



Construction

Wetted parts are food grade stainless steel, food grade thermoplastic (Viton), carbon and ceramic for superior reliability and corrosion resistance.

Over voltage protection

When the voltage over 28V, the pump will auto-protect and shut off own power supply, when the voltage falls below 28V, the pump will restart automatically.

Over load protection function

This means that when the current is over the rated current, such as can arise if the impeller is stuck due to debris. The pump will automatically stop to prevent damage, and will restart when the current falls again.

PV operated

For solar system loops, the TD5 pump can be powered directly from a PV panel. The sun comes up, heat builds in the solar hot water panel and at the same time electricity is made in the PV panel. The pump slowly starts with the smallest amount of current and pushes the heated water to the storage tank. It's all too simple and eliminates all controllers, thermostats and sensors.

Soft start-up

The TD5 Solar DC pump has a soft start-up feature which reduces high in-rush current. When the photovoltaic panel provides sufficient power, the pump goes through the alignment phase by turning the rotor into the position required for start-up. The processor then waits until the capacitor is sufficiently charged. This enables a start-up with minimal power (less than two watt). Cycling due to unsuccessful attempts is minimized. Even after prolonged shutdown, the

Motor

DC brushless motor with energy efficiency technology use MPPT by micro processor, and variable speed & power consumption optional by dial control. Stable & advanced soft-starting function, very low in-rush current, perfect for working directly with PV panel.

Impeller

Highly efficient and dynamically balanced with fine ceramic bearing for smooth ultra quiet operation.

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Automatic polarity protection

Red is plus, black is minus, if wrong polarity will not damage the motor for it has the automatic polarity protection function.

Application

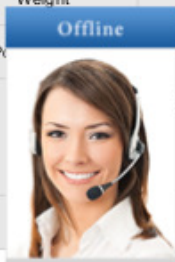
The TD5 solar DC pump can be used for most circulation pump applications without connection to the power grid. Highly efficient, the TD5 can be connected directly to a photovoltaic panel and is characterized by its small size, high efficiency, and extreme low power consumption. The long life brushless motor technology provides maintenance free and quiet service life. This pump is perfect for single family home thermal solar systems or any circulation pump application where conventional power is not available.

Areas of Use:

- Solar Water Heating Systems
- Portable power supplies
- Hot pump air conditioner
- Air energy water heater
- Hot Water Circulation
- Radiant Floor Heating
- Heat Transfer Applications
- Cooling Systems
- Beer Brewing
- Food Liquid Transfer
- Hot water Transfer Pump for Home Brewing
- Portable power supplies

■ Specifications

1	Max Flow Rate	20LPM / 5.3GPM
2	Max Static Lift	4.5M/14.5'
3	Rated Voltage	17V
4	Impeller Type	Half-Closed Impeller
5	Power Consumption	5W 10W 15W 25W
6	Liquid Temperature	0-110°C
7	Food Grade(Y/N)	Y
8	Pump Theory	Centrifugal pump
9	Motor Type	brushless DC motor
10	Ambient Temperature	-10-50°C
11	Media	Pure Water
12	Waterproof Class	IP42
13	Use Place	Indoor
14	Working Voltage Range	6~24V
15	Noise Class form 1M	45dB /Max
16	Ideal Life Time	30000 Hours
17	Working Mode	Continuous
18	Pipe Connections:	male 1/2" BSP or male 1/2" NPT
19	Maximum Working Pressure	10bar (145Psi)
20	Weight	860 g
21	Power Source	DC power supply, battery, solar powered
22	Protection Features	over-voltage protection, overload protection, over-current protection, reverse polarity protection (optional)
23	Operational Notes	Can't dry-running, not Self-priming



■ Parameter

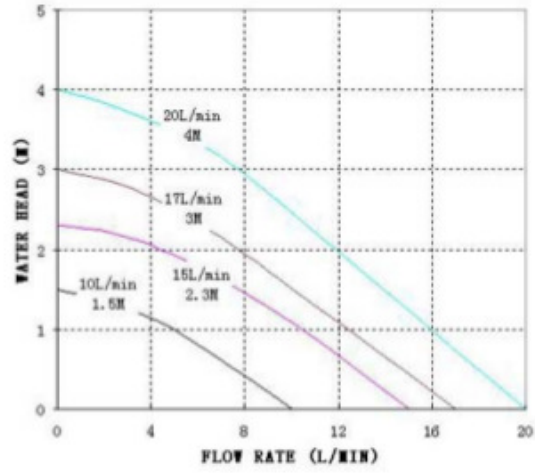
Pump
Max Capacities: 20LPM / 5.3GPM
Max Head: 4.5M/14.5'
Pipe Connections: male 1/2" BSP or male 1/2" NPT
Maximum Working Pressure: 10bar (145Psi)
Maximum Temperature: 110°C (230° F)
Low noise: 45dB far from 1m distance
Weight less than 2lbs.
Motor
DC brushless motor with energy efficiency technology
Voltage: 6V-24V DC (main:17V DC)
5W, 10W, 15W, 25W power consumption optional
Dry-running protection
Overload Protection
Over voltage Protection
Automatic polarity protection

Wetted Parts Materials:

Pump Head	Pump Chamber	"O" Ring	Impeller	Shaft	Bearing	Washer
Stainless steel	Stainless steel	Silicon Rubber	PPE	Fine Ceramic	Graphite	Fine Ceramic
Remarks: All wetted materials is food grade, temperature resistance above 110 °C						

■ Curve & Dimension

TDS PERFORMANCE



Dimension:

