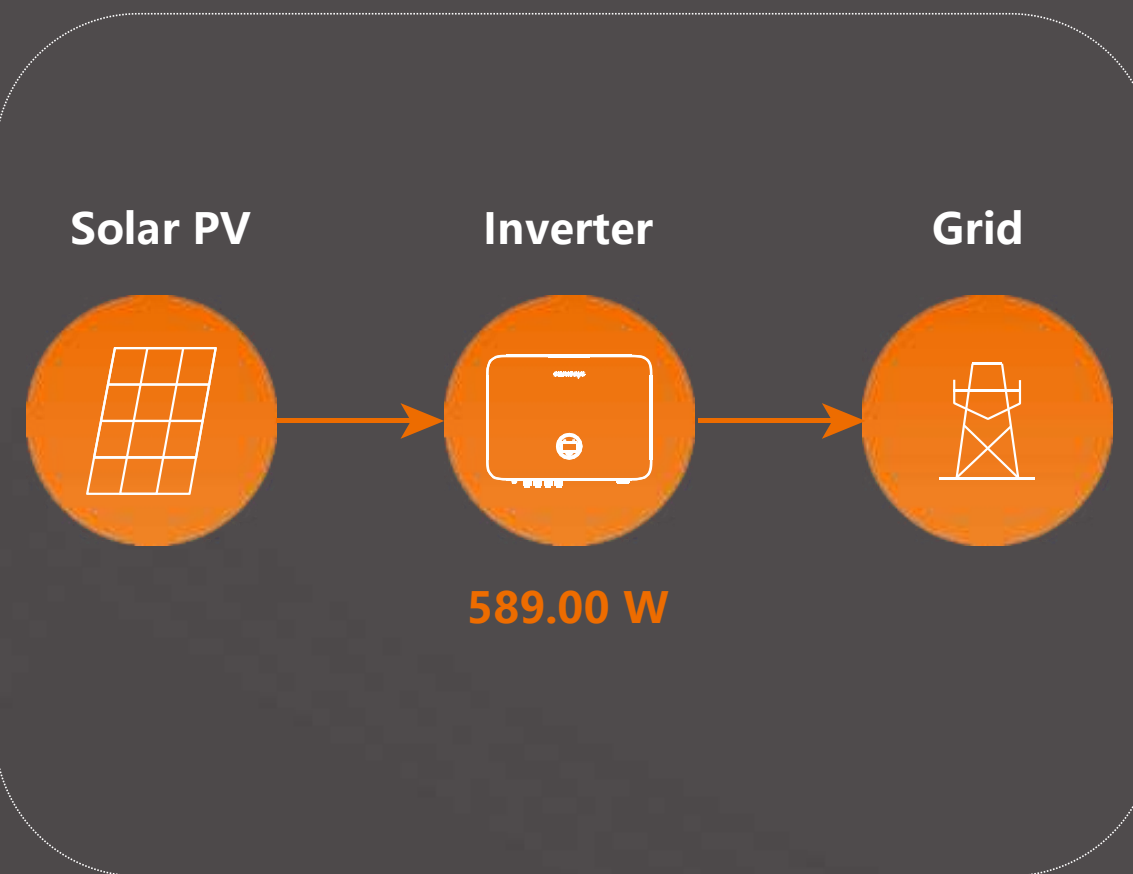
Rich data
analysis-
Realtime/Daily/
Monthly/Yearly



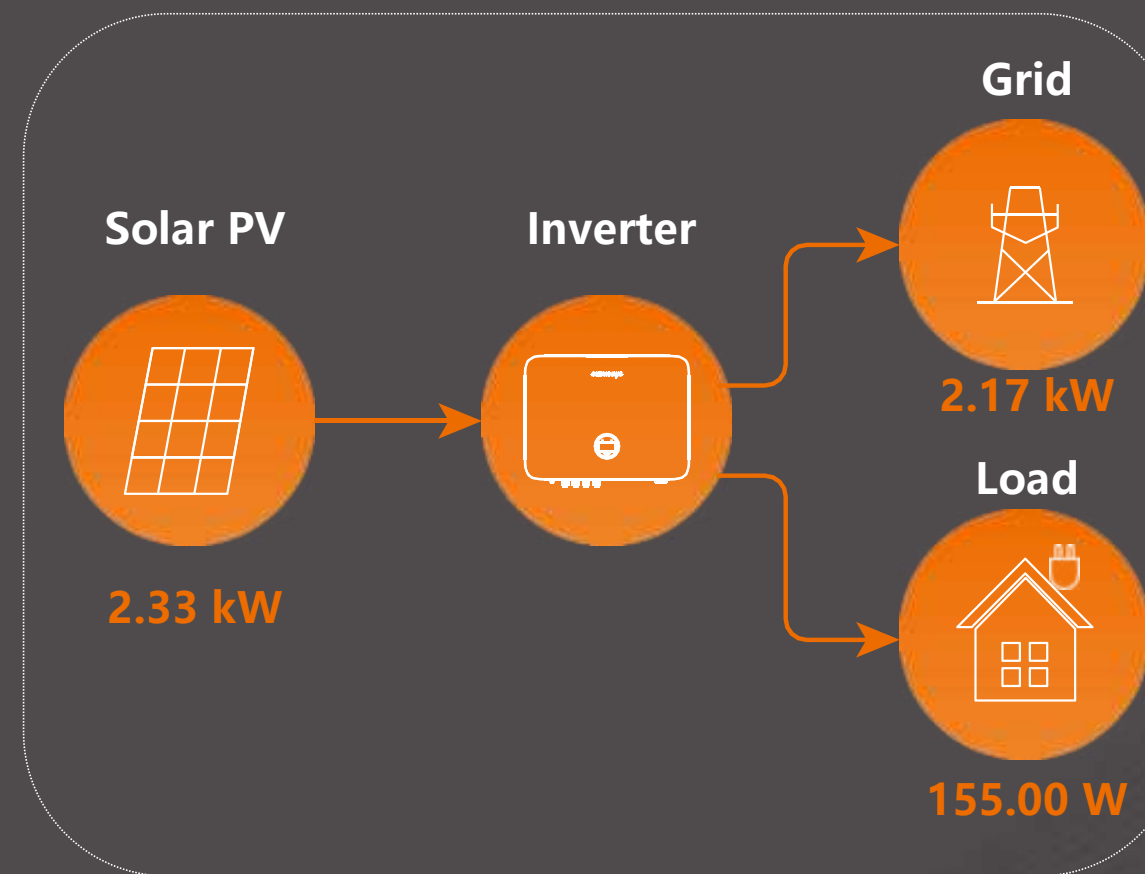
Check and
manage your
plant at
anytime
anywhere

Monitoring portal

On-Grid Inverter

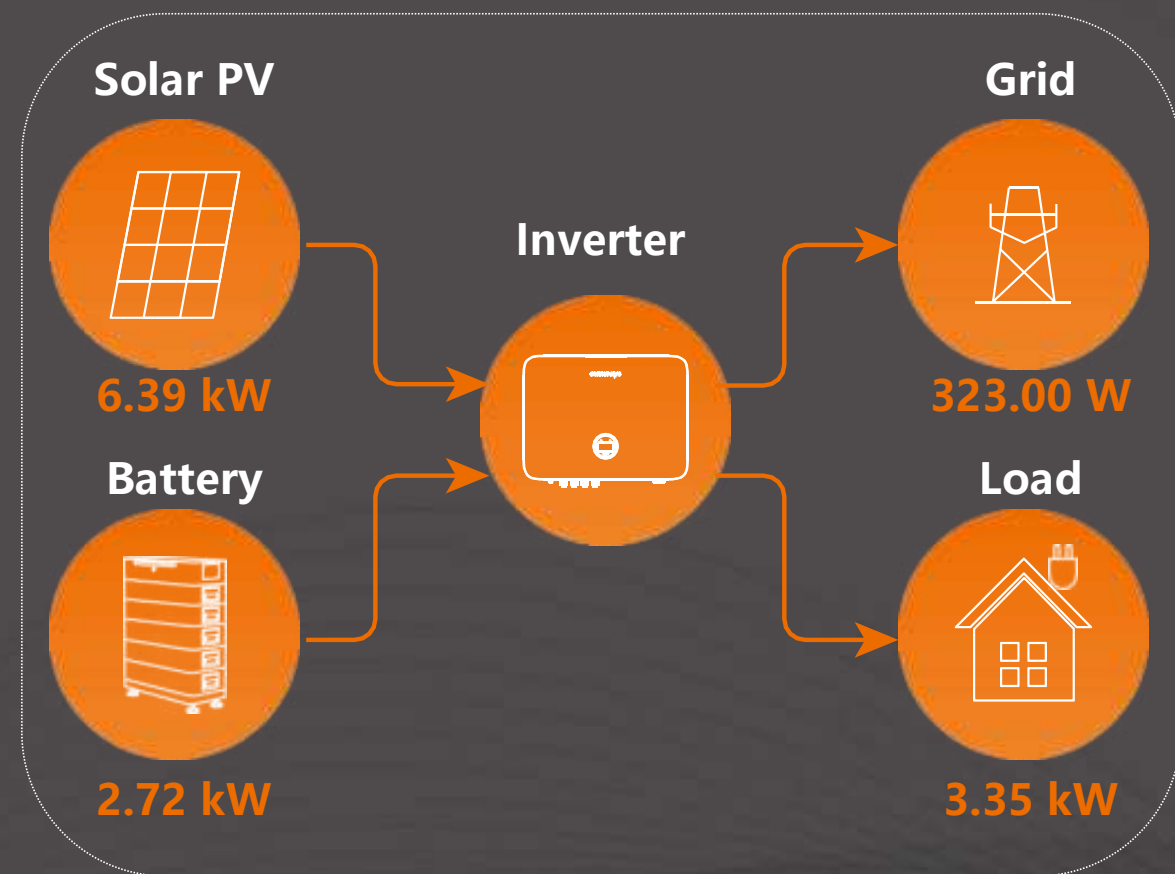


Monitoring without Load



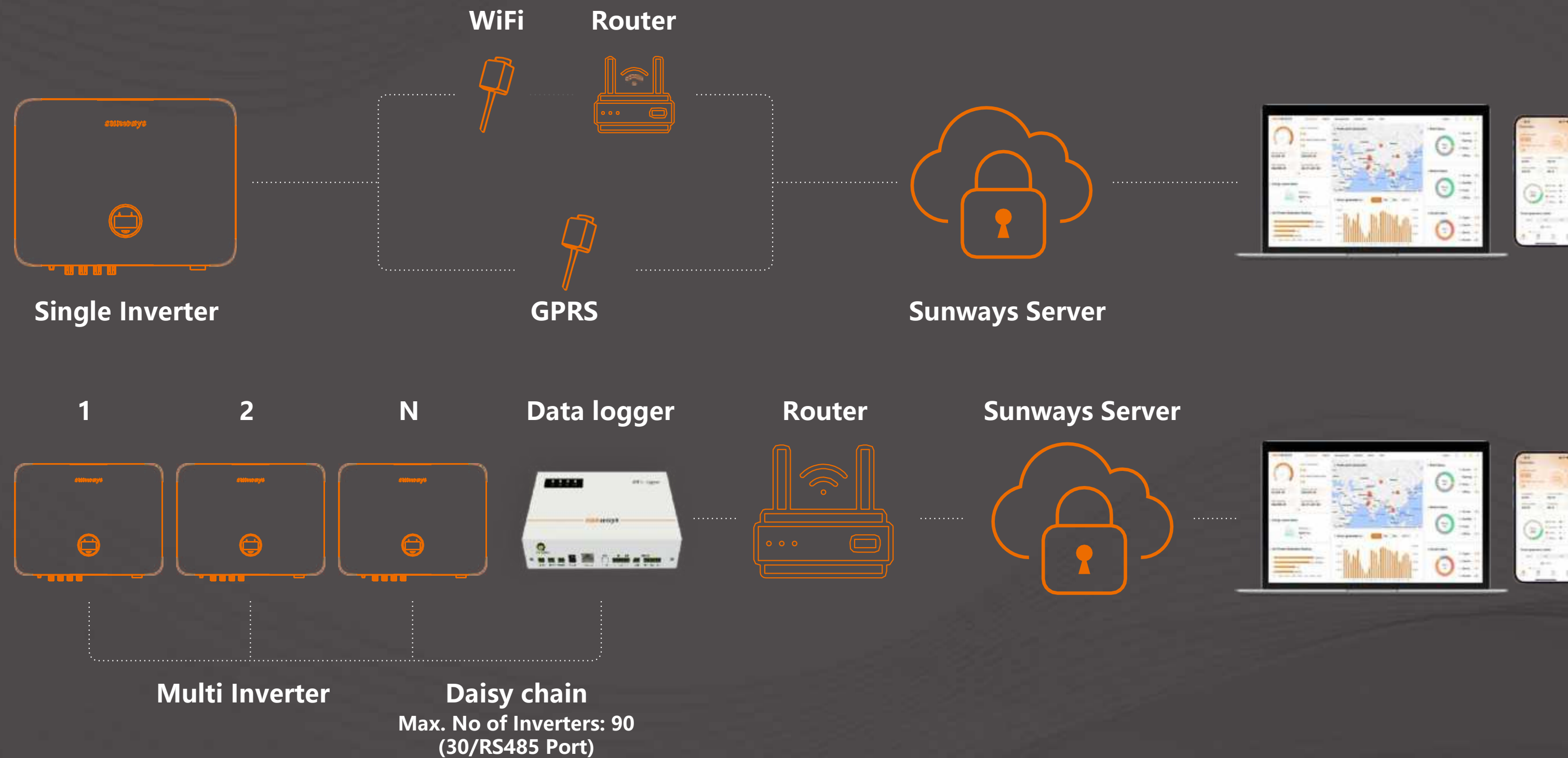
Monitoring with Load

Hybrid Inverter



Monitoring with Load

Monitoring devices



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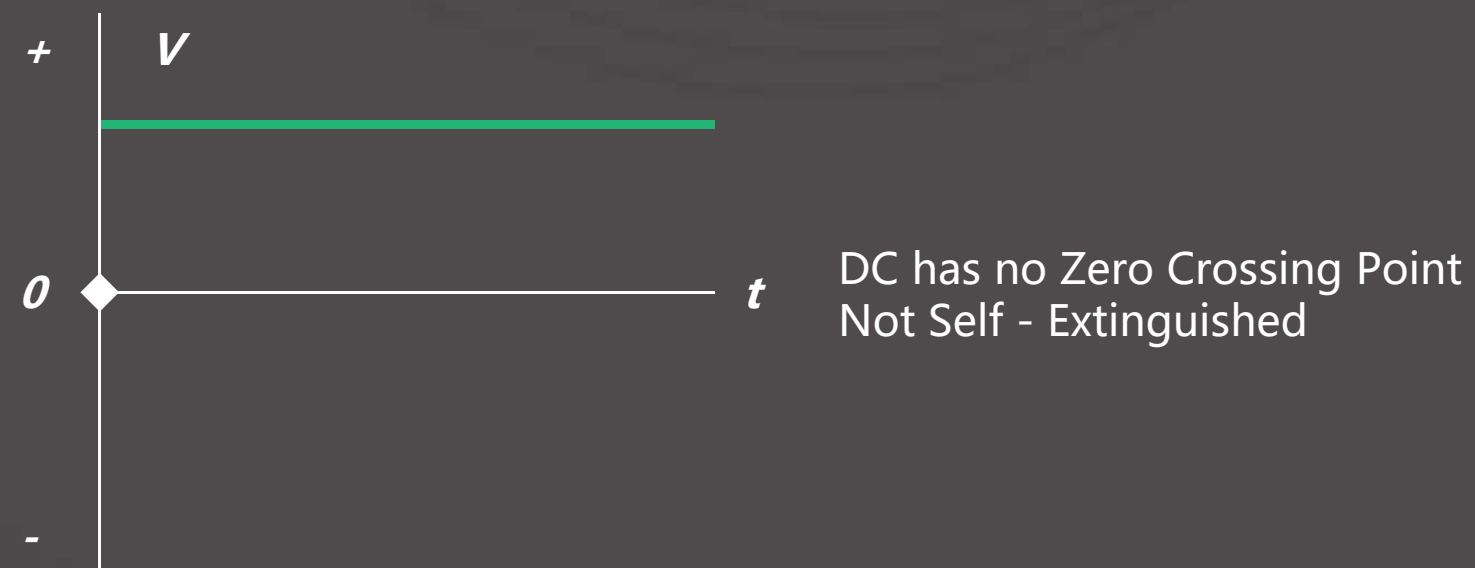
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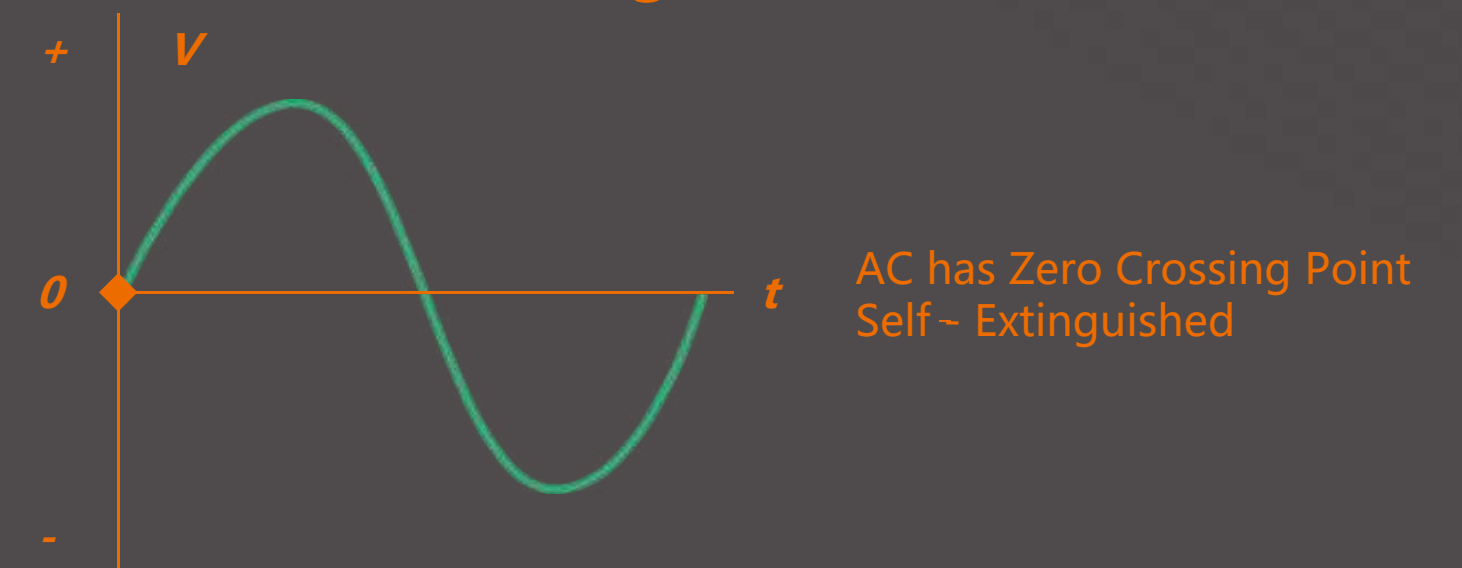


AFCI function

Direct Current (DC)



Alternating Current (AC)



Sunways AFCI

Ensure Fast Response & Accuracy

200 Meter
Maximum Detection Range

50 ms
Fault Detecting Time

500 ms
Cutting of Power

DC ARC

Damage Cable, Loose Connection

99%

ACCURACY

IN-built surge protection

Sunways inverter equipped with surge protection devices on both AC and DC sides

Residential Inverter

- DC side surge protection use the series method of MOV
- AC side surge protection use the series method of MOV and GDT

C & I Inverter

- DC side surge protection use the series method of MOV
- AC side surge protection use the series method of SPD module

MOV Certification

IEC 61051-1:2007, 61051-2:1991/A1:2009, IEC61051-2-2:1991, DIN EN 61051-1:2009, UL 1449 standards, TUV/UL/CQC certification according to UL Standard.

GDT Certification

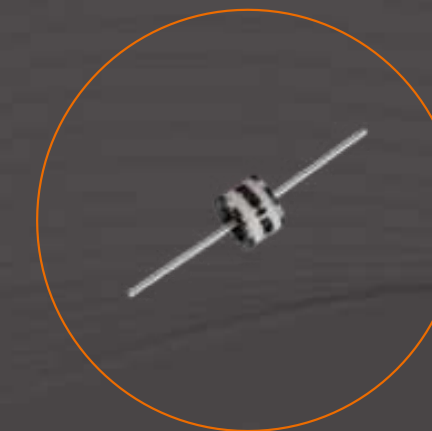
IEC 61643-311:2014-02, EN 61643-311:2013, UL 1449 Standards, TUV/UL/CQC certification according to UL standard.

SPD Certification

EN 61643-11:2012, EN 50539-11:2013, UL 1449 stand, TUV/UL certification.



MOV 821KD20



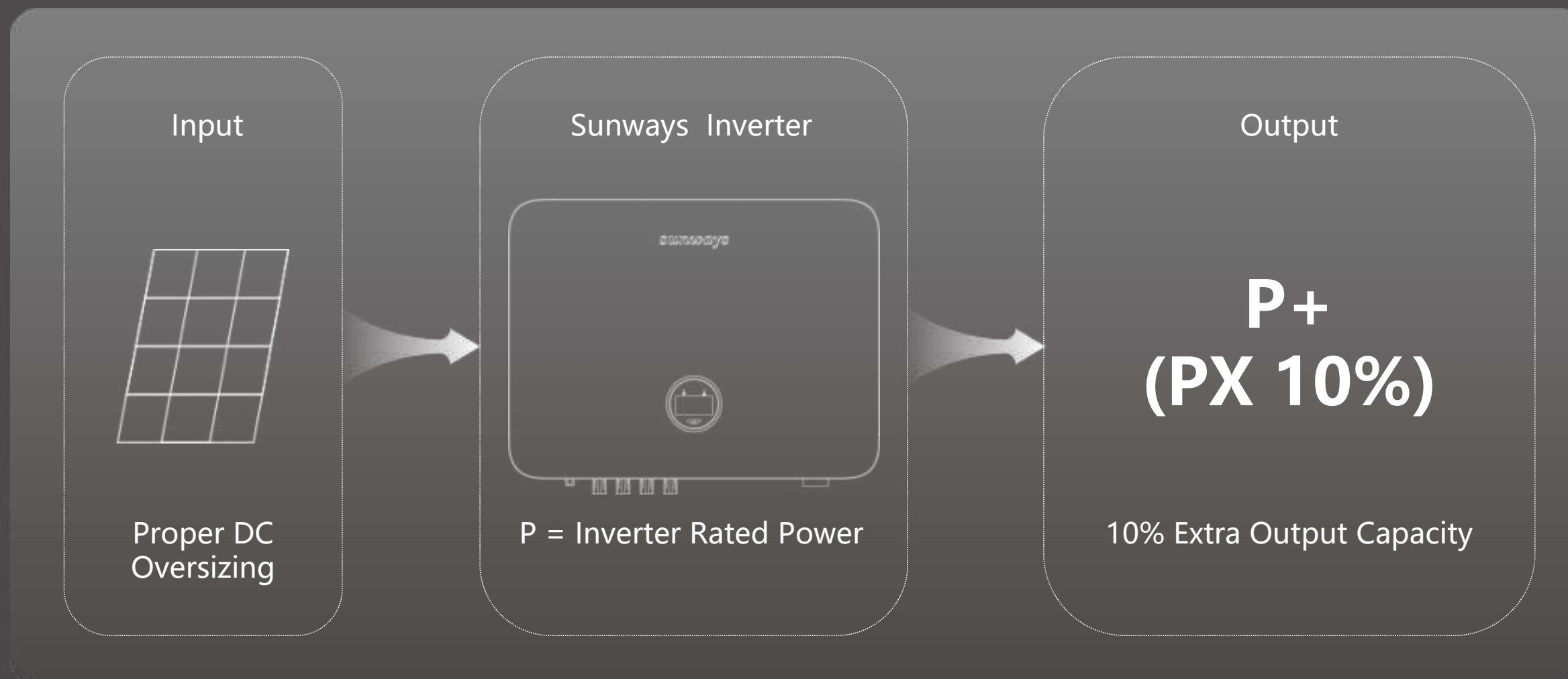
GDT 2RP075L-8



SPD PV20K-500

BUILT-IN overloading capacity

Circuit board design with 10%
extra output capacity



Installer Economic Benefit



Generation

Increase Solar Plant Energy Yield



kWh PRICE

Reduce Solar Plant LCOE



Pay Back Period

Ensure Faster Investment Pay Back Period

Protection degree

Sunways Inverter Suitable for Both Indoor & Outdoor Installation

IP66 & IP65 - COMPLETE DUST PROTECTION

IP65

IP65- Protection against low-pressure water jets

IP66

IP66- Protection AGAINST HIGH-PRESSURE WATER JETS FROM ANY DIRECTION

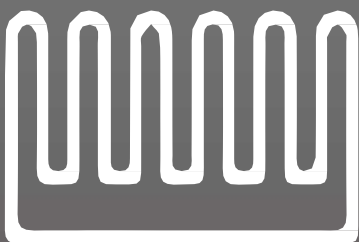
Inverter	On-grid Inverter			HV Hybrid Inverter		LV Hybrid Inverter
	Residential	Commercial	C & I, Utility	Residential	Commercial	Residential
Protection Degree	IP66 & IP65	IP66	IP66	IP65	IP65	IP66 & IP65

Heat dissipation technology

Passive Cooling Technology

Natural Convection

HEAT SINK



Made by Aluminium



Large Surface Area



Proper fin design



Use high quality TIM

ON-GRID INVERTER

Single Phase: 1~8kW Three Phase: 4~12kW

HV HYBRID INVERTER

Single Phase: 3~8kW Three Phase: 4~12kW

LV HYBRID INVERTER

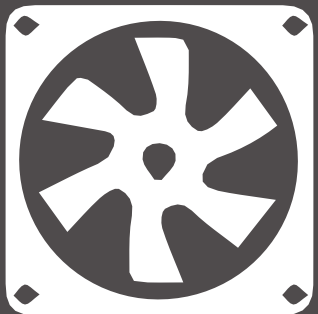
Single Phase: 3~5kW

Active Cooling Technology

Forced Fan Cooling

HEAT SINK + FANS

Fans for cooling Heatsink
Fans for Internal Air Circulation



IP68 Smart Fan

Sunways use IP68 level fans with high power, deliver great performance for outdoor environment, especially in dusty areas and deserts.

ON-GRID INVERTER

Single Phase: 9~11kW Three Phase: 15~200kW

HV HYBRID INVERTER

Three Phase: 15~33kW

LV HYBRID INVERTER

Single Phase: 6~8kW

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Residential ESS projects

20kW PV storage project



Location: Germany
Inverter: Sunways STH-10KTL-HT
STE-BS 10kWh

16kW PV storage project



Location: Germany
Inverter: Sunways STH-8KTL-HT
STE-BS 15kWh

5kW PV storage project



Location: Germany
Inverter: Sunways STH-10KTL-HT STE-ES
STE-BS 7.5kWh

8kW PV storage project



Location: Italy
Inverter: Sunways STH-8KTL-HT
STE-BS 15kWh

6kW PV storage project



Location: Italy
Inverter: Sunways STH-6KTL-HS STE-BS
STE-BS 15kWh

6kW PV storage project



Location: Italy
Inverter: Sunways STH 6KTL-LS
STE-OS 20kWh

Residential ESS projects

16kW PV storage project



Location: Sweden
Inverter: Sunways STH-8KTL-HT*2
STE-BS 15kWh

5kW PV storage project



Location: Netherlands
Inverter: Sunways STH-5KTL-HS
STE-BS 10kWh

10kW PV storage project



Location: Hungary
Inverter: Sunways STH-10KTL-HT
STE-BS 20kWh

10kW PV storage project



Location: Poland
Inverter: Sunways STH-10KTL-HT
STE-BS 7.5kWh

12kW PV storage project



Location: China
Inverter: Sunways STH-12KTL-HT
STE-ES 20kWh

6kW PV storage project



Location: Afghanistan
Inverter: Sunways STH-6KTL-HT
STE-MS 5kWh

Residential ESS projects

10kW PV storage project



Location: India
Inverter: Sunways STH-10KTL-HT
STE-BS 10kWh

6kW PV storage project



Location: Sri Lanka
Inverter: Sunways STH-6KTL-LS-P
STE-MS5

6kW PV storage project



Location: Sri Lanka
Inverter: Sunways STH-6KTL-LS-P
STE-MS5

6kW PV storage project



Location: Vietnam
Inverter: Sunways STH-6KTL-LS-P
STE-MS5

8kW PV storage project



Location: Vietnam
Inverter: Sunways STH-8KTL-HS
STE-BS10kWh

8kW PV storage project



Location: Jordan
Inverter: Sunways STH-8KTL-LS
STE-MS10

C&I ESS Projects

90kW PV storage project



Location: Germany
Inverter: Sunways 3×STH25KTL-HT+1×STH15KTL-HT
STE-ES20kWh

60kW PV storage project



Location: Germany
Inverter: Sunways STH-30KTL-HT
STE-BS20kWh

20kW PV storage project



Location: Germany
Inverter: Sunways STH-8KTL-HT STH-12KTL-HT
STE-BS10kWh

100kW PV storage project



Location: Italy
Inverter: Sunways STH-12KTL-HT*8
STE-BS20kWh*2

20kW PV storage project



Location: Italy
Inverter: Sunways STH-20KTL-HT
STE-FS40kWh

30kW PV storage project



Location: India
Inverter: Sunways STH-30KTL-HT
STE-FS60kWh

C&I PV projects

11.7MW Ground distributed project



Location: Germany
Inverter: Sunways STT110KTL

6.6MW Ground distributed project



Location: Italy
Inverter: Sunways STT-12KTL x 552

550kW Rooftop Project



Location: Moldova
Inverter: Sunways STT-100KTL

2.6MW Rooftop Project



Location: Bursa, Türkiye
Inverter: Sunways-STT 100KTL / STT 110KTL

2.5MW Ground distributed project



Location: Czech
Inverter: SunwaysSTT 110KTL

1MW Rooftop Project



Location: Czech
Inverter: Sunways-STT 110KTL

C&I PV projects

86kW Rooftop Project



Location: Sweden
Inverter: Sunways STT-60KTL

700kW Rooftop Project



Location: Ukraine
Inverter: Sunways STT-100KTL

910kW Rooftop Project



Location: Türkiye
Inverter: Sunways STT-50KTL STT-100KTL STT-110KTL

1.3MW Rooftop Project



Location: Spain

1.1MW Rooftop Project



Location: Brazil
Inverter: Sunways-STT 100KTL / STT 50KTL

900kW Rooftop Project



Location: Sri Lanka
Inverter: Sunways STT-110KTL / STT 80KTL / STT 50KTL-M

C&I PV projects

330kW Rooftop Project



Location: Bangladesh
Inverter: Sunways STT-110KTL x 3

32kW Rooftop Project



Location: Jordan
Inverter: Sunways STS-3.6KTL

675kW Rooftop Project



Location: Pakistan
Inverter: Sunways STT-125KTL-HV x 4

1.365MW Rooftop Project



Location: Xilin, Indonesia
Inverter: Sunways STT-110KTL

135kW Rooftop Project



Location: Albania
Inverter: Sunways-STT 20KTL STT 80KTL

3.16MW Rooftop Project



Location: China
Inverter: Sunways STT-60KTL x 48

C&I PV projects

120kW Rooftop Project



Location: Tzaneen, South Africa
Inverter: Sunways STT-17KTL x 8

50kW Rooftop Project



Location: Casablanca, Morocco
Inverter: Sunways STT-25KTL x 2

100kW Rooftop Project



Location: Yerevan, Armenia
Inverter: Sunways STT-100KTL x 1

Residential PV Projects

15kW Rooftop Project



Location: Dhaka, Bangladesh
Inverter: Sunways STT-15KTL x 1

60kW Rooftop Project



Location: Croatia
Inverter: Sunways STT-60KTL

20kW Rooftop Project



Location: Sri Lanka
Inverter: Sunways -STT 20KTL

5kW Rooftop Project



Location: Jakarta, Indonesia
Inverter: Sunways STS-5KTL x 1

Residential PV Projects

3.3kW Rooftop Project



Location: India
Inverter: Sunways -STT 3.3KTL-S

15kW Rooftop Project



Location: Australia
Inverter: Sunways -STT 5KTL

13kW Rooftop Project



Location: Manila, Philippines
Inverter: Sunways STS 5KTL / STS 8KTL

10kW Rooftop Project



Location: Pakistan
Inverter: Sunways -STS 10KTL

Residential PV Projects

12kW Rooftop Project



Location: Türkiye
Inverter: Sunways STT-10KTL

8kW Rooftop Project



Location: Brazil
Inverter: Sunways -STS 3KTL-S / STS 5KTL

8kW Rooftop Project



Location: Tunisia
Inverter: Sunways -STS 3KTL

3.6kW Rooftop Project



Location: Jordan
Inverter: Sunways -STS 3KTL

30kW Rooftop Project



Location: Morocco
Inverter: Sunways STT-10KTL STT-20KTL

THANK YOU

CONTACT US



Network monitoring portal website:
www.Sunways-portal.com



App: Sunways Portal
Google play & Apple store
(Operating System: Android 8, IOS 9 Or higher version)



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Sunways Portal