

TB-1000P TB-1000R

Portable & Rack Version Hydrogen Fuel Cell Power Systems

TECHNICAL SPECIFICATIONS



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FC STACK TYPE : PEM
 RATED POWER / CURRENT : 1200W (max 1.5kW) / 60A
 UNREGULATED VOLTAGE : 18 - 36V
 STABILIZED DC OUTPUT : 12V/24V/48V/DC
 BATTERY CHARGER : 12V or 24V or 48V
 AC OUTPUT : 110 or 230V/AC
 HYDROGEN PURITY : 99.99%
 H2 CONSUMPTION : 14 slpm
 COOLING SYSTEM : FORCED AIR
 COMMUNICATION PORTS : ETHERNET (LAN)
 USB
 WEIGHT : 25 kg (Portable Version)
 45 kg (Rack Version)
 DIMENSIONS (mm) : P: L:500 x W:350 x H:550
 R: L:435 x W:350 x H:550

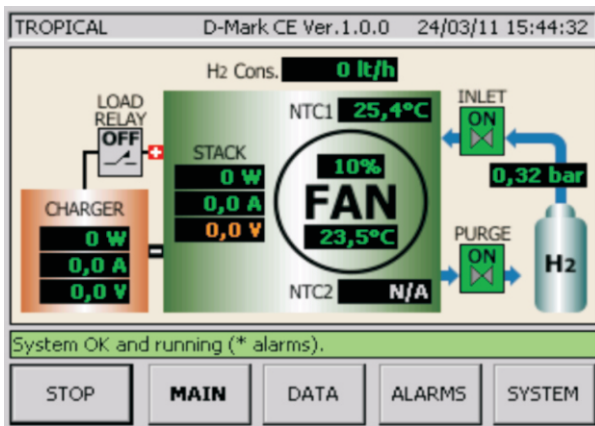


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PRODUCT OVERVIEW - HOW IT WORKS

TROPICAL S.A. presents its all new TB-1000 Hydrogen Fuel Cell Power System (Portable & Rack Version), producing 1200W of nominal electric power using the Proton Exchange Membrane (PEM) technology. The membrane on the fuel cell stack is converting hydrogen into electric power and the only "pollutant" is clean water. This power generator produces high quality electric power 110V or 230V AC & 12V, 24V or 48 DC (other voltages on request). It is designed to used as an Uninterruptable Power System (UPS), back-up power system, as a stand alone power generator providing electricity to our homes, in grid back up, as solar hybrid with installed PV panels, in telecommunication towers or military applications or remote applications or for educational / demonstration purposes (Universities, Research Institutes, Colleges, R&D Projects, etc). Its main advantages are : modular, quite operation, small size & light weight, produce zero emissions, minimal maintenance, reliable, stable, remote monitoring & quick start operation.

TOUCH SCREEN & MEASUREMENTS



The TB series hydrogen fuel cell power system is being controlled by an intelligent controller which is operated by a 16-colored touch screen monitor. The management of the system is easily done through the touch screen monitor and although the system is fully automated, the user has the option to change which ever parameter likes followed by a 4-digit password. Moreover, data acquisition of the parameters can be saved on an excel file (SD memory card) and can be changed.

MEASUREMENTS

- ▶ STACK POWER (Watt)
- ▶ STACK VOLTAGE (Volt)
- ▶ STACK CURRENT (Ampere)
- ▶ BATTERY VOLTAGE (Volts)
- ▶ HYDROGEN LEAK SENSOR
- ▶ HYDROGEN INLET ON/OFF VALVE
- ▶ HYDROGEN PURGE ON/OFF VALVE
- ▶ AIR STACK TEMPERATURE (C°)
- ▶ AIR FAN FLOW (%)
- ▶ SET BUTTON (Settings Screen)
- ▶ DATA BUTTON (Parameters Screen)

- ▶ SYSTEM TOTAL OPERATING TIME
- ▶ TIME - DATE / MONTH / YEAR
- ▶ OVERLOAD SETTING (Watt)
- ▶ SD MEMORY CARD (Data Acquisition)

OPTIONAL

- ▶ HYDROGEN PRESSURE (Bar)
- ▶ HYDROGEN CONSUMPTION (lt/hr)
- ▶ HYDROGEN TANK CAPACITY
- ▶ SYSTEM SERVICE TIME
- ▶ STACK LIFETIME
- ▶ AIR HUMIDITY

APPLICATIONS



ACCESSORIES



BALLARD FC STACK

