

Product Name :
Trainer Of Pelton Turbine With DC Generator And Power
Injection To The Mains Didactic Equipment

Product Code :
LIM-CAT-L0043-00013



Description :

Trainer Of Pelton Turbine With DC Generator And Power Injection To The Mains Didactic Equipment

Technical Specification :

Trainer Of Pelton Turbine With DC Generator And Power Injection To The Mains Didactic Equipment
This training equipment is designed to feed a double Pelton turbine converting the hydraulic power into electric power and injecting to the mains the produced energy. It is also possible to study the functions of a complete Hydraulic/Electric generation system with a real turbine simulating a typical hydroelectric generations system. The turbine is supplied with transparent interface to see how it uses the energy transfer between a water jet and its rotor. The trainer operate in autonomous way, and is composed of a water tank, pumps, and all the necessary components to be able to perform the didactic experiments.

The electric panel contain the main switch with an inverter, and the connection to the mains is made with single- phase. The electrical measuring instruments such as De voltmeter, DC ammeter, single-phase meter, and a digital speed meter is fixed on a frame with clear block diagram. The inverter, used to drive the pump, display the parameters and the consumed power.

The system allow to measure the DC energy of the generator and the AC energy injected in the laboratory grid. The trainer also include:

A flowmeter,

A pressure gauge,

Grid-Tie inverter type as an electrical load.

The hydrostatic bench is designed as a workbench with dimensions of 1700x1000x25 mm with wheels. It has a tank of 200 liters and a pump simulating a height of 10 m.

The water storage tank has a lid to prevent accumulation of dust and particles.

The pump has the following technical features:

Power: 2 HP,

Inlet diameter: 1",

Outlet diameter: 1",

Power: Three-phase with inverter,

Flow: 2 liters/sec,

RPM: 03600.

The turbine has the following technical features:

Number of blades: 2 HP,

Flow rate: 5 m/h² max.,

Tube diameter: 52 mm,

Water Inlets: 2,

Jet diameter: 6.2 mm,

Speed: 1489 rpm,

Power: 200 W,

Output voltage (no load): 42 V,

Output voltage (with load): 20 V,

Wire section: 4 mm²,

Current: 18 A.

With it, it is possible to perform the following practices:

For turbine characteristic curve:

Pressure/Speed (M-n),

Power/Speed,

Performance/Speed,

Generator characteristic curve,

System efficiency curves.

It needs the following requirements:

Power: 1600VA,

Water: 200 liters.

Trainer Of Pelton Turbine With DC Generator And Power Injection To The Mains Didactic Equipment, Trainer Of Pelton Turbine With DC Generator And Power Injection To The Mains Didactic Equipment Bulk Suppliers, Trainer Of Pelton Turbine With DC Generator And Power Injection To The Mains Didactic Equipment Tools, Trainer Of Pelton Turbine With DC Generator And Power Injection To The Mains Didactic Equipment Trainer Of Pelton Turbine With DC Generator And Power Injection To The Mains Didactic Equipments, Trainer Of Pelton Turbine With DC Generator And Power Injection To The Mains Didactic Equipment Manufacturers, Trainer Of Pelton Turbine With DC Generator And Power Injection To The Mains Didactic Equipment Suppliers from India, China, Kenya.



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