

Platypus Power - Micro Hydro Electric Generators

Model M1/125



Mounting:

An aluminum casing "skirt" extends below floor level, which seals water out of the turbine shed. It does not require bolting down, allowing easy access to the nozzle for cleaning. It is quick to install and the design baffles noise.

Connection:

The M1/125 water inlet is via a standard table D 2 inch flange. It is a quick and easy connection with no nozzle aiming required. Price- These units are very competitively priced to compete with the portable generator market. Just e-mail for up to date pricing. Runner- Saving the best for last, the innovative hybrid Platypus impulse runner is 316 stainless steel to resist abrasions and corrosion. It is highly efficient over a wide range of pressures. Filtering to 3 mm is required. Platypus Power micro hydro units offer simplicity, quality, lasting value and performance.

Easy To Use Reliable Controls:

Sophisticated but simple electronic controls ensure years of reliable electricity. The unique Platypus Power Advanced Regulator protects your turbine - controlling the speed of the generator to keep the voltage stable. The turbine pricing includes the electronic control unit and dump element to keep the generator constantly at full load.

The regulator automatically diverts and dissipates unused energy through the stove element. Automatic shut down through the control board protects connected electrical equipment and the generator from over-voltage.

It is essential for your safety and the correct operation of these machines that they are installed in accordance with the relevant provisions of AS 3000 and AS 3010 and/or other appropriate standards in the country of installation.

Specifications:

Model / parameter M1/125

Turbine.....	Platypus 315 Stainless Steel
Turbine rating.....	Refer performance graphs
Runner.....	Platypus impulse
Jet circle diameter (mm).....	125
Minimum operating head (m).....	10
Maximum operating head (m).....	100
Rpm - 10 to 60 meters head.....	1500
Rpm - 60 to 100 meters head.....	3000
Minimum flow rate (l/sec).....	1
Maximum flow rate (l/sec).....	9.5
Turbine casing.....	Marine grade Aluminum -powder coated
Standard nozzle type	Nylon conical x 1
Spare nozzles.....	2 other sizes
Nozzle diameter range (mm).....	10 to 24 @ 2 mm intervals
Inlet pipe connection.....	2 inch table D flange
Generator.....	High efficiency induction
	4 pole 1500 rpm 10 to 60 m head
	2 pole 3000 rpm 60 to 100 m head
Maximum Output.....	800 watt
Voltage (nominal).....	230 volt single phase
Frequency (nominal).....	50 Hz
Excitation capacitors.....	3 x 22mF for 1500 rpm
(voltage rating 440 V).....	3 x 16mF for 3000 rpm
Generator to turbine coupling.....	Direct

System Control

Induction generator controller..... (Electronic Governor)	IGC-10
Voltage.....	230 volt single phase
Voltage regulation (% of rated voltage)....	+/- 2%
Power rating (w).....	1800 watts @ 230 volt
Frequency.....	50 Hz
Frequency regulation (%)...... (for unity power factor loads).....	+/- 2%
Output power wave form.....	Sinusoidal
Dump load elements.....	Resistive solid core (stove element type)
Number of elements.....	1 of @ 1 kW
AC outlet.....	3 pin socket

System Monitoring

Operating water head.....	1000 kPa for 1500 rpm
(60 mm gauge oil damped).....	600 kPa for 3000 rpm
Consumer load volts (Vac).....	Moving iron meter (90 Deg)
Total generator current (Aac).....	Moving iron meter (90 Deg)

System Protection

Over-voltage.....	Platypus over-voltage trip device Trip setting 310 V
Over-current.....	Miniature circuit breaker 4 amp Hydraulically limited

Dimensions and Weights

Size (mm) L x D x H.....	340 x 500 x 520
Weight.....	45 kg

Options

Discharge pit with base plate.....	Polypropylene pit & galvanized steel base plate
Dimensions.....	565 L x 565 D x 320 H