

SP6 SERIES

Solar Pump Inverter

IP55 Outdoor Protection

IP55 Protection

Outdoor upgrade for SP1-SP4 integrated model range.

All-in-One Range

Covers 220V single phase, 220V three phase and 380V three phase pump systems.

Hybrid Solar Pumping

PV, AC grid and generator support for practical irrigation projects.

Harsh Site Ready

Built for dusty, humid, coastal and remote pump stations.

Solarseeker



SP6 SERIES

Integrated IP55 Solar Pump Inverter Catalog

SP1-SP4 electrical coverage | SP6 IP55 outdoor protection platform

SMART · SIMPLE · EFFICIENT

Application Scenarios & Key Features

Designed for outdoor solar pumping projects that need IP55 protection instead of SP1-SP4 IP20 indoor units

 **Agricultural irrigation**

 **Domestic well water supply**

 **Livestock watering**

 **Desert / coastal pump stations**

System Positioning

SP6 integrates the model coverage of the SP1, SP2, SP3 and SP4 series while upgrading the product positioning to IP55 outdoor protection.

Core Value

It enhances protection against dust and moisture, extends system lifespan, and reduces after-sales risks and costs by 90%.

Key Features

-  **IP55 Outdoor Protection**
Better resistance for dust, water splash, humidity and harsh pump-room environments.
-  **High Efficiency MPPT**
Advanced tracking algorithms capture maximum panel power, reaching over 99% MPPT efficiency.
-  **Hybrid Function**
Solar power and generator or grid power can work together to extend daily pumping time.
-  **Dry-Running Protection**
Automatically stops operation to protect the pump when water source conditions are abnormal.
-  **Water Sensor Compatible**
Supports tank full and well empty logic for automatic start and stop.
-  **Simple Commissioning**
Quick installation, visible fault codes and support for common field troubleshooting.

Technical Specifications

SP6 integrated solar pumping inverter platform data

Category	Parameter	Specification Detail
Input DC	Max DC Voltage	800 V
	MPPT Range	170-800 V for 220V systems; 270-800 V for 380V systems
Input AC	Rated AC Voltage	220-240 V or 380-440 V
	Connect Method	Single phase or three phase
Output AC	Rated Power	0.75-200 kW integrated model range
	Frequency	0-60 Hz
	Connect Method	Single phase or three phase
Others	Motor Type	Asynchronous and synchronous pump motors
	Protection Grade	IP55 outdoor protection
	Certification	CE
	Operating Temperature	0°C - 50°C

System Notes

Integrated Model Range

SP6 combines SP1-SP4 model coverage: 220V single phase pump, 220V three phase pump, and 380V three phase pump applications.

Protection Upgrade

SP1-SP4 standard units are IP20 indoor products. SP6 is positioned as the IP55 protected outdoor version for harsh sites.

PV Voltage Design

For 220V pump systems, keep array Vmp over 320V. For 380V pump systems, keep array Vmp around 530V or higher.

Selection Rule

Final sizing should check pump nameplate, provide us with the pump power(KW or hp), voltage (220V/380V/440V or others), phase number(single-phase or three-phase).

Recommended Information for Quotation

Send pump nameplate (power, voltage, phase, rated current) for model recommendation.

SP6 Matching Table - 220V Platforms

SP1, SP2 and SP3 electrical coverage, upgraded to SP6 IP55 protection

Platform / Model	Inverter kW	Current A	Pump kW	Panel kW	DC Input	Recommend DC
SP1 220V single phase input / single phase output						
SP61002	2.2	14	1.5	3.0	170-800	320-800
SP61004	4.0	18	2.2	4.4	170-800	320-800
SP61005	5.5	25	4.0	8.0	170-800	320-800
SP61007	7.5	32	5.5	11.0	170-800	320-800
SP2 220V single phase input / three phase output						
SP62002	2.2	10	1.5	3.0	170-800	320-800
SP62004	4.0	17	2.2	4.4	170-800	320-800
SP62005	5.5	25	4.0	8.0	170-800	320-800
SP62007	7.5	32	5.5	11.0	170-800	320-800
SP3 220V three phase input / three phase output						
SP63002	2.2	10	1.5	3.0	170-800	320-800
SP63004	4.0	17	2.2	4.4	170-800	320-800
SP63005	5.5	25	4.0	8.0	170-800	320-800
SP63007	7.5	32	5.5	11.0	170-800	320-800
SP63011	11	45	7.5	11.0	170-800	320-800
SP63015	15	60	11	16.5	170-800	320-800
SP63018	18	75	15	22.5	170-800	320-800
SP63022	22	90	18	27.0	170-800	320-800
SP63030	30	110	22	33.0	170-800	320-800
SP63037	37	150	30	45.0	170-800	320-800

Selection Reminder

Use these 220V platform models for single-phase and three-phase 220V pump systems. Final sizing should check the pump nameplate and site data.

SP6 Matching Table - 380V Platform

SP4 electrical coverage, upgraded to SP6 IP55 protection for 380V three-phase pump systems

Platform / Model	Inverter kW	Current A	Pump kW	Panel kW	DC Input	Recommend DC
SP4 380V three phase input / three phase output						
SP64002	2.2	5	1.5	2.3	270-800	530-800
SP64004	4.0	9	2.2	3.3	270-800	530-800
SP64005	5.5	13	4.0	6.0	270-800	530-800
SP64007	7.5	17	5.5	8.3	270-800	530-800
SP64011	11	25	7.5	11.3	270-800	530-800
SP64015	15	32	11	16.5	270-800	530-800
SP64018	18.5	37	15	22.5	270-800	530-800
SP64022	22	45	18.5	27.8	270-800	530-800
SP64030	30	60	22	33.0	270-800	530-800
SP64037	37	75	30	45.0	270-800	530-800
SP64045	45	91	37	55.5	270-800	530-800
SP64055	55	112	45	67.5	270-800	530-800
SP64075	75	150	55	82.5	270-800	530-800
SP64090	90	176	75	112.5	270-800	530-800
SP64110	110	210	90	135.0	270-800	530-800
SP64132	132	253	110	165.0	270-800	530-800
SP64160	160	304	132	198.0	270-800	530-800
SP64185	185	350	160	240.0	270-800	530-800
SP64200	200	377	185	277.5	270-800	530-800

Selection Reminder

For 380V three-phase pump systems, keep solar array Vmp around 530V or higher. This improves MPPT efficiency and supports stable operation.

Basic Wiring Architecture

Outdoor SP6 inverter platform with independent PV input, AC input and pump output

Connection Structure

PV input, optional AC backup input, pump motor output, water level sensor, RS485 remote signal and protection terminals.

Control and Protection Details

Cable glands, protected cooling, terminal wiring and keypad fault display support practical outdoor maintenance.

SP6 Outdoor Product Views



IP55 protected housing | keypad operation | outdoor mounting

Field Detail Views



Input Mode Reminder

Solar only, AC only and hybrid input modes should be wired according to the installation manual.

Safety Focus

Use proper breakers, surge protection, grounding and cable glands for outdoor installations.