

Nominal Flow	1.0 m <sup>3</sup> /hr @ 140 m
Flow Range	0.5 ~ 3.2 m <sup>3</sup> /hr
Head Range	20 ~ 200 m

## Solar pumping System

### Note:

SAMKING solar motor powers the new system for the supply of clean water based on the most widely available renewable energy, the sun. It is designed for easy use and requires no maintenance. It is the ideal solution for supplying water in remote areas, where the normal power supply of electricity from the power grid is inconsistent or completely unavailable

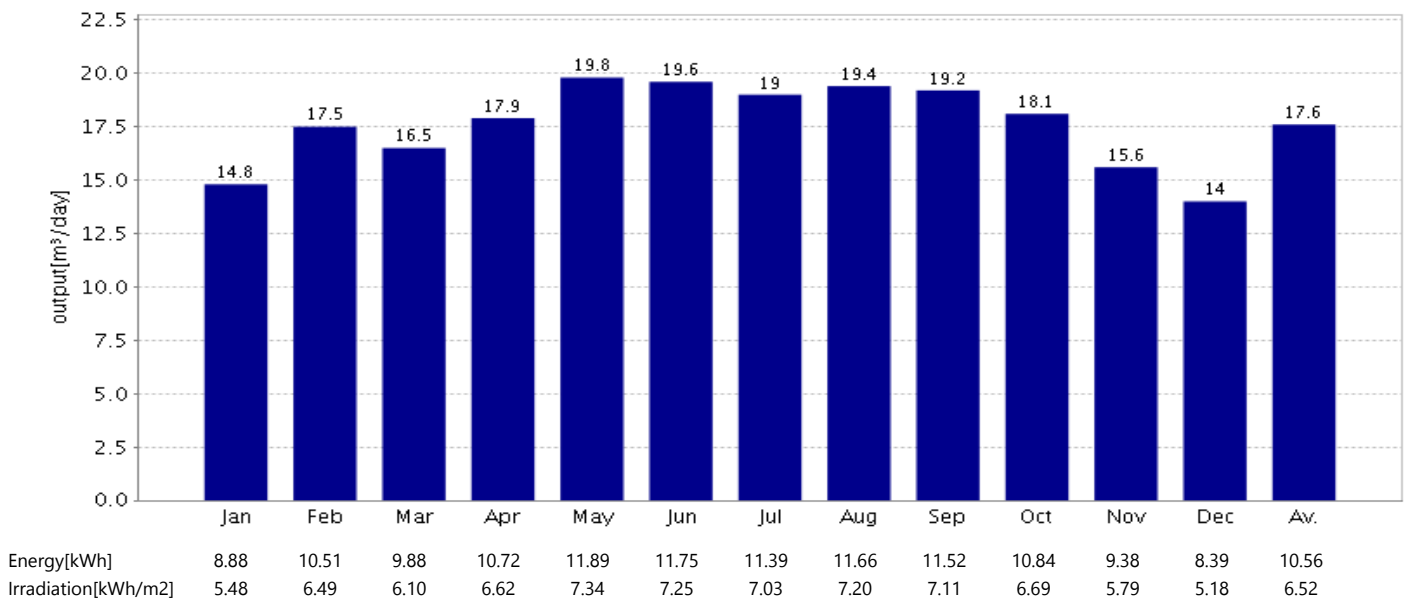
### Parameter

Location:	United Arab Emirates;Du bai	Water Temp:	25°C		
Required daily output:	15m <sup>3</sup> /day	Dirt loss:	3%	Motor lenght:	50
Pipe type:	Plastic	Static Head:	40m	Pipe length:	20m

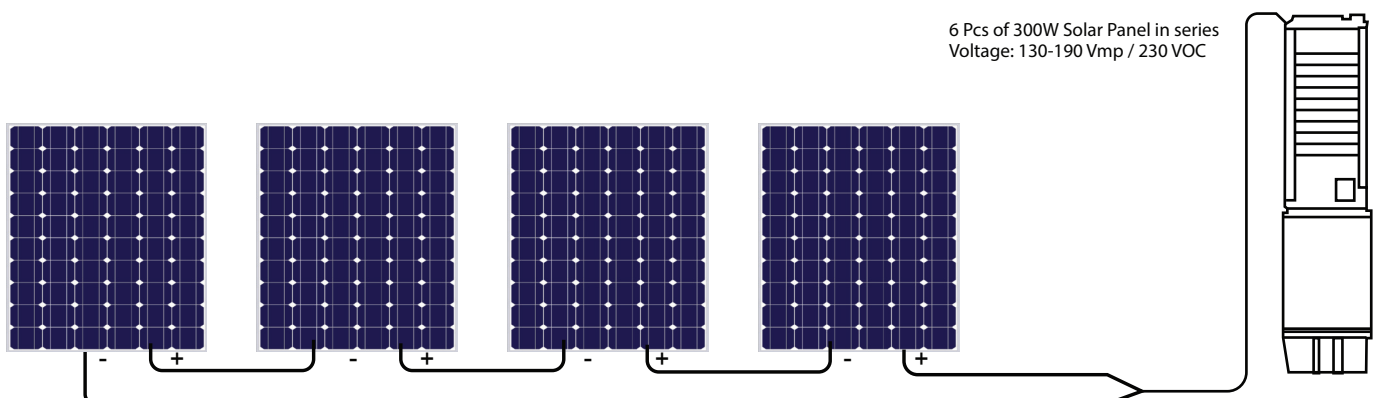
### Products

Submersible pump	1pc;4SPW1-16PA(1800W AC&DC)
Solar panel	6pc;1800Wp;300w ×6pcs
Motor cable	
Pipeline	20m;Pipeline
Accessories	

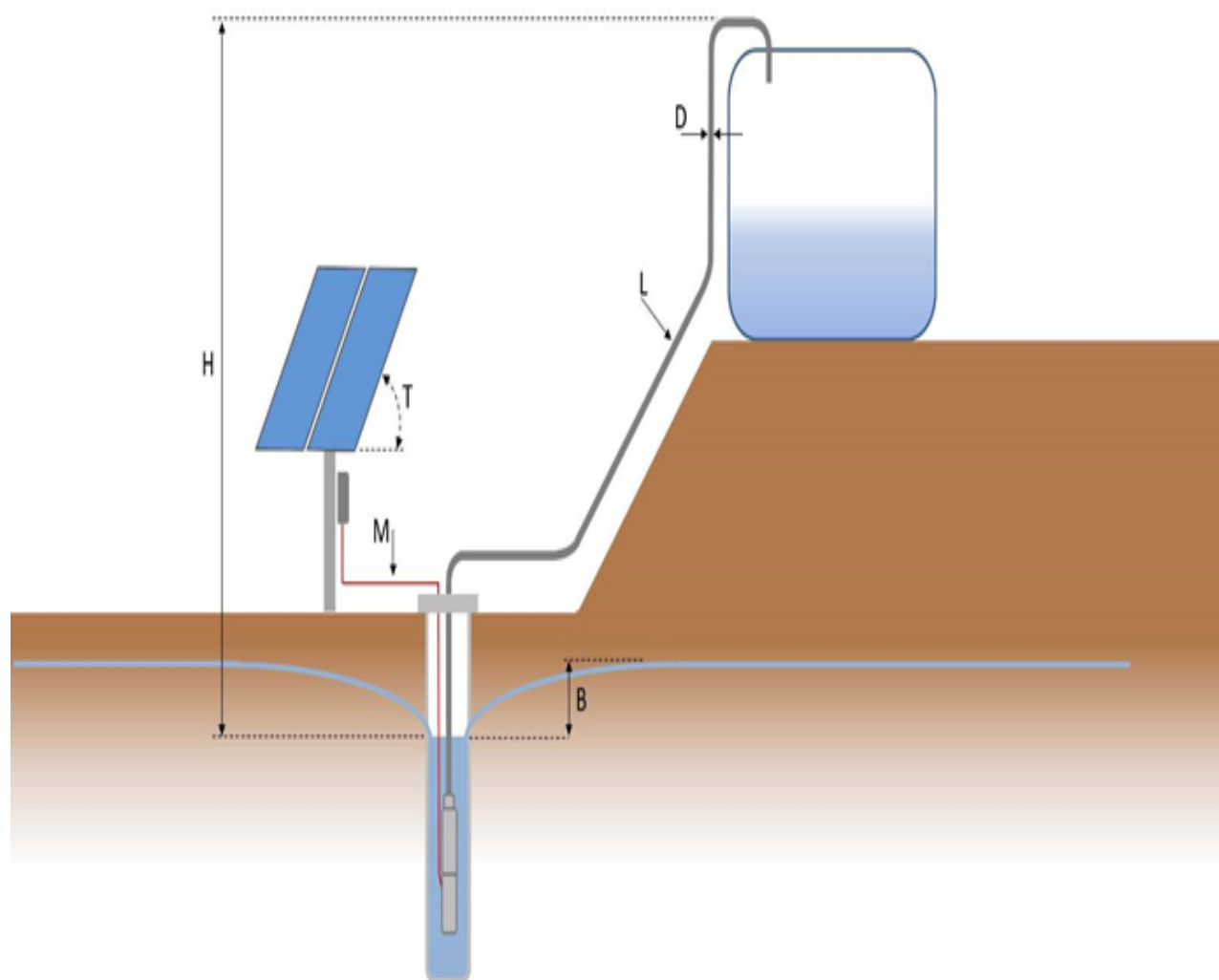
### Daily output in average month (17.6) m<sup>3</sup>/day



### Solar Panel Wiring

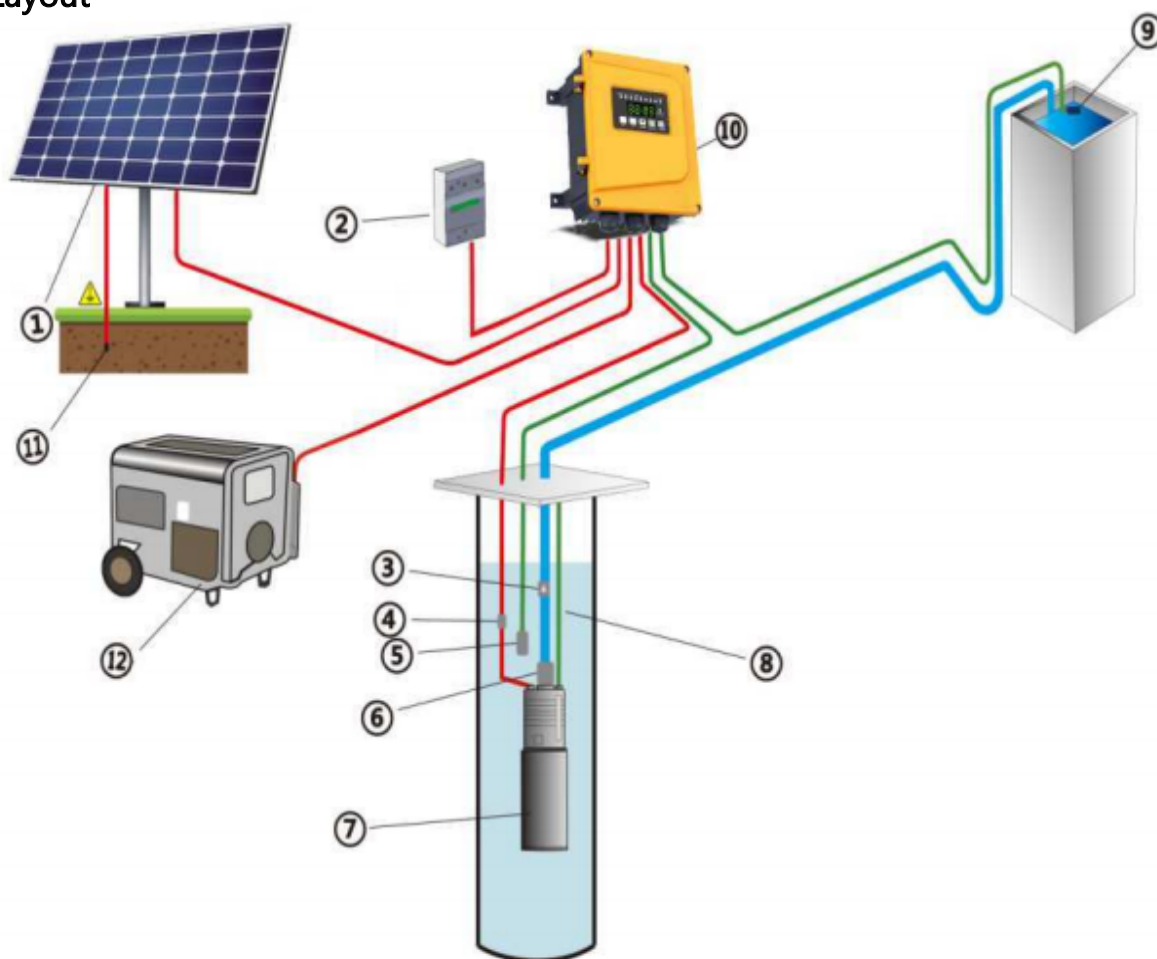


## Sizing Layout



<b>H (Static head):</b>	Vertical height from the dynamic water level to the highest point of delivery.
<b>B (Drawdown):</b>	Lowering of water level depending on flow rate and recovery rate of the well.
<b>D (Pipeline inner diameter):</b>	
<b>L (Pipe length):</b>	Entire pipeline from the pump outlet to the point of delivery. Elbows and armatures must be added as an equivalent length of pipeline.
<b>M (Motor cable):</b>	The cable between controller and pump unit.
<b>T (Tilt angle):</b>	Angle of the PV generator surface from the horizontal plane.

## System Layout



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- 1、Solar Panel Array
  - 2、SPD(DC-600V), Surge Protection Device (Optional)
  - SPD(AC-275V), Surge Protection Device (Optional)
  - 3、Check valve (Optional)
  - 4、Wiring waterproof assembly
  - 5、The Low-Level Float (For Well ,Optional)
  - 6、Sacrificial Anode (Optional)
  - 7、Water Pump End and BLDC Motor
  - 8、Safety rope
  - 9、The High-Level Float (For Tank ,Optional)
  - 10、External controller
  - 11、Grounding pile (Optional)
  - 12、Generator (Single phase 220V)
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## 4SPW1-16PA(1800W AC&DC)

### Solar Submersible Pump System

#### System Overview

Head	max. 175m
Flow	max. 62L/min
Recommend Max input Power	max. 1.8 kW
Minimum well diameter	min 4 inch
Pump discharge	Rp 2
Efficiency Max	45%

#### Product advantage

- .Stainless steel Motor: AISI 304 (316 optional);
- .BLDC High Efficiency Motor;
- .External Controller;
- .Accpet both AC & DC
- .Voltage/Current/Power/RPM/Display;
- .Encapsulated water filled motor(No pollution risk );
- .Soft start running makes system's life longer;
- .Thrust bearing system;
- .Reverse protection(reverse + and - is fine );
- .Over load protection/over current protection/over power protection;
- .Voltage:60-380Vmp/450VOC;AC 150-240V 50Hz&60Hz
- .Dry protection(No additional float sensor required);

#### Technical Data

##### Controller 4SPW1-16PA(1800W AC&DC)

- .Controller Model 4SPW-A-1800W
- .MPPT Efficiency Max.98%;
- .Voltage:60-380Vmp/450VOC;AC 150-240V 50Hz&60Hz;
- .Enclosure class:IP65;
- .Error report;
- .Losing-Phase protection;
- .Over temperature protection

##### Motor 4SPW-A(1800W AC&DC)

Voltage	AC 150-240V DC max.VOC 450V DC Vmp 60-380V
Current	max.AC 10A max.DC 10A
Motor Efficiency	max.85%
WaterTemp	max.40°C
Insulation class	F
Enclosure class	IP X8
Submersion	max.150m
Speed	500-4000

#### Pump End

- .Plastic impeller ;stainless steel shell;
- .Non-return valve;
- .Centrifugal pump.

#### Standards



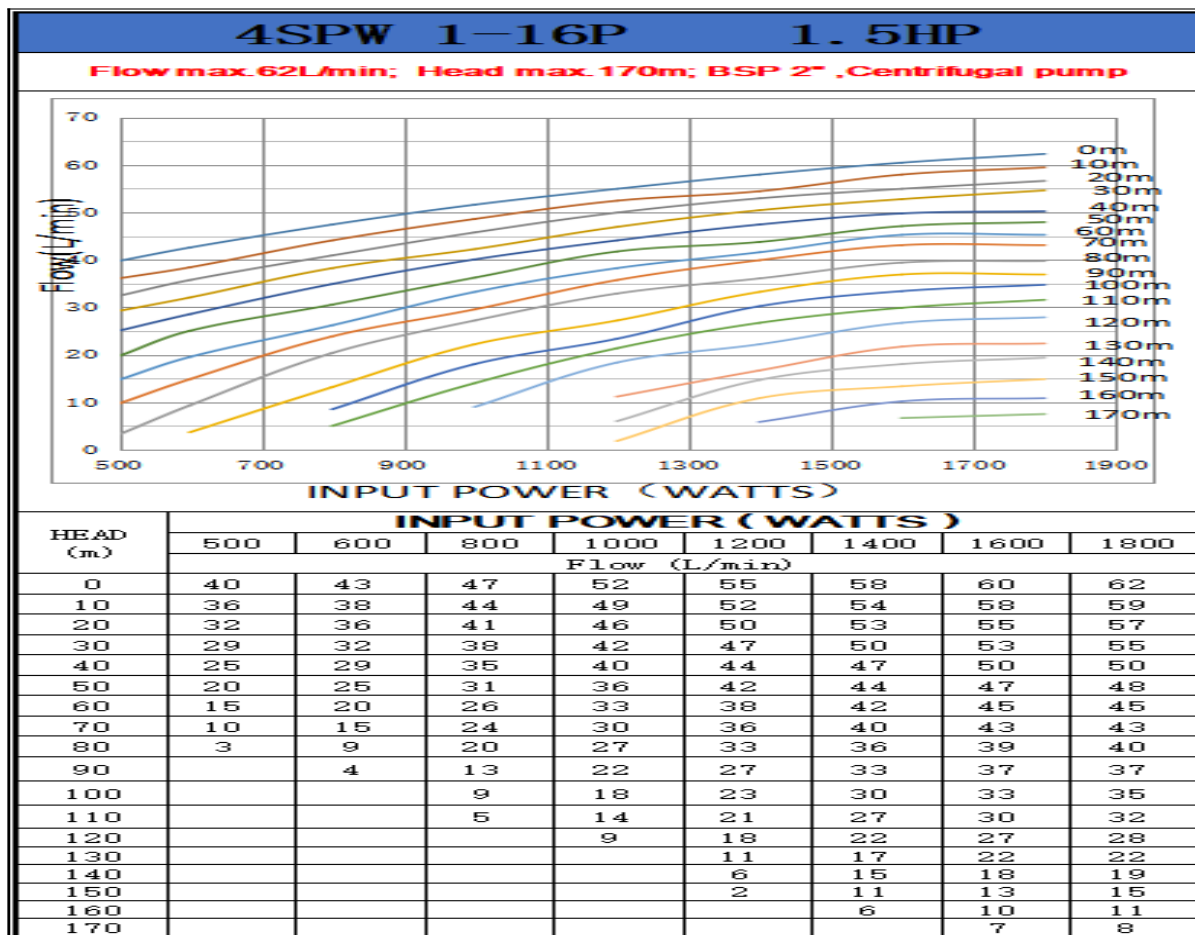
#### Note:

- \*Accpet 2-10 PCS 340W panel best 4-6Pcs
- \*The Controller is IP65 Rated however it is recommended that it is not mounted in direct sunlight;
- \*VOC (V) Volts open circuit nothing connected;Vmp (V) Volts maximum power point under load;Exceeding limits may cause serious harm.

## 4SPW1-16PA(1800W AC&DC)

Solar Pumping project

Pump chart



A/D-4SPW1-16P

## Dimensions and Weights

