





# GOL PUMPS TECHNOLOGY INC



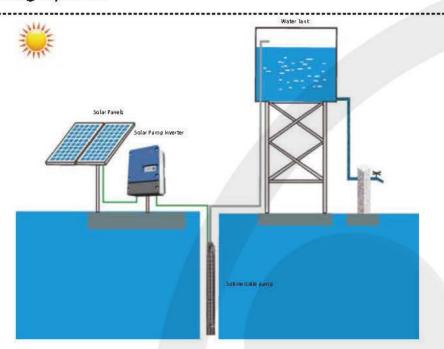
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## Solar Pumping System



## System Introduction (AC system)

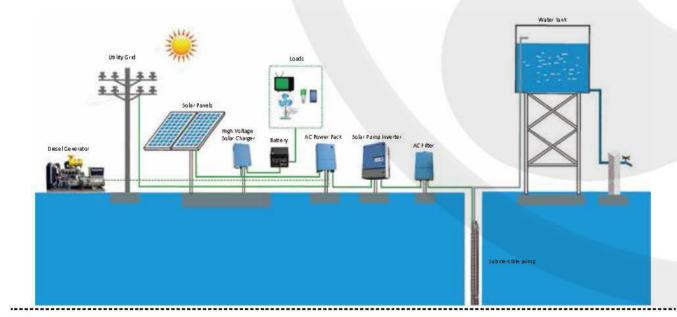
Solar pumping system consists of four parts: solar panels, solar pumping inverter, three-phase AC pump and water storage device. The solar pumping inverter converts DC power produced by solar panels to AC power which drives AC pump to pump water from borehole, river, lake etc. to the storage device. The inverter applies high efficiency MPPT algorithm to maximize power harvested from solar panels. It

The solar pumping system fulfills concept of low carbon, energy conservation, environmental protection to improve the living standard in water-deficient area.

will make the system to maximize efficiency to get the water as much as possible.

## More function of solar pump system

Accessories will be added in solar pump system to realize more function. AC input function, high voltage solar charger to charge battery to save energy, AC filter to protect pump.





## System Application

Solar pumping systems can be applied in the area with sunshine and areas lack of electricity, such as:

- Daily water using
- Agricultural irrigation (drop irrigation, sprinkling irrigation, flood irrigation)
- Forestry irrigation
- Desert control
- Pasture animal husbandry
- Rural town and village water supply
- Desalinization of sea water
- Scenic fountain etc.



## System Features

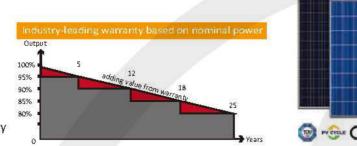
- Reliable solution for agricultural irrigation, daily water, desert control in non-electricity and water deficient area.
- Wide application with all kinds of PV modules and 3-phase AC pumps
- IP 65 for outdoors application
- Max. operation temperature 60°C
- GPRS remote monitoring for real time operation status and control on/off
- Excellent performance during cloudy weather with 5% more water output compared to competitors
- ROI is only less than 2 years compared to diesel generator
- Full automatic unattended operation with perfect protection functions for long lifespan 25 years
- 3 years warranty for complete system, 10 years for PV modules

## Main Devices of Solar Pumping System

#### Solar Panels

Based on nominal power(pnon)

- 25-year transferrable power output
- 5 years warranty of 95% power output
- 12 years warranty of 90% power output
- 18 years warranty of 85% power output
- 25 years warranty of 80% power output
- 10 years material and workmanship warranty



## Solar Mobile Mounting Structure

- Engineered for long product life and highly prefabricated to reduce installation costs;
- very affordable option for mid-to-large PV installations;
- Easy installation and application in different location;
- Material as customers request.



## Solar pumping inverter

- AC three phase solar pump inverter;
- Output voltage 220V~240V ac /380~460V ac;
- Power of low voltage ranges from 1.1kw to 4kw;
- Power of high voltage ranges from 2.2kw to 132kw.



#### AC Pump

Any three phase AC pumps can be used. In order to keep high efficiency of whole system, please use all matching pumps from Jntech New Energy. We take three phase AC submersible pumps as example, for solar pumping system configuration.

#### **Operation Conditions**

- Solid grain or fiber-free dilute clean non-corrosive liquids
- Max. liquid temperature is +25 °C
- pH: 6.5<sup>~</sup>8.5

#### Pump Motor

- Three phase 50/60Hz 220~240V/380~460V
- Domestic or international brand
- Warranty can extend max. 3 years



Three Phase, 50/60Hz, 220V~240V or 380V~460V AC Pump

## Accessories of Solar Pumping System



#### PV Combiner Box

Jntech PV combiner box shall be used for solar pumping system from 22kW to 132kW, in order to reduce connecting cables for easy maintenance and low cost and to keep safety and reliability.

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The combiner box has current counter-attack, over current, over voltage function and lightning protection as well. Customized design possible.

#### Main parameters

- Max. input DC voltage: 1000Vdc
- Max. input current: 10A
- Protection class: IP65
- Operating temperature: -25~+55℃
- 8/12/16/24 input available

### Water Level Sensor

Mechanically activated device for dry run protection in applications with Solar pump systems.

The switch can be used to detect the water level within a well. When water level in well dropped below the level of the well probe, the solar pump inverter will stop pump to protect. It is also used for overflow protection, once water in tank reaches the highest level which water level sensor set, the solar pump inverter will stop to save energy and water.

#### Features

- Reliable dry run protection
- Reliable overflow protection
- Simple to install

#### Outlet Filter

The outlet filter connected between solar pump inverter and pump. It is used once the cable between inverter and pump is too long.

#### Function:

- Effective control of motor reflected voltage, protect motor insulation, prolong the lifespan of pump;
- Effective suppress the surge voltage on electric cable, protect inverter power module;
- Filter out PWM control high frequency harmonic, pump running more stable, improve system efficiency.



#### AC Power Pack

AC power pack will realize AC input of solar pump inverter to make system working 24 hours.

#### Features:

- Support water pumping system working 24 hours per day;
- PV, Grid, Generator power supply, pump can continue to work when sun radiation is insufficient; even in rainy days, or night, It can be switched to Grid or diesel generator input with soft-start function.
- IP65 Protection, fanless design;
- Built-in DC circuit breaker, wall-mounting installation, easy operation.



## Accessories of Solar Pumping System

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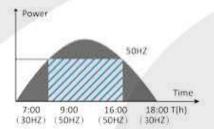
## High Voltage Solar Charger

Solar pumping system can be used as independent off-grid generating system Full system energy application with solar pumping system and solar charger wide high-voltage input range, higher reliability with isolated design Battery of 12Vdc with 15A or 25A

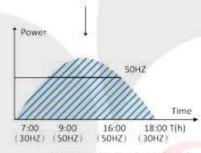
Excellent charging battery management with over-voltage and current protection function.

Integrated switch, wall-mounted installation and easy operation





The grey part energy is wasted



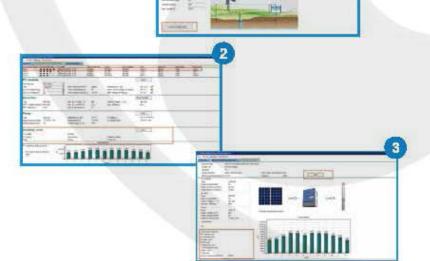
System power is used completely

## Solar Pumping System Design Software

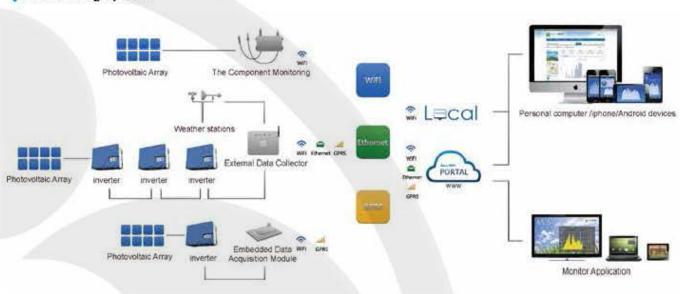
#### Feature:

- Human interface design, easy operation;
- Contain the most countries' geography and climate information, strong practicability;
- Superior and reliable system configuration algorithm;
- Editable database of PV module and pump, be convennient for personalization or regional system design



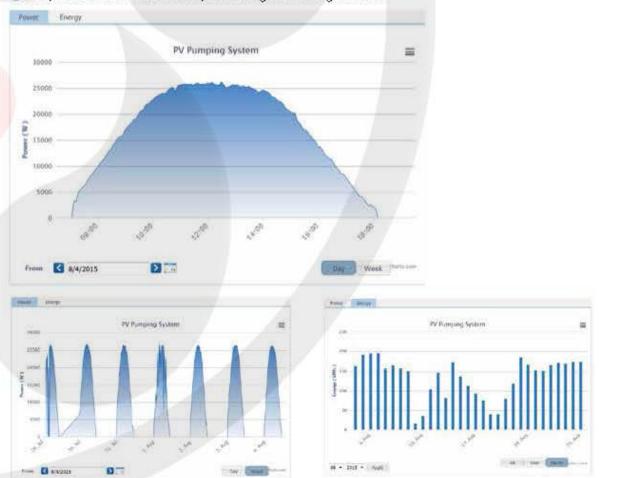


#### Monitoring System

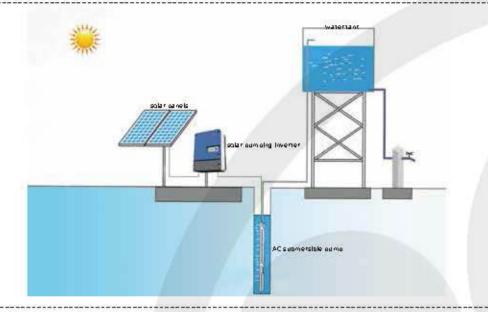


#### Features:

- Control the solar pumping inverter remotely
- Manage all solar pumping inverters and systems
- Check system operating status at any time
- Read all system information on PC, Iphone, Ipad and any other electronic device.
- Get alarm record and error code once the system failed to operate
- Analyse the data to check if the system is in good working condition.



## Solar Pumping System Configuration



### Remarks

- Polycrystalline 250W (Voc=37V, Isc=8A) solar panels are used in system configuration.
- The configuration is designed under environment itemperature -20 ~ +60 ℃. We suggest to reduce number of solar panels of each string 22 pieces to 21 pieces if temperature is below -4°C.
- Configuration is designed with radiation 1000W / m² and rated working time of 5 hours and non-rated time of 3.2 hours.
  When single string exceeds 19 pieces, Please contact Intech engineer for system configuration.
- The design head should be considered to be 1.2~1.5 times more than the real head according to varied location.

### Definition of system model

<u>JN x - SI</u>	<u>P x - x</u>
Intech New Energy	Pump Stage
3: Three Phase	Rated Flow (m <sup>5</sup> /h)
1: Single Phase —	System Code:Solar Pump

Daily water requirement: 5 ~10 m³

System Model	Pump	Inverter	Solar Panels	Array	Rated Flow	Rated Head	Rated Daily Water Output	Daily V	Vater	Outpu	t Rai	nge			
	kW	kW	kW		m³/h	m	m/day	m³/h		m			m³/day		
JN3-SP1-21	1.1	1.1	1.50	6*1		108	7			112		80	7		10
JN3-SP1-25	1.1	1.1	1.75	7*1		129	7			134		95	6		10
JN3-SP1-28	1.5	1.5	2.00	8*1		145	7			150		107	7		10
JN3-SP1-32	1.5	1.5	2.00	8*1		165	6			171		122	6		9
JN3-SP1-36	1.5	1.5	2.25	9*1	1	186	6	0.8 ~	1.8	192	~	137	6	~	9
JN3-SP1-39	2.2	2.2	3.00	6*2		202	8			209		149	7		11
JN3-SP1-42	2.2	2.2	3.00	6*2		217	7			225		160	7		10
JN3-SP1-46	2.2	2.2	3.50	7*2		238	8			246		176	7		11
JN3-SP1-50	2.2	2.2	3.50	7*2		260	7.			269		192	6		10

Daily water requirement: 10 ~ 20 m³

System Model	Pump	Inverter	Solar Panels	Array	Rated Flow	Raited Head	Rated Darly water Output	Da	ily W	ater C	utput	Ran	ge			
	kw	kw	kw		m³/h	m	m³/day	m5/h	1		m			m <sup>5</sup> /day	60	
IN3-SP3-15	1.1	1.1	1.50	6*1		ь1	17				72		47	14		20
IN3-SP3-18	1.1	1.1	1.75	7*1		74	16				87		57	14		19
IN3-SP3-22	1.5	1.5	2.00	8*1		91	15				106		70	13		18
IN3-SP3-27	2.2	2.2	3.00	b*2	3	111	18	2.4	~	3.6	130	~	87	16	~	21
IN3-SP3-32	2.2	2.2	3.50	7*2		131	18				154		102	16		21
IN3-SP3-38	3.0	3.0	4.00	8*2		157	17				183		122	1.5		20
IN3-SP3-43	3.0	3.0	4.50	9*2		178	17				207		139	15		20



## Daily water requirement: 10~30 m³

System Model	Pump	Inverter	Solar Panels	Array	Rated Flow		Rated Daily water Output	Daily	Water	Output	Rain	ge			
	kw	kW	kw		m²/h	M	m <sup>5</sup> /day	m <sup>5</sup> /h		m			m <sup>3</sup> /day		
JN3-SP5-12	1.1	1.1	1.50	b*1		45	24			59		38	1.8		26
JN3-SP5-17	1.5	1.5	2.00	8*1		64	22			84		54	17		24
JN3-SP5-21	2.2	2.2	3.00	B*2		79	27			104		67	20		29
IN3-SP5-25	2.2	2.2	3.50	7*2		94	26			124		80	20		29
JN3-SP5-29	3.0	3.0	4.00	8*2		108	2.6	3 ~	5.5	144		92	19	100	29
JN3-SP5-33	3.0	3.0	4.50	9*2		123	26			163		105	19		28
JN3-SP5-38	4.0	4.0	5.60	2		142	28			188		121	21		30
JN3-SP5-43	4.0	4.0	6.00	2.1		161	26			213		137	20		29

## Daily water requirement: 30~60 m³

System Model	Pump	Inverter	Solar Panels	Array	Rated Flow	Rated Head	Raited Daily water Output	Dai	ly V	Na te	Outp	ut R	ange			
	kW	kW	kW		m <sup>s</sup> /h	M	m <sup>2</sup> /day	m <sup>5</sup> /	'n		m			m <sup>3</sup> /day		
N3-SP8-7	1.1	1.1	1.50	b*1		27	41				31		20	33		53
N3-SP8-10	1.5	1.5	2.00	8*1		39	38				45		29	31		49
N3-SP8-12	2.2	2.2	3.00	6*2		47	47				54		35	38		61
N3-SP8-15	2.2	2.2	3.50	7*2		59	43				88		44	35		56
N3-SP8-18	3.0	3.0	4.00	8*2		71	41				81		53	34		53
N3-SP8-21	4.0	4.0	5.60	gienera 20	8	83	49	ь	~	10	95	~	62	41	~	64
N3-SP8-25	4.0	4.0	6.00	4		99	44				113		74	37		57
N3-SP8-30	5.5	5.5	7.50	15 °2		119	49				136		88	40		64
N3-SP8-37	5.5	5.5	8.00	16*2		147	40				167		109	33		52
N3-SP8-44	7.5	7.5	10.50	21 *2		174	44				199		129	36		58
N3-SP8-50	7.5	7.5	11.00	22*2		198	41				226		147	34		53

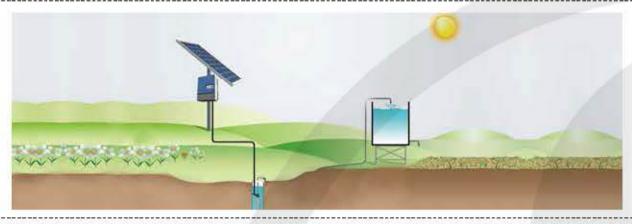
#### Daily water requirement: 50~90 m3

System Model	Pump	Inverter	Solar Panels	Array	Rated Flow	Raited Head	Raited Daily water Output	Daily	Wate	r Outp	ut R	ange		
	kw	kw	kw		m <sup>s</sup> /h	m	m <sup>5</sup> /day	m5/h		m			m <sup>5</sup> /day	
JN3-SP1 2-5	1.5	1.5	2.00	8*1		25	55			29		18	51	74
JN3-SP12-7	2.2	2.2	3.00	6*2		35	58			40		25	56	80
JN3-SP1 2-10	3.0	3.0	4.00	8*2		50	55			58		36	51	74
JN3-SP12-13	4.0	4.0	5.60	1		ьь	58		0.5	76		48	55	_ 78
IN3-SP12-15	5.5	5.5	750	15*2	12	76	78	8 ~	16	88		55	53	97
IN3-SP12-18	5.5	5.5	8.00	16*2		91	60			105		ББ	57	81
JN3-SP12-21	7.5	7.5	10.50	21*2		106	68			123		77	64	91
JN3-SP1 2-25	75	75	11.00	22*2		126	60			146		92	56	80

#### Daily water requirement: 60~150 m³

System Madel	Pamp	Inverter	Salar Panels	Array	Ralled Flow	Rated Head	Rated Daily water Output	DailyV	/ater	Output	Rang	e .			
	ŁW.	kW.	ŧW.		m²/h	m	m³/day	m <sup>3</sup> /h		m			m <sup>3</sup> /day		
JN3-SP17-2	1.1	1.1	1.50	6*1		13.5	96			19		10	63		112
IN3-SP17-3	2.2	2.2	3.00	672		20.5	127			28.5		16	84		146
JN3-SP17-4	2.2	2.2	3.50	7*2		28.0	109			38		22	73		124
JN3-SP17-5	3.0	3.0	4.00	872		35.0	99			48		28	66		112
JN3-SP17-6	4.0	4.0	5.60	-		42.0	116			58		34	77		129
IN3-SP17-7	4.0	4.0	6.00			49.0	106			67		40	71		117
JN3-SP17-8	5.5	5.5	7.50	1572		57.0	121			77		45	80		136
JN3-SP17-9	5.5	5.5	7.50	1572		64.0	108			97		52	71		118
N3-SP17-10	5.5	5.5	8.00	16*2		72.0	96			97		58	65		108
N3-SP17-11	7.5	7.5	10.50	2172		79.0	115			106		64	79		128
N3-SP17-12	7.5	7.5	10.50	2172		87.0	105			115		70	72		117
N3-SP17-13	7.5	7.5	11.00	2272		95.0	101			125		75	70		115
N3-SP17-14	9.2	11.0	13.50	1873	17	102.0	115	10 ~	20	134	2	81	80	- 2	130
N3-SP17-15	9.2	11.0	13.50	1873		109.0	109			144		87	74		121
N3-SP17-16	9.2	11.0	14.25	1973		116.0	107			154		92	73		121
N3-SP17-17	9.2	11.0	14.25	1973		123.0	101			163		98	69		114
N3-SP17-18	11.0	11.0	15.75	2173		130.0	105			173		104	72		118
N3-SP17-19	11.0	11.0	15.75	2173		138.0	99			182		110	69		112
N3-SP17-20	11.0	11.0	16.50	2273		145.0	99			192		116	68		111
N3-SP17-21	13.0	15.0	18.00	1874		152.0	103			202		121	71		116
N3-SP17-22	13.0	15.0	19.00	1874		160.0	98			211		127	68		111
IN3-SP17-23	13.0	15.0	19.00	1974		167.0	99			221		133	69		112
N3-SP17-24	13.0	15.0	19,00	1974		174.0	95			230		139	66		107
N3-SP17-25	15.0	15.0	21.00	2174		181.0	101			240		145	69		113
IN3-SP17-26	15.0	15.0	22.00	2274		189.0	101			250		150	70		1 15

# Solar Pumping System Configuration



Daily water requirement:100~250 i	m3
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System Model	Pump	Inverter	Solar Panels	Array	Rated Flow	Rated Head	Raited Daily water Output	Daily	Wa	ter O	utput l	Rane	e			
ň.	kW	kW	kW		m <sup>2</sup> /h	m	m³/day	m³/h			m			m³/da	ý	
JN3-SP30-1	1.1	1.1	150	671		7.5	181				10		5.5	121		237
1N3-SP30-2	2.2	2.2	3.00	6*2		15.0	181				20		105	121		248
IN3-SP30-3	3.0	3.0	4.00	872		22.0	165				30		16	107		217
IN3-SP30-4	4.0	4.0	5.60	-		29.0	175				40		21	113		232
1N3-SP30-5	5.5	5.5	750	1572		37.0	195				50		27	121		246
3-0E92-ENI	5.5	5.5	8.00	1672		44.0	165				60		32	107		217
1N3-SP30-7	7.5	7.5	10.50	2172		52.0	183				70		37	121		246
JN3-SP30-8	7.5	7.5	11.00	2272		59.0	169				80		43	111		222
IN3-SP30-9	9.2	11.0	13.50	18*3		66.0	185				90		48	121		244
IN3-SP30-10	9.2	110	13.50	18*3		74.0	165				100		53	109		221
JN3-SP30-11	9.2	11.0	14.25	1973		81.0	159				110		59	104		210
IN3-SP30-12	11.0	11.0	15.75	2173		88.0	162				120		64	106		214
JN3-SP30-13	11.0	110	16.50	2273	30	96.0	15.6	16	4	36	129	*	69	103	*	208
JN3-SP30-14	13.0	15.0	18.00	1874		103.0	158				139		74	104		211
IN3-SP30-15	13.0	15.0	19.00	19'4		110.0	156				149		80	103		206
1N3-SP3-0-16	15.0	15.0	21.00	2174		118.0	161				159		85	106		214
IN3-SP30-17	15.0	15.0	22,00	22*4		125.0	159				169		90	105		212
JN3-SP30-18	18.5	185	26.25	2175		132.0	180				179		96	118		237
JN3-SP30-19	18.5	18.5	26.25	2175		140.0	170				189		101	112		226
JN3-SP30-20	18.5	185	27.50	2275		147.0	169				199		106	111		2 25
IN3-SP30-21	18.5	185	27.50	2275		155.0	161				209		112	106		213
IN3-SP30-22	22.0	22.0	31.50	2176		162.0	176				219		117	116		234
JN3-SP30-23	22.0	22.0	31.50	2176		169.0	169				229		122	111		224
JN3-SP30-24	22.0	22.0	33.00	22*6		177.0	169				239		128	111		224
IN3-SP30-25	22.0	22.0	33.00	2276		184.0	162				249		133	107		215

#### Daily water requirement: 160~600 m³

System Model	Pump	Inverter	Solar Panels	Array	Rated Flow	Railed Head	Railed Daily water Output	Daily	Water	Output	Rane	e		
	kW	kW	kW		m³/h	m	m³/day	m <sup>3</sup> /h		m			m³/day	
IN3-SP42-1	2.2	2.2	3.00	6*2		8.5	328			105		4	248	595
JN3-SP42-2	3.0	3.0	4.00	8*2		17.0	219			21.5		8.5	162	374
JN3-SP42-3	5.5	5.5	7.50	15 72		26.5	274			32.5		13	210	496
IN3-SP42-4	7.5	7.5	1050	21 72		36.0	271			43		18	212	463
IN3-SP4 2-5	75	7.5	11.00	22.72		45.0	227			54		23	177	180
IN3-SP42-6	9.2	11.0	1350	18*3		54.0	233			66		28	178	383
JN3-SP42-7	11.0	11.0	15.75	21 *3		63.0	233			77		32	178	391
IN3-SP4 2-8	13.0	15.0	18.00	1874		72.0	233			87		36	180	397
IN3-SP4 2-9	15.0	15.0	21.00	21 74		80.0	244			97		40	188	417
IN3-SP42-10	15.0	15.0	22.00	22 74		89.0	230			108		45	177	188
IN3-SP42-11	18.5	185	26.25	21 75		0.86	249			119		49	192	425
IN3-SP42-12	18.5	18.5	2750	22 75	42	107.0	239	30	* 60	130	7	54	184	404
IN3-SP42-13	22.0	22.0	3150	2176		116.0	253			141		58	194	431
IN3-SP42-14	22.0	22.0	3150	21 76		125.0	234			152		63	190	397
IN3-SP42-15	22.0	22.0	33.00	22 76		134.0	229			163		67	176	391
JN3-SP42-16	25.0	30.0	35.00	2077		143.0	228			174		72	175	186
IN3-SP42-17	25.0	30.0	36.75	21 77		152.0	225			184		77	173	379
IN3-SP42-18	30.0	30.0	42.75	1979		161.0	247			195		81	190	419
IN3-SP42-19	30.0	30.0	42.75	19*9		170.0	234			206		86	180	395
IN3-SP42-20	30.0	30.0	45.00	2019		179.0	234			217		90	180	397
JN3-SP42-21	37.0	37.0	52.25	19*11		1880	259			228		95	199	437
IN3-SP42-22	37.0	37.0	55.00	20*11		197.0	260			238		99	201	441



#### Daily water requirement: 190~670 m³

System Model	Pump	Inverter	Solar Panels	Array	Rated Flow	Railed Head	Railed Daily water Output	Daily	Water	Output	Rang	=			
	W	kW	kW		m <sup>2</sup> /h	m.	m³/day	m³/h		m			m³/day		
IN3-SP60-1	2.2	2.2	3.00	6*2		6.0	484			8.5		4	298		670
IN3-SP60-2-2	3.0	3.0	4.00	8*2		10.5	369			15.5		6.5	218		550
IN3-SP60-2	4.0	4.0	5.60			12.5	433			19		9	249		556
IN3-SP60-3	5.5	5.5	750	15*2		20.0	387			29		14	238		510
IN3-SP60-4	7.5	7.5	10.50	2172		29.0	350			40		21	221		446
N3-SP60-5	9.2	11.0	13.50	18*3		37.0	35 3			51		28	223		431
1N3-SP60-6	11.0	11.0	15.75	21*3		45.0	339			62		34	214		414
IN3-SP60-7	13.0	15.0	18.00	18*4		53.0	329			73		19	208		412
IN3-SP60-8-2	13.0	15.0	19.00	19*4		56.0	328			78		41	205		414
N3-SP60-8	15.0	15.0	21.00	2174		61.0	333			84		45	211		417
IN3-SP60-9-2	15.0	15.0	22.00	22*4		64.0	333			89		47	208		418
IN3-SP60-9	18.5	18.5	26.25	2175	223	69.0	368	40	~ 70	96	200	52	231		451
IN3-SP60-10	18.5	18.5	27.50	22*5	60	77.0	345	40	~ 70	106	To.	58	219	7	423
IN3-SP60-11	22.0	22.0	31.50	21*6		85.0	35.8			117		64	227		439
N3-SP60-12	22.0	22.0	31.50	21'6		93.0	328			127		70	209		402
N3-SP60-13	22.0	22.0	33.00	2276		100.0	319			139		75	200		393
N3-SP60-14	25.0	30.0	35.00	2017		106.0	319			149		80	198		391
N3-SP60-15	25.0	30.0	36.75	21*7		114.0	312			159		85	195		386
N3-SP60-16	30.0	30.0	42.75	19*9		1220	139			170		91	212		419
IN3-SP60-17	30.0	30.0	42.75	19*9		130.0	318			181		98	199		190
IN3-SP60-18	30.0	30.0	45.00	2019		140.0	311			194		105	196		383
N3-SP60-19	37.0	37.0	52.25	19*11		148.0	342			204		112	216		417
N3-SP60-20	37.0	37.0	52.25	19*11		155.0	326			214		118	206		395
IN3-SP60-21	37.0	37.0	55.00	20*11		163.0	326			226		123	205		399

### Daily water requirement: 280~570 m²

System Model	Pump	Inverter	Solar Panels	Array	Rated Flow	Rated Head	Rated Daily water Output	Dail	ly₩.	ater	Output	Ran	g <del>e</del>		
0.	kW	kW	kW		m³/h	m	m³/day	$m^2/l$	h		ш			m³/day	
N3-SP75-1	4.0	4.0	5.60	£1		12.0	463				15.5		9	323	563
N3-SP75-2	7.5	75	1050	21 72		25.0	417				32		19	293	500
N3-SP75-3	11.0	11.0	15.75	21 *3		38.0	411				49		29	287	492
N3-SP75-4	15.0	15.0	21.00	2174		52.0	401				66.5		40	282	475
N3-SP75-5	185	18.5	26.25	2175		65.0	401				83		51	282	466
N3-SP75-6	22.0	22.0	3150	2176		79.0	396				100		62	281	460
N3-SP75-7	30.0	30.0	42.75	1979		93.0	456				118		73	324	530
N3-SP75-8	30.0	30.0	45.00	2019		107.0	417				135		85	298	479
N3-SP75-9	37.0	37.0	52.25	19*11		121.0	428				152		96	307	493
N3-SP75-10	37.0	37.0	55.00	20*11	75	135.0	404	50		95	169		107	291	465
N3-SP75-11	45.0	45.0	63.00	18714	12	148.0	422	20	200	37	185		118	304	483
N3-SP75-12	45.0	45.0	66.50	19*14		162.0	407				202		129	294	467
N3-SP75-13	55.0	55.0	7650	18*17		175.0	434				220		139	311	498
N3-SP75-14	55.0	55.0	7650	18*17		188.0	404				238		149	287	465
N3-SP75-15	55.0	55.0	80.75	19"17		201.0	399				256		159	282	460
N3-SP75-16	63.0	75.0	85.50	19*18		215.0	395				274		169	279	458
N3-SP75-17	63.0	75.0	90.25	19*19		229.0	391				292		179	276	456
N3-SP75-18	75.0	75.0	104.50	19722		243.0	427				309		190	302	498
N3-SP75-19	75.0	75.0	104.50	19722		257.0	403				327		201	285	471
N3-SP75-20	75.0	75.0	110.00	20*22		271.0	403				345		212	285	470

### ◆ Daily water requirement: 300~680 m²

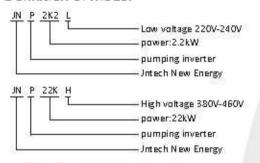
System Model	Pump inverter		Solar Panels	Array	Rated Flow	Rated Head	Rated Daily water Output	Daily Water Output Range				
	RW	kW	kW		m³/h	ш	m³/day	m³/h	m		m³/day	
N3-SP95-1	4.0	4.0	5.60	1000	95	9.5	570		15.5	8	327	599
N3-SP95-2	9.2	9.2	13.50	1873		20.0	653		32	17	382	6.90
IN3-SP95-3	13.0	13.0	18.00	18*4		30.0	580		48.5	26	336	592
N3-SP95-4	185	185	26.25	2175		41.0	619		65	36	366 350 323	624
N3-SP95-5	22.0	22.0	31.50	2176		51.5	592		81.5	46		586
N3-SP95-6	25.0	25.0	35.00	2017		62.0	546		98	55		545
N3-SP95-7	30.0	30.0	42.75	19*9		73.0	567		115	65	337	563
N3-SP95-8	37.0	37.0	5 2.25	19*11		84.0	602		131	75	361	596
N3-SP95-9	37.0	37.0	55.00	20*11		95.0	560	60 ~ 100	148	. 85	336	554
N3-SP95-10	45.0	45.0	63.00	18*14		106.0	575	60 ~ 100	1 65	95	346	567
N3-SP95-11	45.0	45.0	66.50	19*14		117.0	5.50		182	105	331	542
JN3-SP95-12	55.0	55.0	76.50	18*17		129.0	574		199	116	348	5 64
IN3-SP95-13	55.0	55.0	76.50	18*17		141.0	525		216	127		515
N3-SP95-14	55.0	55.0	80.75	19*17		153.0	511		233	138		501
N3-SP95-15	63.0	75.0	85.50	19*18		166.0	498		250	149	310	491
N3-SP95-16	63.0	75.0	90.25	19*19		178.0	490		267	160	306	483
N3-SP95-17	75.0	75.0	10450	19722		190.0	532		284	171	333	523
N3-SP95-18	75.0	75.0	110.00	20*22		202.0	5 27		302	182	330	517

# Solar Pumping Inverter-Three Phase

#### Product Features -

- Drive power-matched three-phase AC pump
- Adopt advanced IGBT power module
- ♦ High conversion efficiency, low temperature rise, low noise, long lifespan
- ◆ Advanced MPPT technology,efficience >>99%
- Fully a utomatic operation, it can store operation date for 10 years
- Perfect system protection, high reliability
- New design of anodized aluminum case
- ◆ LCD display
- ♦ Interface:RS485/GPRS
- ◆ Modular design, easy to install, operate, maintain

## Definition of Model -



## Technical Parameters -

Model	IN P1K1L	INP1K5L	IN P2K2L	INP3KL	INP3K7L	IN P4KL	JNP2K2H	INP3KH	<b>Ј</b> РЗК7Н	INP4KH	JN PSK5H	IN P7K5
d.c. Input												
d.c. Max. Input Voltage			440Vdc			750Vdc			880	Vdc		
Recommended MPPT Voltage		< 1	L50≃400Vdk			280=600Vdc			460~8	850Vdc		
d.c. Max. Input Current	8A	10A	14.6A	21A	24.6A	15A	5A	6.9A	9A	9A	12A	16.3A
Max. MPPT Efficiency						9	9%					
Number of String	1	1	2	2	2	2	2	2	2	2	2	3
a.c. Output												
Max. Motor Output Power	1.1kW	1.5kW	2.2kW	3kW	3.7kW	4kW	2.2kW	3kW	3.7kW	4kW	5.5kW	7.5kW
Rated Output Voltage		2	20~240Vac,	three pha.	5 B			3	90~4 60Vac	three pha	58	
Output Frequency Range						0~50	)/60Hz					
Rated Output Current	5.5A	7A	11A	14A	17A	20A	6A	7A	9A	10A	13A	18A
Other Parameters												
Weight	9.5kg	9.5kg	9.5kg	14.5kg	14.5kg	13.9kg	13.9kg	13.9kg	13.9kg	13.9kg	13.9kg	13.9kg
Dimension(L*W*H)	350*278*179mm 420*310*211mm 4						420	20*310*2 <i>2</i> 9mm				
Max. Efficiency	97%	97%	97%	97%	97%	97%	96%	97%	98%	98%	98%	98%
Protection Class							F					
Pratectian Level		IP65										
Operating Temperature		-25 °C~+60°C; above 60°C need derate operating										
Cooling Way		Natural Cooling										
Display	LCD											
Communication	RS485/GPRS											
Altitude	3000m;a bove 3000m need derate operating											
Naise Emission		<50dB										
Compliance	EN50178;IEC/EN62109-1;IEC 61800											





Model	INP11KH	IN P15KH	JNP18K5H	JNP22KH	INP30KH	JN P37 KH	JNP45KH	JN P55KH			
d.c. Input											
d.c. Max. Input Voltage				886	DVdc						
Recommended MPPT Voltage		460~850Vdc									
d.c. Max. Intput Current	24.4A	33.3A	41.1A	49A	67A	82A	100A	122A			
Max. MPPT Efficiency				9	9%						
Number of String	3	3	3	1	1	1	1	1			
a.c. Output											
Max. Motor Output Power	11kW	15 kW	18.5kW	22kW	30 kW	37kW	45kW	55kW			
Rated Output Voltage		380~460Vac,three phase									
Output Frequency Range	0~50/60Hz										
Rated Output Current	21A	29A	36A	42A	57A	71A	86A	104A			
Other Parameters											
Weight	19.9kg	19.9kg	19.9kg	31.5kg	31.5kg	31.5kg	32.5kg	32.5kg			
Dimension(L*W*H)		360*500*176m	ım:			460*580*251	тт.				
Max. Efficiency				g	98%						
Protection Class					1						
Pratectian Level				1	P65						
Operating Temperature			-25 °C~+	60°C; above 60	C need derate	operating					
Cooling Way				Force	Coaling						
Display	LCD										
Communication	RS485/GPRS										
Altitude	3000 m;a bove 3000 m need derate operating										
Naise Émission	<50dB										
Compliance	EN50178;IEC/EN62109-1;IEC 61800										





Vlodel	INP75KH	IN P90KH	INP110KH	INP132KH				
d.c. Input								
d.c. Max. Input Voltage		880	OVdc					
Recommended MPPT Voltage		460~	850Vdc					
d.c. Max. Intput Current	166A	205A	251A	287A				
Max. M PPT Efficiency		99	9%					
Number of String	Ž	2	2	2				
a.c. Output								
Max. Motor Output Power	75kW	90kW	110kW	132kW				
Rated Output Voltage		380~460Va	c,three phase					
Output Frequency Range	0~50/60Hz							
ated Output Current	142A	171A	209A	251A				
Other Parameters								
Weight	190kg	2 20 kg	220kg	220 kg				
Oimension(L*W*H)		654*1210	0*465mm					
Max. Efficiency		9	8%					
Protection Class			j.					
Pratectian Level		li di	21					
Operating Temperature		-25 ℃~+50 ℃; above 50	C need derate operating					
Cooling Way		Farce	Cooling					
Display		wa .						
Communication		R548	5/GPRS					
Utitude	3000m;a bove 3000m need derate operating							
laise Emissian	< 70dB							
Compliance		EN50178:IEC/EN	62109-1;IEC 61800					



echnical Parameters •							
Model	INP370LS	INP550LS	INP750LS	IN P1K1LS			
d.c. Input							
d.c. Max. Input Voltage		450	Vdc				
Recommended MPPT Voltage	80~400Vdc	80~400Vdc	120~400Vdc	150~400Vdc			
d.c. Max. Intput Current	5.6A	8.3A	7.5A	8.8A			
Max. MPPT Efficiency		>9	9%				
Number of String			i				
a.c. Output							
Max. Motor Output Power	370W	550W	750W	1100W			
Rated Output Voltage		220V , sin	igle phase				
Output Frequency Range		0~50					
Rated Output Current	4A	5.5A	7.2A	10A			
Other Parameters							
Weight	9.5 kg	9.5 kg	9.5 kg	9.5kg			
Dimension(L*W*H)		350*278*	179mm				
Protection Class		/_i					
Pratection Level		JP	65				
Operating Temperature		-25°C	~+60 °C				
Cooling Way		Natural Cooling					
Display		LCD					
Communication		R5485	/GPRS				
Altritude		3000m;abave 3000m	need derate operating				
Naise Emissian		< 60 dB					
Compliance		EN50178;IEC/EN62109-1					