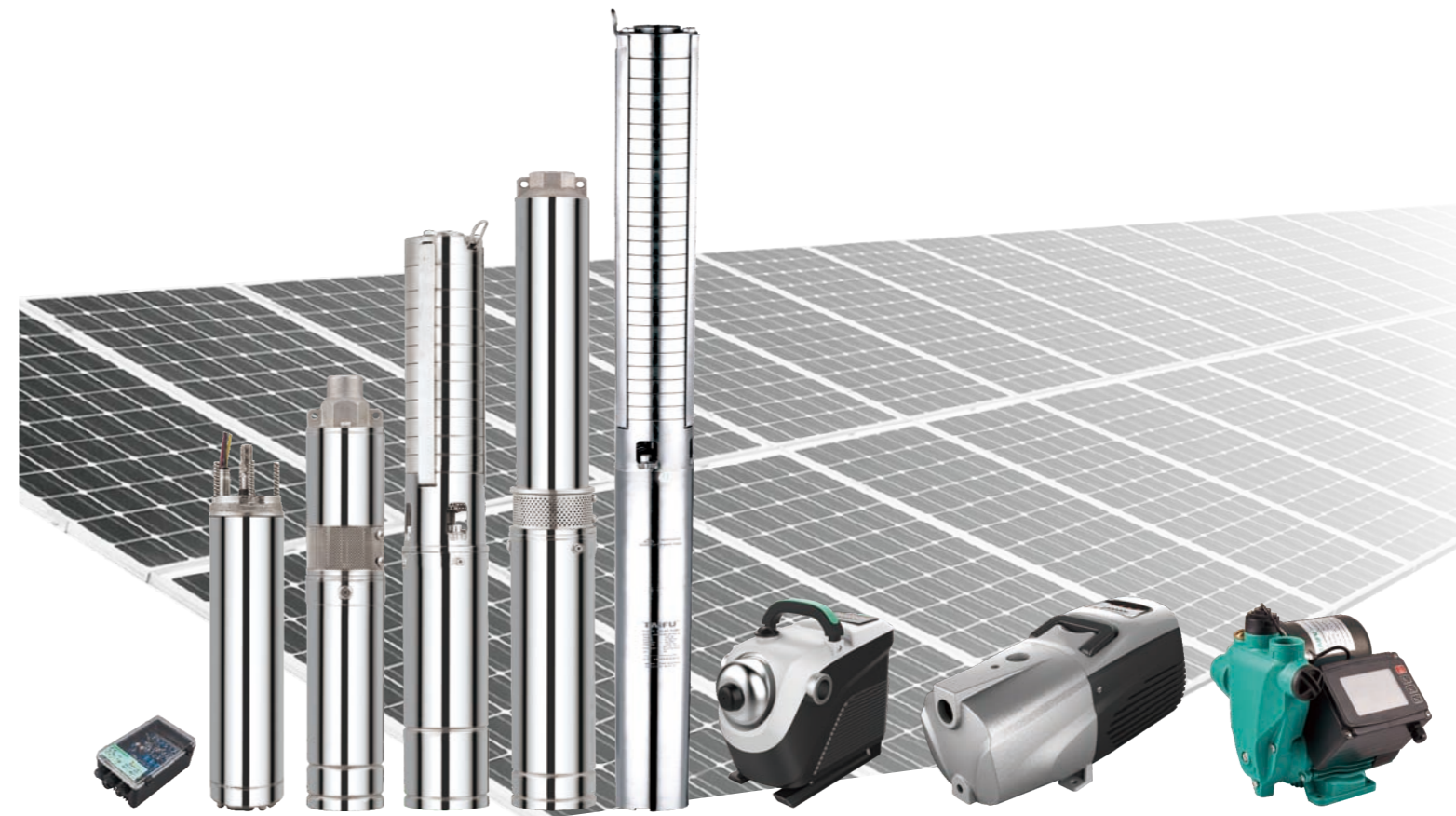


DC Solar Pump
AC / DC Convertible Pump



CONTENTS

Professional Solar Pump Manufactory

	Professional DC Solar Pump - Submersible	P 01-13
	Professional DC Solar Pump - Surface	P 14-17
	Economical DC Solar Pump - Submersible	P 18-19
	Economical DC Solar Pump - Surface	P 20-23
	AC/DC Water Filled Motor Solar Pump 4CW	P 24-40
	AC/DC High Speed Pump 4GS	P 41-42
	AC/DC Surface Pump	P 43-45

Application Area

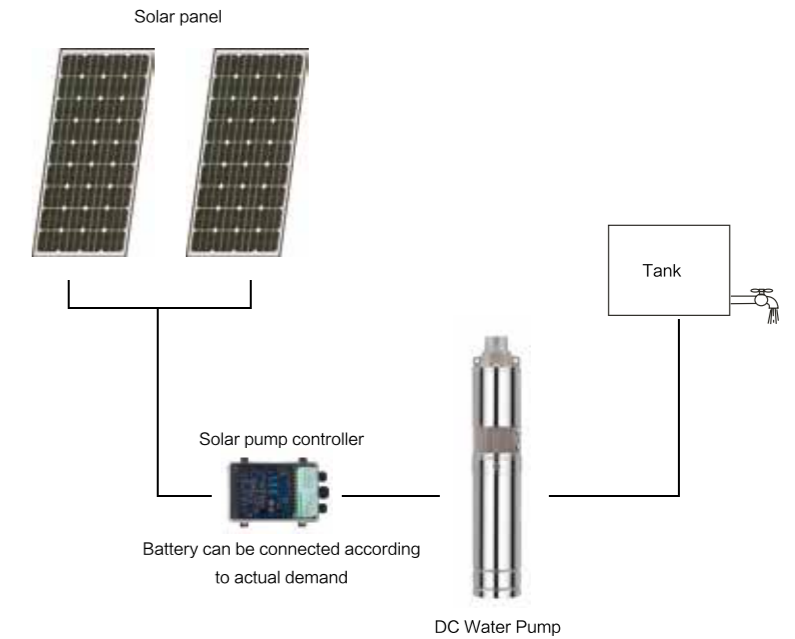
This project products are mainly used in dry region for irrigation of agriculture, It can be used for drinking water and living water. The living condition could be much improved. It also can be used for fountains.

Material Of Parts

- Outlet: stainless steel 304
- Pump body: stainless steel 304
- Motor body: stainless steel 304
- Bearing:SKF
- Screw & Nut: stainless steel 316

Principle Of Operation

Solar panel collects sunlight--->DC electricity energy-->solar controller (rectification, stabilization, amplification, filtering)--->available DC electricity--->(charge the batteries)--->pumping water



Advanced Technology

1.Application innovation

Compared with the traditional alternating current machine, the efficiency is improved 25% by the permanent magnetism, direct current, brushless, non-sensor motor.

2. Technics innovation

Adopt double plastic package for rotor and stator, motor insulation $\geq 300M\Omega$,the motor security is much improved.

3.Structure innovation

Oil filling, convenient installation and environmental protection

Highlights

- Energy-saving and environment-protected green products
- High technique products adopting MPPT and DSP chip technique.
- 100% copper wire, cold-rolled silicon steel sheet
- CE certificate
- Advanced three phase brushless DC motor
- Stainless steel 316 screws & nuts

Advantages Of Solar Pump System

- A.It is easier and more widely used than any other dynamoelectric driven pumps
- B.It is more economical and more environmental friendly

Model Selection

a.The power of solar panel=power of pump $\times (1.3\sim 1.6)$

The voltage of solar panel=the voltage of pump

The controller should be matched

b.Select the batteries according to the following formulas:

The use hour of Battery=The battery capacity is 100AH,the voltage is 12V, and the battery is fully charged, then the use hour is:

For example, the machine power is 200w, the battery capacity is 100AH, the voltage is 12V,and the battery is fully charged, then the use hour is: $100 \div (200 \div 12) \times 0.6=3.6$ hours

c.The battery capacity=The use hour $\div 0.6 \times$ (The machine \div The battery voltage)

For example, the machine power is 200w,the battery voltage is 12V,and the battery need to be used for 3.6hours,then the battery capacity is:

$3.6 \div 0.6 \times (200 \div 12)=100$ AH

Type	Recommended Solar Panel			Solar Pump Controller (v)	Maintenance-Free Valve Regulated Battery	
	VOC (v)	VMP (V)	Power (W)		Capacity(AH)/Voltage(V)/Quantity(PC)	Connection Mode
3TSS0.5-28-12/80	21.5	17.5	110X1	12	120AH/12V/1PC	SERIES CONNECTION
3TSS0.76-55-24/120	21.5	17.5	80X2	24	120AH/12V/2PCS	
3TSS1.25-80-36/210	21.5	17.5	90X3	36	120AH/12V/3PCS	
3TSS1.4-100-48/500	21.5	17.5	85X4X2	48	150AH/12V/4PCS	
4TSS2.5-70-48/500	21.5	17.5	85X4X2	48	150AH/12V/4PCS	

SOLAR PUMP SYSTEM

Highlights

- First and biggest manufactory for DC solar pumps in China
- Energy-saving and environment-protected green products
- Advanced 3 phase permanent magnetism DC brushless motor
- MPPT and DSP technology for the controller
- Cost saving product, no need of any electricity or petrol
- Portable and foldable
- Fast and easy to install the complete system by yourself
- Free maintenance and long working life
- Rechargeable batteries workable, work at night
- Patent products
- CE certificate
- 3 years warranty for solar pumps



System includes:



DIY SOLAR PUMP SYSTEM



Performance Chart

Type	Voltage (V)	Power (W)	Max Flow Rate (m³/h)	Max Head (m)	Outlet Size (In)	Diameter (In)	Solar Panel
3TSS0.76-55-24/120 System	24	120	0.76	55	3/4"	3"	foldable 2 x 80w
3TSS1.25-80-36/210 System	36	210	1.25	90	3/4"	3"	3 x 90w
3TSS1.4-100-48/500 System	48	500	1.4	120	3/4"	3"	4 x 170w
4TSS2.5-70-48/500 System	48	500	2.5	70	1"	4"	4 x 170w

Performance Chart

Type	Voltage (V)	Power (W)	Max Flow Rate (m³/h)	Max Head (m)	Outlet Size (In)	Diameter (In)	Solar Panel
3TSC1.9-23-36/210 System	36	210	1.9	23	1"	3"	3 x 90w
3TSC2-80-48/500 System	48	500	2	70	1"	3"	4 x 170w
3TSC3.5-50-48/500 System	48	500	3.5	50	1"	3"	4 x 170w
4TSC5.5-40-48/500 System	48	500	5.5	35	1.25"	3"	4 x 170w
4TSC4-57-48/500 System	48	500	4.0	50	1.25"	3"	4 x 170w
4TSC3.1-66-48/500 System	48	500	3.1	66	1.25"	3"	4 x 170w
4TSC2.5-70-48/500 System	48	500	2.5	70	1.25"	3"	4 x 170w

Performance Chart

Type	Voltage (V)	Power (W)	Max Flow Rate (m³/h)	Max Head (m)	Outlet Size (In)	Diameter (In)	Solar Panel
4TSSC3.5-24-36/300 System	36	300	3.5	24	1.25"	4"	2 x 250w
4TSSC4-62-48/500 System	48	500	4	62	1.25"	4"	4 x 170w
4TSSC7.5-34-48/500 System	48	500	7.5	30	1.25"	4"	4 x 170w

2TSS/3TSS/4TSS

PROFESSIONAL SOLAR PUMP

2TSS/3TSS/4TSS

PROFESSIONAL SOLAR PUMP

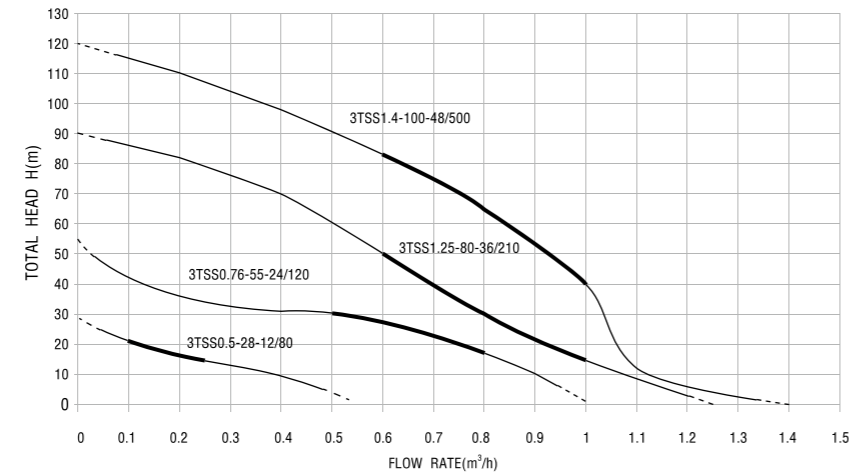
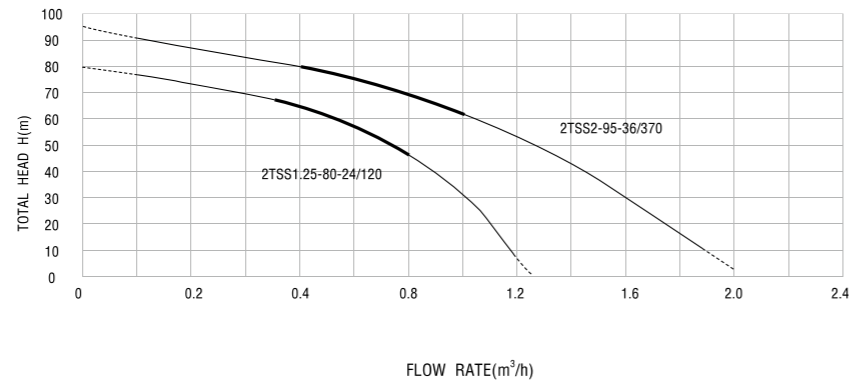


2TSS



3TSS/4TSS

Performance Curve



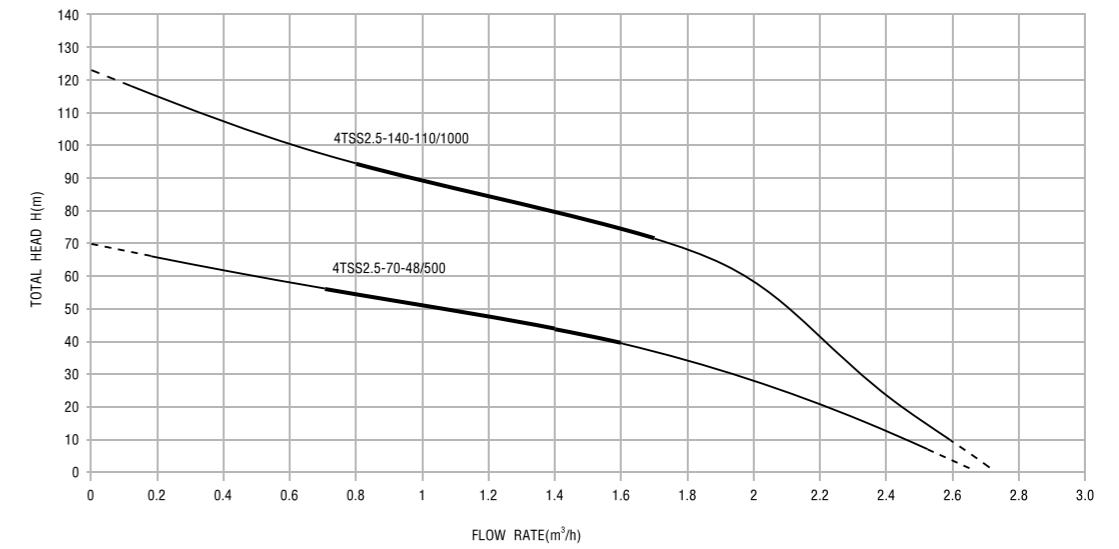
Performance Chart

Type	Q (m³/h)	0	0.2	0.4	0.8	1.2	1.6	2.0
2TSS1.25-80-24/250	H(m)	80	73	67	47	6		
2TSS2-95-36/370	H(m)	95	88	80	68	55	30	4

Performance Chart

Type	Q (m³/h)	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1
3TSS0.5-28-12/80	H(m)	28	21	16	13	9	3						
3TSS0.76-55-24/120	H(m)	55	41	35	33	31	30	25	22	15	10	1	
3TSS1.25-80-36/210	H(m)	90	85	82	75	70	60	50	42	30	17	15	
3TSS1.4-100-48/500	H(m)	120	115	110	105	98	90	82	75	65	55	40	12

Performance Curve



Performance Chart

Type	Q (m³/h)	0	0.4	0.8	1.2	1.6	2	2.4	2.6
4TSS2.5-70-48/500	H(m)	70	62	55	48	40	28	12	4
4TSS2.5-140-110/1000	H(m)	125	108	95	85	75	58	24	8

Pump Performance

Type	Voltage (v)	Power (w)	Max Flow Rate (m³/h)	Max Head (m)	Outlet Size (In)	Diameter (In)
2TSS1.25-80-24/250	24	250	1.25	80	1/2"	2"
2TSS2-95-36/370	36	370	2	95	1/2"	2"
3TSS0.5-28-12/80	12	80	0.5	28	3/4"	3"
3TSS0.76-55-24/120	24	120	0.76	55	3/4"	3"
3TSS1.25-80-36/210	36	210	1.25	90	3/4"	3"
3TSS1.4-100-48/500	48	500	1.4	120	3/4"	3"
4TSS2.5-70-48/500	48	500	2.5	70	1"	4"
4TSS2.5-140-110/1000	110	1000	2.5	125	1"	4"

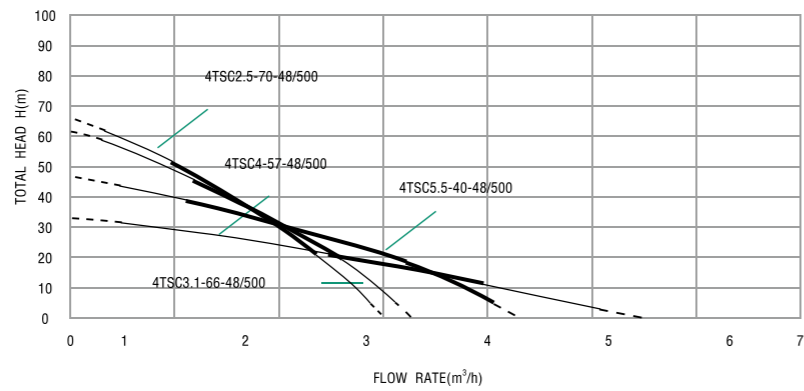
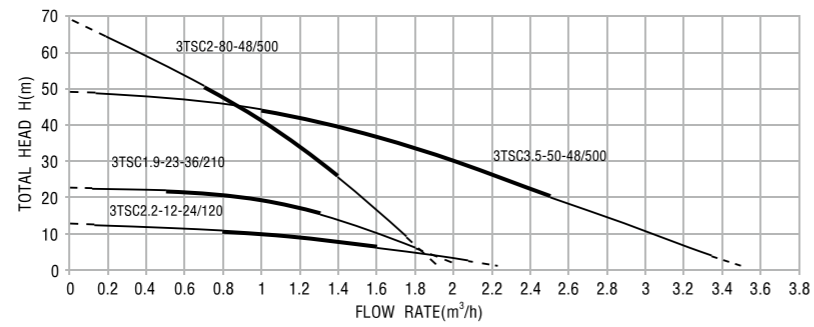
3TSC/4TSC

PROFESSIONAL SOLAR PUMP

3TSC/4TSC

PROFESSIONAL SOLAR PUMP

Performance Curve



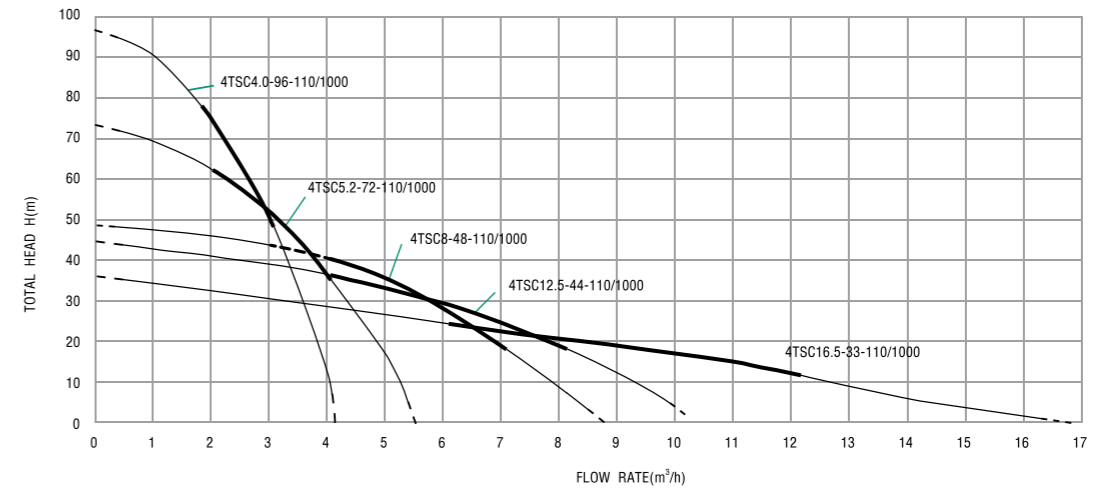
Performance Chart

Type	Q (m³/h)	0	0.4	0.8	1.2	1.6	2	2.4	2.8	3.2
3TSC2.2-12-24/120	H(m)	12	11	10	9	6	4			
		23	22	21	17	10				
		70	60	47	35	16				
		50	48	46	42	37	30	22	15	7

Performance Chart

Type	Q (m³/h)	0	1	2	3	4	5	6
4TSC5.5-40-48/500	H(m)	35	33	28	23	16	9	2
4TSC4-57-48/500		50	41	31	20	1		
4TSC3.1-66-48/500		60	48	30	2			
4TSC2.5-70-48/500		70	51	28				

Performance Curve



Performance Chart

Type	Q (m³/h)	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
4TSC4.0-96-110/1000	H(m)	96	90	75	50	10										
4TSC5.2-72-110/1000		72	69	62	52	36	16									
4TSC8-48-110/1000		49	48	47	46	42	35	27	16	4						
4TSC12.5-44-110/1000		44	43	41	39	37	33	29	25	18	11	2				
4TSC16.5-33-110/1000		36	34	32	30	28	26	24	22	21	19	17	15	12	9	5

Pump Performance

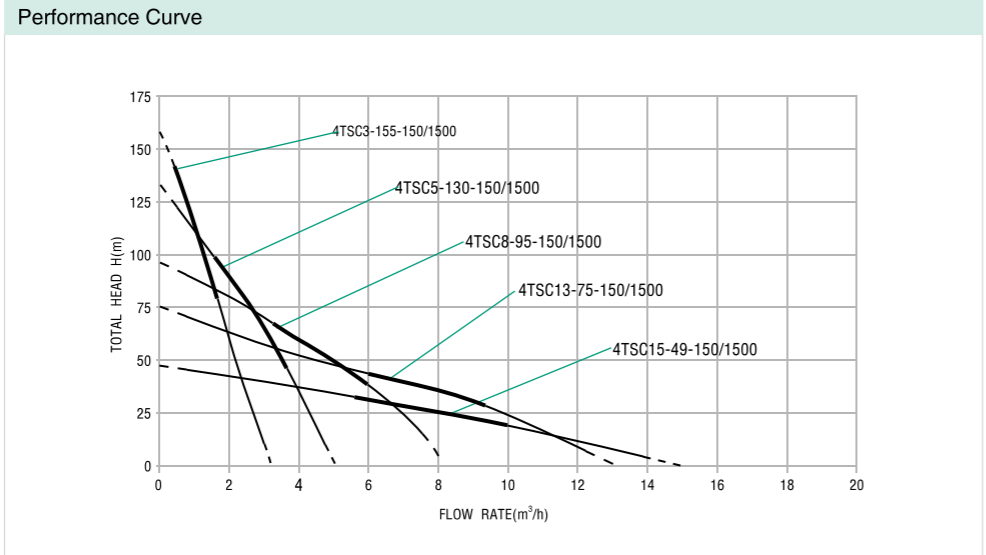
Type	Voltage (v)	Power (w)	Max Flow Rate (m³/h)	Max Head (m)	Outlet Size (In)	Diameter (In)
3TSC2.2-12-24/120	24	120	2.2	12	1"	3"
3TSC1.9-23-36/210	36	210	1.9	23	1"	3"
3TSC2-80-48/500	48	500	2	70	1"	3"
3TSC3.5-50-48/500	48	500	3.5	50	1"	3"
4TSC5.5-40-48/500	48	500	5.5	35	1.25"	4"
4TSC4-57-48/500	48	500	4.0	50	1.25"	4"
4TSC3.1-66-48/500	48	500	3.1	60	1.25"	4"
4TSC2.5-70-48/500	48	500	2.5	70	1.25"	4"
4TSC4.0-96-110/1000	110	1000	4.0	96	1.25"	4"
4TSC5.2-72-110/1000	110	1000	5.2	72	1.25"	4"
4TSC8-48-110/1000	110	1000	8.0	48	2"	4"
4TSC12.5-44-110/1000	110	1000	12.5	44	2"	4"
4TSC16.5-33-110/1000	110	1000	16.5	33	2"	4"



Motor filled with oil

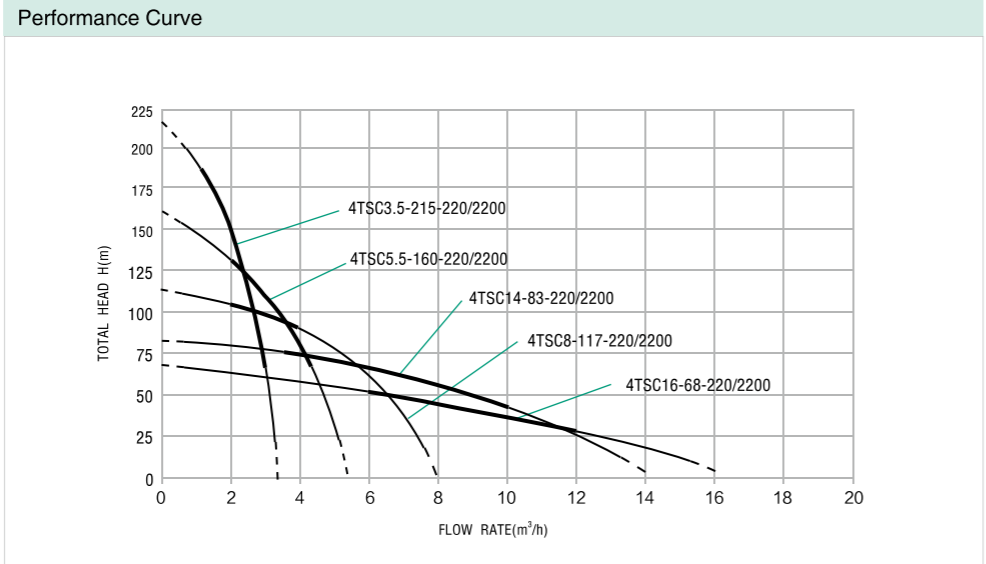
4TSC

PROFESSIONAL SOLAR PUMP



Performance Chart

Type	Q (m³/h)	0	2	4	6	8	10	12	14
4TSC3-155-150/1500	H(m)	155	60						
4TSC5-130-150/1500		130	91	35					
4TSC8-95-150/1500		95	80	60	37	2			
4TSC13-75-150/1500		75	62	52	40	35	23	10	
4TSC15-49-150/1500		49	43	37	32	26	21	12	5

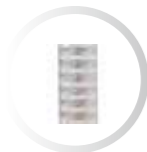


Performance Chart

Type	Q (m³/h)	0	2	4	6	8	10	12	14	16
4TSC3.5-215-220/2200	H(m)	215	150							
4TSC5.5-160-220/2200		160	132	78						
4TSC8-117-220/2200		117	113	87	56	2				
4TSC14-83-220/2200		83	79	71	66	57	40	21	2	
4TSC16-68-220/2200		68	63	56	51	44	36	28	17	2



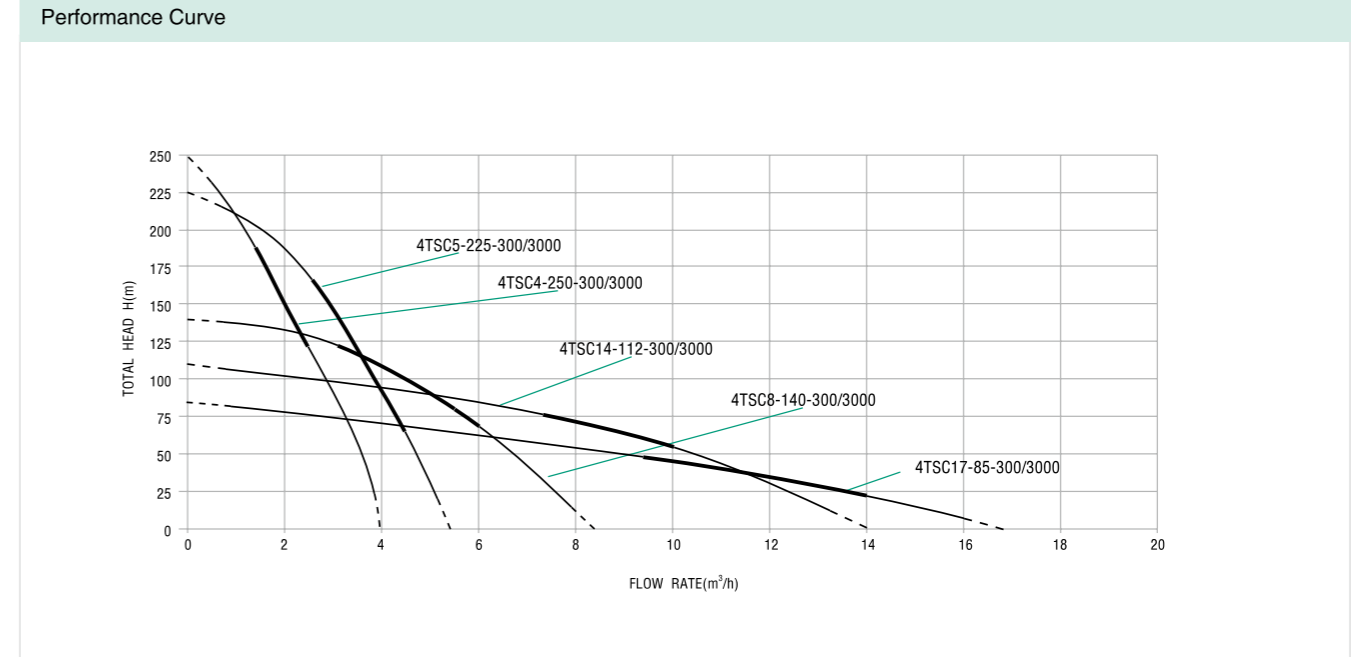
Motor filled with oil



150V/220V/300V Controller
AC Function Available

4TSC

PROFESSIONAL SOLAR PUMP



Performance Chart

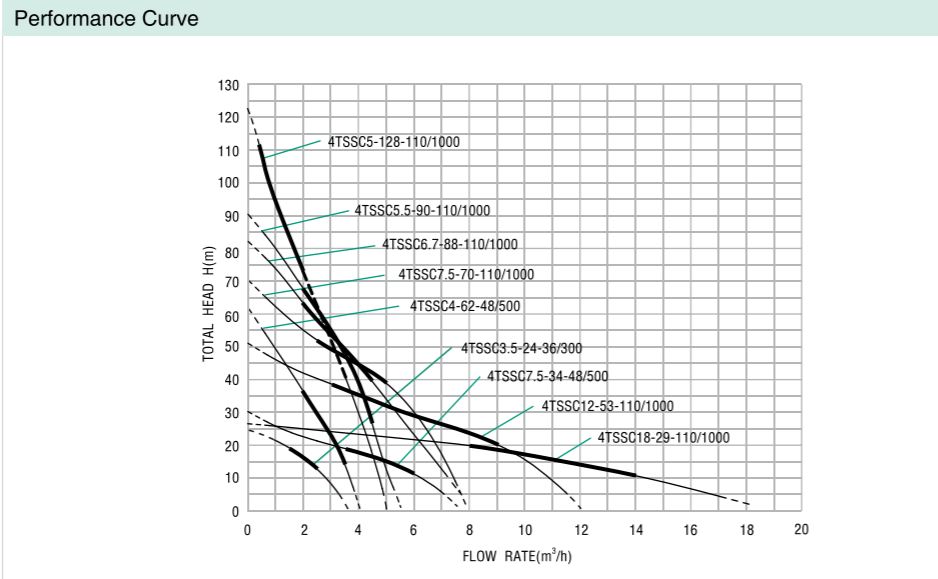
Type	Q (m³/h)	0	2	4	6	8	10	12	14	16
4TSC4-250-300/3000	H(m)	250	150	5						
4TSC5-225-300/3000		225	190	93						
4TSC8-140-300/3000		140	135	110	71	22				
4TSC14-112-300/3000		112	103	93	86	74	55	25	2	
4TSC17-85-300/3000		85	79	72	65	57	47	35	22	2

Pump Performance

Type	Voltage (v)	Power (w)	Max Flow Rate (m³/h)	Max Head (m)	Outlet Size (In)	Diameter (In)
4TSC3-155-150/1500	150	1500	3	155	1.25"	4"
4TSC5-130-150/1500	150	1500	5	130	1.25"	4"
4TSC8-95-150/1500	150	1500	8	95	2"	4"
4TSC13-75-150/1500	150	1500	13	75	2"	4"
4TSC15-49-150/1500	150	1500	15	49	2"	4"
4TSC3.5-215-220/2200	220	2200	3.5	215	1.25"	4"
4TSC5.5-160-220/2200	220	2200	5.5	160	1.25"	4"
4TSC8-117-220/2200	220	2200	8	117	2"	4"
4TSC14-83-220/2200	220	2200	14	83	2"	4"
4TSC16-68-220/2200	220	2200	16	68	2"	4"
4TSC4-250-300/3000	300	3000	4	250	1.25"	4"
4TSC5-225-300/3000	300	3000	5	225	1.25"	4"
4TSC8-140-300/3000	300	3000	8	140	2"	4"
4TSC14-112-300/3000	300	3000	14	112	2"	4"
4TSC17-85-300/3000	300	3000	17	85	2"	4"

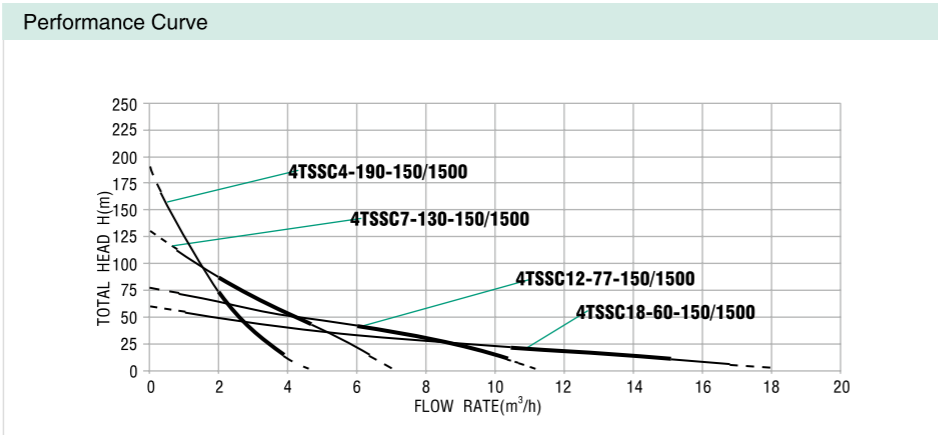
4TSSC

PROFESSIONAL SOLAR PUMP



Performance Chart

Type	Q (m³/h)	0	2	4	6	8	10	12	14	16	18
4TSSC3.5-24-36/300	H(m)	24	14								
4TSSC4-62-48/500		62	36	2							
4TSSC7.5-34-48/500		30	23	17	12						
4TSSC5-128-110/1000		123	65	2							
4TSSC5.5-90-110/1000		90	67	42							
4TSSC6.7-88-110/1000		82	63	46	23						
4TSSC7.5-70-110/1000		70	55	44	30						
4TSSC18-29-110/1000		29	26	23	21	20	18	13	11	7	3
4TSSC12-53-110/1000		53	43	35	28	25	16	2			

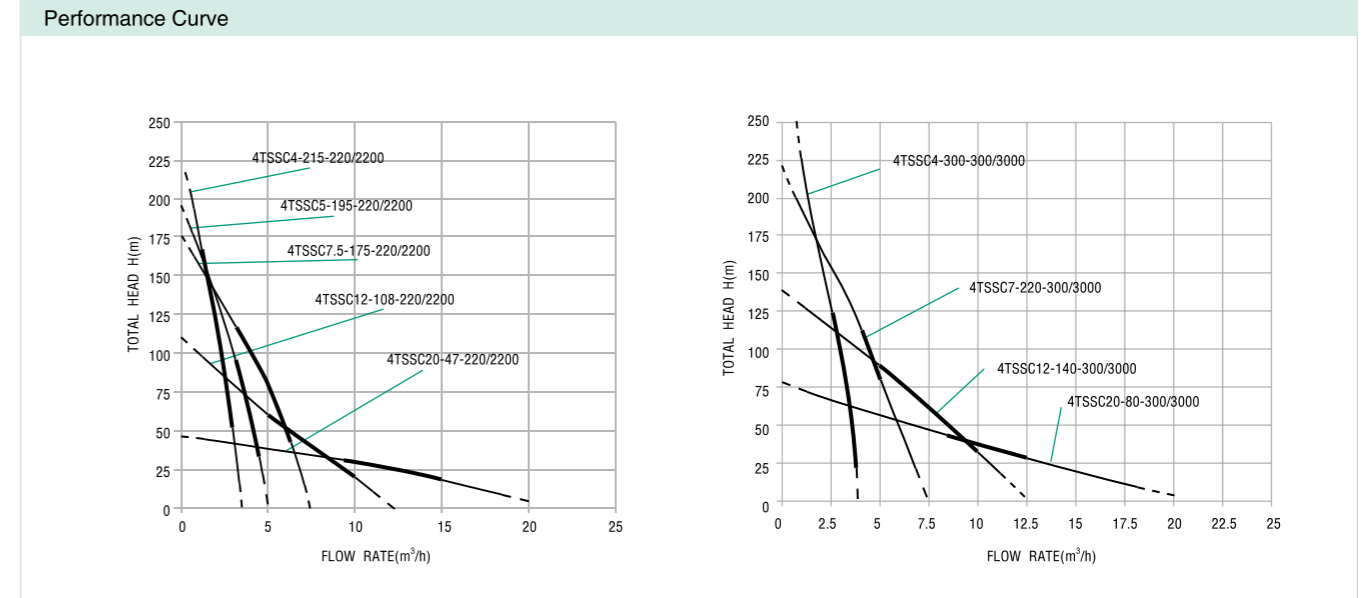


Performance Chart

Type	Q (m³/h)	0	2	4	6	8	10	12	14	16	18
4TSSC4-190-150/1500	H(m)	190	73	10							
4TSSC7-130-150/1500		130	80	53	27						
4TSSC12-77-150/1500		77	65	52	38	30	15				
4TSSC18-60-150/1500		60	50	40	34	29	24	20	15	10	3

4TSSC

PROFESSIONAL SOLAR PUMP



Performance Chart

Type	Q (m³/h)	0	5	10	15	20	25
4TSSC4-215-220/2200	H(m)	215					
4TSSC5-195-220/2200		195	1				
4TSSC12-108-220/2200		108	60	22			
4TSSC7.5-175-220/2200		175	80				
4TSSC20-47-220/2200		47	40	32	20	5	

Performance Chart

Type	Q (m³/h)	0	2.5	5	7.5	10	12.5	15	17.5	20
4TSSC4-300-300/3000	H(m)	300	130							
4TSSC7-220-300/3000		220	155	89	3					
4TSSC12-140-300/3000		140	115	90	60	47	3			
4TSSC20-80-300/3000		80	70	57	47	37	30	22	12	5

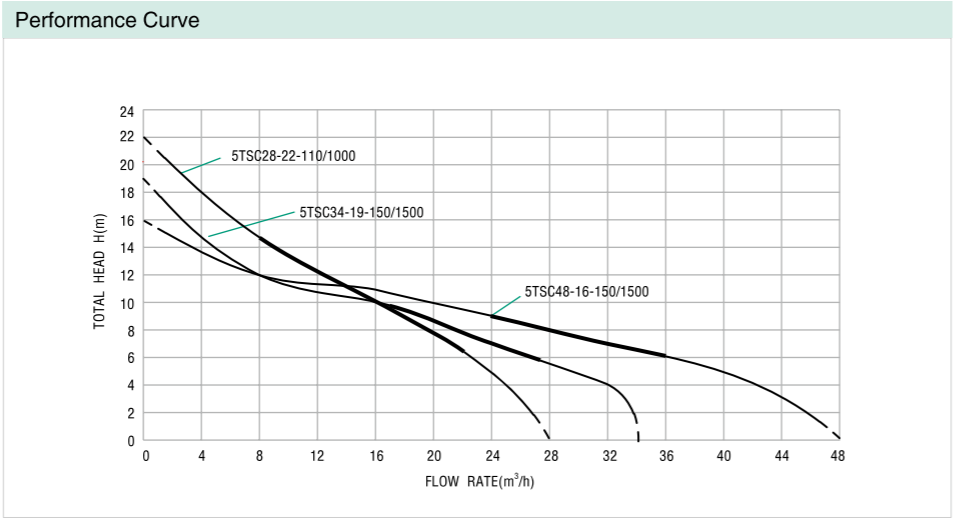
Pump Performance

Type	Voltage (v)	Power (w)	Max Flow Rate (m³/h)	Max Head (m)	Outlet Size (In)	Diameter (In)
4TSSC3.5-24-36/300	36	300	3.5	24	1.25"	4"
4TSSC4-62-48/500	48	500	4	62	1.25"	4"
4TSSC7.5-34-48/500	48	500	7.5	30	1.25"	4"
4TSSC5-128-110/1000	110	1000	5	123	1.25"	4"
4TSSC5.5-90-110/1000	110	1000	5.5	90	1.25"	4"
4TSSC6.7-88-110/1000	110	1000	6.7	82	1.5"	4"
4TSSC7.5-70-110/1000	110	1000	7.5	70	1.5"	4"
4TSSC18-29-110/1000	110	1000	18	29	2"	4"
4TSSC12-53-110/1000	110	1000	12	53	2"	4"
4TSSC4-190-150/1500	150	1500	4	190	1.25"	4"
4TSSC7-130-150/1500	150	1500	7	130	1.5"	4"
4TSSC12-77-150/1500	150	1500	12	77	2"	4"
4TSSC18-60-150/1500	150	1500	18	60	2"	4"
4TSSC4-215-220/2200	220	2200	4	215	1.25"	4"
4TSSC5-195-220/2200	220	2200	5	195	1.25"	4"
4TSSC12-108-220/2200	220	2200	12	108	2"	4"
4TSSC7.5-175-220/2200	220	2200	7.5	175	1.5"	4"
4TSSC20-47-220/2200	220	2200	20	47	2"	4"
4TSSC4-300-300/3000	300	3000	4	300	1.25"	4"
4TSSC7-220-300/3000	300	3000	7	220	1.5"	4"
4TSSC12-140-300/3000	300	3000	12	140	2"	4"
4TSSC20-80-300/3000	300	3000	20	80	2"	4"



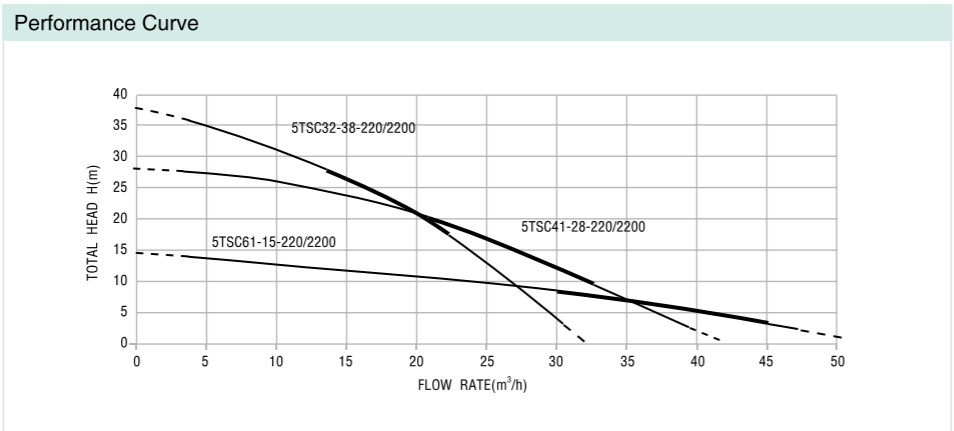
5TSC

PROFESSIONAL SOLAR PUMP



Performance Chart

Type	Q (m³/h)	0	8	16	24	32	40
5TSC28-22-110/1000	H(m)	22	15	10	5		
	H(m)	16	12	11	9	7	5
5TSC34-19-150/1500	H(m)	19	12	10	7	4	



Performance Chart

Type	Q (m³/h)	0	5	10	15	20	25	30	35	40	45	50	55
5TSC32-38-220/2200	H(m)	38	35	31	27	21	11	2					
	H(m)	28	26	25	23	20	17	13	8	3			
5TSC41-28-220/2200	H(m)	15	14	13	12	11	10	8	7	6	3	2	1
	H(m)	15	14	13	12	11	10	8	7	6	3	2	1

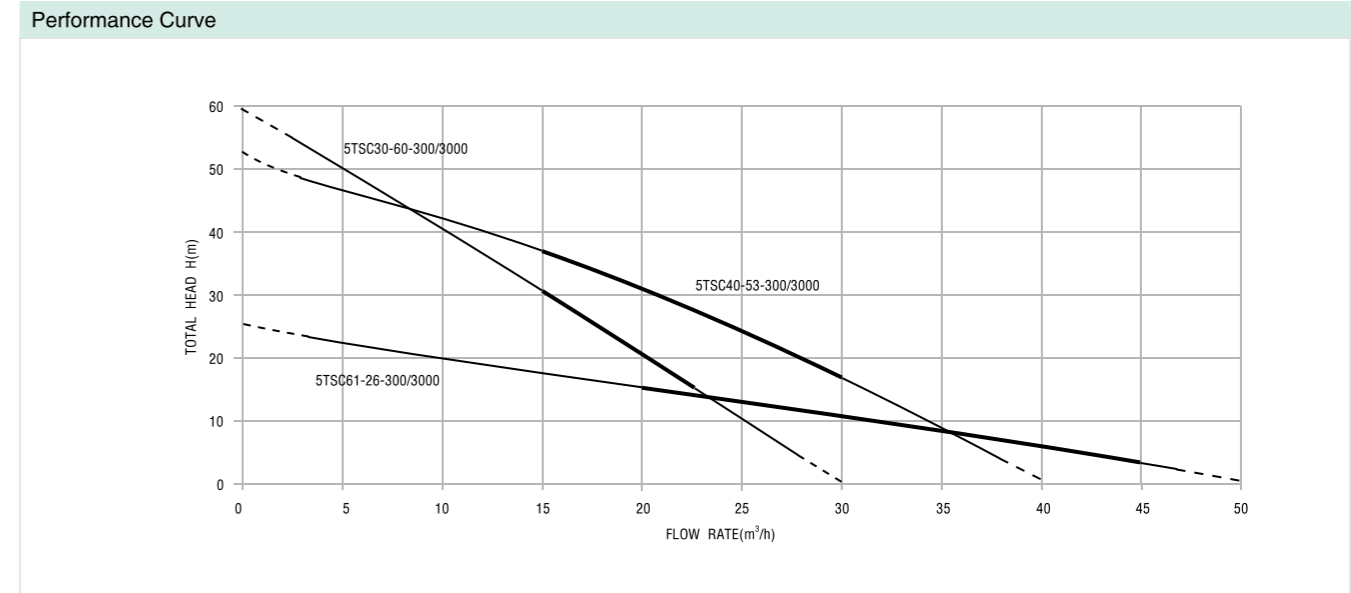


150V/220V/300V Controller
AC Function Available

Motor filled with oil

5TSC

PROFESSIONAL SOLAR PUMP



Performance Chart

Type	Q (m³/h)	0	5	10	15	20	25	30	35	40	45	50
5TSC30-60-300/3000	H(m)	60	50	40	30	20	10	3				
	H(m)	53	47	45	40	30	24	17	10			
5TSC61-26-300/3000	H(m)	26	23	20	18	16	14	12	10	8	5	3
	H(m)	26	23	20	18	16	14	12	10	8	5	3

Pump Performance

Type	Voltage (v)	Power (w)	Max Flow Rate (m³/h)	Max Head (m)	Outlet Size (In)	Diameter (In)
5TSC28-22-110/1000	110	1000	28	22	3"	5"
5TSC48-16-150/1500	150	1500	48	16	3"	5"
5TSC34-19-150/1500	150	1500	34	19	3"	5"
5TSC32-38-220/2200	220	2200	32	38	3"	5"
5TSC41-28-220/2200	220	2200	41	28	3"	5"
5TSC61-15-220/2200	220	2200	61	15	3"	5"
5TSC30-60-300/3000	300	3000	30	60	3"	5"
5TSC40-53-300/3000	300	3000	40	53	3"	5"
5TSC61-26-300/3000	300	3000	61	26	3"	5"

TSSP

PROFESSIONAL SOLAR PUMP

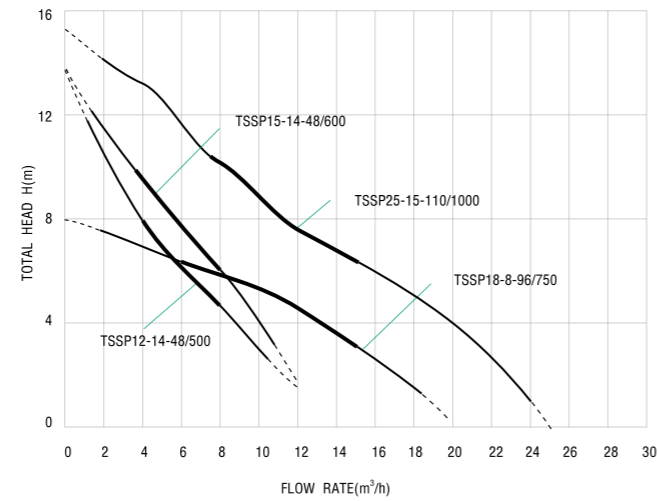


BUILT-IN CONTROLLER



- Suction / max. positive inlet lift: 8.0 m
- Max. Casing pressure: 2.5 bar
- Max. Water temperature: +60°C

Performance Curve



Performance Chart

Type	Q (m³/h)	0	4	8	12	16	20	24
TSSP12-14-48/500	H(m)	14	8	5	2			
TSSP15-14-48/600		14	10	6	2			
TSSP18-8-96/750		8	7	6	5	3	2	
TSSP25-15-110/1000		15	13	10	8	6	4	1

Pump Performance

Type	Voltage (v)	Power (w)	Max Flow Rate (m³/h)	Max Head (m)	Inlet/Outlet (In)
TSSP12-14-48/500	48	500	12	14	2"X2"
TSSP15-14-48/600	48	600	15	14	2"X2"
TSSP18-8-96/750	96	750	18	8	3"X3"
TSSP25-15-110/1000	110	1000	25	15	3"X3"

TSQB/TSSGJ

PROFESSIONAL SOLAR PUMP



TSQB

Stainless steel pump body



24V/36V/48V Controller



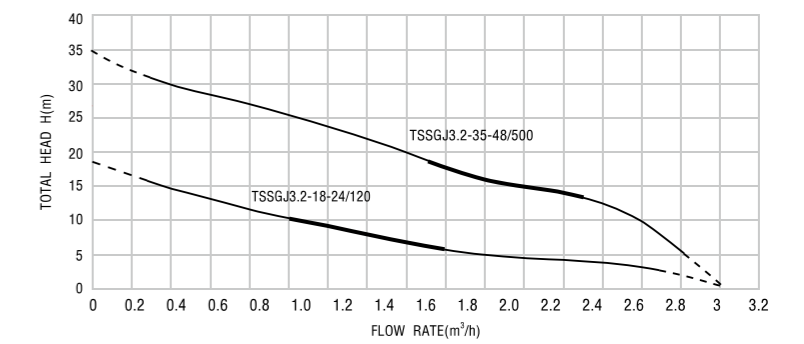
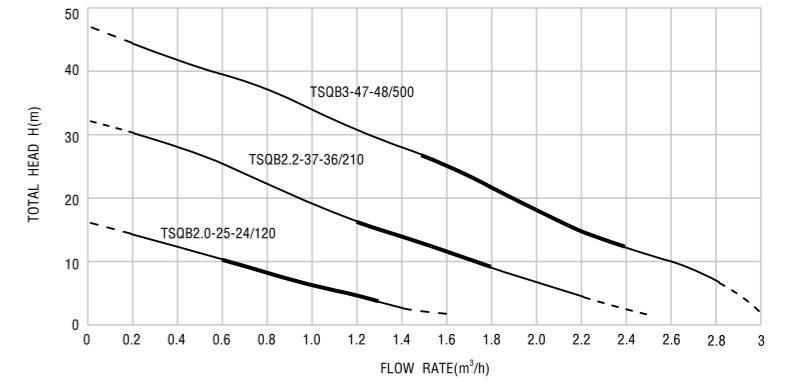
TSSGJ

Stainless steel pump body



24V/48V Controller

Performance Curve



Performance Chart

Type	Q (m³/h)	0	0.4	0.8	1.2	1.6	2.0	2.4	2.8	3.2
TSQB2.0-25-24/120	H(m)	15	12	8	2					
TSQB2.2-37-36/210		32	28	22	12	7	3			
TSQB3-47-48/500		46	41	37	25	18	12			
TSSGJ3.2-18-24/120		18	14	12	9	7	5	4	3	2
TSSGJ3.2-35-48/500		35	30	27	23	20	16	14	10	2

Pump Performance

Type	Voltage (v)	Power (w)	Max Flow Rate (m³/h)	Max Head (m)	Inlet/Outlet (In)
TSQB2.0-25-24/120	24	120	2.0	15	1" X 1"
TSQB2.2-37-36/210	36	210	2.5	32	1" X 1"
TSQB3-47-48/500	48	500	3.3	46	1" X 1"
TSSGJ3.2-18-24/120	24	120	3.2	18	1" X 1"
TSSGJ3.2-35-48/500	48	500	3.2	35	1" X 1"

SOLAR PANELS

THE SELECTION OF SOLAR PANELS FOR SOLAR PUMPS(RECOMMENDED)

PUMP POWER (w)	SOLAR PANEL (w)	SOLAR PANEL QUANTITY	PEAK VOLTAGE VMP (v)	OPEN CIRCUIT VOLTAGE VOC (v)	PANEL CONNECTION
80	110	110W*1	17-18	21-22	
120	160	80W*2	17-18	21-22	2 Pieces in series connection directly
210	270	90W*3	17-18	21-22	3 Pieces in series connection directly
500	680	85W*8	17-18	21-22	each 4 Pieces in series connection, 2 groups in parallel connection
1000 (screw pump)	1400	100W*14	17-18	21-22	each 7 Pieces in series connection, 2 groups in parallel connection
1000 (plastic impeller & S/S impeller)	1600	100W*16	17-18	21-22	each 8 Pieces in series connection, 2 groups in parallel connection
1500	2300	230*10	30.5	36.8	each 5 Pieces in series connection, 2 groups in parallel connection
2200	3500	250*14	35	43	each 7 Pieces in series connection, 2 groups in parallel connection
3000	4500	250*18	35	43	each 9 Pieces in series connection, 2 groups in parallel connection

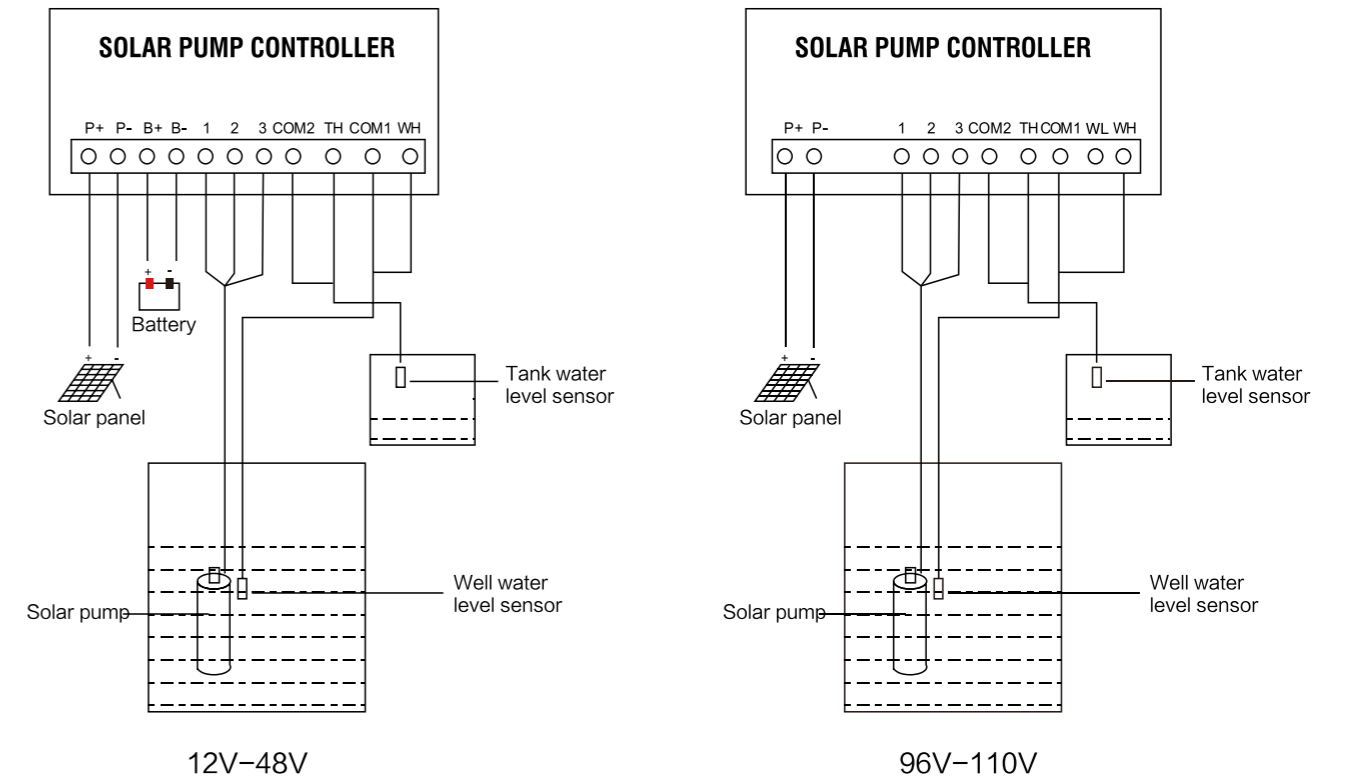
THE SELECTION OF SOLAR PANELS FOR SOLAR PUMPS

PUMP VOLTAGE (v)	SOLAR PANEL (w)	PEAK VOLTAGE VMP(v)	OPEN CIRCUIT VOLTAGE VOC(v)
12V	≥ 1.3XPUMP POWER	≥ 15	<50
24V	≥ 1.3XPUMP POWER	≥ 30	<50
36V	≥ 1.3XPUMP POWER	≥ 45	<100
48V	≥ 1.3XPUMP POWER	≥ 60	<100
110V	≥ 1.5XPUMP POWER	≥ 112	<200
150V	≥ 1.5XPUMP POWER	≥ 150	<250
220V	≥ 1.5XPUMP POWER	≥ 220	<350
300V	≥ 1.5XPUMP POWER	≥ 300	<450

The performance information on catalogue is the ex-works testing result for your reference.

The exact performance depends on actual situation like sunshine condition /solar panel specification/solar panel efficiency, etc...the performance difference is allowed.

INSTALLATION SYSTEM



WARNING

- After the pump works 2 minutes, the controller will automatically self-test about 30 seconds, and then the pump will restart, this is normal situation.
- Note: If you want the battery fully charged, please choose the battery mode "II" and let the pump stop running at the same time. (There are 2 conditions that the pump will stop as following: 1>The tank was full. 2>Disconnect COM1 & WH terminal.)

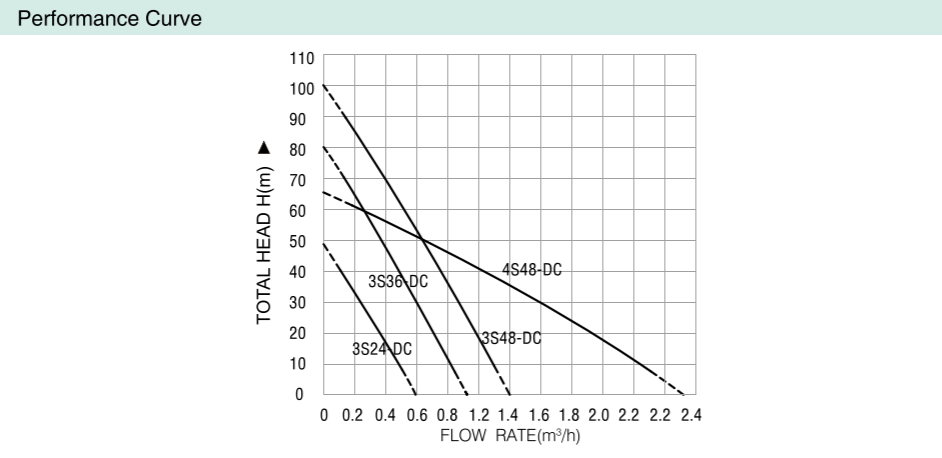
WARNING The limited range for open circuit voltage of solar panel:

MODEL	RATED VOLTAGE	MAX OPEN CIRCUIT VOLTAGE	BATTERY	MAX LOADED CURRENT(A)
A	17.5V	30V	12V	12
B	24V	50V	24V	12
C	36V	80V	36V	12
D	48V	100V	48V	12

3S/4S

ECONOMICAL SOLAR PUMP

- Advantage**
- Permanent magnetic DC Brushless Motors
 - Stainless steel rotors, screws
 - Oil filled motors
 - Motor efficiency improved 15%–30%
 - NSK Bearing
 - Simple structure with internal controller
 - Easy Installation

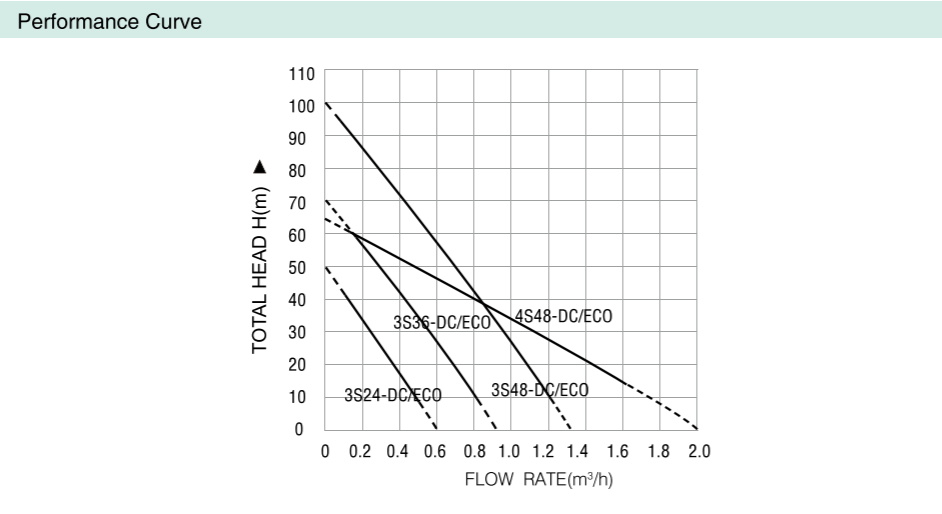


Pump Performance

Model	Voltage (V)	Power (w)	Max Flow Rate (m³/h)	Max Head (m)	Outlet Size (In)	Diameter (In)
3S24-DC	24	150	0.6	50	3/4"	3"
3S36-DC	36	270	0.9	80	3/4"	3"
3S48-DC	48	600	1.2	100	3/4"	3"
4S48-DC	48	600	2.3	65	1"	4"



S-DC



Pump Performance

Model	Voltage (V)	Power (w)	Max Flow Rate (m³/h)	Max Head (m)	Outlet Size (In)	Diameter (In)
3S24-DC/ECO	24	150	0.6	50	1"	3"
3S36-DC/ECO	36	430	0.9	70	1"	3"
3S48-DC/ECO	48	500	1.3	100	1"	3"
4S48-DC/ECO	48	700	2	65	1"	4"

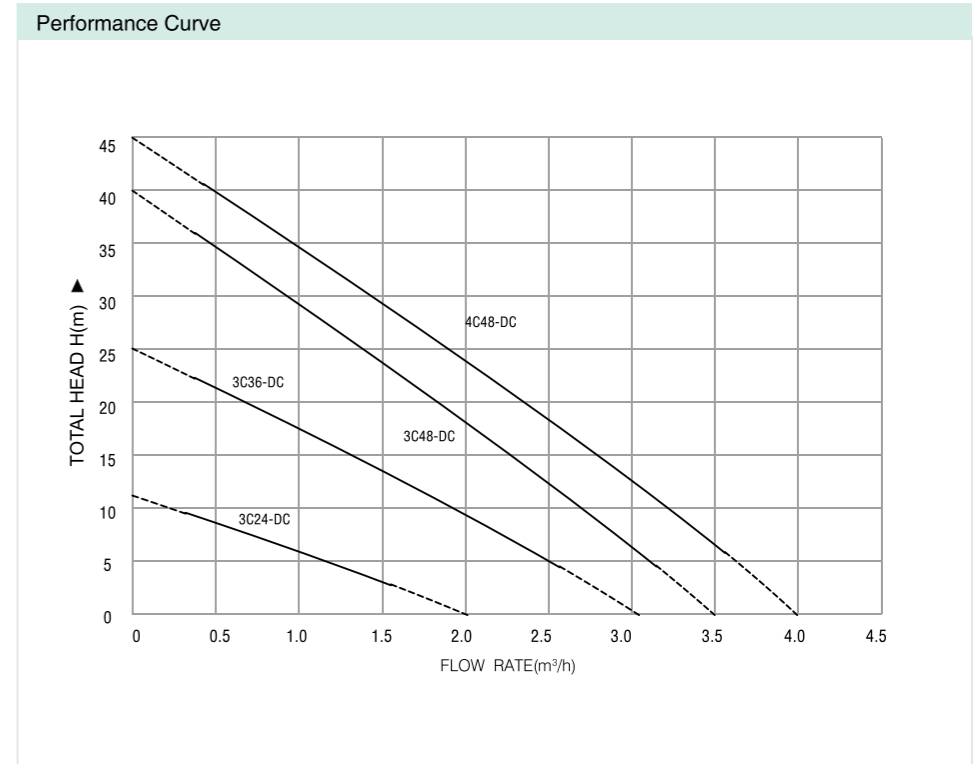


S-DC/ECO

3C/4C

ECONOMICAL SOLAR PUMP

- Advantage**
- Permanent magnetic DC Brushless Motors
 - Stainless steel rotors, screws
 - Oil filled motors
 - Motor efficiency improved 15%–30%
 - NSK Bearing
 - Simple structure with internal controller
 - Easy Installation



Pump Performance

Model	Voltage (V)	Power (w)	Max Flow Rate (m³/h)	Max Head (m)	Outlet Size (In)	Diameter (In)
3C24-DC	24	120	2	11	1"	3"
3C36-DC	36	300	3.2	25	1"	3"
3C48-DC	48	600	3.5	40	1"	3"
4C48-DC	48	600	4	45	1.25"	4"



QB/SU

ECONOMICAL SOLAR PUMP

Advantage

- Permanent magnetic DC Brushless Motors
- Electrophoresis for motor and pump body
- NSK bearing
- Silicon carbide mechanical seal
- Motor efficiency improved 15%–30%

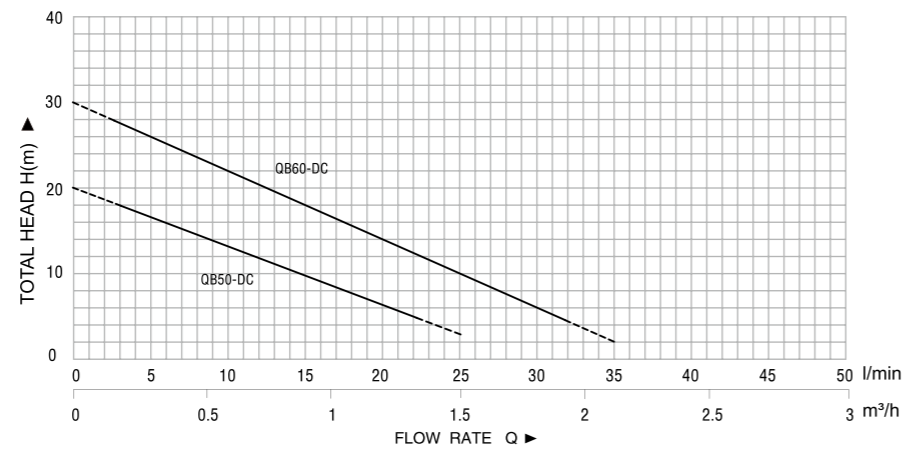


QB50-DC
QB60-DC



MC4 connector for easy panel connecting

Performance Curve



Pump Performance

Model	DC voltage	Power		Inlet/Outlet (In)	Q(m³/h)	Q(l/min)							
	V	kW	HP			0	0.3	0.6	0.9	1.2	1.5	1.8	2.1
QB50-DC	12	0.22	0.3	1**1"	H(m)	0	5	10	15	20	25	30	35
QB60-DC	24	0.37	0.5	1**1"		20	17	15	10	5	2		
						30	27	25	18	14	11	5	2

SU-DC

ECONOMICAL SOLAR PUMP

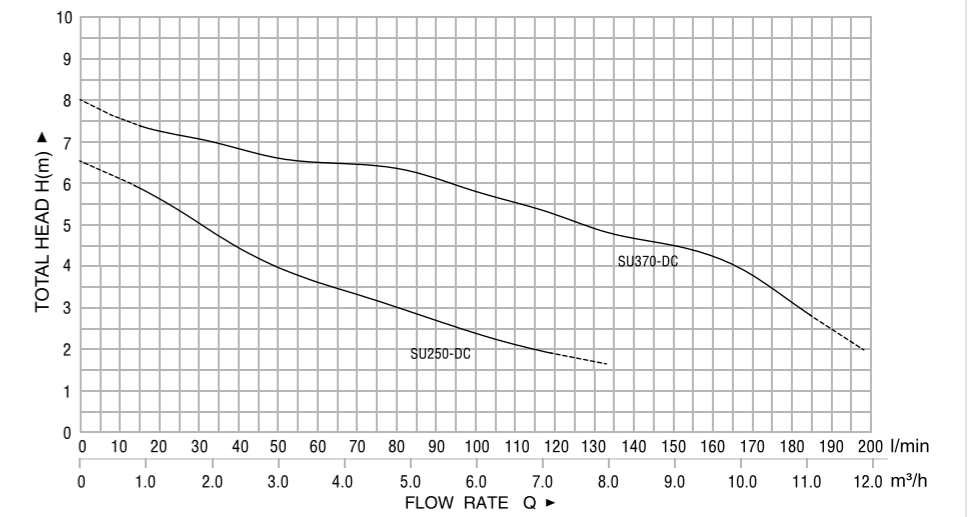
Advantage

- Permanent magnetic DC Brushless Motors
- Electrophoresis for motor and pump body
- NSK bearing
- Silicon carbide mechanical seal
- Motor efficiency improved 15%–30%



MC4 connector for easy panel connecting

Performance Curve

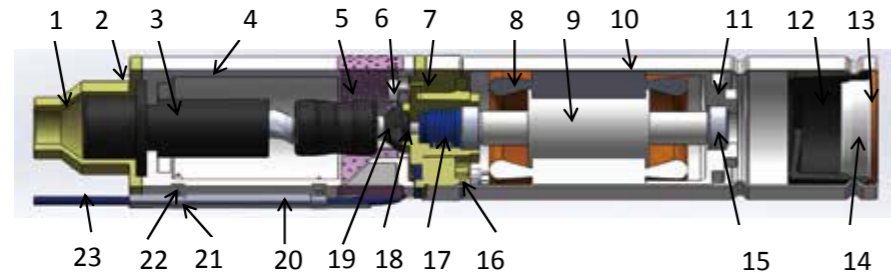


Pump Performance

Model	DC voltage	Power		Inlet/Outlet (In)	Q(m³/h)	Q(l/min)												
	V	kW	HP			0	1	2	3	4	5	6	7	8	9	10	11	12
SU250-DC	12	0.25	0.33	1.5"	H(m)	0	17	33	50	67	83	100	117	133	150	167	183	200
SU370-DC	24	0.37	0.5	1.5"		6.5	5.8	5	4	3.5	3	2.5	2.2	1.6				
						7.5	7.3	7	6.8	6.5	6.3	6	5.5	5	4.5	4	3	1.8

STRUCTURE CHART

TSS

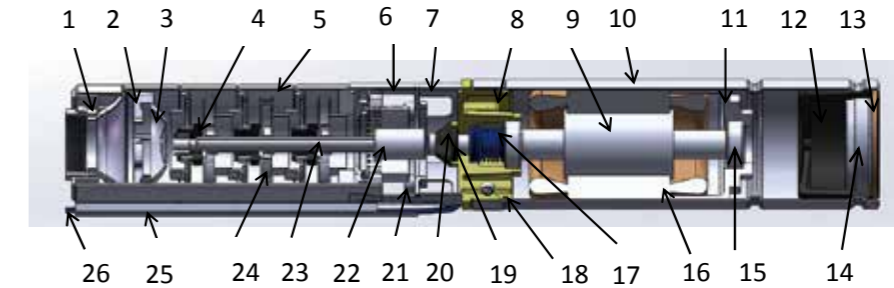


No. Parts

1 Outlet	13 Clamp
2 Screw	14 Gland Cover
3 Helical Rotor	15 bearing
4 Pump Body	16 O ring
5 Filter	17 Mechanical Seal
6 Bolt	18 Seal Static Ring
7 Upper bearing seat	19 Sandproof Shield
8 Stator	20 Locating Sleeve
9 Rotor	21 Cable Clamp
10 Motor Body	22 Screw
11 Lower bearing seat	23 Cable
12 Membrane	

STRUCTURE CHART

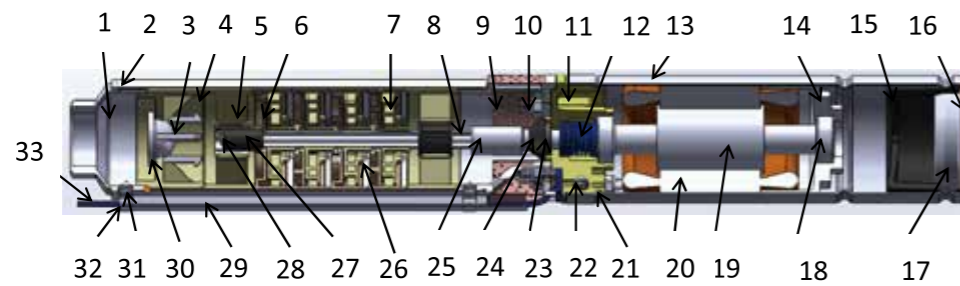
TSSC



No. Parts

1 Outlet	12 Membrane	23 Shaft
2 Clamp	13 Clamp	24 SS impeller
3 Valve	14 Gland Cover	25 Locating Sleeve
4 Rubber Sleeve	15 Bearing	26 Cable
5 Middle diffusor	16 Stator	
6 Lower diffusor	17 Mechanical Seal	
7 Inlet	18 O ring	
8 Upper bearing seat	19 Seal Static Ring	
9 Rotor	20 Sandproof Shield	
10 Motor body	21 Screw	
11 Lower bearing seat	22 Coupling	

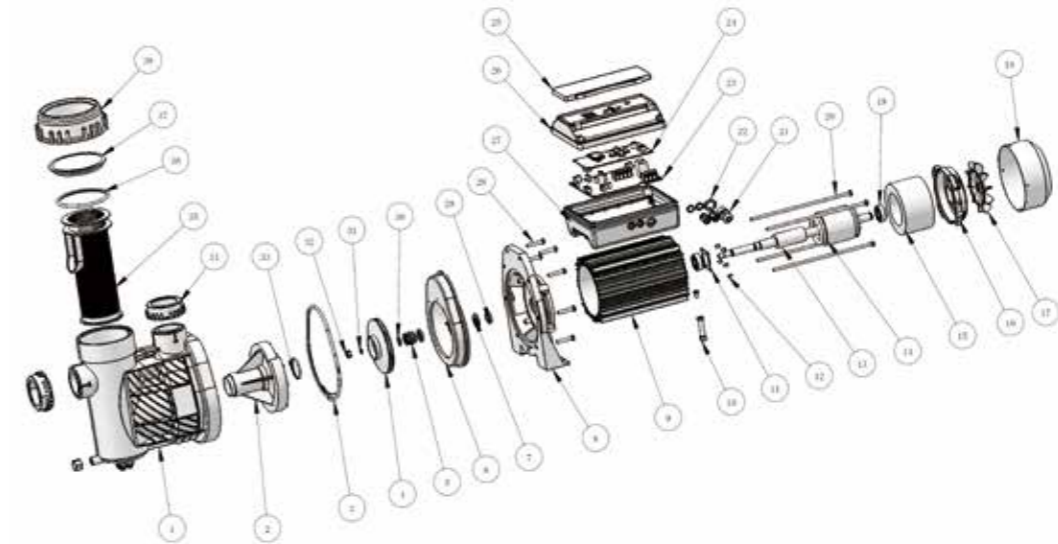
TSC



No. Parts

1 Outlet	12 Mechanical Seal	23 Seal Static Ring
2 O ring	13 Motor Body	24 Sandproof Shield
3 Valve	14 Lower bearing seat	25 Coupling
4 Valve Seat	15 Membrane	26 Middle Plate
5 Holder	16 Clamp	27 Rubber Bearing
6 Diffusor	17 Gland Cover	28 Bolt
7 Plastic Impeller	18 Bearing	29 Locating Sleeve
8 Hexagonal Axis	19 Rotor	30 O ring
9 Filter	20 Stator	31 Screw
10 Bolt	21 O ring	32 Cable Clamp
11 Upper bearing seat	22 Bolt	33 Cable

TSSP



No. Parts

1. Plastic Pump Body	9. Motor Body	17. Fan	25. Controller plastic cover	33. O-Ring
2. Defuser	10. Supporting lug	18. Fan Cover	26. Controller aluminum cover	34. Plastic cover
3. O-Ring	11. Pressing plate	19. Bearing	27. Controller box	35. Filter
4. Impeller	12. Key	20. Bolt	28. Screw	36. O-Ring
5. Mechanical Seal	13. Rotor	21. Cable sheath	29. Stationary seal ring	37. Plastic cover
6. Defuser Cap	14. Coil	22. Screw nut	30. Clasp	38. Plastic nut
7. O-Ring	15. Aluminum ring	23. PCB(down)	31. Spring washer	
8. Adapter	16. Motor Cover	24. PCB(upper)	32. Screw	

4CW

WATER FILLED MOTOR SOLAR PUMP

Spare Parts:



AC/DC Switch (optional)

The pump has an external switch where AC power ,DC power and pump can be connected to the designated terminal to make automatic conversion of AC/DC or manual switch come true.

Main function of the switch:

- 1.AC/DC switchover
- 2.Connect water level sensor to sense the water level, control the pump automatically.



Heat Shrinkable Tube

Screw Driver

Wrench And Screws

Main Parameter:

Power: 100w — 2200w

Input Voltage: DC 90 — 360V

AC 90 — 240V/50Hz, 60Hz

Maximum input voltage of the solar panel: No more than 450Voc

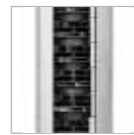
The connection of all solar panels: Series Connection

Current Range: 1.5 — 12A

Speed Range: 500 — 4500rpm

Insulation Class: F

Protection Class: IP 68



SS Impeller



Thrust Bearing

- Water Filled Motor
- Permanent Magnetism
- FOC Control

4CW

WATER FILLED MOTOR SOLAR PUMP

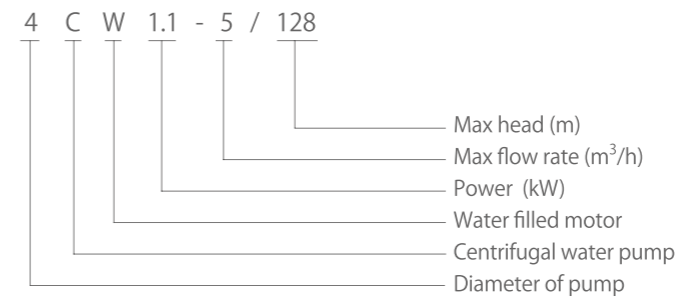
Main Features:

- Permanent magnetism brushless, water filled double shielded motor
- AC/DC convertible. It breaks many bottlenecks of traditional deep well pump.Working voltage: 60-360 VDC or 90-240VAC, 50/60Hz
- An Intelligent internal controller, with **FOC** function
- SS304 pump body and motor body. Using the advanced laser welding machine, components can be well welded.
- Imported bearing. Water-lubricated bearings and thrust bearings.
- Shielding rotor covered with stainless can prevent Magnetic steel from corrosion and oxidation, and the shielding iron core benefits the heat dissipated system
- Soft started operation extends working life of pump
- Working quietly.
- Easy installation.
- Dry running protection
- Overload /under-load protection
- Over-current /under-current protection
- Over-voltage /under-voltage protection
- Phase-lack protection

AC/DC Switch (optional)



Model Instruction



4CW

WATER FILLED MOTOR SOLAR PUMP

Pump Performance

Model	Voltage	Power		Max Flow Rate	Max Head	Outlet Size	Diameter
	V	kW	HP	(m ³ /h)	(m)	(In)	(In)
4CW0.37-4/30	DC:90-360V AC:90-240V/50Hz,60Hz	0.37	0.5	4	30	1.25"	4"
4CW0.37-7/25		0.37	0.5	7	25	1.5"	4"
4CW0.55-4/54		0.55	0.75	4	54	1.25"	4"
4CW0.55-7/40		0.55	0.75	7	40	1.5"	4"
4CW0.75-7/48		0.75	1.0	7	48	1.5"	4"
4CW0.75-4/96		0.75	1.0	4	96	1.25"	4"
4CW1.1-4/126		1.1	1.5	4	126	1.25"	4"
4CW1.1-12/45		1.1	1.5	12	45	2"	4"
4CW1.1-13/40		1.1	1.5	13	40	2"	4"
4CW1.5-6/120		1.5	2.0	6	120	1.5"	4"
4CW1.5-13/70		1.5	2.0	13	70	2"	4"
4CW2.2-12/80		2.2	3.0	12	80	2"	4"
4CW2.2-18/46		2.2	3.0	18	46	2"	4"

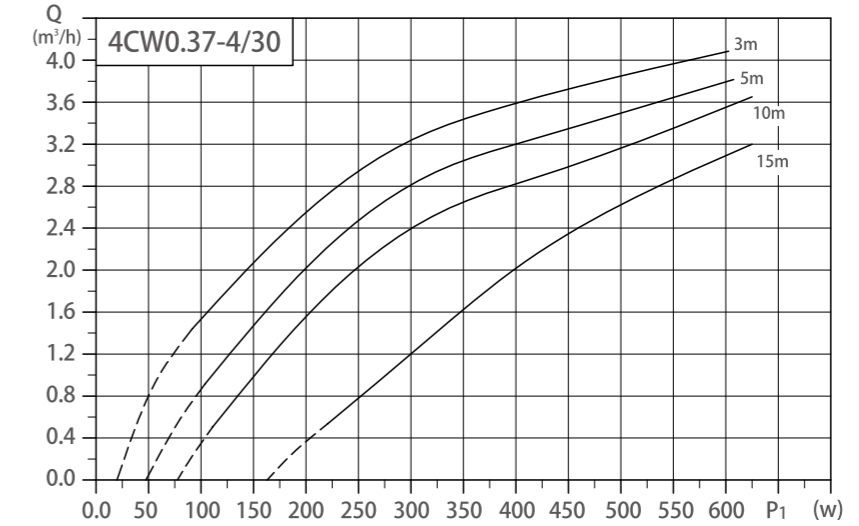
The selection of solar panels for solar pumps

Max.Pump Power(kw)	Max.Motor Power(HP)	Solar Panel(kw)	Recommend Solar Panel	Connection	Max Voc
0.37	0.5	1.5 x pump power	250W x 2	in series	380
0.55	0.75	1.5 x pump power	250W x 3	in series	380
0.75	1	1.5 x pump power	250W x 4	in series	380
1.1	1.5	1.5 x pump power	250W x 6	in series	380
1.5	2	1.5 x pump power	250W x 9	in series	380
2.2	3	1.5 x pump power	250W x 12	in series	380

4CW

WATER FILLED MOTOR SOLAR PUMP

Performance Curve



Pump Performance

Model	Voltage	Power		Max Flow Rate	Max Head	Outlet Size	Diameter
	V	kW	HP	(m ³ /h)	(m)	(In)	(In)
4CW0.37-4/30	DC:90-360V AC:90-240V/50Hz,60Hz	0.37	0.5	4	30	1.25"	4"

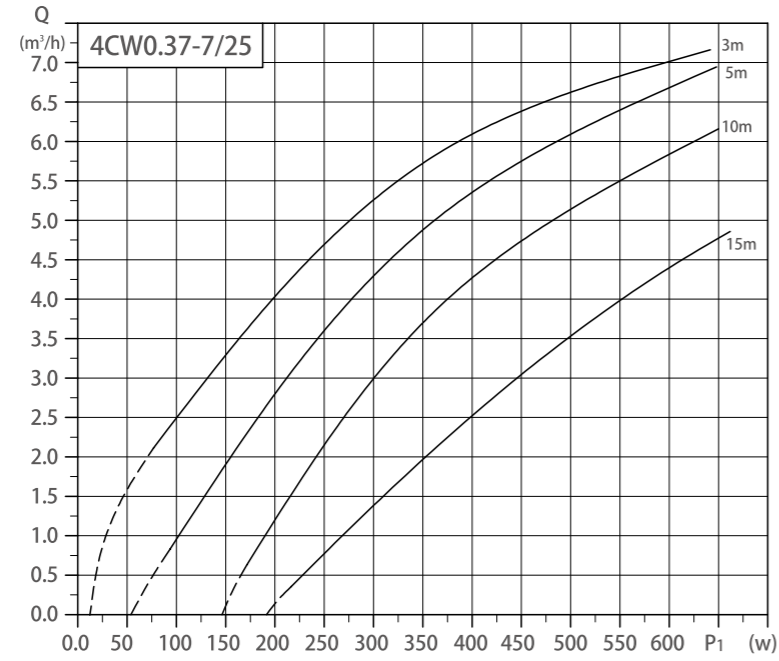
Performance Chart

Q H(m)	P1 (w) (m ³ /h)	600	550	500	450	400	370	300	250	200	150	100
		15	3.0	2.9	2.6	2.3	2.0	1.8	1.2	0.8	-	-
10	3.5	3.3	3.1	3.0	2.9	2.7	2.4	2.1	1.7	1.0	-	
5	3.8	3.7	3.5	3.3	3.2	3.1	2.8	2.5	2.0	1.5	-	
3	4.1	4.0	3.8	3.7	3.6	3.5	3.2	3.0	2.6	2.1	1.5	

4CW

WATER FILLED MOTOR SOLAR PUMP

Performance Curve



Pump Performance

Model	Voltage	Power		Max Flow Rate (m³/h)	Max Head (m)	Outlet Size (In)	Diameter (In)
	V	kW	HP				
4CW0.37-7/25	DC:90~360V AC:90~240V/50Hz,60Hz	0.37	0.5	7	25	1.5"	4"

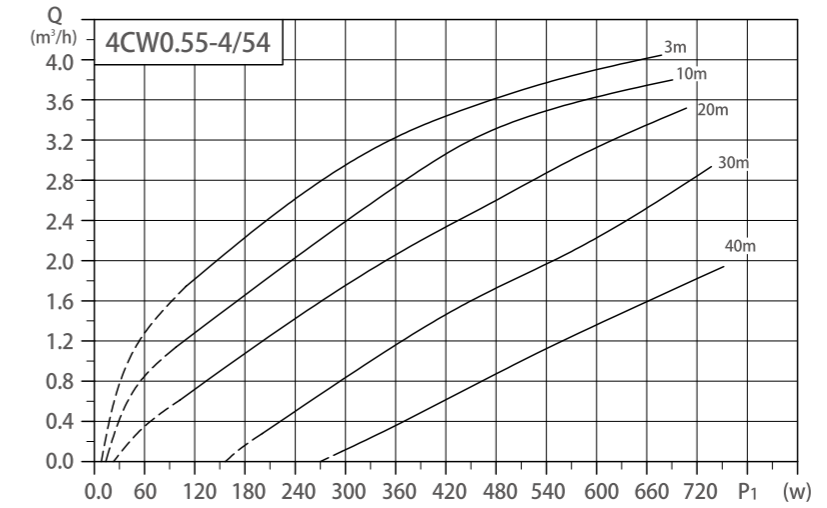
Performance Chart

Q H(m)	P1 (w) (m³/h)	600	550	500	450	400	370	300	250	200	150	100
		15	4.4	4.0	3.6	3.1	2.5	2.2	1.4	0.7	-	-
10	5.8	5.5	5.2	4.7	4.3	4.0	3.0	2.1	1.3	-	-	
5	6.6	6.4	6.1	5.7	5.3	5.1	4.2	3.6	2.7	1.8	0.8	
3	7.0	6.8	6.6	6.4	6.1	5.8	5.2	4.7	4.1	3.2	2.5	

4CW

WATER FILLED MOTOR SOLAR PUMP

Performance Curve



Pump Performance

Model	Voltage	Power		Max Flow Rate (m³/h)	Max Head (m)	Outlet Size (In)	Diameter (In)
	V	kW	HP				
4CW0.55-4/54	DC:90~360V AC:90~240V/50Hz,60Hz	0.55	0.75	4	54	1.25"	4"

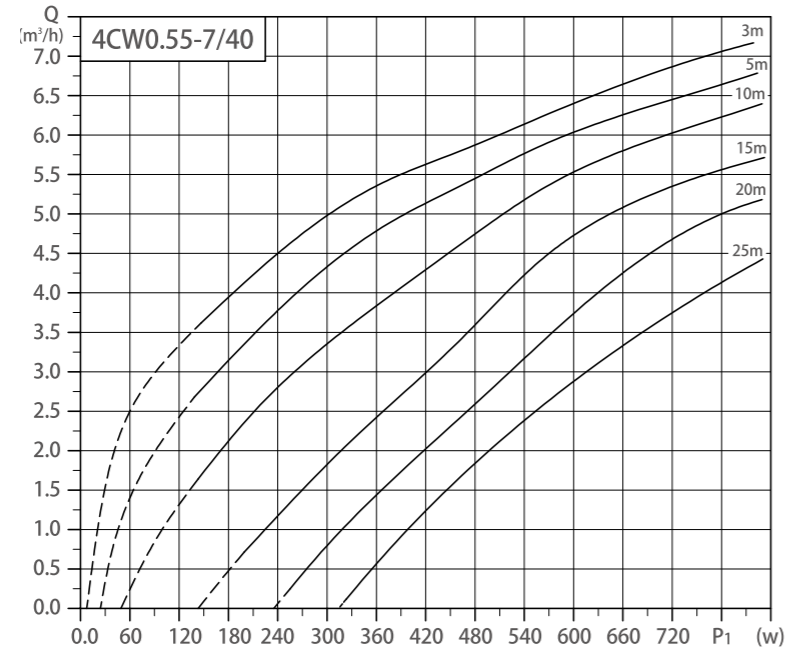
Performance Chart

Q H(m)	P1 (w) (m³/h)	720	660	600	550	480	420	370	300	240	180	120
		40	2.8	1.6	1.3	1.1	0.9	0.6	0.4	0.2	-	-
30	2.9	2.5	2.2	2.0	1.7	1.5	1.2	0.9	0.5	-	-	
20	-	3.3	3.1	2.9	2.5	2.3	2.1	1.7	1.4	1.1	0.9	
10	-	3.7	3.6	3.5	3.3	3.1	2.8	2.4	2.0	1.7	1.3	
3	-	4.0	3.8	3.7	3.6	3.4	3.3	2.7	2.6	2.2	1.8	

4CW

WATER FILLED MOTOR SOLAR PUMP

Performance Curve



Pump Performance

Model	Voltage	Power		Max Flow Rate	Max Head	Outlet Size	Diameter
	V	kW	HP	(m³/h)	(m)	(In)	(In)
4CW0.55-7/40	DC:90~360V AC:90~240V/50Hz,60Hz	0.55	0.75	7	40	1.5"	4"

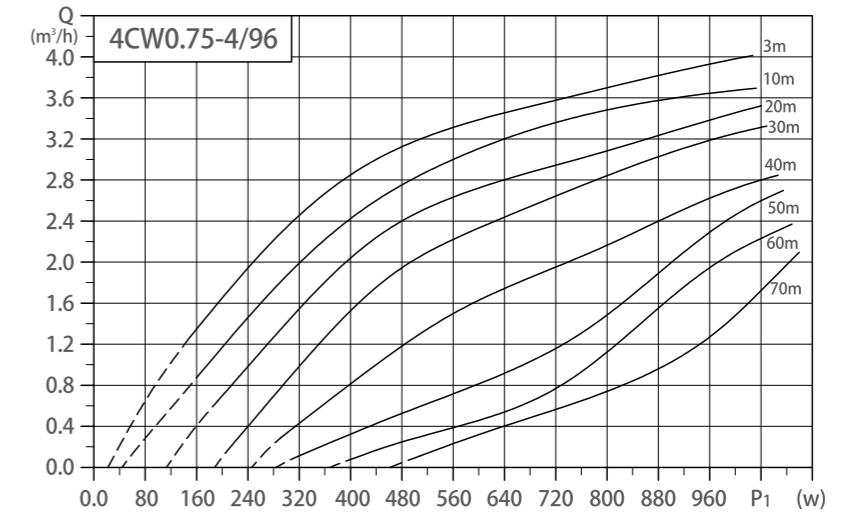
Performance Chart

Q H(m)	P1 (w) (m³/h)	780	720	660	600	550	480	420	370	300	240	180
		25	4.1	3.7	3.2	2.8	2.4	1.8	1.2	0.6	-	-
20	5.0	4.6	4.2	3.7	3.2	2.6	2.0	1.4	0.7	-	-	
15	5.6	5.4	5.1	4.7	4.2	3.6	3.0	2.4	1.7	1.2	-	
10	6.2	6.0	5.7	5.5	5.2	4.7	4.2	3.8	3.3	2.8	2.1	
5	6.6	6.4	6.2	6.0	5.8	5.4	5.2	4.8	4.2	3.7	3.2	
3	7.1	6.7	6.6	6.4	6.2	5.8	5.6	5.4	4.9	4.5	4.0	

4CW

WATER FILLED MOTOR SOLAR PUMP

Performance Curve



Pump Performance

Model	Voltage	Power		Max Flow Rate	Max Head	Outlet Size	Diameter
	V	kW	HP	(m³/h)	(m)	(In)	(In)
4CW0.75-4/96	DC:90~360V AC:90~240V/50Hz,60Hz	0.75	1	4	96	1.25"	4"

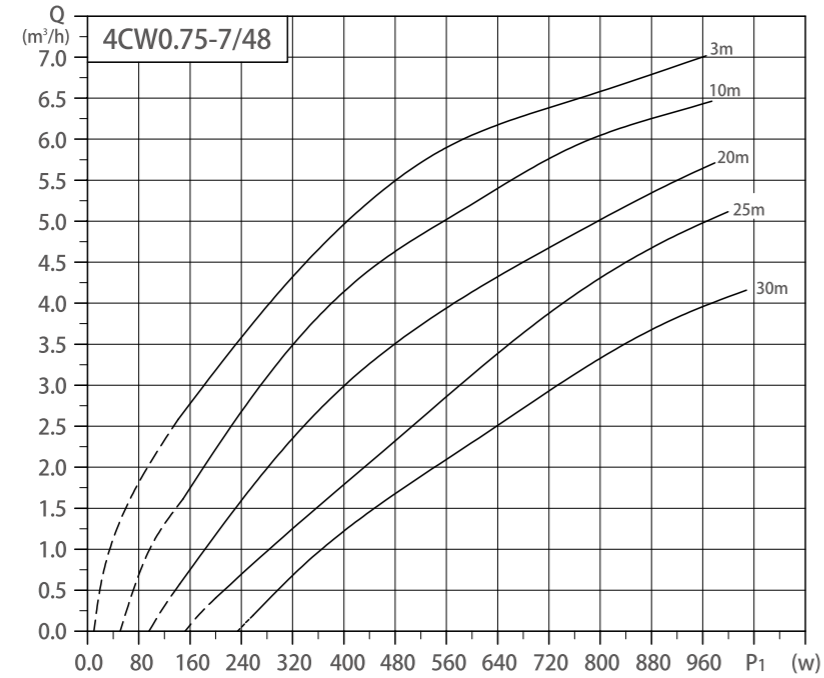
Performance Chart

Q H(m)	P1 (w) (m³/h)	1040	960	880	800	750	640	550	480	400	370	240
		70	1.7	1.3	1.0	0.7	0.6	0.4	0.2	-	-	-
60	2.2	1.9	1.5	1.1	0.9	0.5	0.3	0.2	-	-	-	
50	2.6	2.3	1.8	1.7	1.3	1.0	0.7	0.6	0.3	-	-	
40	2.8	2.6	2.4	2.2	2.1	1.8	1.5	1.1	0.8	0.2	-	
30	3.3	3.2	3.0	2.9	2.7	2.5	2.2	1.8	1.5	0.7	0.4	
20	3.5	3.4	3.3	3.1	3.0	2.8	2.5	2.4	2.1	1.3	1.0	
10	-	3.7	3.5	3.4	3.3	3.2	3.0	2.7	2.4	1.8	1.5	
3	-	3.9	3.8	3.7	3.6	3.4	3.0	3.1	2.9	2.7	1.9	

4CW

WATER FILLED MOTOR SOLAR PUMP

Performance Curve



Pump Performance

Model	Voltage		Power		Max Flow Rate (m³/h)	Max Head (m)	Outlet Size (In)	Diameter (In)
	V		kW	HP				
4CW0.75-7/48	DC:90-360V		0.75	1	7	48	1.5"	4"
	AC:90-240V/50Hz,60Hz							

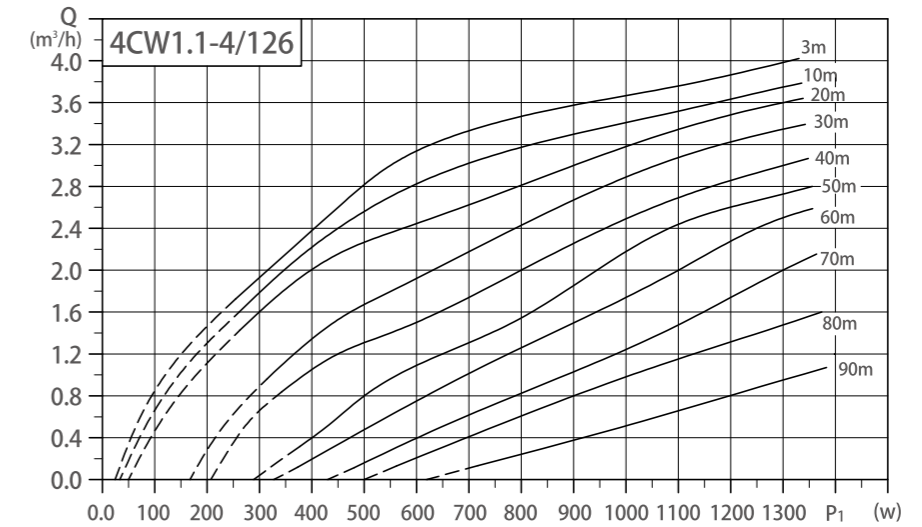
Performance Chart

Q H(m)	P1 (w) (m³/h)	P1 (w)										
		960	880	800	750	640	550	480	400	370	240	160
30	3.9	3.6	3.3	3.1	2.5	2.0	1.7	1.2	1.1	-	-	
25	5.0	4.7	4.3	4.0	3.4	2.7	2.4	1.7	1.6	0.6	-	
20	5.7	5.3	5.0	4.7	4.3	3.8	3.5	3.0	2.7	1.6	0.7	
10	6.4	6.2	6.1	5.8	5.4	5.0	4.6	4.2	3.9	2.6	1.7	
3	7.0	6.7	6.6	6.4	6.2	5.7	5.5	4.9	4.7	3.6	2.7	

4CW

WATER FILLED MOTOR SOLAR PUMP

Performance Curve



Pump Performance

Model	Voltage		Power		Max Flow Rate (m³/h)	Max Head (m)	Outlet Size (In)	Diameter (In)
	V		kW	HP				
4CW1.1-4/126	DC:90-360V		1.1	1.5	4	126	1.25"	4"
	AC:90-240V/50Hz,60Hz							

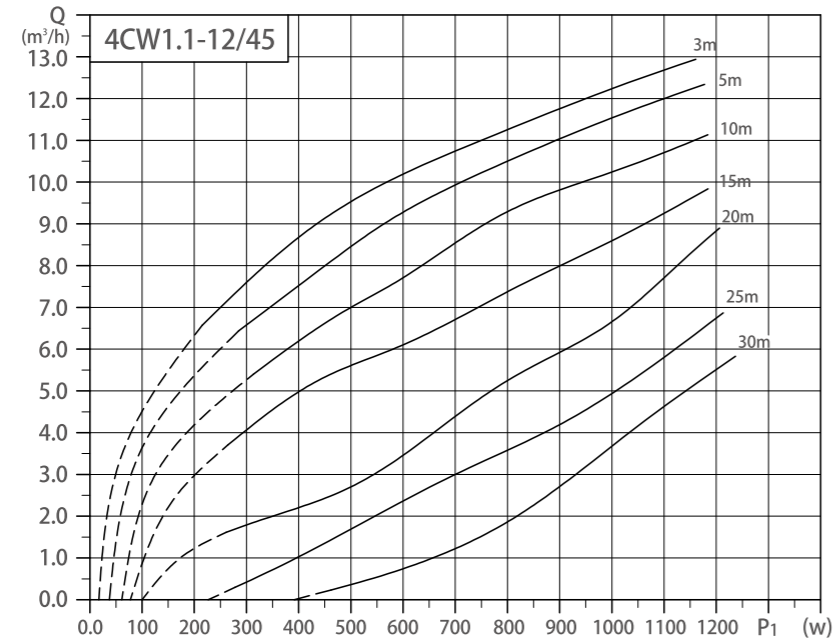
Performance Chart

Q H(m)	P1 (w) (m³/h)	P1 (w)									
		1300	1200	1100	1000	900	800	700	600	500	400
90	0.9	0.8	0.7	0.5	0.4	0.3	-	-	-	-	-
80	1.5	1.3	1.1	1.0	0.8	0.6	0.4	0.2	-	-	-
70	2.0	1.7	1.5	1.3	1.0	0.9	0.6	0.4	0.2	-	-
60	2.5	2.3	2.0	1.8	1.5	1.3	1.0	0.8	0.5	0.2	-
50	2.7	2.6	2.5	2.2	1.9	1.5	1.3	1.1	1.0	0.8	-
40	3.0	2.9	2.7	2.5	2.3	2.0	1.8	1.5	1.3	1.1	-
30	3.3	3.2	3.1	2.9	2.7	2.4	2.2	1.8	1.6	1.3	-
20	3.6	3.5	3.4	3.1	3.0	2.8	2.6	2.5	2.3	2.0	1.6
10	3.8	3.7	3.5	3.4	3.3	3.2	3.0	2.8	2.6	2.2	1.8
3	4.0	3.9	3.8	3.7	3.5	3.4	3.3	3.1	2.8	2.4	2.2

4CW

WATER FILLED MOTOR SOLAR PUMP

Performance Curve



Pump Performance

Model	Voltage		Power		Max Flow Rate (m³/h)	Max Head (m)	Outlet Size (In)	Diameter (In)
	V		kW	HP				
4CW1.1-12/45	DC:90-360V AC:90-240V/50Hz,60Hz		1.1	1.5	12	45	2"	4"

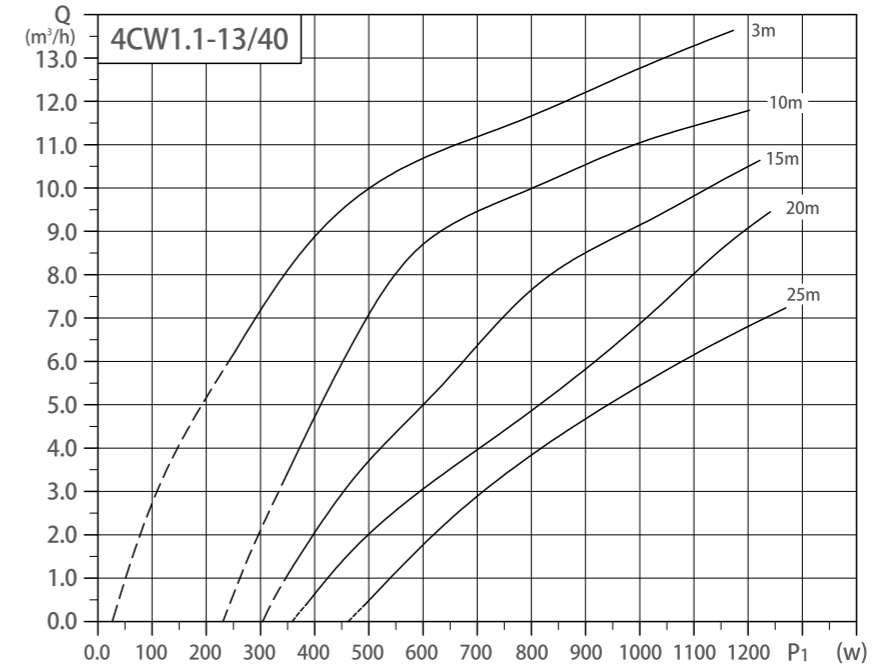
Performance Chart

Q H(m)	P1 (w) (m³/h)	P1 (w)										
		1200	1100	1000	900	800	700	600	500	400	300	200
30		5.5	4.6	3.7	2.7	1.8	1.2	0.8	0.4	-	-	-
25		6.8	5.8	4.9	4.1	3.5	3.0	2.3	1.7	1.0	-	-
20		8.8	7.7	6.6	5.9	5.2	4.4	3.5	2.7	2.2	1.8	-
15		-	9.3	8.6	8.0	7.3	6.7	6.1	5.5	5.0	4.0	-
10		-	10.7	10.2	9.8	9.3	8.5	7.7	7.0	6.1	5.2	-
5		-	12.0	11.5	11.0	10.5	9.9	9.3	8.5	7.5	6.5	-
3		-	12.7	12.3	11.8	11.3	10.8	10.2	9.5	8.6	7.5	-

4CW

WATER FILLED MOTOR SOLAR PUMP

Performance Curve



Pump Performance

Model	Voltage		Power		Max Flow Rate (m³/h)	Max Head (m)	Outlet Size (In)	Diameter (In)
	V		kW	HP				
4CW1.1-13/40	DC:90-360V AC:90-240V/50Hz,60Hz		1.1	1.5	13	40	2"	4"

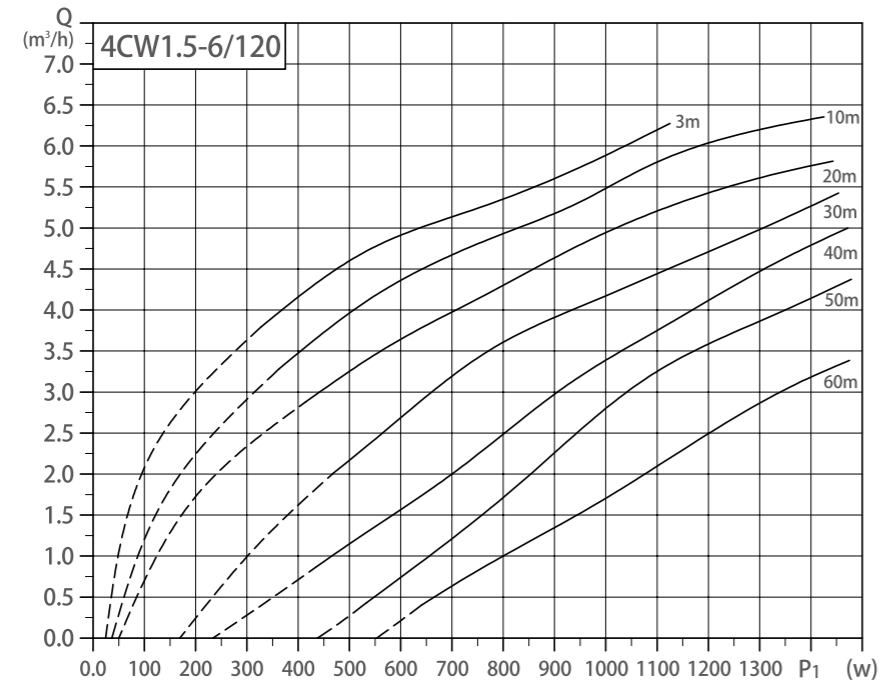
Performance Chart

Q H(m)	P1 (w) (m³/h)	P1 (w)									
		1200	1100	1000	900	800	700	600	500	400	300
25		6.8	6.1	5.4	4.6	3.8	2.9	1.8	0.6	-	-
20		9.1	8.0	6.9	5.9	4.8	4.0	3.0	2.0	0.7	-
15		10.7	9.8	9.2	8.5	7.7	6.3	5.0	3.7	2.1	-
10		11.8	11.4	11.0	10.5	10.0	9.4	8.7	7.0	4.7	-
3		-	13.3	12.8	12.2	11.7	11.2	10.7	10.0	8.9	7.2

4CW

WATER FILLED MOTOR SOLAR PUMP

Performance Curve



Pump Performance

Model	Voltage		Power		Max Flow Rate (m³/h)	Max Head (m)	Outlet Size (In)	Diameter (In)
	V		kW	HP				
4CW1.5-6/120	DC:90-360V AC:90-240V/50Hz,60Hz		1.5	2.0	6	120	1.5"	4"

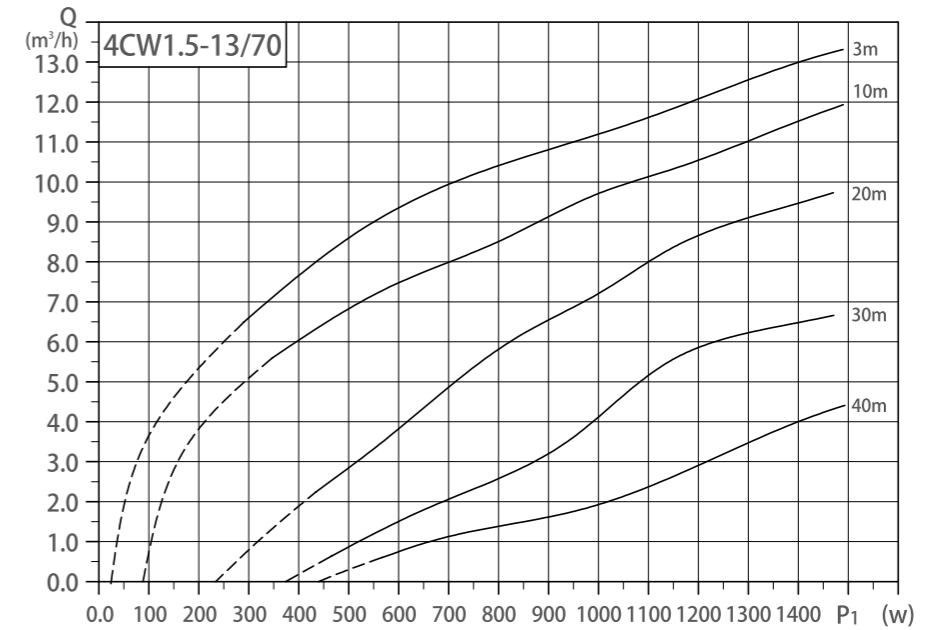
Performance Chart

Q H(m)	P1 (w) (m³/h)	P1 (w)									
		1400	1300	1200	1100	1000	900	800	700	600	500
60		3.4	2.8	2.5	2.1	1.7	1.4	1.0	0.7	-	-
50		4.2	3.7	3.6	3.2	2.8	2.2	1.6	1.3	0.7	-
40		4.7	4.5	4.2	3.7	3.8	3.0	2.5	2.0	1.6	1.1
30		5.2	5.0	4.7	4.4	4.2	3.8	3.6	3.2	2.7	2.1
20		5.7	5.6	5.4	5.2	4.9	4.6	4.2	4.0	3.6	3.2
10		6.4	6.2	6.1	5.7	5.5	5.2	4.8	4.6	4.4	3.9
3		-	-	-	6.2	5.8	5.6	5.4	5.2	4.8	4.6

4CW

WATER FILLED MOTOR SOLAR PUMP

Performance Curve



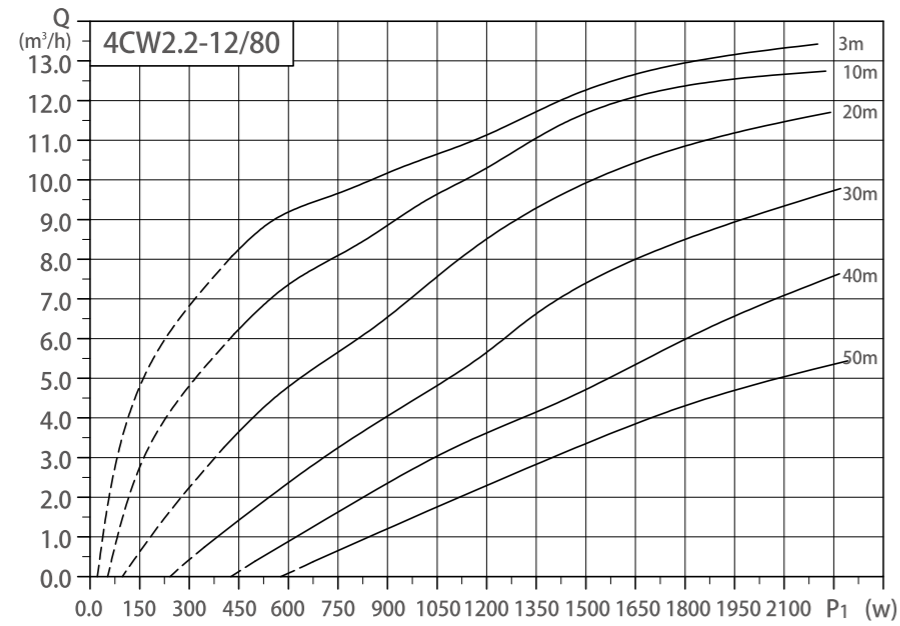
Pump Performance

Model	Voltage		Power		Max Flow Rate (m³/h)	Max Head (m)	Outlet Size (In)	Diameter (In)
	V		kW	HP				
4CW1.5-13/70	DC:90-360V AC:90-240V/50Hz,60Hz		1.5	2.0	13	70	2"	4"

Performance Chart

Q H(m)	P1 (w) (m³/h)	P1 (w)									
		1400	1300	1200	1100	1000	900	800	700	600	500
40		4.0	3.5	2.9	2.4	1.8	1.6	1.4	1.1	0.8	-
30		6.5	6.3	5.8	5.1	4.1	3.1	2.6	2.1	1.5	0.8
20		9.5	9.2	8.6	8.1	7.2	6.5	5.8	4.8	3.8	2.9
10		11.5	11.0	10.5	10.2	9.7	9.2	8.5	8.0	7.5	6.8
3		13.0	12.5	12.0	11.6	11.2	10.8	10.4	10.0	9.4	8.6

Performance Curve



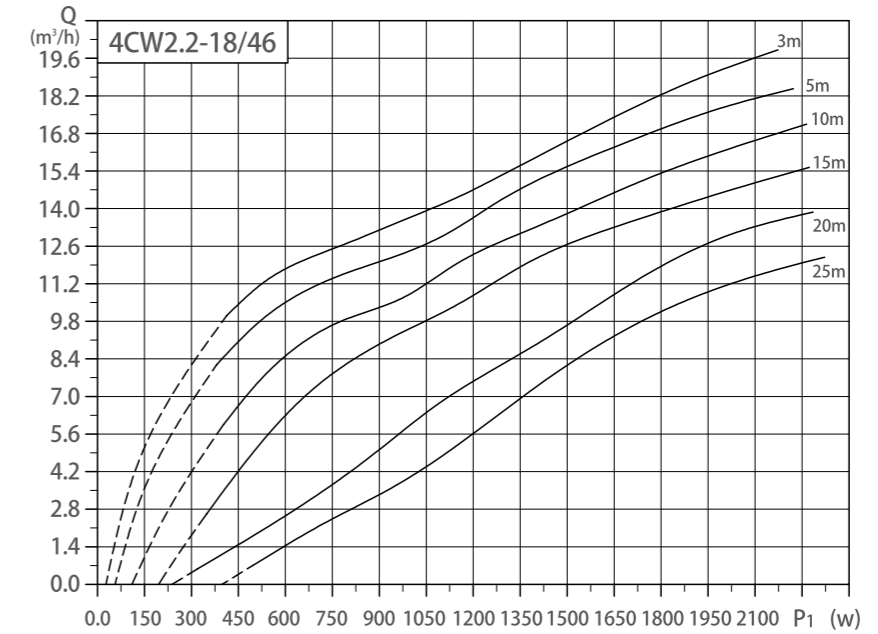
Pump Performance

Model	Voltage		Power		Max Flow Rate (m³/h)	Max Head (m)	Outlet Size (In)	Diameter (In)
	V		kW	HP				
4CW2.2-12/80	DC:90-360V		2.0	3.0	12	80	2"	4"
	AC:90-240V/50Hz,60Hz							

Performance Chart

Q H(m)	P1 (w) (m³/h)	P1 (w)									
		2200	2100	1800	1650	1500	1200	1050	750	600	450
50		5.3	5.0	4.3	3.8	3.4	2.3	1.8	0.7	-	-
40		7.4	7.1	6.0	5.4	4.7	3.6	3.0	1.6	0.8	-
30		9.6	9.3	8.5	8.0	7.4	5.6	4.8	3.2	2.3	1.3
20		11.7	11.3	10.8	10.4	9.8	8.5	7.6	5.6	4.8	3.6
10		12.7	12.6	12.3	12.1	11.7	10.3	9.6	8.1	7.3	6.3
3		-	13.3	12.8	12.6	12.3	11.2	10.7	9.6	9.2	8.3

Performance Curve



Pump Performance

Model	Voltage		Power		Max Flow Rate (m³/h)	Max Head (m)	Outlet Size (In)	Diameter (In)
	V		kW	HP				
4CW2.2-18/46	DC:90-360V		2.2	3.0	18	46	2"	4"
	AC:90-240V/50Hz,60Hz							

Performance Chart

Q H(m)	P1 (w) (m³/h)	P1 (w)									
		2200	2100	1800	1650	1500	1200	1050	750	600	450
25		12.0	11.5	10.0	9.3	8.0	5.6	4.5	2.5	1.4	-
20		13.6	13.2	12.0	10.8	9.5	7.5	6.5	3.8	2.5	1.6
15		15.4	15.0	13.6	13.2	12.8	10.8	9.8	7.7	6.5	4.2
10		17.1	16.5	15.3	14.6	13.7	12.0	11.2	9.5	8.6	6.6
5		18.5	18.0	17.0	16.4	15.6	13.5	12.9	11.5	10.6	9.0
3		-	19.6	18.2	17.5	16.5	14.7	13.8	12.3	11.8	11.0

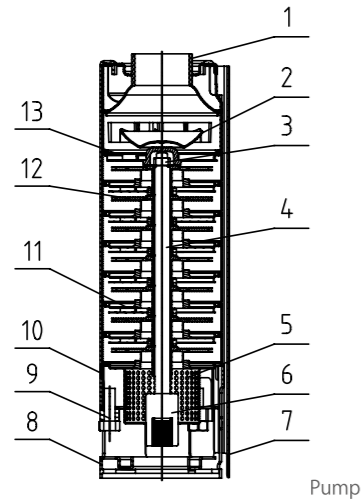
4CW

WATER FILLED MOTOR SOLAR PUMP

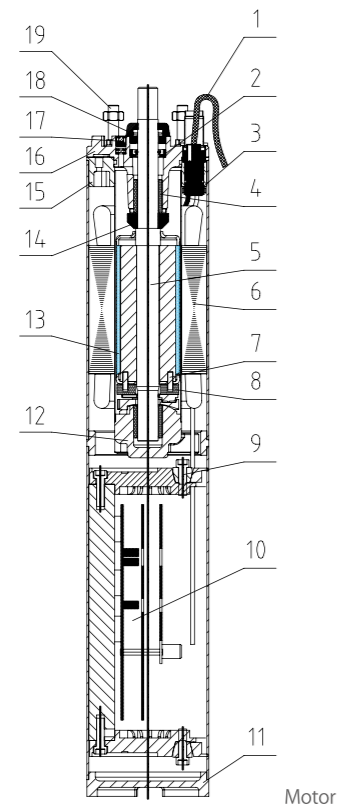
4GS-AC/DC

CONVERTIBLE ENERGY SAVING PUMP

Structure



No	Spare Parts	Material
1	Outlet	Stainless Steel
2	Valve	Stainless Steel
3	Nut	Stainless Steel
4	Shaft	Stainless Steel
5	Shielding	Stainless Steel
6	Bearing	Stainless Steel
7	Wire clamp	Stainless Steel
8	Joint	Stainless Steel
9	Bolt	Stainless Steel
10	Rod	Stainless Steel
11	Volute	Stainless Steel
12	Impeller	Stainless Steel
13	Bracket	Stainless Steel



No	Spare Parts	Material
1	Cable	
2	Mechanical seal	Nitrile-Butadiene Rubber
3	Inner plug	
4	Graphite static ring	Impregnated Graphite
5	Rotor	Stainless Steel
6	coil	
7	dowel pin	Stainless Steel
8	Bearing	
9	bolt	Stainless Steel
10	Controller	
11	End cover	Stainless Steel
12	Lower bearing seat	Stainless Steel
13	Magnetic steel	
14	Positioning set	Plastic
15	Flange	Stainless Steel
16	Upper bearing seat	Stainless Steel
17	Valve	
18	Sand proof shield	Nitrile-Butadiene Rubber
19	Bolt	Stainless Steel



Advantage

1. Phase-lack operation
2. Wide voltage
3. High speed :4500-6000rpm
4. High head:>2times higher than normal pump
5. Dry-running protection
6. Convenient using: both AC and DC power available
7. High efficiency and energy saving: permanent magnetic brushless DC motor
8. High corrosion resistant: complete stainless steel material
9. Big flow: max flow>40m³/h
10. Small volume: half volume of normal pump

Performance Chart at n=2900rpm

Model	Power (kW)	Q (m³/h)	0	0.5	1	1.5	2	2.5	3	3.5	4	4.5	4.8	5.2
4GS2/6-1.5	1.5	H (m)	170	156	148	138	126	112	98	82	63	44	26	9
4GS2/8-2.2	2.2		225	213	193	181	169	153	135	112	92	67	36	12
4GS2/10-3	3		284	267	250	234	214	194	168	140	112	83	45	16
4GS2/13-4	4		367	352	328	279	268	240	205	170	131	95	58	20
4GS2/17-5.5	5.5		479	460	418	375	343	302	262	217	168	110	67	26
4GS2/24-7.5	7.5		676	639	597	536	491	444	381	310	271	190	89	36
4GS2/30-11	11		845	799	746	670	614	556	476	388	338	238	105	45

4GS-AC/DC

CONVERTIBLE ENERGY SAVING PUMP

Performance Chart

Model	Power (kw)	Q (m ³ /h)	0	1	2	3	4	5	6	7	8	9	10	11	12
4GS6/3-1.5	1.5	H (m)	87	82	77	75	70	65	60	52	45	37	27	18	8
4GS6/4-2.2	2.2		116	110	103	100	94	89	80	70	60	49	36	23	10
4GS6/5-3	3		146	137	129	124	117	109	100	84	76	62	42	30	13
4GS6/7-4	4		204	192	180	174	164	152	140	121	106	86	64	42	18
4GS6/9-5.5	5.5		262	247	232	224	211	196	180	158	136	111	82	43	21
4GS6/11-7.5	7.5		320	302	284	274	258	240	220	181	166	124	98	53	26
4GS6/14-11	11		408	397	379	372	339	305	280	236	189	150	127	67	33

Performance Chart

Model	Power (kw)	Q (m ³ /h)	0	3	6	9	12	15	18	21	23
4GS12/2-1.5	1.5	H (m)	50	43	41	35	30	25	18	6	3
4GS12/2-2.2	2.2		59	50	47	44	40	33	26	15	5
4GS12/3-3	3		85	80	74	65	60	50	37	25	7
4GS12/4-4	4		109	105	97	88	80	70	52	35	9
4GS12/6-5.5	5.5		179	160	145	134	124	105	80	48	12
4GS12/8-7.5	7.5		236	213	196	181	166	141	110	60	17
4GS12/10-11	11		294	266	244	226	205	178	135	76	22

Performance Chart

Model	Power (kw)	Q (m ³ /h)	0	3	6	9	12	15	18	20	21	24	27	29
4GS20/1-1.5	1.5	H (m)	30	28	27	25	23	22	19	17	16	13	8	2
4GS20/2-2.2	2.2		52	50	48	45	41	38	34	31	30	24	11	3
4GS20/3-3	3		70	66	62	58	53	48	44	40	37	29	21	4
4GS20/3-4	4		88	84	82	76	71	67	61	57	55	47	38	5
4GS20/4-5.5	5.5		115	112	105	99	92	86	79	76	72	62	51	6
4GS20/5-7.5	7.5		146	142	136	127	118	110	103	97	93	81	65	7
4GS20/7-11	11		197	195	192	177	166	153	144	136	131	113	86	10

Performance Chart

Model	Power (kw)	Q (m ³ /h)	0	5	10	15	20	25	30	35	40	45
4GS30/1-2.2	2.2	H (m)	30	28	25	24	22	20	18	17	14	4
4GS30/2-4	4		58	56	53	48	44	40	38	34	29	9
4GS30/3-5.5	5.5		75	73	67	63	56	52	47	40	32	13
4GS30/4-7.5	7.5		112	109	102	97	87	77	67	60	48	17
4GS30/5-11	11		141	135	130	119	102	90	79	67	55	21

AC/DC

CONVERTIBLE ENERGY SAVING PUMP

Functional specifications



The AC permanent magnetism motor has high efficiency and can save electricity by 10% at the same performance.



Wide voltage range

AC Voltage Range: From 150V to 260V. Both 50Hz and 60Hz are available. DC Voltage Range: From 210V to 360V. The best efficiency requests voltage: 220V(AC) or 310V(DC)

Undervoltage protection

When the AC voltage is below 150V or DC voltage is below 210V, the pump will stop working automatically. It can work automatically when the voltage restored (AC is higher than 150V, DC is higher than 210V).

Over voltage protection

When the AC voltage is higher than 260V or the DC voltage is higher than 360V, the pump stops working automatically. It can work automatically when the voltage is restored (AC less than 260V, DC less than 360V).

Thermal protection

The motor will get heat when the pump is running. When the temperature of motor and controller are higher than 85°C, the pump will automatically stop working. (When the temperature is below 45°C, the pump will be back to normal)

No load protection

If there is no water in the water tank, the pump will stop working after 1 minute to prevent energy waste from pump dry running.

Lock up protection

When the pump is jammed, the pump stops running automatically to avoid pump being damaged. After the dead object is removed, the pump can be operated again.

Artificially adjust pressure value: according to the height that the water pump can supply, customers can adjust the pressure value of low pressure start and high pressure stop, and the difference between the two pressure values is 12 meters. The pump will stop working when the factory set high pressure value is 45 meters, and the pump will operate normally when low pressure value is 20 meters.

When the water pump is used for boosting, it needs to be installed in the water pipe. If there is no water in water pipes, the pump will stop working automatically after 1 minute, and the water pump can start to work automatically if the water pipe is inflow.

Display function: the pump can display the lift, speed, power, flow and efficiency of the pump immediately.

Fault display function: when the water pump fails, the pump automatically displays the failure code of the pump. According to the code, we can know the problems and the reason why the pump can not work properly.

Infrequent start and stop function when small leakage happens: when the small leakage above the outlet happens, the pump will not frequently start and stop. When the water faucet is opened, the pump works automatically.

One key recovery factory setting function: when the customer has no request, it should have one key reset function. As long as a key is pressed, the pump will be automatically restored to the manufacturer. (The factory setting is that the pump automatically opens the pump when the lift is 20 meters, and the water pump stops working automatically at 45 meters).

AC/DC

CONVERTIBLE ENERGY SAVING PUMP

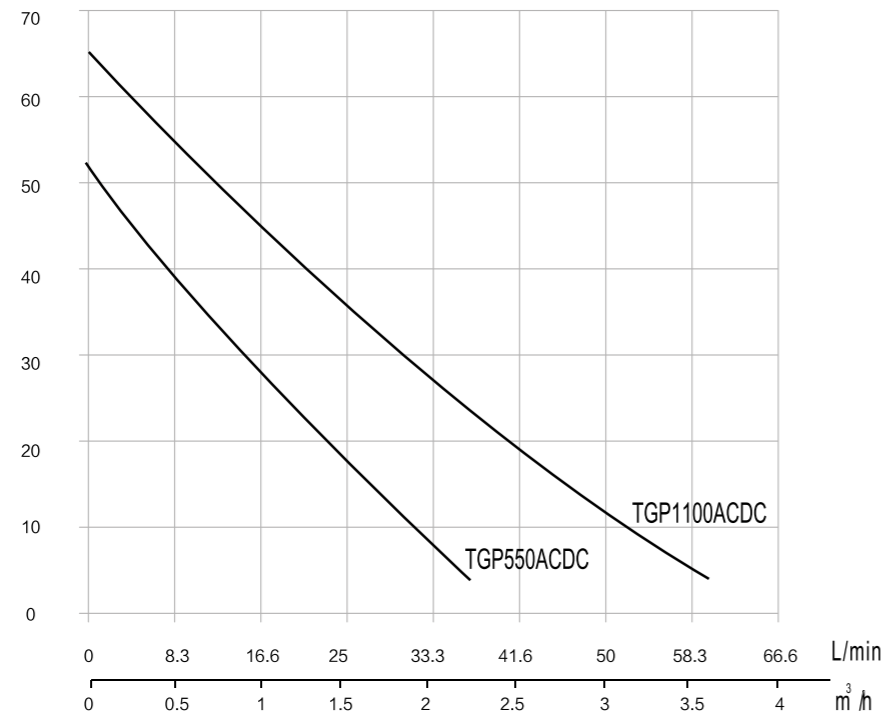


TGP550ACDC



TGP1100ACDC

Performance Curve



Pump Performance

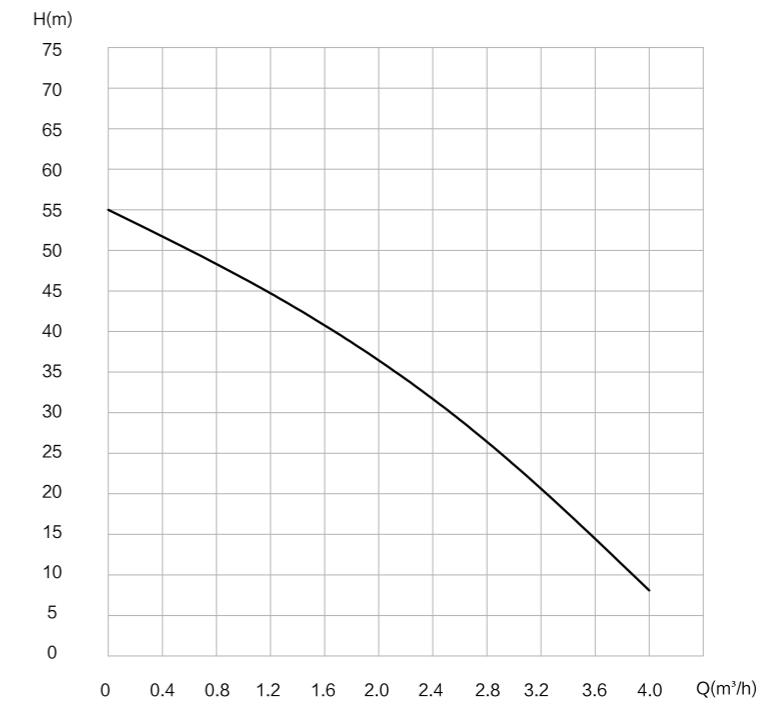
Type	Output Power		Inlet/Outlet (In)	Voltage		Qmax m³/h	Hmax m	Q(m³/h) Q(L/min)	H(m)												
	kW	HP		AC(V)	DC(V)				0	0.5	1	1.5	2	2.5	3	3.5					
TGP550ACDC	0.55	0.75	1"x1"	110	155	2.2	52	52	38	28	18	10									
				220	310																
TGP1100ACDC	1.1	1.5	1"x1"	110	155	3.5	65	65	52	42	34	26	18	12	4						
				220	310																

AC/DC

CONVERTIBLE ENERGY SAVING PUMP



Performance Curve



Performance Chart

Type	Max Input Power (Kw)	Q (m³/h)	0	0.4	0.8	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0
TJSW/10M-ACDC	1	H (m)	55	52	47	44	41	36	32	26	21	14	7