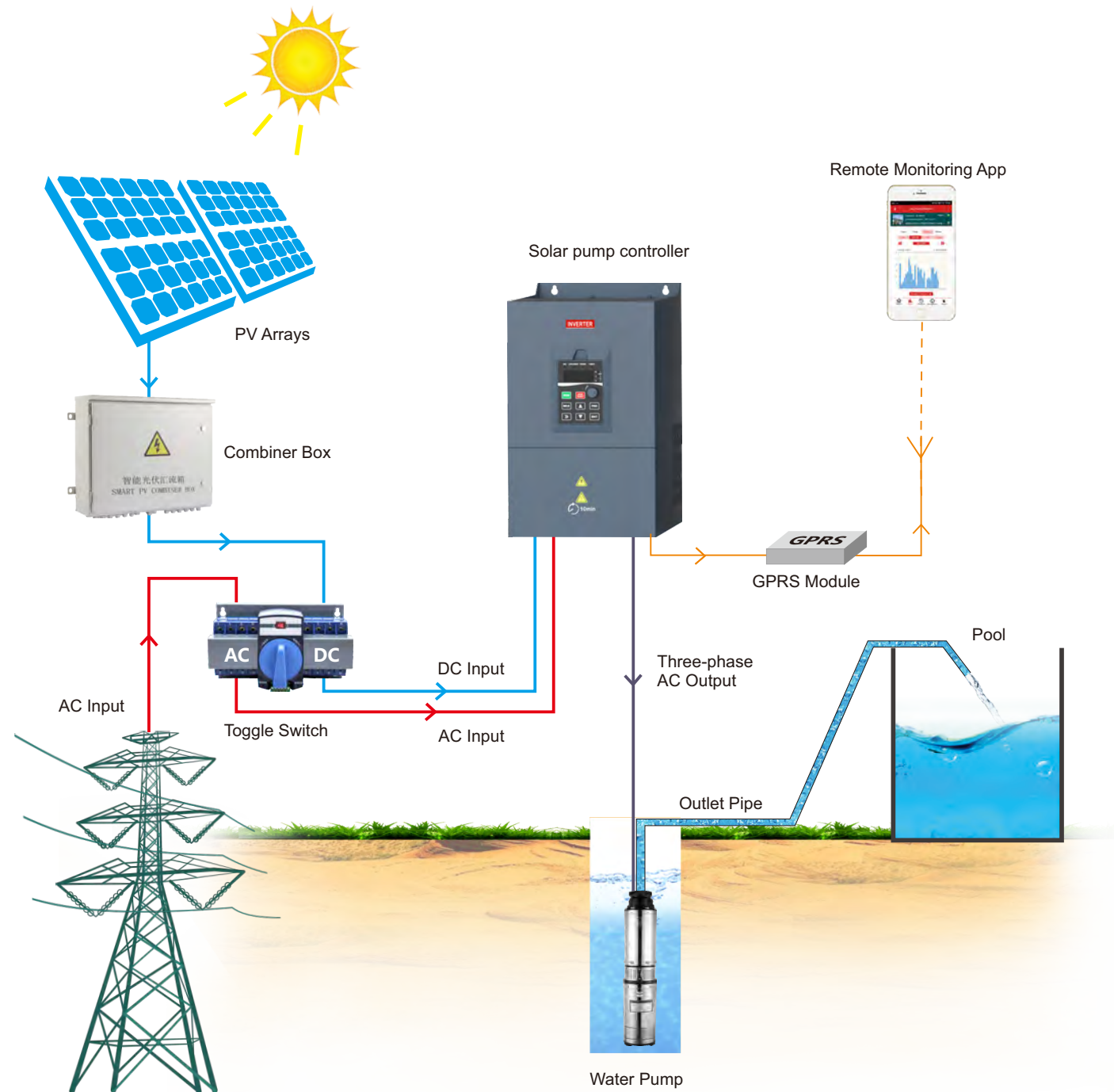


# Solar Pumping System

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.



# SAJ

## PDS33 Solar Pump Controller

PDS33 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

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■ PDS33 2.2kW~18.5kW Datasheet

| Controller Model                | PDS33-2S2R2                                                    | PDS33-4T2R2                | PDS33-4T3R7 | PDS33-4T5R5 | PDS33-4T7R5 | PDS33-4T011 | PDS33-4T015 | PDS33-4T18R5 |
|---------------------------------|----------------------------------------------------------------|----------------------------|-------------|-------------|-------------|-------------|-------------|--------------|
| 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 |                            |             |             |             |             |             |              |

■ PDS33 22kW~110kW Datasheet

| Controller Model                | PDS33-4T022                                                    | PDS33-4T030 | PDS33-4T037 | PDS33-4T045 | PDS33-4T055 | PDS33-4T075 | PDS33-4T093 | PDS33-4T110 |
|---------------------------------|----------------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 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                                                     | PDS33-4T3R7      | SZYL-P100-18                                  | 30             | 564              | 1               | 30    | 3000           | /            |
| 3.7                                                     | PDS33-4T5R5      | SZYL-P250-30                                  | 20             | 634              | 1               | 20    | 5000           | /            |
| 5.5                                                     | PDS33-4T7R5      | SZYL-P200-30                                  | 19             | 571.9            | 2               | 38    | 7600           | 4 Into 1     |
| 7.5                                                     | PDS33-4T011      | SZYL-P250-30                                  | 20             | 634              | 2               | 40    | 10000          | 4 Into 1     |
| 11                                                      | PDS33-4T015      | 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

2.2kW deep-well pump

PDS33-4T3R7

2kW deep-well pump

SZYL-P250-30 × 20; total power5kW

4kW deep-well pump

PDS33-4T5R5

3.7kW deep-well pump

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

5.5kW deep-well pump

PDS33-4T7R5

combiner box with 4 interfaces

5.5kW 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