

Go Green !

Micro Hydroelectric Generator, High Efficiency

If you have a steady source of running water, we can provide a water turbine allowing you to generate a significant proportion on your electricity needs. From 1 KW up to 100KW



Micro Hydro Pros – Advantages

Efficient energy source

It only takes a small amount of flow and a drop as low as 3 meter to generate electricity with micro hydro. Electricity can be delivered as far as a mile away to the location where it is being used.

Reliable electricity source

Hydro produces a continuous supply of electrical energy in comparison to other small-scale renewable technologies. The peak energy season is during the winter months when large quantities of electricity are required.

No reservoir required

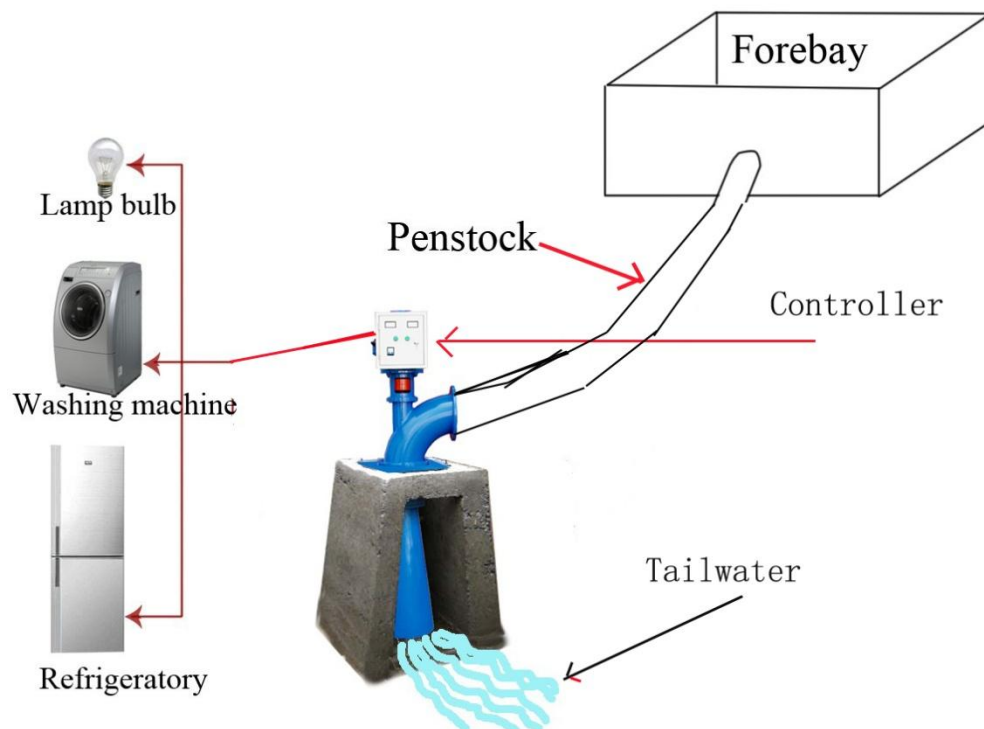
Microhydro is considered to function as a 'run-of-river' system, meaning that the water passing through the generator is directed back into the stream with relatively little impact on the surrounding ecology.

Cost effective energy solution

Building a small-scale hydro-power system can cost from \$500 – \$20,000, depending on site electricity requirements and location. Maintenance fees are relatively small in comparison to other technologies.

Tubular turbine-generator

Our micro hydroelectric generator a AC direct systems consist of a Tubular turbine-generator unit producing AC power which is used as needed. That is, it is fed directly to the appliances. No need of battery and inverter, it offers a complete water to wire system with integral tubular turbine, generator and valve flow control. Designed to deliver ready-to-use 115V/230V VAC power, it employs a brushless, special rare-earth permanent magnet alternator and therefore has a higher efficiency than ordinary alternator. Output voltage and frequency are controlled by the electronic load controller(with ballast). This machine is compact, easy to install and requires little maintenance except lubricating the bearing every few months.



Specification

Model	GD-LZ12-3KW	GD-LZ-14-3KW	GD-LZ-20-3KW	GD-LZ-20-6KW
Water Head Range	10 –11 meter	8 – 9 meter	3 – 4 meter	6 – 7 meter
Water Pressure	16 PSI	13 PSI		10 PSI
Water Flow Range	40 – 45 liter/second	65 – 80 liter/second	125 – 136 liter/second	140 – 156 liter/second
Rated Power	3,000W	3,000W	3,000W	6,000W
Intended voltage	115/230V			
Rotary Speed	1500 rpm			
Turbine runner type	Tubular Turbine			
Runner diameter	120 mm	300mm	350mm	400mm
Inlet pipe diameter	200mm	200 mm	200 mm	300 mm
Number of buckets	4			
Generator	Single phase permanent magnet alternator			
Power factor	1.0			
Insulation level	B/B			
Protection level	IP44			
Temperature	-20°C~50°C			
Humidity	≤90%			
Safety protection	Short circuit, over load, Islanding, Grounding fault			
Packing size	142 x 65 x 60cm	142 x70 x 65cm	130x65x88cm 64x45x34cm	165x50x81cm & 64x45x34cm
Gross weight	140 kg	160 kg	430 kg	495 kg

Model	GD-LZ-30-10KW	GD-LZ-20-10KW
Water Head Range	4.5 meter	10 –11 meter
Water Pressure	16 PSI	16 PSI
Water Flow Range	320 – 350 liter/second	155 – 165 liter/second
Rated Power Output	8,000W	10,000W
Intended voltage	115/230V~	
Rotary Speed	1500 rpm	
Turbine runner type	Tubular Turbine	
Inlet pipe diameter	500mm	400 mm
Runner diameter	600 mm	200 mm
Number of buckets	4	
Generator	Single phase permanent magnet alternator	
Power factor	1.0	
Insulation level	B/B	
Protection level	IP44	

Temperature	-20°C~50°C	
Humidity	≤90%	
Safety protection	Short circuit, over load, Islanding, Grounding fault	
Packing size	180x55x90cm & 64x45x34cm	180x55x90cm & 64x45x34cm
Gross weight	536 kg	536 kg

Price

GD-LZ12-3KW	USD2,570
GD-LZ14-3KW	USD3,555
GD-LZ20-3KW	USD4,265
GD-LZ20-6KW	USD5,040
GD-LZ30-10KW	USD9,382
GD-LZ20-10KW	USD6,591

Note : The price would be 10% higher if output 110V or frequency be 60HZ

The Tubular turbine was designed for families in remote areas to produce power for their households easily and inexpensively. These units have been incredibly successful and today thousands are installed throughout the world.

These turbines need very little water flow to run efficiently and produce significant power out. The standard configuration uses one nozzle

Water is collected upstream from the turbine and channeled in a pipe down to the turbine location. At the turbine, the water strike the turbine runner, and turn a AC single-phase brushless permanent magnet alternator. A electric load controller is built on the alternator which stabilizes the voltage to 110V or 220V to protect electrical appliances during use. Installation is very simple and explained in the manual. Once installed there are no running costs and maintenance costs are very low.

If you feel you may have a suitable site, please email specific information on your actual site. The information that is required for a preliminary assessment is:

1. The volume of water flowing in your stream, expressed as liters per second.
2. The head (height of drop) of the falling water, expressed in meters.
3. The length of the penstock (pipeline) in meters.

