



Submersible Borehole Pumps

New-generation mechanical/electrical axial flow electric submersible pumps and mixed-flow electric submersible pumps from **Wings Pumps** provides high reliability, reduced installation and maintenance costs, with a longer lifetime.

CERTIFIED
ISO 9001
ISO 14001
ISO 45001
ISO 50001



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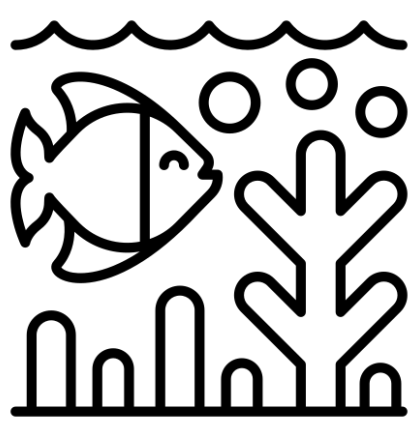


APPLICATIONS



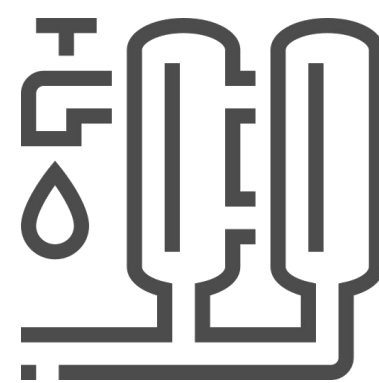
Storm Water Drainage

Supports structures, channels and pipes that carry stormwater (rain water) to ponds, lakes, streams and rivers.



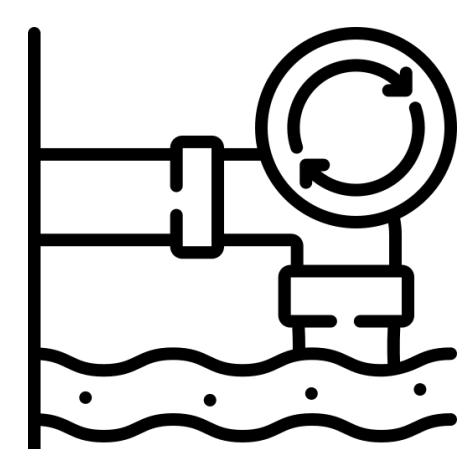
Irrigation and Aquaculture

Used for irrigation and aquaculture ecosystems. Environmentally-friendly.



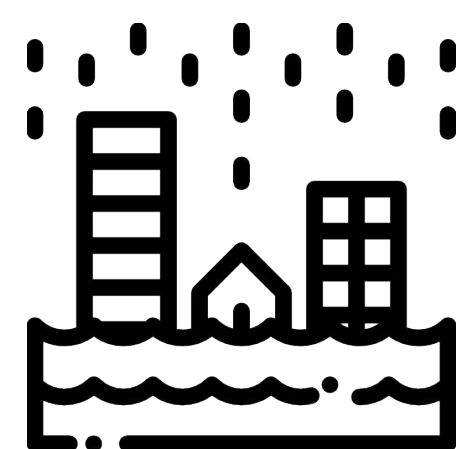
Raw Water and Processed Water

Supports raw water intakes and applicable intakes for water treatment plants.



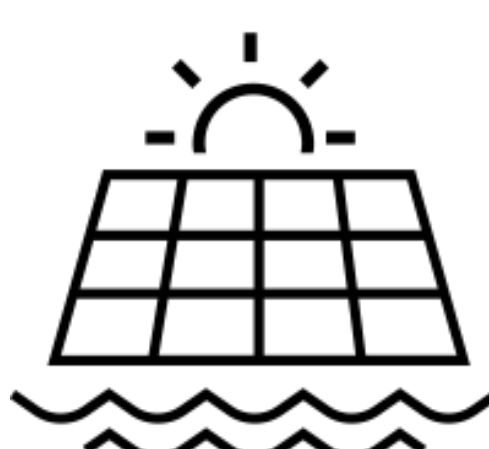
Sewage and Recirculation Sludge

Designed to move the thickest mixtures and pass large pieces of debris without damage or wear on the pump.



Municipality

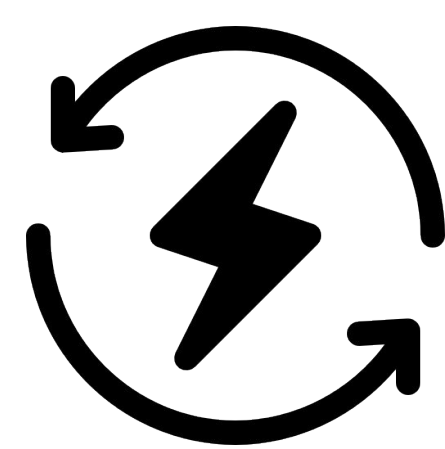
Well-Integrated with municipality work and projects with high requirements.



Renewable Energy

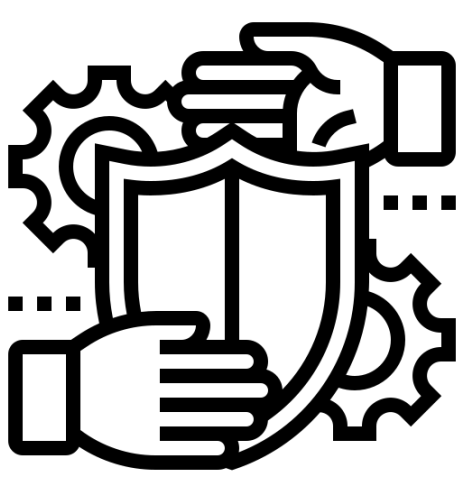
can be used with solar cells for sustainable energy with smart device that properly manage the process and prevent pump damage.

KEY BENEFITS



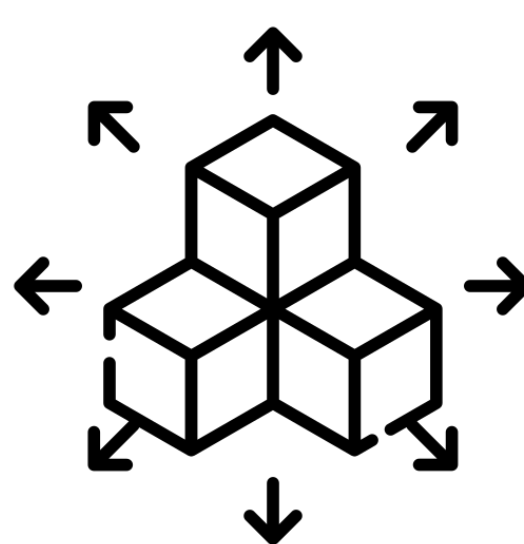
Better Power Consumption

Save more power with Premium Efficiency Motors.



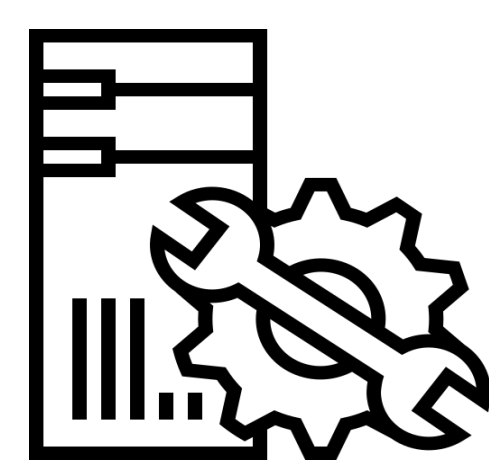
Stability and Reliability

Wings Pumps’ advanced engineering provides better stability and reliability.



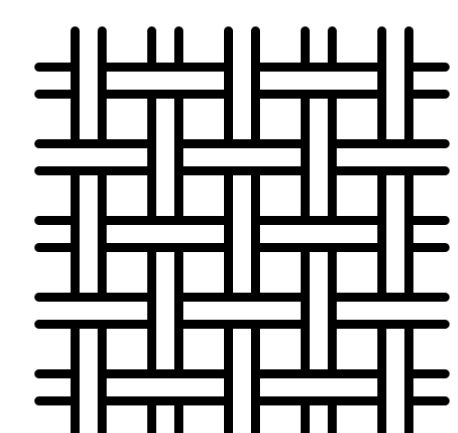
Wide Range of Operations

Wings Pumps are more versatile and can be used in a wide variety of operations.



High Flexibility in Installations

Wings Pumps can be installed perfectly in various situations and setups.



Flexibility in Material

Customize pumps with various material and composites to better suit your operations.



Internet of things

Through the cloud network system, the system organizes data and keeps tabs on the pump's operational state. User can be real-time observation possible.

FEATURES AND BENEFITS

Our new-generation mechanical/electrical axial flow electric **submersible pumps** and mixed-flow electric submersible pumps from **Wings Pumps** provides high reliability, reduced installation and maintenance costs, with a longer lifetime.

With **single-piece casting** of propellers and other components, Wings Pumps provide superior dynamic balance with extremely strong and stable operations.

Our **Premium Efficiency Motors** are manufactured according to IE 60034-30 IE3 standards, providing improved efficiency, reduced energy consumption with less impact on the environment.

Wings Pumps are engineered and designed with **Computational Fluid Dynamics** (CFD) combined with predictive AI and powerful graphics for visualizations and simulations to foresee any multi-dimensional problems.

Our **self-cleaning propeller** blade design decreases clogging and minimizes risks caused by liquids containing fibrous material or sludge.

A **slim design** offers easy installation, low vibration and low Net Positive Suction Head (NPSH)

Smart technology, highly intelligent controls with 8 points of sensor monitoring devices with optional AI and IoT expansions.

Our special Coating offers higher resistance to abrasive and corrosive effects

ISO 9001 & ISO14001 & ISO45001 certified. With ISO certification, Wings Pumps provides reliability with a high standard giving you assurance and peace of mind.

able to operate at a high performance for longer than 12 hours.



SUBMERSIBLE PROPELLER PUMP

1. Insulated Motor - for better reliability

All motors are fully submersible to a depth of at least 20 meters.

2. Unique seals provide extra safety

Our mechanical seal systems minimize shaft overhang while maximizing cooling and lubrication.

3. Sensors

Thermal sensors help prevent overheating. Leakage sensors alarms you of liquid intrusion through cables or seals.

4. Reliable and Efficient Hydraulics

Wings Pumps technology ensures maximum reliability and high efficiency.

5. Flexible Installation

Wings are designed according to the requirements of customer and suitability according to the actual situation

6. Spare Parts

All models will have stock spare parts for at least five years,
and WINGS' skilled staff will help you find the right part and give you advice on spare parts.

PREMIUM EFFICIENCY MOTORS (IE3) IN ACCORDANCE WITH IEC60034-30,IEC60529

Class F Insulation (Up to 155°C/311°F)

Temperature rise according to IEC / NEMA Class A

Class H Insulation (Up to 180°C/356°F)

Temperature rise according to IEC / NEMA Class A

International Protection Standard To IP68

International Protection Standard according to IEC 60529/DIN 40050

Better Savings on Power Consumption

Our highly efficient motors provide more savings with lower power consumption.

Better for the Environment

Our pumps are designed to be more more environmentally-friendly and have minimal impact on any ecosystem.

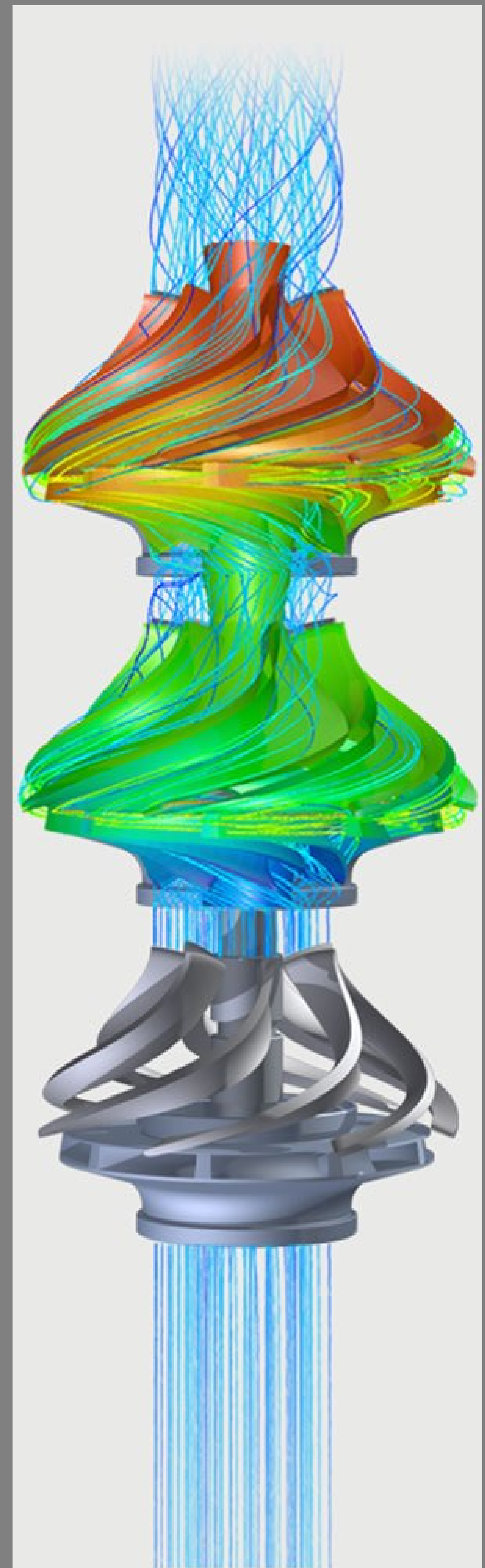
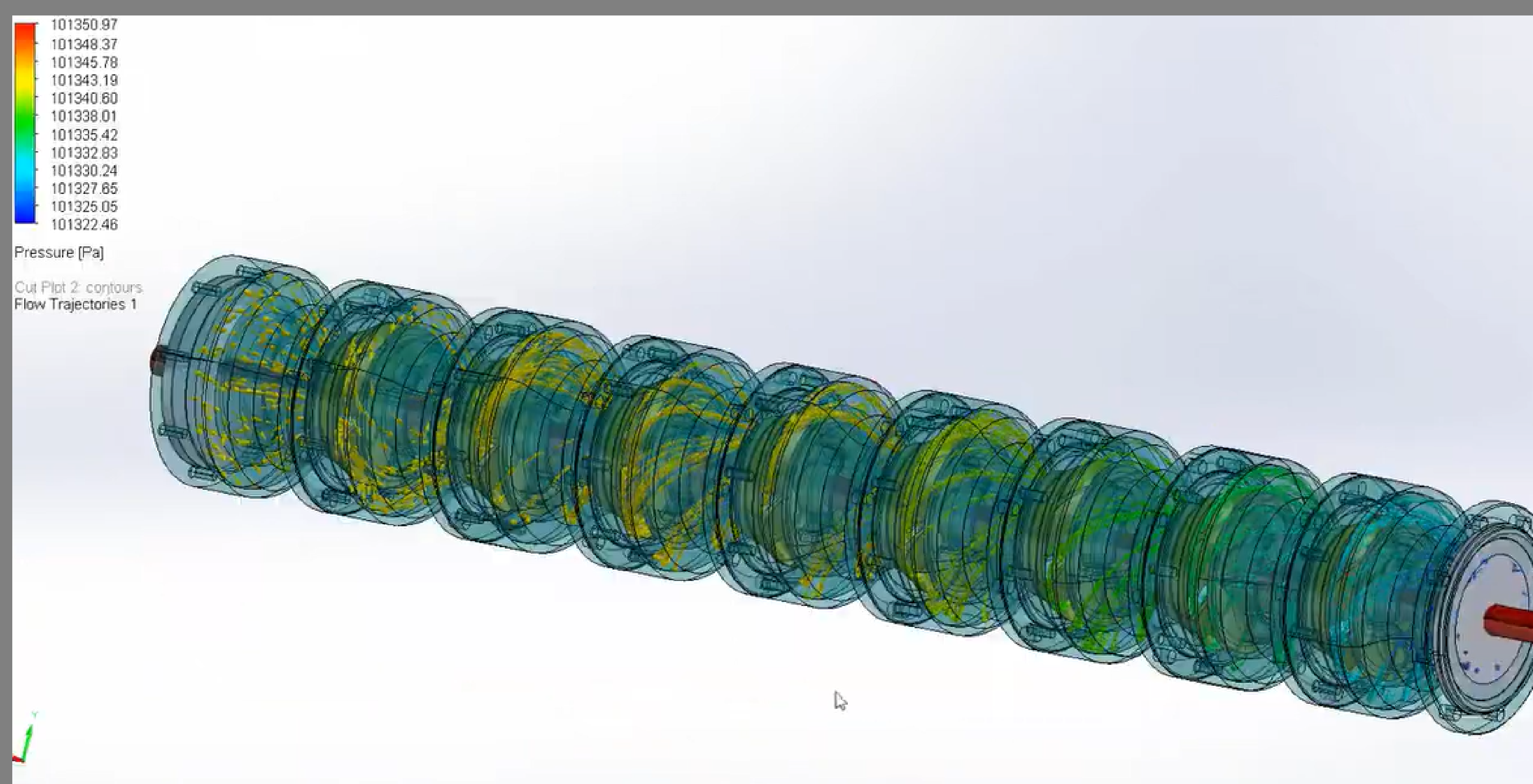
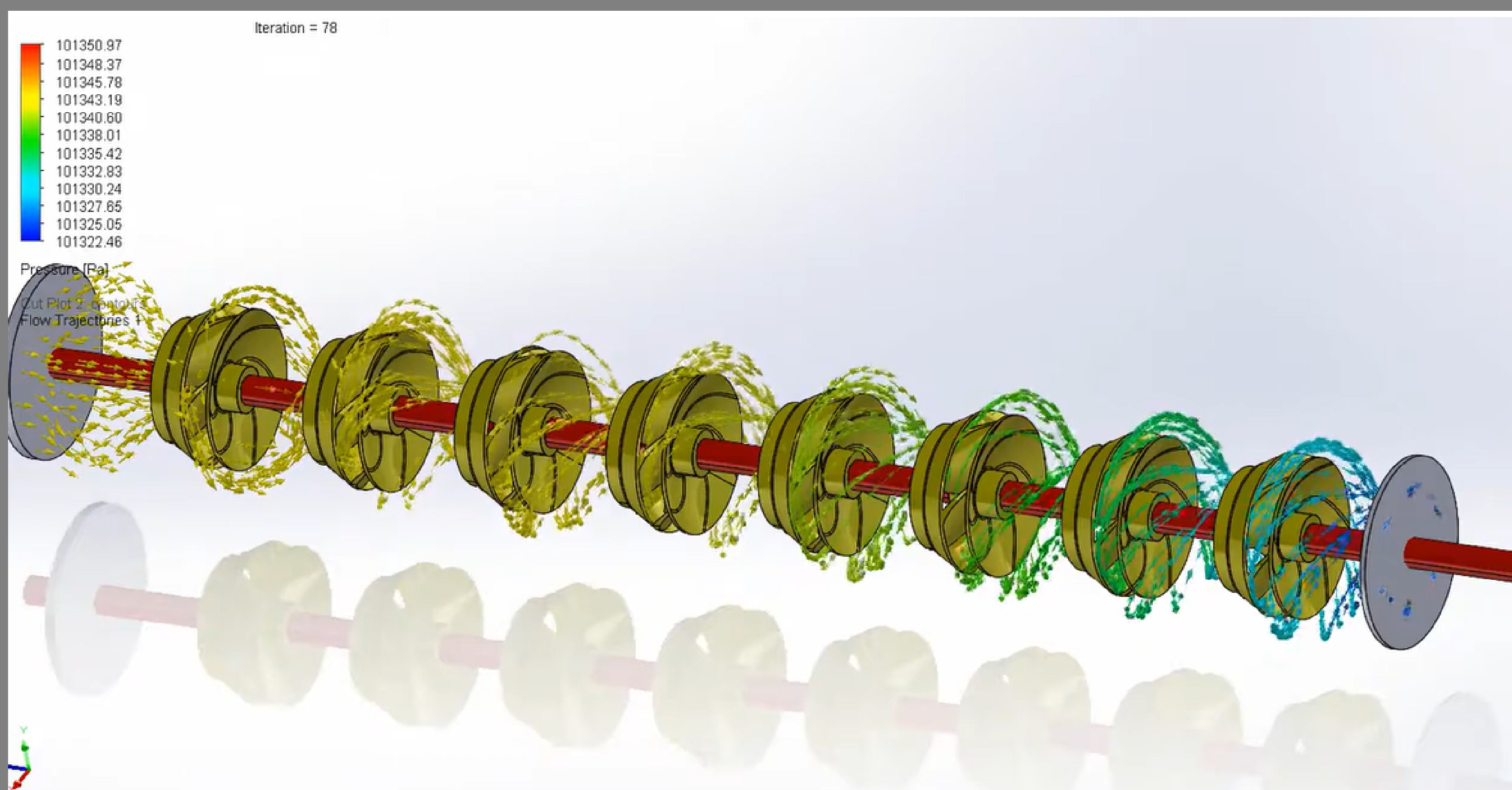
DOUBLE MECHANICAL SEAL

Double mechanical seals are designed to ensure maximum sealing safety. These seals virtually eliminate leakage of the fluid being handled in pumps. Made by SiC, Carbon, Cement Carbide and special requires.



Designed and Engineered for Optimum Efficiency and Reliability with CFD

Wings is proud to be both designer, engineer and provider of water solutions. This is what gives us the ability to cooperate closely with the client and deliver results that fit their requirements, demands and needs. Besides engineering for our own projects, we can also offer design and engineering services to third parties. This way we are able to help all side involved to further develop water solutions that benefit businesses and the community.



SMART PROTECTION TECHNOLOGY WITH SENSOR MONITORING

Winding Temperature measurement component (Optional)

For stator coil over-Temperature protection with PT100 in Phase A, Phase B and Phase C

Water leakage float switch in Junction box (Optional)

When the junction box leaks, the float switch state will switch and the resistance R is approximately equal to 0

Water leakage float switch in motor (Optional)

In case of leakage in motor cavity, the float switch state will switch and the resistance R is approximately equal to 0

Water leakage electrode in Oil chamber (Optional)

When water enters oil and reaches 10%, The resistance of oil and water mixed liquor will be less than 33kΩ

Bearing Temperature sensor in forward direction (Optional)

The manifold block temperature measurement component PT100 send out directly proportional milliampere-level electric quantity signal

Vibration monitoring sensor (Optional)

Sensors that monitor the level of vibration

Moisture Detector in Stator Housing (Optional)

Detects levels of moisture



Non-Return valve (discharge), casted and robust design

Pump bowl, casted and robust design

Highly wear-resistant journal bearings

Pump impeller, casted and keyed design

Pump shaft

Suction casing

Submersible motor

- Highly efficient motors and pump hydraulics
- Maintenance free and reliable
- Continuous operation proofed
- Improved life cycle cost
- Available with PMM motor technology
- Drinking water safe
- Space-saving installation in wells
- Explosion proof
- Safe from flooding and freezing
- Low noise and low vibration
- Broad grades of materials like cast iron, bronze, stainless steel 316
- Installation accessories available

MATERIAL



DESIGNED FOR RELIABILITY H LONGER LIFETIME

- The pump bowls are made of durable, robust, and wear-resistant grey cast iron or stainless steel investment casting (not sheet metal).
- Pump impellers made of highly durable, wear-resistant injection-molded resin or stainless steel investment casting (not sheet metal).
- Durable and wear-resistant radial bearings made of a proprietary material.
- Stainless-steel 304 quality or higher (Cr-Ni-Mo-steel).

REDUCTION OF SERVICE COSTS H EASY TO INSTALL AND MAINTAIN

- Pump bowls with flange bolting (instead of screwed housing).
- Only positive connections (feather key) of impeller and pump shaft, no friction connections like clamp sleeves.

SIMPLIFIED PRODUCT LINE H EASIER INVENTORY AND MAINTENANCE

- The new PL06 and PL08 pumps are replacing the previous five models of the 6" range (PN6 and QN6) and the seven models of the 8" range (PN8, QN8, and QT8 pumps).
- Reduction to three material types.

Materials

Components		
Pump	External jacket	AISI 304
	Stage casing	AISI 304
	Diffuser	AISI 304
	Impeller	AISI 304
	Wear ring	AISI 304
	Shaft	AISI 431
	Bearing bush	Rubber
	Strainer	AISI 304
	Screws	AISI 304
Components		
Motor	External frame	AISI 304
	Shaft	AISI 304
	Thrust bearing	Oscillation pads
	Bearing bush	Graphite

SOLAR HYBRID HIGH-SPEED SUBMERSIBLE BOREHOLE PUMP

Applications

- 4" or bigger size wells
- High-speed well pumps use >90% η PMSM motor
- >99% η controllers and enhanced sand-resistant pump bodies
- It has the characteristics of wide voltage, high lift and large flow
- Widely used in deep well water intake and agricultural irrigation and other occasions

Benifits

- More than 90% High-efficiency permanent magnet motor
- All stainless steel material, more corrosion
- Enhanced impeller anti-sand design, longer life
- Flexible power supply options (DC & DC/AC)
- Wide-voltage design, multiple protections
- 30% reduction in volume & weight



Working condition

- Liquid temperature 35°C
- Maximum sand content:0.25%
- Wide AC/3P working voltage:220-530V/3PH
- Wide DC working voltage:300-780V/Solar
- Max immersion depth:150m
- Installation: vertical

Parameters

- Power:2.2-11kW
- Q.max:52m³/h
- H.max:480m
- Outlet:1.5" , 2" , 3"
- Speed:500-6500rpm

pick it up

ready to go,
system in a box



plug it in

easy wiring, save time,
solve your problem



pump water

from any source:
pond, stream, well



Performance Curve

4WGSP

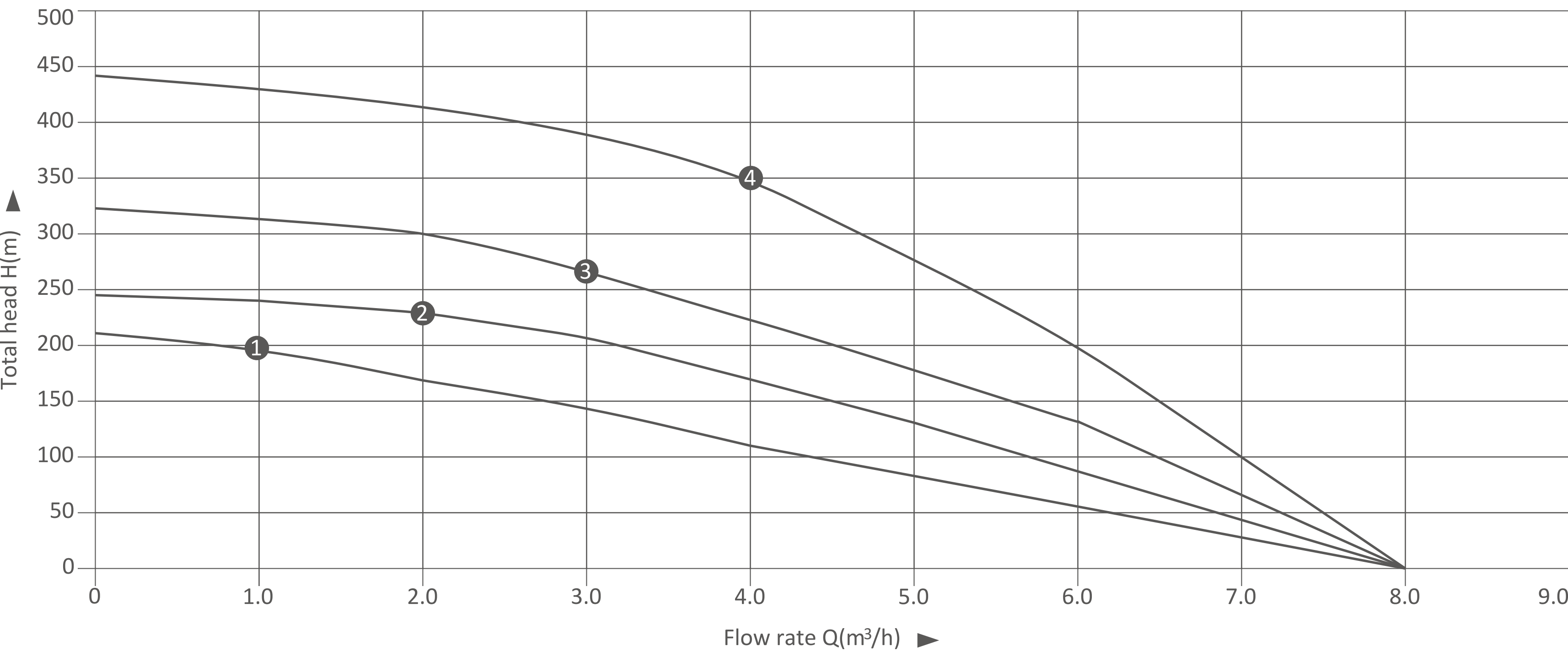
AC/DC HYBRID HIGH-SPEED BOREHOLE PUMP



TECHNICAL DATA

Model	Power (W)	AC Vol. (V)	DC Vol. (V)	Q.Rated (m³/h)	Q.Max (m³ /h)	H.Rated (m)	H.Max (M)	Outlet (Inch)
❶ 4WGSP2.2-212/8	2.2	380V	500-780V	3	8	145	212	1.5"
❷ 4WGSP3-247/8	3	380V	500-780V	3	8	207	247	1.5"
❸ 4WGSP4-322/8	4	380V	500-780V	3	8	268	322	1.5"
❹ 4WGSP5.5-444/8	5.5	380V	500-780V	3	8	388	444	1.5"

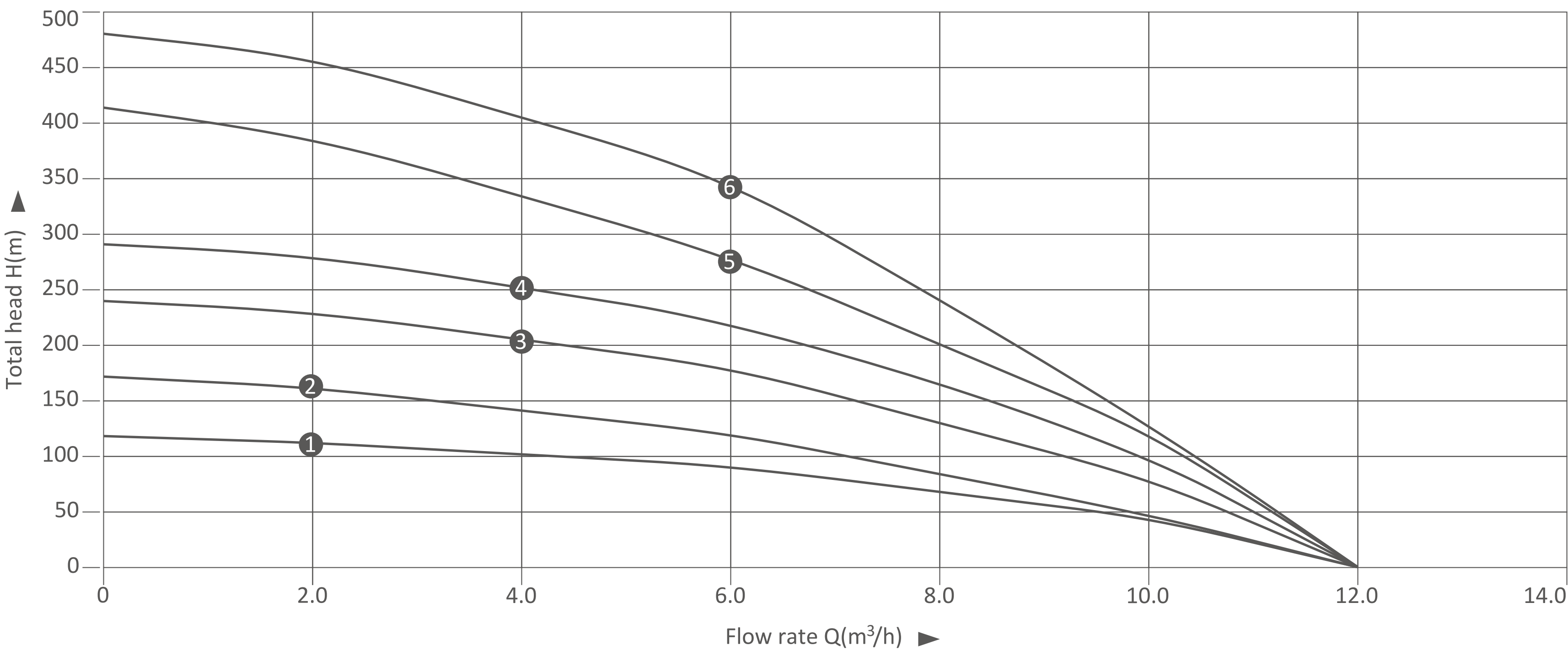
PERFORMANCE CURVE



TECHNICAL DATA

Model	Power (W)	AC Vol. (V)	DC Vol. (V)	Q.Rated (m³/h)	Q.Max (m³/h)	H.Rated (m)	H.Max (M)	Outlet (Inch)
❶ 4WGSP2.2-116/ 12	2.2	380V	500-780V	6	12	93	116	1.5"
❷ 4WGSP3-17./ 12	3	380V	500-780V	6	12	120	173	1.5"
❸ 4WGSP4-2.9/ 12	4	380V	500-780V	6	12	183	239	1.5"
❹ 4WGSP5. 5-29-/ 12	5.5	380V	500-780V	6	12	223	290	1.5"
❺ 4WGSP7. 5-41./ 12	7.5	380V	500-780V	6	12	279	413	1.5"
❻ 4WGSP11-43-/ 12	11	380V	500-780V	6	12	347	480	1.5"

PERFORMANCE CURVE



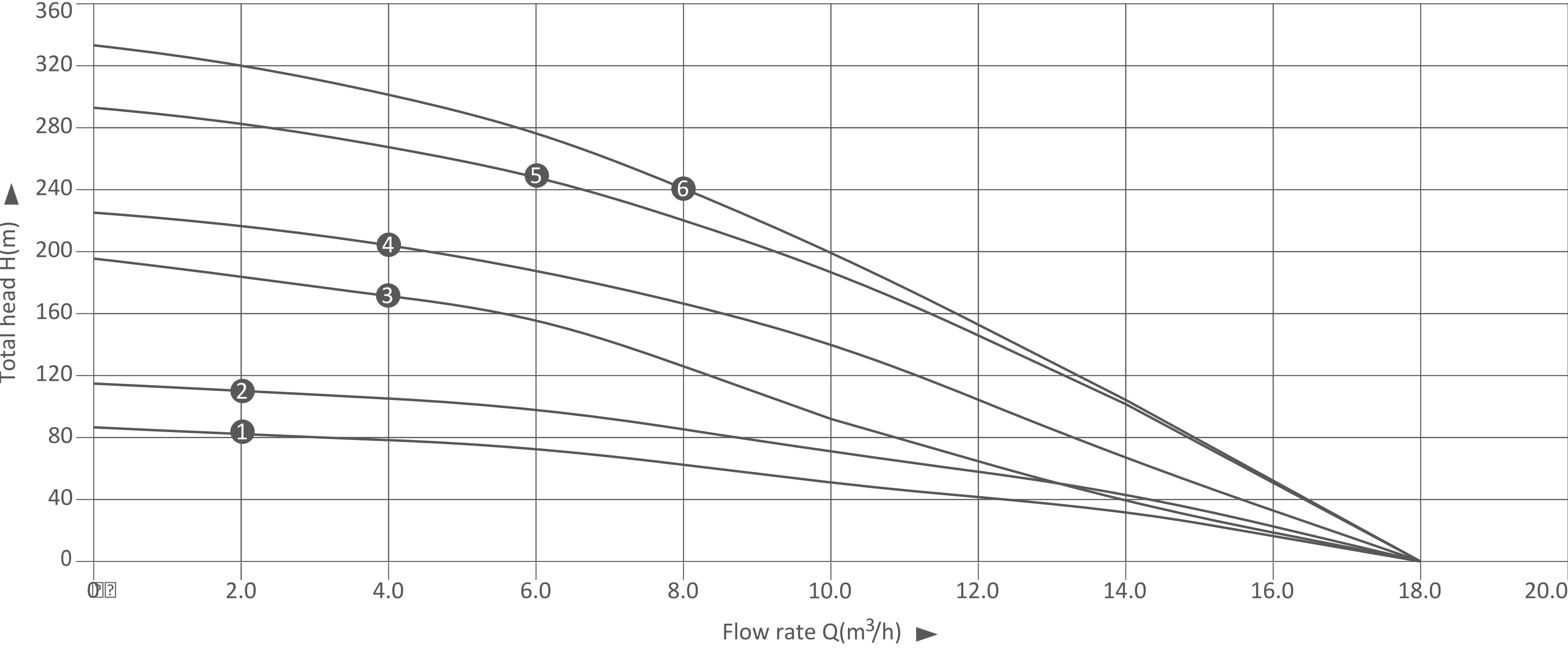
4WGSP
AC/DC HYBRID HIGH-SPEED BOREHOLE PUMP



TECHNICAL DATA

Model	Power (W)	AC Vol. (V)	DC Vol. (V)	Q.Rated (m³/h)	Q.Max (m³/h)	H.Rated (m)	H.Max (M)	Outlet (Inch)
❶ 4WGSP2.2-86/18	2.2	380V	500-780V	10	18	59	86	1.5"
❷ 4WGSP3-115/18	3	380V	500-780V	10	18	72	115	1.5"
❸ 4WGSP4-196/18	4	380V	500-780V	10	18	93	196	1.5"
❹ 4WGSP5.5-225/18	5.5	380V	500-780V	10	18	143	225	1.5"
❺ 4WGSP7.5-292/18	7.5	380V	500-780V	10	18	188	292	1.5"
❻ 4WGSP11-333/18	11	380V	500-780V	10	18	203	333	1.5"

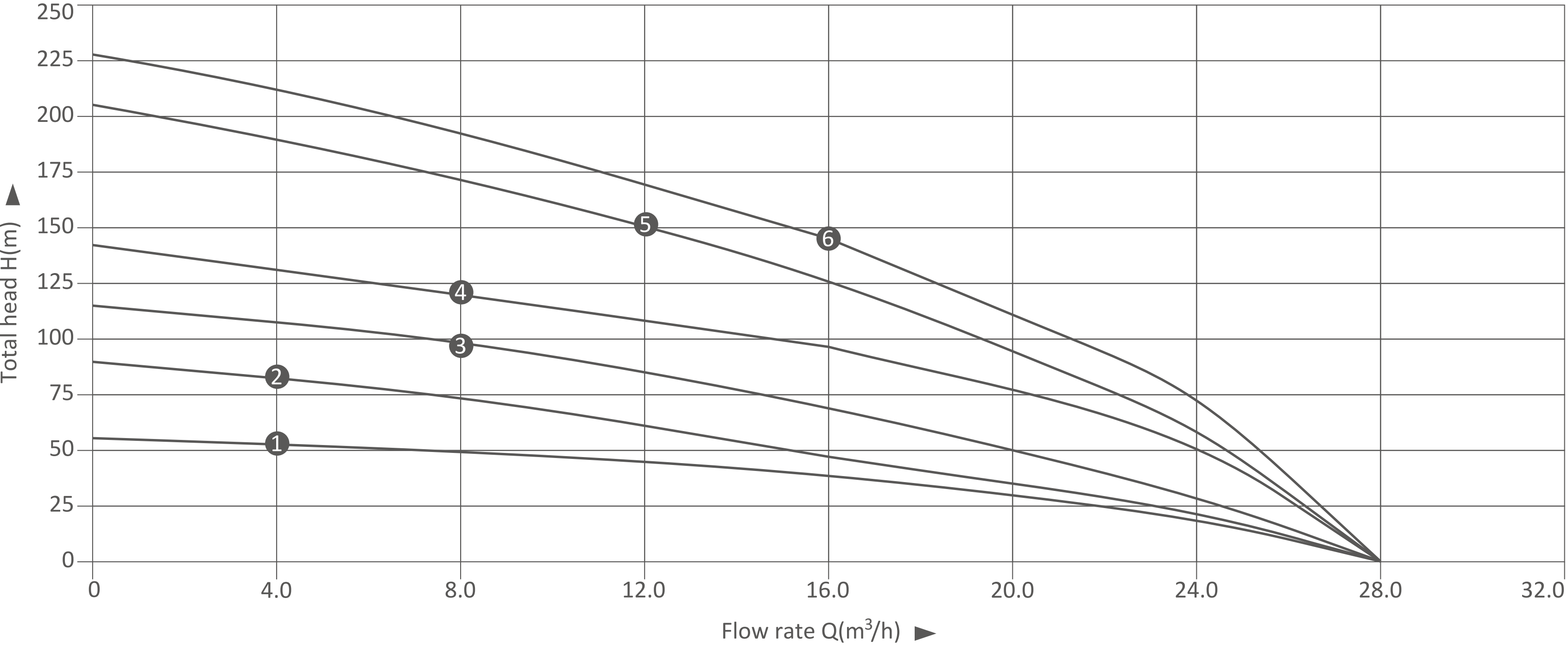
PERFORMANCE CURVE



TECHNICAL DATA

Model	Power (W)	AC Vol. (V)	DC Vol. (V)	Q.Rated (m³/h)	Q.Max (m³/h)	H.Rated (m)	H.Max (M)	Outlet (Inch)
❶ 4WGSP2.2-56/28	2.2	380V	500-780V	16	28	38	56	2"
❷ 4WGSP3-88/28	3	380V	500-780V	16	28	47	88	2"
❸ 4WGSP4-115/28	4	380V	500-780V	16	28	70	115	2"
❹ 4WGSP5.5-142/28	5.5	380V	500-780V	16	28	97	142	2"
❺ 4WGSP7.5-205/28	7.5	380V	500-780V	16	28	128	205	2"
❻ 4WGSP11-227/28	11	380V	500-780V	16	28	144	227	2"

PERFORMANCE CURVE



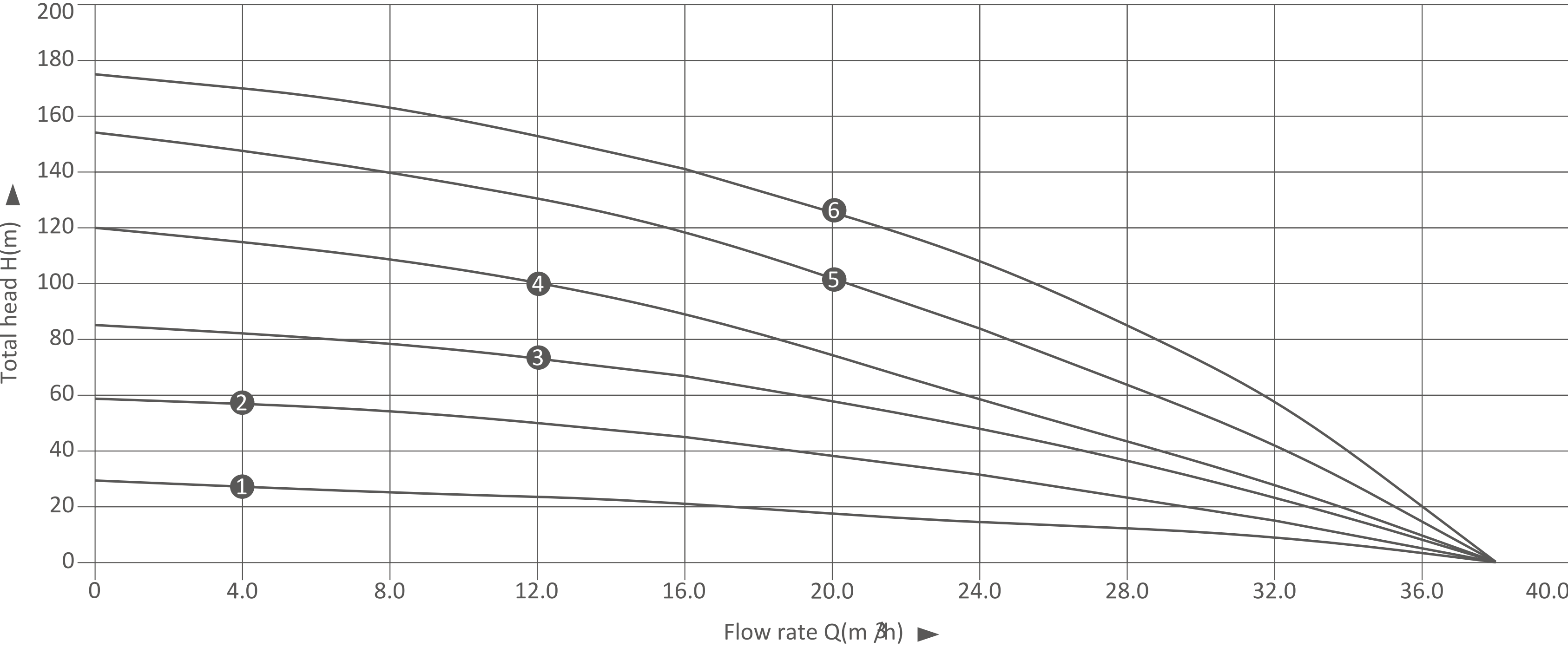
4WGSP-H
AC/DC HYBRID HIGH-SPEED BOREHOLE PUMP



TECHNICAL DATA

Model	Power (W)	AC Vol. (V)	DC Vol. (V)	Q.Rated (m³/h)	Q.Max (m³/h)	H.Rated (m)	H.Max (M)	Outlet (Inch)
❶ 4WGSP2.2-29/38	2.2	380V	500-780V	24	38	17	29	2"
❷ 4WGSP3-59/38	3	380V	500-780V	24	38	32	59	2"
❸ 4WGSP4-86/38	4	380V	500-780V	24	38	48	86	2"
❹ 4WGSP5.5-120/38	5.5	380V	500-780V	24	38	58	120	2"
❺ 4WGSP7.5-153/38	7.5	380V	500-780V	24	38	83	153	2"
❻ 4WGSP11-175/38	11	380V	500-780V	24	38	110	175	2"

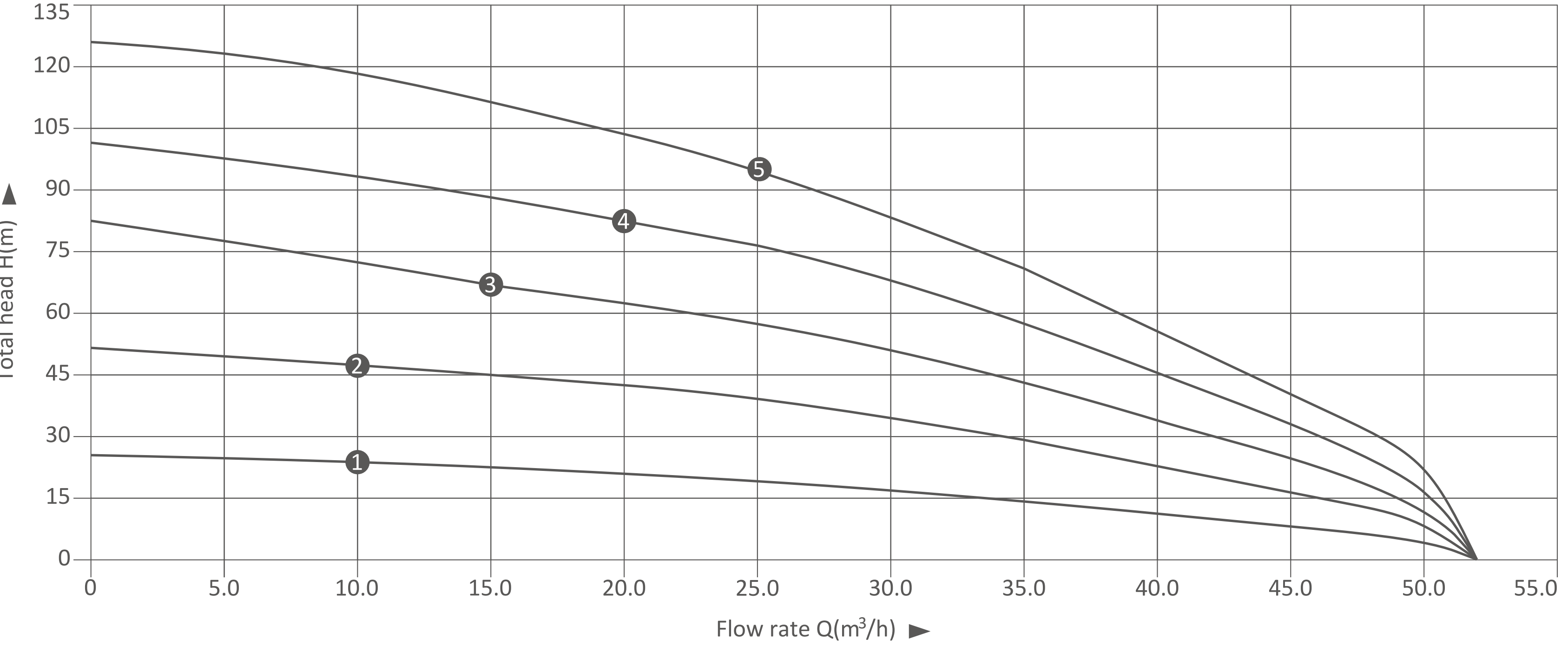
PERFORMANCE CURVE



TECHNICAL DATA

Model	Power (W)	AC Vol. (V)	DC Vol. (V)	Q.Rated (m³/h)	Q.Max (m³/h)	H.Rated (m)	H.Max (m)	Outlet (Inch)
❶ 4WGSP2.2-26/52	2.2	380V	500-780V	32	52	16	26	3"
❷ 4WGSP4-52/52	4	380V	500-780V	32	52	32	52	3"
❸ 4WGSP5.5-77/52	5.5	380V	500-780V	32	52	48	77	3"
❹ 4WGSP7.5-102/52	7.5	380V	500-780V	32	52	64	102	3"
❺ 4WGSP11-126/52	11	380V	500-780V	32	52	80	126	3"

PERFORMANCE CURVE



TGP



HYBRID
DC/AC SOLAR INVERTER

HYBRID DC/AC SOLAR INVERTER

The Complete Solar Water Pumping Solution
With Smart Hybrid Power Support

DESCRIPTION

The DC/AC Hybird solar inverter (TGP) is an off-grid solar inverter which is AC and DC compatible.
TGP can be connected to the grid or a generator as complementary or back-up power during solar panel power weakness.
It is designed for continuous as well as intermittent operation. The system is suitable for various water supply systems including irrigation.
TGP can be used in both new and existing systems as long as the motor specs are compatible and is suitable for use with a variable frequency drive.

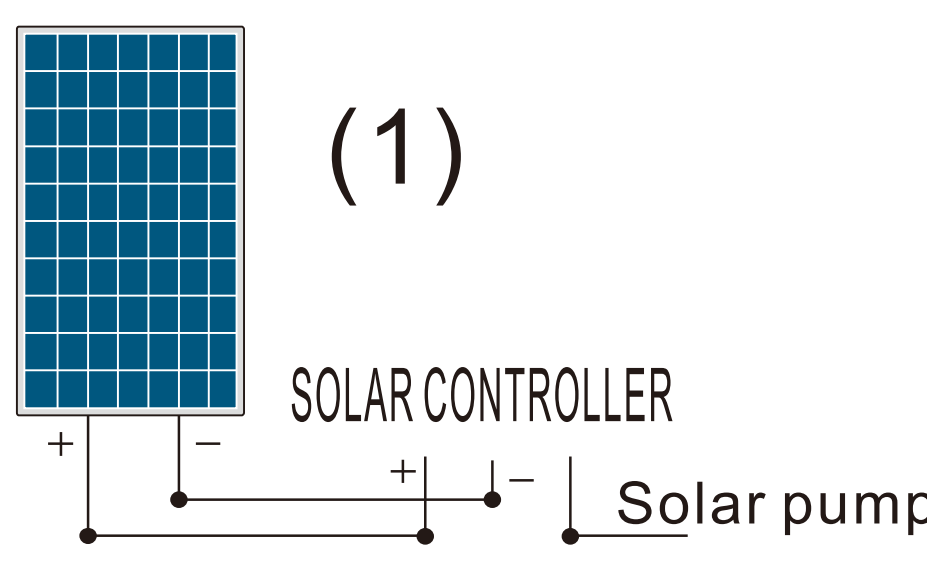
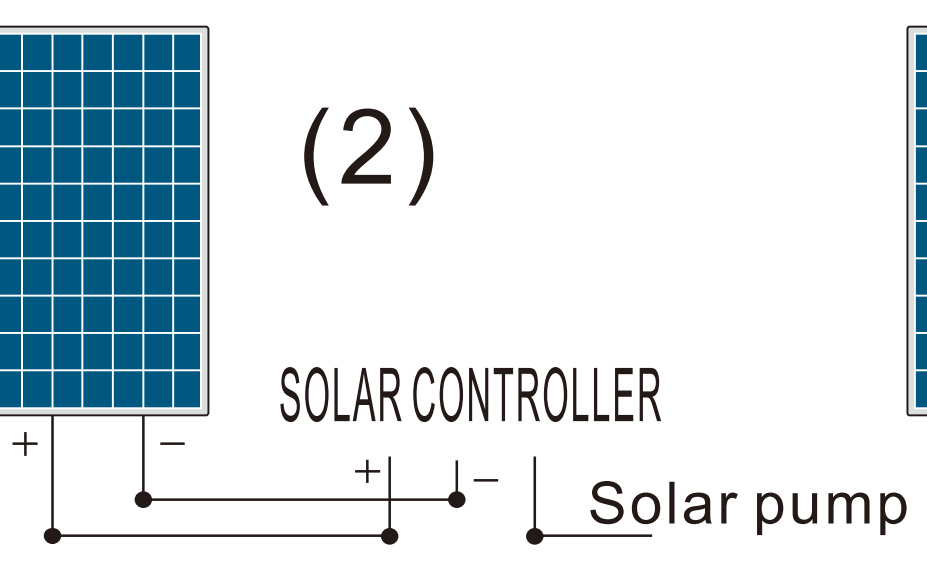
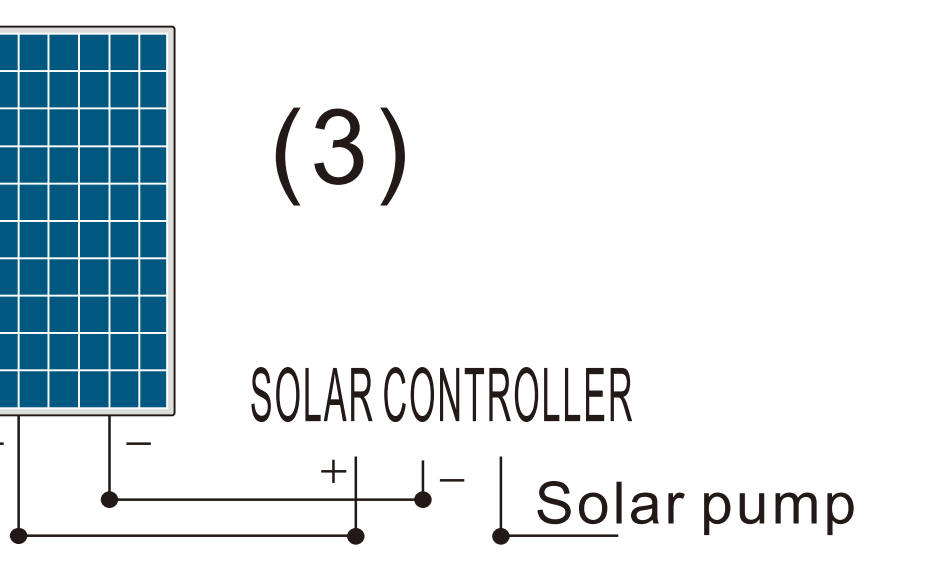
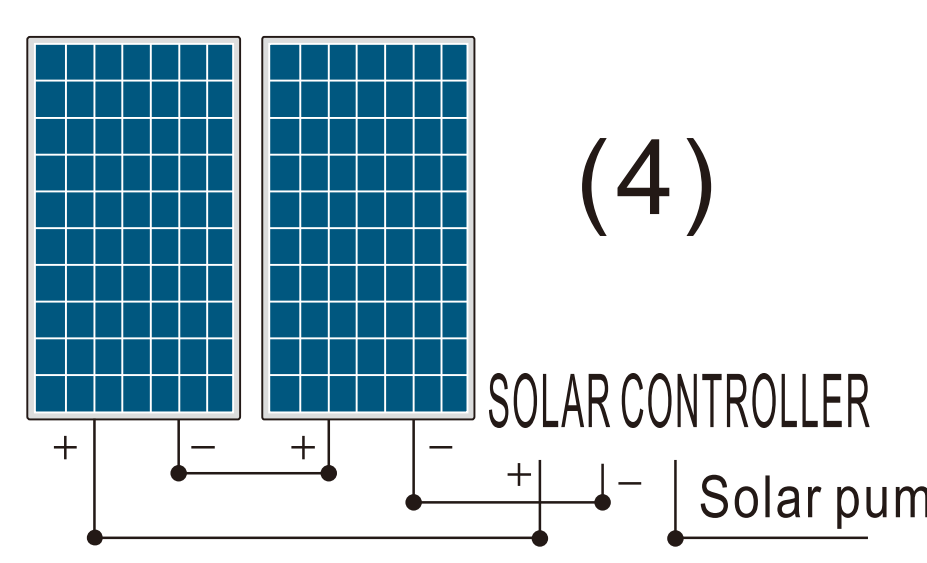
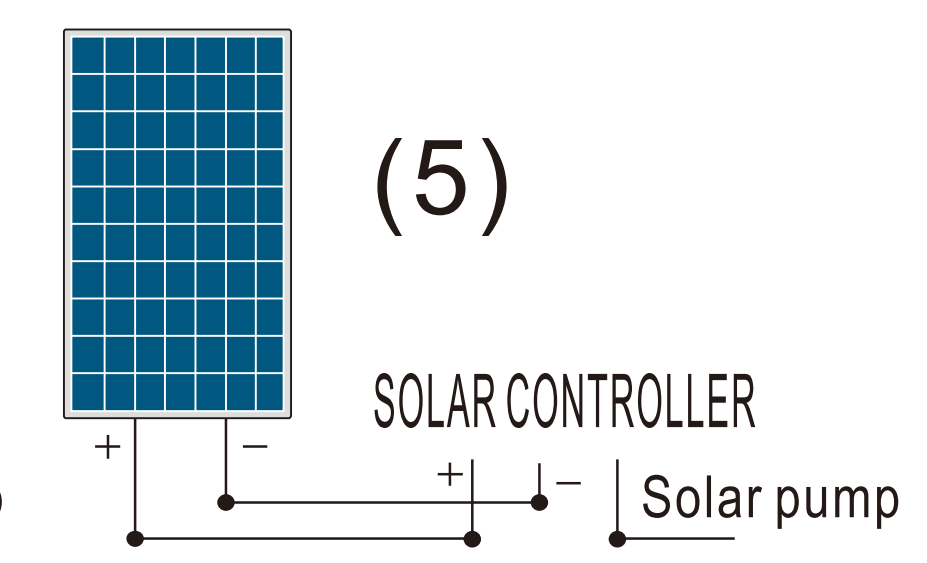
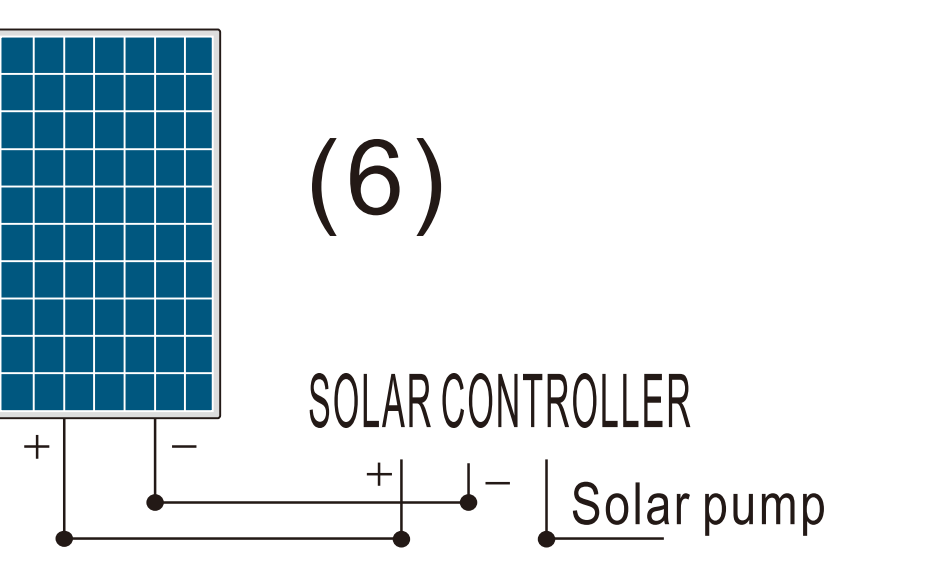
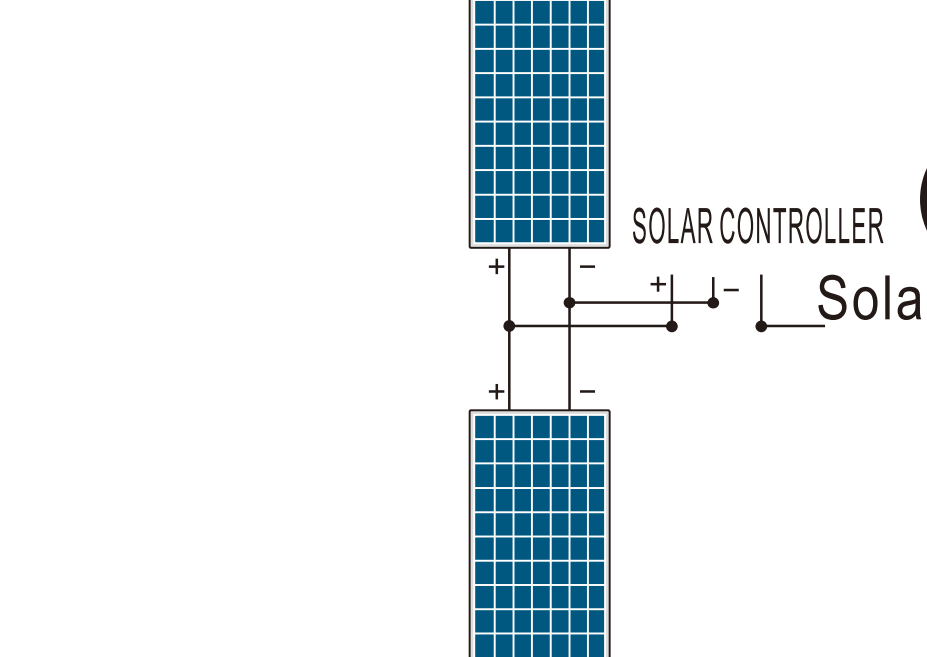
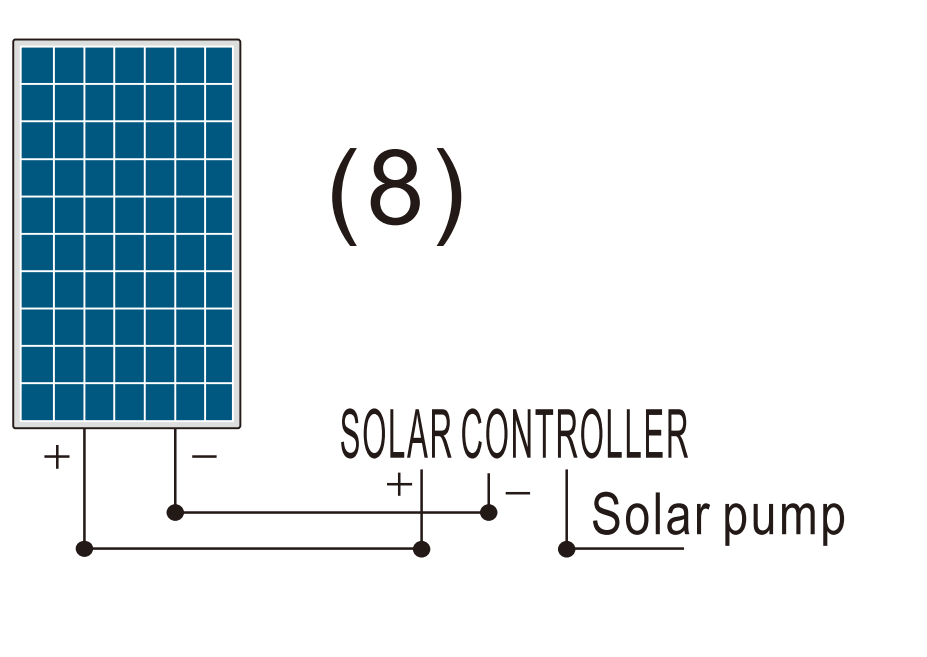
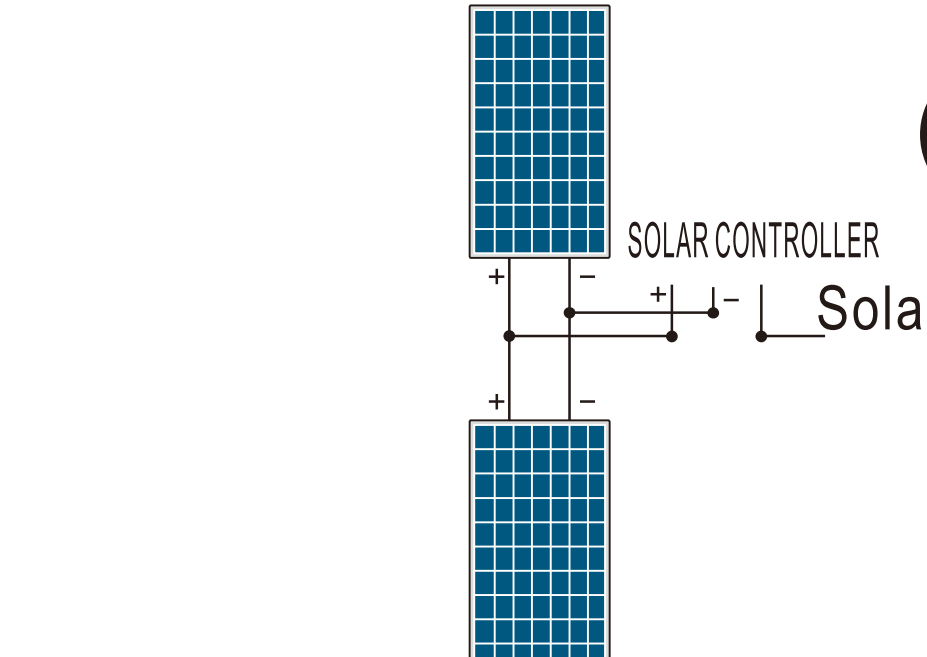
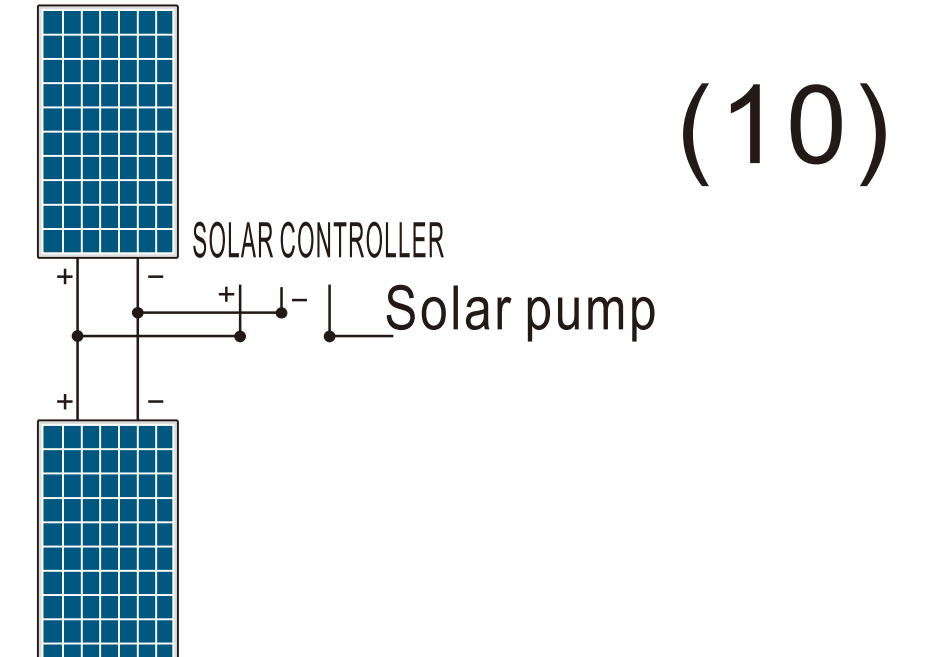
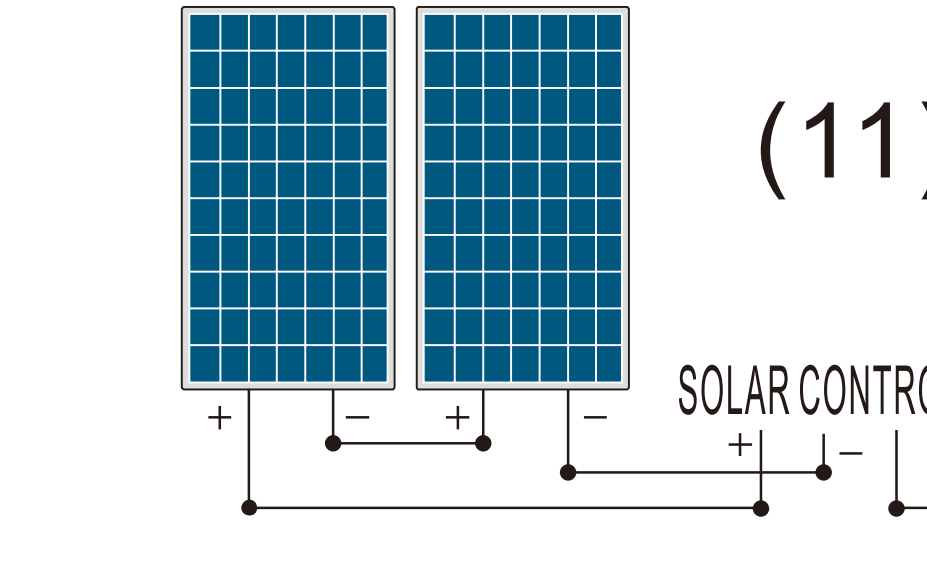
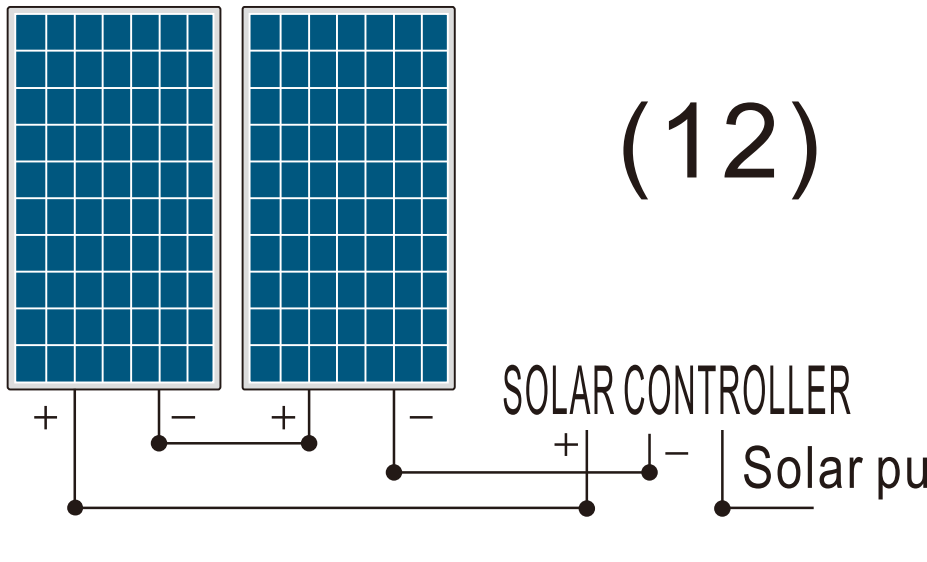
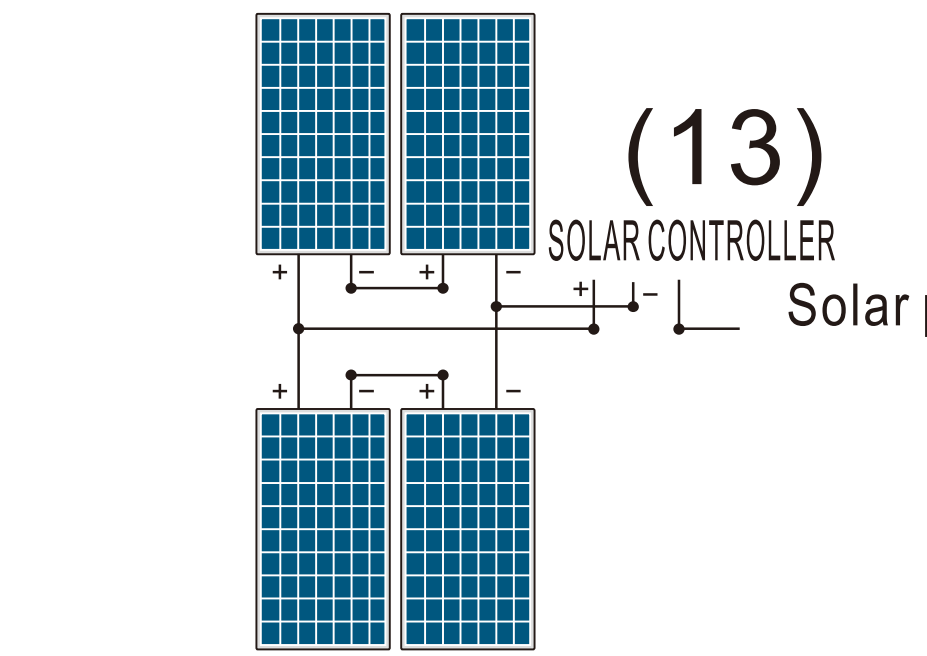
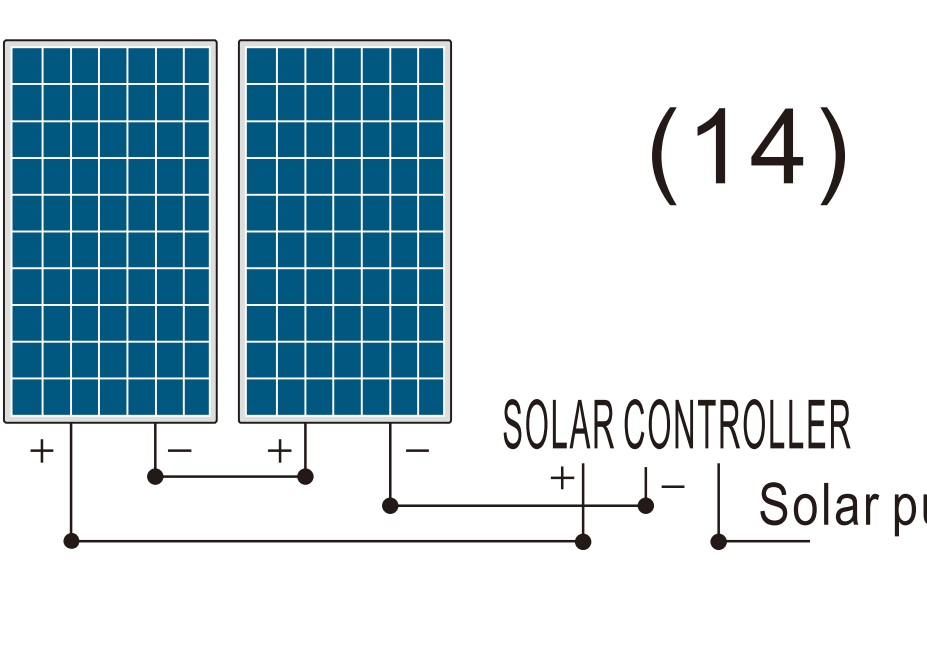
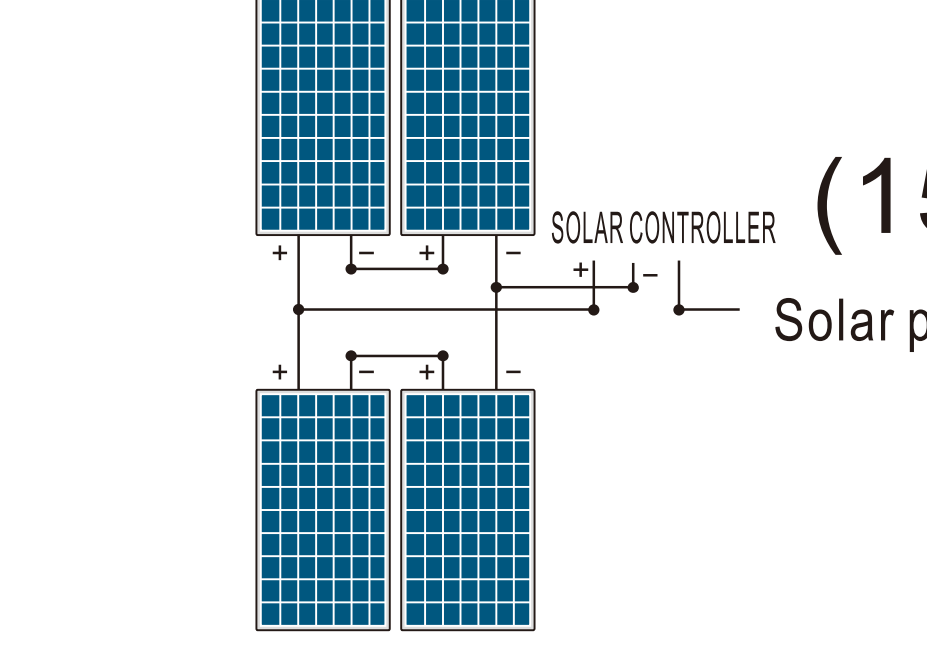
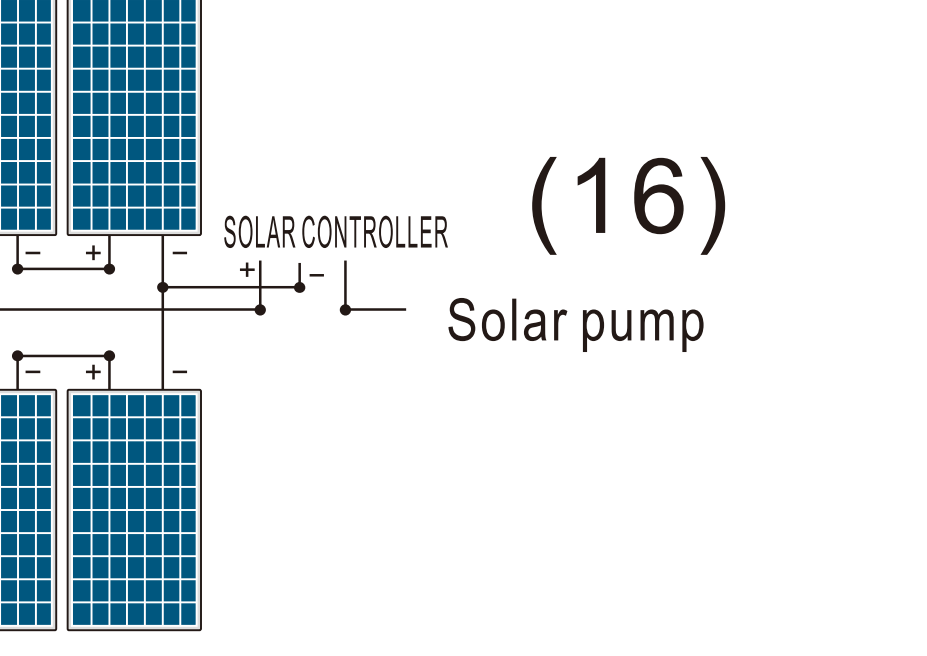
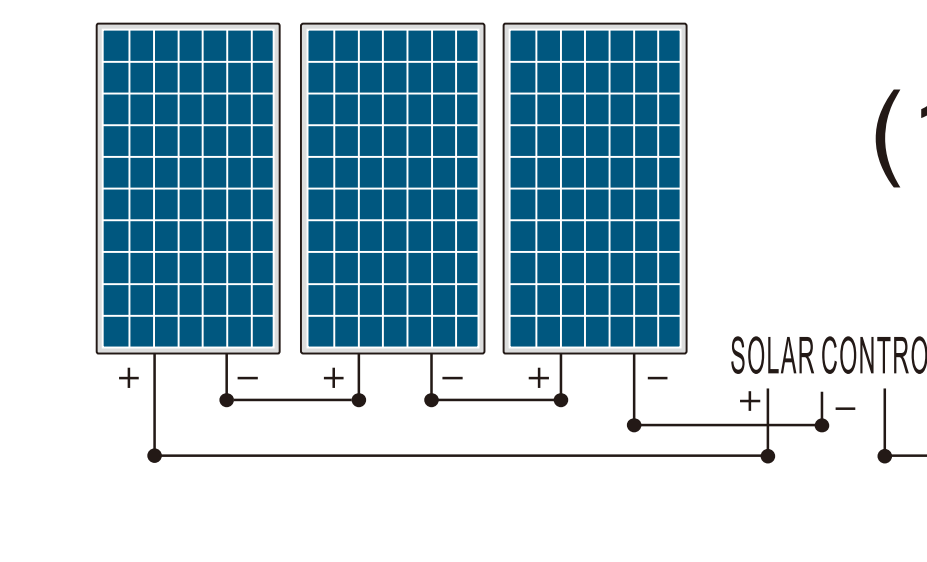
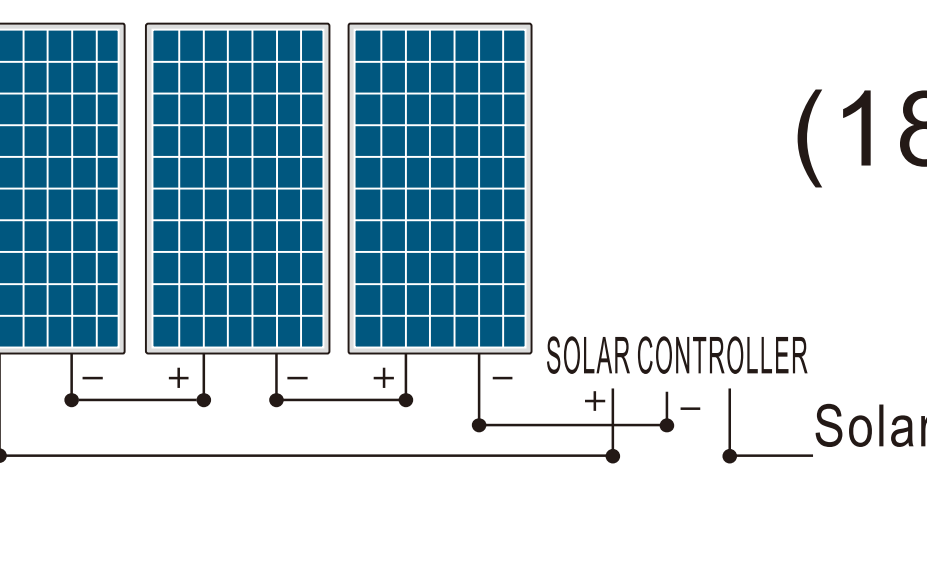
ADVANTAGES

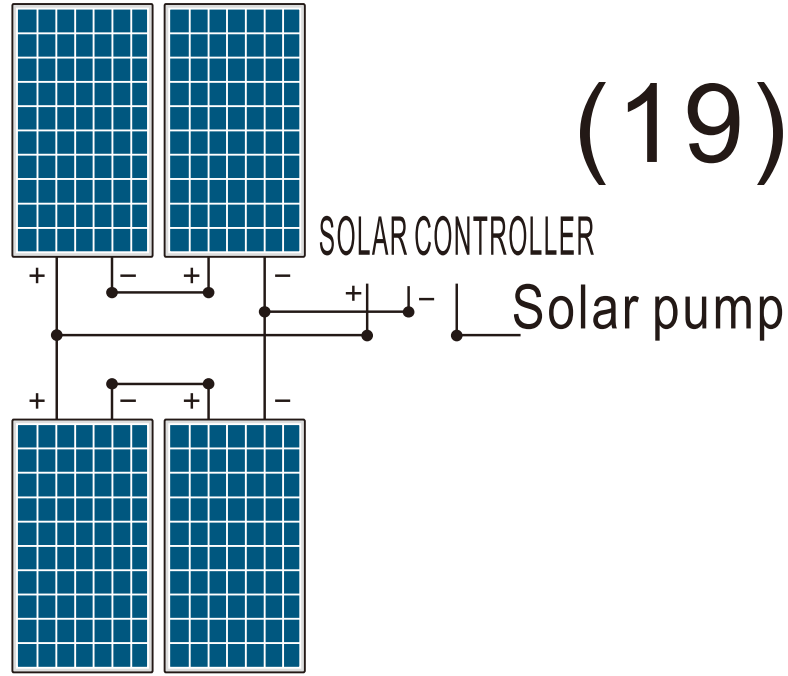
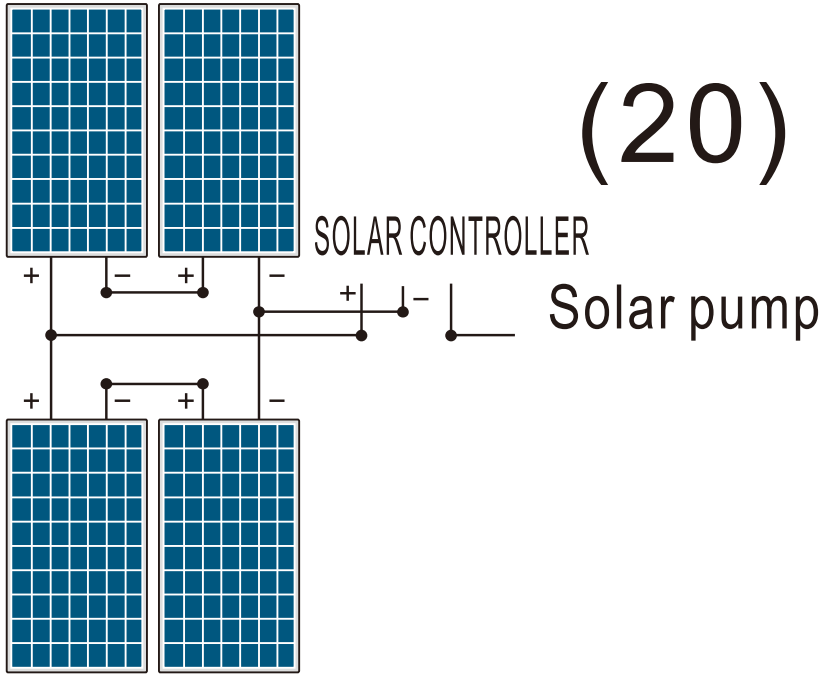
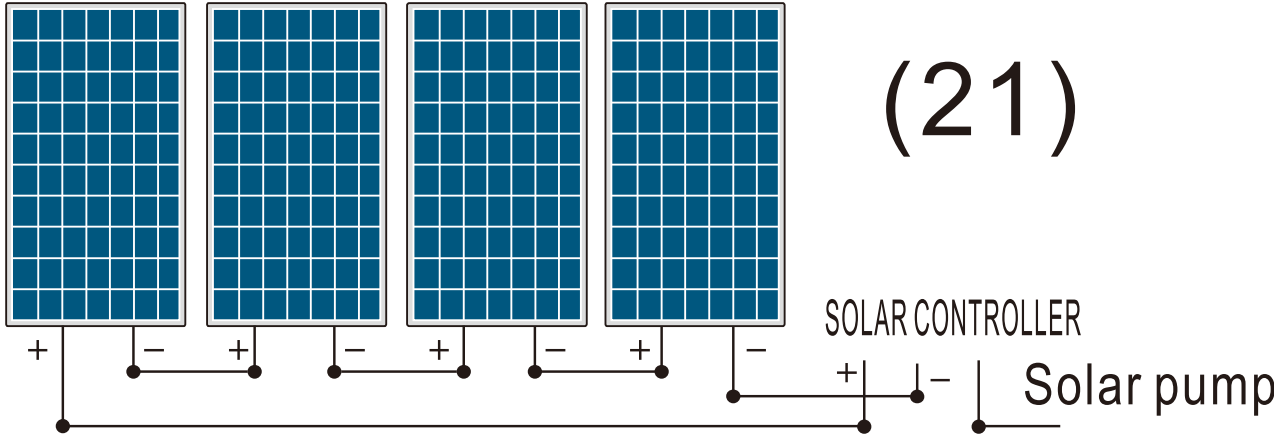
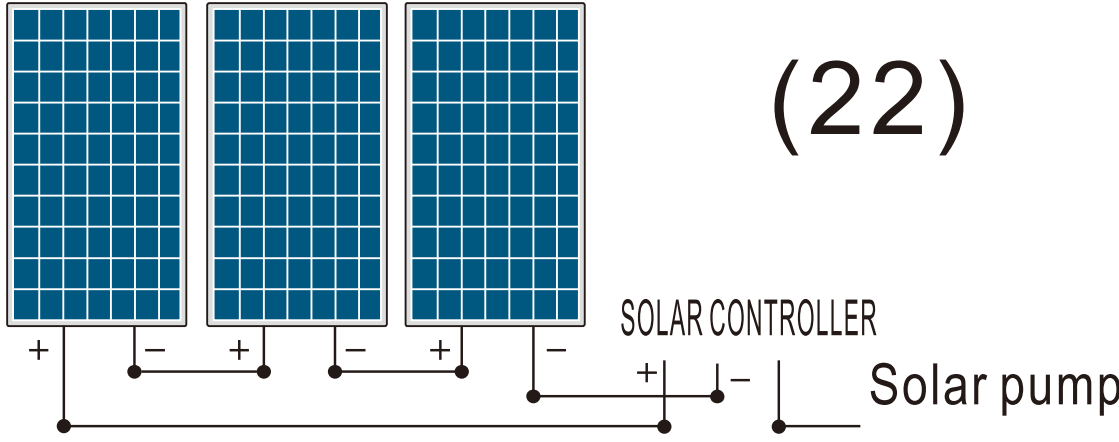
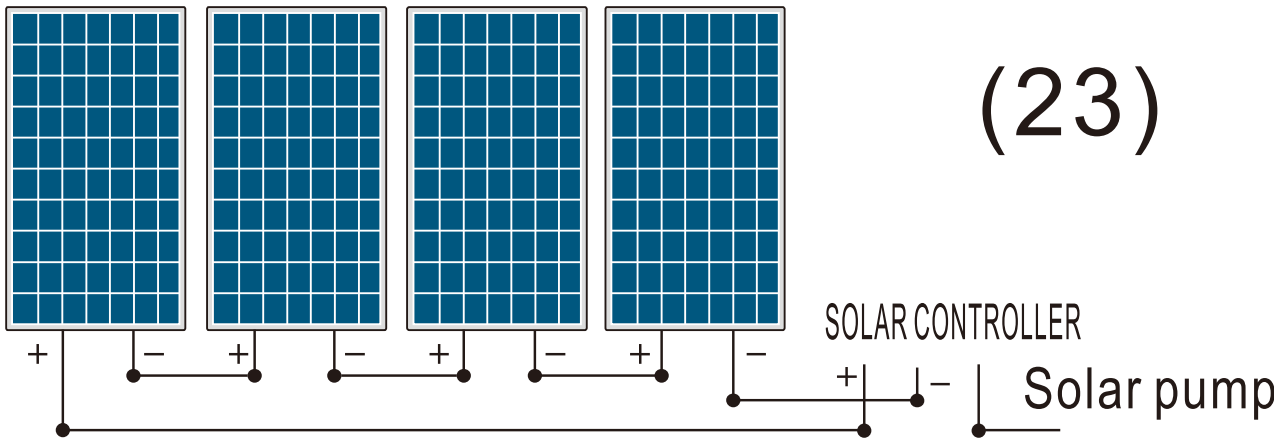
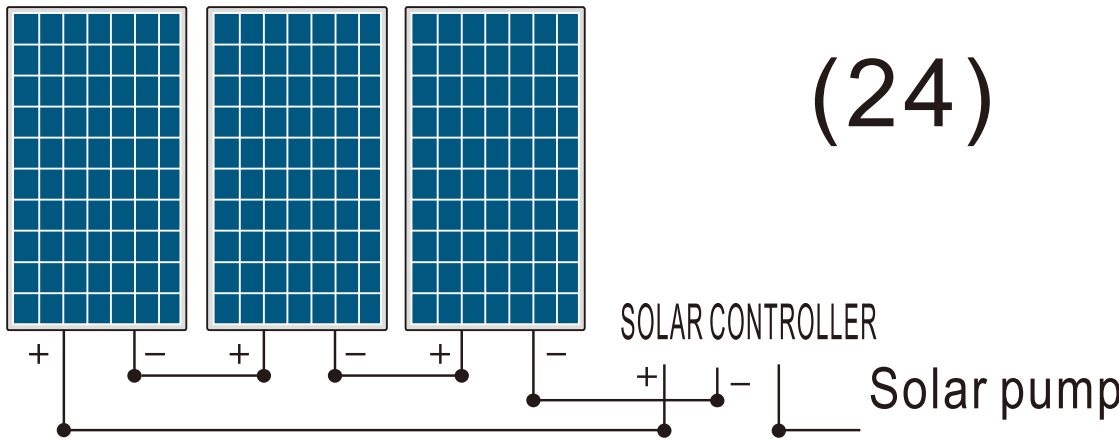
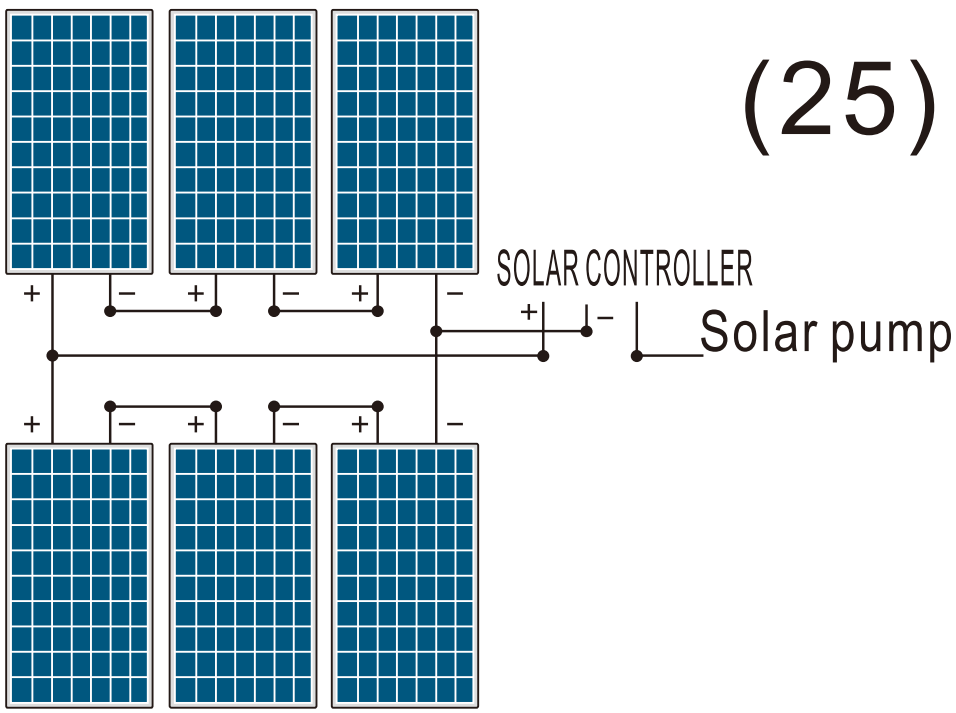
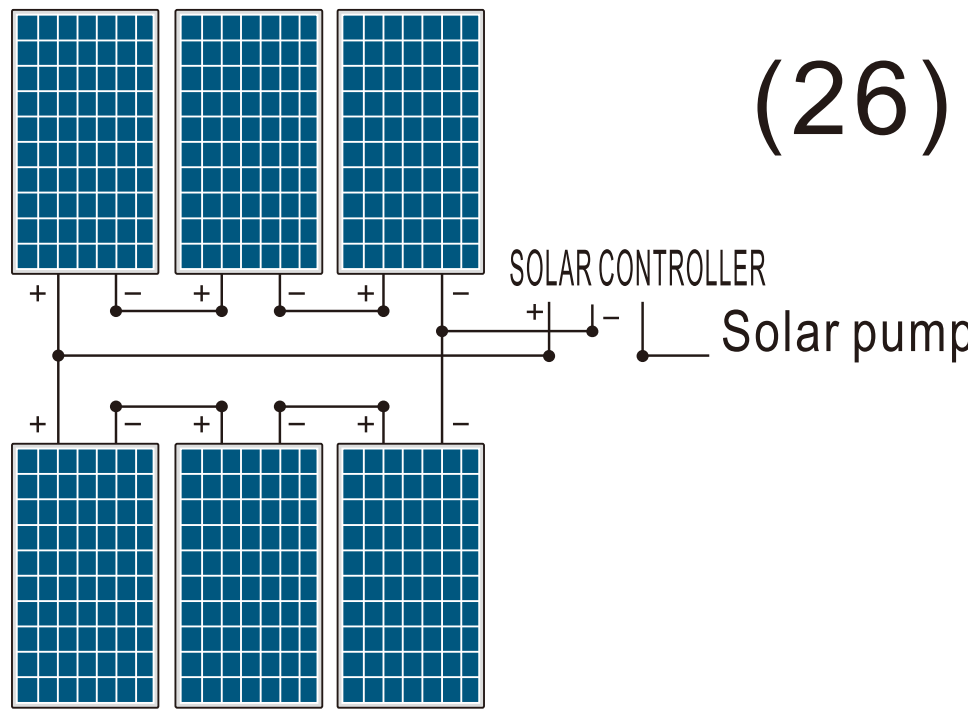
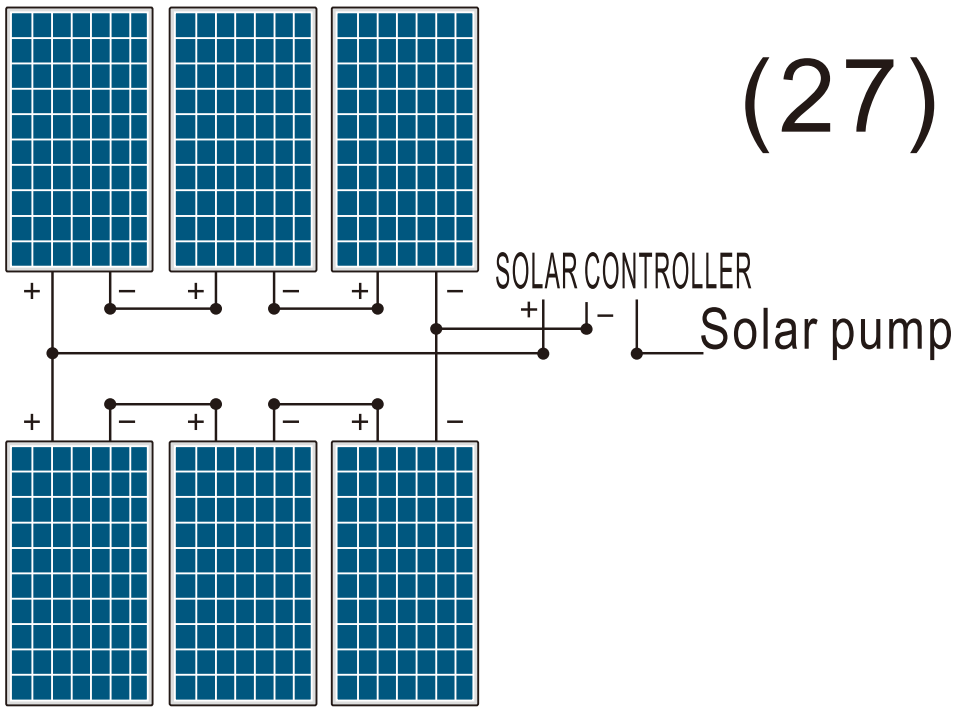
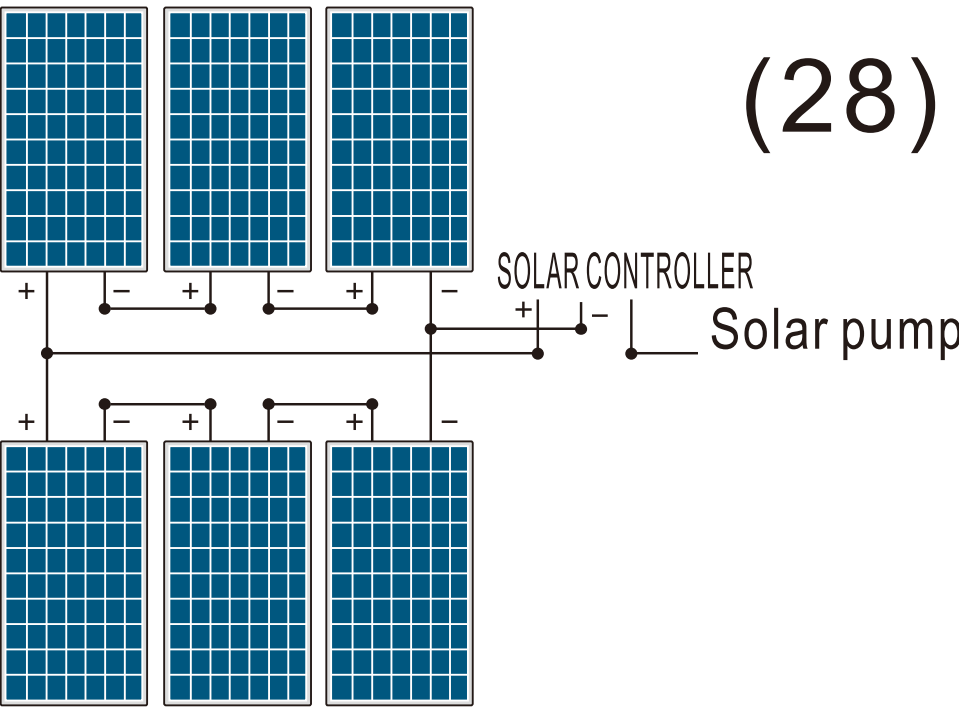
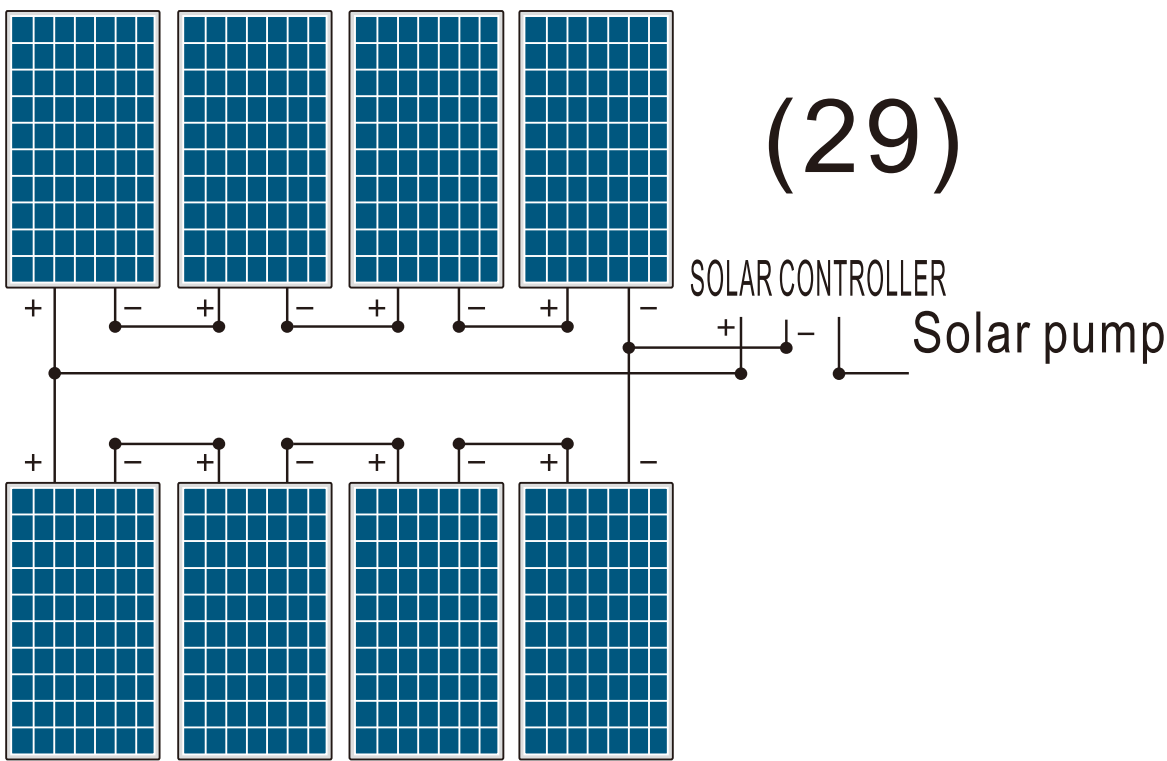
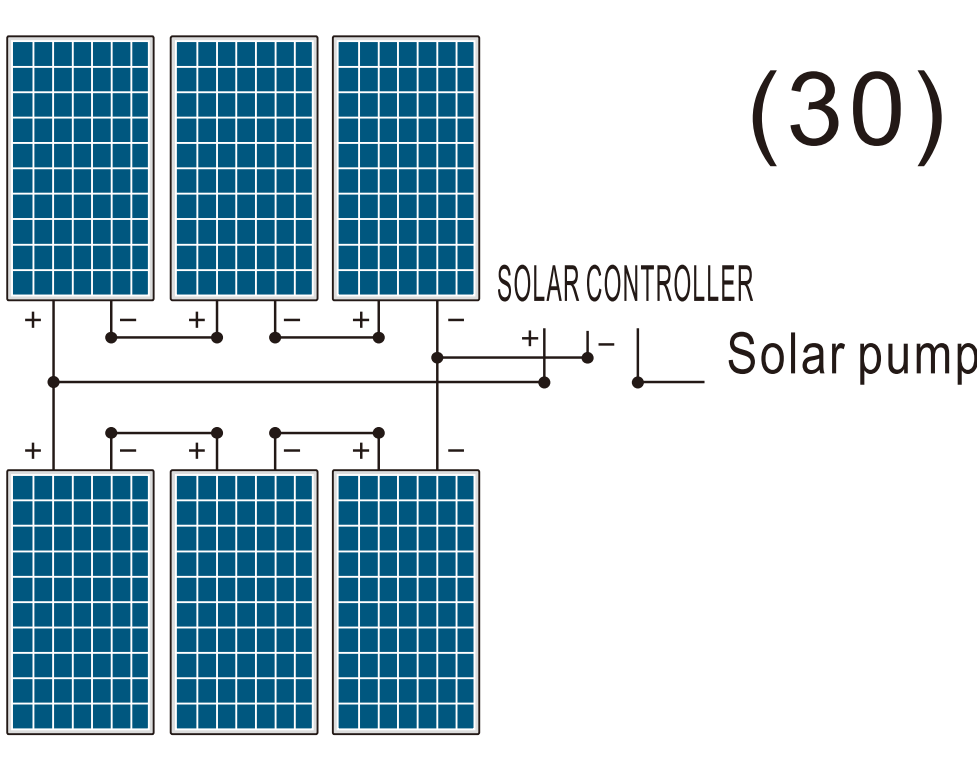
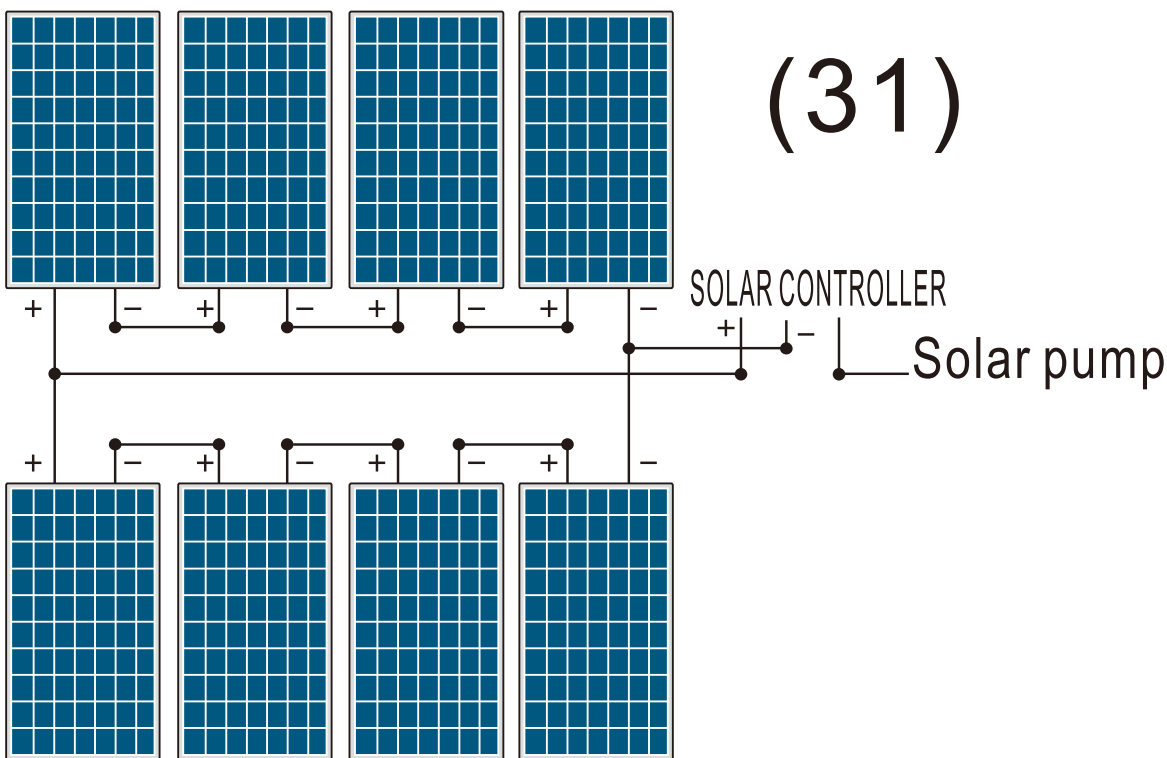
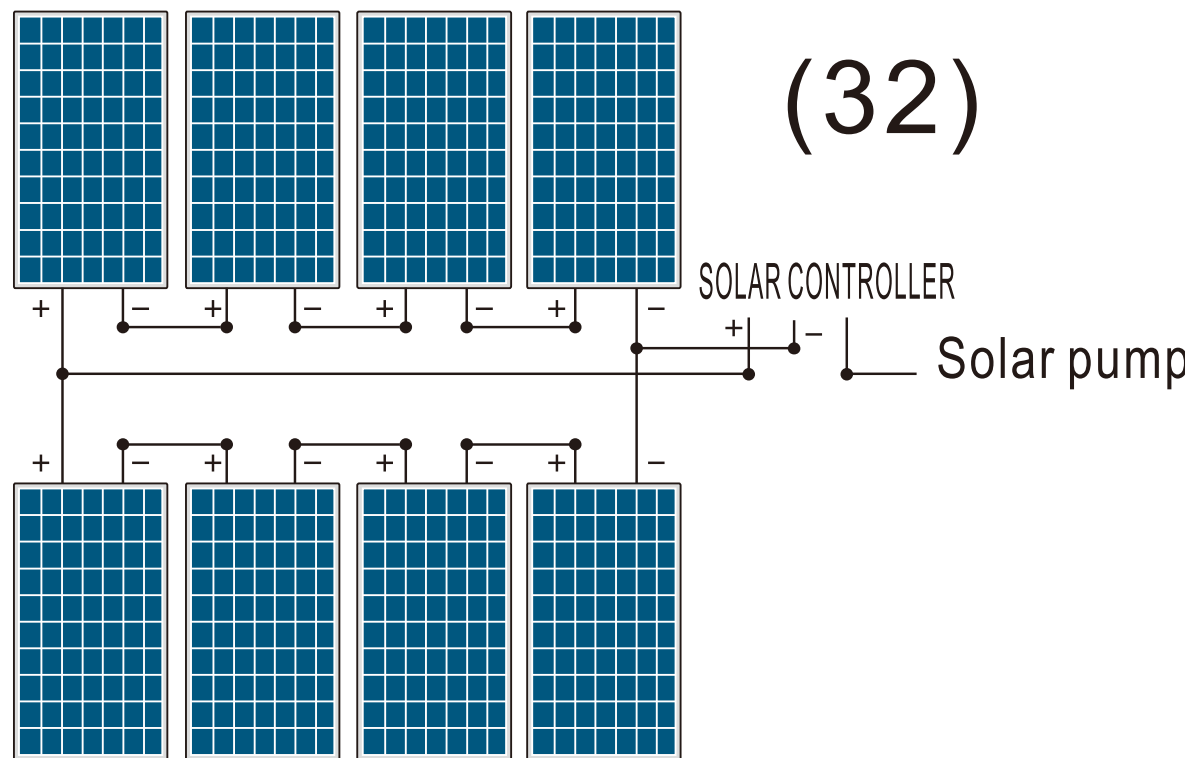
Efficiency MPPT software the inverter will continuous optimize the output frequency based on the available input power to constantly deliver maximum system
Automatic recovery from operation signal stop Multi LED display for simple operation Adjustable operation parameters Display historical operation data
Dry-running protection
Over/under-voltage protection
Over current and overload protection Over-temperature protection
Phase-lack protection
Fault detection with error code display Compatible with DC or AC 3 phase motor Self cleaning function Anti stealing
function IOT remote monitoring function

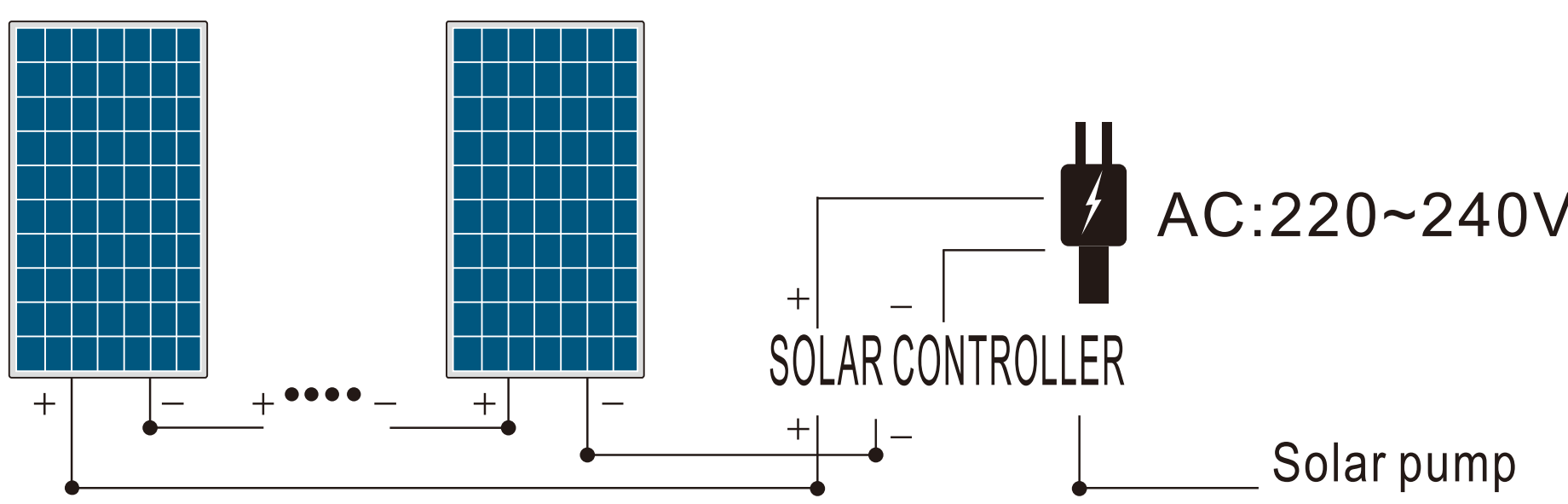
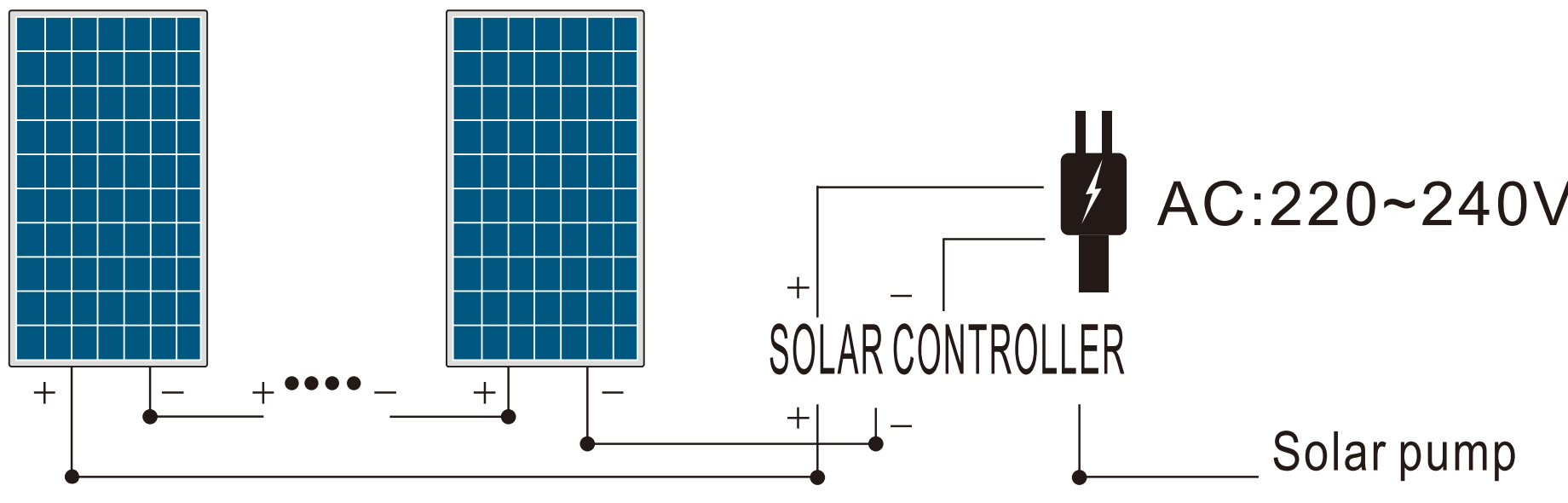
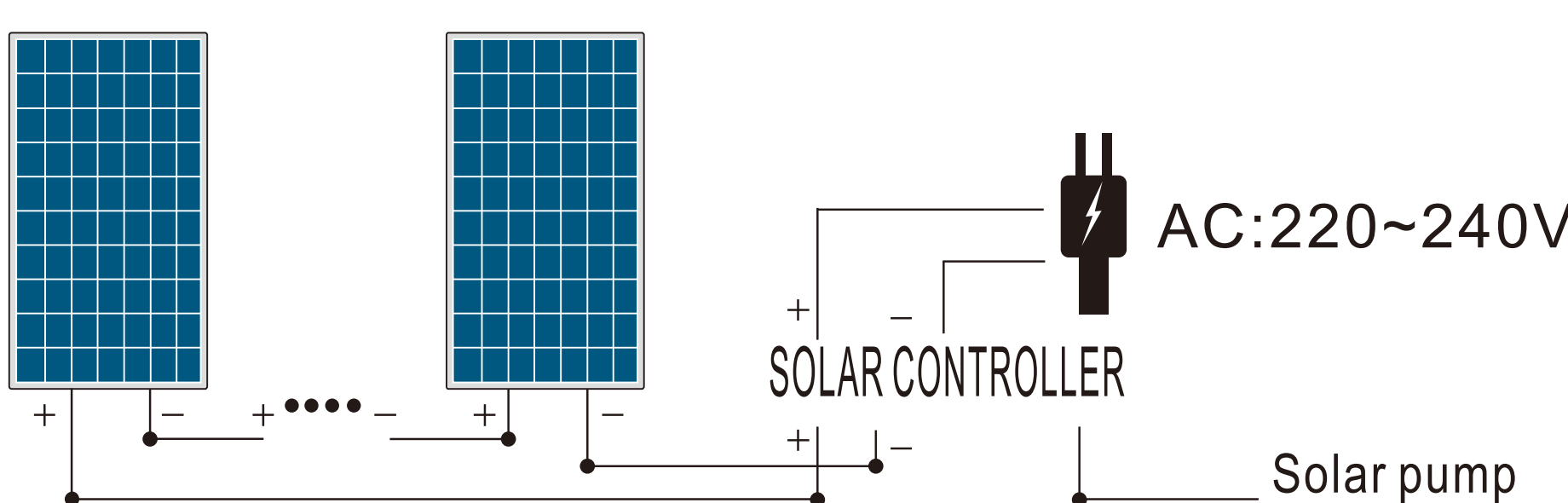
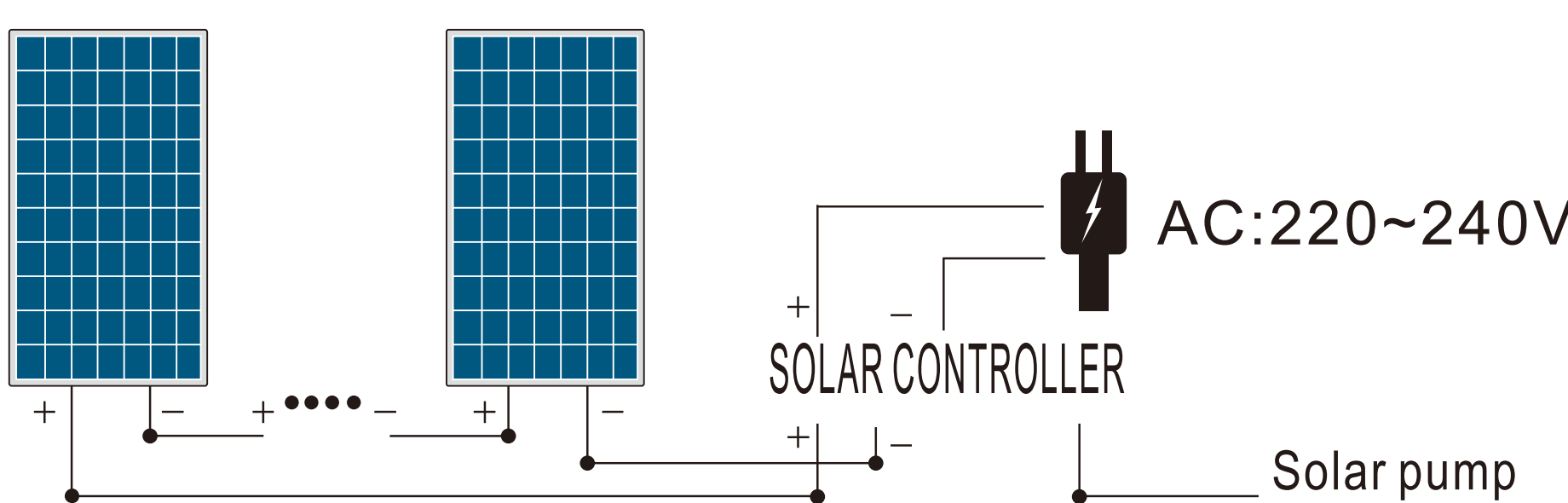
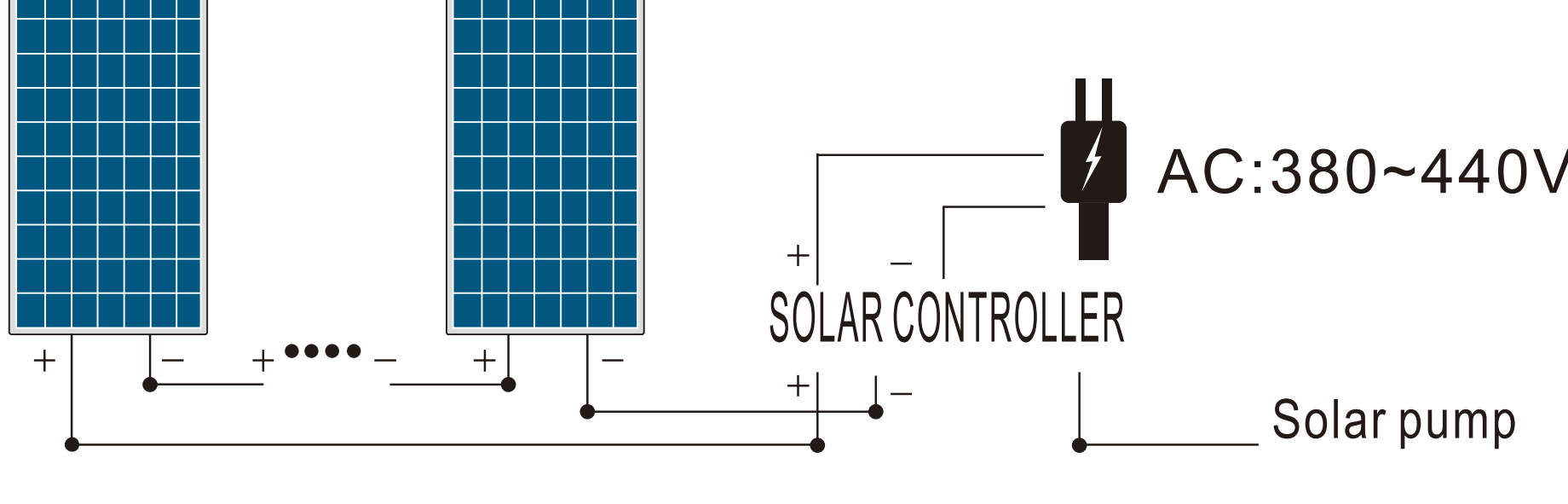
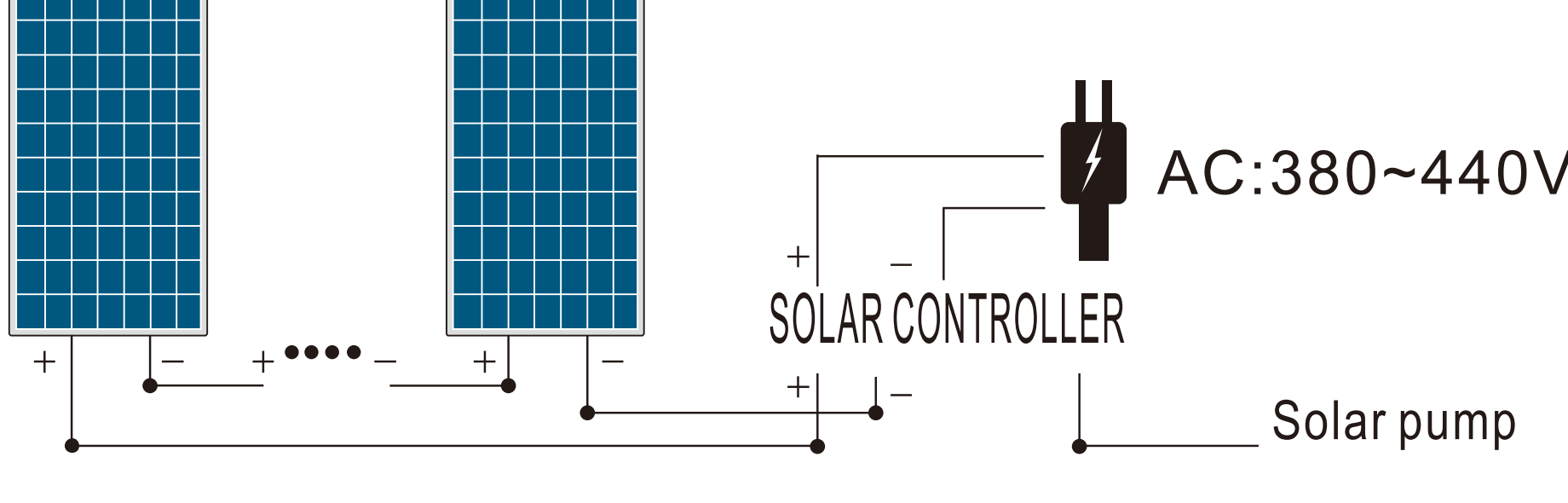
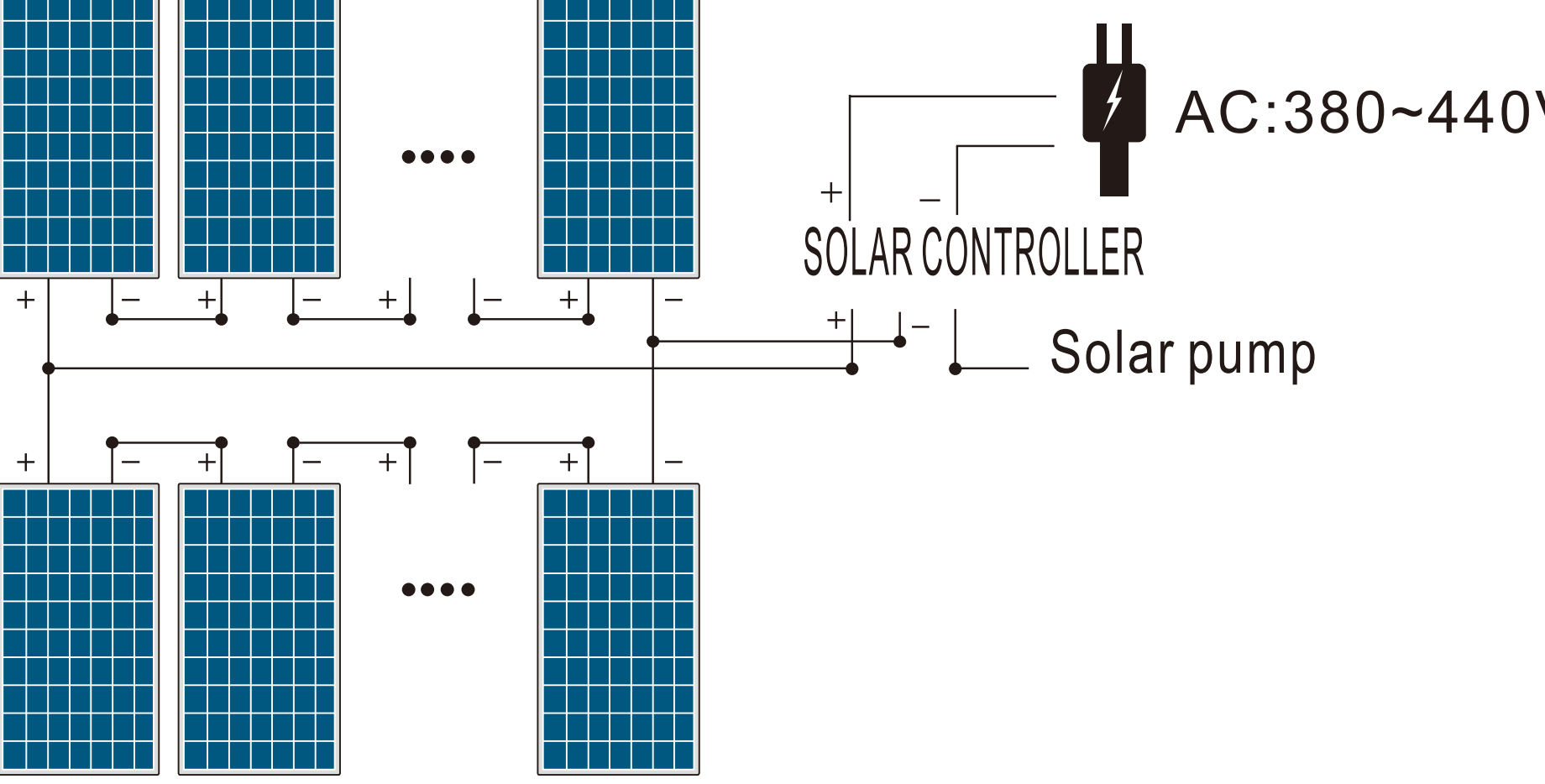
Technical data

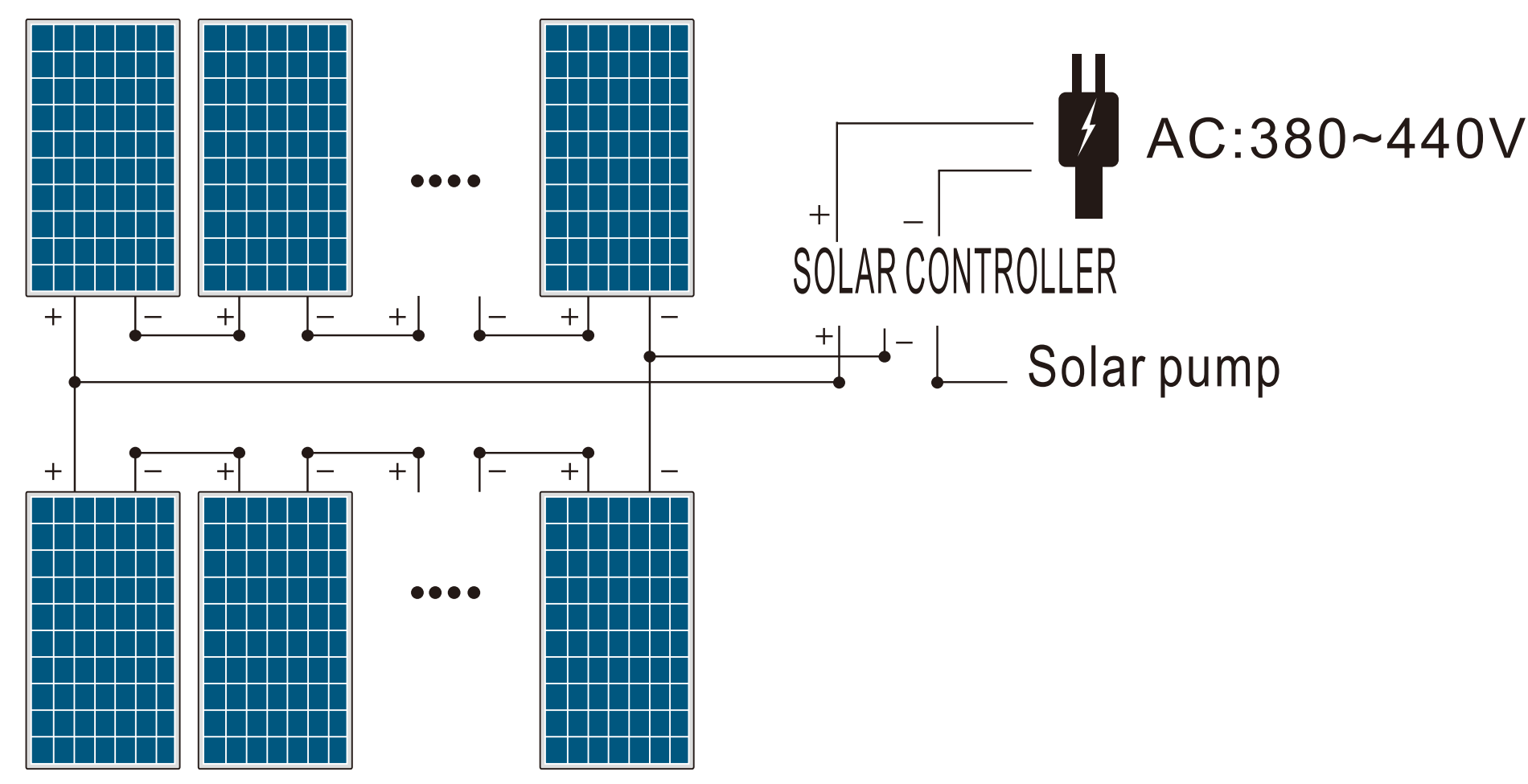
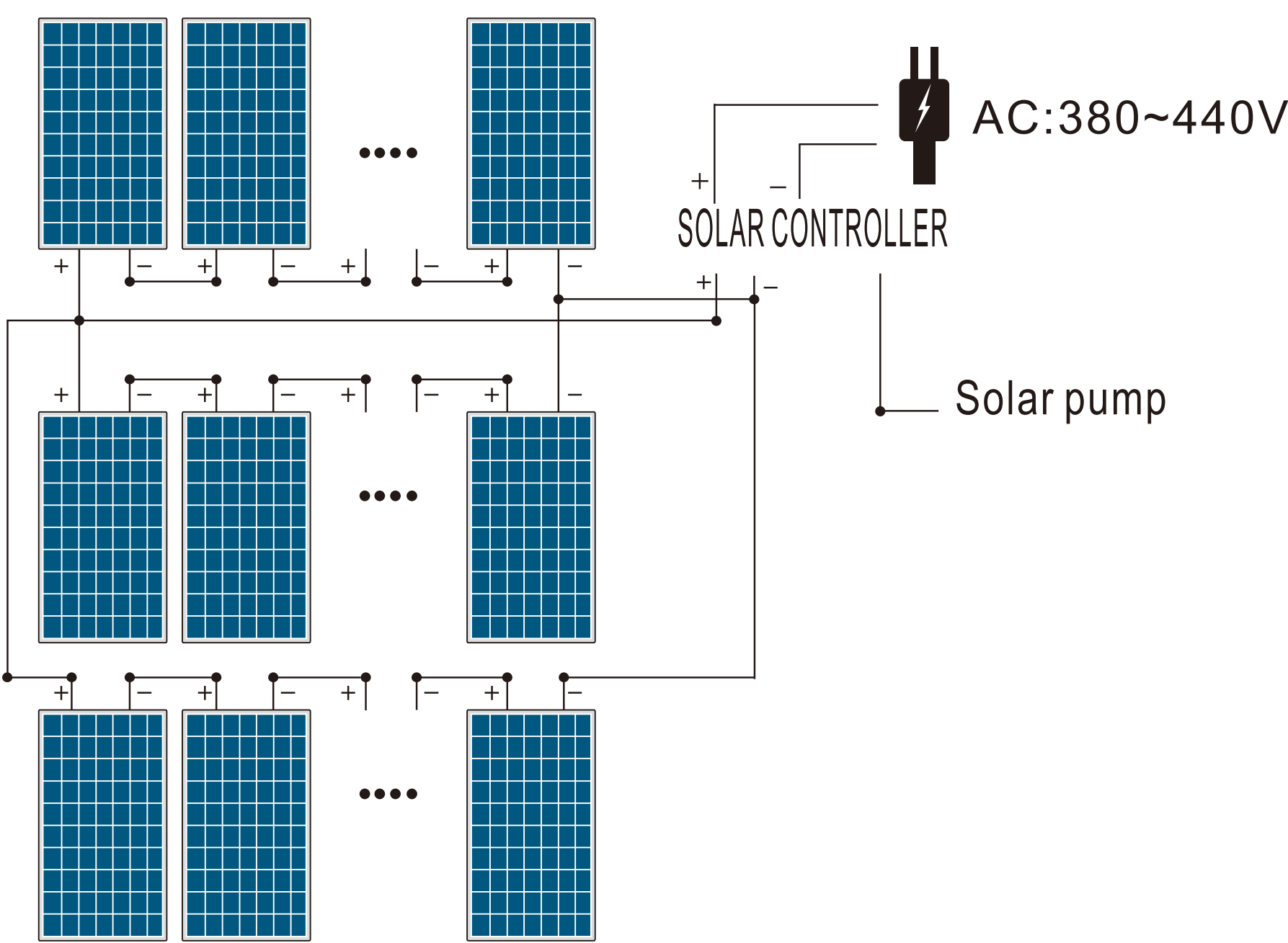
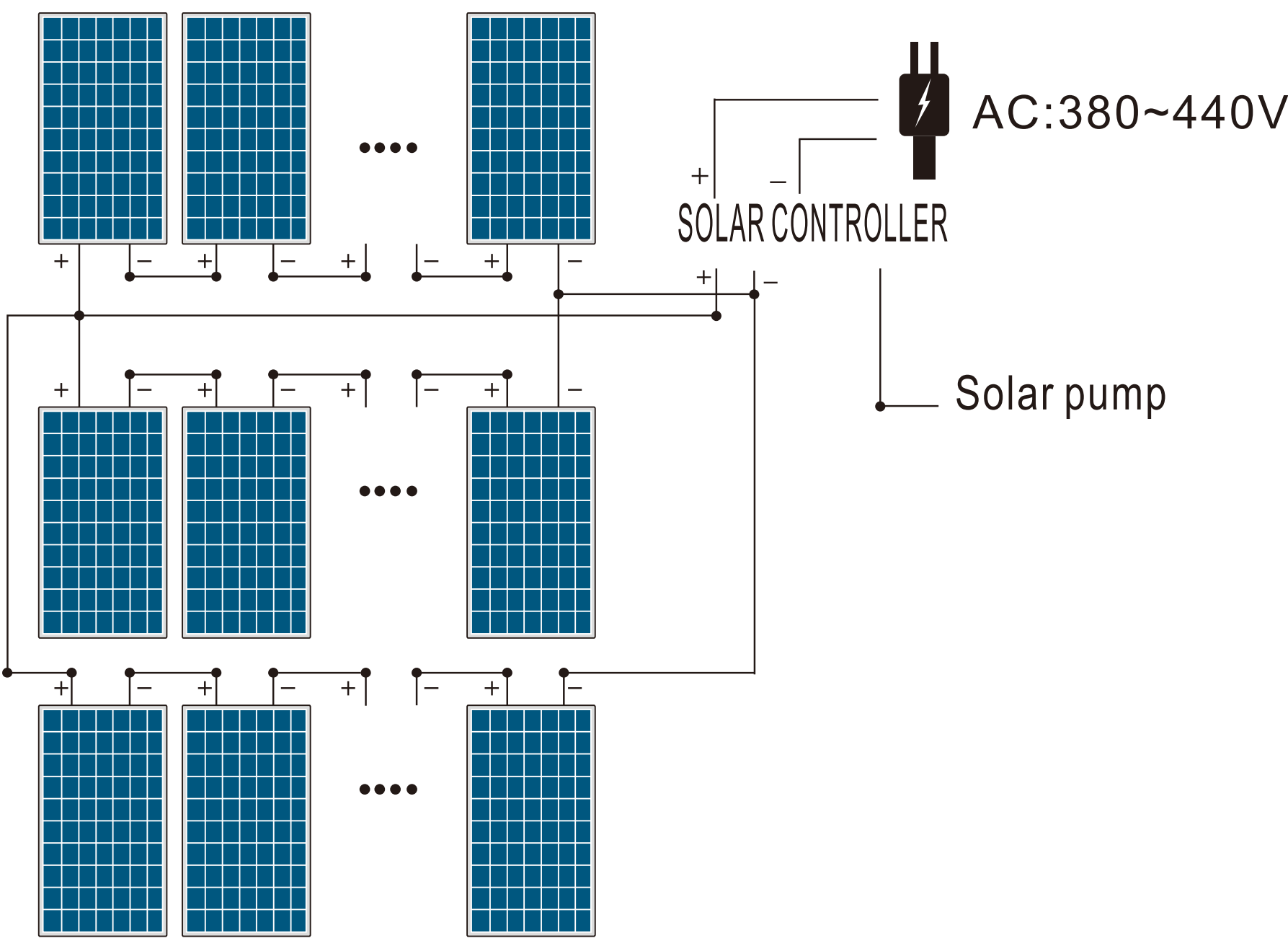
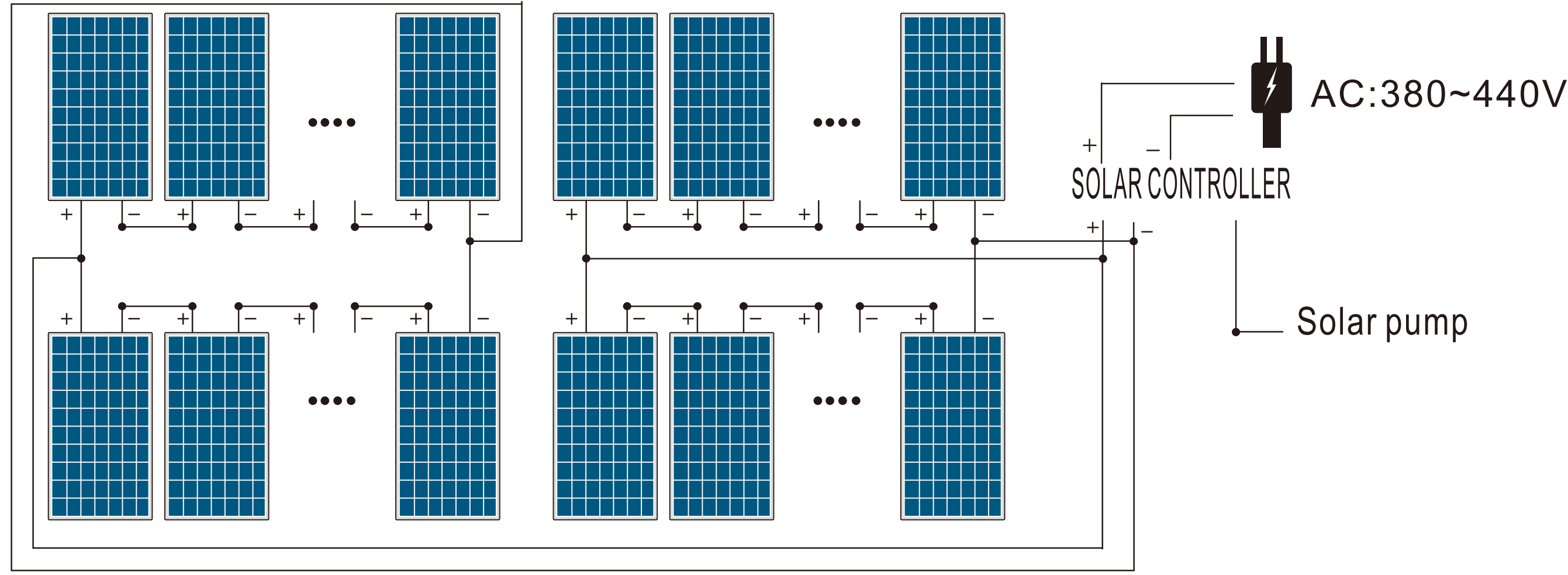
Model		TGP-2-0.75	TGP-2-1.3	TGP-2-1.5	TGP-2-2.2	TGP-3-3	TGP-3-4
Inverter Power		0.75KW	1.3KW	1.5KW	2.2KW	3KW	4KW
Inverter rated output current		10A	10A	10A	10A	10A	10A
Suitable PMSM / BLDC pumps	Pump's Voltage	DC-110V	DC-150V	DC-200V	DC-300V	DC-500V	DC-500V
	Pump's Frequency	According to the manufacturer's design					
	Pump's Phase	3xPhase	3xPhase	3xPhase	3xPhase	3xPhase	3xPhase
Suitable AC pumps	Pump's Voltage	100V~130V, 220V~240V	220V~240V	220V~240V	220V~240V	380V~415V	380V~415V
	Pump's Frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
	Pump's Phase	1xPhase, 3xPhase	1xPhase, 3xPhase	1xPhase, 3xPhase	1xPhase, 3xPhase	1xPhase, 3xPhase	1xPhase, 3xPhase
Input AC power - Gird or generator		(L,N)1xPhase 85~300V / 50/60Hz					(R,S,T)3xPhase 200~500V / 50/60Hz
Input DC power - PV panel or battery	Max input DC Voltage(VOC)	450	450	450	450	800	800
	Min DC Working Voltage(V)	80	80	80	80	200	200
	MPPT Working Voltage(V)	80-400	80-400	80-400	80-400	200-750	200-750
Performance							
Control mode		Motorcontrol technology					
Type of motor		Permanent magnet synchronous motor and asynchronous motor					
Efficiency		99%					
Enclosure class		IP65					
Installation		Wall mounting					
Other Parameters							
Cooling		Fan Cooling					
HMI		LCD screen					
Working environment							
Ambient temperature		(-25℃~60℃)					
Working altitude		3000m					
Warranty		18 months					

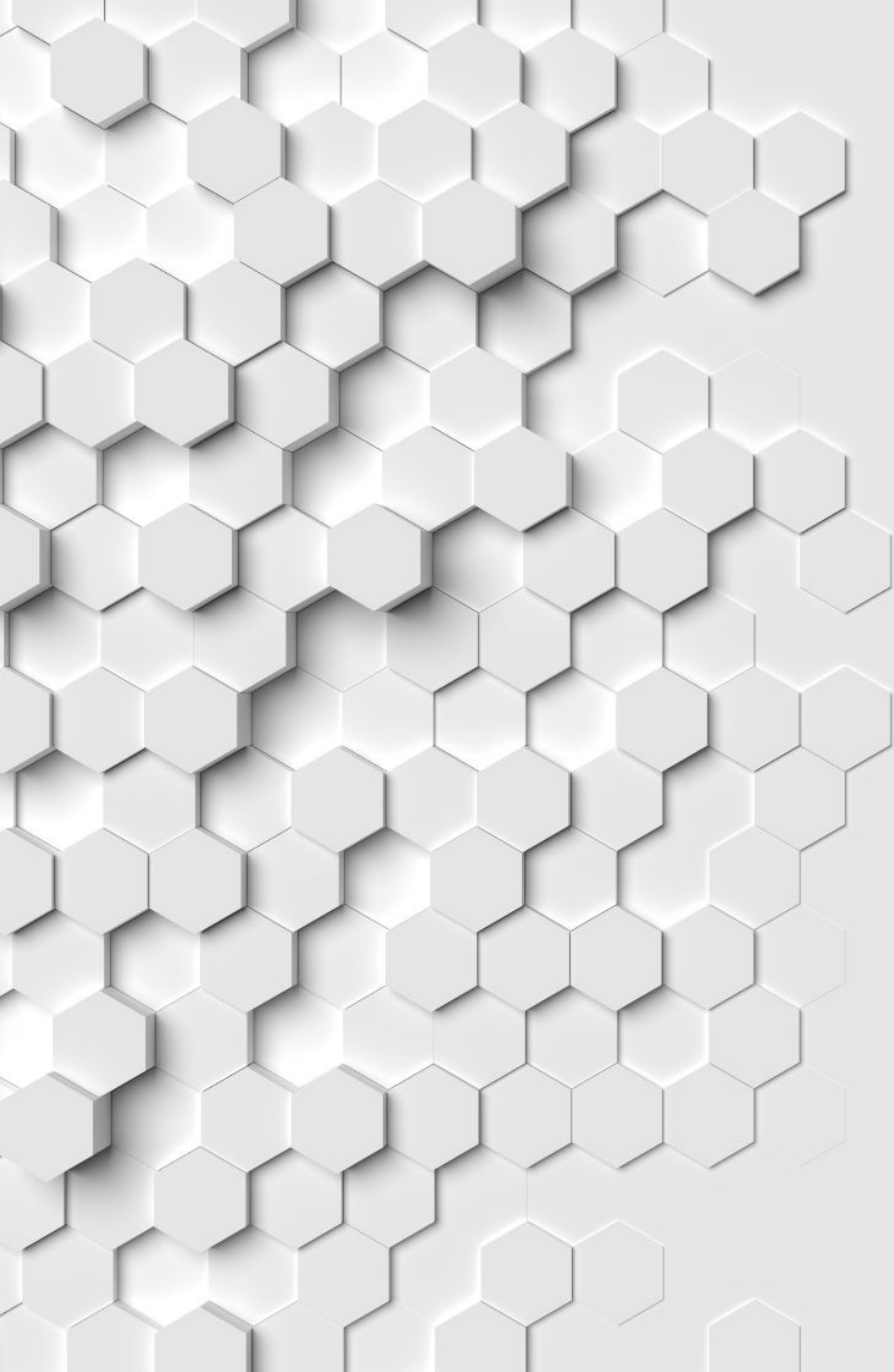
SOLAR PANEL RECOMMENDATIONS

PUMP POWER 80W-12V Voc: 18V~55V	  	Solar panel:150W*1PCS Solar panel:270W*1PCS Solar panel:330W*1PCS
PUMP POWER 120W-24V 180W-24V 200W-24V 210W-24V 210W-36V Voc: 18V~55V	  	Solar panel:150W*2PCS Solar panel:270W*1PCS Solar panel:330W*1PCS
PUMP POWER 280W-24V 300W-24V Voc: 18V~55V	 	Solar panel:270W*2PCS Solar panel:330W*1PCS
PUMP POWER 400W-36V Voc: 18V~55V	 	Solar panel:270W*2PCS Solar panel:330W*2PCS
PUMP POWER 370W-48V 400W-48V Voc: 30V~105V	 	Solar panel:270W*2PCS Solar panel:330W*2PCS
PUMP POWER 500W-48V 550W-48V Voc: 30V~105V	 	Solar panel:270W*4PCS Solar panel:330W*2PCS
PUMP POWER 600W-48V Voc: 30V~105V	 	Solar panel:270W*4PCS Solar panel:330W*4PCS
PUMP POWER 600W-72V Voc: 55V~160V	 	Solar panel:270W*3PCS Solar panel:330W*3PCS

PUMP POWER 750W-48V Voc: 30V~105V	(19)  (20) 	Solar panel:270W*4PCS Solar panel:330W*4PCS
PUMP POWER 750W-72V Voc: 55V~160V	(21)  (22) 	Solar panel:270W*4PCS Solar panel:330W*3PCS
PUMP POWER 900W-72V Voc: 55V~160V	(23)  (24) 	Solar panel:270W*4PCS Solar panel:330W*3PCS
PUMP POWER 1100W-72V Voc: 55V~160V	(25)  (26) 	Solar panel:270W*6PCS Solar panel:330W*6PCS
PUMP POWER 1100W-110V Voc: 60V~210V	(27)  (28) 	Solar panel:270W*6PCS Solar panel:330W*6PCS
PUMP POWER 1300W-110V Voc: 60V~210V	(29)  (30) 	Solar panel:270W*8PCS Solar panel:330W*6PCS
PUMP POWER 1500W-110V Voc: 60V~210V	(31)  (32) 	Solar panel:270W*8PCS Solar panel:330W*8PCS

PUMP POWER 750W-220V AC:85V-280V DC:80V-430V	 AC:220~240V SOLAR CONTROLLER Solar pump	Solar panel:270W*3-7PCS Solar panel:330W*4-6PCS
PUMP POWER 1100W-220V 1200W-220V AC:85V-280V DC:80V-430V	 AC:220~240V SOLAR CONTROLLER Solar pump	Solar panel:270W* 6-8PCS Solar panel:330W*5-7PCS
PUMP POWER 1300W-220V 1500W-220V AC:85V-280V DC:80V-430V	 AC:220~240V SOLAR CONTROLLER Solar pump	Solar panel:270W*8-9PCS Solar panel:330W*6-8PCS
PUMP POWER 2200W-220V AC:85V-280V DC:80V-430V	 AC:220~240V SOLAR CONTROLLER Solar pump	Solar panel:270W*10PCS Solar panel:330W*8-9PCS
PUMP POWER 3000W-380V AC Vol . 380V~440V Dc vol. 480V~780V	 AC:380~440V SOLAR CONTROLLER Solar pump	Solar panel:270W*15PCS Solar panel:330W*12PCS
PUMP POWER 4000W-380V AC Vol . 380V~440V Dc vol. 480V~780V	 AC:380~440V SOLAR CONTROLLER Solar pump	Solar panel:270W*19PCS Solar panel:330W*15PCS
PUMP POWER 5500W-380V AC Vol . 380V~440V Dc vol. 480V~780V	 AC:380~440V SOLAR CONTROLLER Solar pump	Solar panel:270W*26PCS Solar panel:330W*22PCS

PUMP POWER 7500W-380V AC Vol . 380V~440V Dc vol. 480V-780V	 Solar panel:270W*36PCS Solar panel:330W*30PCS
PUMP POWER 9200W-380V AC Vol . 380V~440V Dc vol. 480V-780V	 Solar panel:270W*45PCS Solar panel:330W*36PCS
PUMP POWER 11000W-380V AC Vol . 380V~440V Dc vol. 480V-780V	 Solar panel:270W*54PCS Solar panel:330W*42PCS
PUMP POWER 15000W-380V AC Vol . 380V~440V Dc vol. 480V-780V	 Solar panel:270W*76PCS Solar panel:330W*60PCS



wings
P U M P S

CERTIFIED
ISO 9001
ISO 14001
ISO 45001
ISO 50001



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