



SHENZHEN ADA POW<mark>ER ELECTRONICS CO.,</mark> LIMITED





# ADA Profile

Save on your fuel and electric bill.

Focus on:

R&D, Manufacture and Sales in Solar pump inverter, Solar pump system, Solar agricultural machinery power solution, Solar pivot and turn key projects.



ADA bigger, less water shortage worldwide.

# ADA Meaning

- >> Inverter based on AC-DC-AC technology.
- >> Ambition, Dream, Achievement.

# **Product Certification**









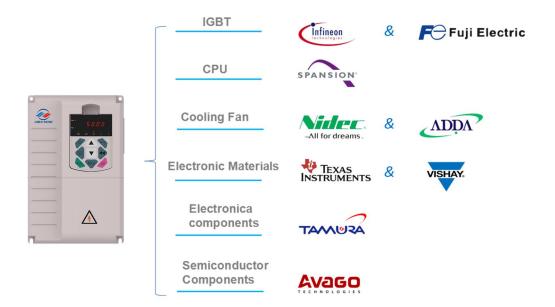




# Why ADA



### Manufacture based on world-class components





# **Experienced R&D Team**

- X Solar pump inverter MPPT effiencicy 99.9%.
- ※ More than 10 years of AC-DC-AC inverter experience from Huawei Electrical power team.
- X Solar pump IoT(Internet of Thing) solution design with APP, computer remote control.
- X Support one-stop solution for sprinkler, drip and intellegence irrigation.
- X Strong customised product design, support ODM & OEM service.

# Best Seller - ADA Hybrid Solar Pump Inverter

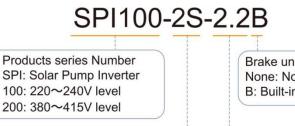
### IP20-SPI100



# Model description

4T: Three phase 380~415V 2T: Three phase 220~240V 2S: Single phase 220~240V

Output voltage



Brake unit None: No Braking Unit B: Built-in brake unit

Output power: 2.2kW

## Features

- Simple & Easy
- High efficiency MPPT
- Fully automatic running
- Perfect pump protection
- Water level control
- Output: 1AC or 3AC 220V~240V

# Specifications

Max input DC voltage	450VDC
Recommended MPPT voltage range	250~350VDC
Recommended input voltage (Vmpp)	300~330VDC
MPPT efficiency	99.9%
Rated output voltage	1AC or 3AC 220~240V
Output frequency range	0~600Hz
Efficiency of the inverter	97%
IP grade	IP20
Water level control function	Low water level start High water level stop

# Product features

DC ↓ 1AC/3AC	<ul><li>Solar energy to AC power</li><li>Output 1AC or 3AC</li></ul>	Sunshine	<b>~</b>	
МРРТ	<ul><li>Build-in MPPT function</li><li>Highefficiency</li><li>Optimized frequency output</li></ul>	No staff care	*	
Flexible system design	<ul> <li>Minimized solar panels solution</li> <li>Off-grid power storage</li> <li>GPRS based wireless monitoring &amp; controlling</li> </ul>			
Compatible with both DC and AC input	<ul><li>Humanism design</li><li>Compatible with both DC and AC input</li></ul>	No diesel	×	E .
Automatic control	<ul> <li>Start in the morning automatically</li> <li>Stop in the afternoon automatically</li> <li>Dormancy and wake up automatically</li> <li>Output speed change automatically</li> </ul>	No grid	*	

# Model Selection

# Single-Phase 220~240V Output

Model No.	Rated output power	Max. DC input current	Rated output current	Pump
	(kW)	(A)	(A)	(kW)
SPI100-2S-0.4B	0.4	4.5	2.5	≪0.2
SPI100-2S-0.7B	0.75	8.2	4.0	≪0.4
SPI100-2S-1.5B	1.5	14.0	7.0	≪0.75
SPI100-2S-2.2B	2.2	23.0	9.6	≤1.5
SPI100-2S-4.0B	4.0	35.0	17.0	≤2.2

# Three-Phase 220~240V Output

Model No.	Rated output power	Max. DC input current	Rated output current	Pump
	(kW)	(A)	(A)	(kW)
SPI100-2T-0.4B	0.4	4.5	2.5	≪0.2
SPI100-2T-0.7B	0.75	8.2	4.0	≪0.4
SPI100-2T-1.5B	1.5	14.0	7.0	≤0.75
SPI100-2T-2.2B	2.2	23.0	9.6	≤1.5
SPI100-2T-4.0B	4.0	35.0	17.0	≤2.2

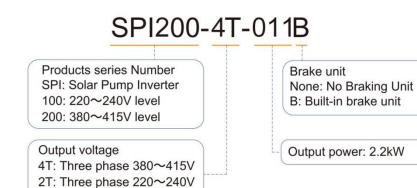
# Best Seller - ADA Irrigation Solar Pump Inverter

### IP20-SPI200



# Model description

2S: Single phase 220~240V



### Features

- Simple & Easy
- High efficiency MPPT
- Fully automatic running
- Water level control
- Max. water head: 400m
- Max. water flow: 8000m /day
- Output: 3AC 380~415V

# Specifications

Max input DC voltage	800VDC
Recommended MPPT voltage range	450~600VDC
Recommended input voltage (Vmpp)	500~540VDC
MPPT efficiency	99.9%
Rated output voltage	3AC 380~415V
Output frequency range	0~600Hz
Efficiency of the inverter	97%
IP grade	IP20
Water level control function	Low water level start High water level stop

# Product features

DC IAC/3AC	<ul><li>Solar energy to AC power</li><li>Output 1AC or 3AC</li></ul>	Sunshine	] 🗸	
МРРТ	<ul> <li>Build-in MPPT function</li> <li>Highefficiency</li> <li>Optimized frequency output</li> </ul>	No staff care	*	
Flexible system design	<ul> <li>Minimized solar panels solution</li> <li>Off-grid power storage</li> <li>GPRS based wireless monitoring &amp; controlling</li> </ul>			
Compatible with both DC and AC input	<ul><li>Humanism design</li><li>Compatible with both DC and AC input</li></ul>	No diesel	<b>X</b>	
Automatic control	<ul> <li>Start in the morning automatically</li> <li>Stop in the afternoon automatically</li> <li>Dormancy and wake up automatically</li> <li>Output speed change automatically</li> </ul>	No grid	] 🗶	

# Model Selection

# Three-Phase 380~415V Output

Model No.	Rated output power	Max. DC input current	Rated output current	Pump
	(kW)	(A)	(A)	(kW)
SPI200-4T-0.7B	0.75	3.4	2.5	≪0.45
SPI200-4T-1.5B	1.5	5.0	3.8	≪0.75
SPI200-4T-2.2B	2.2	5.8	5.1	≤1.5
SPI200-4T-4.0B	4	10.5	9.0	≤2.2
SPI200-4T-5.5B	5.5	14.6	13.0	≪4
SPI200-4T-7.5B	7.5	20.5	17.0	≤5.5
SPI200-4T-011B	11	26.0	25.0	≤7.5
SPI200-4T-015B	15	35.0	32.0	≤11
SPI200-4T-018B	18.5	38.5	37.0	≤15
SPI200-4T-022B	22	46.5	45.0	≤18.5
SPI200-4T-030B	30	62.0	60.0	≤22

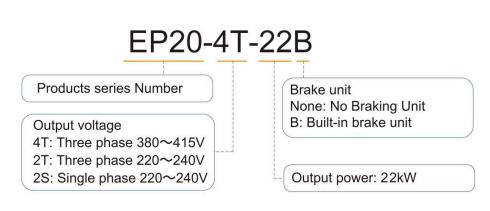
※ Upto 710kW Inverter can be supported.

# Best Seller - ADA Solar Pump Inverter

### EP20



# Model description



### Features

- One button control
- Faster and bigger memory chip
- New easy user manual
- AC motor and PMSM Motor

# Specifications

Max input DC voltage	800VDC
Recommended MPPT voltage range	350~750VDC
Recommended input voltage (Vmpp)	540~650VDC
MPPT efficiency	99.99%
Rated output voltage	3AC 380V
Input frequency range	0~50/60Hz
Efficiency of the inverter	97%
Cooling mode	Forced air cooling
IP grade	IP20
Altitude	Below 1000m, when the altitude exceeds 1000m, please reduce according to the ratio of 100m down 1%.
Standard of conformity	CE

# Product features

DC IAC/3AC	<ul><li>Solar energy to AC power</li><li>Output 1AC or 3AC</li></ul>	Sunshine	] 🗸	
МРРТ	<ul><li>Build-in MPPT function</li><li>Highefficiency</li><li>Optimized frequency output</li></ul>	No staff care		
Flexible system design	<ul> <li>Minimized solar panels solution</li> <li>Off-grid power storage</li> <li>GPRS based wireless monitoring &amp; controlling</li> </ul>		)	
Compatible with both DC and AC input	<ul><li>Humanism design</li><li>Compatible with both DC and AC input</li></ul>	No diesel	<b>×</b>	
Automatic control	<ul> <li>Start in the morning automatically</li> <li>Stop in the afternoon automatically</li> <li>Dormancy and wake up automatically</li> <li>Output speed change automatically</li> </ul>	No grid	<b>*</b>	

# Model Selection

# EP Series Pump Inverter Model and Technical Data

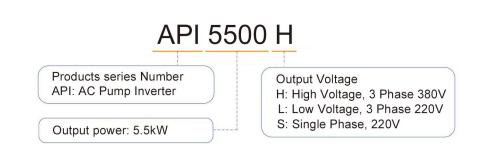
Model No.	Rated output power	Max. DC input current	Rated output current	Adopter motor
	(kW)	(A)	(A)	(kW)
EP20-4T-0.4B	0.4	2.4	1.2	0.4/0.75
EP20-4T-0.75B	0.75	3.4	2.1	0.75/1.5
EP20-4T-1.5B	1.5	5.0	3.8	1.5/2.2
EP20-4T-2.2B	2.2	5.8	5.1	2.2/3.7
EP20-4T-4.0B	4.0	10.5	9	3.7/5.5
EP20-4T-5.5B	5.5	14.6	13	5.5/7.5
EP20-4T-7.5B	7.5	20.5	17	7.5/11
EP20-4T-11B	11	26.0	25	11/15
EP20-4T-15B	15	35.0	32	15/18.5
EP20-4T-18.5B	18.5	38.5	37	18.5/22
EP20-4T-22B	22	46.5	45	22/30
EP20-4T-30B	30	62.0	60	30/37
EP20-4T-37B	37	76.0	75	37/45

# New Launch - ADA One Button Control Solar Pump Inverter

### IP65-API

# Model description





### Features

- One button control, simple & easy operation
- High MPPT efficiency 99.9%
- 2/1 PV combiner box integrate
- Lightning protection, short circuit protection
- Compatible with generator or untilty power
- Remote control, RS232/485 protocol
- integrate GPRS/Wifi/GSM/3G control optional

# Specifications

	Single phase inverter	Three phase inverter
Max input DC voltage	450VDC	800VDC
Recommended MPPT voltage range	250~350VDC	450~600VDC
Recommended input operation voltage (Vmpp)	310VDC	540VDC
Input voltage	Single phase 220V (-15%~30%)	Three phase 380V (-15%~30%)
Rated output voltage	1PH or 3PH 220V~240V	3PH 380V
Output frequency	0~600.00Hz (Default: 0~50.00Hz)	0~600.00Hz (Default: 0~50.00Hz)
IP grade	IP65	IP65

# Inverter details



Inverter terminal board



	Socket	Socket Terminal W		escription	Description
		PV Input Positive	Red wire single strand		connected positive pole of PV array
		PV Input Negative	Black wire	e single strand	connected negative pole of PV array
A.c.				Red Wire	L1 Phase
	A second	AC Input	3 Core Wire	Green Wire	L2 Phase
				Yellow Wire	L3 Phase
	-		4 Core Wire	Black	U Phase
		AC Output		Black	V Phase
		AC Output		Black	W Phase
				Yellow-green	Ground
				Yellow Wire	The high level of tank sensor
	$\frown$		5 Core Wire Red Wire Black	Orange Wire	The low level of tank sensor
		Sensor		Red Wire	The high level of reservoir sensor
	×			Black	The low level of reservoir
				Brown Wire	_

Connection

Inverter keypad

# Model Selection

	Sol	ar Pump Invert	er		Solar Panel	AC Pump
Model	Rated Power(KW)	Max. DC Input Current(A)	Rated Output Current(A)	Rated Output Voltage(V)	DC Power (KW)	Rated Power(KW)
API750S	0.75	8.2	4.0	Single PH 220	1.5	0.45
API1500S	1.5	14.0	7.0	Single PH 220	2.5	0.75
API2200S	2.2	23.0	9.6	Single PH 220	4.0	1.5
API4000S	4.0	35.0	17.0	Single PH 220	6.0	2.2
API750L	0.75	8.2	4.0	3PH220	1.5	0.45
API1500L	1.5	14.0	7.0	3PH220	2.5	0.75
API2200L	2.2	23.0	9.6	3PH220	4.0	1.5
API4000L	4.0	35.0	17.0	3PH220	6.0	2.2
API750H	0.75	3.4	2.5	3PH380	0.825	0.75
API1500H	1.5	5.0	3.8	3PH380	2.25	1.5
API2200H	2.2	5.8	5.1	3PH380	3.3	2.2
API4000H	4	10.5	9.0	3PH380	6	4
API5500H	5.5	14.6	13.0	3PH380	8.25	5.5
API7500H	7.5	20.5	17.0	3PH380	11.25	7.5
API11000H	11	26.0	25.0	3PH380	16.5	11
API15000H	15	35.0	32.0	3PH380	20	15
API18000H	18	38.5	37.0	3PH380	24	18.5
API22000H	22	46.5	45.0	3PH380	29	22
API30000H	30	62.0	60.0	3PH380	39	30

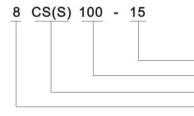
# Outer plug instruction

# ADA High Efficient Solar Pump



# **865 & 8655 Series 8''** Casting Stainless Steel Submersible Borehole Pump

 PUMP IDENTIFICATION CODE For Example

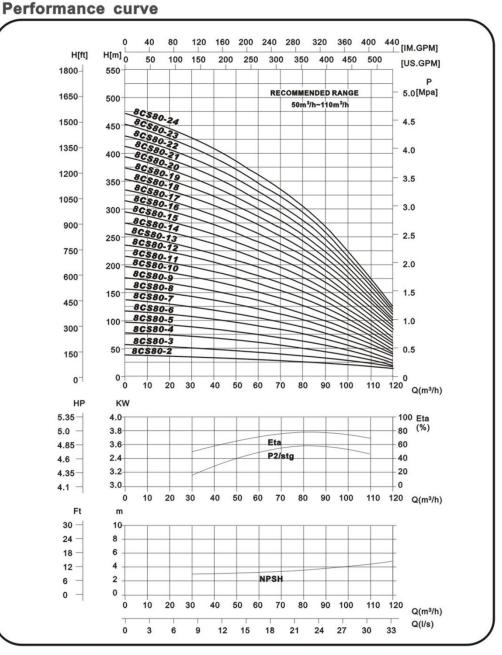


No. Of stages Naminal flow rate in m<sup>3</sup>/h Pump type for 50Hz(60Hz) Well diameter:8" (200mm)

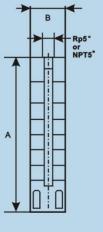


# 8"Submersible Pump **BCS80** 50Hz 2900rpm



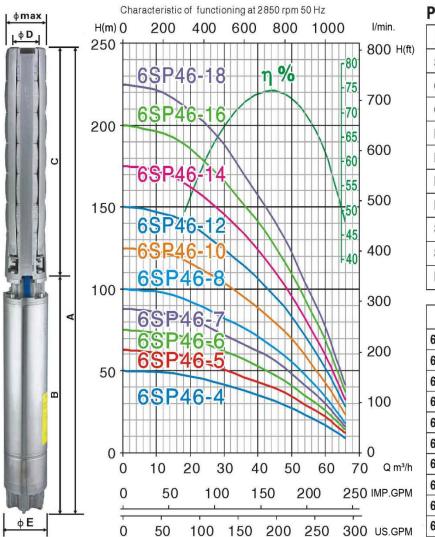


		Motor		Dimens	ion(mm)	Net Weight(kg)	
Pump Type	Tuno	Po	wer	Pu	Imp	Pump	
	Туре	KW	HP	A	B(max)	Pump	
8CS80-2	6″Motor	7.5	10	625	170	29	
8CS80-3	6″Motor	11	15	751	170	35.5	
8CS80-4	6″Motor	15	20	877	170	42	
8CS80-5	6"Motor	18.5	25	1003	170	48.5	
8CS80-6	6"Motor	22	30	1129	170	55	
8CS80-7	6″Motor	30	40	1255	170	61.5	
8CS80-8	6"Motor	30	40	1381	170	68	
8CS80-9	6"Motor	30	40	1507	170	74.5	
8CS80-10	8 <sup>"Motor</sup>	37	50	1633	170	82	
8CS80-11	8 <sup>"Motor</sup>	37	50	1759	170	88.5	
8CS80-12	8 <sup>"</sup> Motor	45	60	1890	170	95	
8CS80-13	8″Motor	55	75	2016	170	101.5	
8CS80-14	8 <sup>"Motor</sup>	55	75	2142	170	108	
8CS80-15	8 <sup>"</sup> Motor	55	75	2268	170	114.5	
8CS80-16	8 <sup>"</sup> Motor	75	100	2394	170	121	
8CS80-17	8 <sup>"Motor</sup>	75	100	2520	170	127.5	
8CS80-18	8 <sup>"Motor</sup>	75	100	2646	170	134	
8CS80-19	8 <sup>"</sup> Motor	75	100	2772	170	140.5	
8CS80-20	8 <sup>"</sup> Motor	75	100	2898	170	147	
8CS80-21	8 <sup>"Motor</sup>	75	100	3024	170	153.5	
8CS80-22	8 <sup>"Motor</sup>	93	125	3150	170	160	
8CS80-23	8 <sup>"Motor</sup>	93	125	3276	170	166.5	
8CS80-24	8"Motor	93	125	3402	170	173	



# ADA High Efficient Solar Pump

### ADA PUMP - 6SP46



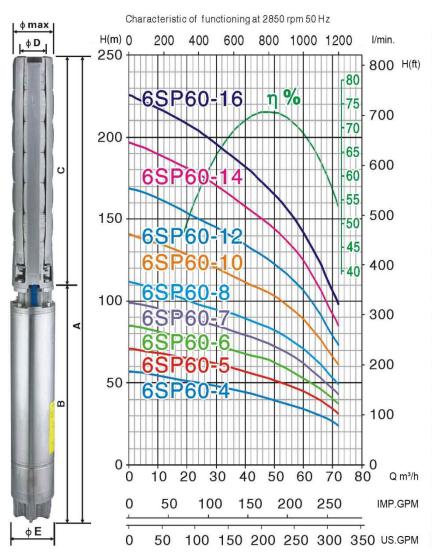
### **PUMP MATERIALS**

Part	Material
Shaft	AISI304
Check valve	AISI304
Coupling	AISI304
Pump body	AISI304
Impeller	AISI304
Diffuser	AISI304
Bearing	Wear resistant rubber
Suction strainer	AISI304
Suction support	AISI304
Delivery body	AISI304

Туре	Α	В	С	D	Ε	φMax
6SP46-4	1505.2	783	722.2	3"G	144	145
6SP46-5	1618	783	835	3"G	144	145
6SP46-6	1760.8	813	947.8	3"G	144	145
6SP46-7	1898.6	838	1060.6	3"G	144	145
6SP46-8	2041.4	868	1173.4	3"G	144	145
6SP46-10	2322	923	1399	3"G	144	145
6SP46-12	2597.6	973	1624.6	3"G	144	145
6SP46-14	2873.2	1023	1850.2	3"G	144	145
6SP46-16	3143.8	1068	2075.8	3"G	144	145
6SP46-18	3424.4	1123	2301.4	3"G	144	145

	Mo	otor	Three	٥					Cap	acity				
Type	Type Power		phase	m³/h	0	24	30	36	42	48	54	66		
			380V	l/min	0	400	500	600	700	800	900	1100		
(50Hz)	HP	HP kW			Total head in meters									
6SP46-4	10	7.5	17		50	44	40	37	34	30	23	9		
6SP46-5	10	7.5	17	] [	63	55	51	46	42	37	29	12		
6SP46-6	12.5	9.2	21		75	67	62	57	51	44	35	14		
6SP46-7	15	11	24	<b>H</b>	88	78	72	66	60	52	41	16		
6SP46-8	17.5	13	28	m	100	89	82	76	68	59	46	18		
6SP46-10	20	15	32		125	111	104	94	85	74	58	23		
6SP46-12	25	18.5	40		150	134	124	114	102	89	70	28		
6SP46-14	30	22	46		175	155	144	133	119	102	81	32		
6SP46-16	35	26	54		200	178	166	151	136	118	93	37		
6SP46-18	40	30	62		225	202	188	170	151	131	104	41		

### ADA PUMP - 6SP60



### **PUMP MATERIALS**

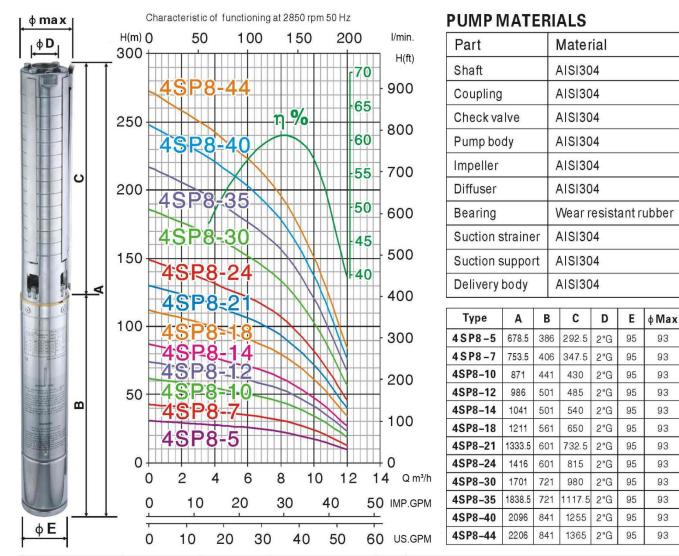
Part	Material
Shaft	AISI304
Check valve	AISI304
Coupling	AISI304
Pump body	AISI304
Impeller	AISI304
Diffuser	AISI304
Bearing	Wear resistant rubber
Suction strainer	AISI304
Suction support	AISI304
Delivery body	AISI304

Туре	Α	В	C	D	Ε	фMax
6SP60-4	1505.2	783	722.2	3"G	144	145
6SP60-5	1648	813	835	3"G	144	145
6SP60-6	1785.8	838	947.8	3"G	144	145
6SP60-7	1928.6	868	1060.6	3"G	144	145
6SP60-8	2096.4	923	1173.4	3"G	144	145
6SP60-10	2372	973	1399	3"G	144	145
6SP60-12	2647.6	1023	1624.6	3"G	144	145
6SP60-14	2918.2	1068	1850.2	3"G	144	145
6SP60-16	3198.8	1123	2075.8	3"G	144	145

	Mo	otor	Three	٥			10)		Capa	acity					
Туре			phase	m³/h	0	24	36	42	48	54	60	72			
Power		WEI	380V	I/min	0	400	600	700	800	900	1000	1200			
(50Hz)	HP	HP kW			Total head in meters										
6SP60-4	10	7.5	17		57	50	45	42	39	37	34	24			
6SP60-5	12.5	9.2	21		71	64	59	56	53	49	45	31			
6SP60-6	15	11	24	Н	85	75	70	67	64	59	53	37			
6SP60-7	17.5	13	28		99	88	81	78	74	69	62	43			
6SP60-8	20	15	32	m	112	98	92	88	84	78	71	49			
6SP60-10	25	18.5	40		141	125	115	110	105	98	89	61			
6SP60-12	30	22	46		169	150	139	132	126	118	107	73			
6SP60-14	35	26	54		197	175	160	152	145	137	125	85			
6SP60-16	40	30	62		226	204	185	176	166	157	142	98			

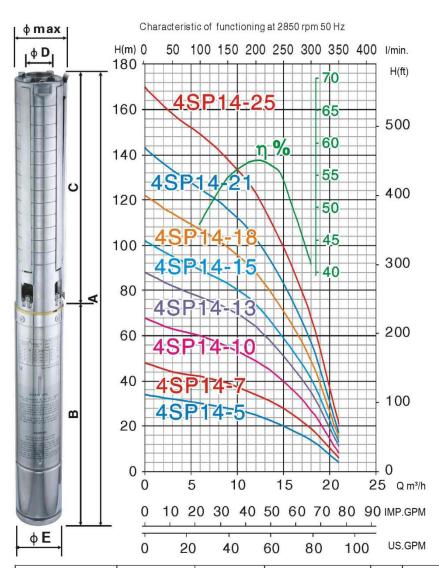
# ADA High Efficient Solar Pump

### ADA PUMP - 4SP8



	Ma	tor	Three		Single	)	٥			(	Capacit	у		
Туре		wer	phase				m³/h	0	3.6	4.8	6.6	8.4	10.2	12
	FU	WEI	380V				l/min	0	60	80	110	140	170	200
(50Hz)	HP	kW	Α	Α	μF	VC				Total h	neadin	meters		
4 S P 8 – 5	1	0.75	2.5	6.3	30	450		31	28	27	25	22	17	10
4 S P 8 - 7	1.5	1.1	3.4	8.6	40	450		43	39	37	34	30	23	13
4SP8-10	2	1.5	4.4	10	50	450		62	56	53	49	43	33	19
4SP8-12	3	2.2	6.2	14	60	450	H	74	67	64	59	52	40	23
4SP8-14	3	2.2	6.2	14	60	450	m	87	78	74	69	60	46	27
4SP8-18	4	3	8.3	-	-	-		112	101	95	88	77	59	34
4SP8-21	5.5	4	10.3	÷	-	-		130	118	111	103	90	69	40
4SP8-24	5.5	4	10.3	-	-	-		149	134	127	118	103	79	46
4SP8-30	7.5	5.5	14	-	-	-		186	168	159	147	129	99	57
4SP8-35	7.5	5.5	14	-	-	-		217	196	186	171	151	116	67
4SP8-40	10	7.5	18.5	-	-	-		248	224	212	196	172	132	76
4SP8-44	10	7.5	18.5	-	-	-		273	246	233	216	189	145	84

# ADA PUMP - 4SP14



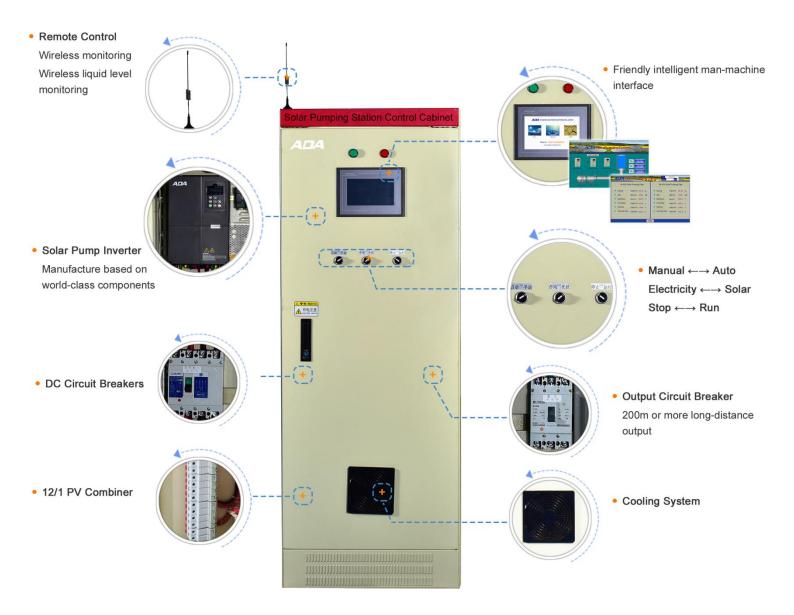
### **PUMP MATERIALS**

Part	Material
Shaft	AISI304
Coupling	AISI304
Check valve	AISI304
Pump body	AISI304
Impeller	AISI304
Diffuser	AISI304
Bearing	Wear resistant rubber
Suction strainer	AISI304
Suction support	AISI304
Delivery body	AISI304

Туре	Α	В	C	D	Ε	φMax
4SP14-5	806	441	365	2"G	95	93
4SP14-7	950	501	449	2"G	95	93
4SP14-10	1136	561	575	2"G	95	93
4SP14-13	1302	601	701	2"G	95	93
4SP14-15	1506	721	785	2"G	95	93
4SP14-18	1632	721	911	2"G	95	93
4SP14-21	1878	841	1037	2"G	95	93
4SP14-25	2046	841	1205	2"G	95	93

	Mo	tor	Three		Single	;	٥	Q Capacity							
Туре			phase		phase		m³/h	0	3	6	9	12	15	18	21
	Power		380V		220V		I/min	0	50	100	150	200	250	300	350
(50Hz)	HP	kW	Α	Α	μF	VC				Tota	al heac	l in me	ters		
4SP14-5	2	1.5	4.4	10	50	450		34	32	30	28	25	20	14	4
4SP14-7	3	2.2	6.2	14	60	450		48	44	42	39	34	28	19	6
4SP14-10	4	3	8.3	-	-	-	H	68	63	60	55	49	40	27	8
4SP14-13	5.5	4	10.3		-	-	m	88	82	77	72	64	51	35	11
4SP14-15	7.5	5.5	14			•		102	95	89	83	74	59	41	13
4SP14-18	7.5	5.5	14		•	•		122	114	107	99	88	71	49	15
4SP14-21	10	7.5	18.5	-	-	-		143	133	125	116	103	83	57	17
4SP14-25	10	7.5	18.5	-	-	-		170	158	149	138	123	99	68	21

# System Integration - ADA IoT Solar Pumping Station

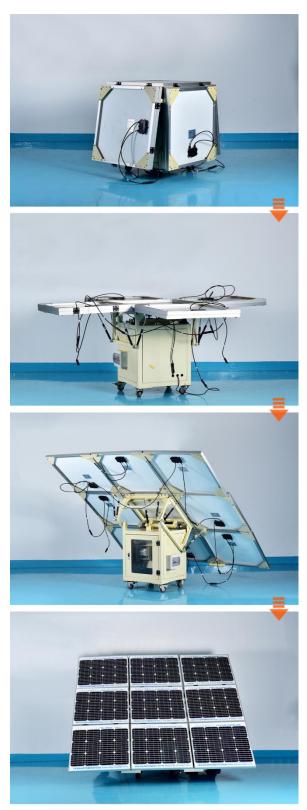


# Features

- HMI combiner & solar pump inverter
- 12/1 PV combiner with anti reverse connection
- Special fuse for PV DC 1200V
- Form 750W~110kW as standard
- Non-standard design with PLC and hardware
- Output reactor optional for long distance pump (200m above)
- Diesel generator & grid power supply as optional, fulfil the water supply in all different weather
- Lightning protection for PV+ PV-
- IP54, IP42 design as request
- DC circuit breaker for system safty

# System Integration - ADA Mobile Solar PV Generator

# **Product Display**



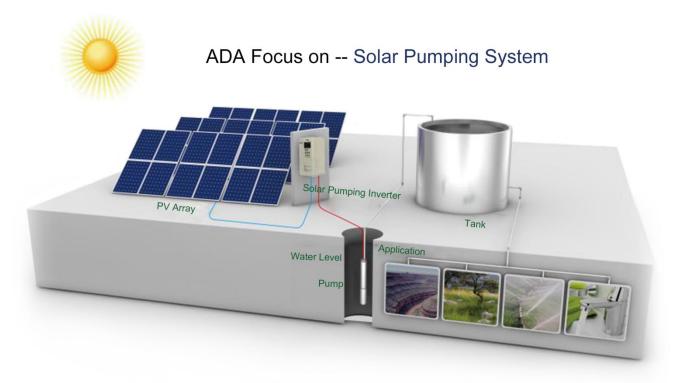
# Features

- Mobility and "all-in-one" design.
- Flexiable design power supply for both home & water pumping.
- Easy open and foldable.
- For water pumping, water head 20m, 90000L/day.
- Can be pararell to unlimited power supply.
- MPPT controller, pump inverter, home inverter, on/off grid all can be designed inside as customer request.
- Battery capacity/48V/65Ah/32kWh/day.

# **Specifications**

110V / 230V 50/60Hzt - AC
24 Hours
800 Mono
1500
8-6-67
3215(48V/67AH)
850*850*1000H
2550*2550*2150H
140
<ul> <li>on and off grid</li> <li>3.2KWH enhanced battery</li> <li>DC output 48V</li> <li>AC output 110V/230V 50/60Hzt</li> <li>Remote monitor controll</li> <li>Add recharge from wind turbine</li> </ul>

# ADA Solar Pumping System Selection



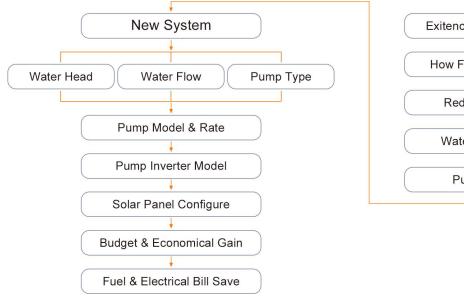
The Solar Pumping System has 3 key componets: PV Array, Solar Pumping Inverter and AC Pump.

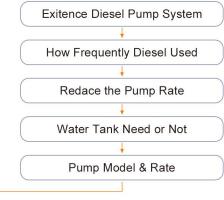
PV Array (Ploy)	Power	0~320W		
(Milliam) Basses Basses	Open circuit voltage	21.5~45.7V		
	Power voltage	18~37.7V		
	Short circuit current	0.62~8.94A		
	Output tolerance	±3%		
Solar Pumping Inverter	Max. input DC voltage	450VDC, 750VDC		
	Recommended MPPT voltage range	250~350VDC, 450~600VDC		
	Recommended input voltage (Vmpp)	300~330VDC, 500~540VDC		
	Rated output voltage	1AC/3AC 380~415V		
	Output frequency range	0~600Hz		
AC Pump	Flow rate	0.6-240m³/h		
	Water head	4-681m		
	Liquid temp	max, +35 <b>℃</b>		
	Voltage	220V/380V		
	Material	stainless steel		

# Solar Pumping System Configuration Guidance

For the optimal pumping solution, we need following:

- Installation place (the sunshine situation)
- Daily water requirement
- Water head
- New system or change the diesel to solar power





※ For the Optimal Solution, Talk with ADA Engineer/Service.

Water Pump Rates Require Water Head	<b>12</b> (m³/day)	<b>18</b> (m³/day)	<b>30</b> (m³/day)	<b>42</b> (m³/day)	<b>60</b> (m³/day)	<b>84</b> (m³/day)	<b>120</b> (m³/day)	<b>180</b> (m³/day)	<b>240</b> (m³/day)	<b>300</b> (m³/day)	<b>360</b> (m³/day)	<b>480</b> (m³/day)	<b>600</b> (m³/day)
10m			0.37	0.55	0.75	1.1	1.5	2.2	3.0	4.0	4.0	5.5	7.5
20m	0.37	0.37	0.75	0.75	1.5	2.2	3.0	4.0	5.5	5.5	7.5	9.2	13.0
30m	0.55	0.75	1.1	1.5	2.2	3.0	4.0	5.5	7.5	9.2	11.0	15.0	18.5
50m	0.75	1.1	1.5	2.2	3.0	4.0	7.5	9.2	11.0	13.0	15.0	18.5	30.0
80m	1.1	1.5	2.2	3.0	5.5	7.5	9.2	13.0	15.0	18.5	22.0	30.0	45.0
100m	1.5	2.2	3.0	5.5	5.5	9.2	11.0	15.0	18.5	25.0	30.0	37.0	55.0
120m	2.2	2.2	4.0	5.5	7.5	9.2	13.0	18.5	22.0	30.0	37.0	45.0	63.0
150m	2.2	3.0	5.5	7.5	9.2	11.0	15.0	22.0	30.0	37.0	45.0	55.0	75.0
200m	3.0	4.0	7.5	9.2	11.0	15.0	22.0	30.0	45.0	55.0	55.0	75.0	90.0
250m	4.0	5.5	7.5	11.0	15.0	22.0	25.0	37.0	55.0	63.0	75.0	90.0	110.0
300m	5.5	7.5	11.0	13.0	18.5	25.0	37.0	55.0	63.0	75.0	90.0	110.0	140.0
350m	5.5	9.2	11.0	15.0	22.0	25.0	37.0	55.0	75.0	90.0	110.0	140.0	160.0
400m	7.5	11.0	13.0	18.5	25.0	30.0	45.0	63.0	90.0	110.0	120.0		

# Solar Pump Quick Selection Guidance

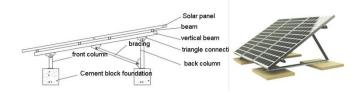
### Pump Selection Mark:

- ※ Get Water Requirement data. For example, if the Water Read 80m, 120m<sup>3</sup>/day, then 9.2kW pump.
- X According to pump selection, the choose inverter & panel configuration.
- X This data sheet is 6 Rours/day effective sunshine. You can adjust the figure according to installation place.
- X This data sheet is submersible pump, if other type, then change the system configuration accordingly.
- ※ If need bigger Water Read or Water Requirement. We can design Multi-stage or Multi-Pump Irrigation.

# ADA Solar Pumping System Accessories/Annex

### Solar Pumping System Accessories/Annex

### Solar Mounting Bracket For Solar Panel





### Features

#### • Easy to install.

The tilt-in module can be put into the extruded rail from the any location and can be high pre-assembly with the clamp to minimize the time and cost of installation. The U bolt with the cap can fix the pipe easy and quick.

#### Offer unmatched durability.

With all structural components comprised of high class stainless steel, anodized aluminum alloy and the double anticorrosive finish for the steel pipe and cap, it is designed for twenty years service life and backed by ten years warranty.

#### Stand up to extreme weather.

The grace solar ground mount system is designed to stand up to the extreme weather complied with the AS/NZS 1170 and other international structure load standard by the skilled engineer. The main support components also have been test to guaranty its structure and load-carrying capacity.

#### • Provide broad installation flexibility.

These systems accommodate most commercially available framed solar panels and diverse foundation solution, and they can scale easily from small to large, multi-megawatt installations.

### Solar PV Combiner Box

#### Features

Solar PV Combiner Box provides a means of combining multiple source circuits from the PV array into a single DC output. In the solar pumping system, PV combiner box collects number of PV arrays input and combine inverter in the the PV combiner box.

So, comparig to system without PV combiner box:

• IP66 design meet the use requirements of outdoor installation, and also enjoy a long life.

• PV-DC high uoltage circuit breakers, pressure capacity of up to 1000V.

• PV module having a specific lightning protection system from lightining damage.

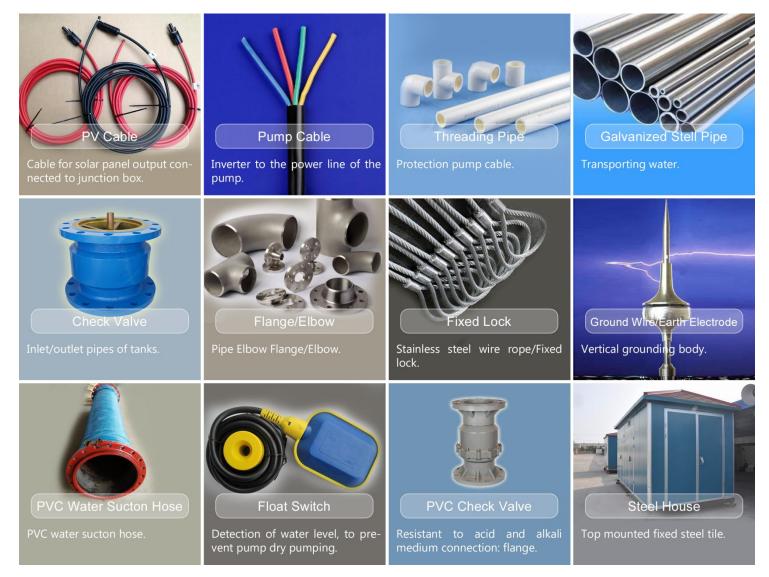
• Simple for Installation and maintenance and more safty, also beatified the whole system (Used common in bids program).





# ADA Solar Pumping System Accessories/Annex

# Solar Pumping System Accessories/Annex



# ADA Engineering Tools



# ADA Case Study

## Agricultural irrigation



#### Asia-Afghanistan

Project description: Agriculture is Afghanistan's main economic pillar, but agricultural land is less than two-thirds of it land. It is thus considered as one of the world's poorest countries. To get a better development of agriculture, some customer decide to find some new way. Solar pumping system give them hope.

#### **Applicatons:**

Pump: 5.5kw, 7.5hp Inverter: SPI200-4T-7.5B Panel: 220w poly panel, 80pcs Water flow and water head: 21t/h,36m Highlights: Make a perfect demo of agriculture and solar, modern agriculture is just coming.



Project description: Karachi, Pakistan's largest city, located in the southern coast of Pakistan. It is located in the plains between the Leli River and the Maril River. But still it has rare rainfall, the average annual rainfall of it is only 200mm. Electricity is not enough in local. In that case, customer find us in 2014, and we provide them solar pumping system.

#### **Applicatons:**

Pump: 9.5kw, 11hp Inverter: SPI200-4T-011B Panel: 250w poly panel, 60pcs Water flow and water head: 30t/h,75m Highlights: Using single-axis tracking bracket can automatically track the best light ,making full of sun power.





use

#### Asia-India

Project description: India's Gujarat state is located in India's western state. Gujarat is dominated by agriculture and husbandry, and also have rice, wheat, cotton, sorghum and maize as its main crops. In 2013 the customer decided to use solar pumping system to irrigate farm instead of using electricity. Thus, their farm can be watered automatically.

#### **Applicatons:**

Pump: 5.5kw, 7.5hp Inverter: SPI200-4T-7.5B Panel: 250w poly panel, 60pcs Highlights: Save electricity and manual maintenance cost.



#### Asia-Naimanqi China

Project description: Naimanqi climate belongs to the northern temperate continental monsoon arid climate. It's total land area of 12206400 acres, of which 7360671 acres of agricultural land area. But the local grid voltage is very unstable during the peak period, especially when the crops need to be watered in the dry season. To solve the drought problem , the local farmers to install solar pumping system.

### Applicatons:

Pump: 2.2kw, 4hp
Inverter: SPI200-4T-4B
Panel: 300w mono panel, 16pcs.
Water flow and water head: 60-100t/daily, 33m
Highlights: After installing the system, the farmers no longer worry about irrigation problems.

#### Africa-Kenya

Project description: Kenya is located in the east of Africa, the equator runs through the central, the East African Rift Valley runs through the north and south. Agriculture is the backbone of its national economy, but also it development is limited by the short of electricity. ADA sold the fist solar pumping system in Kenya.

#### Applicatons:

Pump: 3kw, 4hp Inverter: SPI200-4T-4.0B Panel: 250w poly panel, 20pcs Water flow and water head: 120-160t/h, 36m Highlights: For those area which is in short of electricity but have rich water and sunshine resource, solar pumping system is best choice.





#### Africa-Egypt

Project description: Cairo's climate is typical subtropical grassland-desert climate. the effective lighting hours in Cairo can up to 9 hours. Sunshine and water resource is essential for solar pumping system, it's wise that Cario customer choose our solar pumping system to solve 2000 acres of farmland irrigation and drinking water problems of some residents.

#### Applicatons:

Pump: 45kw, 55hp Inverter: SPI200-4T-55B Panel: 250w poly panel, 240pcs Water flow and water head: 180-300t/daily, 200m Highlights: The system was built in 2013, the largest water pump system for Egypt at that time.

# Drinking Water



#### Asia-Wuding China

Project description: Wuding County is located in the middle of the Yunnan Plateau. It is a key place in Poverty alleviation and development policy's. With an annual output of 2.852 billion cubic meters of water, the Water resources there are rich. But for geographical factors, the water resource is not evenly distributed, drinking water is not easy to get for most people.

#### Applicatons:

Pump: 1.1kw, 2.2hp Inverter: SPI200-4T-2.2B Panel: 200w mono panel, 9pcs. Water flow and water head: 20-30t/daily, 62m Highlights: Helping development of poor areas is why solar pumping system born for.

#### Asia-Dubai

**Project description:** Dubai's temperatures can up to 45  $^{\circ}$ C in summer. And the annual rainfall is less than 100mm. For no power grid, residents there can only use diesel power to generate pump. Thus domestic water costs arehigh, the maintenance and care also complex. Heard our product from friend, the customer find us. According to his request, we design a system for him. Now the system is still works well in Sharjah desert.

#### Applicatons:

Pump: 1.1kw, 2.2hp Inverter: SPI200-4T-2.2B Panel: 200w mono panel, 9pcs Water flow and water head: 3t/h,75m Highlights: Less noisy, less cost make it become popular.





#### Asia-United Arab Emirates

Project description: United Arab Emirates is located in the eastern Arabian Peninsula, the north near the Persian Gulf. In addition to the northeast, there are a small amount of mountain, the vast majority of it is depression and desert. It Is a tropical desert climate, hot and dry, and has a serious lack of surface water. Before using solar pumping system, customer use diesel.

#### Applicatons:

cannot be underestimated.

Pump: 1.1kw, 2.2hp Inverter: SPI200-4T-2.2B Panel: 200w mono panel, 9pcs Highlights: Diesel power generation will be out of the market several years later, solar's power

# Responsible Leisure



#### Asia-Pakistan

Project description: ADA Pakistan agent in the Pakistan-China Friendship Building built a fountain. Applicatons:

Pump: 4kw, 5.5hp Inverter: SPI200-4T-5.5B Panel: 250w mono panel, 18pcs. Water flow and water head: 20t/daily, 26m Highlights: Now in Pakistan there has more than a thousand sets of solar pumping system, providing more fresh air to friendship between Pakistan and china.

## Desert Control

#### Asia-Xinjiang China

Project description: Xinjiang Kashi district is located in the south of Karakorum and Kunlun Mountains, close to the Taklimakan Desert. It is an agriculture-based city, animal husbandry is also accounting a lot. It is also the western border of China's military city and national poverty alleviation and development key city and border counties. This Project is for the Uygur compatriots trees planting.

#### Applicatons:

Pump: 1.5kw, 2.2hp Inverter: SPI200-4T-2.2B Panel: 250w mono panel, 12pcs Highlights: The best things in the word is do creation and valuable work.



### Wuhan University solar pumping system demo base



#### Asia-Wuhan

Highlights: Wuhan University is one of the best universities of China. The instruction combined the theory and the practice, giving the student a more comprehensive display of what solar pumping is , how it work, and the advantage of the solar pumping system ( no diesel, no grid, no staff care ,only need water and sunshine).



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