

Floating Water Turbine Generator Unit

FT-0.25DCT4-

User Manual

Ver 1.1



**Bringing you a prosperous future with
clean, reliable and renewable energy.**

Catalogue

I IMPORTANT SAFETY INSTRUCTIONS	03
II Main Technical Performance Parameters.....	04
III Summary	05
1. Key Technical Data.....	06
2. Station Site and Installation.....	07
3. Maintenance.....	07
4. Service Rule.....	08
Appendix I	09
Appendix II	10

I IMPORTANT SAFETY INSTRUCTIONS

This manual contains important instructions that shall be followed during installation and maintenance of the *FT-0.25DCT4-Z*.

To reduce the risk of electrical shock, and to ensure the safe installation and operation of the *FT-0.25DCT4-Z*, the following safety symbols are used to indicate dangerous conditions and important safety instructions.

	<p>WARNING:</p> <p>This indicates a fact or feature very important for the safety of the user and / or which can cause serious hardware damage if not applied appropriately.</p> <p>Use extreme caution when performing this task.</p>
	<p>NOTE:</p> <p>This indicates a feature that is important either for optimal and efficient use or optimal system operation.</p>



Business Qualified by the National Quality Supervision

II Floating Turbine Unit Main Technical Performance Parameters

Main Specifications			
Turbine			Remarks
Type	FT-0.25DCT4-Z		Floating Turbine
Water Speed	3m/s		
Power	0.25 KW		
Efficiency	50%		
Generator			Remarks
Type	SFW-0.25		Conforms to the IEC international electrician committee standard
Rated Power	0.30KW		
Rated Voltage	220V		
Rated Current	2.27A		
FQCY	50Hz		
Rated Rotational	1500r/min		
Phase	1		
P.F.	0.9		
Altitude	≤3000m		
Insulation Grade	B/B		
Antisepticise Grade	IP44		
Ambient Temperature	- 25℃ ~ + 50℃		
Relative Humidity	≤90%		
Control Panel			Remarks
Safety Protection	Short circuit Protection		
	Islanding Protection		
	Over Load Protection		
	Grounding Fault Protection		
Packing Material	Fiberboard		
Packing Size			
Packing Weight	Net	kg	
	Gross	kg	
Stated: This product presents or the technical parameter revision is the technical improvement result, no other explanation.			

Note: The modification of the product appearance or technical parameters, which is a result of technique improvement, Will not be announced additionally.

Summary

Greet you to use FT series of micro hydro generator unit. This series of generator unit consists of the FT series of turbine and SF series of synchronization generator.

Kinetic hydropower is dam-less hydropower that is converted from energy found in the flowing water currents of oceans, tides, rivers and manmade channels or conduits.

A floating water turbine for taking the kinetic energy from the natural forces linear current flow and converting it into mechanical energy and subsequently into usable electrical energy. The turbine is constructed of a buoyant material to support itself on top of the water, thereby eliminating any drag from the apparatus.

Electric power is produced from flow of water by means of a floating rotor, journalled on a non-rotating shaft, which is moored in place. The rotor is turned by peripheral vanes, which engage the flow. Inside the rotor are mounted energy conversion means which change the energy of rotation into electric or hydraulic power, delivered to a distribution system through the non-rotating shaft.

This is a new turbine offering that is in response to numerous requests. We have completed the testing and this product is now available.

The unit comes with a 250 watt AC generator and electronic load controller.

1. Key Technical Data:

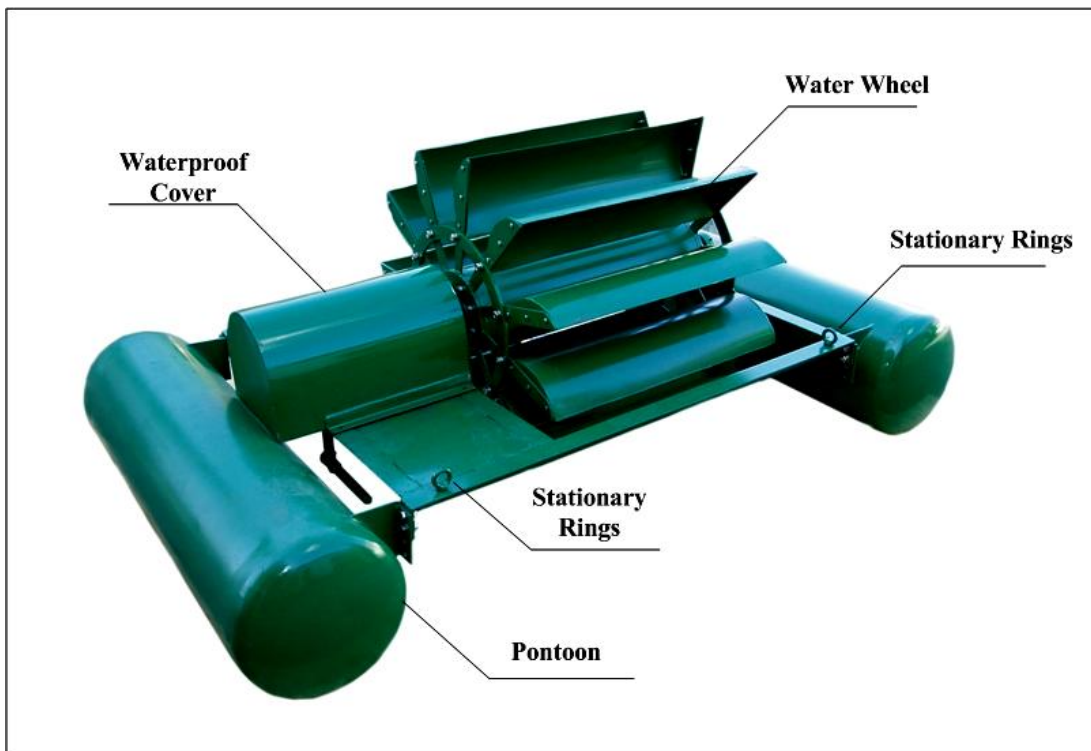
This floating turbine is designed to generate:

250 watts continuously at a water speed of 3.0 meters per second.

200 watts continuously at a water speed of 2.8 meters per second.

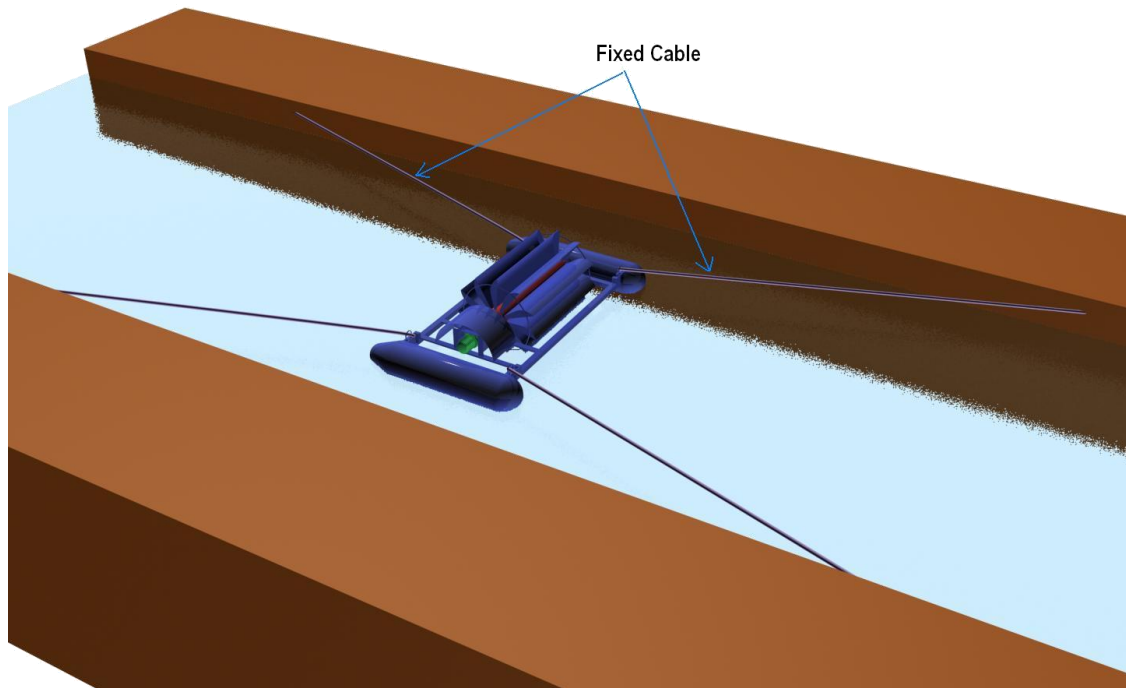
150 watts continuously at a water speed of 2.2 meters per second.

100 watts continuously at a water speed of 1.8 meters per second.

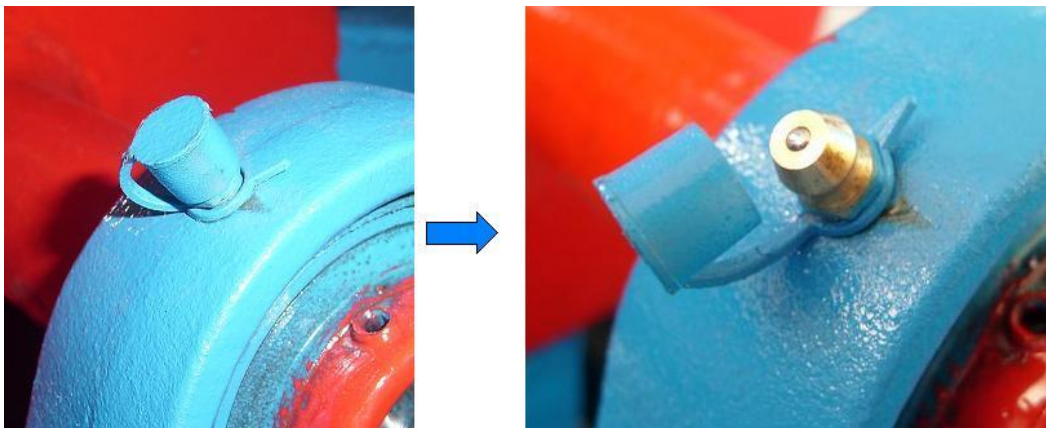


2. Station Site and Installation:

The floating turbine needs to be staked, or held in place by cables.



3. Maintenance:



- 1) To check and clean the mud and other material blocking in the intake trash rack.
- 2) The frame of unit should be injected water-proof grease by using grease cup in every three month, each time rotating for three times. The upper bearing also should be added waterproof grease for every six months.

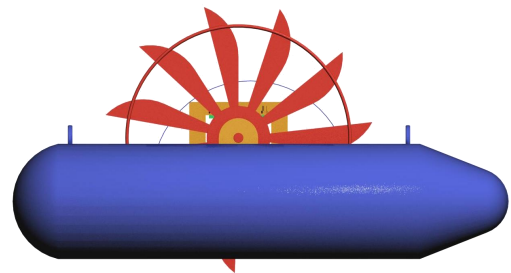
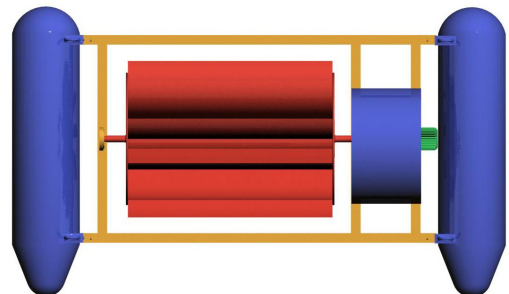
3) The generator must be conducted the dry treatment before next start if it became wet.

4. Service Rule:

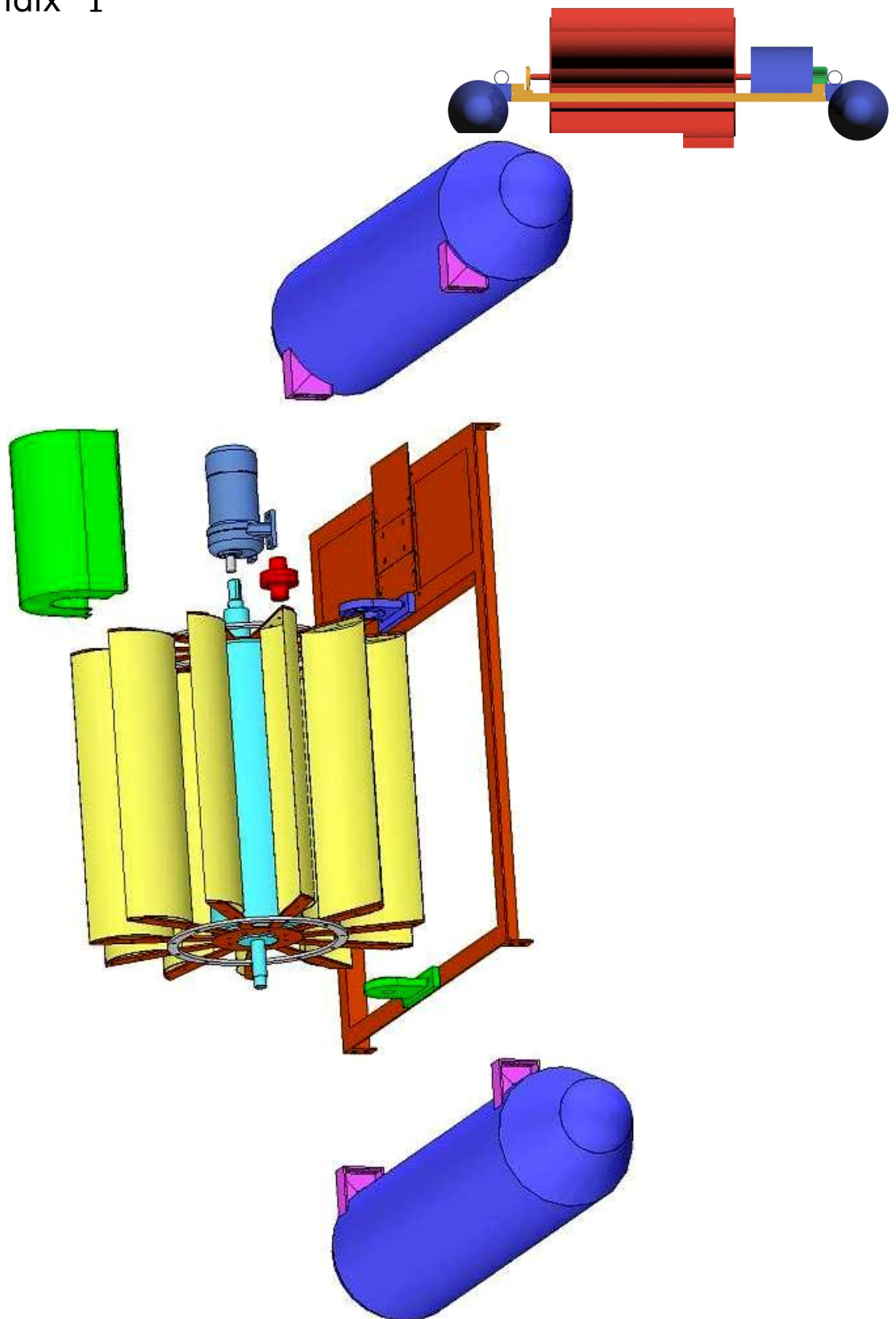
1) When the unit breaks down, please handle it according to the Routine Faults Treatment List if only it has a slight error; please send it to professionals or manufacturer if it must be dismantled.

2) We will be responsible for the three guarantees of the unit for its quality faults during the first year's operation. If its damage is due to the customer's misuse, we may repair it on the condition of proper fee paid by user.

3) We guarantee a long stable period of the spare-parts supplying.



Appendix I



Appendix II

