



TORNADO PUMP

INSTRUCTIONS

FEATURE

- Controller Module with 20 Variable Speed Control Settings
- High Quality Ceramic Shaft and Bearing More Durable.
- Auto Shutdown System upon Detection of Electric Circuit Abnormalities.
- Special for Marine/Fresh water Aquarium and Ponds.
- With Six-Pole Intelligent DC-Three-Phase Drive.
- Safe and Efficient 24 Volt Operation
- Pump with Function
- Internal and External use

Product Parameters

Model	Tornado 2000	Tornado 4000	Tornado 6000	Tornado 10000	Tornado 12000
Flow	2000L/H	4000L/H	6000L/H	10000L/H	12000L/H
Head	3M	4M	5M	5M	6M
Max Power	35W	50W	70W	105W	115W
Min Power	10W	10W	20W	30W	30W
Voltage	DC 24V	DC 24V		DC 24V	
Dimension	127,4*70*128mm	176,1*91*159,6mm		205,5*106,2*190mm	
Outlet/Inlet	20MM/25MM	25MM/32MM		32MM/40MM	

INSTRUCTION

1.Steady Flow Mode :

Tornado Pump will work in this mode when powered on. You can change the speed by the key of "+"and "-"When the digital display the Number"1-01".That Means You Choose the lowest flow rate, When the Digital display show the Number:1-20.That Means Maximum Flow Rate.

2.Nutrition Transmission Wave Mode :

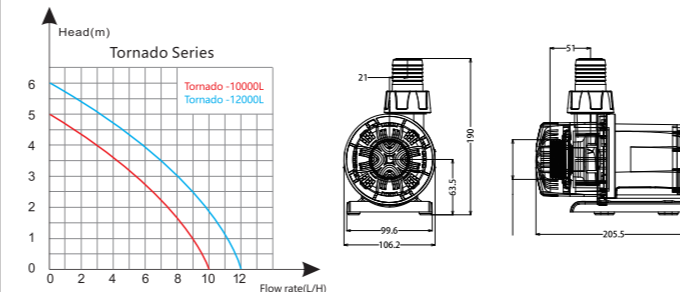
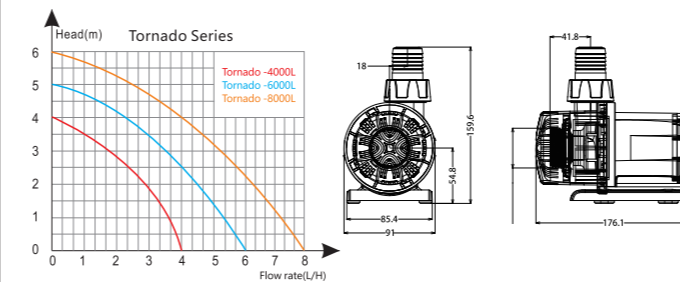
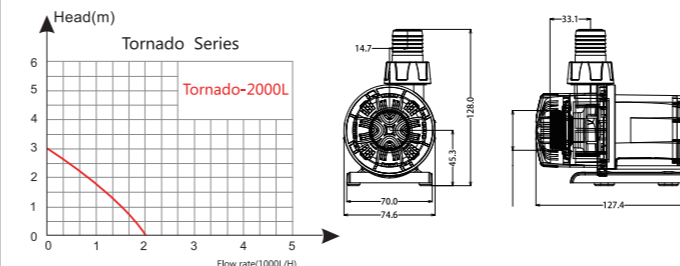
This Wave Mode was Generated by Slowly rose from Starting, Flow to the Maximum water flow,and Then From the Maximum water from changes to the starting flow.

1)Set Starting flow :Push button :M" until the first digital display shows "1" set the steady flow mode between"1-05"to "1-20"

2)Push button"M",until the first digital display shows "3",You can change the wave frequency by the Key of "+"and "-".When the indicator screen shows the number "3-01".That means you choose the fastest wave frequency, hen the indicator screen shows the number "3-20" That means lowest frequency.

3)Feed Mode:

Press the "Feed" button to LCD Display "F-10", The Feeding function is enabled, The pump pause for 10 minutes ,and will return to work after 10 Minutes.Then push the "Feed" button again. LCD Display shows "F-20" The pump pause for 30 minutes ,Press "Feed" Four times. The LCD Display shows "Off",The pump will stop work. If you want to return the Original working state,Press the "Feed" button again.



INSTALLATION INSTRUCTION

- Mantis Tornado Pump include:Tornado Pump;Smart Controller;Power Supply;Filter;Inlet and Outlet union for Plumbing direct PVC.
- Install the Filter cover to the Pump's inlet,Install the Outlet adapter on to the pump's Outlet.
- After connected the pump and controller 3-pin quick connectors.
- Then contact the adapter with controller (DC Plug),and Contact the adapter with AC Wire (AC Plug)

MAINTENANCE

- Please clean the Tornado pump regularly to ensure their effective
- If there have water in surface of the controller, Please wipe with a dry cloth to Prevent water from entering the control box!.
- When the pump stop working, Check the power adapter firstly,Then remove the foot of pump. Open the pump lid by counterclockwise rotation, Then clean the inner side of pump.
- Don't let the controller and adapter fall into the water so as to cause unnecessary losses.

NOTICE

- Keep the controller and adapter away from water and water splash.
- Please don't open the controller and adapter for avoid damage.

WARRANTY

- Warranty is Void if there has Below terms:
- Non standard operation;Incorrect installation and Placement ,Damage caused by transport
- Damage caused by improper repair faults.
- Malfunction caused by irresistible natural disasters.
- Failure caused by accidents of rated power (Voltage and Frequency)
- The interpretation of the above warranty terms belongs to Mantis.

User's Information

Product Name		DOP	
Product No			
Customer	Name	Tel	
	Add		
Retailer	Name	Tel	
	Add		
Maintenance Records	Date	Remarks	Sign
			Maintenance Person
Checker:		Check Date:	