

FC20, FC40

Hybrid Solar Power Fuel Cell Unit



- Second source power supply
- Increase system reliability, can be used as back up power for emergency situation
- Reduce system size and cost in solar panel and battery result from unable energy supply or variations
- Use together with PL charge controllers

The FC20 and FC40 Hybrid Solar Power Fuel Cell unit is based on a 20/40W PEM fuel cell power module. The fuel cell is powered by pure hydrogen, supplied by a pressurized bottle.

Advantage of a fuel cell hybrid system compared to a diesel system is the low-noise, emission-free operation. Pure water is the only emission.

The system control unit is built-in, it has terminals for the battery, the solar array and the load. It controls the battery charging from solar and from the fuel cell, and protects the battery from excessive discharge.

The control unit provides sophisticated data logging and remote access via USB interface and a optional GSM module. System control parameters can be widely adapted locally and remotely.

A typical configuration of such a system is appropriate for loads that have a constant energy consumption all over the year and need to have a guaranteed power supply, such as in telecom, traffic control systems and environmental measuring system.

TYPE	FC20		FC40	
	Nominal Input Voltage (V)	12V	24V	12V
Max. Charge Current (A)	2A	1A	4A	2A
Max. Load Current (A)	2A	1A	4A	2A
Charge Voltage (V)	10.4V - 14.7V	21V - 29.4V	10.4V - 14.7V	21V - 29.4V
Supply Current (A)	20 mA		40 mA	
Fuel supply	Hydrogen, Purity 3.0 (99.9%) or better, Min. 1 bar – max. 10 bar			
Dimensions	330 x 475 x 235mm			
Weight (Kg)	9.5 Kg		9.5 Kg	
Temperature range	-25 to +50 °C			
Case Protection	IP54			

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