

## Solar Water Pumping System



# SOLAR PUMPING SYSTEM HELPS A LOT

Reduce the distance between us and clean water

Lift fresh water from deep underground to irrigate fruit, contributes to better fruit quality

Providing much more reliable and efficient water supply for livestock

Very economical & Worry-free way to circulate pool water



Solar Pumping Technology is Making The World Better



## Solar Pump Inverter



### Features

- High efficiency with MPPT function
- Specially designed for solar pumping system
- Easy installation & Low installation cost
- Easy operation & Low maintenance cost
- Protection class: IP55

### Multi Functions

- MPPT: Increase the solar power utilization rate
- LED Screen displays Real time working condition: Output Power, Output Voltage, Current, Pump speed & Error code
- Auto Frequency Conversion function: Can automatically adjust the speed/rpm according to solar power strength, user can adjust the pump speed/rpm manually.
- Auto On/Off (with float switch )
- Soft Start: No impulse current, protect pump motor. No water hammer, protect the whole plumbing system.
- Multi-protection: Dry-run protection, Over-voltage protection, Over-current protection. High-temperature protection (reduce rpm when the inner temperature got 79°C), Output phase lose protection.



High Reliability



MPPT



IP55



Cost Saving

### Working Environment and Electrical Property

Controller Model	Adaptable Pump Rated Voltage	Max.Input Current	Max.Open Circuit Voltage	MPPT Voltage Range	Working Temperature	Inverter Dimension	Net Weight
DC-12	12V	17A	48V	30-48V	-15~+60°C	23.8x18x9.5mm	1.5kg
DC-24	24V	17A	48V	30-48V			
DC-36	36V	17A	48V	30-48V			
DC-48	48V	17A	100V	60-90V			
DC-72	72V	17A	150V	90-120V			
DC-110	110V	17A	200V	110-150V			



### Applications

- Agriculture irrigation, livestock feeding, Domestic water lifting
- Clear water supply from wells or reservoirs
- Off grid solar pumping system

### Pump Features

- With MPPT DC controller
- High-precision AISI304 screw get higher efficiency
- AISI304 oil chamber and pump barrel
- NSK bearing
- High efficiency PMSM brushless motor (PMSM: Permanent Magnet Synchronous Motor)

### MPPT DC Controller

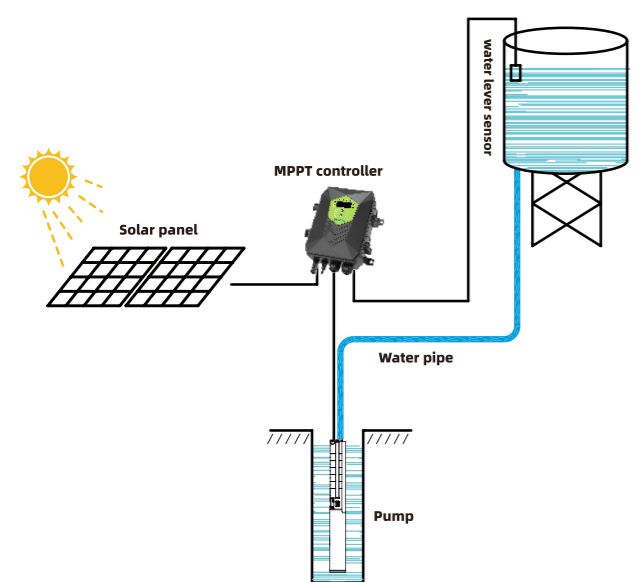
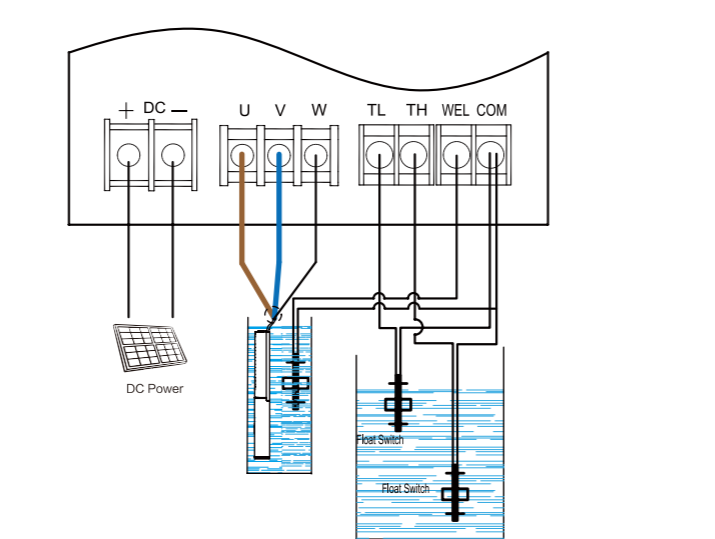
- Protection class: IP55
- Ambient temperature: -15 ~ 60°C
- LED Displays working conditions & Fault code
- Auto Start & Stop
- Soft start & VFD function

### Identification Codes

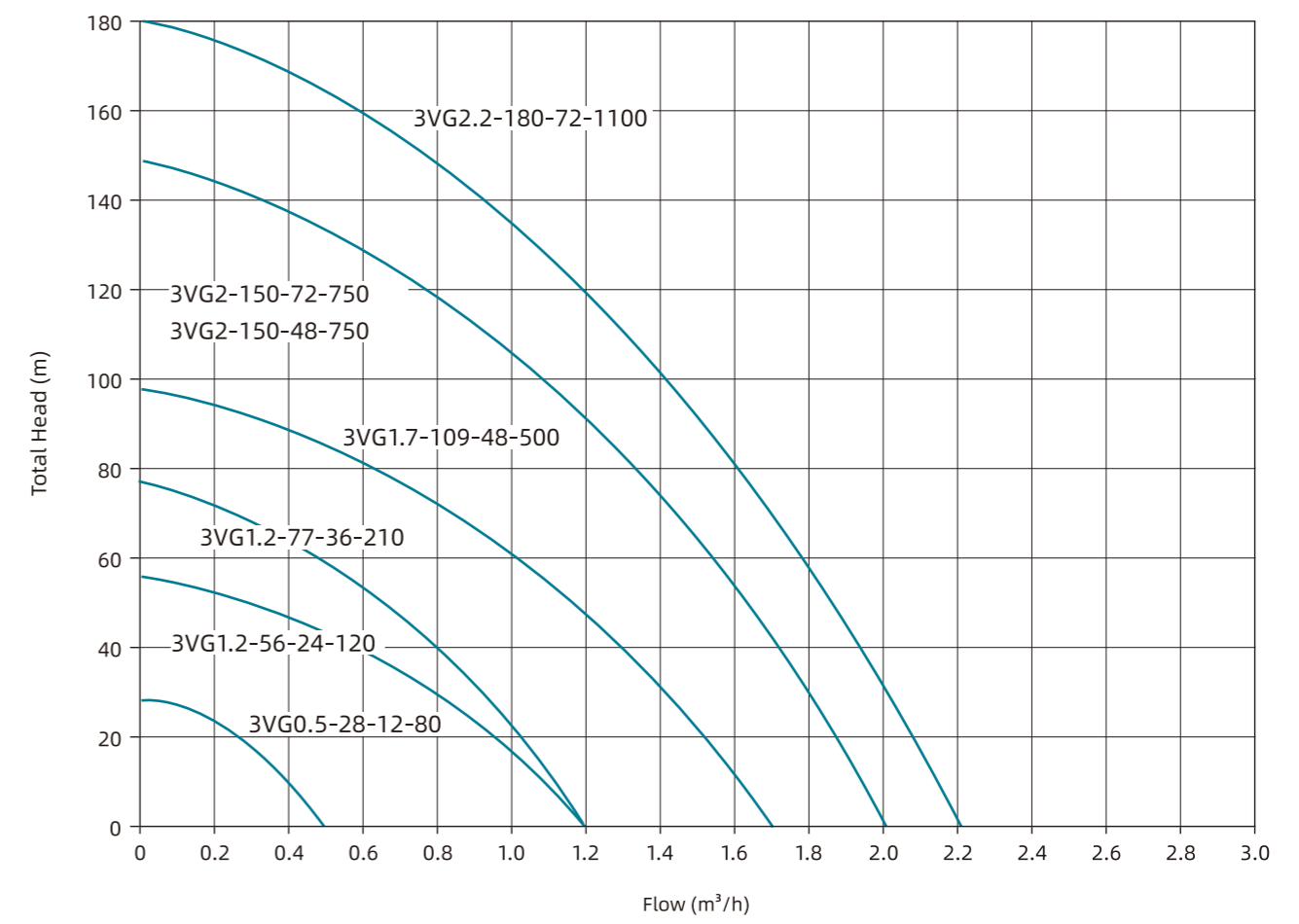
3VG 0.5 - 28 - 12 - 80  
 ① ② ③ ④ ⑤

① 3 Inch VEICHI Screw Pump	④ Motor Voltage
② Max. Flow (m <sup>3</sup> /h)	⑤ Rated Power (W)
③ Max. Head (m)	

### Wiring Diagram



## 3" DC Solar Screw Pump



### Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m <sup>3</sup> /h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
3VG0.5-28-12-80	80	12	20-36	0.5	28	¾"	2	< 50	≥1.3*Pump Power
3VG1.2-56-24-120	120	24	30-48	1.2	56	¾"	2	< 50	≥1.3*Pump Power
3VG1.2-77-36-210	210	36	30-48	1.2	77	¾"	2	< 50	≥1.3*Pump Power
3VG1.7-109-48-500	500	48	60-90	1.7	109	¾"	2	< 100	≥1.3*Pump Power
3VG2-150-48-750	750	48	60-90	2	150	¾"	2	< 100	≥1.3*Pump Power
3VG2-150-72-750	750	72	90-120	2	150	¾"	2	< 150	≥1.3*Pump Power
3VG2.2-180-72-1100	1100	72	90-120	2.2	180	¾"	2	< 150	≥1.3*Pump Power



### Applications

- Agriculture irrigation, livestock feeding, Domestic water lifting
- Clear water supply from wells or reservoirs
- Off grid solar pumping system

### Pump Features

- With MPPT DC controller
- Plastic impeller and diffuser
- Copper oil chamber & outlet
- NSK bearing
- High efficiency PMSM brushless motor  
(PMSM: Permanent Magnet Synchronous Motor)

### MPPT DC Controller

- Protection class: IP55
- Ambient temperature: -15 ~ 60°C
- LED Displays working conditions & Fault code
- Auto Start & Stop
- Soft start & VFD function

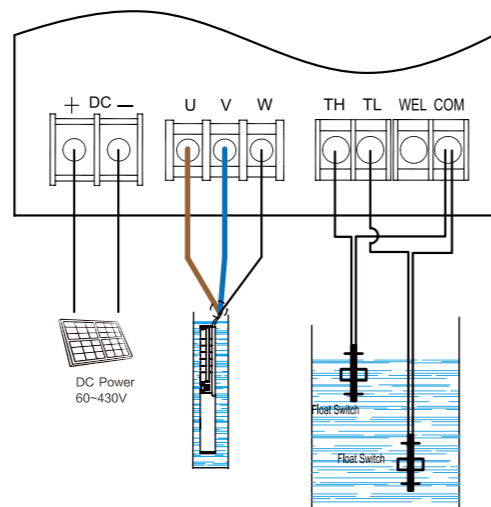
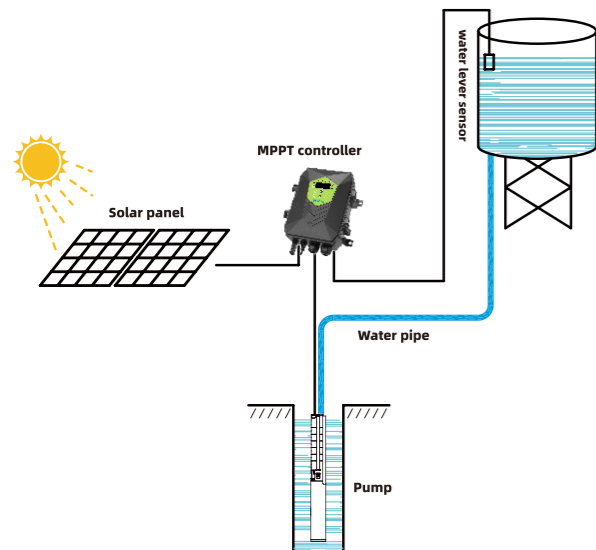


### Identification Codes

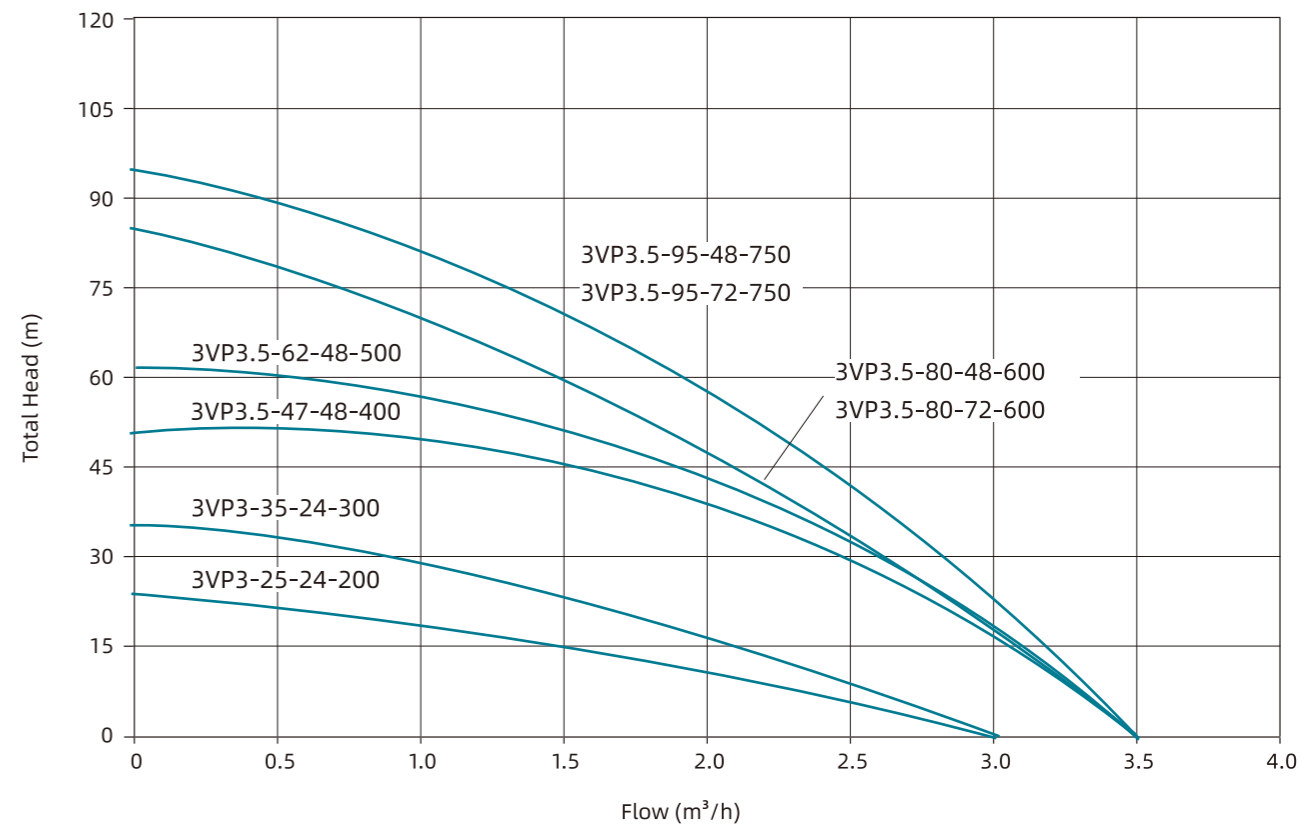
① 3 VP 5 - 45 - 48 - 500  
② ③ ④ ⑤ ⑥

① 3 Inch	④ Max. Head (m)
② VEICHI Plastic Impeller Borehole Pump	⑤ Motor Voltage
③ Max. Flow (m <sup>3</sup> /h)	⑥ Rated Power (W)

### Wiring Diagram



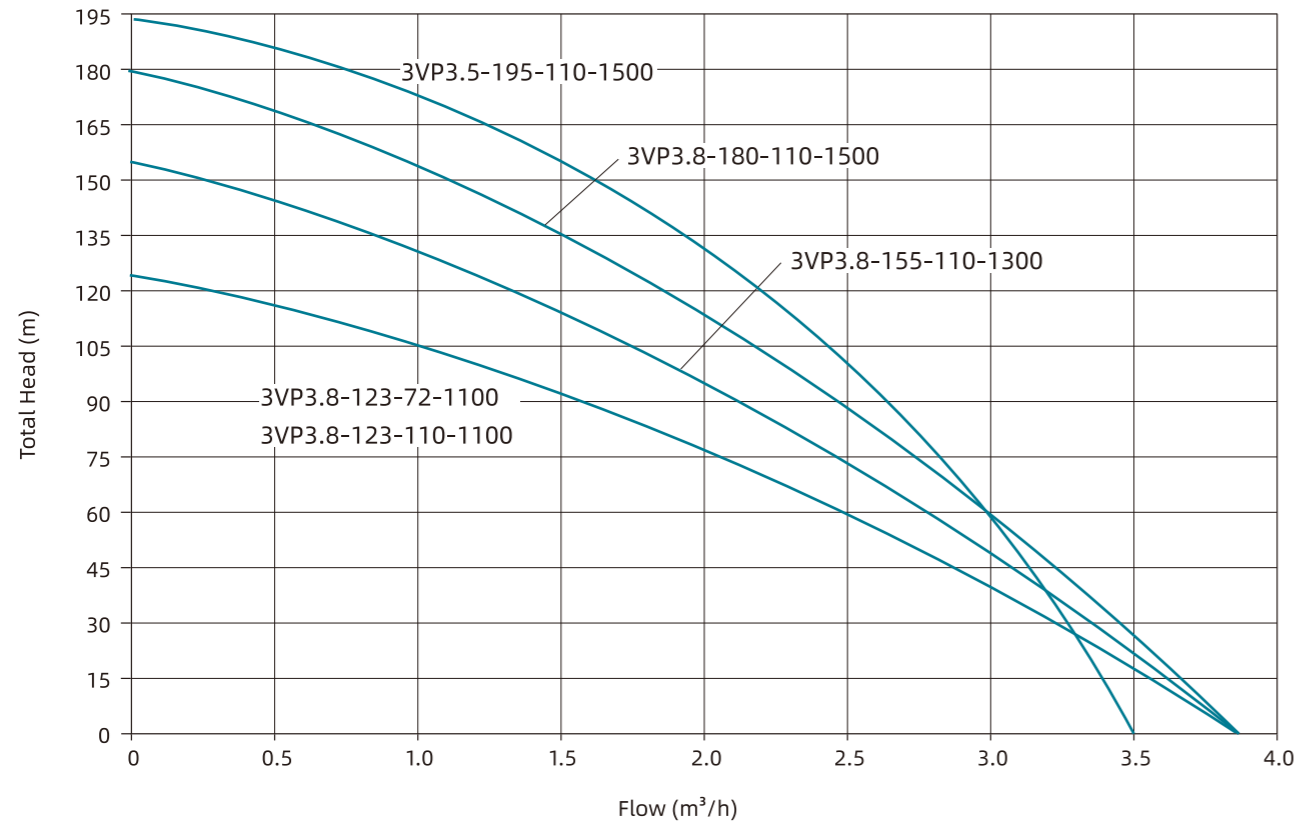
## 3" DC Solar Pump with Plastic Impeller



### Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m <sup>3</sup> /h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
3VP3-25-24-200	200	24	30-48	3	25	1 1/4"	2	<50	>1.3*Pump Power
3VP3-35-24-300	300	24	30-48	3	35	1 1/4"	2	<50	>1.3*Pump Power
3VP3.5-47-48-400	400	48	60-90	3.5	47	1 1/4"	2	<100	>1.3*Pump Power
3VP3.5-62-48-500	500	48	60-90	3.5	62	1 1/4"	2	<100	>1.3*Pump Power
3VP3.5-80-48-600	600	48	60-90	3.5	80	1 1/4"	2	<100	>1.3*Pump Power
3VP3.5-80-72-600	600	72	90-120	3.5	80	1 1/4"	2	<150	>1.3*Pump Power
3VP3.5-95-48-750	750	48	60-90	3.5	95	1 1/4"	2	<100	>1.3*Pump Power
3VP3.5-95-72-750	750	72	90-120	3.5	95	1 1/4"	2	<150	>1.3*Pump Power

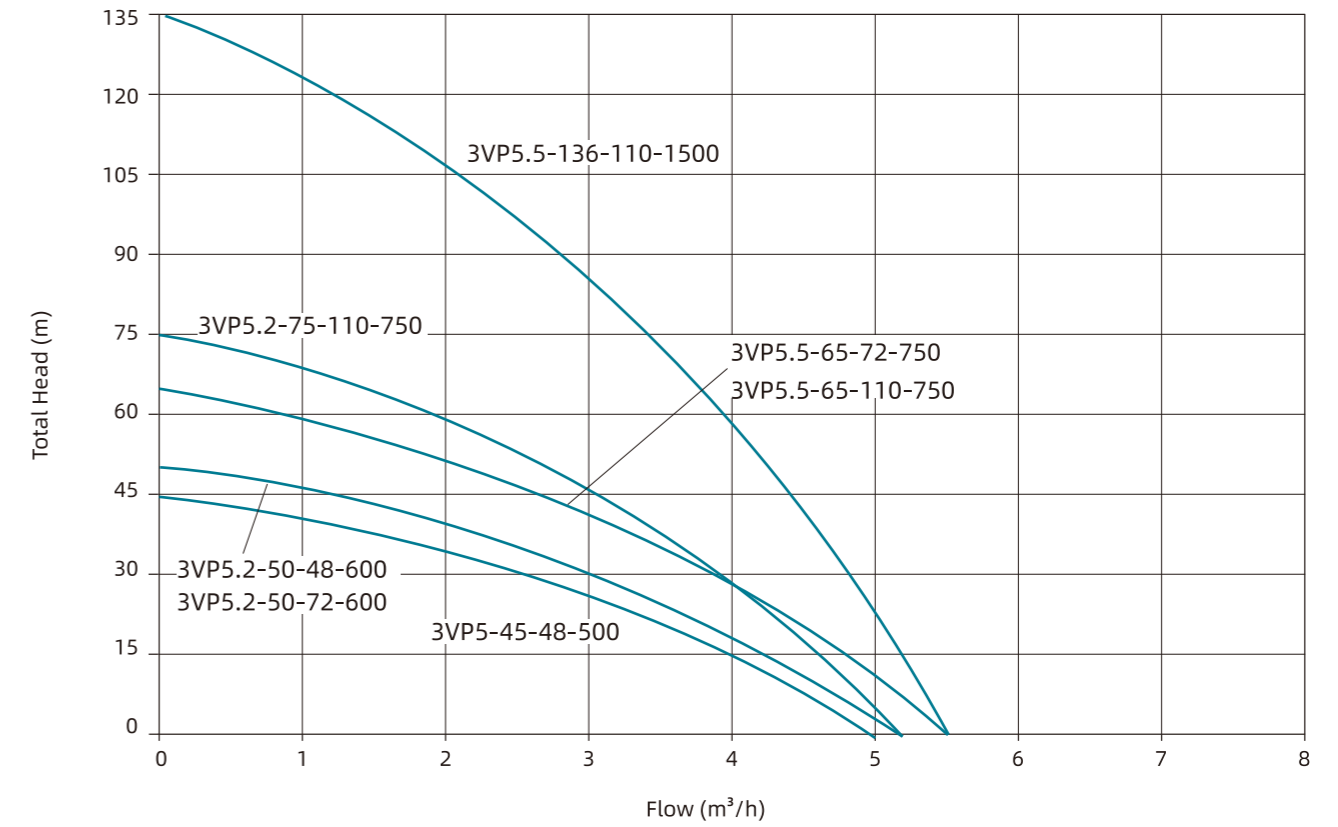
## 3" DC Solar Pump with Plastic Impeller



### Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
3VP3.8-123-72-1100	1100	72	90-120	3.8	123	1¼"	2	<150	>1.3*Pump Power
3VP3.8-123-110-1100	1100	110	110-150	3.8	123	1¼"	2	<200	>1.3*Pump Power
3VP3.8-155-110-1300	1300	110	110-150	3.8	155	1¼"	2	<200	>1.3*Pump Power
3VP3.8-180-110-1500	1500	110	110-150	3.8	180	1¼"	2	<200	>1.3*Pump Power
3VP3.5-195-110-1500	1500	110	110-150	3.5	195	1¼"	2	<200	>1.3*Pump Power

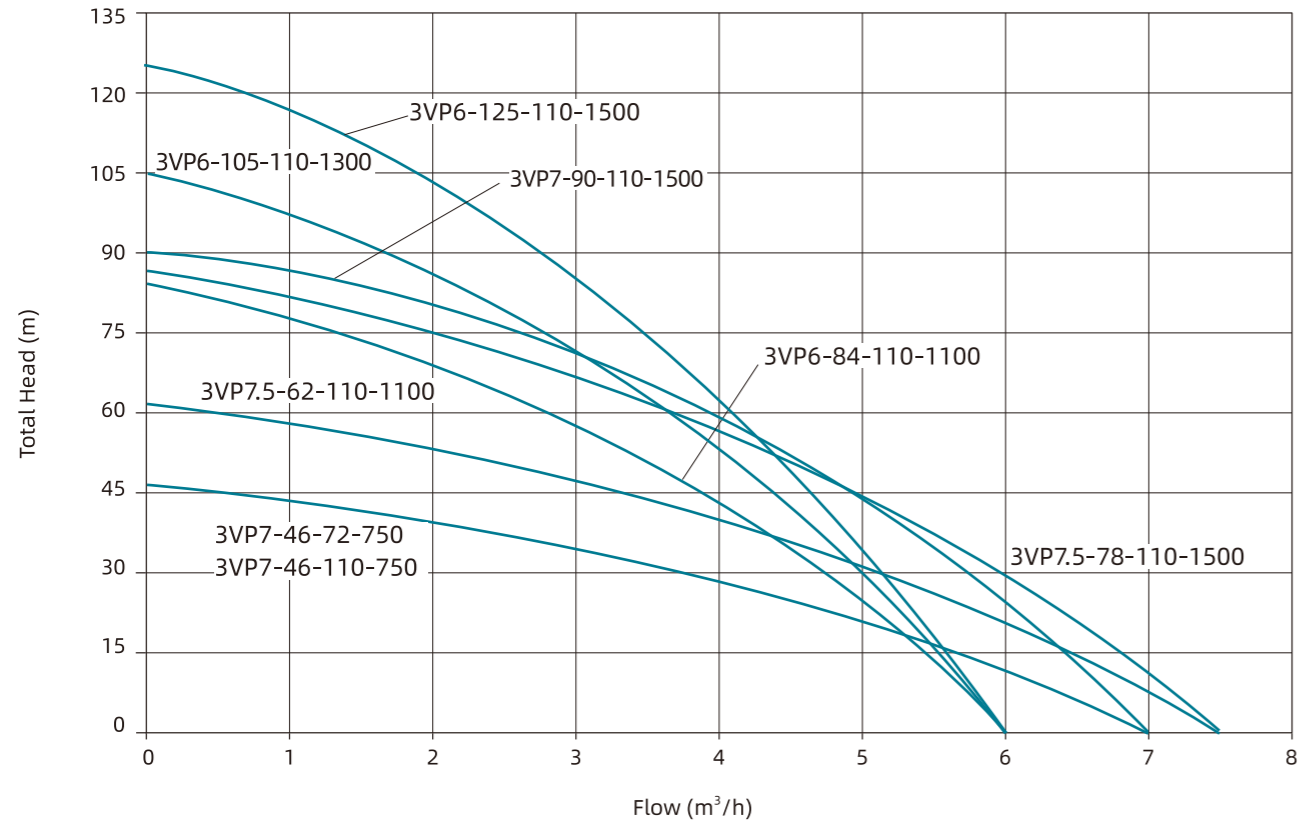
## 3" DC Solar Pump with Plastic Impeller



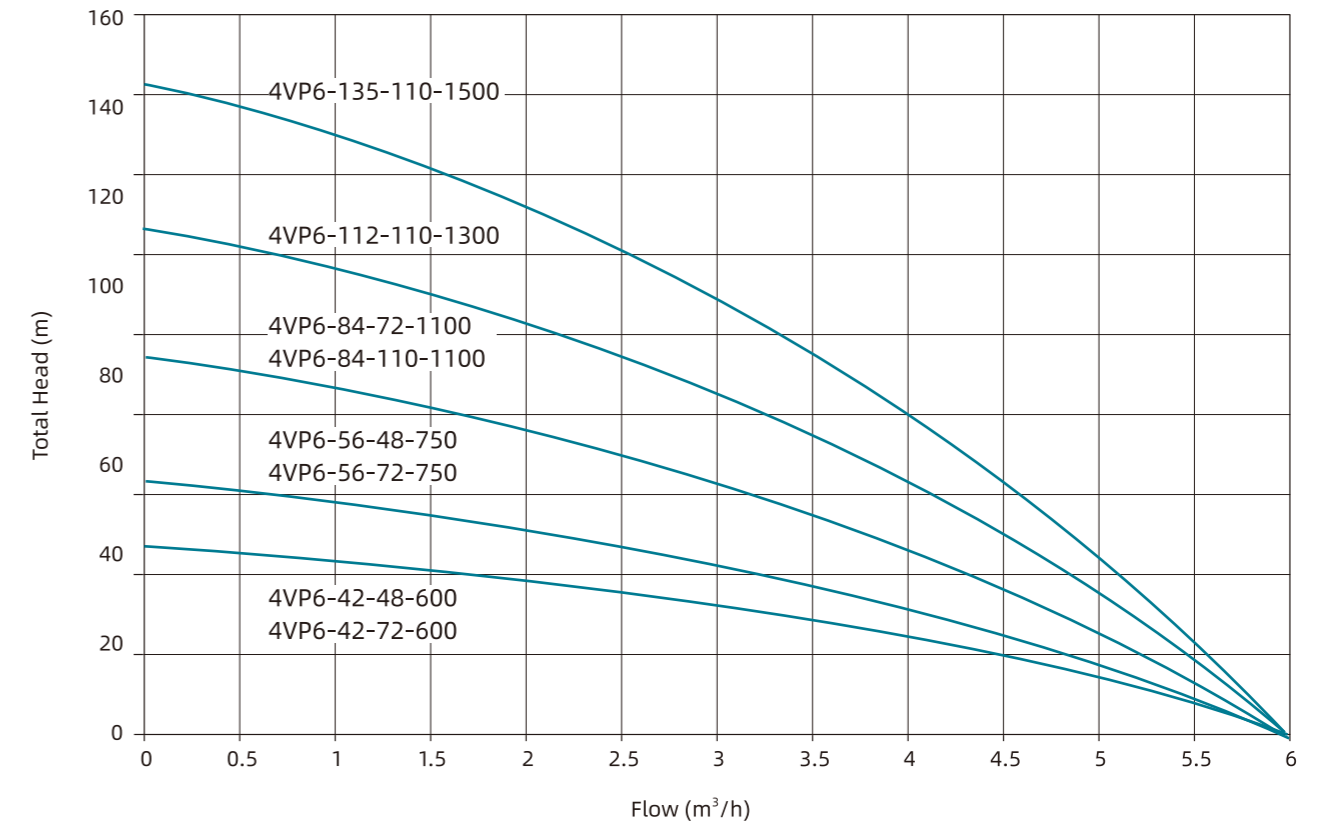
### Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit voltage(VOC)	Power
3VP5-45-48-500	500	48	60-90	5	45	1½"	2	<100	>1.3*Pump Power
3VP5.2-50-48-600	600	48	60-90	5.2	50	1½"	2	<100	>1.3*Pump Power
3VP5.2-50-72-600	600	72	90-120	5.2	50	1½"	2	<150	>1.3*Pump Power
3VP5.2-75-110-750	750	110	110-150	5.2	75	1½"	2	<200	>1.3*Pump Power
3VP5.5-65-72-750	750	72	90-120	5.5	65	1½"	2	<150	>1.3*Pump Power
3VP5.5-65-110-750	750	110	110-150	5.5	65	1½"	2	<200	>1.3*Pump Power
3VP5.5-136-110-1500	1500	110	110-150	5.5	136	1½"	2	<200	>1.3*Pump Power

### 3" DC Solar Pump with Plastic Impeller



### 4" DC Solar Pump with Plastic Impeller



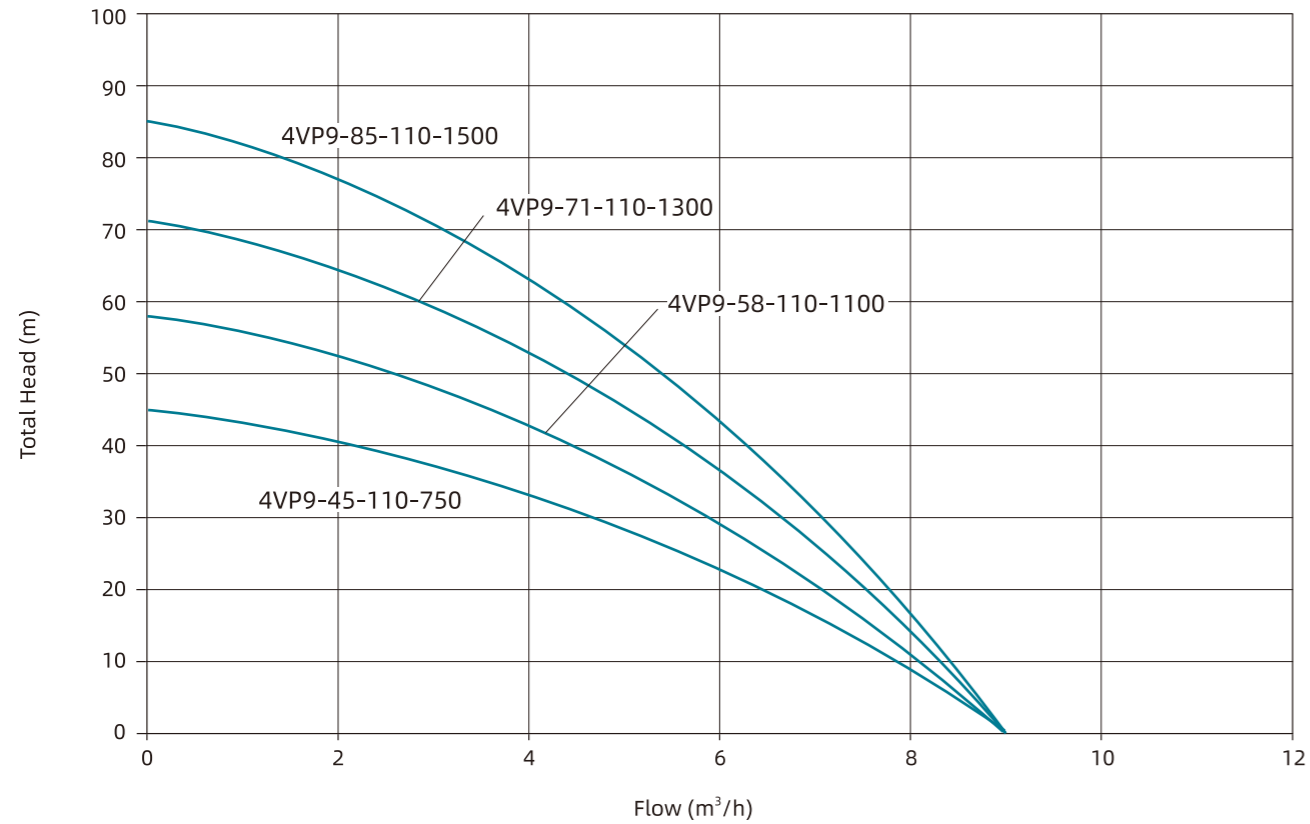
#### Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
3VP6-84-110-1100	1100	110	110-150	6	84	1½"	2	<200	>1.3*Pump Power
3VP6-105-110-1300	1300	110	110-150	6	105	1½"	2	<200	>1.3*Pump Power
3VP6-125-110-1500	1500	110	110-150	6	125	1½"	2	<200	>1.3*Pump Power
3VP7-46-72-750	750	72	90-120	7	46	1½"	2	<150	>1.3*Pump Power
3VP7-46-110-750	750	110	110-150	7	46	1½"	2	<200	>1.3*Pump Power
3VP7.5-62-110-1100	1100	110	110-150	7.5	62	1½"	2	<200	>1.3*Pump Power
3VP7.5-78-110-1500	1500	110	110-150	7.5	78	1½"	2	<200	>1.3*Pump Power
3VP7-90-110-1500	1500	110	110-150	7	90	1½"	2	<200	>1.3*Pump Power

#### Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
4VP6-42-48-600	600	48	60-90	6	42	1¼"	2	< 100	>1.3*Pump Power
4VP6-42-72-600	600	72	90-120	6	42	1¼"	2	< 150	>1.3*Pump Power
4VP6-56-48-750	750	48	60-90	6	56	1¼"	2	< 100	>1.3*Pump Power
4VP6-56-72-750	750	72	90-120	6	56	1¼"	2	< 150	>1.3*Pump Power
4VP6-84-72-1100	1100	72	90-120	6	84	1¼"	2	< 150	>1.3*Pump Power
4VP6-84-110-1100	1100	110	110-150	6	84	1¼"	2	<200	>1.3*Pump Power
4VP6-112-110-1300	1300	110	110-150	6	112	1¼"	2	<200	>1.3*Pump Power
4VP6-135-110-1500	1500	110	110-150	6	135	1¼"	2	<200	>1.3*Pump Power

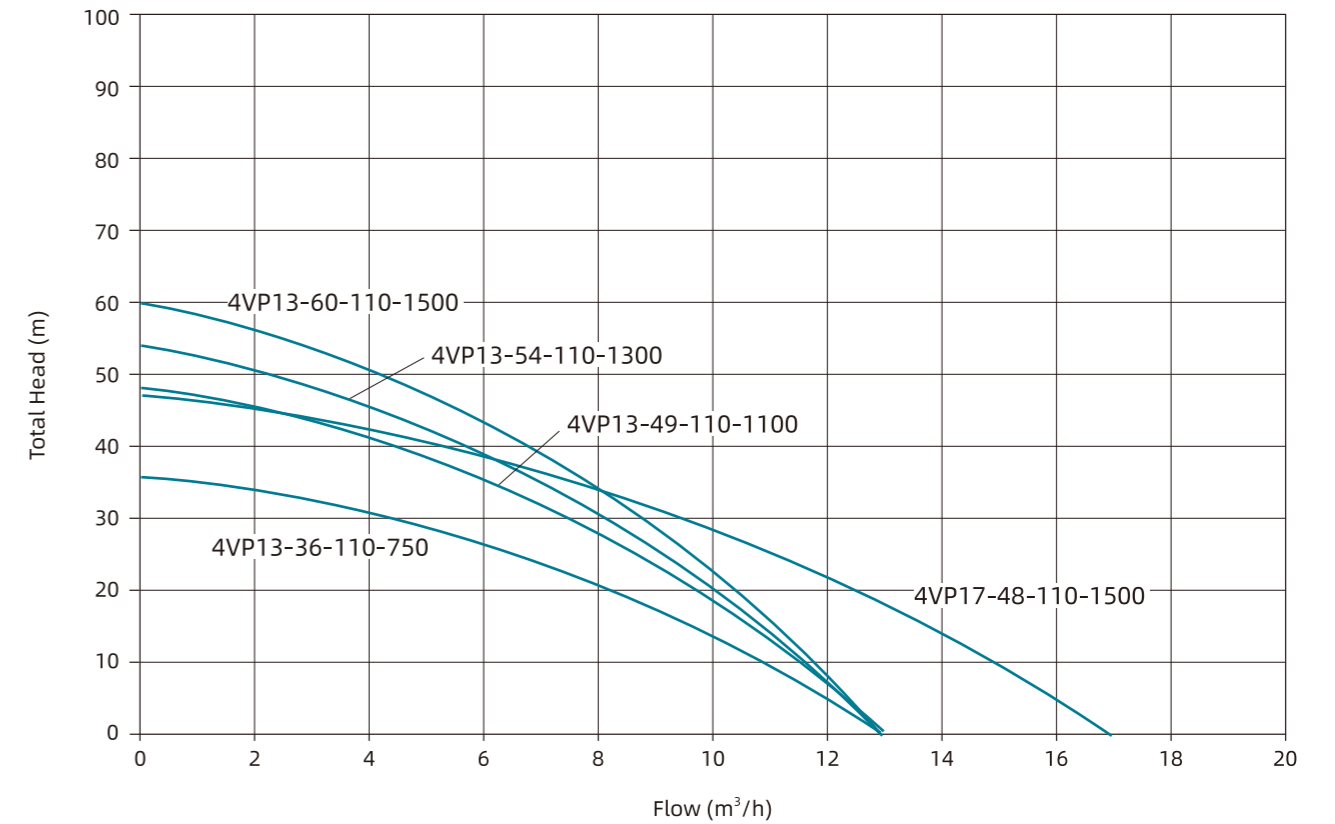
## 4" DC Solar Pump with Plastic Impelle



### Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
4VP9-45-110-750	750	110	110-150	9	45	2"	2	<200	>1.3*Pump Power
4VP9-58-110-1100	1100	110	110-150	9	58	2"	2	<200	>1.3*Pump Power
4VP9-71-110-1300	1300	110	110-150	9	71	2"	2	<200	>1.3*Pump Power
4VP9-85-110-1500	1500	110	110-150	9	85	2"	2	<200	>1.3*Pump Power

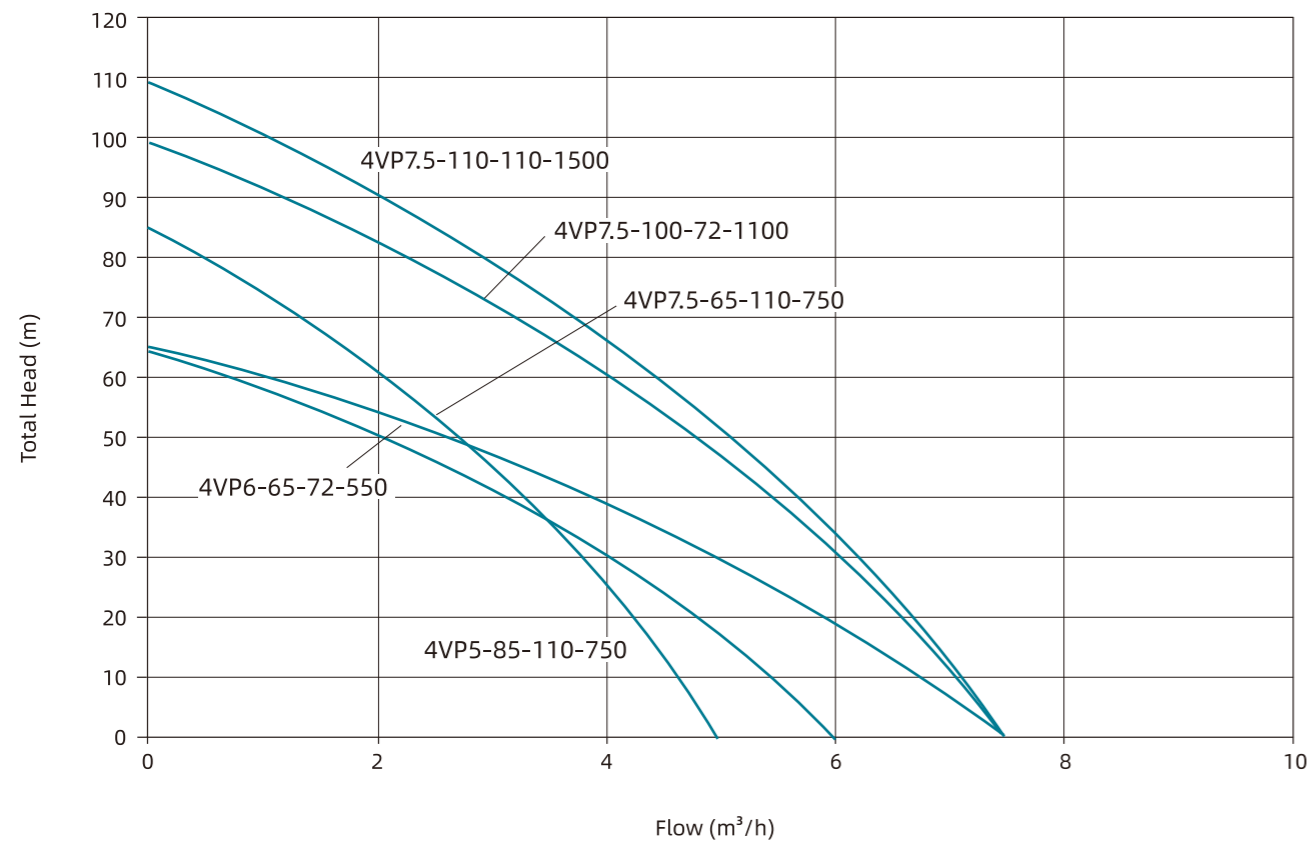
## 4" DC Solar Pump with Plastic Impeller



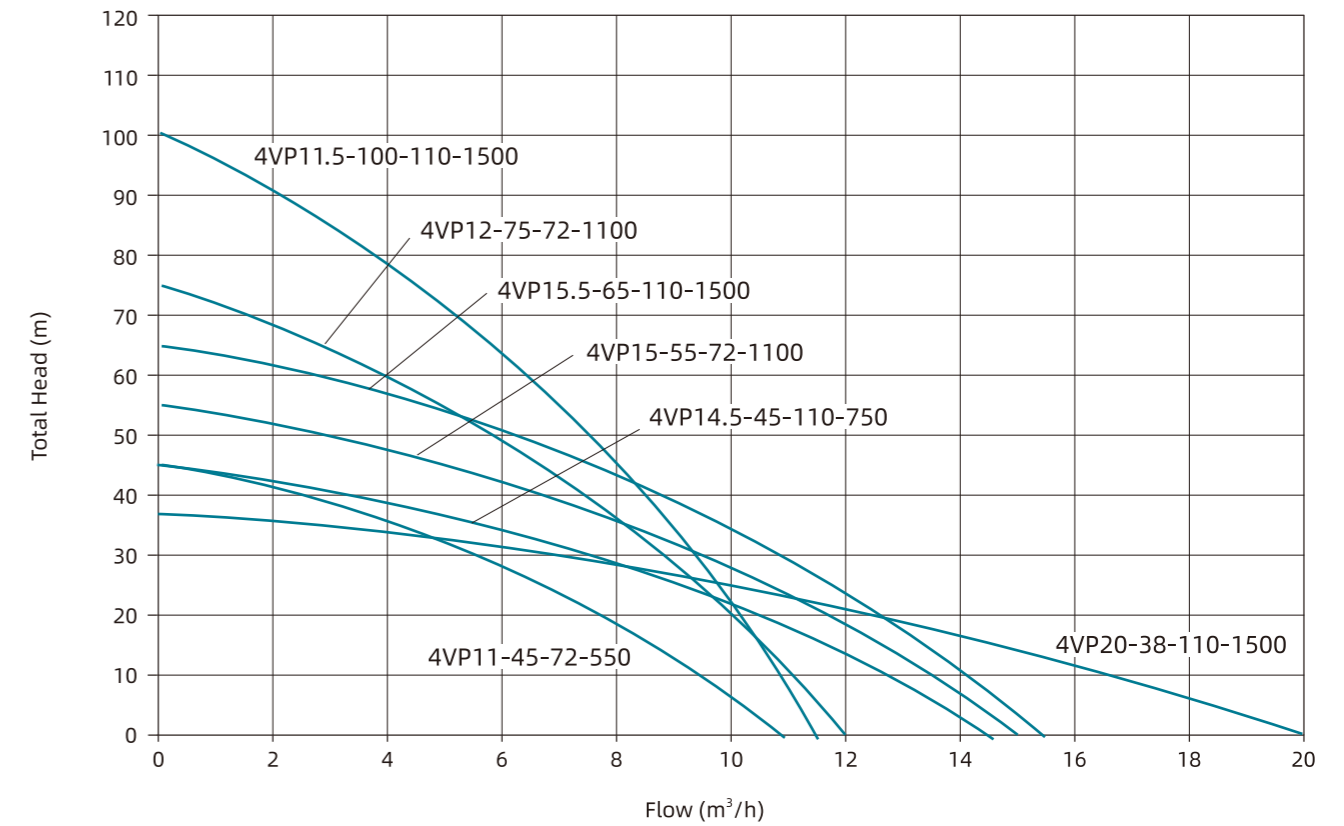
### Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
4VP13-36-110-750	750	110	110-150	13	36	2"	2	<200	>1.3*Pump Power
4VP13-49-110-1100	1100	110	110-150	13	49	2"	2	<200	>1.3*Pump Power
4VP13-54-110-1300	1300	110	110-150	13	54	2"	2	<200	>1.3*Pump Power
4VP13-60-110-1500	1500	110	110-150	13	60	2"	2	<200	>1.3*Pump Power
4VP17-48-110-1500	1500	110	110-150	17	48	2"	2	<200	>1.3*Pump Power

## 4" DC Solar Pump with Plastic Impeller



## 4" DC Solar Pump with Plastic Impeller



### Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
4VP5-85-110-750	750	110	110-150	5	85	2"	2	<200	>1.3*Pump Power
4VP6-65-72-550	550	72	90-120	6	65	2"	2	<150	>1.3*Pump Power
4VP7.5-65-110-750	750	110	110-150	7.5	65	2"	2	<200	>1.3*Pump Power
4VP7.5-100-72-1100	1100	72	90-120	7.5	100	2"	2	<150	>1.3*Pump Power
4VP7.5-110-110-1500	1500	110	110-150	7.5	110	2"	2	<200	>1.3*Pump Power

### Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
4VP11-45-72-550	550	72	90-120	11	45	2"	2	<150	>1.3*Pump Power
4VP12-75-72-1100	1100	72	90-120	12	75	2"	2	<150	>1.3*Pump Power
4VP11.5-100-110-1500	1500	110	110-150	11.5	100	2"	2	<200	>1.3*Pump Power
4VP14.5-45-110-750	750	110	110-150	14.5	45	2"	2	<200	>1.3*Pump Power
4VP15-55-72-1100	1100	72	90-120	15	55	2"	2	<150	>1.3*Pump Power
4VP15.5-65-110-1500	1500	110	110-150	15.5	65	2"	2	<200	>1.3*Pump Power
4VP20-38-110-1500	1500	110	110-150	20	38	2"	2	<200	>1.3*Pump Power



### Applications

- Agriculture irrigation, livestock feeding, Domestic water lifting
- Clear water supply from wells or reservoirs
- Off grid solar pumping system

### Pump Features

- With MPPT DC controller
- AISI304 impeller and diffuser
- AISI304 oil chamber & outlet
- NSK bearing
- High efficiency PMSM brushless motor  
(PMSM: Permanent Magnet Synchronous Motor)

### MPPT DC Controller

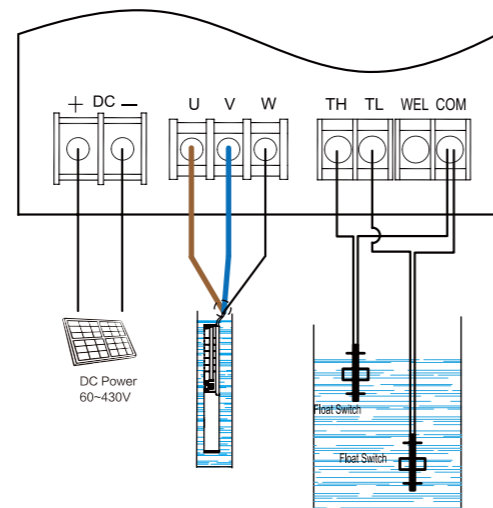
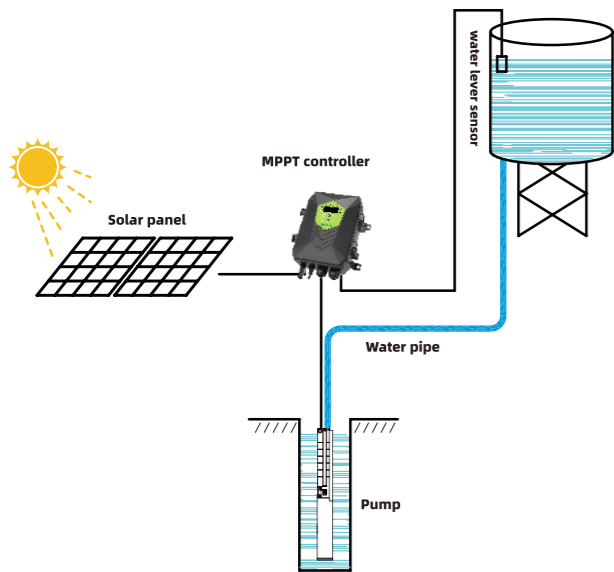
- Protection class: IP55
- Ambient temperature: -15 ~ 60°C
- LED Displays working conditions & Fault code
- Auto Start & Stop
- Soft start & VFD function

### Identification Codes

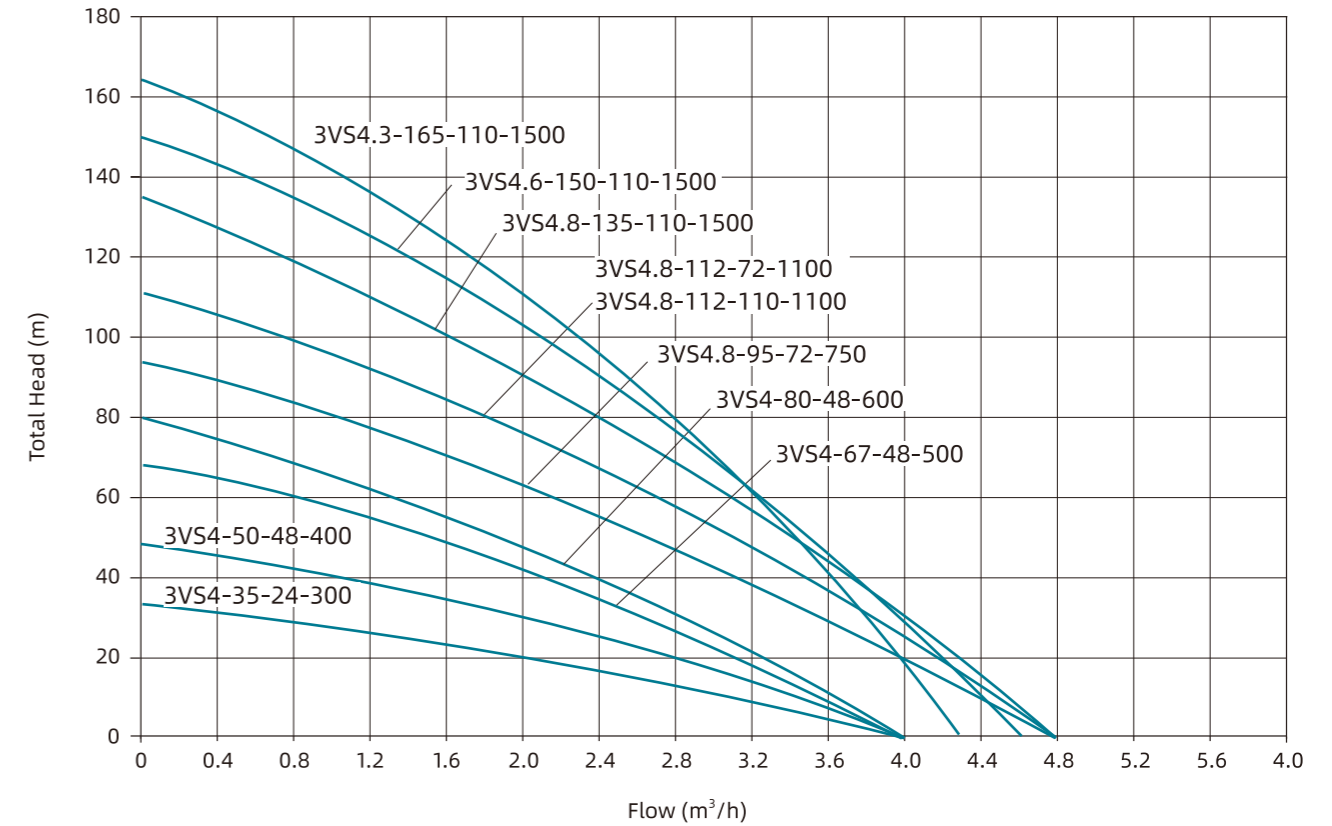
3 VS 4 - 35 - 24 - 300  
 ① ② ③ ④ ⑤ ⑥

① 3 Inch	④ Max. Head (m)
② VEICHI SS Impeller Borehole Pump	⑤ Motor Voltage
③ Max. Flow (m <sup>3</sup> /h)	⑥ Power (W)

### Wiring Diagram

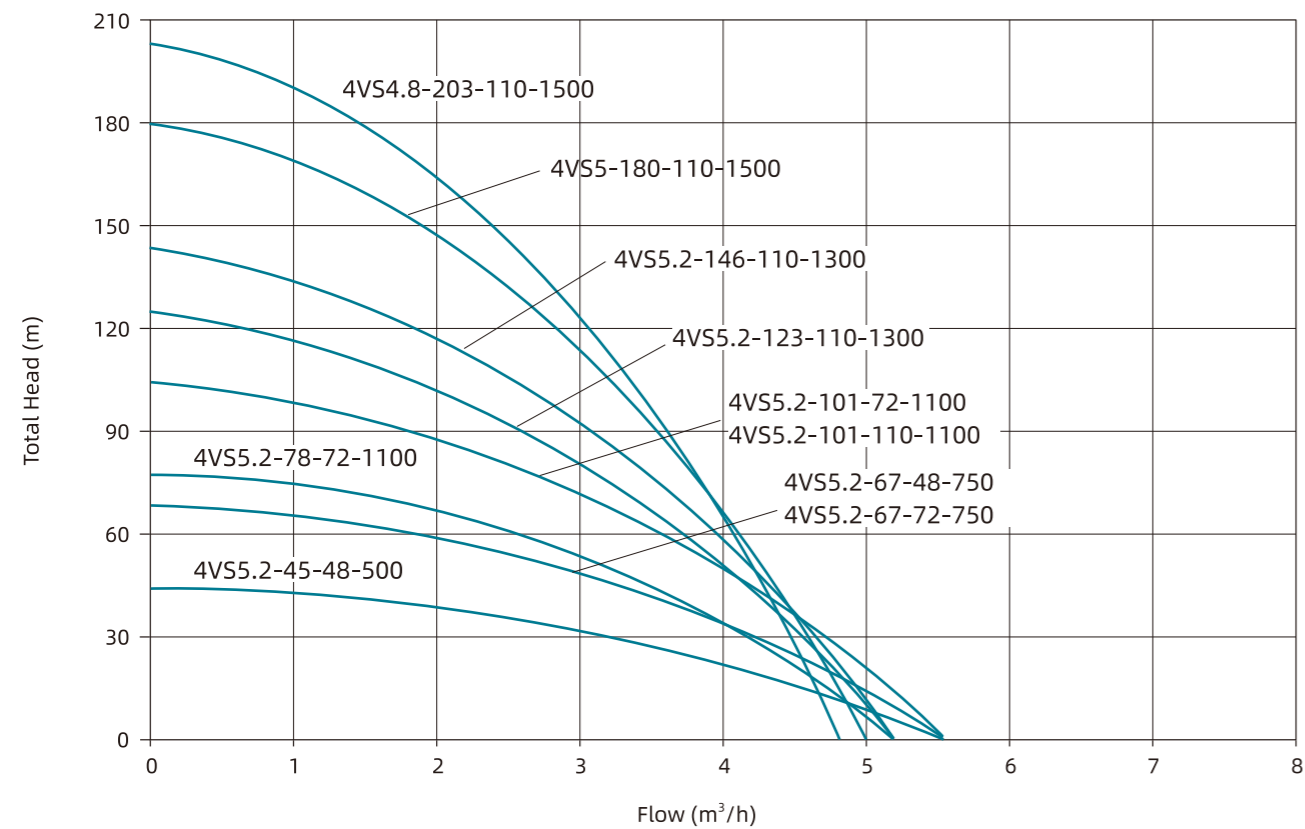


## 3" DC Solar Pump with SS Impeller



Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m <sup>3</sup> /h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
3VS4-35-24-300	300	24	30-48	4	35	1¼"	2	<50	>1.3*Pump Power
3VS4-50-48-400	400	48	60-90	4	50	1¼"	2	<100	>1.3*Pump Power
3VS4-67-48-500	500	48	60-90	4	67	1¼"	2	<100	>1.3*Pump Power
3VS4-80-48-600	600	48	60-90	4	80	1¼"	2	<100	>1.3*Pump Power
3VS4.8-95-72-750	750	72	90-120	4.8	95	1¼"	2	<150	>1.3*Pump Power
3VS4.8-112-72-1100	1100	72	90-120	4.8	112	1¼"	2	<150	>1.3*Pump Power
3VS4.8-112-110-1100	1100	110	110-150	4.8	112	1¼"	2	<200	>1.3*Pump Power
3VS4.8-135-110-1500	1500	110	110-150	4.8	135	1¼"	2	<200	>1.3*Pump Power
3VS4.6-150-110-1500	1500	110	110-150	4.6	150	1¼"	2	<200	>1.3*Pump Power
3VS4.3-165-110-1500	1500	110	110-150	4.3	165	1¼"	2	<200	>1.3*Pump Power

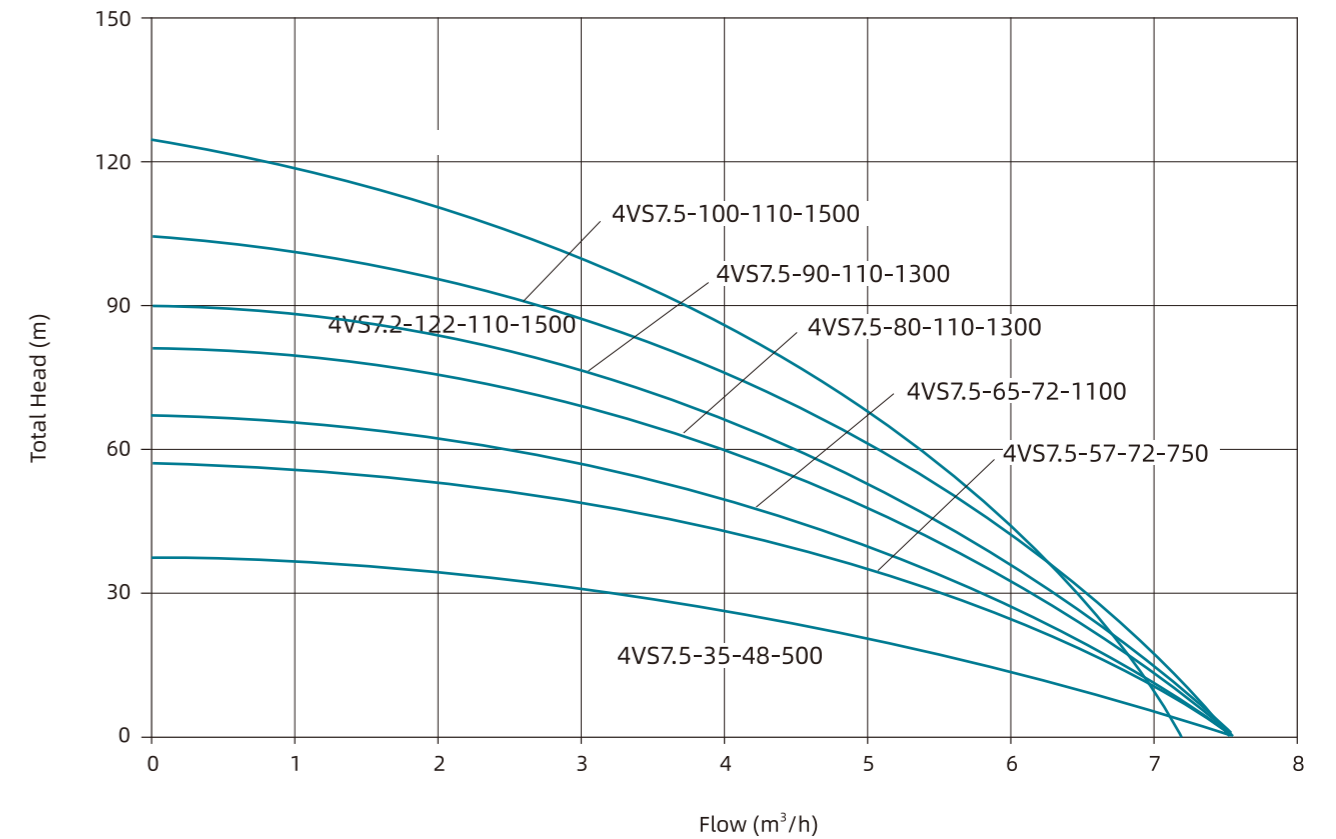
## 4" DC Solar Pump with SS Impeller



### Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
4VS5.2-45-48-500	500	48	60-90	5.5	45	1¼"	2	<100	>1.3*Pump Power
4VS5.2-67-48-750	750	48	60-90	5.5	67	1¼"	2	<100	>1.3*Pump Power
4VS5.2-67-72-750	750	72	90-120	5.5	67	1¼"	2	<150	>1.3*Pump Power
4VS5.2-78-72-1100	1100	72	90-120	5.2	78	1¼"	2	<150	>1.3*Pump Power
4VS5.2-101-72-1100	1100	72	90-120	5.5	101	1¼"	2	<150	>1.3*Pump Power
4VS5.2-101-110-1100	1100	110	110-150	5.5	101	1¼"	2	<200	>1.3*Pump Power
4VS5.2-123-110-1300	1300	110	110-150	5.2	123	1¼"	2	<200	>1.3*Pump Power
4VS5.2-146-110-1300	1300	110	110-150	5.2	146	1¼"	2	<200	>1.3*Pump Power
4VS5-180-110-1500	1500	110	110-150	5	180	1¼"	2	<200	>1.3*Pump Power
4VS4.8-203-110-1500	1500	110	110-150	4.8	203	1¼"	2	<200	>1.3*Pump Power

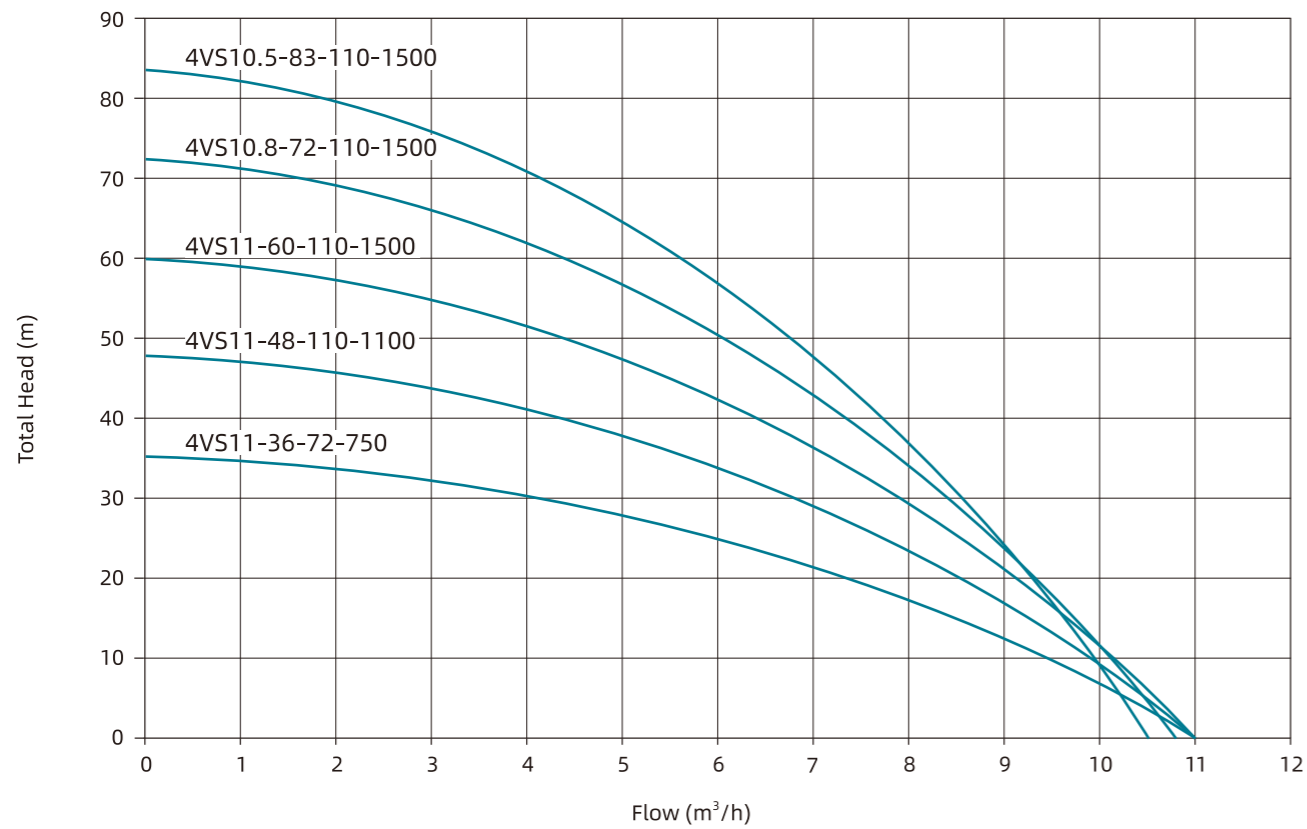
## 4" DC Solar Pump with SS Impeller



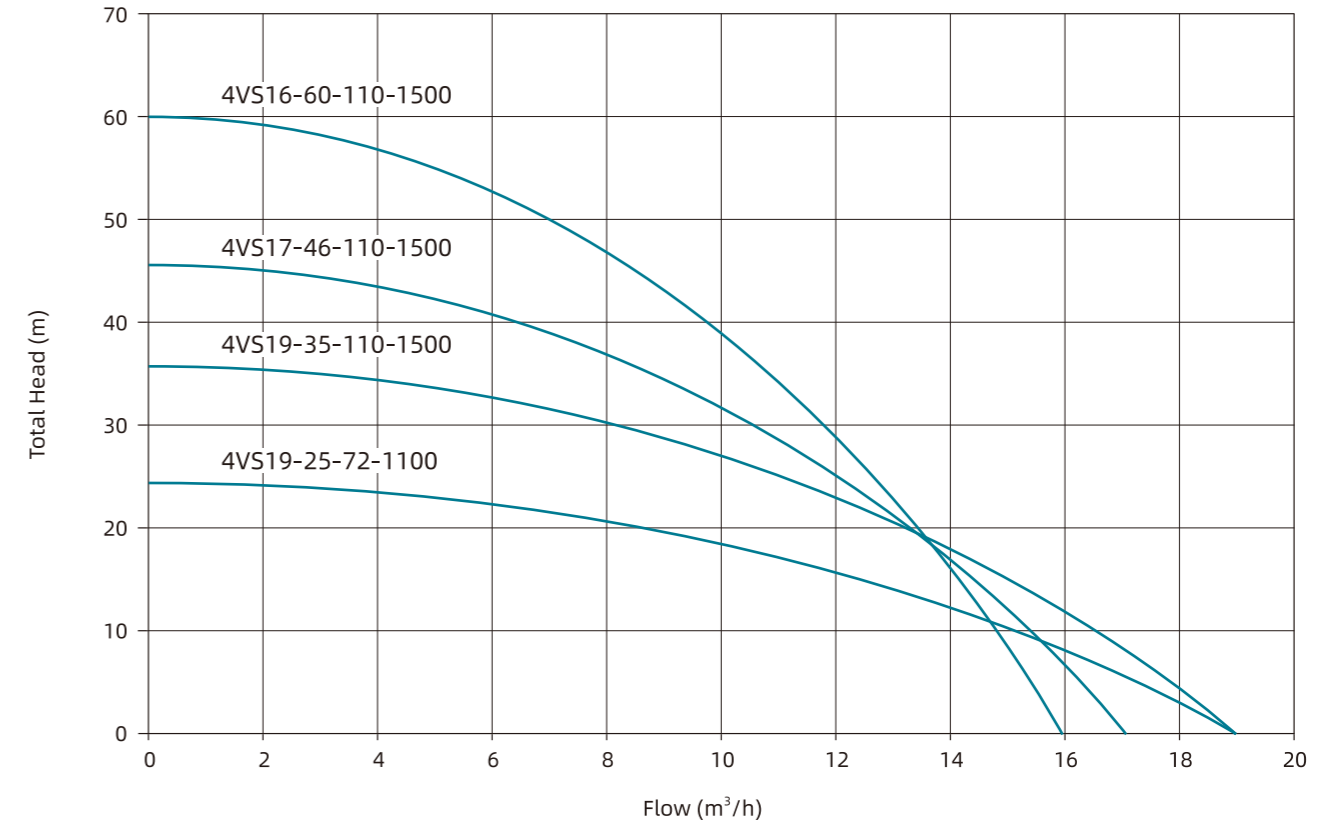
### Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
4VS7.5-35-48-500	500	48	60-90	7.5	35	1¼"	2	<100	>1.3*Pump Power
4VS7.5-57-72-750	750	72	90-120	7.5	57	1¼"	2	<150	>1.3*Pump Power
4VS7.5-65-72-1100	1100	72	90-120	7.5	65	1¼"	2	<150	>1.3*Pump Power
4VS7.5-80-110-1300	1300	110	110-150	7.5	80	1¼"	2	<200	>1.3*Pump Power
4VS7.5-90-110-1300	1300	110	110-150	7.5	90	1¼"	2	<200	>1.3*Pump Power
4VS7.5-100-110-1500	1500	110	110-150	7.5	100	1¼"	2	<200	>1.3*Pump Power
4VS7.2-122-110-1500	1500	110	110-150	7.2	122	1¼"	2	<200	>1.3*Pump Power

## 4" DC Solar Pump with SS Impeller



## 4" DC Solar Pump with SS Impeller



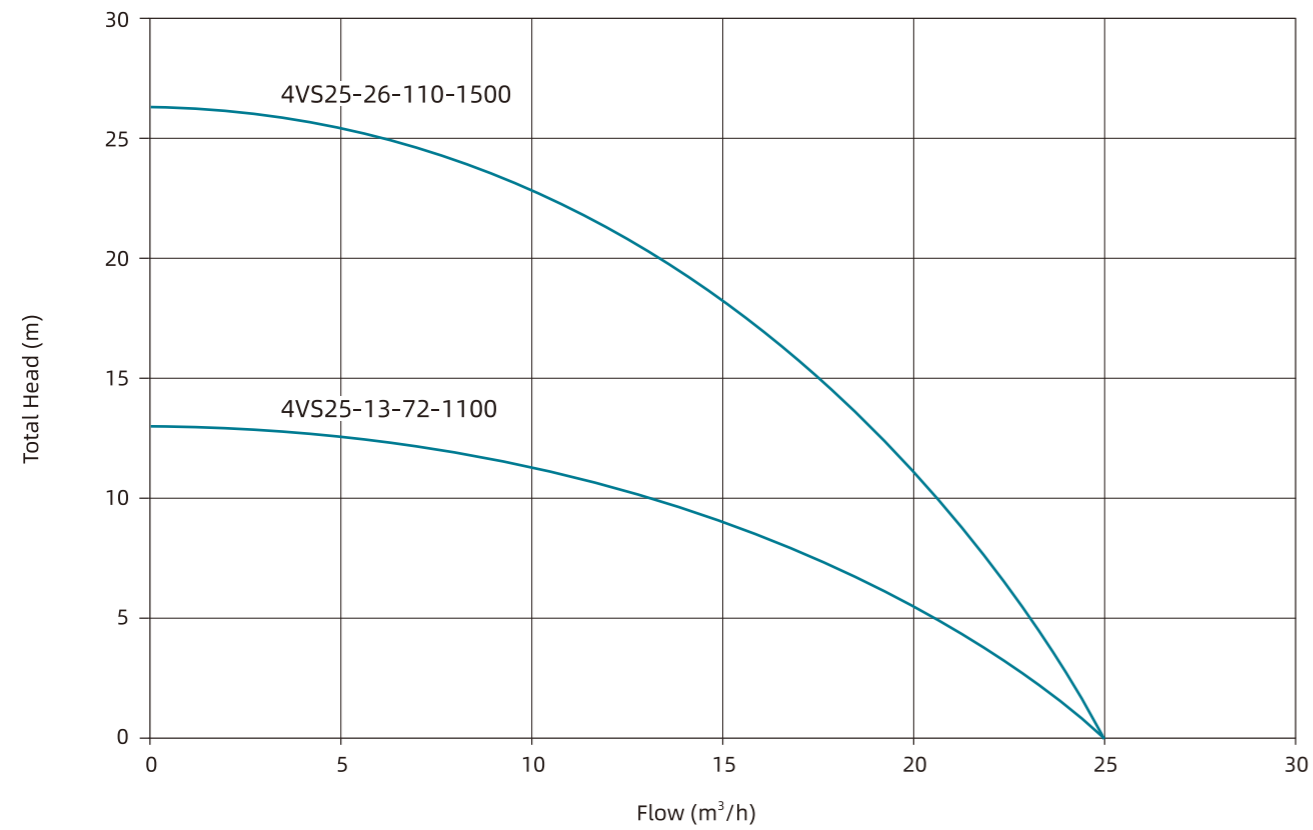
### Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
4VS11-36-72-750	750	72	90-120	11	36	2"	2	<150	>1.3*Pump Power
4VS11-48-110-1100	1100	110	110-150	11	48	2"	2	<200	>1.3*Pump Power
4VS11-60-110-1500	1500	110	110-150	11	60	2"	2	<200	>1.3*Pump Power
4VS10.8-72-110-1500	1500	110	110-150	10.8	72	2"	2	<200	>1.3*Pump Power
4VS10.5-83-110-1500	1500	110	110-150	10.5	83	2"	2	<200	>1.3*Pump Power

### Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
4VS19-25-72-1100	1100	72	90-120	19	25	2"	2	<150	>1.3*Pump Power
4VS19-35-110-1500	1500	110	110-150	19	35	2"	2	<200	>1.3*Pump Power
4VS17-46-110-1500	1500	110	110-150	17	46	2"	2	<200	>1.3*Pump Power
4VS16-60-110-1500	1500	110	110-150	16	60	2"	2	<200	>1.3*Pump Power

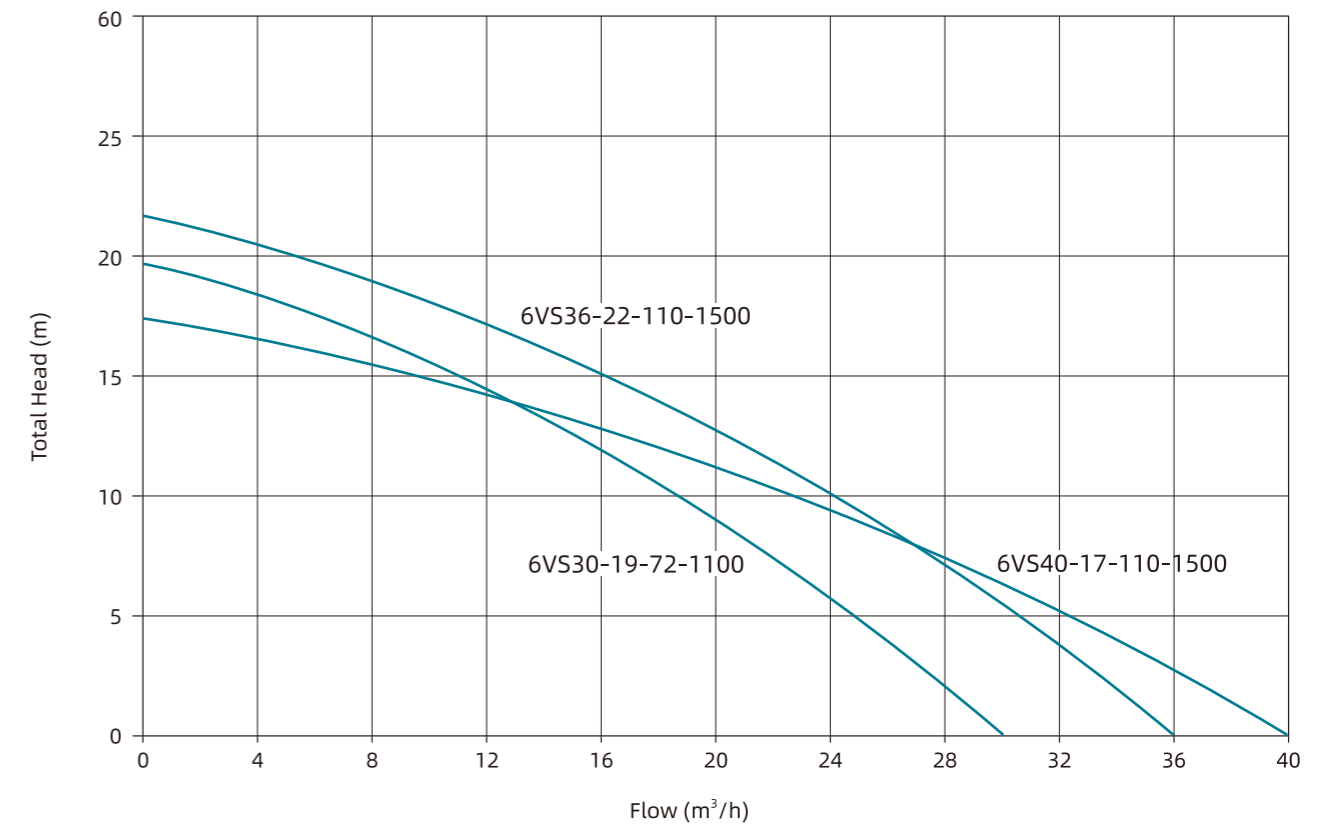
## 4" DC Solar Pump with SS Impeller



### Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
4VS25-13-72-1100	1100	72	90-120	25	13	2"	2	<150	>1.3*Pump Power
4VS25-26-110-1500	1500	110	110-150	25	26	2"	2	<200	>1.3*Pump Power

## 6" DC Solar Pump with SS Impeller



### Technical Data

Model	Power (W)	Rated Voltage (V)	Optimum Input Voltage (V)	Max. Flow (m³/h)	Max. Head (m)	Outlet (inch)	Cable (m)	Recommended Solar Panel	
								Open Circuit Voltage(VOC)	Power
6VS30-19-72-1100	1100	72	90-120	30	19	3"	2	<200	>1.3*Pump Power
6VS36-22-110-1500	1500	110	110-150	36	22	3"	2	<200	>1.3*Pump Power
6VS40-17-110-1500	1500	110	110-150	40	17	3"	2	<200	>1.3*Pump Power