

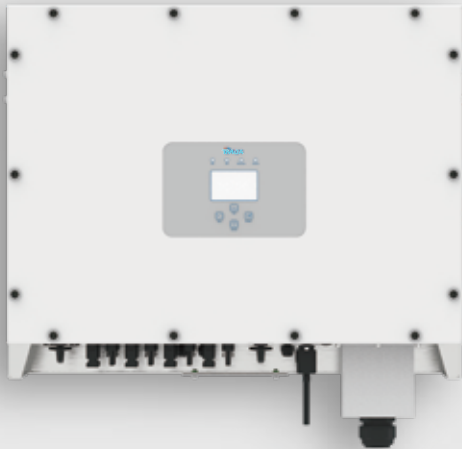
TMDA Inverter Portfolio



Single Phase
String Inverter



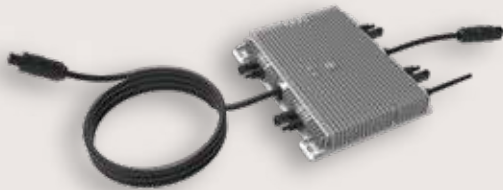
Three Phase
String Inverter



Three Phase
String Inverter (LV)



Single Phase
Hybrid Inverter



Microinverter



Three Phase
Hybrid Inverter



Accessory &
monitoring

Milestones

2021

Deye Group was successfully listed on SSE of China in 2021, Stock Code 605117.SH.

30,000 pcs +

By the end of 2019, with total shipments 30,000+, Deye hybrid inverter has become Top 3 in South Africa, Pakistan and Top 1 Chinese brand in USA.

2017

Deye has launched first generation hybrid inverter and attracted a lot of attention with many unique features such as V/f droop control technology and battery DC / DC topology etc...

2007

Founded in 2007 with registered capital of 46 million USD.

LIMITLESS

Core Technology

TMDA hybrid inverter 3-12kW with
208/230/240/400Vac

4	Automatic switching time 4ms
6	6 time periods for battery charging/discharging
16	V/f droop control, Max. 16pcs in parallel
24	Supports using diesel generator to charge battery directly, ensuring system energy supply 7* 24H
95.5	Max. conversion efficiency of 97.6%; Max. battery charge efficiency of 95.5%
240	Max. charging/discharging current of 240A



Capable | Intelligent | User-friendly | Safety
Reduce your electricity bill and improve your energy independence
Your ideal residential solar energy storage solution

Core Features

TMDA grid-connected inverter 1-110kW

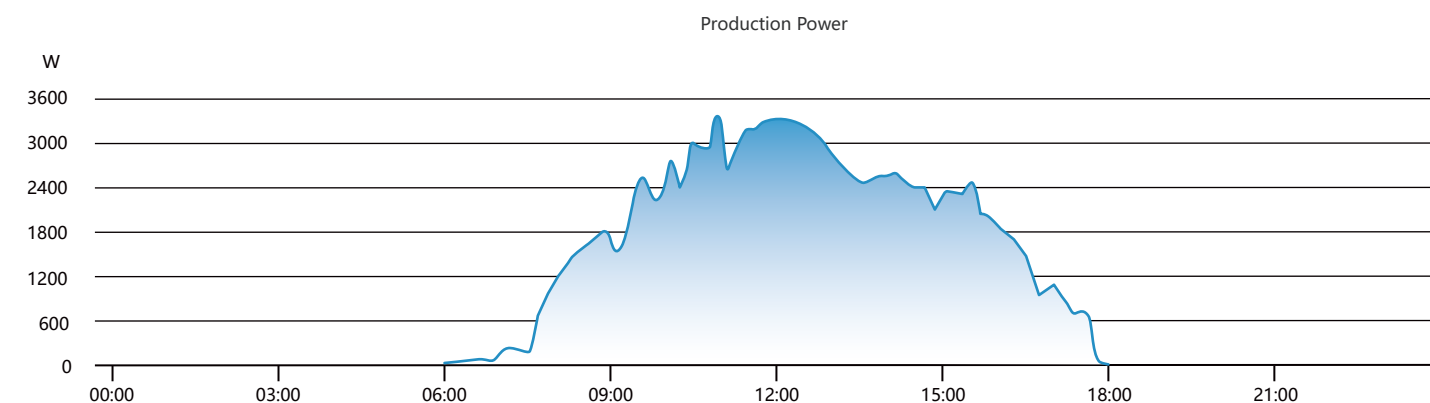
- ✓ Max. 8 MPP trackers, Max. efficiency up to 98.9%
- ✓ High DC/AC ratio 1.5 times for more yields
- ✓ Wide output voltage range 277-520Vac
- ✓ Zero export application, response speed within 0.5S
- ✓ T-type three-level topology and enhanced SVPWM
- ✓ Type II DC / AC SPD, frequency droop control technology
- ✓ Max. DC input current of 16A/string, adapt to 600W solar panel
- ✓ String intelligent monitoring (optional), Ani-PID function (Optional)



Main Highlights

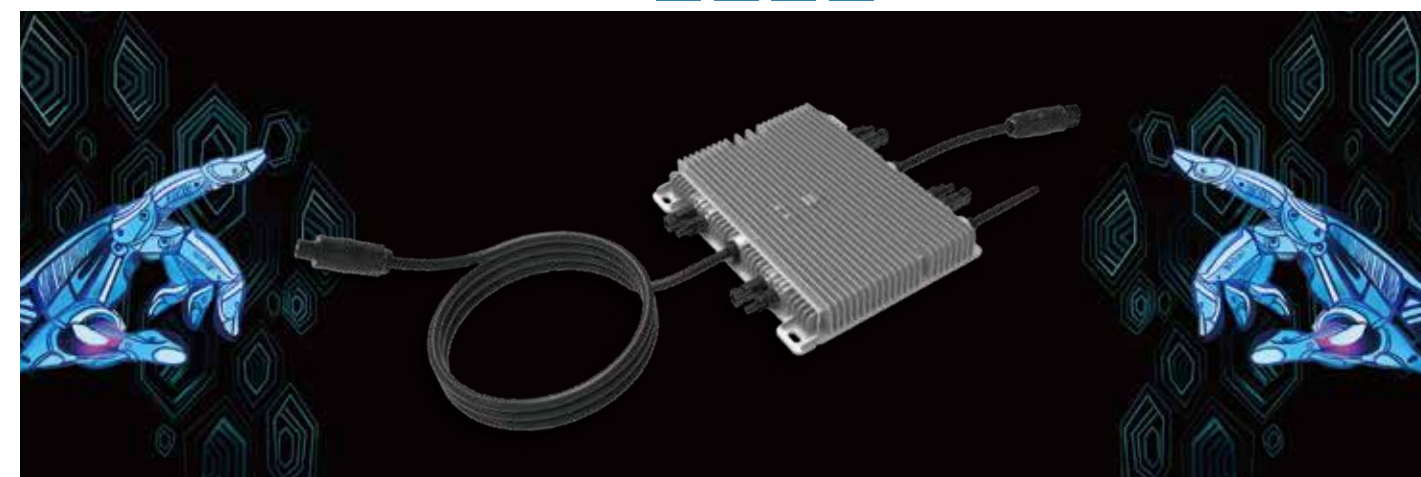
TMDA microinverter 300-2000W

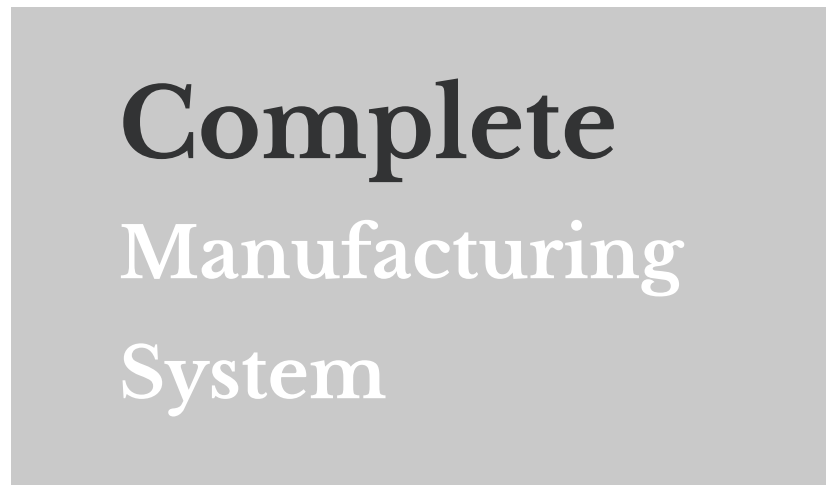
- ◆ Support reactive power compensation, comply with UL code.
- ◆ Module level monitoring, Max. 4 MPPTs design
- ◆ Max. DC input current 13A, adapt to 550W PV module
- ◆ Rapid shutdown function, safe and reliable
- ◆ PLC, Zigbee or WIFI communication
- ◆ IP67 protection degree, 10 years warranty



Physical Layout

0W	200W	180W	150W
170W	170W	280W	250W
270W	280W	260W	240W





World-Class Components Suppliers

TMDA chooses world-class suppliers to ensure the high quality of its products.

MOSFET, IGBT



IC



Capacitor, Inductor



Diode



Relay



FAN



Single Phase String Inverter

TM1K6-1P/ 3K-G



1 MPP tracker, Max. efficiency up to 97.5%



Zero export application, VSG application



String intelligent monitoring (optional)



Wide output voltage range



Anti-PID function (Optional)



Low start-up voltage of 80V



Build in AFCI



Rapid Shutdown system (Optional)

Technical Data

Model	TM1K6-1P	SUN-3K-G
Input Side		
Max. DC Input Power (kW)	2	3.9
Max. DC Input Voltage (V)	550	
Start-up DC Input Voltage (V)	80	
MPPT Operating Range (V)	70~500	
Max. DC Input Current (A)	13	
Max. Short Circuit Current (A)	19.5	
Number of MPPT / Strings per MPPT	1/1	
Output Side		
Rated Output Power (kW)	1.6	3
Max. Active Power (kW)	1.7	3.3
Nominal Output Voltage / Range (V)	L/N/PE 220V/187V-242V, 230V/ 195.5V-253V (Optional)	
Rated Grid Frequency (Hz)	50 / 60 (Optional)	
Operating Phase	Single phase	
Rated AC Grid Output Current (A)	6.5	13
Max. AC Output Current (A)	7.2	14.3
Output Power Factor	0.8 leading to 0.8 lagging	
Grid Current THD	<3%	
DC Injection Current (mA)	<0.5%	
Grid Frequency Range	47~52 or 57~62 (Optional)	
Efficiency		
Max. Efficiency	97.3%	97.5%
Euro Efficiency	97.1%	97.3%
MPPT Efficiency	>99%	
Protection		
DC Reverse-Polarity Protection	Yes	
AC Short Circuit Protection	Yes	
AC Output Overcurrent Protection	Yes	
Output Overvoltage Protection	Yes	
Insulation Resistance Protection	Yes	
Ground Fault Monitoring	Yes	
Anti-islanding Protection	Yes	
Temperature Protection	Yes	
Integrated DC Switch	Yes	
Remote software upload	Yes	
Remote change of operating parameters	Yes	
Surge protection	DC Type II / AC Type II	
General Data		
Size (mm)	280W×272.5H×184D	
Weight (kg)	4.8	
Topology	Transformerless	
Internal Consumption	<1W (Night)	
Running Temperature	-25~65℃, >45℃ derating	
Ingress Protection	IP65	
Noise Emission (Typical)	<25 dB	
Cooling Concept	Natural cooling	
Max. Operating Altitude Without Derating	2000m	
Designed Lifetime	>20 years	
Grid Connection Standard	CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, VDE 0126-1-1, RD 1699, C10-11	
Operating Surroundings Humidity	0-100%	
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2	
Features		
DC Connection	MC-4 mateable	
AC Connection	IP65 rated plug	
Display	LCD1602	
Interface	RS485/RS232/Wifi/LAN	

PEA & MEA LIST



Single Phase String Inverter

SUN- 5 K-G



2 MPPT trackers, Max. efficiency up to 97.5%



Zero export application, VSG application



String intelligent monitoring (optional)



Wide output voltage range



Anti-PID function (Optional)



Low start-up voltage of 80V



Build in AFCI



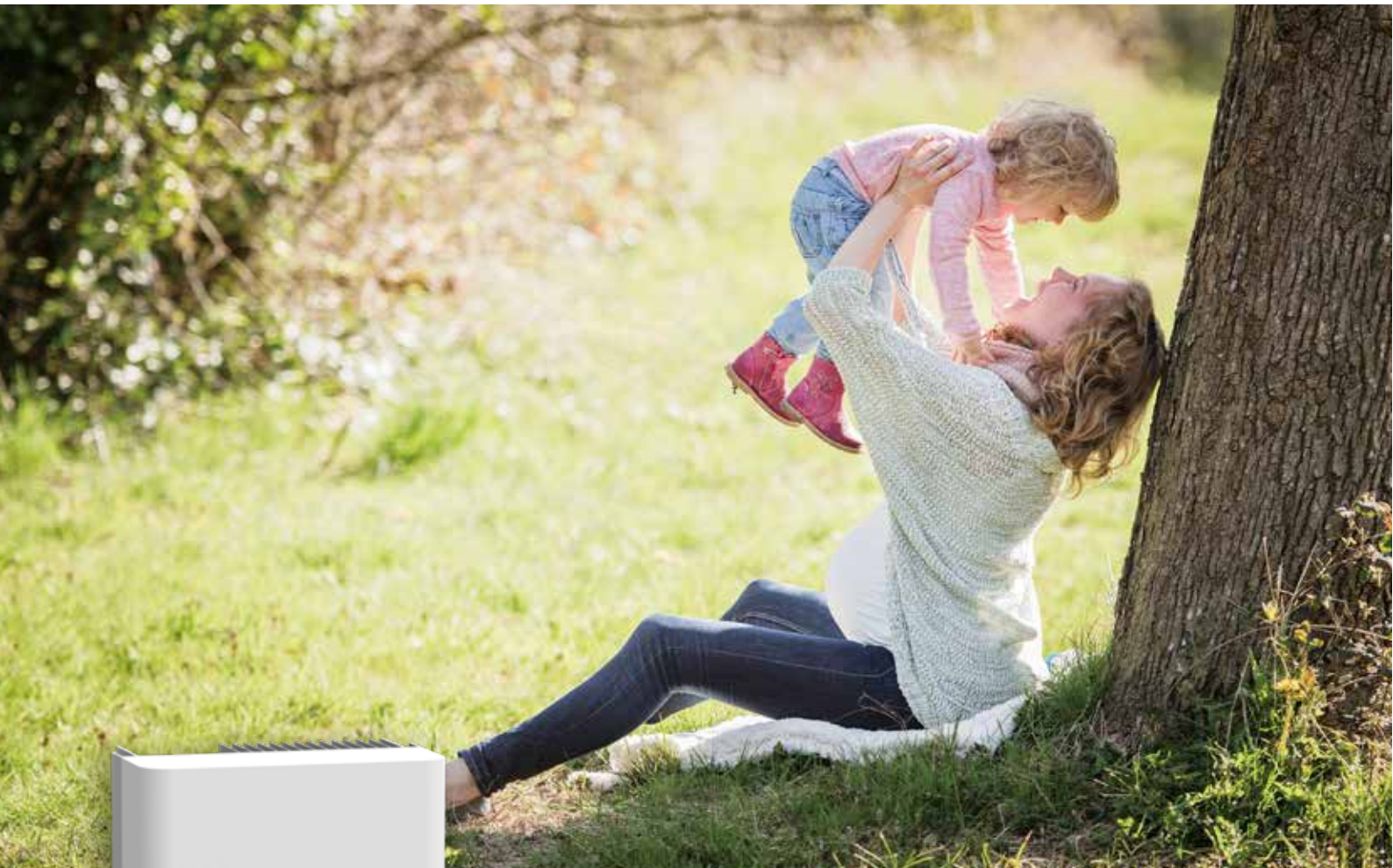
Rapid Shutdown system (Optional)

Technical Data

Model	SUN-5K-G
Input Side	
Max. DC Input Power (kW)	6.5
Max. DC Input Voltage (V)	550
Start-up DC Input Voltage (V)	80
MPPT Operating Range (V)	70~500
Max. DC Input Current (A)	13+13
Max. Short Circuit Current (A)	19.5+19.5
Number of MPPT / Strings per MPPT	2/1
Output Side	
Rated Output Power (kW)	5
Max. Active Power (kW)	5.5
Nominal Output Voltage / Range (V)	L/N/PE 220V/187V-242V, 230V/ 195.5V-253V (Optional)
Rated Grid Frequency (Hz)	50 / 60 (Optional)
Operating Phase	Single phase
Rated AC Grid Output Current (A)	21
Max. AC Output Current (A)	23.9
Output Power Factor	0.8 leading to 0.8 lagging
Grid Current THD	<3%
DC Injection Current (mA)	<0.5%
Grid Frequency Range	47~52 or 57~62 (Optional)
Efficiency	
Max. Efficiency	97.5%
Euro Efficiency	97.3%
MPPT Efficiency	>99%
Protection	
DC Reverse-Polarity Protection	Yes
AC Short Circuit Protection	Yes
AC Output Overcurrent Protection	Yes
Output Overvoltage Protection	Yes
Insulation Resistance Protection	Yes
Ground Fault Monitoring	Yes
Anti-islanding Protection	Yes
Temperature Protection	Yes
Integrated DC Switch	Yes
Remote software upload	Yes
Remote change of operating parameters	Yes
Surge protection	DC Type II / AC Type II
General Data	
Size (mm)	330W×323H×190D
Weight (kg)	7.5
Topology	Transformerless
Internal Consumption	<1W (Night)
Running Temperature	-25~65℃, >45℃ derating
Ingress Protection	IP65
Noise Emission (Typical)	<25 dB
Cooling Concept	Natural cooling
Max. Operating Altitude Without Derating	2000m
Designed Lifetime	>20 years
Grid Connection Standard	CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, VDE 0126-1-1, RD 1699, C10-11
Operating Surroundings Humidity	0-100%
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2
Features	
DC Connection	MC-4 mateable
AC Connection	IP65 rated plug
Display	LCD1602
Interface	RS485/RS232/Wifi/LAN

Single Phase String Inverter

SUN- 10 K-G



-  2 MPP trackers, Max. efficiency up to 97.7%
-  Zero export application, VSG application
-  String intelligent monitoring (optional)
-  Wide output voltage range
-  Anti-PID function (Optional)
-  Low start-up voltage of 80V
-  Build in AFCI
-  Rapid Shutdown system (Optional)

Technical Data

Model	SUN-10K-G
Input Side	
Max. DC Input Power (kW)	13
Max. DC Input Voltage (V)	550
Start-up DC Input Voltage (V)	80
MPPT Operating Range (V)	70~500
Max. DC Input Current (A)	26+26
Max. Short Circuit Current (A)	39+39
Number of MPPT / Strings per MPPT	2/2
Output Side	
Rated Output Power (kW)	10
Max. Active Power (kW)	11
Nominal Output Voltage / Range (V)	L/N/PE 220V/187V-242V, 230V/ 195.5V-253V (Optional)
Rated Grid Frequency (Hz)	50 / 60 (Optional)
Operating Phase	Single phase
Rated AC Grid Output Current (A)	43.5
Max. AC Output Current (A)	47.8
Output Power Factor	0.8 leading to 0.8 lagging
Grid Current THD	<3%
DC Injection Current (mA)	<0.5%
Grid Frequency Range	47~52 or 57~62 (Optional)
Efficiency	
Max. Efficiency	97.7%
Euro Efficiency	97.5%
MPPT Efficiency	>99%
Protection	
DC Reverse-Polarity Protection	Yes
AC Short Circuit Protection	Yes
AC Output Overcurrent Protection	Yes
Output Overvoltage Protection	Yes
Insulation Resistance Protection	Yes
Ground Fault Monitoring	Yes
Anti-islanding Protection	Yes
Temperature Protection	Yes
Integrated DC Switch	Yes
Remote software upload	Yes
Remote change of operating parameters	Yes
Surge protection	DC Type II / AC Type II
General Data	
Size (mm)	330W×410H×198.5D
Weight (kg)	15.7
Topology	Transformerless
Internal Consumption	<1W (Night)
Running Temperature	-25~65℃, >45℃ derating
Ingress Protection	IP65
Noise Emission (Typical)	<25 dB
Cooling Concept	Natural cooling
Max. Operating Altitude Without Derating	2000m
Designed Lifetime	>20 years
Grid Connection Standard	CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, VDE 0126-1-1, RD 1699, C10-11
Operating Surroundings Humidity	0-100%
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2
Features	
DC Connection	MC-4 mateable
AC Connection	IP65 rated plug
Display	LCD1602
Interface	RS485/RS232/Wifi/LAN

PEA & MEA LIST



Three Phase String Inverter

SUN- 6 / 10 K-G03



-  2 MPP trackers, Max. efficiency up to 98.3%
-  Zero export application, VSG application
-  String intelligent monitoring (optional)
-  Wide output voltage range
-  Anti-PID function (Optional)
-  Build in AFCI
-  Rapid Shutdown system (Optional)

Technical Data

Model	SUN-6K-G03	SUN-10K-G03
Input Side		
Max. DC Input Power (kW)	7.8	13
Max. DC Input Voltage (V)	1000	
Start-up DC Input Voltage (V)	140	
MPPT Operating Range (V)	120~850	
Max. DC Input Current (A)	13+13	
Max. Short Circuit Current (A)	19.5+19.5	
Number of MPPT / Strings per MPPT	2/1	
Output Side		
Rated Output Power (kW)	6	10
Max. Active Power (kW)	6.6	11
Nominal Output Voltage / Range (V)	3L/N/PE 380V/323V-418V, 400V/340V-440V	
Rated Grid Frequency (Hz)	50 / 60 (Optional)	
Operating Phase	Three phase	
Rated AC Grid Output Current (A)	8.7	14.5
Max. AC Output Current (A)	9.6	15.9
Output Power Factor	0.8 leading to 0.8 lagging	
Grid Current THD	<3%	
DC Injection Current (mA)	<0.5%	
Grid Frequency Range	47~52 or 57~62 (Optional)	
Efficiency		
Max. Efficiency	98.3%	
Euro Efficiency	97.5%	
MPPT Efficiency	>99%	
Protection		
DC Reverse-Polarity Protection	Yes	
AC Short Circuit Protection	Yes	
AC Output Overcurrent Protection	Yes	
Output Overvoltage Protection	Yes	
Insulation Resistance Protection	Yes	
Ground Fault Monitoring	Yes	
Anti-islanding Protection	Yes	
Temperature Protection	Yes	
Integrated DC Switch	Yes	
Remote software upload	Yes	
Remote change of operating parameters	Yes	
Surge protection	DC Type II / AC Type II	
General Data		
Size (mm)	330W×457H×185D	
Weight (kg)	10	
Topology	Transformerless	
Internal Consumption	<1W (Night)	
Running Temperature	-25~65℃, >45℃ derating	
Ingress Protection	IP65	
Noise Emission (Typical)	<25 dB	
Cooling Concept	Natural cooling	
Max. Operating Altitude Without Derating	2000m	
Designed Lifetime	>20 years	
Grid Connection Standard	CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, VDE 0126-1-1, RD 1699, C10-11	
Operating Surroundings Humidity	0-100%	
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2	
Features		
DC Connection	MC-4 mateable	
AC Connection	IP65 rated plug	
Display	LCD1602	
Interface	RS485/RS232/Wifi/LAN	

Three Phase String Inverter

SUN- 15 K-G03



-  2 MPP trackers, Max. efficiency up to 98.5%
-  Zero export application, VSG application
-  String intelligent monitoring (optional)
-  Wide output voltage range
-  Anti-PID function (Optional)
-  Build in AFCI
-  Rapid Shutdown system (Optional)

Technical Data

Model		SUN-15K-G03
Input Side		
Max. DC Input Power (kW)	19.5	
Max. DC Input Voltage (V)	1000	
Start-up DC Input Voltage (V)	250	
MPPT Operating Range (V)	200~850	
Max. DC Input Current (A)	13+26	
Max. Short Circuit Current (A)	19.5+39	
Number of MPPT / Strings per MPPT	2/1+2	
Output Side		
Rated Output Power (kW)	15	
Max. Active Power (kW)	16.5	
Nominal Output Voltage / Range (V)	3L/N/PE 380V/323V-418V, 400V/340V-440V	
Rated Grid Frequency (Hz)	50 / 60 (Optional)	
Operating Phase	Three phase	
Rated AC Grid Output Current (A)	21.7	
Max. AC Output Current (A)	23.9	
Output Power Factor	0.8 leading to 0.8 lagging	
Grid Current THD	<3%	
DC Injection Current (mA)	<0.5%	
Grid Frequency Range	47~52 or 57~62 (Optional)	
Efficiency		
Max. Efficiency	98.5%	
Euro Efficiency	97.5%	
MPPT Efficiency	>99%	
Protection		
DC Reverse-Polarity Protection	Yes	
AC Short Circuit Protection	Yes	
AC Output Overcurrent Protection	Yes	
Output Overvoltage Protection	Yes	
Insulation Resistance Protection	Yes	
Ground Fault Monitoring	Yes	
Anti-islanding Protection	Yes	
Temperature Protection	Yes	
Integrated DC Switch	Yes	
Remote software upload	Yes	
Remote change of operating parameters	Yes	
Surge protection	DC Type II / AC Type II	
General Data		
Size (mm)	333W×472H×202D	
Weight (kg)	15	
Topology	Transformerless	
Internal Consumption	<1W (Night)	
Running Temperature	-25~65℃, >45℃ derating	
Ingress Protection	IP65	
Noise Emission (Typical)	<40 dB	
Cooling Concept	Smart cooling	
Max. Operating Altitude Without Derating	2000m	
Designed Lifetime	>20 years	
Grid Connection Standard	CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, VDE 0126-1-1, RD 1699, C10-11	
Operating Surroundings Humidity	0-100%	
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2	
Features		
DC Connection	MC-4 mateable	
AC Connection	IP65 rated plug	
Display	LCD1602	
Interface	RS485/RS232/Wifi/LAN	

PEA & MEA LIST



Three Phase String Inverter

SUN- 20K-G03



-  2 MPP trackers, Max. efficiency up to 98.6%
-  Zero export application, VSG application
-  String intelligent monitoring (optional)
-  Wide output voltage range
-  Anti-PID function (Optional)
-  Build in AFCI
-  Rapid Shutdown system (Optional)

Technical Data

Model		SUN-20K-G03
Input Side		
Max. DC Input Power (kW)	26	
Max. DC Input Voltage (V)	1000	
Start-up DC Input Voltage (V)	250	
MPPT Operating Range (V)	200~850	
Max. DC Input Current (A)	32+32	
Max. Short Circuit Current (A)	48+48	
Number of MPPT / Strings per MPPT	2/2	
Output Side		
Rated Output Power (kW)	20	
Max. Active Power (kW)	22	
Nominal Output Voltage / Range (V)	3L/N/PE 380V/323V~418V, 400V/340V~440V	
Rated Grid Frequency (Hz)	50 / 60 (Optional)	
Operating Phase	Three phase	
Rated AC Grid Output Current (A)	29	
Max. AC Output Current (A)	31.9	
Output Power Factor	0.8 leading to 0.8 lagging	
Grid Current THD	<3%	
DC Injection Current (mA)	<0.5%	
Grid Frequency Range	47~52 or 57~62 (Optional)	
Efficiency		
Max. Efficiency	98.6%	
Euro Efficiency	97.8%	
MPPT Efficiency	>99%	
Protection		
DC Reverse-Polarity Protection	Yes	
AC Short Circuit Protection	Yes	
AC Output Overcurrent Protection	Yes	
Output Overvoltage Protection	Yes	
Insulation Resistance Protection	Yes	
Ground Fault Monitoring	Yes	
Anti-islanding Protection	Yes	
Temperature Protection	Yes	
Integrated DC Switch	Yes	
Remote software upload	Yes	
Remote change of operating parameters	Yes	
Surge protection	DC Type II / AC Type II	
General Data		
Size (mm)	330W×508H×206D	
Weight (kg)	20.8	
Topology	Transformerless	
Internal Consumption	<1W (Night)	
Running Temperature	-25~65℃, >45℃ derating	
Ingress Protection	IP65	
Noise Emission (Typical)	<45 dB	
Cooling Concept	Smart cooling	
Max. Operating Altitude Without Derating	2000m	
Designed Lifetime	>20 years	
Grid Connection Standard	CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, VDE 0126-1-1, RD 1699, C10-11	
Operating Surroundings Humidity	0-100%	
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2	
Features		
DC Connection	MC-4 mateable	
AC Connection	IP65 rated plug	
Display	LCD1602	
Interface	RS485/RS232/Wifi/LAN	

PEA & MEA LIST



Three Phase String Inverter

SUN- 30K-G03



 2 MPP trackers, Max. efficiency up to 98.6%

 Zero export application, VSG application

 String intelligent monitoring (optional)

 Wide output voltage range

 Anti-PID function (Optional)

 Build in AFCI

 Rapid Shutdown system (Optional)

Technical Data

Model	SUN-30K-G03
Input Side	
Max. DC Input Power (kW)	39
Max. DC Input Voltage (V)	1000
Start-up DC Input Voltage (V)	250
MPPT Operating Range (V)	200~850
Max. DC Input Current (A)	40+40
Max. Short Circuit Current (A)	60+60
Number of MPPT / Strings per MPPT	2/3
Output Side	
Rated Output Power (kW)	30
Max. Active Power (kW)	33
Nominal Output Voltage / Range (V)	3L/N/PE 380V/323V-418V, 400V/340V-440V
Rated Grid Frequency (Hz)	50 / 60 (Optional)
Operating Phase	Three phase
Rated AC Grid Output Current (A)	43.5
Max. AC Output Current (A)	47.9
Output Power Factor	0.8 leading to 0.8 lagging
Grid Current THD	<3%
DC Injection Current (mA)	<0.5%
Grid Frequency Range	47~52 or 57~62 (Optional)
Efficiency	
Max. Efficiency	98.6%
Euro Efficiency	97.8%
MPPT Efficiency	>99%
Protection	
DC Reverse-Polarity Protection	Yes
AC Short Circuit Protection	Yes
AC Output Overcurrent Protection	Yes
Output Overvoltage Protection	Yes
Insulation Resistance Protection	Yes
Ground Fault Monitoring	Yes
Anti-islanding Protection	Yes
Temperature Protection	Yes
Integrated DC Switch	Yes
Remote software upload	Yes
Remote change of operating parameters	Yes
Surge protection	DC Type II / AC Type II
General Data	
Size (mm)	362W×577H×215D
Weight (kg)	25.5
Topology	Transformerless
Internal Consumption	<1W (Night)
Running Temperature	-25~65°C, >45°C derating
Ingress Protection	IP65
Noise Emission (Typical)	<45 dB
Cooling Concept	Smart cooling
Max. Operating Altitude Without Derating	2000m
Designed Lifetime	>20 years
Grid Connection Standard	CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, VDE 0126-1-1, RD 1699, C10-11
Operating Surroundings Humidity	0-100%
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2
Features	
DC Connection	MC-4 mateable
AC Connection	IP65 rated plug
Display	LCD1602
Interface	RS485/RS232/Wifi/LAN

Three Phase String Inverter

SUN- 50 K-G03



-  Max. 4 MPP trackers, Max. efficiency up to 98.7%
-  Zero export application, VSG application
-  String intelligent monitoring (optional)
-  Wide output voltage range
-  Anti-PID function (Optional)
-  Build in AFCI
-  Rapid Shutdown system (Optional)

Technical Data

Model	SUN-50K-G03
Input Side	
Max. DC Input Power (kW)	65
Max. DC Input Voltage (V)	1000
Start-up DC Input Voltage (V)	250
MPPT Operating Range (V)	200~850
Max. DC Input Current (A)	40+40+40+40
Max. Short Circuit Current (A)	60+60+60+60
Number of MPPT / Strings per MPPT	4/3
Output Side	
Rated Output Power (kW)	50
Max. Active Power (kW)	55
Nominal Output Voltage / Range (V)	3L/N/PE 380V/323V-418V, 400V/340V-440V
Rated Grid Frequency (Hz)	50 / 60 (Optional)
Operating Phase	Three phase
Rated AC Grid Output Current (A)	72.4
Max. AC Output Current (A)	79.7
Output Power Factor	0.8 leading to 0.8 lagging
Grid Current THD	<3%
DC Injection Current (mA)	<0.5%
Grid Frequency Range	47~52 or 57~62 (Optional)
Efficiency	
Max. Efficiency	98.7%
Euro Efficiency	98%
MPPT Efficiency	>99%
Protection	
DC Reverse-Polarity Protection	Yes
AC Short Circuit Protection	Yes
AC Output Overcurrent Protection	Yes
Output Overvoltage Protection	Yes
Insulation Resistance Protection	Yes
Ground Fault Monitoring	Yes
Anti-islanding Protection	Yes
Temperature Protection	Yes
Integrated DC Switch	Yes
Remote software upload	Yes
Remote change of operating parameters	Yes
Surge protection	DC Type II / AC Type II
General Data	
Size (mm)	647.5W×537H×303.5D
Weight (kg)	44.5
Topology	Transformerless
Internal Consumption	<1W (Night)
Running Temperature	-25~65℃, >45℃ derating
Ingress Protection	IP65
Noise Emission (Typical)	<45 dB
Cooling Concept	Smart cooling
Max. Operating Altitude Without Derating	2000m
Designed Lifetime	>20 years
Grid Connection Standard	CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, VDE 0126-1-1, RD 1699, C10-11
Operating Surroundings Humidity	0-100%
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2
Features	
DC Connection	MC-4 mateable
AC Connection	IP65 rated plug
Display	LCD 240 × 160
Interface	RS485/RS232/Wifi/LAN

PEA & MEA LIST



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Metropolitan Electricity Authority

Three Phase String Inverter

SUN- 100 K-G03



Max. 6 MPP trackers, Max. efficiency up to 98.7%



Zero export application, VSG application



String intelligent monitoring (optional)



Wide output voltage range



Anti-PID function (Optional)



Type II DC/AC SPD



Build in AFCI



Rapid Shutdown system (Optional)

Technical Data

Model	SUN-100K-G03
Input Side	
Max. DC Input Power (kW)	150
Max. DC Input Voltage (V)	1000
Start-up DC Input Voltage (V)	250
MPPT Operating Range (V)	200~850
Max. DC Input Current (A)	40+40+40+40+40+40
Max. Short Circuit Current (A)	60+60+60+60+60+60
Number of MPPT / Strings per MPPT	6/4
Output Side	
Rated Output Power (kW)	100
Max. Active Power (kW)	110
Nominal Output Voltage / Range (V)	3L/N/PE 380V/323V-418V, 400V/340V-440V
Rated Grid Frequency (Hz)	50 / 60 (Optional)
Operating Phase	Three phase
Rated AC Grid Output Current (A)	114.9
Max. AC Output Current (A)	159.4
Output Power Factor	>0.99
Grid Current THD	<3%
DC Injection Current (mA)	<0.5%
Grid Frequency Range	47~52 or 57~62 (Optional)
Efficiency	
Max. Efficiency	98.7%
Euro Efficiency	98.3%
MPPT Efficiency	>99%
Protection	
DC Reverse-Polarity Protection	Yes
AC Short Circuit Protection	Yes
AC Output Overcurrent Protection	Yes
Output Overvoltage Protection	Yes
Insulation Resistance Protection	Yes
Ground Fault Monitoring	Yes
Anti-islanding Protection	Yes
Temperature Protection	Yes
Integrated DC Switch	Yes
Remote software upload	Yes
Remote change of operating parameters	Yes
Surge protection	DC Type II / AC Type II
General Data	
Size (mm)	838W×568H×323D
Weight (kg)	73.7
Topology	Transformerless
Internal Consumption	<1W (Night)
Running Temperature	-25~65℃, >45℃ derating
Ingress Protection	IP65
Noise Emission (Typical)	<55 dB
Cooling Concept	Smart cooling
Max. Operating Altitude Without Derating	2000m
Designed Lifetime	>20 years
Grid Connection Standard	CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, VDE 0126-1-1, RD 1699, C10-11
Operating Surroundings Humidity	0-100%
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2
Features	
DC Connection	MC-4 mateable
AC Connection	IP65 rated plug
Display	LCD 240 × 160
Interface	RS485/RS232/Wifi/LAN

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Metropolitan Electricity Authority

Hybrid Inverter

SUN-3/5K-SG04LP1



-  Colorful touch LCD, IP65 protection degree
-  DC couple and AC couple to retrofit existing solar system
-  Max. 16pcs parallel for on-grid and o_g- grid operation; Support multiple batteries parallel
-  Max. charging/discharging current of 190A
-  6 time periods for battery charging/discharging
-  Support storing energy from diesel generator

Technical Data

Model	SUN-3K -SG04/05LP1	SUN-5K -SG04/05LP1
Battery Input Data		
Battery Type	Lead-acid or Li-Ion	
Battery Voltage Range (V)	40~60	
Max. Charging Current (A)	70	120
Max. Discharging Current (A)	70	120
External Temperature Sensor	Yes	
Charging Curve	3 Stages / Equalization	
Charging Strategy for Li-Ion Battery	Self-adaption to BMS	
PV String Input Data		
Max. DC Input Power (W)	3900	6500
Rated PV Input Voltage (V)	370 (125~500)	
Start-up Voltage (V)	125	
MPPT Voltage Range (V)	150-425	
Full Load DC Voltage Range (V)	300-425	
PV Input Current (A)	13	13+13
Max. PV ISC (A)	17	17+17
Number of MPPT / Strings per MPPT	1/1	2/1+1
AC Output Data		
Rated AC Output and UPS Power (W)	3000	5000
Max. AC Output Power (W)	3300	5500
AC Output Rated Current (A)	13.6	21.7
Max. AC Current (A)	15	25
Max. Continuous AC Passthrough (A)	35	
Peak Power (o _g grid)	2 time of rated power, 10 S	
Power Factor	0.8 leading to 0.8 lagging	
Output Frequency and Voltage	50/60Hz; L/N/PE 220/230Vac (single phase)	
Grid Type	Single Phase	
DC injection current (mA)	THD<3% (Linear load<1.5%)	
Efficiency		
Max. Efficiency	97.60%	
Euro Efficiency	97.00%	
MPPT Efficiency	99.90%	
Protection		
Integrated	PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Surge protection	
Certifications and Standards		
Grid Regulation	CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, VDE 0126-1-1, RD 1699, C10-11	
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2	
General Data		
Operating Temperature Range (°C)	-45~60°C, >45°C derating	
Cooling	Natural cooling	
Noise (dB)	<30 dB	
Communication with BMS	RS485; CAN	
Weight (kg)	20.5	
Size (mm)	330W x 580H x232D	
Protection Degree	IP65	
Installation Style	Wall-mounted	
Warranty	5 years	

Hybrid Inverter

SUN-5/10K-SG04LP3-EU



- 100

100% unbalanced output, each phase; Max. output up to **50%** rated power
- DC couple and AC couple to retrofit existing solar system
- 16

Max. 16pcs parallel for on-grid and o_c - grid operation; Support multiple batteries parallel
- 240

Max. charging/discharging current of 240A
- 48

48V low voltage battery, transformer isolation design
- 6

6 time periods for battery charging/discharging
- Support storing energy from diesel generator

Technical Data

Model	SUN-5K -SG04LP3-EU	SUN-10K -SG04LP3-EU
Battery Input Data		
Battery Type	Lead-acid or Li-Ion	
Battery Voltage Range (V)	40~60	
Max. Charging Current (A)	120	210
Max. Discharging Current (A)	120	210
External Temperature Sensor	Yes	
Charging Curve	3 Stages / Equalization	
Charging Strategy for Li-Ion Battery	Self-adaption to BMS	
PV String Input Data		
Max. DC Input Power (W)	6500	13000
Rated PV Input Voltage (V)	550 (160~800)	
Start-up Voltage (V)	160	
MPPT Voltage Range (V)	200-650	
Full Load DC Voltage Range (V)	350-650	
PV Input Current (A)	13+13	26+13
Max. PV ISC (A)	17+17	34+17
Number of MPPT / Strings per MPPT	2/1+1	2/2+1
AC Output Data		
Rated AC Output and UPS Power (W)	5000	10000
Max. AC Output Power (W)	5500	11000
AC Output Rated Current (A)	7.6	15.2
Max. AC Current (A)	11.4	22.7
Max. Continuous AC Passthrough (A)	45	
Peak Power (o _c grid)	2 time of rated power, 10 S	
Power Factor	0.8 leading to 0.8 lagging	
Output Frequency and Voltage	50/60Hz; 3L/N/PE 220/380, 230/400Vac	
Grid Type	Three Phase	
DC injection current (mA)	THD<3% (Linear load<1.5%)	
Efficiency		
Max. Efficiency	97.60%	
Euro Efficiency	97.00%	
MPPT Efficiency	99.90%	
Integrated	PV Input Lightning Protection, 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	
Output Over Voltage Protection	DC Type II/AC Type III	
Certifications and Standards		
Grid Regulation	CEI 0-21, VDE-AR-N 4105, NRS 097, IEC 62116, IEC 61727, G99, G98, VDE 0126-1-1, RD 1699, C10-11	
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2	
General Data		
Operating Temperature Range (°C)	-45~60℃, >45℃ derating	
Cooling	Smrat cooling	
Noise (dB)	<45 dB	
Communication with BMS	RS485; CAN	
Weight (kg)	33.6	
Size (mm)	422W x 699.3H x279D	
Protection Degree	IP65	
Installation Style	Wall-mounted	
Warranty	5 years	

Microinverter

SUN300G3-US-220/EU-230

SUN500G3-US-220/EU-230



Support reactive power compensation



IP67 protection degree, 10 years warranty



1 MPP tracker, module level monitoring



PLC, Zigbee or WIFI communication



Rapid shutdown function

Technical Data

Model	SUN300G3-EU-230		SUN500G3-EU-230	
Input Data (DC)				
Recommended input Power (STC)	210~400W (1 Piece)		210~600W (1 Piece)	
Maximum input DC Voltage	60V			
MPPT Voltage Range	25~55V			
Operating DC Voltage Range	20~60V			
Max. DC Short Circuit Current	19.5A			
Max. input Current	13A			
Number of MPPT / Strings per MPPT	1/1			
Output Data (AC)				
Rated output Power	300W		500W	
Rated output Current	1.3A		2.2A	
Nominal Voltage / Range (this may vary with grid standards)	230V			
Nominal Frequency / Range	50 / 60Hz			
Extended Frequency / Range	45~55Hz / 55~65Hz			
Power Factor	>0.99			
Maximum units per branch	17		10	
Efficiency				
CEC Weighted Efficiency	95%			
Peak Inverter Efficiency	96.5%			
Static MPPT Efficiency	99%			
Night Time Power Consumption	50mW			
Mechanical Data				
Ambient Temperature Range	-40~65°C			
Size (mm)	189W×184H×31.5D (Without mounting bracket and cable)			
Weight (kg)	2			
Cooling	Natural cooling			
Enclosure Environmental Rating	IP67			
Features				
Compatibility	Compatible with 60~72 cell PV modules			
Communication	Power line / WIFI / Zigbee			
Grid Connection Standard	EN50549-1, VDE0126-1-1, VDE 4105, ABNT NBR 16149, ABNT NBR 16150, ABNT NBR 62116, RD1699, UNE 206006 IN, UNE 206007-1 IN, IEEE1547			
Safety EMC / Standard	UL 1741, IEC62109-1/-2, IEC61000-6-1, IEC61000-6-3, IEC61000-3-2, IEC61000-3-3			
Warranty	10 years			

Microinverter

SUN600G3-US-220/EU-230

SUN800G3-US-220/EU-230

SUN1000G3-US-220/EU-230



- Support reactive power compensation
- IP67 protection degree, 10 years warranty
- 2 MPP trackers, module level monitoring
- PLC, Zigbee or WIFI communication
- Rapid shutdown function

Technical Data

Model	SUN600G3-EU-230		SUN800G3-EU-230	SUN1000G2-EU-230
Input Data (DC)				
Recommended input Power (STC)	210~400W (2 Pieces)	210~500W (2 Pieces)	210~600W (2 Pieces)	
Maximum input DC Voltage	60V			
MPPT Voltage Range	25~55V			
Operating DC Voltage Range	20~60V			
Max. DC Short Circuit Current	2×19.5A			
Max. input Current	2×13A			
Number of MPPT / Strings per MPPT	2/1			
Output Data (AC)				
Rated output Power	600W	800W	1000W	
Rated output Current	2.6A	3.5A	4.3A	
Nominal Voltage / Range (this may vary with grid standards)	230V			
Nominal Frequency / Range	50 / 60Hz			
Extended Frequency / Range	45~55Hz / 55~65Hz			
Power Factor	>0.99			
Maximum units per branch	8	6	5	
Efficiency				
CEC Weighted Efficiency	95%			
Peak Inverter Efficiency	96.5%			
Static MPPT Efficiency	99%			
Night Time Power Consumption	50mW			
Mechanical Data				
Ambient Temperature Range	-40~65°C			
Size (mm)	212W×230H×40D (Without mounting bracket and cable)			
Weight (kg)	3.5			
Cooling	Natural cooling			
Enclosure Environmental Rating	IP67			
Features				
Compatibility	Compatible with 60~72 cell PV modules			
Communication	Power line / WIFI / Zigbee			
Grid Connection Standard	EN50549-1, VDE0126-1-1, VDE 4105, ABNT NBR 16149, ABNT NBR 16150, ABNT NBR 62116, RD1699, UNE 206006 IN, UNE 206007-1 IN, IEEE1547			
Safety EMC / Standard	UL 1741, IEC62109-1/-2, IEC61000-6-1, IEC61000-6-3, IEC61000-3-2, IEC61000-3-3			
Warranty	10 years			

Microinverter

SUN1300G3-US-220/EU-230 SUN1600G3-US-220/EU-230
SUN1800G3-US-220/EU-230 SUN2000G3-US-220/EU-230



- Support reactive power compensation
- IP67 protection degree, 10 years warranty
- 4 MPP trackers, module level monitoring
- PLC, Zigbee or WIFI communication
- Rapid shutdown function
- 13 Max. DC input current of 13A, adapt to 550W PV module

Technical Data

Model	SUN1300G3 -EU-230	SUN1600G3 -EU-230	SUN1800G2 -EU-230	SUN2000G2 -EU-230
Input Data (DC)				
Recommended input Power (STC)	210~400W (4 Pieces)	210~500W (4 Pieces)	210~500W (4 Pieces)	210~600W (4 Pieces)
Maximum input DC Voltage	60V			
MPPT Voltage Range	25~55V			
Operating DC Voltage Range	20~60V			
Max. DC Short Circuit Current	4×19.5A			
Max. input Current	4×13A			
Number of MPPT / Strings per MPPT	4/1			
Output Data (AC)				
Rated output Power	1300W	1600W	1800W	2000W
Rated output Current	5.7A	7A	7.8A	8.7A
Nominal Voltage / Range (this may vary with grid standards)	230V			
Nominal Frequency / Range	50 / 60Hz			
Extended Frequency / Range	45~55Hz / 55~65Hz			
Power Factor	>0.99			
Maximum units per branch	4	4	3	3
Efficiency				
CEC Weighted Efficiency	95%			
Peak Inverter Efficiency	96.5%			
Static MPPT Efficiency	99%			
Night Time Power Consumption	50mW			
Mechanical Data				
Ambient Temperature Range	-40~65°C			
Size (mm)	267W×300H×42.5D (Without mounting bracket and cable)			
Weight (kg)	5.2			
Cooling	Natural cooling			
Enclosure Environmental Rating	IP67			
Features				
Compatibility	Compatible with 60~72 cell PV modules			
Communication	Power line / WIFI / Zigbee			
Grid Connection Standard	EN50549-1, VDE0126-1-1, VDE 4105, ABNT NBR 16149, ABNT NBR 16150, ABNT NBR 62116, RD1699, UNE 206006 IN, UNE 206007-1 IN, IEEE1547			
Safety EMC / Standard	UL 1741, IEC62109-1/-2, IEC61000-6-1, IEC61000-6-3, IEC61000-3-2, IEC61000-3-3			
Warranty	10 years			

SUNB-5.0-C01-48



- ◆ Modular design , scalable from 5 kWh to 20 kWh
- ◆ Compact size and easy installation
- ◆ High energy density and efficiency
- ◆ Excellent safety of LiFePO4 battery
- ◆ Remote firmware upgrade
- ◆ Long lifespan, 10 years warranty

Technical Data

Model	SUNB-5.0-C01-48			
Battery Data				
Nominal Voltage	51.2V			
Operating Voltage	48V~57.6V			
Charging/Discharging Current	100A	200A	250A	250A
MAX discharging power	5kw	10kw	12.5kw	12.5kw
Total energy	5.12kWh	10.24kWh	15.36kWh	20.48kWh
Usable energy	4.6 kWh	9.2 kWh	13.8 kWh	18.4 kWh
Rated Capacity	100Ah	200Ah	300Ah	400Ah
General Data				
Cell Type	LFP (LiFePO4)			
Dimension (W/H/D)	430×440×339	430×760×339	430×1080×339	430×1400×339
Weight (kg)	50.7	98.7	146.7	194.7
Master LED indicator	5LED (20%40%, 60%100%), 3LED(working, warning, protecting)			
IP Protection	IP65			
Altitude	~2000m			
Working temperature	Charge: 0~55°C / Discharge: -20~55°C			
Storage Temperature	-30°C ~ 60°C			
Humidity	~90%			
Features				
Cycle Life	>6000			
Installation Location	Ground-Mounted			
Communication Port	CAN2.0 / RS485			
Warranty	10 years			

SUN-8K-SG03LP1-EU-ESS



All-in-one Energy Storage System

- ◆ All-in-one design, integrated 8KW hybrid inverter and battery
- ◆ Comfortable and easy control via App, PC or Touch-Display
- ◆ Leading smart application: peak-shaving, smart load, AC couple etc
- ◆ Modular lithium iron phosphate battery, capacity of 5kWH~20kWH, scalable and safety
- ◆ Fast switching time of 4ms, ensuring your energy security

Technical Data

Model	SUN-8K-SG03LP1-EU-ESS
System Specification	
Nominal Output Power/UPS Power (W)	8000 / 8000
Capacity Range	5 ~ 20 kWh
Usable Capacity Range	13.8kWh
Battery Chemistry	LFP (LiFePO4)
IP Protection	IP21 (Indoor) / IP65 (Outdoor)
Warranty	5 Year Product Warranty, 10 Year Battery Warranty
Inverter Technical Specification	
Model	SUN-8K-SG03LP1-EU
Max. PV Input Power (W)	10400
Max. PV Input Current (A)	2 x 22
Max. PV Input Voltage (V)	500
Start Up DC Voltage (V)	125
MPPT Voltage Range (V)	150-425
Max. PV Short-circuit Current (A)	2 x 28
MPPT Number	2
Max. Charging/Discharging Current (A)	190
Max. Charging/Discharging Power (W)	8000
Rated Voltage (V)	230
Rated Frequency	50 / 60 Hz
Peak Power (o_grid)	2 time of rated power, 10 S
DC injection current (mA)	THD<3% (Linear load<1.5%)
Phase	Single Phase
Display	LCD
Relative Humidity	15% ~ 85% (No Condensing)
Dimension (W x D x H)	430W x 1740H x339D
Weight (kg)	178.7
Communication with BMS	RS485; CAN
EMC	IEC/EN 61000-6-1/2/3/4
Safety	IEC/EN 62109-1,IEC/EN 62109-2
Grid Regulation	CEI 0-21,VDE-AR-N 4105,NRS 097,IEC 62116,IEC 61727,G99,G98, VDE 0126-1-1,RD 1699,C10-11
Efficiency	
Max. Efficiency	97.6%
Max. charging/discharging efficiency	95.5%
Battery Technical Specification	
Module Model	SUNB-5.0-C01-48
Module Capacity	
Module Nominal Voltage	51.2V
Operating Temperature Range	Charge: 0~55°C / Discharge: -20~55°C
Max. Modules in Parallel	50
Max. Charging/Discharging Current (A)	
Cycle Life	>6000

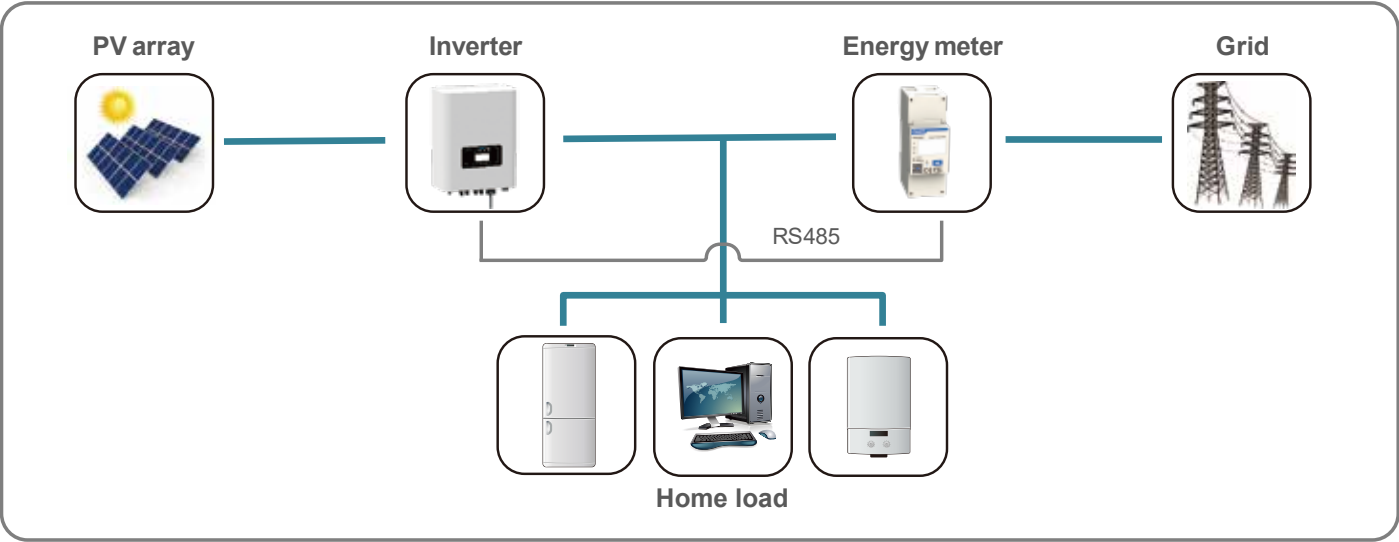
Energy Meter



Technical Data

Model	CHNT DDSU666	CHNT DTSU666	EASTRON SDM 230 Modbus	EASTRON SDM 630-Modbus V2	EASTRON SDM 630 MCT
Battery Data					
Max. direct current measurement (A)	60	80	100	100	1-9999A (with CT)
Direct Voltage measurement between phases	/	176-458V	/	147-480V	50-950V
					50-550V
Direct measurement between phase and neutral	176~264V	100-265V	176~276V	85~480V	20-550V
Accuracy Class					
Active power	Class1				
Reactive power	Class2				
Power Supply					
Power consumption	~1W / 8VA	~1.5W / 6VA	~2W / 10VA	~2W / 10VA	~2W / 10VA
AC power supply input voltage	176-264V	100-265V	176-276V	85-480V	85-275V / 120-380V
AC power supply input frequency	50/60Hz		50Hz	50/60Hz ±2%	50/60Hz ±2%
Generation Specifications					
Dimenstions (L/H/W) in mm	36×85×66	100×72×66	36×99×63	72×100×66	72×94.5×65
Weight (kg)	0.21	0.44	0.21	0.42	0.29
Mounting options	DIN Rail				
Degree of protection	IP51				
Display	LCD				
Communication interface	RS485				
Max. number of devices to connect	32				
Regulated working temperature range	-25℃~+55℃	-10℃~+45℃	-25℃~+55℃		
Limited working temperature range	-40℃~+70℃	25℃~+75℃	/		
Humidity	~75%		0~95%, non-Condensing		
Warranty	1.5 years				

Typical Application Diagram



MECD



- ◆ Built-in Zigbee, PLC and WIFI modular.
- ◆ Suitable for single-phase and three-phase applications.
- ◆ Enables remotely monitoring and management.



- ◆ OLED display and buttons, easy operation.
- ◆ Compact design and light in weight.



- ◆ Support quick shutdown remotely.
- ◆ Robust design, 3 years warranty.

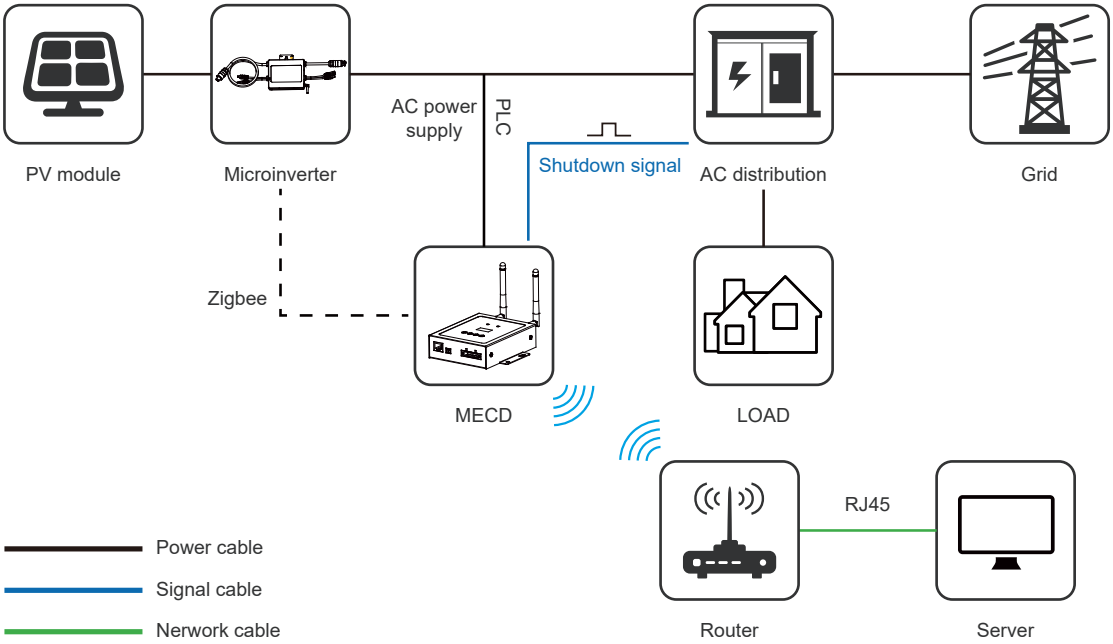
The MECD communications gateway collects and delivers modular performance data in real time, for comprehensive monitor and manage of your solar system, optimizing the performance of your solar system.

With built-in quick shutdown application, the MECD is able to control the microinverter connected shutdown immediately when the dry contact is activated.

Technical Data

Model	MECD
Communication interface	
Communication method	Zigbee, PLC
Max. number of inverters connected	5、 10、 20、 32 (Max.)
Communication to router	WIFI
WIFI wireless security	WEP, WPA2-PSK
RS485	Reserved
Max. distance (free space)	PLC 300m; Zigbee 100m (Max. straight-line distance)
Power Supply	
AC power supply	100 to 240V AC, 50/60Hz
Power consumption	5W typical, 10W Maxinum
Mechanical Data	
Dimenstions (L/H/W) in mm	133.6×132×35.5 mm
Weight (kg)	0.3
Operation temperature range	-20~+50℃
Mounting method	Wall-mounted
Display	OLED and LED indicators
Features	
Grid type	Single phase / three phase
Digital Input	Control device connection
Other	
Compliance	IEC60950, IEC61000-6-2, FCC Part15 Class B / Class C
Warranty	3 years

Typical Application



Stick Logger

GPRS / WIFI / 4G / Ethernet
Monitor your system anywhere in the world.



- ◆ External light indicator, logging status at a glance;
- ◆ Plug & play, pick power within inverter, no external power needed, easy to install;
- ◆ Independent from inverter to protect parts inside inverter, eliminate potential problems;
- ◆ IP65 water-proof design, resistant to bad weather, enhance stability;
- ◆ External design, easier to replace faulty equipment;
- ◆ End-user can monitor yields at any time with SOLARMAN APP.

Technical Data

Product Model	LSG-3	LSG-4	LSW-3	LS4G-3	LSE-3
Remote Communication Interface	GPRS	GPRS	WiFi	4G	LAN
Working Frequency	GSM850 / EGSM900 / DCS1800 / PCS 1900MHz	GSM850 / EGSM900 / DCS1800 / PCS 1900MHz	2.142GHz~2.484GHz	704MHZ-960MHZ 1710MHZ-2690MHZ	Adaptive Network; 10M / 100M
Satellite Positioning	/	GPS / Beidou < 15m	/	/	/
Antenna	External GPRS Stick Antenna	External GPRS Stick Antenna	External WiFi Stick Antenna	External 4G Stick Antenna	/
Data Interface	RS485 / RS232 / TTL				
Working Voltage	DC4.7V~DC15V				
Working Power	3W	3W	1.5W	5W	1W
SIM Card	Chip Card / MicroSIM	Chip Card / MicroSIM	/	MicroSIM	/
Memory	2M Flash (2M-16M Optional)				
Working Temperature	-40℃~+85℃				
Working Humidity	< 90% (No Condensing)				
No.of Connections	One				
Serial Communication Rate	bps (1200-115200bps Configurable)				
Data Acquisition Interval	Default 5min (1-15min Configurable)				
User Configuration	Bluetooth	APP / Web	AT+InstructionSet Remote Server	Local Serial Port	Web
Firmware Upgrade	Remote Upgrade				
Others	Real-time Control, Data resuming				

Stick logger supports GPRS, WIFI, 4G, Ethernet and other communication modes. Its bluetooth function enables local debugging configuration to collect operation and power generation data from inverters. It pairs with solarman professional platform to enable remote PV system monitoring and to realize distributed power station management with lower cost and higher efficiency.

Smart PV Management Platform



Deye residential monitoring solution takes great care to ensure that your PV system is in excellent operation throughout its entire life-cycle. This monitoring solution offers you details information of your power generating plant including Today energy, Monthly energy, yearly energy, total energy etc, through wireless communication with your router to the internet by a smart wifi plug. User can easily access to the monitoring page via PC web or phone APP.

Maximum your energy output while minimizing your costs. Scan the QR code to build your power station !

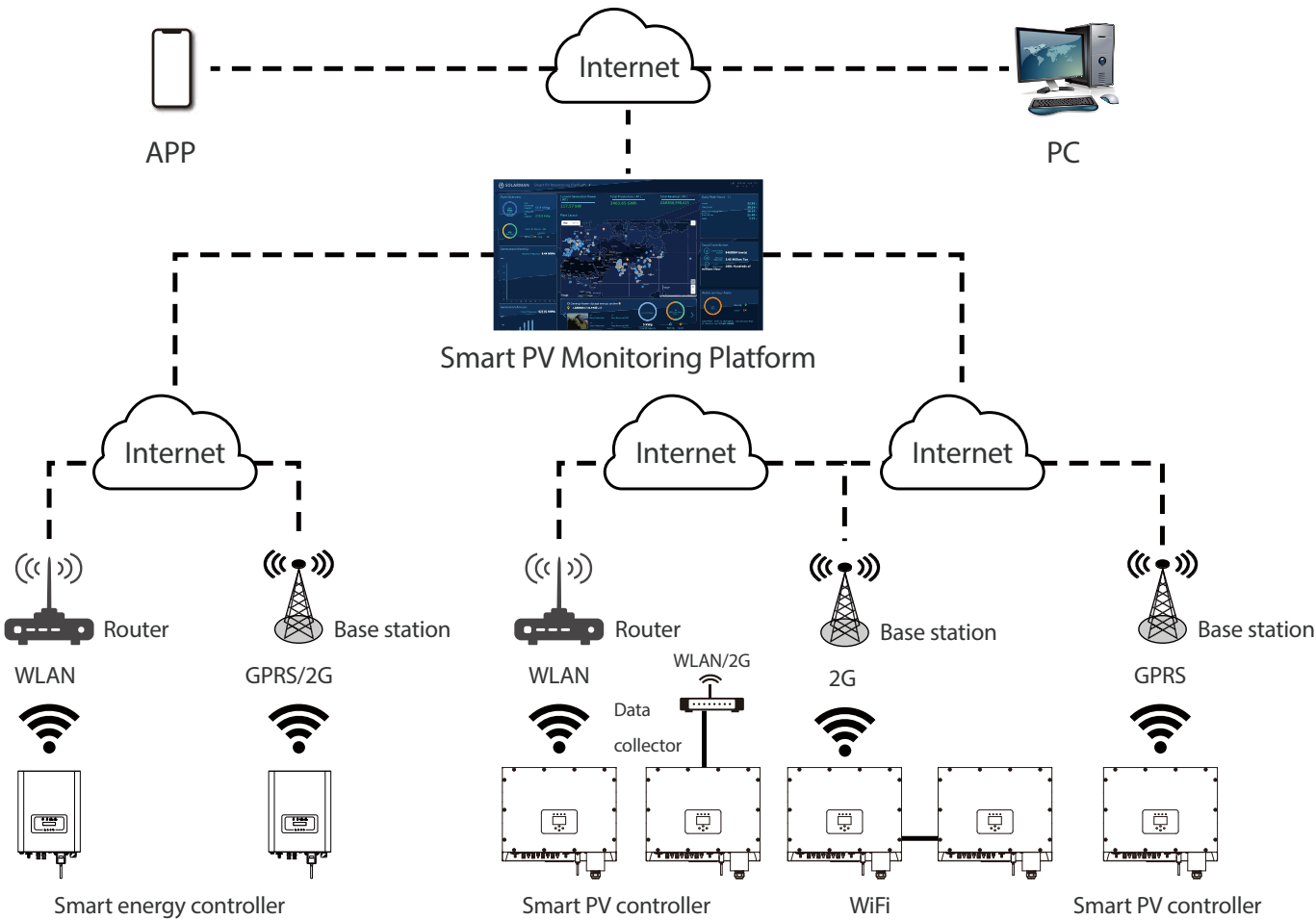


Efficiency

- Open station supports one-click installation and registration;
- Problem support one-click dispatch and navigation.

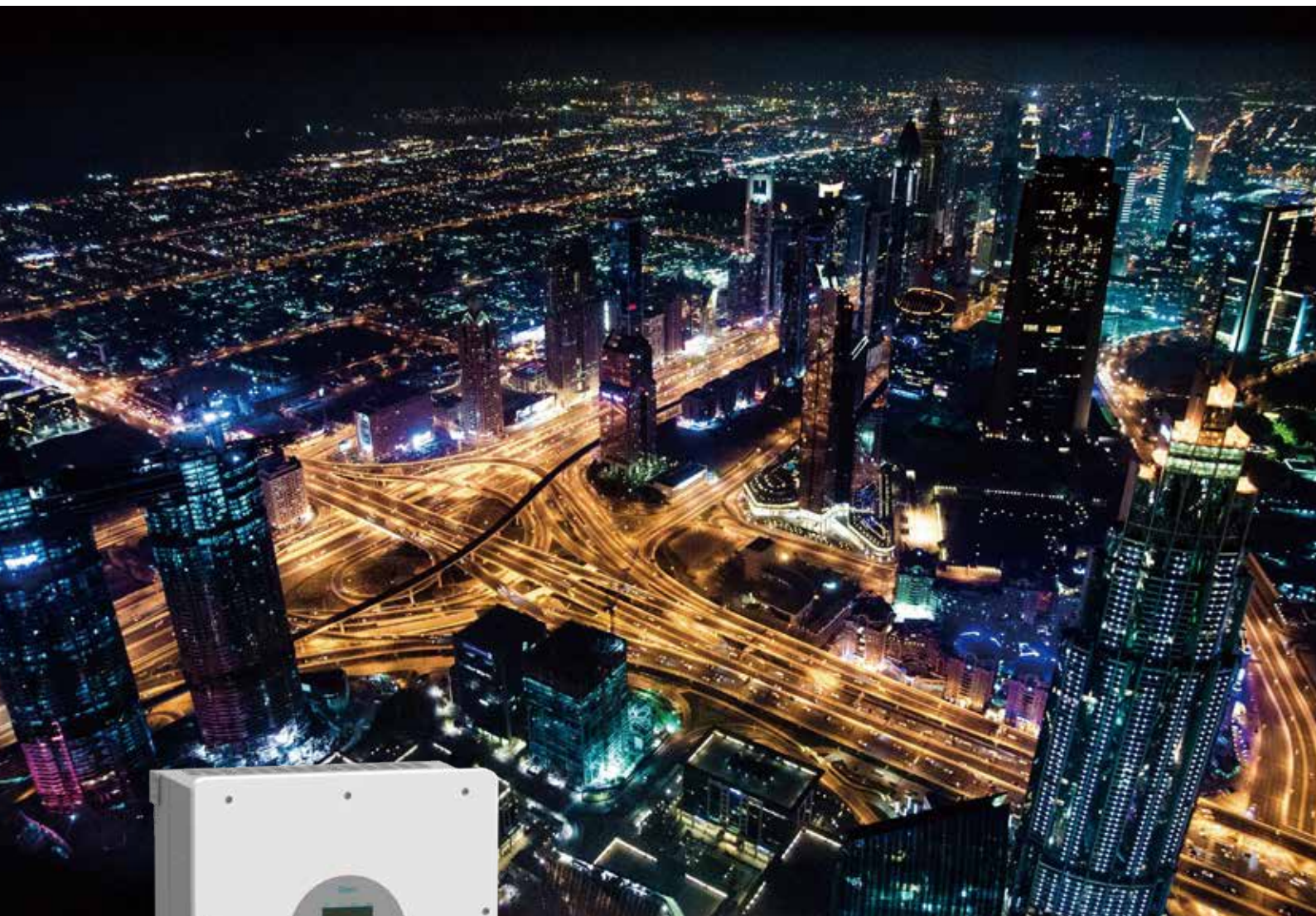
Safe

- Safe operation, traceable logs, etc;
- Support full lifecycle data storage to ensure data security and reliability.



Hybrid Inverter

SUN-10K-SG05LP1-EU



Colorful touch LCD, IP65 protection degree



DC couple and AC couple to retrofit existing solar system

16

Max. 16pcs parallel for on-grid and off-grid operation; Support multiple batteries parallel

190

Max. charging/discharging current of 210A

6

6 time periods for battery charging/discharging



Support storing energy from diesel generator

Deye

Stock Code: 605117.SH

Model	SUN-10K-SG05LP1-EU
Battery Input Data	
Battery Type	Lead-acid or Lithium-ion
Battery Voltage Range (V)	40~60
Max. Charging Current (A)	210
Max. Discharging Current (A)	210
External Temperature Sensor	Yes
Charging Curve	3 Stages / Equalization
Charging Strategy for Li-Ion Battery	Self-adaption to BMS
PV String Input Data	
Max. DC Input Power (W)	15600
Rated PV Input Voltage (V)	370 (125~500)
Start-up Voltage (V)	125
MPPT Voltage Range (V)	150-425
Full Load DC Voltage Range (V)	200-425
PV Input Current (A)	26+26+26
Max. PV I _{SC} (A)	44+44+44
No.of MPP Trackers	3
No.of Strings per MPP Tracker	2+2+2
AC Output Data	
Rated AC Output Active Power (W)	10000
Max AC Output Active Power (W)	11000
AC Output Rated Current (A)	43.5
Max AC Output Current (A)	47.9
Max. Continuous AC Passthrough (A)	50
Peak Power (off grid)	2 time of rated power, 10 S
Power Factor Adjustment Range	0.8 leading to 0.8 lagging
Power Factor	1
Output Frequency and Voltage	50 / 60Hz; L/N/PE 220/230Vac (single phase)
Grid Type	Split phase; 2/3 phase; Single Phase
Total Harmonic Distortion (THD)	<3% (of nominal power)
DC current injection	<0.5% I _N
Efficiency	
Max. Efficiency	97.60%
Euro Efficiency	97.00%
MPPT Efficiency	99.90%
Protection	
Integrated	PV Input Lightning Protection, 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
Output Over Voltage Protection	DC Type II/AC Type III
Certifications and Standards	
Grid Regulation	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G98, G99, C10-11, UNE217002, NBR16149/NBR16150
Safety EMC / Standard	IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2
General Data	
Operating Temperature Range ()	-40~60°C, >45°C derating
Cooling	Smart cooling
Noise (dB)	≤30 dB
Communication with BMS	RS485; CAN
Weight (kg)	48.5
Size (mm)	420W×670H×233D
Protection Degree	IP65
Installation Style	Wall-mounted
Warranty	5 years

The image displays three different models of YR® cable management systems, arranged horizontally. Each model consists of a central, rectangular, box-like component with the 'YR®' logo on its front face. The top model has an orange box, the middle one has a blue box, and the bottom one has a black box. From each box, multiple black cables extend outwards. On the left side, the cables are bundled together and terminate in a single connector. On the right side, the cables are also bundled and terminate in a single connector. Each cable has a small loop or ring at its end, likely for easy identification or connection to a specific port. The background is a plain, light gray surface.



Compatible with all inverter brands and friendly for EMC Slim Design, Extremely Easy Installation

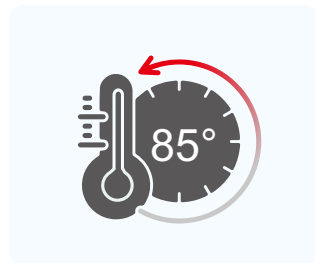
Type	YRSD-1P		YRSD-2P	
Number ofPV Inputs	1		2	
Number of Modules Recommend	2		4	
Maximum Allowed InputVoltage	120V	180V	120V	180V
Maximum Allowed InputCurrent	18A / 20A			
Maximum OutputVoltage	240V	360V	240V	360V
System Voltage	1000V / 1500V			
Control Compliance	24VDC + 2 x 0.8mm ² Cable			
Control Requirements	21.6V~26.4V at nomi 27~36mA/unit			
Ambient Operatng Temperature	-30° C to +60° C			
Protection Temperature	85° C			
IP Level	>IP68, NEMA 4X			
Fire-proof Level	Flame retardant, UL94-V0			
Humidity	0%~90%			
PV Connectors	MC4 (Customized)			
Design Life Span	25 years			
Size	155.8*73.7*30.2		155.8*73.7*30.2	
Weight	< 200g (Excluding Cables)			
Cable Length , PV1+ Input	300mm		300mm	
Cable Length , PV1- Input	300mm		300mm	
Cable Length , PV2+ Input	/		300mm	
Cable Length , PV2- Input	/		300mm	
Cable Length , Power Out put	1800mm		1800mm	
Cable Length, 24Vdc Control Cable	1800mm		1800mm	
andard Comliance	NEC2017/2020 (690.12); UL1741; UL3741; IEC/EN62109; IEC/EN61000			

Tripping Ways

YRO RSD Overview

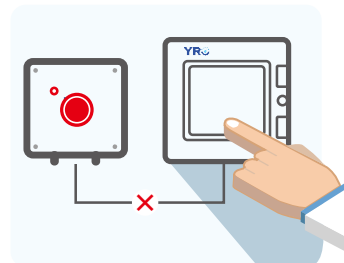
The YRO RSD is designed to be installed at solar panel level and provides safety shutdown of the DC supply to ZERO VOLTS in case of emergency. Shutdown is initiated in 3 ways - Manual Operation, AC Supply Cut-Off or Temperature Rise Trigger as follows:

Temperature Rise Trigger



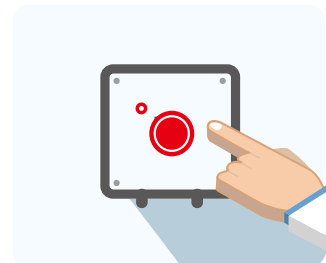
Automatic shutdown occurs if the temperature sensor on board of the RSD detects an ambient temperature rise above 85°C

AC Supply Cut-Off



Disconnection of the external AC supply, by whatever means, causes automatic remote operation of the Emergency Rapid Shutdown Switch and solar panel shutdown.

Manual Operation



Manual shutdown is initiated within less than 0.1 second of operation by pressing the emergency pushbutton on the Emergency Rapid Shutdown Switch. The Emergency Switch can be conveniently located at ground level for easy access or multiple switches can be installed in different multi-level building zones.



Inverter Compatibility

The RSD is compatible with all string inverters and does not affect their operation or performance in any way.



Fail-Safe Operation

The RSD is designed for fail-safe operation ensuring that, will not compromise the solar panel isolation and shutdown status, maintaining full zero volt isolation.



Emergency Shutdown Switches

The Emergency Shutdown Switches offer a 24VDC power supply suitable for up to 480 panels operation, with LED indicator to signal.



North American Solar Market Approvals

The RSD has been extensively tested by ETL to meet the various PV standards required within the North American market.



UL1741 PVRSE Certification

The RSD is fully certified to UL1741 PVRSE (PV Rapid Shutdown Equipment) for applications. As a dedicated RSD operating as a safety switching without communications protocols, which is compatible with any PV inverter unit.



UL1741 Forthcoming AFCI Compatibility Requirements

The RSD is qualified to use with a number of solar inverters in accordance with the new UL AFCI specifications intended to ensure that the RSD operation does not interfere with the inverter's on board arc fault detection function. The RSD as a benign unit without PLC helps ensures that arc fault detection is in no way compromised as a result of its installation.



UL3741 PVRSS Certification

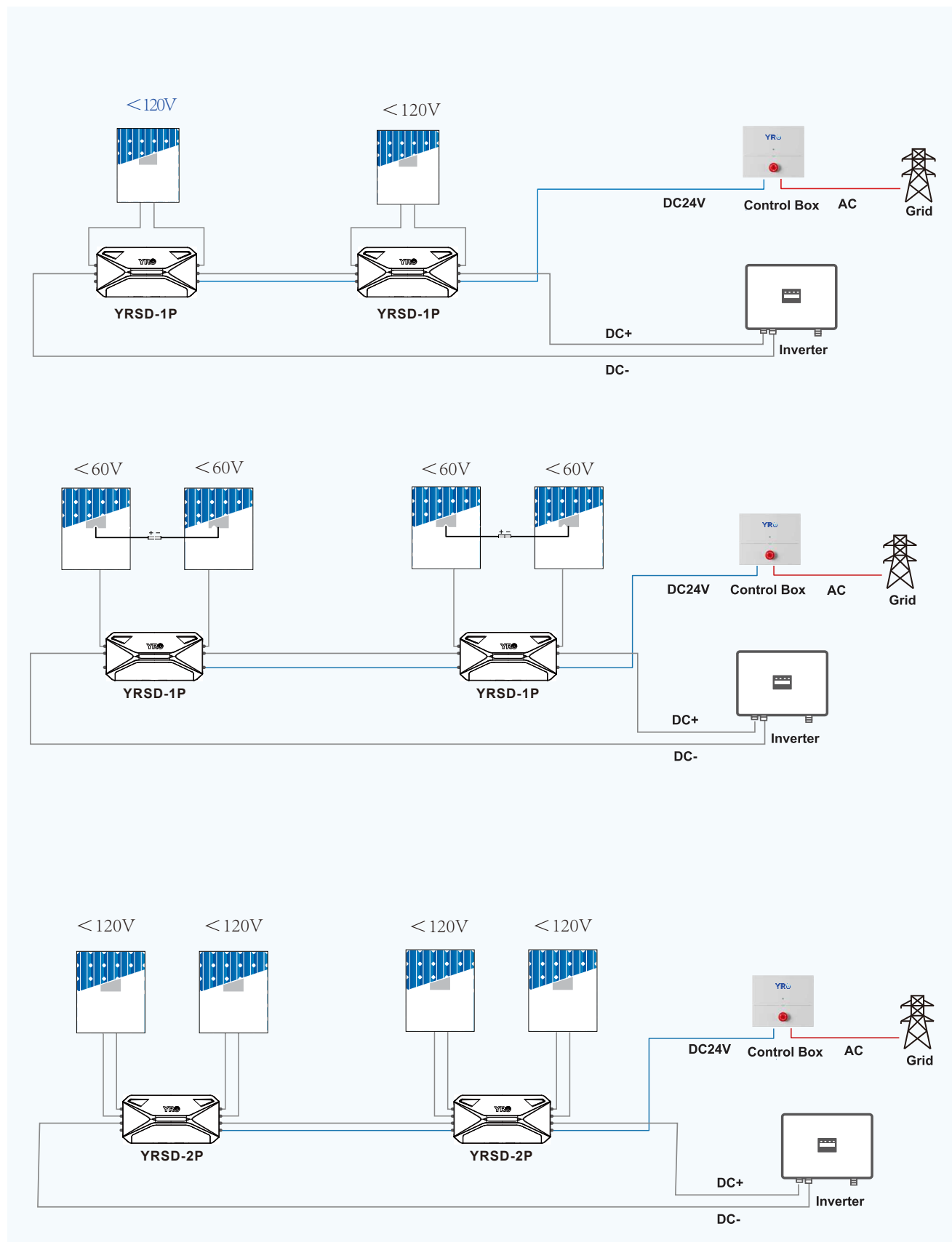
The RSD is fully certified to UL3741 PVRSS (PV Rapid Shutdown System) for applications. As a dedicated RSD operating as a safety switching without communications protocols, which is compatible with any PV inverter unit.



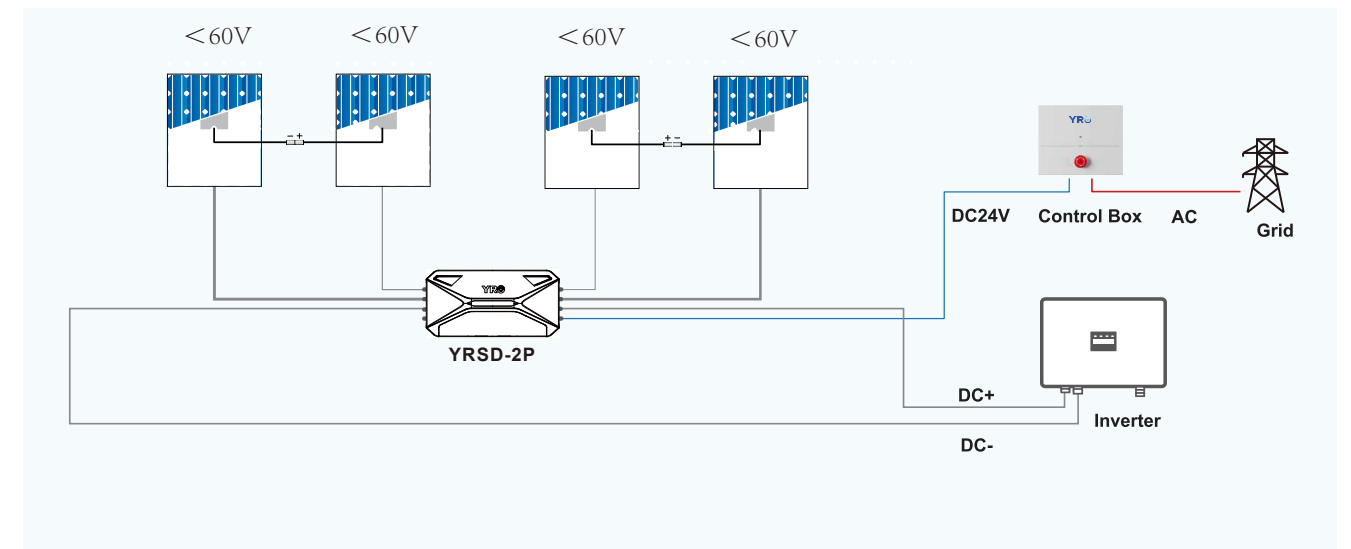
SunSpec Compliance

The SunSpec Interoperability Specification specifically provides for the exemption of products such as the RSD, stating at Section 1: "It is possible to achieve NEC compliance without a Rapid Shutdown System communication protocol. This specification does not apply in that case."

YRSD-1P/2P Series



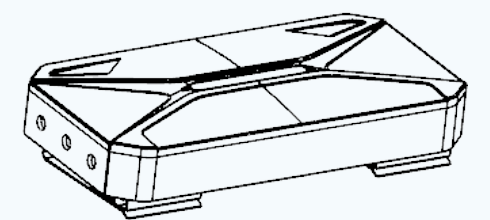
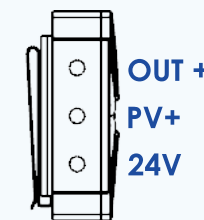
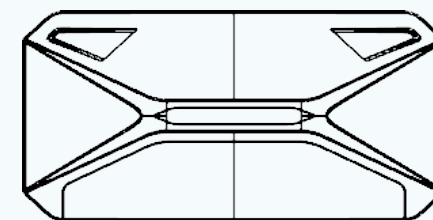
YRSD-1P/2P Series



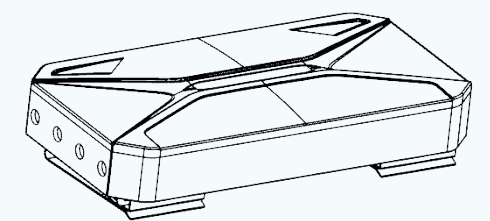
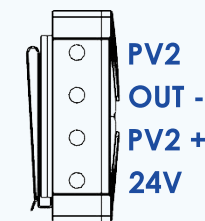
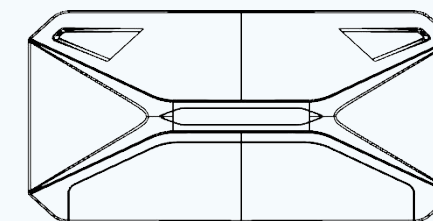
Dimension

YRSD-1P

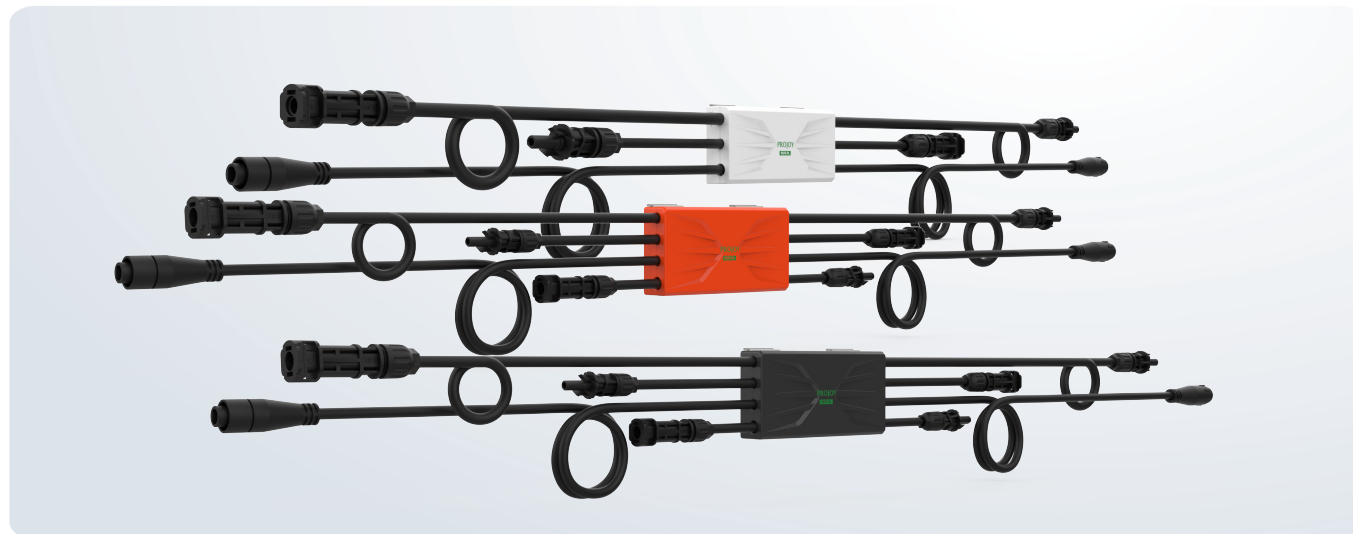
(Unit: ± 0.5 mm)



YRSD-2P



PEFS Series *Rapid Shutdown (DC24V)*



High Craftsmanship and Standards



Shutdown while ambient temperature is over 85°C



Slim size match module perfectly

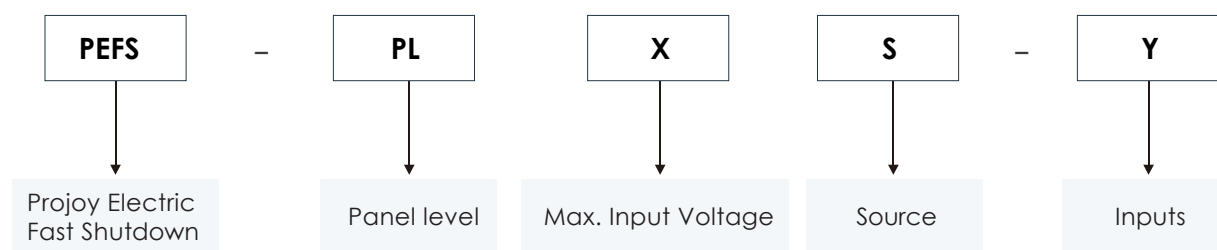


Flame retardant rating: UL94-V0



Protection Level: IP68

Select Code

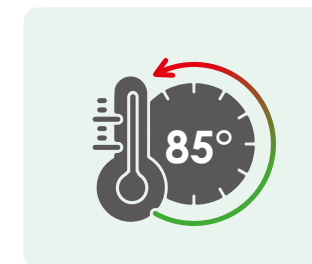


Technical data

Type	PEFS-PL80S-11	PEFS-PL80S-21	PEFS-PL120S-11	PEFS-PL120S-21
Number of PV Inputs	1	2	1	2
Number of Modules Recommend	1	2	2	4
Maximum Allowed Input Voltage	80V	80V	120V	120V
Maximum Allowed Input Current		20A		
Maximum Output Voltage	80V	160V	120V	240V
System Voltage		1000V / 1500V		
Control Compliance		24VDC Power Line		
Ambient Operating Temperature		-30° C to +80° C		
Protection Temperature		85° C		
IP Level		IP68		
Fire-proof Level		UL94-V0		
Humidity		0%~90%		
Connector		MC4		
Design Life		25 years(Warranty: 10 years)		
Size	120*51.9*22.4mm	120*59*22.4mm	120*51.9*22.4mm	120*59*22.4mm
String Cable Length	120mm	600mm	120mm	600mm
String Cable Length	1200mm	1200mm	2400mm	2400mm
Standard Compliance	NEC2017/2020 (690.12); UL1741; IEC/EN62109; IEC/EN61000			

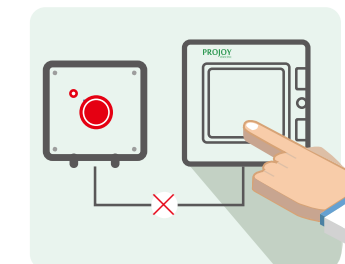
Shutdown Mode

Automatic Shutdown



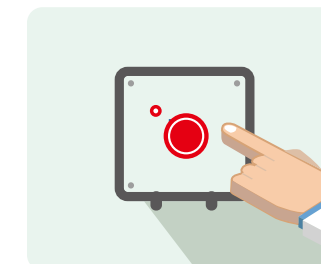
Automatically shutdown the DC power of panels when detecting temperature of the area is higher than 85°C.

Manual Shutdown



In an emergency, firefighters or homeowners can manually turn off the AC power of the distribution box.

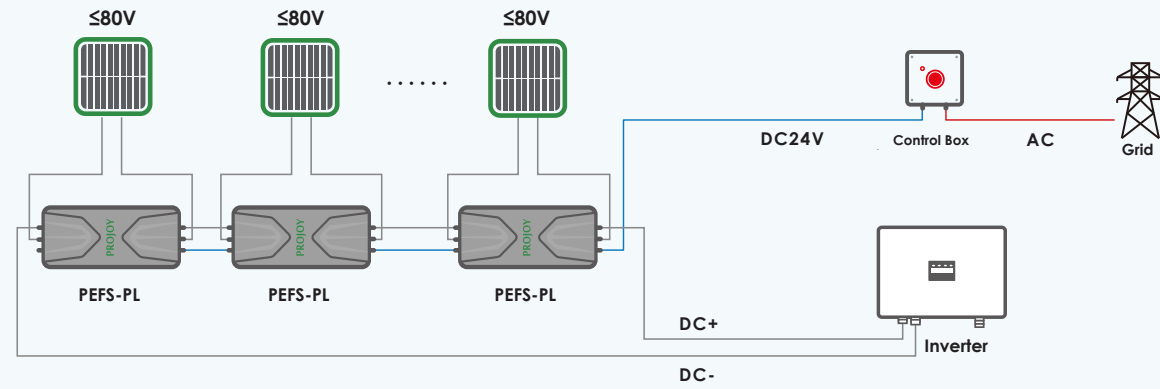
Manual Shutdown



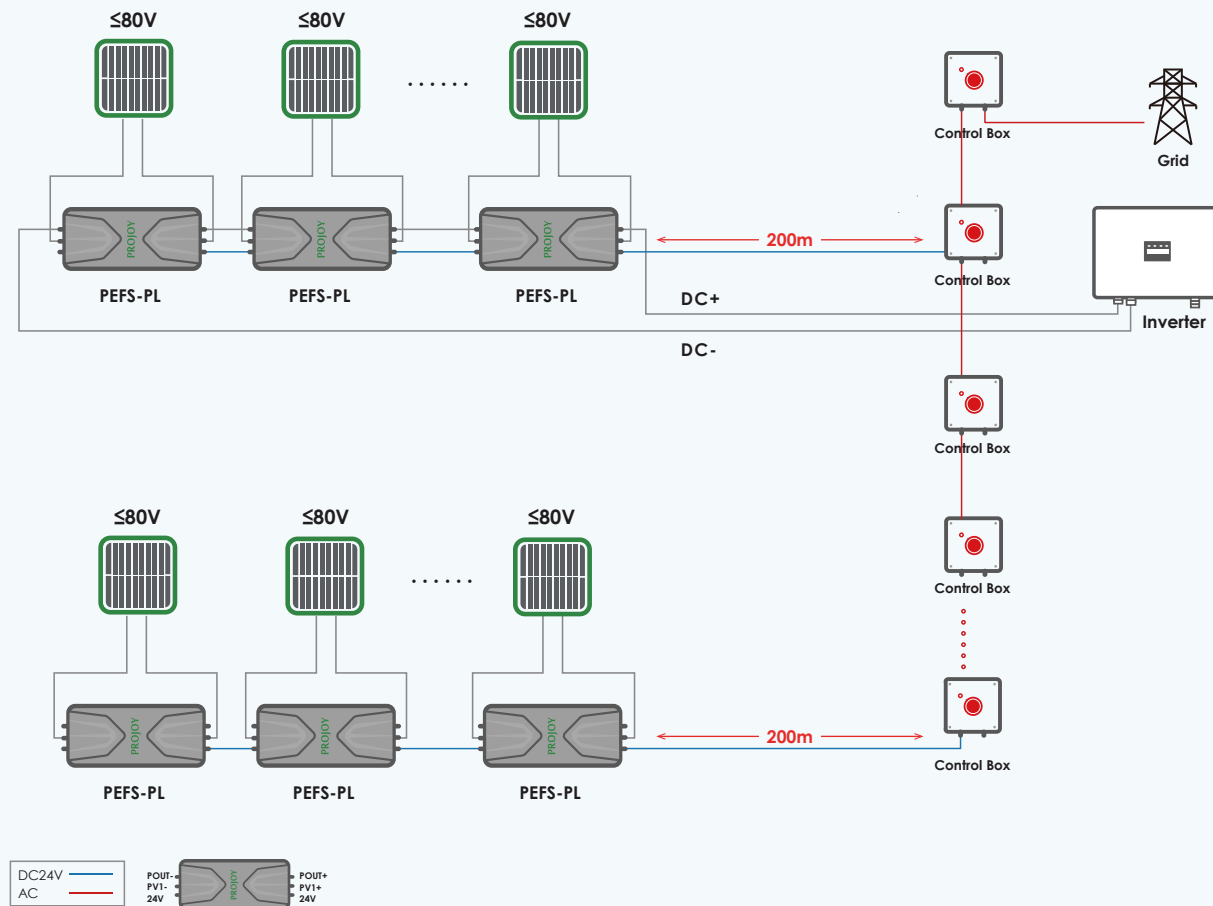
In an emergency, it can be shut down manually through the Panel Level Rapid Shutdown Controller Box.

PEFS-PL80S-11

When the open-circuit voltage of PV panel is below 80V.



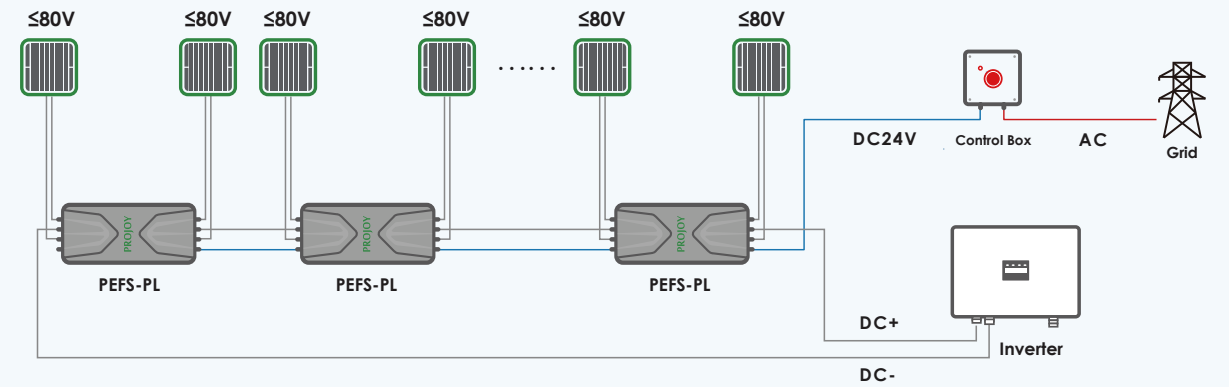
* When the number of components is greater than 60pcs, multiple control boxes can be connected in parallel, and up to 10 control boxes can be connected in parallel.



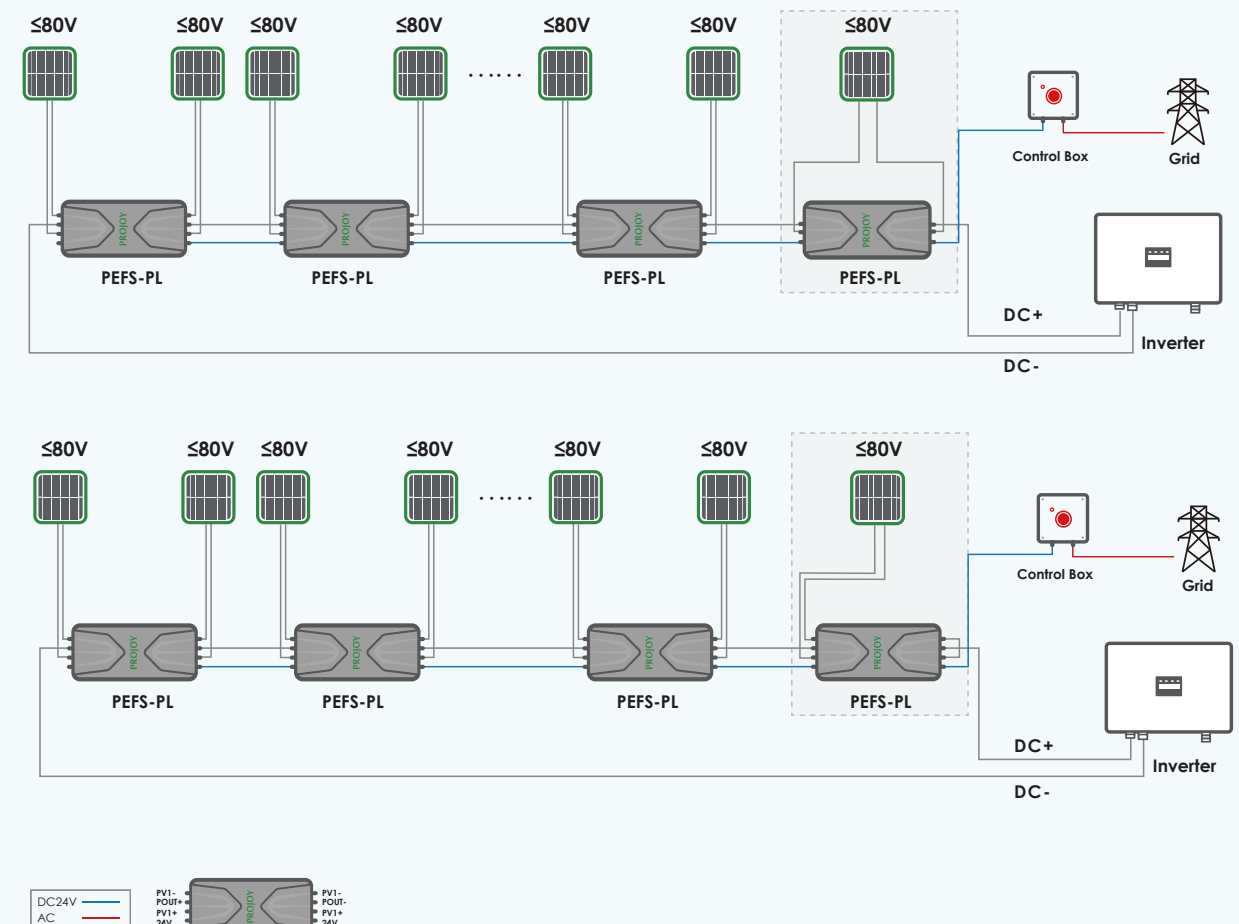
PEFS-PL80S-21

When the open-circuit voltage of PV panel is below 80V.

* When the number of components is even, all rapid shutdowns are of the one-fits-two type.

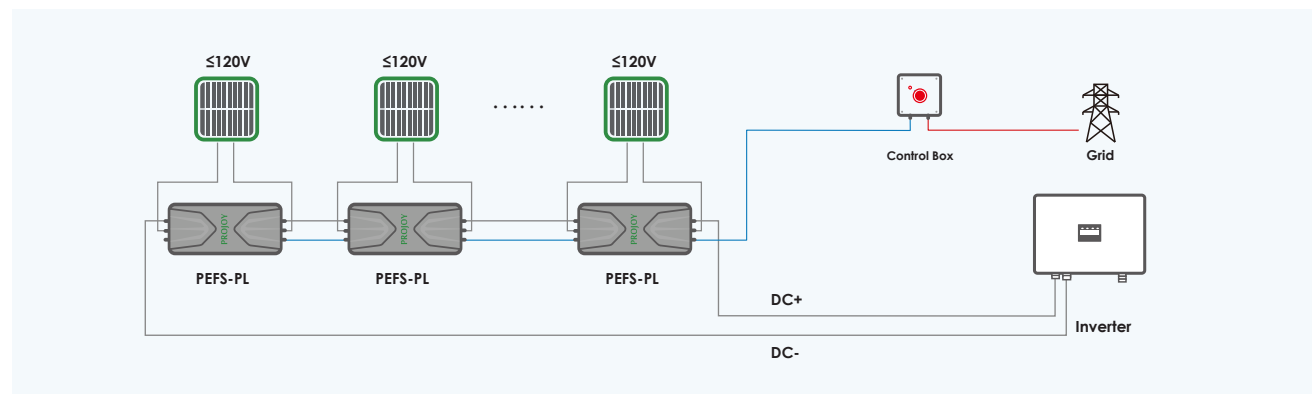


* When the number of components is an odd number, the last rapid shutdown uses a one-fits-one type, or a one-fits-two type to connect only one channel.

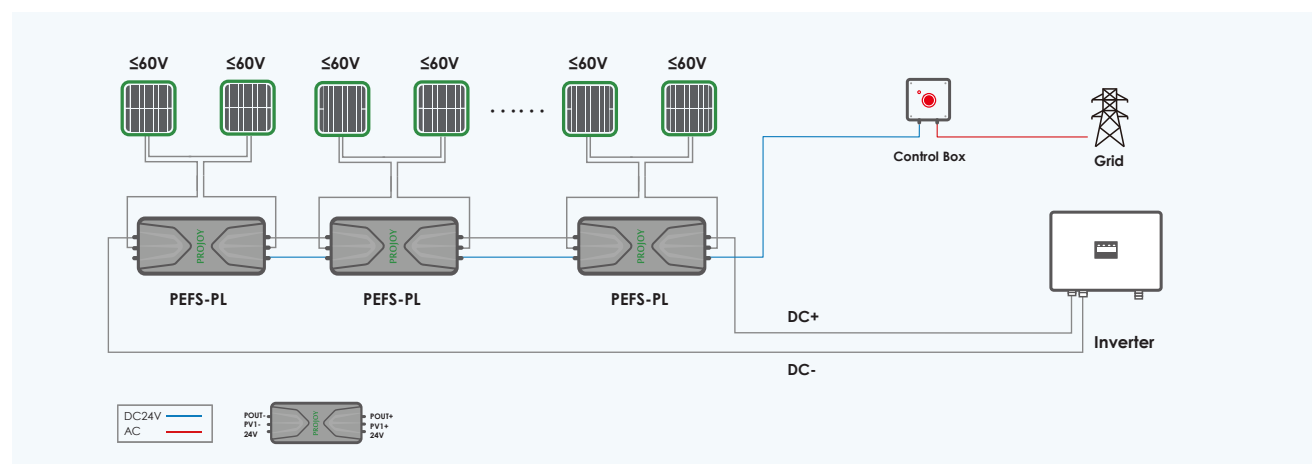


PEFS-PL120S-11

When the open-circuit voltage of PV panel is below 120V.

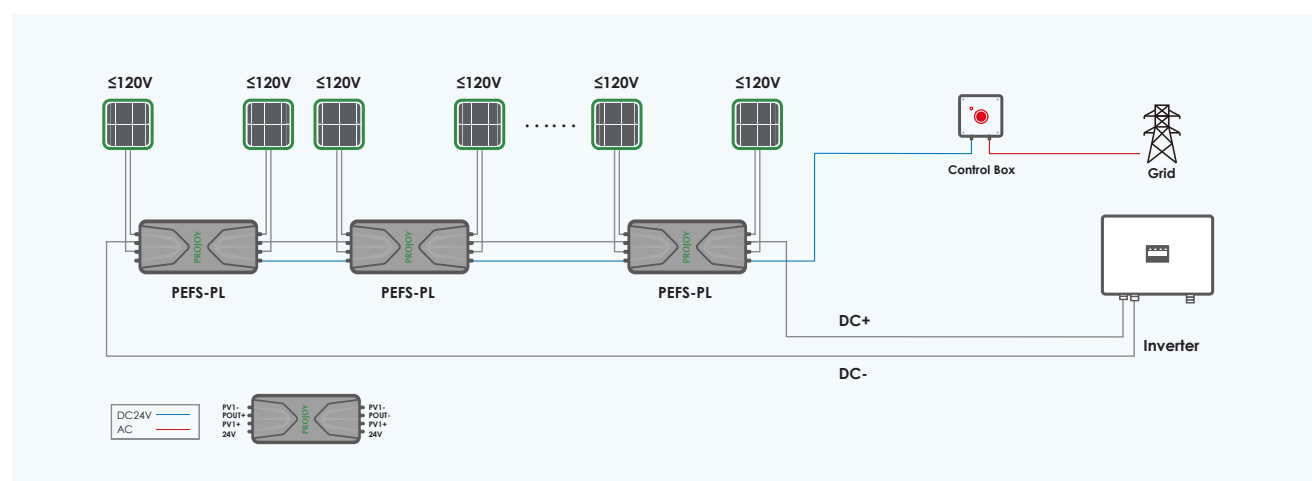


When the open-circuit voltage of PV panel is below 60V.



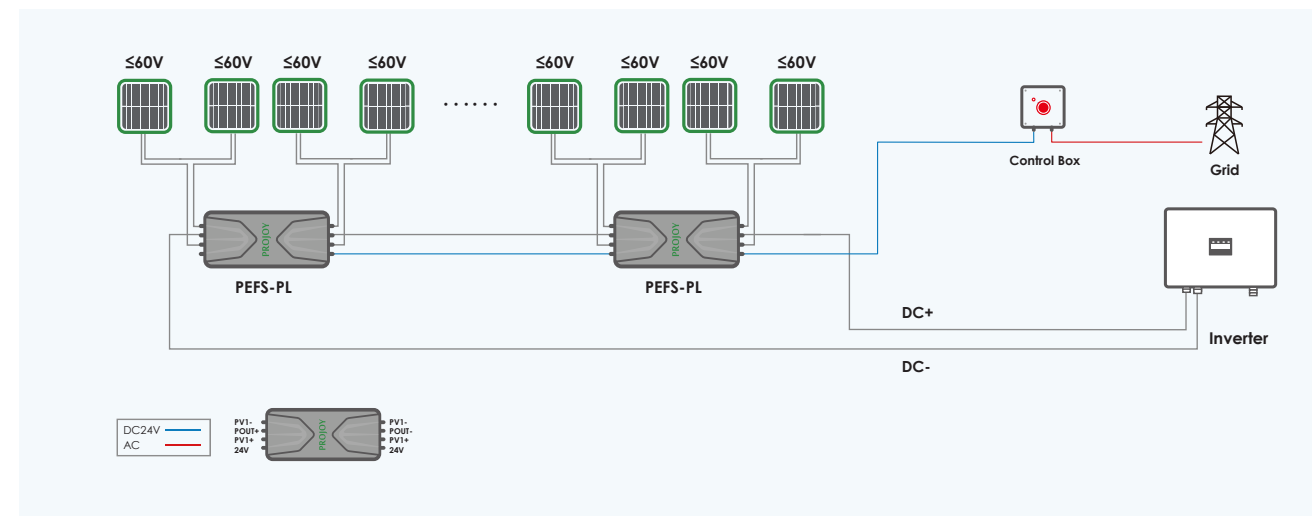
PEFS-PL120S-21

When the open-circuit voltage of PV panel is below 120V.



PEFS-PL120S-21

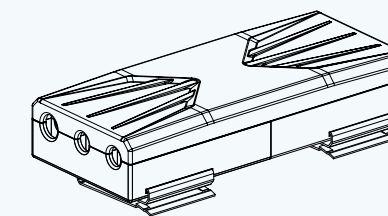
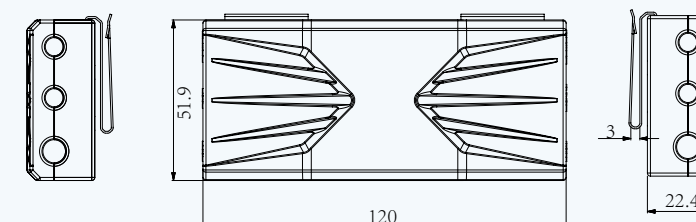
When the open-circuit voltage of PV panel is below 60V.



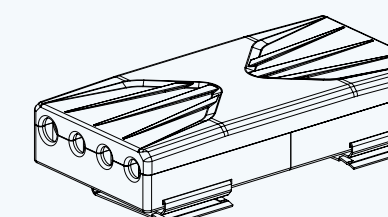
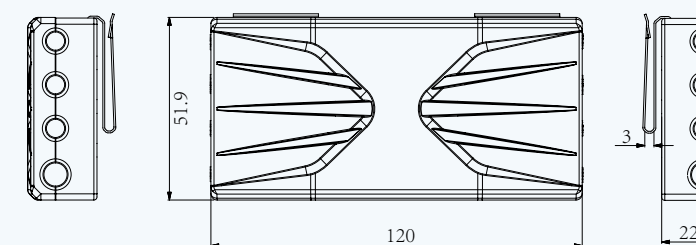
Dimension

PEFS-PL80S-11
PEFS-PL120S-11

(Unit: mm)



PEFS-PL80S-21
PEFS-PL120S-21



PEFS Series

Rapid Shutdown Control Box (DC24V)



High Craftsmanship and Standards



Comply with NEC2017 /
NEC2020(690.12) and
Sunspec RSD requirements



Flame retardant:
UL94-V0



lockable, avoiding
mis-action



UL 1741 PVRSE compliance
UL 3741 PVRSS compliance



Up to 480 pcs of
modules under
controller



Ingress protection: >
IP65



Max 50°C, No power
degradation



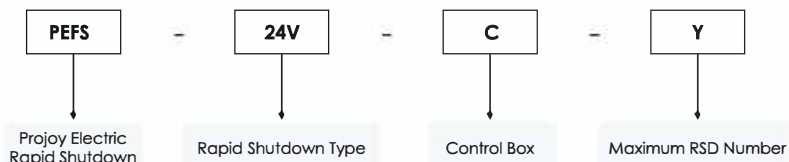
Anti-interfer-
ence, stable &
reliable



www.projoy-thai.com

V2.3 20221018

Select Code



Technical data

Control Box with Power Supply

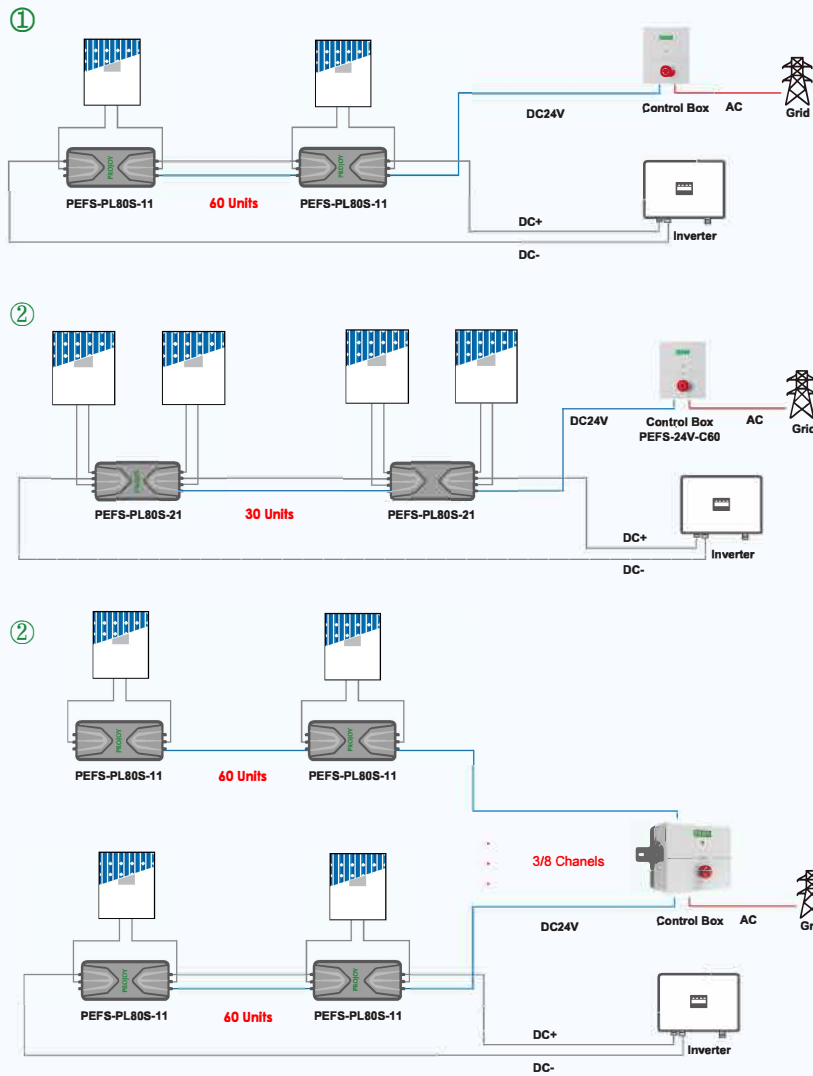
Model	PEFS-24V-C60	PEFS-24V-C180
Operating AC Voltage Range	100 V-240 V	
Normal Frequency	50/60 Hz	
Output Voltage	24V DC	
Output Current / Power	2.2A/50W	3*2.2A (3 Channels) /160W
24Vdc Control Cable Size	0.823 mm ² / 18 AWG	
24Vdc Control Cable Length With Standard Connectors	20 m / 30 m / 100 m	
Spare Terminal Connectors	Yes	
Maximum PEFS-PL80S-11	60 Units	3*60 Units
Maximum PEFS-PL80S-21	30 Units	3*30 Units
Dimensions (mm)	155*188*63	265*218*63
Lockable	Optional (IP54)	
Operating Temperature Range	-30°C ~ +70°C (50 °C No degradation)	
Protection Class	IP65	
Mounting	Wall Mounted	
Maximum Distance (Last RSD to Controller Box)	200m	

Control Box Without Power Supply

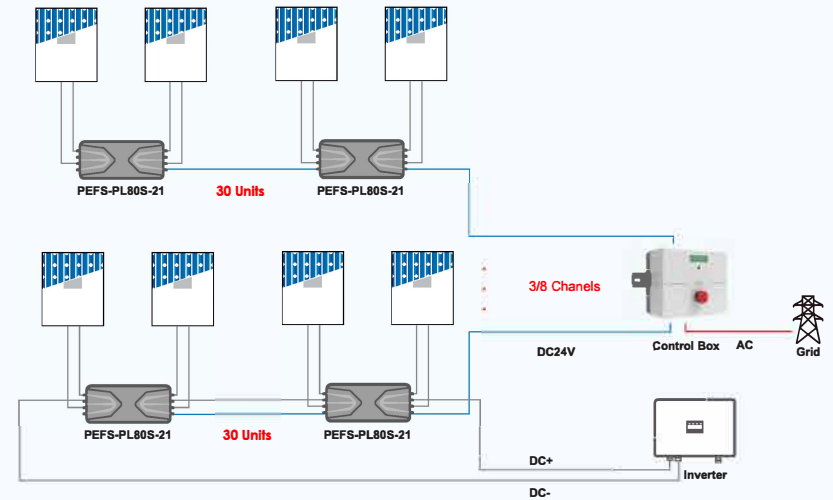
Model	PEFS-24V-C480
Operating AC Voltage Range	100 V-240 V
Normal Frequency	50/60 Hz
Output Voltage	24V DC
Output Current	8*2.2A (8 Channels)
24Vdc Control Cable Size	0.823 mm ² / 18 AWG
24Vdc Control Cable Length With Standard Connectors	20 m / 30 m / 100 m
Spare Terminal Connectors	Yes
Maximum PEFS-PL80S-11 / Per String	8*60 Units
Maximum PEFS-PL80S-21 / Per String	8*30 Units
Dimensions (mm)	210*175*105
Lockable	Optional
Operating Temperature Range	-30°C ~ +70°C (50 °C No degradation)
Protection Class	IP65
Mounting	Wall Mounted
Maximum Distance (Last RSD to Controller Box)	200m
External Power Source Requirements	Output Current Maximum PEFS-PL80S-11 Maximum PEFS-PL80S-21
	≥20A / 500W 480 Units 240 Units



Diagram



Diagram



Dimension

