A trickle of water makes energy flow.

Light Hydro Power

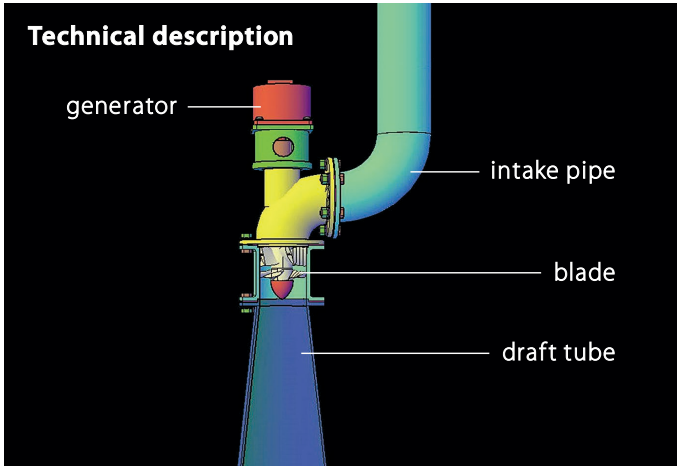
Kingyo

ibasei

Water depth: 15cm, Cascade height: 1.5m
A minimal amount of water is now sufficient to generate electricity.

Until now, the hydroelectric power potential of very small, localized natural water resources has been left untapped. With the introduction of Kingyo, such potential can now be realized.
Kingyo generates electricity from even the smallest natural water resources. It is now available for use in a range of ways: inside the existing water pipes of buildings, in local area ditches and gutters, in very small cascading rivers and streams. Even with very limited volumes of water and meager cascade heights, Kingyo generates electricity. The device requires space only the size of a 500ml plastic bottle to operate effectively. Kingyo is environmentally friendly and requires no civil engineering or construction.

In this day and age we must utilize every available opportunity to produce energy; failing to do so is reckless ("mottainai").
Just imagine a hydroelectric power station fitting in the palm of your hand!

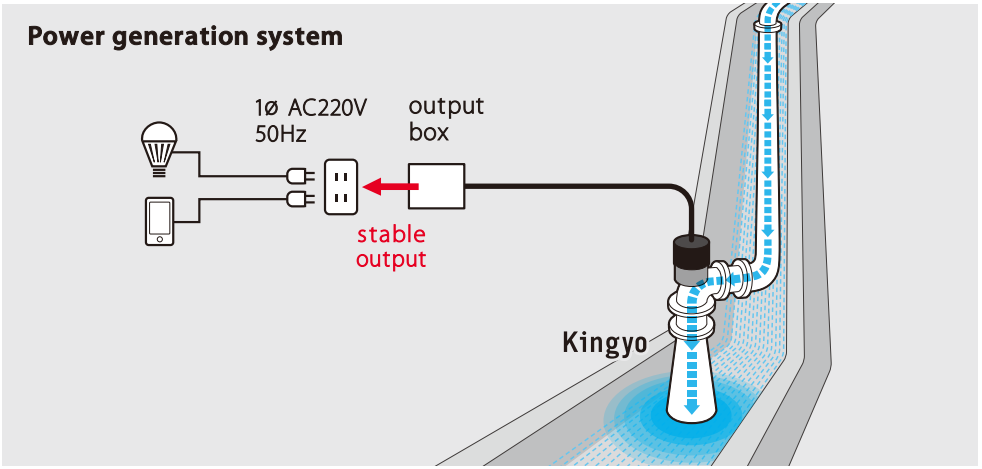


The required pipe diameter is merely that of a plastic bottle.
Application examples:

Water pipes in buildings: Kingyo can be fitted in existing water drainage pipes to generate power in office buildings, condominiums, hotels, schools, factories, etc. Commonly used pipes can be utilized; no special pipes are required.
Times of disaster: Kingyo can be distributed easily and quickly during times of disaster.
Areas that lack electricity: Kingyo can supplement existing power grids in areas that lack electricity or suffer from intermittent power supply.
Outside power source: Kingyo can be used to power security lights and cameras to protect people, property, and crops.
Educational tool: Kingyo can serve as an educational tool to demonstrate the symbiotic relationship between humans and nature.

Product features

1. **Power generation from minimal amounts of water**
2. **Space saving**
3. **Low cost**
4. **Easy installation**
5. **Environmentally friendly**



Specifications

Water turbine system	Running water axial flow hydraulic turbine
Water turbine output	Water turbine output 105W*/ Turbine efficiency 75.3%*
	Blade diameter 68.1mm
Generating method	DC generator / Rated output 100VA / Voltage DC12V
	Rotation speed 2460min-1
Rated output and environment	Rated output when operating only by battery (fully charged)
	100VA/1.5hr, 50VA/4.5hr, 20VA/10hr
	Maximum output 100VA
	Frequency and output voltage 50Hz/1ø AC220V
	Minimum water level: more than 15cm/effective height: more than 1.5m
Size and weight	Turbine main body approx. W157mm×D155mm×H720mm, approx. 3.5kg
	Output box approx. W365mm×D250mm×H210mm, approx. 9.9kg
Option	Kingyo can be charged by grid/solar panel.

*effective height 1.82m, flow rate Q=0.0078[m3/s]

Company Overview

Business summary, overview

Since being founded in 1946 as a strong partner to the Hitachi Group, ibasei have specialized in the overall production of rotating electrical equipment (e.g., motors, generators, and auxiliaries). Also, with our high-tech developmental capabilities in repairing and overhauling as well as in integrated production systems involving high-precision machining and assembly, we have expanded our product portfolio to various fields of social infrastructure.

Flagship product lines & achievements

Slip rings (for 1.5-2.0 megawatt wind power generators* and general industry), AC exciters (for hydroelectric generators), auxiliary generators for mining dump trucks, high and low-pressure three-phase induction motors, AC generators, and vehicle motors. *global market top share in 2013

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