

SOLAR PUMP



ZFPV 500 / 580
SOLAR INVERTER

2023

PRODUCT CATALOG

CE © ISO9001





APPLICATION



GARDENING



IRRIGATION



WASHING



SHALLOW
WELL



30-
140m
HIGHLIFT



HOME SWIMMING
POOL

For water supply from wells or reservoirs

For domestic use, for civil and industrial applications

For garden use and irrigation

ZFPV500 / 580

HUGE POWER SOLAR PUMP INVERTER

www.zripump.com



Large Flow
Gao Yangcheng



All-copper motor coil



Low noise



High efficiency
and energy saving



Super durability



ZFPV 150 / 500

SOLAR PUMP INVERTER



ZFPV
Series solar Pump Inverter

Solar pump inverter introduction

ZFPV series solar pump inverter

Clean energy:

inexhaustible energy supply, non-pollution, zero carbon dioxide emissions, actively contribute to curbing global warming.

Economic and affordable: One-time investment to get long-term returns, and enjoy government subsidies.

Safe and reliable: unattended, work at sunrise and stop at sunset

Simple operation: One key operation

Smart Internet of Things:

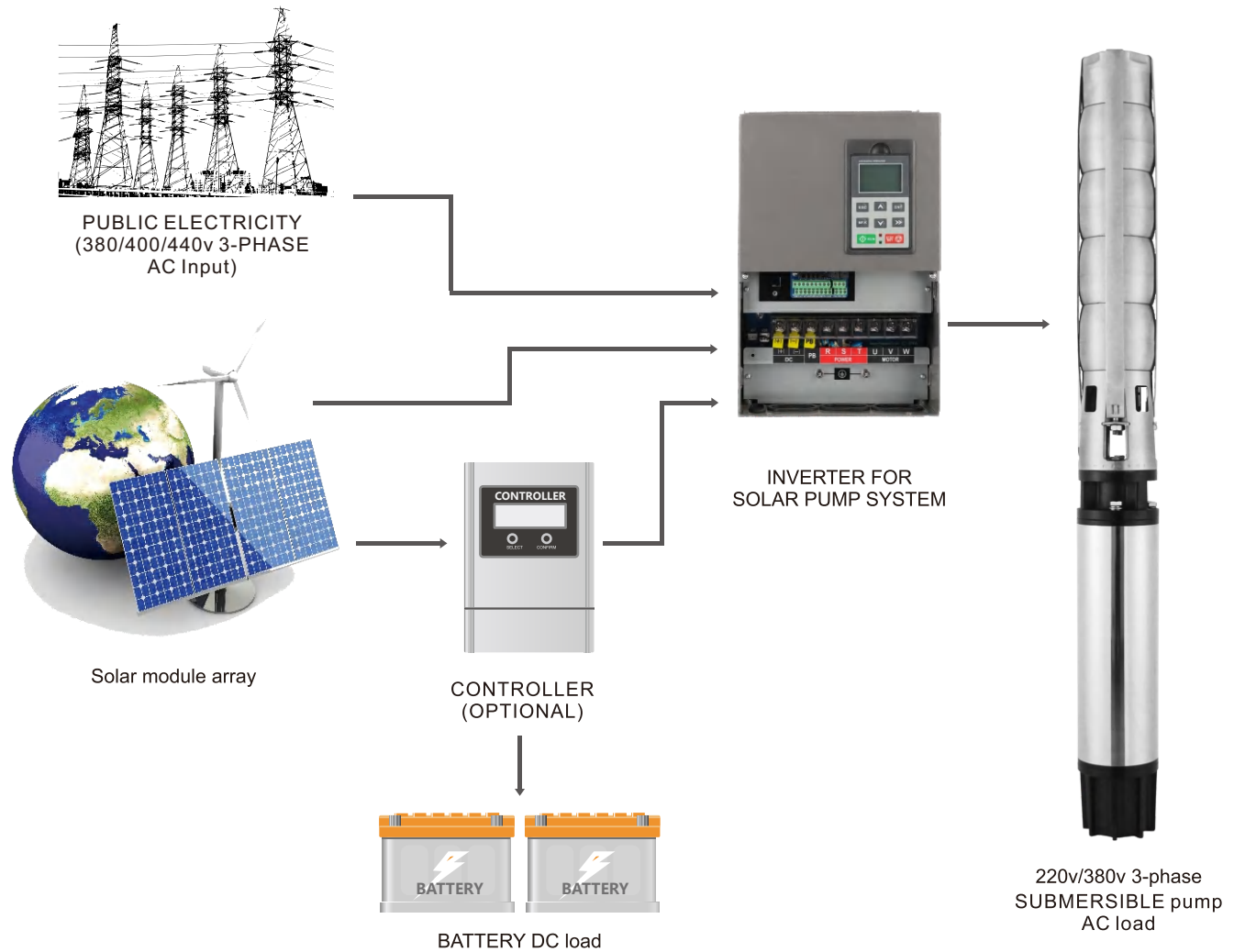
powerful GPRS Internet of Things, and users could master the system state at anytime and anywhere.

Personal customized:

special model supports ultra low input voltage of 30-300VDC with a specialized sine wave filter.

International standards: in line with national standards and access to CE certification.





PV pump system is different from the traditional AC pump application system,PV pumping inverter converts DC voltage from the solar array into AC voltage to drive the pump. Pumping water from deep well, river, lake, etc.



ZFPV 500

SOLAR PUMP INVERTER

ZFPV500 Solar Pump Inverter

Item	Solar pump inverter power (KW)	Pump		Max solar power input (KW)	Max DC input voltage V	Recommend Voc voltage (V)	Rated output current (A)	Output frequency (Hz)
		Rated power (KW)	Rated voltage (V)					
ZFPV500-2SP-0.7G	0.75	0.75	220	1	450	360~430	4	0-320
ZFPV500-2SP-1.5G	1.5	1.5	220	1.95	450	360~430	7	0-320
ZFPV500-2SP-2.2G	2.2	2.2	220	2.86	450	360~430	10	0-320
ZFPV500-2SP-4.0G	4	4	220	5.4	450	360~430	16	0-320
ZFPV500-3TH-0.7G	0.75	0.75	380	1	780	620~750	3	0-320
ZFPV500-3TH-1.5G	1.5	1.5	380	2.2	780	620~750	4	0-320
ZFPV500-3TH-2.2G	2.2	2.2	380	3.3	780	620~750	6	0-320
ZFPV500-3TH-4.0G	4	4	380	5.6	780	620~750	10	0-320
ZFPV500-3TH-5.5G	5.5	5.5	380	8	780	620~750	13	0-320
ZFPV500-3TH-7.5G	7.5	7.5	380	10	780	620~750	17	0-320
ZFPV500-3TH-11G	11	11	380	14.3	780	620~750	25	0-320
ZFPV500-3TH-15G	15	15	380	19.5	780	620~750	32	0-320
ZFPV500-3TH-18.5G	18.5	18.5	380	23.4	780	620~750	38	0-320
ZFPV500-3TH-22G	22	22	380	28.6	780	620~750	45	0-320
ZFPV500-3TH-30G	30	30	380	39	780	620~750	60	0-320
ZFPV500-3TH-37G	37	37	380	48.1	780	620~750	75	0-320
ZFPV500-3TH-45G	45	45	380	58.5	780	620~750	90	0-320
ZFPV500-3TH-55G	55	55	380	71.5	780	620~750	110	0-320
ZFPV500-3TH-75G	75	75	380	97.5	780	620~750	150	0-320

Technical parameters		
Project		Parameters
Input power supply	Voltage, frequency	2SP model: 150-450VDC/ single-phase 220VAC 50/60HZ
		3TH model: 350-780VDC/ three-phase 380VAC 50/60HZ
	Allowable Fluctuations	Voltage imbalance rate: < 3%
		Frequency fluctuation: ±5%
		Distortion rate: Conform to IEC 61800-2
	Frequency inverter efficiency	≥96%
	Recommended voltage Voc	2SP model: 175-360VDC
		3TH model: 620-750VDC
Output	MPPT efficiency	reaches 99.9%
	Output frequency range	0-320Hz (320 Hz or higher frequency can be customized)
	Overload capacity	150% rated current 1min; 180% rated current 10s; 200% rated current 0.5s
Protection Functions	Solar pump protection functions	Dry protection, low frequency protection, minimum power protection, sleep protection, overwater protection, pump overcurrent protection, etc.
	Basic protection functions	Overvoltage, undervoltage, inverter overcurrent, module fault, inverter overload, motor overload, current detection zero-drift fault, current detection fault, E2RCM fault, grounding short-circuit fault, input phase loss, output phase loss , inverter overheating, communication fault, motor parameter self-learning fault, etc.
	Short-circuit detection of motor grounding	Automatic detection whether the motor is Short-circuit to ground in power-on
	Servo control	Support synchronous and asynchronous servo control, perform pulse tracking, zero
		servo, indexing positioning and other basic servo functions, and support the orthogonal pulse given.
	Communication network	Supports RS485 communication, to realize network and linkage control between VEICHI inverters
	Long-distance monitoring function	Supports long-distance program upgrade, data monitoring and lock function, can connect VEICHI GPRS module, and supports VEICHI virtual oscilloscope for monitoring and debugging.
Surroundings	Installation location	Outdoor, less than 1000m altitude, keep away from corrosive air and direct sunlight
	Temperature, humidity	-10-60°C, 20%-95%RH (no condensation)
	Vibration	The vibration is less than 0.5g when the vibration frequency is less than 20Hz
	Storage temperature	-20~60°C
	Installation mode	Suspension installation
	Protection class	IP20
	Cooling method	Natural cooling/forced air cooling
International certification		CE



AC Deep Well Pump for Huge Power Solar Pumping System



Model	Voltage	Power	Rated Flow	Rated Head	Flow	0	1	2	3	4
	V	W	m ³ /h	m	m ³ /h					
4SP3-61-12-0.75	220 / 380	0.75	3	61	Head(m)	72	68	64	61	40
4SP3-80-16-1.1	220 / 380	1.1	3	80		91	89	85	80	50
4SP3-109-22-1.5	220 / 380	1.5	3	109		132	125	118	109	75
4SP3-157-32-2.2	220 / 380	2.2	3	157		190	185	176	157	110
4SP3-220-45-3.0	380	3	3	220		256	250	244	220	150
4SP3-287-59-4.0	380	4	3	287		323	310	302	287	210
4SP3-316-65-5.5	380	5.5	3	316		355	345	328	316	247

Model	Voltage	Power	Rated Flow	Rated Head	Flow	0	6	8	9	10	12
	V	W	m ³ /h	m	m ³ /h						
4SP8-25-5-0.75	220 / 380	0.75	8	25	Head(m)	33	28	25	22	17	12
4SP8-34-7-1.1	220 / 380	1.1	8	34		44	39	34	31	26	17
4SP8-47-10-1.5	220 / 380	1.5	8	47		59	56	47	38	34	20
4SP8-61-13-2.2	220 / 380	2.2	8	61		75	71	61	55	46	28
4SP8-83-18-3.0	380	3	8	83		98	94	83	71	61	35
4SP8-114-25-4.0	380	4	8	114		134	122	114	100	84	50
4SP8-145-32-5.5	380	5.5	8	145		169	157	145	121	101	67
4SP8-178-40-7.5	380	7.5	8	178		203	185	178	148	116	81

Model	Voltage	Power	Rated Flow	Rated Head	Flow	0	6	8	10	14	16
	V	W	m ³ /h	m	m ³ /h						
4SP14-20-5-1.5	220 / 380	1.5	14	20	Head(m)	35	32	29	25	20	16
4SP14-28-7-2.2	220 / 380	2.2	14	28		49	45	40	34	28	23
4SP14-40-10-3.0	380	3	14	40		70	62	57	49	40	32
4SP14-52-13-4.0	380	4	14	52		91	81	74	63	52	42
4SP14-60-15-5.5	380	5.5	14	60		105	94	85	73	60	48
4SP14-72-18-5.5	380	5.5	14	72		126	113	103	90	72	58
4SP14-84-21-7.5	380	7.5	14	84		147	135	119	101	84	67
4SP14-100-25-7.5	380	7.5	14	100		175	163	143	123	100	80



AC Deep Well Pump for Huge Power Solar Pumping System



Model Three phase 380-415V/ 50Hz	Motor Power		Rated Flow	Rated Head	The best use the flow head						
					L/min	0	166	250	333	416	500
	KW	HP	m³/h	m	m³/h	0	10	15	20	25	30
6SP20-17-2-1.5	1.5	2	20	17	Head(m)	22	21	19	17	12	6
6SP20-26-3-2.2	2.2	3	20	26		33	31	29	26	18	10
6SP20-34-4-3.0	3	4	20	34		44	41	38	34	24	13
6SP20-51-6-4.0	4	5.5	20	51		66	62	57	51	36	19
6SP20-68-8-5.5	5.5	7.5	20	68		88	82	76	68	54	29
6SP20-94-11-7.5	7.5	10	20	94		121	113	105	94	66	35
6SP20-111-13-9.2	9.2	12.5	20	111		145	136	125	111	78	41
6SP20-136-16-11	11	15	20	136		176	165	152	136	96	51
6SP20-162-19-13	13	17.5	20	162		209	196	181	162	114	61
6SP20-187-22-15	15	20	20	187		242	227	209	187	132	70
6SP20-230-27-18.5	18.5	25	20	230		297	278	257	230	162	86
6SP20-272-32-22	22	30	20	272		352	330	304	272	192	102
6SP20-323-38-26	26	35	20	323		418	391	361	323	228	122

Model Three phase 380-415V/ 50Hz	Motor Power		Rated Flow	Rated Head	The best use the flow head						
					L/min	0	333	500	666	750	833
	KW	HP	m³/h	m	m³/h	0	20	30	40	45	50
6SP40-18-2-3.0	3	4	40	18	Head(m)	26	25	21	18	16	13
6SP40-27-3-5.5	5.5	7.5	40	27		40	37	32	27	25	20
6SP40-36-4-7.5	7.5	10	40	36		53	50	43	36	32	26
6SP40-46-5-7.5	7.5	10	40	46		67	63	54	46	41	33
6SP40-55-6-9.2	9.2	12.5	40	55		80	75	65	55	49	40
6SP40-64-7-11	11	15	40	64		94	88	75	64	57	47
6SP40-74-8-13	13	17.5	40	74		107	101	86	74	65	54
6SP40-92-10-15	15	20	40	92		134	126	108	92	82	67
6SP40-110-12-18.5	18.5	25	40	110		161	151	130	110	98	80
6SP40-129-14-22	22	30	40	129		188	176	151	129	115	94
6SP40-156-17-26	26	35	40	156		228	214	184	156	139	114
6SP40-184-20-30	30	40	40	184		268	252	216	184	164	134
6SP40-221-24-37	37	45	40	221		322	302	259	221	196	161

Model Three phase 380-415V/ 50Hz	Motor Power		Rated Flow	Rated Head	The best use the flow head						
					L/min	0	666	833	916	1000	1083
	KW	HP	m³/h	m	m³/h	0	40	50	55	60	65
6SP60-31-4-7.5	7.5	10	60	31	Head(m)	56	40	36	34	31	28
6SP60-39-5-9.2	9.2	12.5	60	39		70	51	45	42	39	34
6SP60-46-6-11	11	15	60	46		84	61	54	50	46	41
6SP60-62-8-15	15	20	60	62		112	82	72	67	62	55
6SP60-70-9-18.5	18.5	25	60	70		126	93	81	75	70	62
6SP60-78-10-18.5	18.5	25	60	78		140	103	90	84	78	69
6SP60-86-11-22	22	30	60	86		154	116	100	93	86	76
6SP60-94-12-22	22	30	60	94		168	124	110	102	94	83
6SP60-102-13-26	26	35	60	102		182	136	118	110	102	90
6SP60-110-14-26	26	35	60	110		196	146	128	119	110	97
6SP60-117-15-26	26	35	60	117		210	155	135	126	117	104
6SP60-125-16-30	30	40	60	125		224	168	145	135	125	111

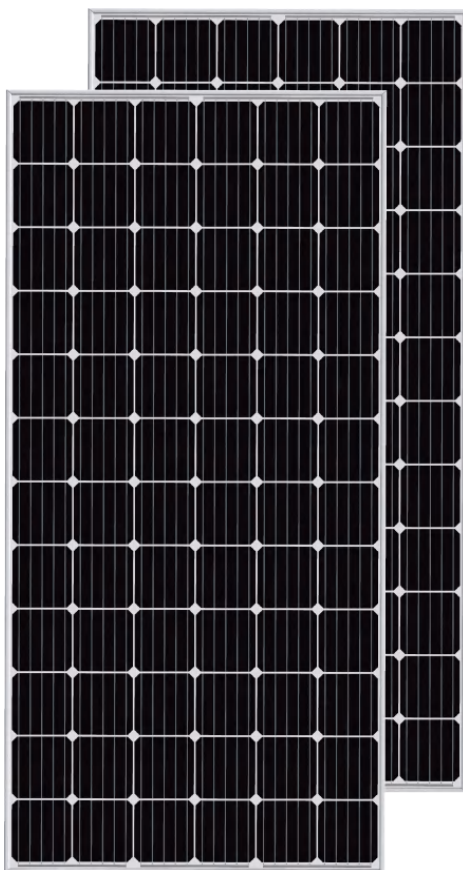


AC Deep Well Pump for Huge Power Solar Pumping System

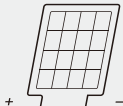
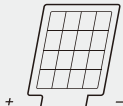
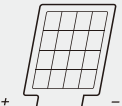
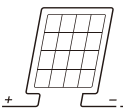
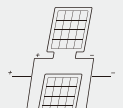
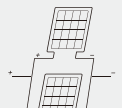
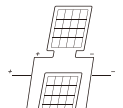
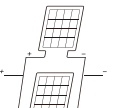
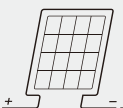
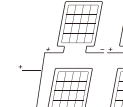
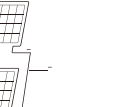
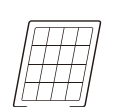
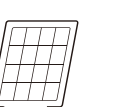
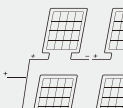
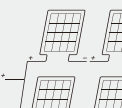
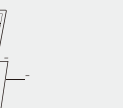


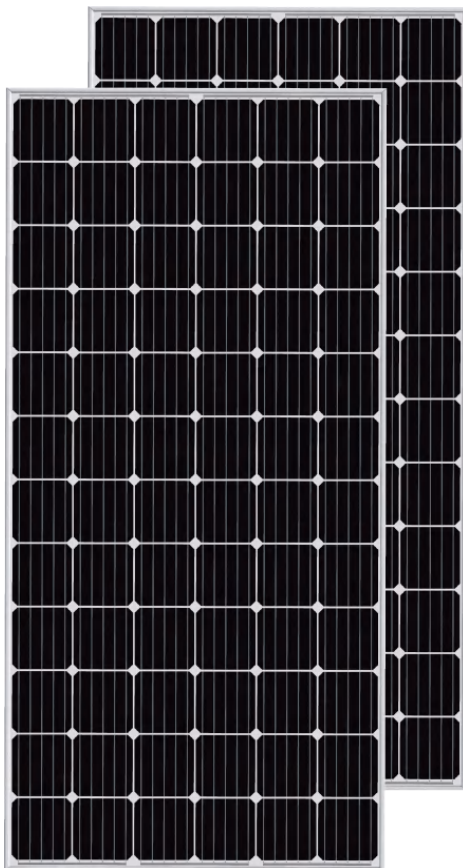
Model Three phase 380-415V/ 50Hz	Motor Power		Rated Flow	Rated Head	The best use the flow head						
					L/min	0	833	1000	1166	1283	1500
	KW	HP	m³/h	m	m³/h	0	50	60	70	77	90
8SP77-13-1-5.5	5.5	7.5	77	13	Head(m)	20	16	15	14	13	10
8SP77-27-2-7.5	7.5	10	77	27		40	31	30	28	27	21
8SP77-40-3-11	11	15	77	40		59	47	44	42	40	31
8SP77-53-4-15	15	20	77	53		79	63	59	56	53	42
8SP77-67-5-18.5	18.5	25	77	67		99	78	74	70	67	52
8SP77-80-6-22	22	30	77	80		119	94	89	84	80	63
8SP77-93-7-26	26	35	77	93		139	110	104	98	93	73
8SP77-107-8-30	30	40	77	107		159	125	119	112	107	84
8SP77-133-10-37	37	50	77	133		198	157	148	140	133	105
8SP77-160-12-45	45	60	77	160		238	188	178	168	160	126
8SP77-200-15-55	55	75	77	200		297	235	222	210	200	157
8SP77-227-17-63	63	85	77	227		337	266	252	238	227	178
8SP77-267-20-75	75	100	77	267		397	313	297	280	267	210

Model Three phase 380-415V/ 50Hz	Motor Power		Rated Flow	Rated Head	The best use the flow head						
					L/min	0	1000	1333	1583	1666	1833
	KW	HP	m³/h	m	m³/h	0	60	80	95	100	110
8SP95-12-1-5.5	5.5	7.5	95	12	Head(m)	21	16	14	12	11	9
8SP95-24-2-9.2	9.2	12.5	95	24		41	31	28	24	22	18
8SP95-36-3-13	13	17.5	95	36		61	47	41	36	33	28
8SP95-48-4-18.5	18.5	25	95	48		82	62	55	48	45	37
8SP95-60-5-22	22	30	95	60		102	78	69	60	56	46
8SP95-72-6-26	26	35	95	72		123	94	83	72	67	55
8SP95-96-8-37	37	50	95	96		163	124	110	96	89	73
8SP95-120-10-45	45	60	95	120		204	155	137	120	112	92
8SP95-132-11-55	55	75	95	132		225	172	152	132	123	101
8SP95-144-12-55	55	75	95	144		246	187	165	144	135	111
8SP95-168-14-63	63	85	95	168		285	218	193	168	157	129
8SP95-193-16-75	75	100	95	193		326	249	220	193	179	147
8SP95-240-20-93	93	125	95	240		408	312	276	240	224	184

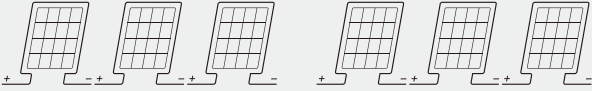
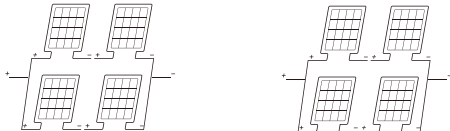
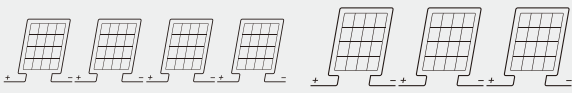
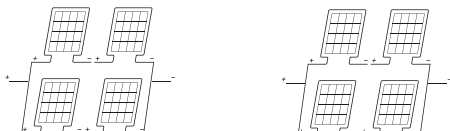
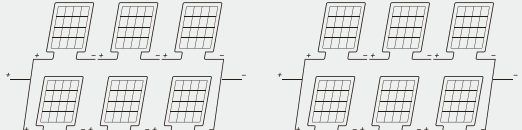
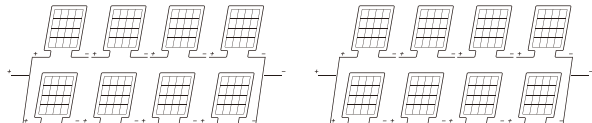
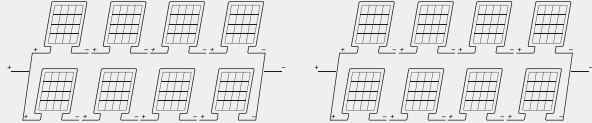


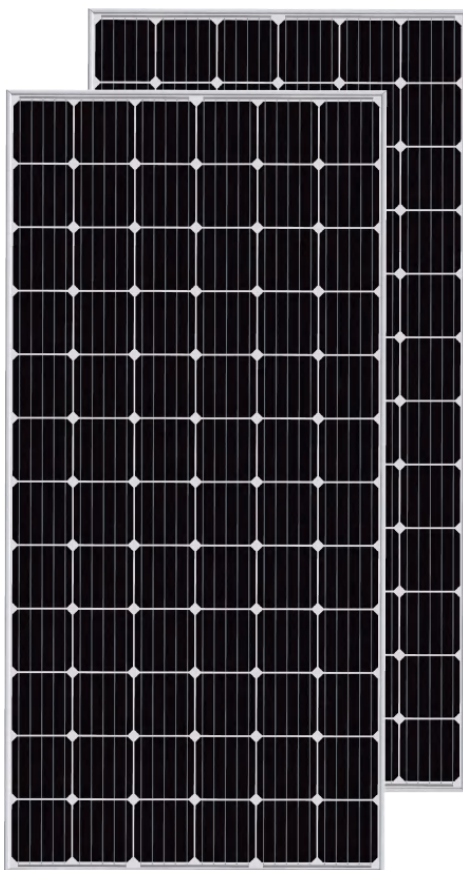
Solar Panel recommendation for 24-110(150)V DC

Power 80W-12V Vol: 18-50V	   Solar Panel: 150w*1PCS / 265W*1PCS / 340W *1PCS
Power 120-210W-24V 210W -36V Vol: 18-50V	   Solar Panel: 150w*2PCS / 265W*1PCS / 340W *1PCS
Power 280W-24V 300W-24V Vol: 18-50V	  Solar Panel: 265w*2PCS / 340W*2PCS
Power 400W-36V Vol: 18-50V	  Solar Panel: 265w*2PCS / 340W*2PCS
Power 370W-48V 400W-48V Vol: 30-100V	    Solar Panel: 265w*2PCS / 340W*2PCS
Power 500W-48V 550W-48V Vol: 30-100V	    Solar Panel: 265w*4PCS / 340W*2PCS
Power 600W-48V Vol: 30-100V	    Solar Panel: 265w*4PCS / 340W*4PCS



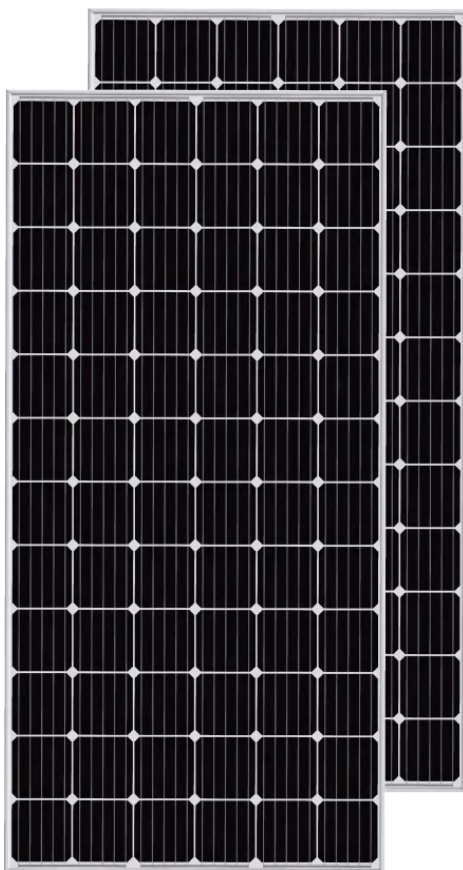
Solar Panel recommendation for 24-110(150)V DC

Power 600W-72V Vol: 50-150V	 Solar Panel: 265w*3PCS / 340W*3PCS
Power 750W-48V Vol: 30-100V	 Solar Panel: 265w*4PCS / 340W*4PCS
Power 750W-72V Vol: 50-150V	 Solar Panel: 265w*4PCS / 340W*3PCS
Power 900W-72V Vol: 50-150V	 Solar Panel: 265w*4PCS / 340W*4PCS
Power 1000W-96V Vol: 60-200V	 Solar Panel: 265w*6PCS / 340W*6PCS
Power 1300W-96V Vol: 60-200V	 Solar Panel: 265w*8PCS / 340W*8PCS
Power 1600W-110V Vol: 60-200V	 Solar Panel: 265w*4PCS / 340W*4PCS

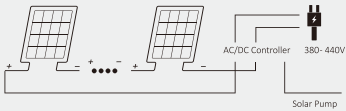
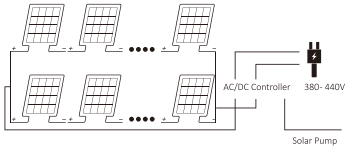
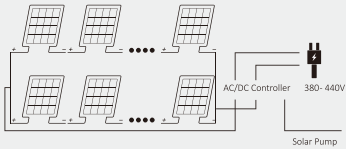
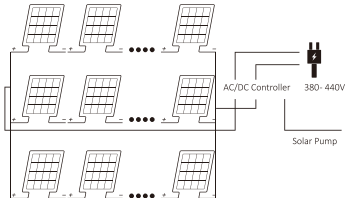
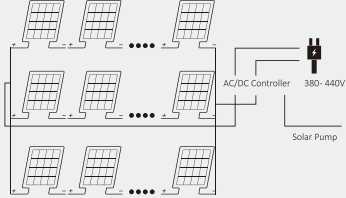
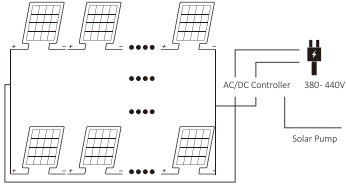


Solar Panel recommendation for AC/DC Solar Pump

POWER 750W-220V BEST DC Vol. 300-400V	Solar Panel: 265W*7PCS Solar Panel: 340W*6PCS
POWER 1100W-220V 1200W-220V BEST DC Vol. 300-400V	Solar Panel: 265W*8PCS Solar Panel: 340W*7PCS
POWER 1300W-220V 1500W-220V BEST DC Vol. 300-400V	Solar Panel: 265W*10PCS Solar Panel: 340W*8PCS
POWER 2200W-220V BEST DC Vol. 300-400V	Solar Panel: 265W*11PCS Solar Panel: 340W*9PCS
POWER 2200W-380V BEST DC Vol. 480-750V	Solar Panel: 265W*15PCS Solar Panel: 340W*13PCS
POWER 3000W-380V BEST DC Vol. 480-750V	Solar Panel: 265W*16PCS Solar Panel: 340W*14PCS



Solar Panel recommendation for AC/DC Solar Pump

POWER 4000W-380V BEST DC Vol. 480-750V	 Solar Panel: 265W*19PCS Solar Panel: 340W*17PCS
POWER 5500W-380V BEST DC Vol. 480-750V	 Solar Panel: 265W*32PCS Solar Panel: 340W*28PCS
POWER 7500W-380V BEST DC Vol. 480-750V	 Solar Panel: 265W*38PCS Solar Panel: 340W*34PCS
POWER 9200W-380V BEST DC Vol. 480-750V	 Solar Panel: 265W*48PCS Solar Panel: 340W*42PCS
POWER 11000W-380V BEST DC Vol. 480-750V	 Solar Panel: 265W*54PCS Solar Panel: 340W*48PCS
POWER 15000W-380V BEST DC Vol. 480-750V	 Solar Panel: 265W*80PCS Solar Panel: 340W*68PCS

Model Name Explanation

S3SS1.7 -109-48-500D

[illegible]

Z4PC6 -112-110-1300

[illegible]

Z4/6SC36 -22-110-1500

[illegible]

S4SC5.2 -198-200-1500D

[illegible]

ZSHF26 -15-110-1100H

[illegible]

Z4PC13 -130-300-2500D -A/DHY

Z	4	P	C	13	-	130	-	300	-	2500	D	-	A/DH
①	②	③	④	⑤		⑥		⑦		⑧	⑨		⑩
① Z	Z: ZSCCO controller Box												
② 4	3: Pump Diameter 3 inch(Min. borehole size) 4: Pump Diameter 4 inch(Min. borehole size)												
③ P	P: PC impeller type S: 304SS impeller type												
④ C	C: Centrifugal type pump												
⑤ 13	Max Flow: 13 m³/h @ 1 m head												
⑥ 130	Max head(Shut off head): 130m @ 0 Flow												
⑦ 300	Rated Voltage Input(Min. Voltage): 300V												
⑧ 2500	Rated Power Input(Min. Power): 2500 w												
⑨ D	S or None: 304 Material Standard / 304SS Oil Cylinder and 304SS lantern and Delivery casing D:201 Material Standard / 201SS Oil Cylinder and 201SS lantern and Delivery casing B: Brass Material Standard / Brass Oil Cylinder and Brass lantern and Delivery casing C: Cast Iron HT250 Oil Cylinder and 201SS or Brass lantern and Delivery casing												
⑩ A/DHY	A/DHY: AC/DC Automatically Hybrid Solar Pump Controller A/DSW: AC/DC Automatically Switching Solar Pump Controller A/DCP: AC/DC Automatically Completary Solar Pump Controller												



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