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## Solar Photovoltaic Pump Inverter System

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Public



The company's founder team has been engaged in inverter research since 2007

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**Vision: Become the world's Leading Manufacturer on Pump Inverters**

**Mission: Make Pump Inverter Easy**

**Value: Create Value for Customers**



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# About Us

## Since 2007

### Manufacturer of inverter water supply system

Guangzhou BEDFORD Electric Equipment Co., Ltd. is a national high-tech enterprise integrating R&D, production, sales and service, and is a famous manufacturer of inverter water supply system in China, which has created the free brand "BEDFORD" and "WOLANDE", we have also registered domestic and international trademarks. Through the combination of software& hardware integration, intelligent control & remote monitoring platform, we can customize various pump energy- saving control systems for customers. At present, the company has passed IEC 62109-1/2, ISO9001, SO14001,ISO45001, CE certification, product energy-saving certification, health license and intellectual property rights through the management system certification, access to a number of invention patents, utility model patents and other intellectual property rights. In China "BEDFORD" was recognized as a national high-tech enterprise in 2017, the industrial enterprise above the scale in 2018, the technolog-based small and medium-size in 2019 and become the A-class taxpayer in 2020 and 2021.

### R&D Capabilities

BEDFORD is committed to promoting the long-term sustainable development of the company's scientific and technological power and innovation culture, open cooperation with domestic and foreign academia, deep industry for more than 20 years to continue to explore new technologies and new structures, integrate the advantages of talent and resources, and encourage invention and technological innovation. We insist on investing more than 8% of our annual revenue in R&D. We have set up a R&D center in the company with an independent R&D laboratory, and the staff engaged in research and development accounts for about 21% of the total number of employees in the company.

### Product Application

In line with the national "energy saving, water saving, environmental protection" new technology products requirements. Our products can be used for pressurized water supply in high-rise houses, villas, schools, hotels, landscaping, and as for global agricultural water-saving irrigation, etc. At present, the company has set up more than 300 distribution agents in more than 30 provinces and cities in China, and the products are exported to more than 70 countries and regions overseas.

### Social Responsibility

In the process of steady development, BEDFORD does not forget to fulfill its social responsibility and speaks of credibility and business ethics for the benefit of mankind. Over the years, we have been actively supporting street and district charity activities, donating to poverty alleviation projects every year and launching employees to participate in blood donation activities. In the fight against the new crown epidemic, BEDFORD has responded to the call to actively participate in the donation of epidemic prevention materials and be a front-line volunteer nucleic acid testing work, contributing to the public welfare of the district and the streets.

## DEVELOPMENT HISTORY

**2007**

April 2007 Guangzhou BEDFORD Electric Equipment Co., Ltd. was officially established; Registered the Chinese "BEDFORD" and English "BEDFORD" trademarks.

**2013**

The second generation of B603 series integrated intelligent water pump inverter launched in the market; Registration of the trademark "WOLANDE".

**2015**

Awarded as Guangzhou Science and Technology Small Giant.

**2017**

The first invention patent was authorized; passed the national high-tech enterprise certification.

**2019**

Technology-based small and medium-sized enterprise recognition.

**2021**

The second invention patent was granted; the winning bidder of the service to terminal project of Guangzhou Water Supply Company.

**2023**

A fourth patent for a water supply system invention was granted.

**2009**

The first generation of B600 series backpack intelligent water pump inverter was launched, becoming the first domestic manufacturer of integrated intelligent water pump inverter; Passed ISO9001 and ISO14001 certification; Obtained health license for drinking water safety; EU "CE" certification.

**2014**

September 2014 Became the winning bidder of Guangzhou Water Supply Company's 2014-2016 secondary water supply pressurization equipment renovation procurement project.

**2016**

Liwan District SME Technology Innovation Fund Project.

**2018**

Became an "above-scale enterprise"; Achieved breakthrough results in "lean production improvement".

**2020**

The third generation of W713 series integrated intelligent water pump inverter was launched; the enterprise was awarded A-class taxpayer.

**2022**

The third invention patent was granted.

High-tech Enterprise



Tax Credit Grade A



Water-related Health License



ISO



High-tech Products



After-sales Service Certification



Energy Saving Certification



CE



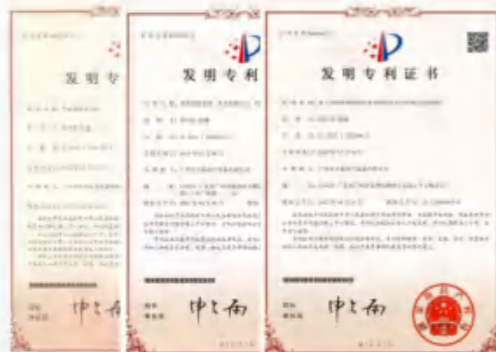
RoHS



Software Certificate



Invention Patent



Utility Model Patent



Appearance Patent



## Solar Photovoltaic Pump Inverter



WLD280 (IP20)

### Technical Parameters

OUTPUT 3PH 110V AC


Rated Input AC Voltage	220V AC
Maximum Input DC Voltage	400V DC
Recommended Input DC Voltage Range	100V~370V DC
Recommended Input Working Voltage	160V DC
The Number of Input port	1
Rated Output Voltage	3PH 110V AC

OUTPUT 3PH 220V AC


Rated Input AC Voltage	220V AC
Maximum Input DC Voltage	400V DC
Recommended Input DC Voltage Range	220V~370V DC
Recommended Input Working Voltage	305V DC
The Number of Input port	1
Rated Output Voltage	3PH 220V AC

OUTPUT 3PH 380V AC

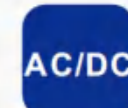
Rated Input AC Voltage	380V AC
Maximum Input DC Voltage	800V DC
Recommended Input DC Voltage Range	420V~720V DC
Recommended Input Working Voltage	540V DC
The Number of Input port	1
Rated Output Voltage	3PH 380V AC




**Intelligent Auto-sleep**  
Protection of under-voltage and over-voltage




**High-Precision**  
MPPT accuracy up to 99%  
Higher utilization of solar energy




**AC/DC Compatible Drive**  
Can be connected to both DC and AC



**Convenient**  
Easy transportation  
simple installation,  
run automatically

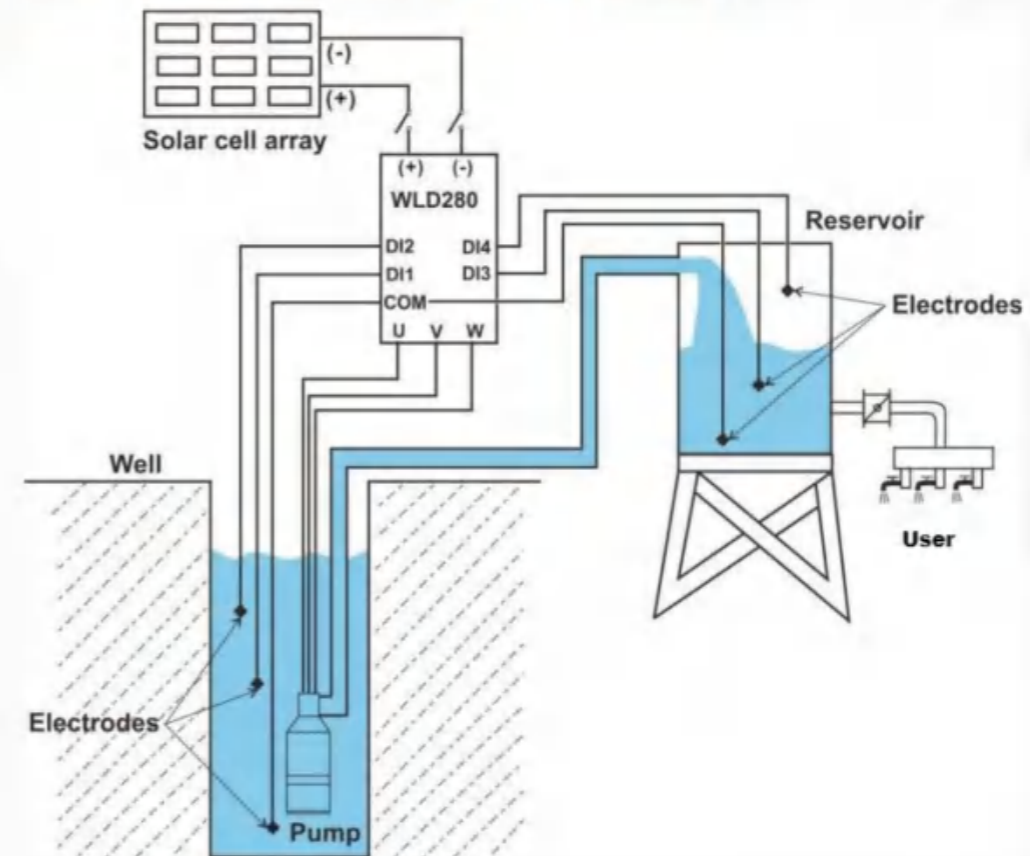


**Powerful**  
Supply water to remote areas where electricity is lacking or unreliable

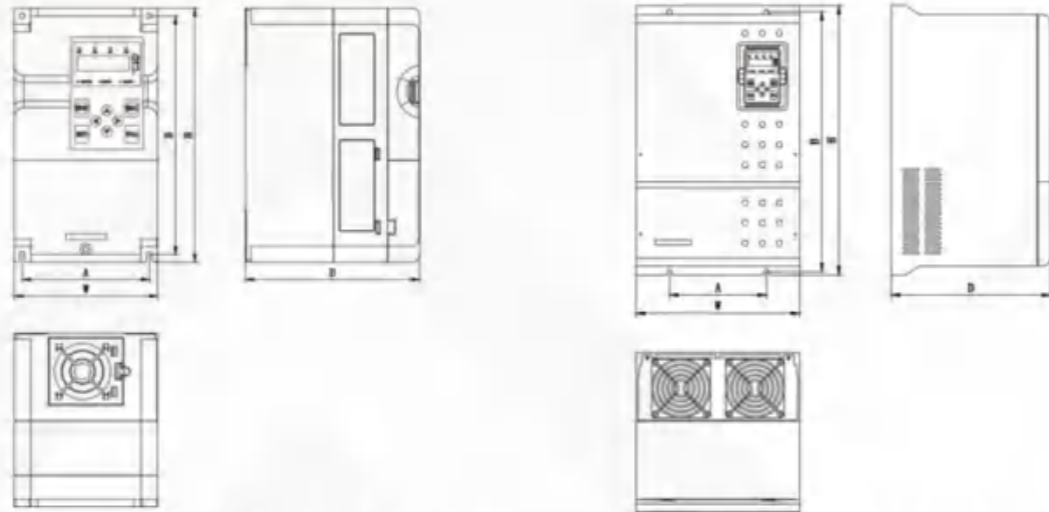


**Cost savings**  
All power from solar  
no need pay electric charge

## Photovoltaic Water Supply System



## External Dimension



220V: 0.75kW~22kW Dimension  
380V: 0.75kW~37kW Dimension

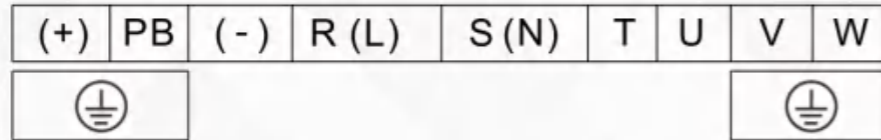
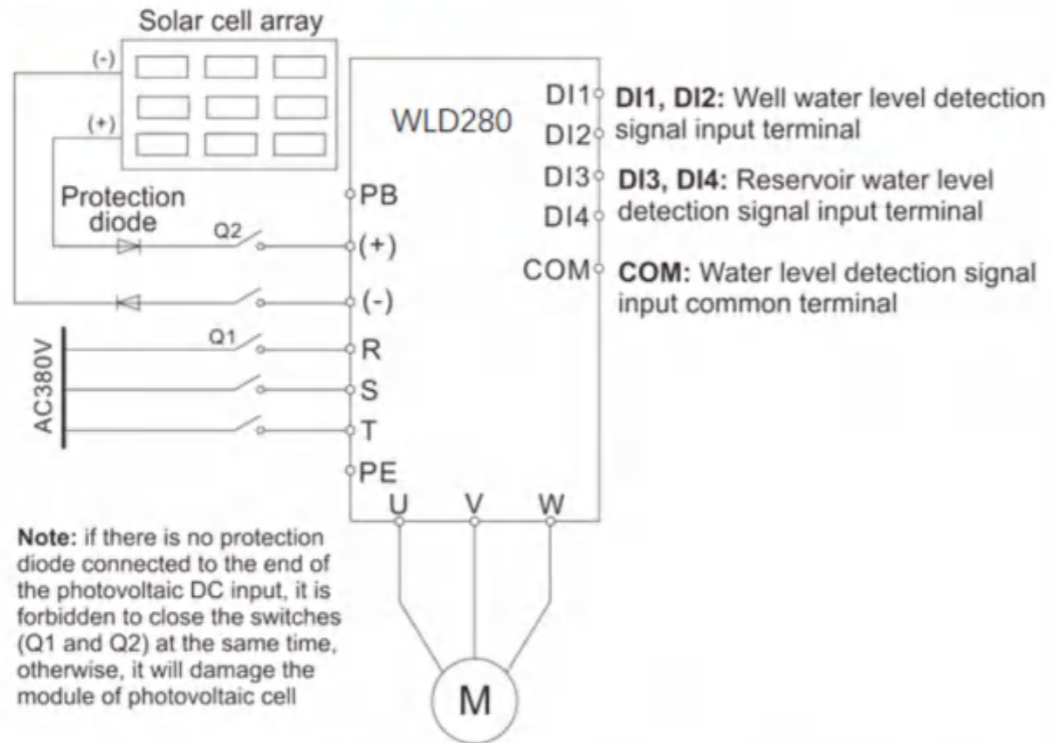
220V: 30kW~55kW Dimension  
380V: 45kW~200kW Dimension

Power (kW)	Installation Dimension		External Dimension			Installation Hole(mm)
	A (mm)	B (mm)	H (mm)	W (mm)	D (mm)	
220V: 0.75~2.2 380V: 0.75~2.2	114	174	186	126	163.8	5
110V: 1.5 220V: 3.7 380V: 4.0~5.5	114	174	186	126	185	5
110V: 2.2 220V: 5.5 380V: 7.5	129	242	258	145	176.5	5.5
220V: 7.5 380V: 11.0~15.0	146	301	313	161	210	6
220V: 11.0~15.0 380V: 18.5~220	185	330	342	200	200.5	6
220V: 18.5~22.0 380V: 30.0~37.0	233	381	400	251	213	6
220V: 30.0~55.0 380V: 45.0~110.0	199	534	554	336	327.5	9
380V: 132~200	360	848	870	503	362	11

## Model Specification (IP20)

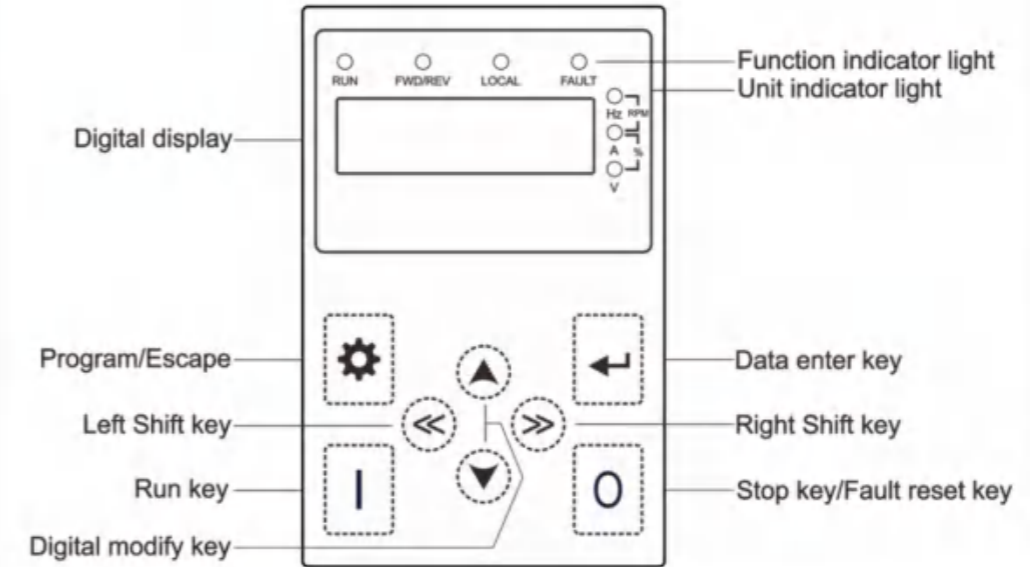
Model No.	Rated Input Voltage (V)	Rated Output Power (kW)	Rated Input Current (A)	Rated Output Current (A)	Motor Power (kW)
WLD280-1002	DC 100V~370V or AC 1PH 220V±15%	1.5	11.1	18.5	1.5
WLD280-1003		2.2	15.8	25	2.2
WLD280-2001	DC 220V~370V or AC 1PH 220V±15%	0.75	7.1	4.5	0.75
WLD280-2002		1.5	11.1	7.0	1.5
WLD280-2003		2.2	15.8	10.0	2.2
WLD280-2001	DC 220V~370V or AC 3PH 220V±15%	0.75	7.1	4.5	0.75
WLD280-2002		1.5	11.1	7.0	1.5
WLD280-2003		2.2	15.8	10.0	2.2
WLD280-2005		3.7	23.0	17.0	3.7
WLD280-2007		5.5	32.0	25.0	5.5
WLD280-2010		7.5	40.0	32.0	7.5
WLD280-2015		11.0	56.0	45.0	11.0
WLD280-2020		15.0	70.0	60.0	15.0
WLD280-2025		18.5	80.0	75.0	18.5
WLD280-2030		22.0	97.0	91.0	22.0
WLD280-2040	30.0	125.0	112.0	30.0	
WLD280-2050	37.0	155.0	150.0	37.0	
WLD280-2060	45.0	178.0	176.0	45.0	
WLD280-2075	55.0	210.0	210.0	55.0	
WLD280-4001	DC 420V~720V or AC 3PH 380V±15%	0.75	3.4	2.1	0.75
WLD280-4002		1.5	5.0	3.8	1.5
WLD280-4003		2.2	5.8	5.1	2.2
WLD280-4005		4.0	13.5	9.5	4.0
WLD280-4007		5.5	19.5	14.0	5.5
WLD280-4010		7.5	25.0	18.5	7.5
WLD280-4015		11.0	32.0	25.0	11.0
WLD280-4020		15.0	40.0	32.0	15.0
WLD280-4025		18.5	47.0	38.0	18.5
WLD280-4030		22.0	51.0	45.0	22.0
WLD280-4040		30.0	70.0	60.0	30.0
WLD280-4050		37.0	80.0	75.0	37.0
WLD280-4060		45.0	98.0	92.0	45.0
WLD280-4075		55.0	128.0	115.0	55.0
WLD280-4100		75.0	139.0	152.0	75.0
WLD280-4120		90.0	168.0	180.0	90.0
WLD280-4150		110.0	201.0	215.0	110.0
WLD280-4180		132.0	265.0	260.0	132.0
WLD280-4215		160.0	310.0	305.0	160.0
WLD280-4250		185.0	345.0	340.0	185.0
WLD280-4270	200.0	385.0	380.0	200.0	

## Main Circuit Terminals Wiring

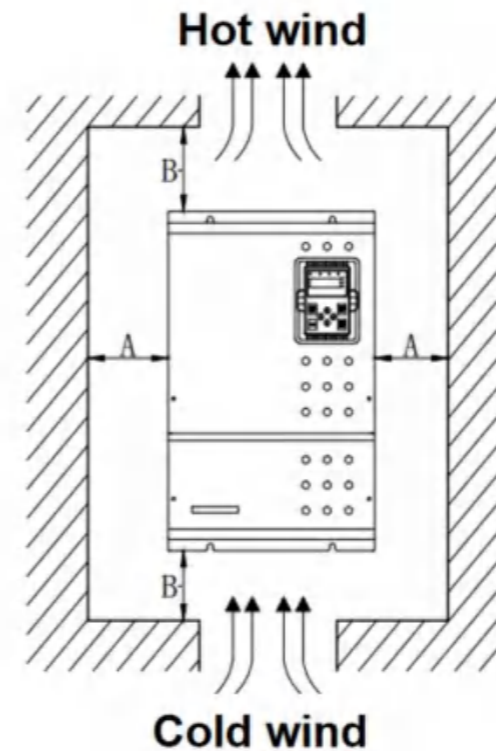


Symbol	Function Description
R, S, T	Terminals of 3 phase AC input
(+), (-)	Reserved external terminals for braking units
(+), PB	Reserved external terminals for braking resistance
(-)	Output terminals for minus DC bus voltage
U, V, W	Motor wiring terminal
⊥	Terminals of ground
DI1, DI2	Input terminals of Water-level detection signal for the wells
DI3, DI4	Input terminals of Water-level detection signal for the reservoir
COM	Input common terminal of water-level detection signal

## Keypad Description



## Installation Space



**Installed vertically upward**

Model (KW)	Dimension	
380V: 0.75kW~15kW	A=50mm	B=100mm
220V: 0.75kW~7.5kW		
380V: 18.5kW~22kW	A=50mm	B=200mm
220V: 11kW~15kW		
380V: 22kW~37kW	A=50mm	B=200mm
220V: 15kW~22kW		
380V: 37kW~200kW	A=50mm	B=300mm
220V: 22kW~55kW		



## Solar Photovoltaic Pump Inverter



WLD280 Smart (IP54)

## Technical Parameters

OUTPUT 3PH 110V AC

Rated Input AC Voltage	220V AC
Maximum Input DC Voltage	400V DC
Recommended Input DC Voltage Range	100V~370V DC
Recommended Input Working Voltage	160V DC
The Number of Input port	1
Rated Output Voltage	3PH 110V AC

OUTPUT 3PH 220V AC

Rated Input AC Voltage	220V AC
Maximum Input DC Voltage	400V DC
Recommended Input DC Voltage Range	220V~370V DC
Recommended Input Working Voltage	305V DC
The Number of Input port	1
Rated Output Voltage	3PH 220V AC



**Intelligent Auto-sleep**  
Protection of under-voltage and over-voltage



**High-Precision**  
MPPT accuracy up to 99%  
Higher utilization of solar energy



**AC/DC**  
**Compatible Drive**  
Can be connected to both DC and AC



**Convenient**  
Easy transportation  
simple installation,  
run automatically



**Powerful**  
Supply water to remote areas where electricity is lacking or unreliable

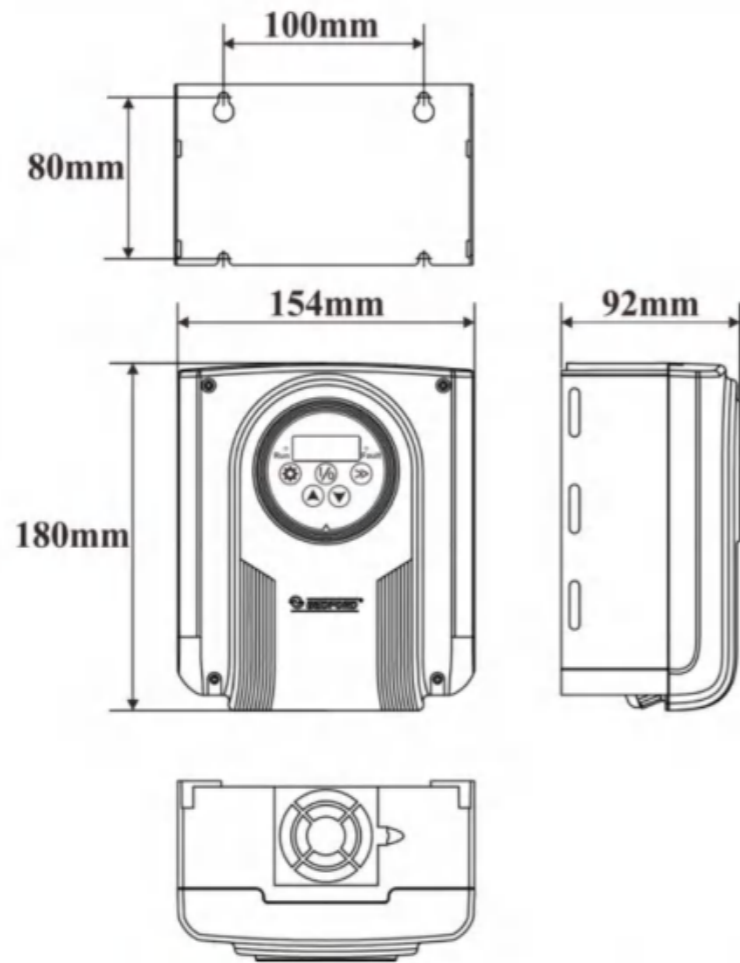


**Cost savings**  
All power from solar  
no need pay electric charge

## Functional Features

- Efficient MPPT tracking algorithm to give full play to the power generation efficiency of the solar cell array.
- Automatic adjustment of water pump output with the change of sunlight illumination.
- Water full in the upper pool reports water full fault, and the water level is automatically controlled by delayed automatic restart after the water full fault is cancelled.
- Can prevent the pump from pumping empty when the water source is dry.
- Weak light (such as sunset) automatically dormant, strong light (such as sunrise) out of dormancy.
- With a variety of protection functions to improve the reliability of the system's work.
- Widely used in farmland, orchard irrigation, water tower replenishment and other occasions.

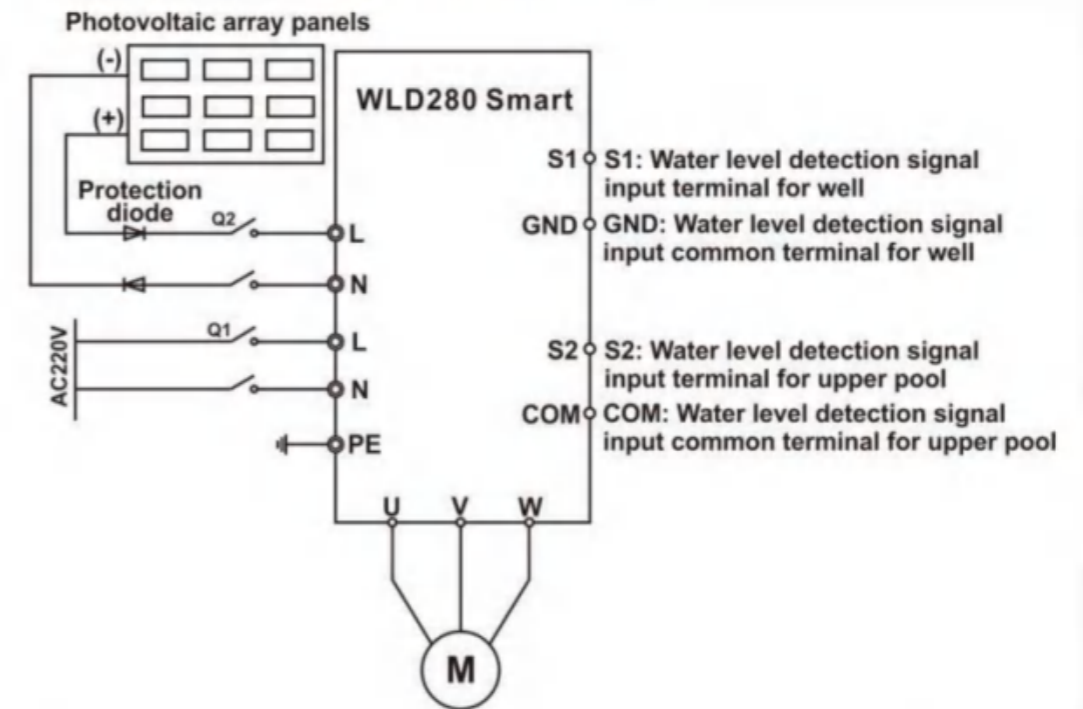
## External Dimension



## Model Specification(IP54)

Model	Rated Output Current (A)	Motor Power (kW)	Installation Dimension		External Dimension			Installation Hole (mm)
			A(mm)	B(mm)	W(mm)	H(mm)	D(mm)	
Input: AC 1PH 220V or DC300V, Output: AC 3PH 0~220V								
WLD280 Smart	10.0	2.2	100	80	154	180	92	5
Input: AC 1PH 220V or DC160V, Output: AC 3PH 0~110V								
WLD280 Smart-1001	10.0	0.75	100	80	154	180	92	5

## Photovoltaic Water Supply System



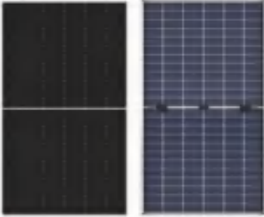


The main circuit terminals

L	N	PE	U	V	W
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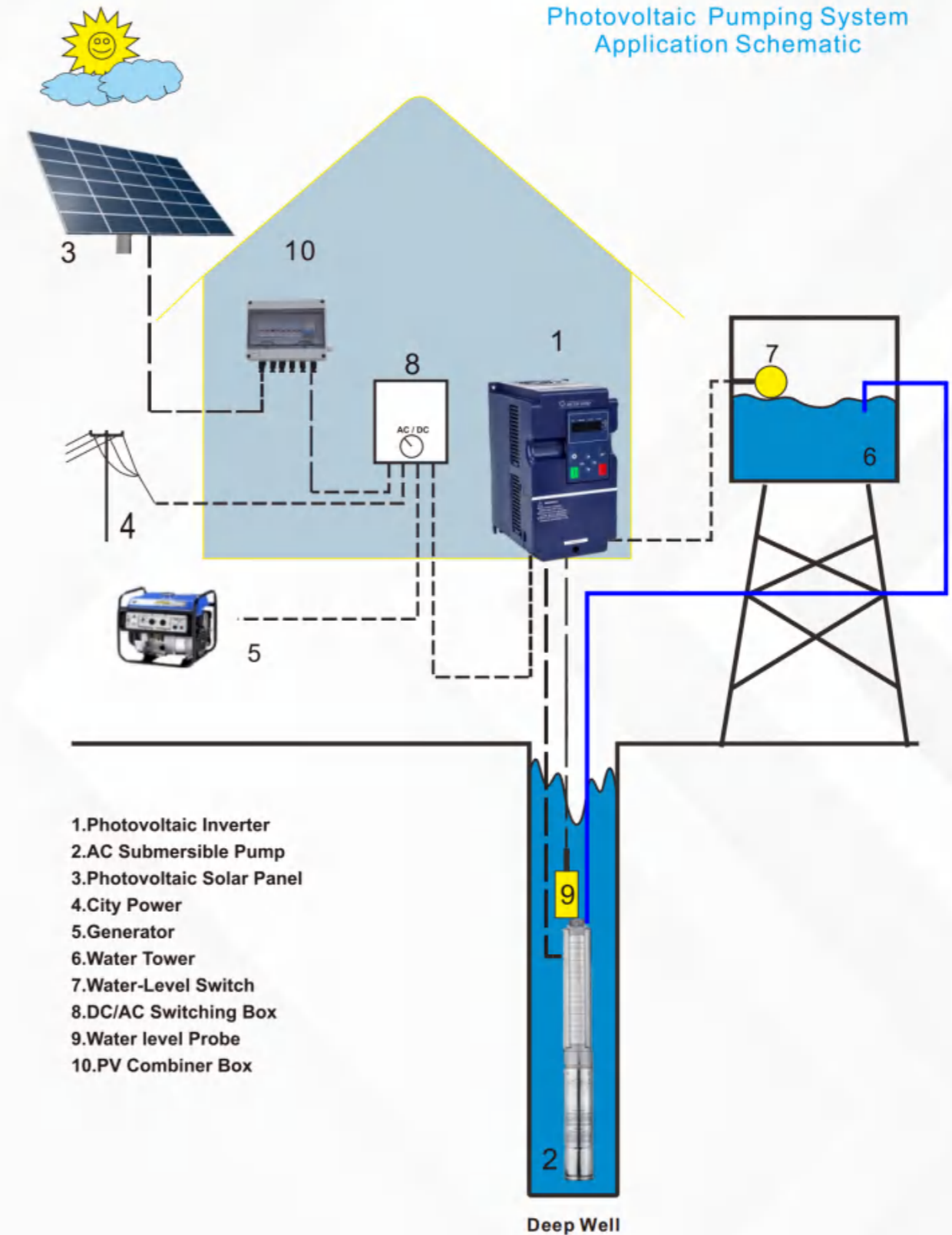
Main circuit terminal's function as following:

Terminal Symbol	Function Description
L, N	Terminals of 1PH/AC 220V or DC300V
U, V, W	Terminals of 3 phase AC output (Three-phase Motor wiring terminal)
PE	Terminals of ground

# Solar Photovoltaic Pump System List

No.	Product	Photos	Description	Qty	Unit
1	Solar Panels		Pmax/W:550W Voc/M:49.80V Isc/A:13.92A Vmp/N:41.80V Imp/A:13.12A Module Efficiency(%) : 21.3% Testing Condition:STC	13	pcs
2	WLD280 Photovoltaic inverter		Choose according to the power of the pump	1	set
3	Mounting Bracket		Flat roof or Ground: Stainless steel material Planar triangular structure Please choose which type do you need	1	set
4	DC/AC Switch Box		BFK-AC/DCX-4 size:500*400*250mm Switching AC/DC mode	1	set
5	PV Combiner Box		Outdoor spraying box: 1000VDC fuse core 10A, with lightning protection, anti-reverse module and total circuit breaker	1	set
6	Float switch		Detection of water level height	1	set
7	Accessories		Mc4 Connector Adhesive tape PV Cables	1	set

## Photovoltaic Pumping System

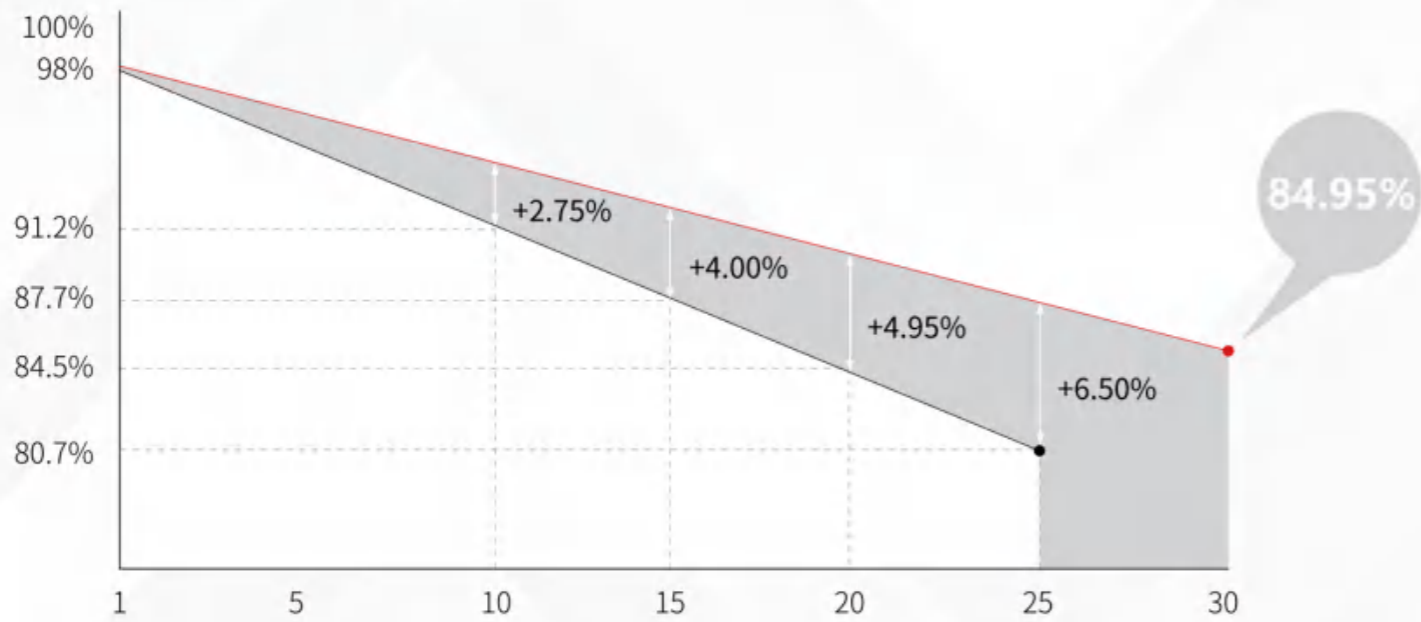


1. Photovoltaic Inverter
2. AC Submersible Pump
3. Photovoltaic Solar Panel
4. City Power
5. Generator
6. Water Tower
7. Water-Level Switch
8. DC/AC Switching Box
9. Water level Probe
10. PV Combiner Box

# Photovoltaic Solar Panel

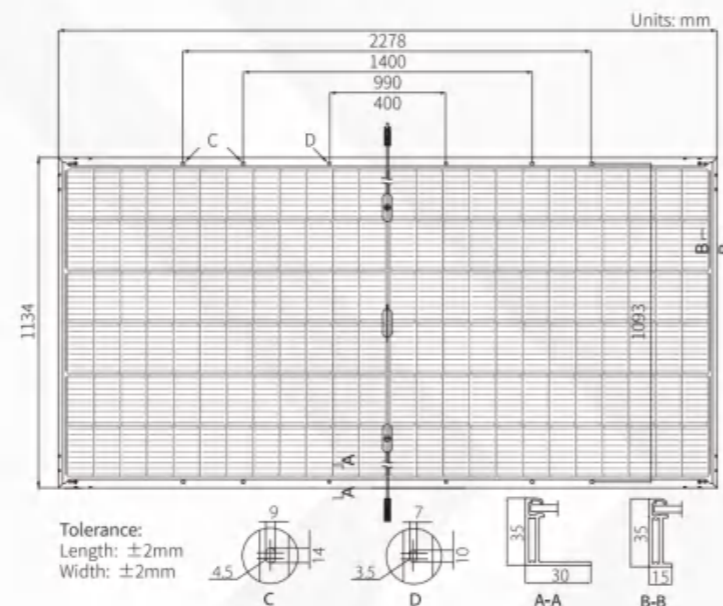
## Additional Value

Solar Panel Efficiency



## Mechanical Parameters

Cell Orientation	144 (6×24)
Junction Box	IP68, three diodes
Output Cable	4mm <sup>2</sup> , +400, -200mm/±1400mm length can be customized
Glass	Dual glass, 2.0+2.0mm heat strengthened glass
Frame	Anodized aluminum alloy frame
Weight	32.6kg
Dimension	2278×1134×35mm
Packaging	31pcs per pallet / 155pcs per 20' GP / 620pcs per 40' HC



## Electrical Characteristics

STC : AM1.5 1000W/m<sup>2</sup> 25°C

NOCT : AM1.5 800W/m<sup>2</sup> 20°C 1m/s

Test uncertainty for Pmax: ±3%

Module Type	BFS-550M	
Testing Condition	STC	NOCT
Maximum Power (Pmax/W)	550	411.1
Open Circuit Voltage (Voc/V)	49.80	46.82
Short Circuit Current (Isc/A)	13.99	11.29
Voltage at Maximum Power (Vmp/V)	41.95	39.14
Current at Maximum Power (Imp/A)	13.12	10.51
Module Efficiency(%)	21.3	

### Electrical characteristics with different rear side power gain

Pmax /W	Voc/V	Isc /A	Vmp/V	Imp /A	Pmax gain
572	49.65	14.61	41.80	13.69	5%
600	49.65	15.31	41.80	14.34	10%
627	49.75	16.00	41.90	14.99	15%
654	49.75	16.70	41.90	15.65	20%
681	49.75	17.39	41.90	16.30	25%

## Operating Parameters

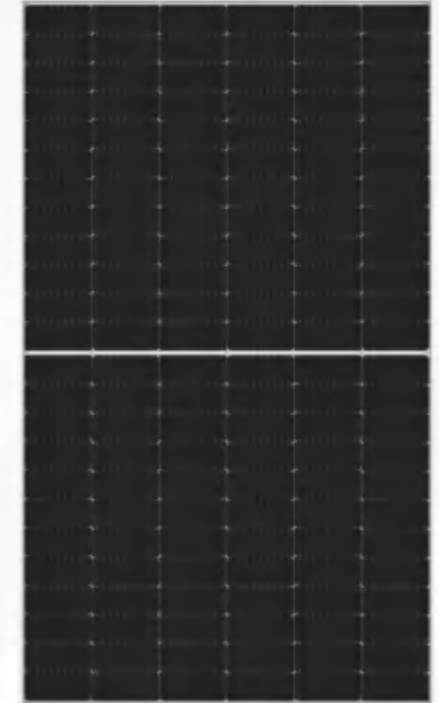
Operational Temperature	-40°C ~ +85°C
Power Output Tolerance	0 ~ 3%
Voc and Isc Tolerance	±3%
Maximum System Voltage	DC1500V (IEC/UL)
Maximum Series Fuse Rating	30A
Nominal Operating Cell Temperature	45±2°C
Protection Class	Class II
Bifaciality	70±5%
Fire Rating	UL type 29 IEC Class C

## Mechanical Loading

Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Hailstone Test	25mm Hailstone at the speed of 23m/s

## Temperature Ratings

Temperature Coefficient of Isc	+0.050%/°C
Temperature Coefficient of Voc	-0.265%/°C
Temperature Coefficient of Pmax	-0.340%/°C



## WLD280 (380V)

Deep-well Pump		WLD280		Solar panels		Recommended QTY of solar panels			
Voltage (V AC)	Motor Power (kW)	Model (380V)	Power (kW)	Model	Voltage (V DC)	Piece	Group	QTY	Power (kW)
380	0.75	WLD280-4002	1.5	BFS-550M	41.95	13	1	13	7150
380	1.5	WLD280-4003	2.2	BFS-550M	41.95	13	1	13	7150
380	2.2	WLD280-4005	4	BFS-550M	41.95	13	1	13	7150
380	4	WLD280-4007	5.5	BFS-550M	41.95	13	1	13	7150
380	5.5	WLD280-4010	7.5	BFS-550M	41.95	13	1	13	7150
380	7.5	WLD280-4015	11	BFS-550M	41.95	13	2	26	14300
380	11	WLD280-4020	15	BFS-550M	41.95	13	3	39	21450
380	15	WLD280-4025	18.5	BFS-550M	41.95	13	3	39	21450
380	18.5	WLD280-4030	22	BFS-550M	41.95	13	4	52	28600
380	22	WLD280-4040	30	BFS-550M	41.95	13	5	65	35750
380	30	WLD280-4050	37	BFS-550M	41.95	13	6	78	42900
380	37	WLD280-4060	45	BFS-550M	41.95	13	7	91	50050
380	45	WLD280-4075	55	BFS-550M	41.95	13	9	117	64350
380	55	WLD280-4100	75	BFS-550M	41.95	13	10	130	71500
380	75	WLD280-4120	90	BFS-550M	41.95	13	14	182	100100
380	90	WLD280-4150	110	BFS-550M	41.95	13	16	208	114400
380	110	WLD280-4180	132	BFS-550M	41.95	13	20	260	143000
380	132	WLD280-4215	160	BFS-550M	41.95	13	24	312	171600
380	160	WLD280-4250	185	BFS-550M	41.95	13	29	377	207350
380	185	WLD280-4270	200	BFS-550M	41.95	13	34	442	243100

■ Solar panel Power: 550W Voltage: 41.95VDC

■ 380V Solar photovoltaic pump inverter input voltage range: 420V~720V, recommend input voltage: 540V,  $540V \div 41.95 \approx 13$  piece/group

■ The oretical power of photovoltaic panels is about 1.2~1.5 times the motor power. can be adjusted based on the city's lighting intensity and the type of solar panel selected. This table is for reference only

## WLD280(220V)

Deep-well Pump		WLD280		Solar panels		Recommended QTY of solar panels			
Voltage (V AC)	Power (kW)	Mode (220V)	Power (kW)	Model	Voltage (V DC)	Piece	Group	QTY	Power (kW)
220	0.75	WLD280-2002	1.5	BFS-550M	41.95	8	1	8	4400
220	1.5	WLD280-2003	2.2	BFS-550M	41.95	8	1	8	4400
220	2.2	WLD280-2005	3.7	BFS-550M	41.95	8	1	8	4400
220	3.7	WLD280-2007	5.5	BFS-550M	41.95	8	1	8	4400
220	5.5	WLD280-2010	7.5	BFS-550M	41.95	8	2	16	8800
220	7.5	WLD280-2015	11	BFS-550M	41.95	8	2	16	8800
220	11	WLD280-2020	15	BFS-550M	41.95	8	3	24	13200
220	15	WLD280-2025	18.5	BFS-550M	41.95	8	4	32	17600
220	18.5	WLD280-2030	22	BFS-550M	41.95	8	5	40	22000
220	22	WLD280-2040	30	BFS-550M	41.95	8	6	48	26400
220	30	WLD280-2050	37	BFS-550M	41.95	8	9	72	39600
220	37	WLD280-2060	45	BFS-550M	41.95	8	11	88	48400
220	45	WLD280-2075	55	BFS-550M	41.95	8	13	104	57200

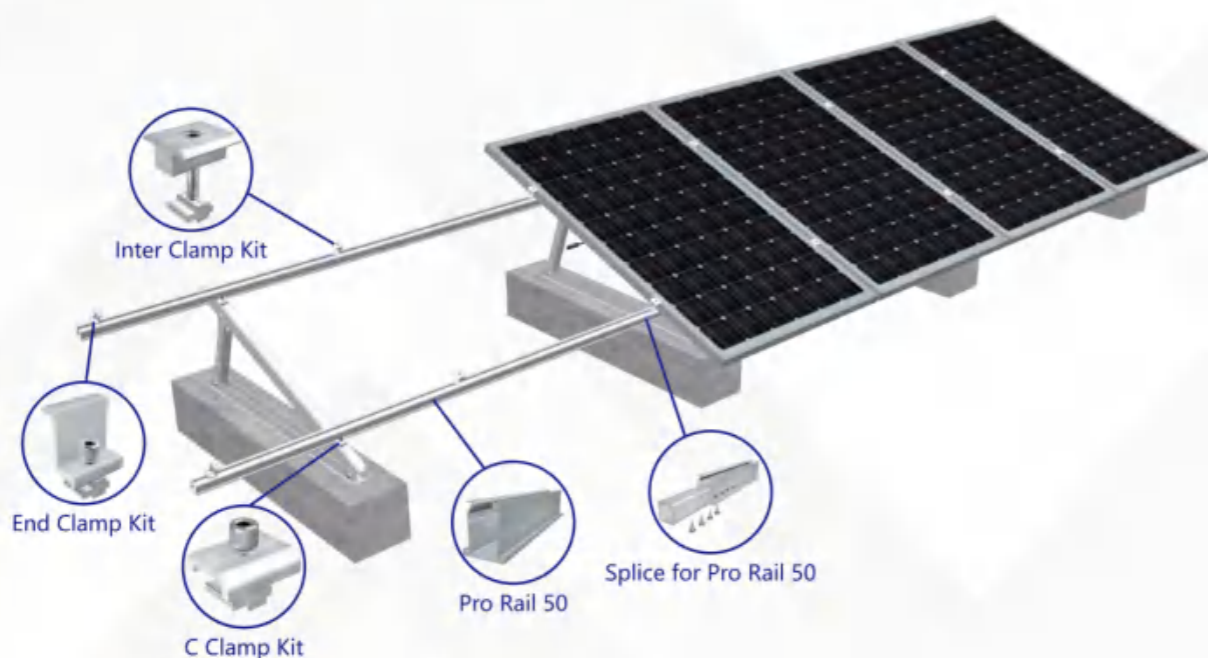
■ Solar panel Power: 550W Voltage: 41.95VDC

■ 220V Solar photovoltaic pump inverter input voltage range: 220V~370V, recommend input voltage: 305V,  $305V \div 41.95 \approx 8$  piece/group

■ The oretical power of photovoltaic panels is about 1.2~1.5 times the motor power. The specific range of use can be adjusted based on the city's lighting intensity and the type of solar panel selected. This table is for reference only



## Roof Solar Mounting System



### Technical Parameters

System Name	MRac RMII	Design Standard	AS/NZS 1170 , DIN 1055 , JIS C 8955 : 2017,
Installation Site	Flat Roof, Pitched Roof		International Building Code IBC 2009
Foundation	Concrete Roof, Metal Roof		California Building Code CBC 2010
Tilt Angle	0-60°	Material	AL6005-T5(Anodized)
Wind Load	60m/s	Fastener	SUS304 & Zinc-Nickel Alloy Electroplated Steel
Snow Load	1.6KN/m <sup>2</sup>	Small Components	AL6005-T5(Anodized)
Applicable Solar Module	Framed or Frameless	Color	Silver or Customized
Panel Layout	Portrait or Landscape	Warranty	10-Year Warranty

### Overview

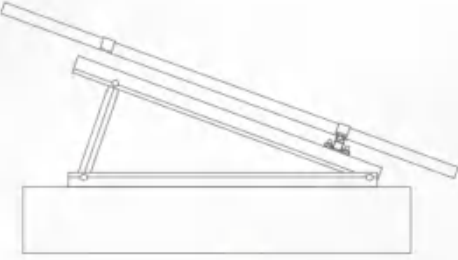
Roof Solar PV Mounting System Matrix II is derived from RM I to meet different roof projects demands. Solar modules can be arranged with single or double rows of landscape or portrait orientation. Quick installation and stable structure are assured by the modular Patented design.



### Advantages

- > **System Compatibility**  
Components mostly pre-assembled in factory to assure quick and reliable installation on site. Suitable for different flat rooftop, and compatible to different types of solar modules.
- > **Unique Mudsill Design**  
The mudsill can be fixed to flat roof or pitched roof with concrete foundation or steel foundation.
- > **Solar Module Layout Flexibility**  
Both landscape and portrait solar module layout are suitable. Both single row and double rows layout can be achieved separately or combined.
- > **Adjustability**  
Tilt angle can be adjustable

### Component Details



- Rail 45**  
 Specification : 3100, 4100, 5100mm  
 Material : AL6005-T5(Anodized)
- Splice for Rail 45**  
 Specification : standard length 260mm  
 Flange Head Self-taping Screw ST6.3\*19  
 Material : AL6005-T5(Anodized)
- End Clamp Kit**  
 Components: End Clamp  
 Cross Module  
 Spring Washer M8  
 Hex Socket Head Bolt
- Inter Clamp Kit**  
 Components: Inter Clamp  
 Cross Module  
 Spring Washer M8  
 Hex Socket Head Bolt
- C Clamp Kit**  
 Components: C Clamp  
 Cross Module  
 Spring Washer M8  
 Hex Socket Head Bolt
- Angle Aluminum Tripod Support**  
 Components: Angle Aluminum Beam  
 Angle Aluminum Mudsill  
 Angle Aluminum Side Beam  
 flat washerM8  
 spring washerM8  
 Hexagon Bolt M8\*2.5
- Single Tripod Support**  
 Components: Tripod Support Beam  
 Tripod Support Mudsill  
 Tripod Support SquareTubeA  
 HJointer  
 Flat Washer M10  
 Spring Washer M10  
 Hexagon Bolt M10\*65
- Adjustable Tripod**  
 Components: Tripod Support Beam  
 Tripod Support Mudsill  
 Tripod Support Square Tube A  
 H Jointer  
 Flat Washer M10  
 Spring Washer M10  
 Hexagon Bolt M10\*65

### Installation Guide

- Place the concrete base at the position indicated on the solution drawings.
- Fasten the preassembled supports on the expansion bolts by C Clamps.
- Install splices.
- Fasten the rails by C Clamp Kits.
- Install modules on the rails.
- Fasten modules by Inner Clamp Kits.
- Fasten modules by End Clamp Kits.
- Complete installation.

## PV Combiner Box

### BPVCB-4S~BPVCB-24S

- IP65, Outdoor application design
- Each string with independent protection
- Special lightning protection for Photovoltaic
- High voltage 1000VDC circuit breaker to ensure system reliability
- Applying anti-backflow device to avoid backflow current caused by PV unbalance voltage, improving life time of PV module



## Product Introduction

In order to reduce the connecting cables between the PV modules and inverters, easy maintenance, improve reliability, adding advanced technology DC combiner box between PV modules and the inverters.

### Technical Specifications

Model	BPVCB-4S	BPVCB-6S	BPVCB-8S	BPVCB-10S	BPVCB-12S	BPVCB-14S	BPVCB-16S	BPVCB-18S	BPVCB-20S	BPVCB-22S	BPVCB-24S
Max Input Vol.	1000VDC										
PV Array Input String No.	4	6	8	10	12	14	16	18	20	22	24
Input Current of Each String	0~10A										
Max. Output Current	100A	100A	100A	100A	250A	250A	250A	250A	250A	250A	250A
Protection Level	IP65										
Max. Altitude	<2000m										
Ambient Temperature	-25℃~+55℃										
Lightning Protection Level	40KA										
Relative Humidity	<95%										

\*Remarks: Products specifications are subject to change without notice.  
Description of other model parameters, please consult us.

## 1: Cable (RV:Single-Core, Multiple-Core)

For connecting solar panels to inverters



## 2: MC4 Connector (Special For Solar Panel)

Easier connection of solar panels



## 3: Waterproof Electrical Adhesive Tape

Protects connections from short circuits



## 4: Float Switch

Detects water level in the tank



## 5: Water Level Probe

Detection of water level in wells



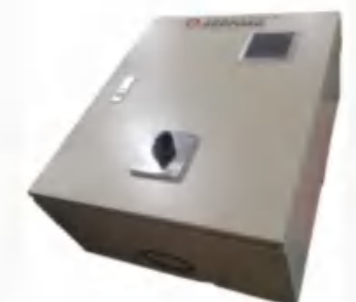
## 6: Grounding Rods

Grounding protection equipment



## 7: DC/AC Switching Box

Switch to solar or utility power at any time



## Submersible Pump

### Product Type:

- ◆ 4" Oil Cooling、6" Water Cooling Stainless Steel Submersible Pump
- ◆ 4" Below 70°C High Temperature Resistance Submersible Pump
- ◆ 6" Below 100°C High Temperature Resistance Submersible Pump
- ◆ 4"、6" All Stainless Steel Submersible Pump

\*Remarks: Products specifications are subject to change without notice. Description of other model parameters, please consult us.



Stainless steel pump head



Cast iron pump head



### Product Introduction:

BEDFORD Submersible Pump is a high grade product with advanced electric pump technology and equipment from USA and Italy.

The main component of submersible pump(such as impellers, deflector and so on)use new structure design, select the latest technique compound material and stainless steel, with high strength, abrasion resistance, sand impact resistance, high efficiency, energy saving, rust-free pollution, beautiful appearance, long life and other characteristics.

\* Pump head and base can be made of cast iron,304 or 316L stainless steel.

**Application 1:**  
Irrigation of Agriculture and Forestry



**Application 2:**  
Irrigation of Vineyard



**Application 3:**  
Solar Photovoltaic in Grazier



**Application 4:**  
Irrigation of Nature Reserve







160kW Solar Photovoltaic System Application

132kW Solar Pumping System



Cabinet Solar Photovoltaic System Application

5.5kW solar pumping System



55kW Solar pumping System