

SOLAR PUMP Control Cabinet

Protection and Distribution Solution

Simple Cabinet

Essential AC/DC breaker, fuse, inverter and terminal protection for standard pump sites.

Complex Cabinet

Adds SPD, 24V control board, output reactor, metering or customized protection modules.

SP1-SP4 Matching

Model table follows the SP1, SP2, SP3 and SP4 solar pump inverter platforms.

Project Ready

Cabinet layout can be adapted to pump power, voltage, protection level and site wiring plan.

Solarseeker



CONTROL CABINET CATALOG

Simple and Complex Cabinet Options

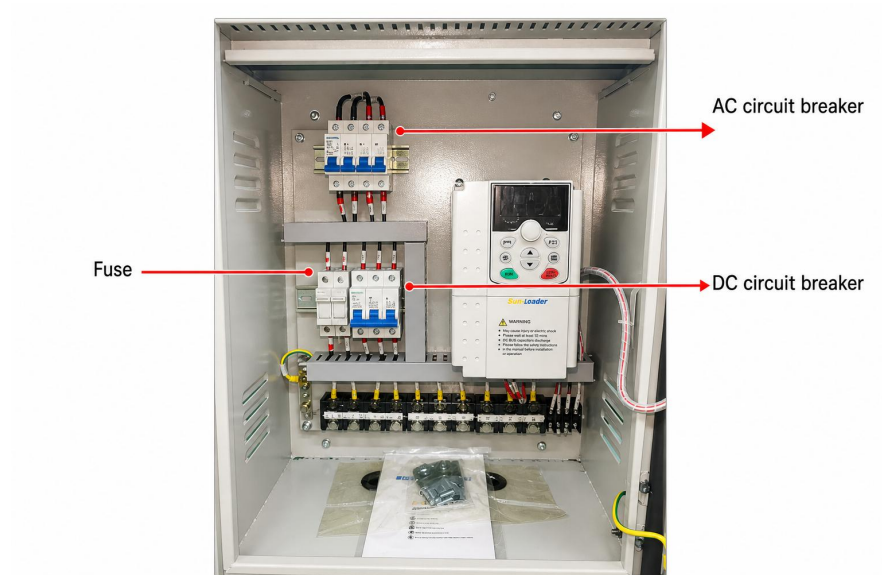
For SP1-SP4 solar pump inverter systems

SMART - SIMPLE - EFFICIENT

Cabinet Options & Applications

Two cabinet levels for solar pump inverter projects

Simple Control Cabinet



Typical Configuration

AC circuit breaker, DC circuit breaker, fuse, inverter, terminal block, grounding and cabinet enclosure for standard solar pump applications.

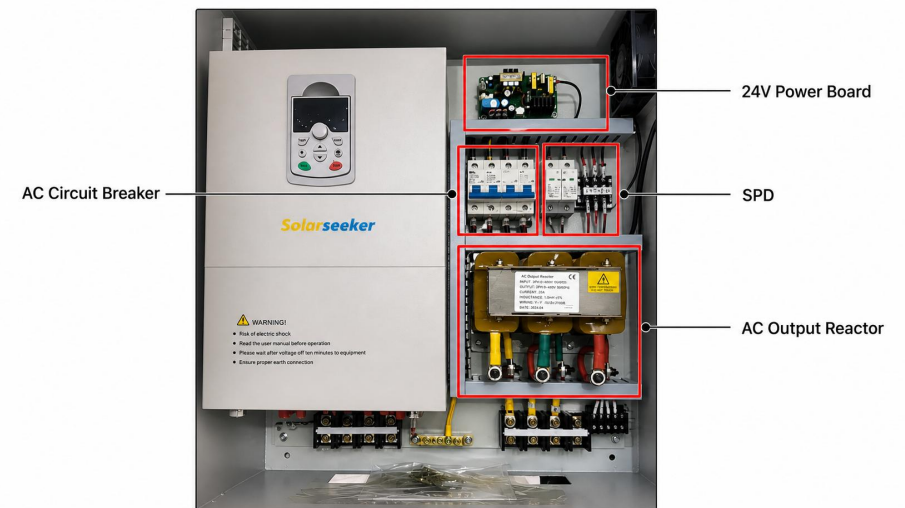


Irrigation



Deep well pumping

Complex Control Cabinet



Enhanced Configuration

AC breaker, SPD, 24V power board, output reactor, control protection, inverter, wiring terminals and customized monitoring options.



Livestock water



Village water supply

Technical Specifications

Control cabinet platform for SP1-SP4 solar pump inverter systems

Category	Parameter	Specification Detail
Cabinet	Cabinet Type	Simple cabinet or complex cabinet
Cabinet	Application	Solar pump inverter protection and distribution
Electrical	Matched Inverter Series	SP1, SP2, SP3 and SP4 solar pump inverter platforms
Electrical	Voltage Level	220V and 380V pump systems
Electrical	Power Range	1.5 - 220 kW according to pump and inverter selection
Protection	Standard Components	AC breaker, DC breaker, fuse, terminal, grounding
Protection	Optional Components	SPD, 24V power board, AC output reactor, meter, fan
Protection	Cabinet Layout	Customized by pump power, cable size and site protection needs
Environment	Installation	Pump room, outdoor cabinet area or sheltered field station
Environment	Operating Temperature	0°C - 50°C
Service	Documentation	Wiring diagram and component list available by project

Selection Notes

Simple Cabinet

Recommended when the system needs compact protection with basic AC/DC switching and fusing.

Complex Cabinet

Recommended for larger pumps, unstable grid backup, lightning-prone areas or projects that need more control modules.

Quotation Data

Please confirm pump voltage, phase, current, power, PV string design, cable length and site photos.

Customization

Cabinet dimensions, component brand, cooling, enclosure grade and wiring layout can be customized for each order.

Matching Table - 220V Platforms

SP1, SP2 and SP3 model matching for control cabinet selection

Platform / Model	Inverter kW	Current A	Pump kW	Panel kW	DC Input	Recommend DC	600W PV Matching
SP1 220V single phase input / single phase output							
SP1002	2.2	14	1.5	3.0	170-800	320-800	5 pcs / 1P x 5S
SP1004	4.0	18	2.2	4.4	170-800	320-800	8 pcs / 1P x 8S
SP1005	5.5	25	4.0	8.0	170-800	320-800	14 pcs / 1P x 14S
SP1007	7.5	32	5.5	11.0	170-800	320-800	19 pcs / 1P x 19S
SP2 220V single phase input / three phase output							
SP2002	2.2	10	1.5	3.0	170-800	320-800	5 pcs / 1P x 5S
SP2004	4.0	17	2.2	4.4	170-800	320-800	8 pcs / 1P x 8S
SP2005	5.5	25	4.0	8.0	170-800	320-800	14 pcs / 1P x 14S
SP2007	7.5	32	5.5	11.0	170-800	320-800	19 pcs / 1P x 19S
SP3 220V three phase input / three phase output							
SP3002	2.2	10	1.5	3.0	170-800	320-800	5 pcs / 1P x 5S
SP3004	4.0	17	2.2	4.4	170-800	320-800	8 pcs / 1P x 8S
SP3005	5.5	25	4.0	8.0	170-800	320-800	14 pcs / 1P x 14S
SP3007	7.5	32	5.5	11.0	170-800	320-800	19 pcs / 1P x 19S
SP3011	11	45	7.5	11.0	170-800	320-800	19 pcs / 1P x 19S
SP3015	15	60	11	16.5	170-800	320-800	28 pcs / 2P x 14S
SP3018	18	75	15	22.5	170-800	320-800	38 pcs / 2P x 19S
SP3022	22	90	18	27.0	170-800	320-800	45 pcs / 3P x 15S
SP3030	30	110	22	33.0	170-800	320-800	55 pcs / 5P x 11S
SP3037	37	150	30	45.0	170-800	320-800	75 pcs / 5P x 15S

Selection Reminder

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

Matching Table - 380V Platform

SP4 model matching for 380V three-phase pump systems

Platform / Model	Inverter kW	Current A	Pump kW	Panel kW	DC Input	Recommend DC	600W PV Matching
SP4 380V three phase input / three phase output							
SP4002	2.2	5	1.5	2.3	270-800	530-800	4 pcs / 1P x 4S
SP4004	4.0	9	2.2	3.3	270-800	530-800	6 pcs / 1P x 6S
SP4005	5.5	13	4.0	6.0	270-800	530-800	10 pcs / 1P x 10S
SP4007	7.5	17	5.5	8.3	270-800	530-800	14 pcs / 1P x 14S
SP4011	11	25	7.5	11.3	270-800	530-800	19 pcs / 1P x 19S
SP4015	15	32	11	16.5	270-800	530-800	28 pcs / 2P x 14S
SP4018	18.5	37	15	22.5	270-800	530-800	38 pcs / 2P x 19S
SP4022	22	45	18.5	27.8	270-800	530-800	47 pcs / 3P x 16S
SP4030	30	60	22	33.0	270-800	530-800	55 pcs / 5P x 11S
SP4037	37	75	30	45.0	270-800	530-800	75 pcs / 5P x 15S
SP4045	45	91	37	55.5	270-800	530-800	93 pcs / 7P x 14S
SP4055	55	112	45	67.5	270-800	530-800	113 pcs / 8P x 15S
SP4075	75	150	55	82.5	270-800	530-800	138 pcs / 10P x 14S
SP4090	90	176	75	112.5	270-800	530-800	188 pcs / 13P x 15S
SP4110	110	210	90	135.0	270-800	530-800	225 pcs / 15P x 15S
SP4132	132	253	110	165.0	270-800	530-800	275 pcs / 19P x 15S
SP4160	160	304	132	198.0	270-800	530-800	330 pcs / 22P x 15S
SP4185	185	350	160	240.0	270-800	530-800	400 pcs / 27P x 15S
SP4200	200	377	185	277.5	270-800	530-800	463 pcs / 31P x 15S

Selection Reminder

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

Complex Cabinet Project Case

Field cabinet example with inverter, protection devices and metering layout



Project Cabinet Layout

Integrated Protection

Multiple breakers, contactors, fuses and grounding terminals are arranged for field maintenance.

Inverter and Metering

Solar pump inverter and metering devices are installed in the same cabinet for a complete pump-room solution.

Customized Wiring

Cable routing, terminal rows and component space can be designed according to current and site requirements.

Application Scope

Suitable for agricultural irrigation, well pumping, water transfer and remote water infrastructure.

Ordering Checklist

Pump nameplate, inverter model, PV string plan, backup input, cable length, cabinet location, protection requirement and installation photos.