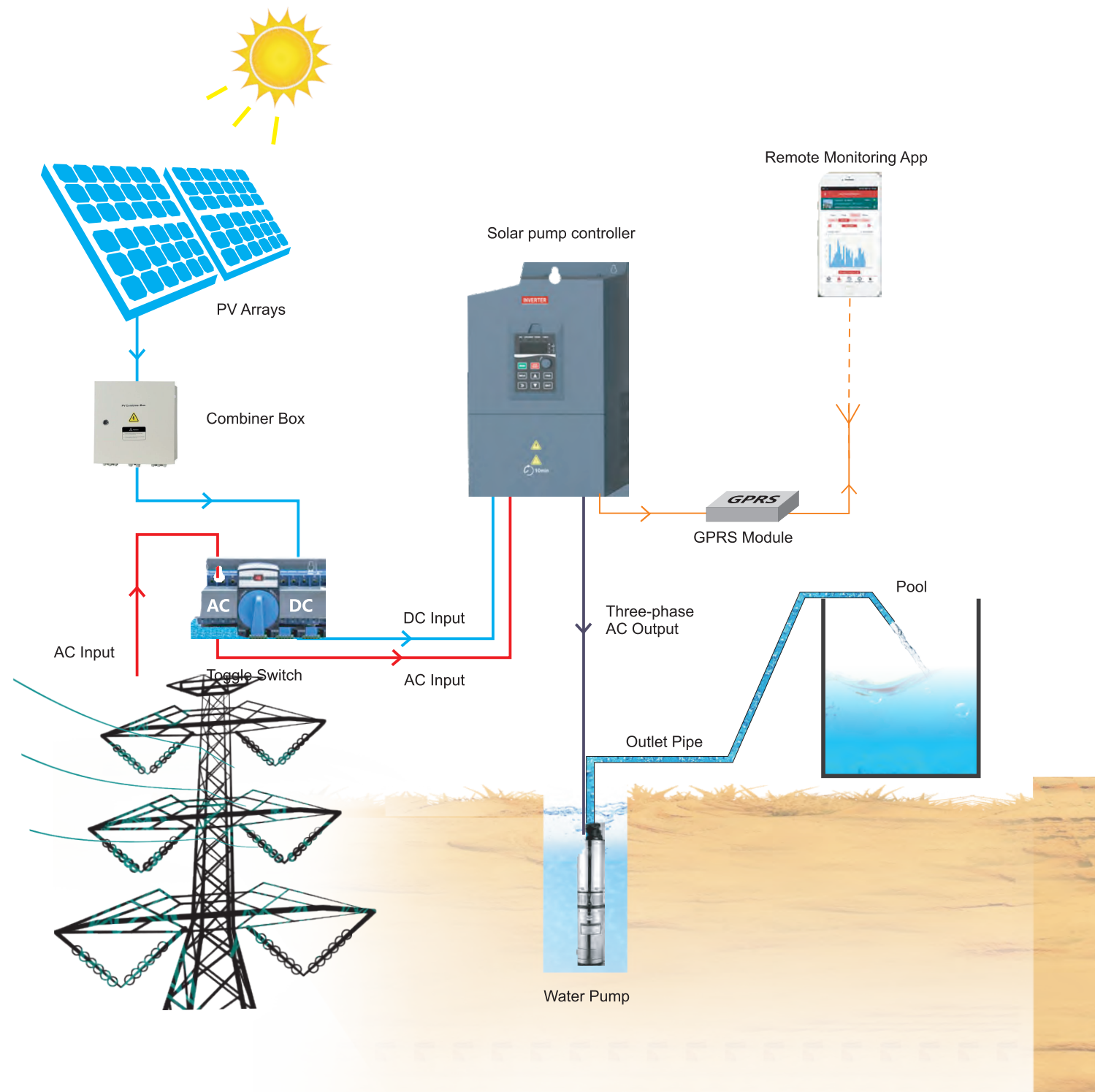


Solar Pumping System

Solar pumping system is composed of PV arrays, solar pump controller, combiner box and water pump, etc. It is widely used for agricultural irrigation, water storage and many other scenes. It can effectively solve the problems of water shortage in water-scarce areas and prevent soil erosion.



SP33 Solar Pump Controller

SP33 2.2kW~110kW



Flexibility

- Compatible with any IEC three-phase asynchronous motors
- Compatible with popular solar arrays
- Grid main supply optional

Smartness & Reliability

- Self-adaptive MPPT technology with up to 99% efficiency
- 10-year market application experience in pump drive
- Smart IGBT module embedded
- Built-in overload and dry-run motor protection function

Cost effectiveness

- Plug-and-play system design
- Embedded pump protection functions
- Battery-free for most applications
- Easy to maintain

Remote Monitoring

- Optional GPRS modules for remote monitoring
- Solar pump system historical data available
- Monitoring APP supported by Android/iOS system

KZ POWER SOLAR

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■ SP33 2.2kW~18.5kW Datasheet

Controller Model	SP33-2S2R2	SP33-4T2R2	SP33-4T3R7	SP33-4T5R5	SP33-4T7R5	SP33-4T011	SP33-4T015	SP33-4T18R5
Input Data								
PV Source								
Max Input Voltage(Voc) [V]	450V DC	800V DC						
Recommended voltage at MPPT	275~380V DC	500V DC~750V DC						
Recommended PV array power [kW]	2.7~3.5	2.7~3.5	4.8~6.4	6.6~8.8	9~12	13.2~17.6	18~24	22.2~29.6
Input voltage	220V AC Single phase	380V AC(±15%), Three phase						
MaxAmps(RMS) [A]	23	5.8	10.5	14.6	20.5	26	35	38.5
Output Data								
Output Power, rated [kW]	2.2	2.2	3.7	5.5	7.5	11	15	18.5
Output Voltage, rated	220V AC Three phase	380V AC(±15%), Three phase						
MaxAmps(RMS) [A]	9.6	5.1	9	12	17	25	32	37
Output Frequency	0-50Hz/60Hz							
General Data								
Dimensions(H*W*D) [mm]	187*88*138	207*100*147	247*130*167	345*182*216	373*220*205			
Gross Weight [kg]	2.8	4.2	6.0	8.7	10.8			
Standard Warranty [month]	18							
Certificates	IEC/EN 61800-5-1, IEC/EN 61800-2:2004, IEC/EN 61800-3:2004, CE							

■ SP33 22kW~110kW Datasheet

Controller Model	SP33-4T022	SP33-4T030	SP33-4T037	SP33-4T045	SP33-4T055	SP33-4T075	SP33-4T093	SP33-4T110
Input Data								
PV Source								
Max Input Voltage(Voc) [V]	800V DC							
Recommended voltage at MPPT	500V DC~750V DC							
Recommended PV array power [kW]	26.4~35.2	36~48	44~59.2	54~72	66~88	90~120	112~149	132~176
Input voltage	380V AC(±15%), Three phase							
MaxAmps(RMS) [A]	46.5	62	76	92	113	157	180	214
Output Data								
Output Power, rated [kW]	22	30	37	45	55	75	93	110
Output Voltage, rated	380V AC(±15%), Three phase							
MaxAmps(RMS) [A]	45	60	75	91	112	150	176	210
Output Frequency	0-50Hz/60Hz							
General Data								
Dimensions(H*W*D) [mm]	373*220*205	430*256*222	558*300*283	597*338*323				
Gross Weight [kg]	10.8	16.3	29.2	40.7				
Standard Warranty [month]	18							
Certificates	IEC/EN 61800-5-1, IEC/EN 61800-2:2004, IEC/EN 61800-3:2004, CE							



Note: 1. According to the light conditions, in different regions, the PV array power can be 1.2-1.6 times to the pump power.
2. Use the deep well pump or the output power wire for a long occasion, the controller needs to enlarge one step.

■ Configuration table

Pump Power (kW)	Controller Model	The Configuration And Number Of Solar Modules						Combiner Box
		Component Model	Cascade Number	Input Voltage(V)	Parallel Number	Total	Total Power(W)	
2.2	SP33-4T3R7	SZYL-P100-18	30	564	1	30	3000	/
3.7	SP33-4T5R5	SZYL-P250-30	20	634	1	20	5000	/
5.5	SP33-4T7R5	SZYL-P200-30	19	571.9	2	38	7600	4 Into 1
7.5	SP33-4T011	SZYL-P250-30	20	634	2	40	10000	4 Into 1
11	SP33-4T015	SZYL-P250-30	20	634	3	60	15000	4 Into 1

Max input voltage 800V, MPPT voltage range: DC 500-750V



SZYL-P100-18 × 30; total power3kW

SP33-4T3R7

2.2kW deep-well pump




SZYL-P250-30 × 20; total power5kW

SP33-4T5R5

4kW deep-well pump

SZYL-P200-30 × 19 × 2; total power7.6kW

SP33-4T7R5

combiner box with 4 interfaces

5.5kW deep-well pump

2kW deep-well pump

3.7kW deep-well pump

5.5kW deep-well pump

GPRS Module







Running Condition of Machine
Records for Fault Information



Free Monitoring Platform Using
Instant Remote Monitor



Current Running by Controller
Frequency Datashe Analysis & Comparison



Optimum *new range*

Solar module (60 cells 6")

(275/28 0 W)



- **Optimize your instalations.**
- High module **efficiency** and stable power output based on leading process technology.
- **Outstanding electrical performance** under high-temperature conditions or low-irradiance conditions.
- Ease of installations due to the **innovative engineering design.**
- **Rigorous quality control** meets the highest international standard.
- **Warranty, 10-year** workmanship and **25-year** performance (80% power output).





(xxx = rated power)

Electrical characteristics

Maximum Power (Pmax)	275 W	280 W
Maximum Power Voltage (Vmp)	31.30 V	31.95 V
Maximum Power Current (Imp)	8.79 A	8.82 A
Open Current Voltage (Voc)	38.40 V	40.10 V
Short Circuit Current (Isc)	9.31 A	9.43 A
Module Efficiency (%)	16.90	17.21
Power Tolerance (W)		0/+5
Maximum Series Fuse Ratings (A)		15
Maximum System Voltage (TUV)		DC 1000 V
Normal Operating Cell Temperature (°C)		45±2

Electrical characteristics tested at Standard Test Conditions (STC), defined as: Irradiance of 1000 w/m², spectrum AM 1.5 and temperature of 25 °C. Tolerance measures STC: ±3% (Pmp); ±10% (Isc, Voc, Imp, Vmp). Best in Class AAA solar simulator (IEC 60904-9) used, power measurement uncertainty is within +/- 3%

Mechanical specifications

Dimensions (± 2 mm.)	1640x992x35 mm
Weight (± 0,5 kg)	18 kg
Max. static load, front (snow & wind)	5400 Pa (**)
Max. static load, back (wind)	3800 Pa
Max. hailstone impact (diameter/velocity)	25 mm / 23 m/s

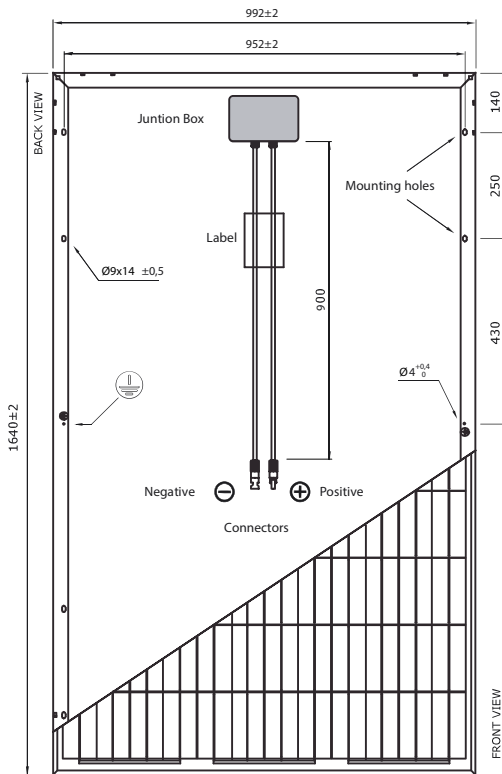
(**) 5400 Pa with 45 mm. height frame

Construction materials

Front cover (material /type/thickness) (*)	Tempered Glass,High Transmission/Low Iron/3.2 mm
Cell (quantity/type/dimensions)	60 cells (6x10)/polycrystalline /156.75 x 156.75 mm
Frame (material/color)	Anodized aluminium alloy / silver
Junction box (protection degree)	IP67
Cable (length/cross-section area)/ Connector	900 mm / 4 mm ² / Combinable MC4

(*) With anti-reflective coating

Panel construction generic view



The drawing is not to scale

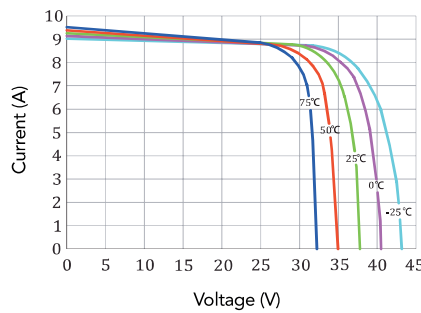
Temperature characteristics

Temp. Coeff. of Isc (TK Isc)	0.08558% /°C
Temp. Coeff. of Voc (TK Voc)	-0.29506% /°C
Temp. Coeff. of Pmax (TK Pmax)	-0.38001% /°C
Operating Temperature	-40 to +85 °C

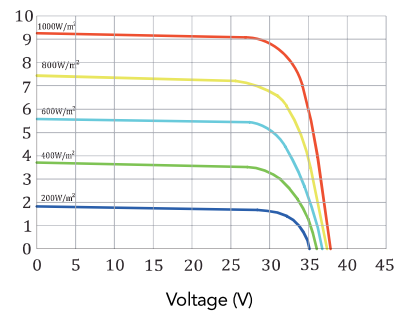
Packaging

Modules/pallet	30 pcs
Pallets/container 40' HQ	28 pallets
Modules/container 40' HQ	840 pcs
Pallets/container 20'	12 pallets
Modules/container 20'	360 pcs

Various Temperature



Various Irradiance



NB: The data contained in this documentation are subject to modification without prior notification.

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Discover the potential



