

TRITON[®]

SONIC WIND PROFILER

EXTENDED POWER OPTION

**An auxiliary power system
using proven methanol
fuel cells to keep Tritons
powered-up at sites with
low solar insolation**



REV 03.08.2011

 **SECONDWIND**

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WindIQ[™]

EXTENDED POWER OPTION

During the winters in extreme northern and southern latitudes, the availability of the sun can be reduced so that the solar panels no longer supply the Triton batteries with enough energy to maintain the appropriate charge. The Triton Extended Power Option utilizes the reliable, stand-by power of the EFOY fuel cell to charge the batteries when solar charging is not available or is insufficient. The EFOY fuel cell system turns off automatically when the battery is fully charged or solar power alone is sufficient to charge the battery — delivering 100% operational uptime at the darkest sites in the winter.

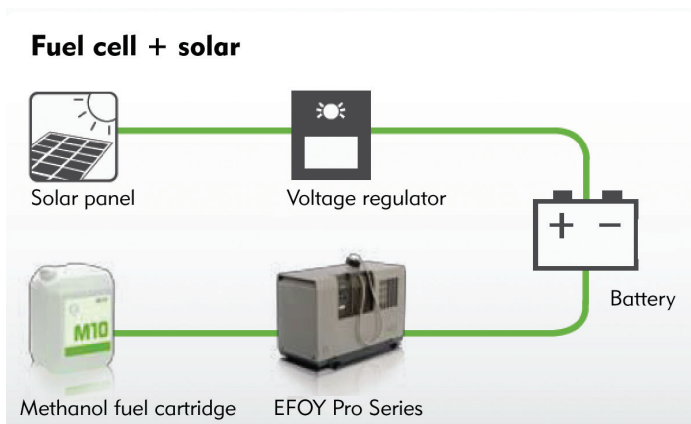
INTRODUCTION TO THE EFOY PRO 600 FUEL CELL

Second Wind has developed an auxiliary power system for use with Tritons installed in locations with low solar insolation (solar radiation received at the earth's surface) levels during the winter months, primarily in northern latitudes or where climatic conditions limit the hours of sunshine during winter's shortest days.

The system uses a commercial Direct Methanol Fuel Cell (DMFC) manufactured by SFC of Germany (www.sfc.com). Their EFOY Pro 600 model equipped with 2x10-liter methanol tanks has the capability to power a Triton system for approximately 60 days unattended operation with no solar charging events. The EFOY is a fully proven, commercial fuel cell with more than 20,000 systems delivered to customers worldwide.

INSTALLATION AND FUELING

Any Triton can be shipped with the EFOY Pro 600 fuel cell pre-installed. In addition, Tritons in the field can be retrofitted with the EFOY Pro 600. The cartridges can be replaced during operation within seconds to keep the Triton continually powered.



OPERATION

| | |
|---------------------------|---|
| Ambient Temperature: | -20°C to 45°C (-13°F to 113°F)* |
| EFOY Power Output: | 25W |
| Triton Power Consumption: | 7W |
| Warranty: | 2 year manufacturer's warranty of fuel cell; all other EPO components covered under standard Triton agreement** |

*Ambient temperature limits can vary depending upon surface wind-chill factors at site of deployment. SFC specifies this operating range for open-air deployment with minimal insulation. Triton-EPO will have cabin insulation and will likely perform in colder temperatures.

**Fuel cell under warranty for first 2 years or 3000 hours of operation, whichever event occurs first.

PHYSICAL

| | |
|-------------------------|-------------------------------------|
| Weight: | 7.8 kg (17.2 lbs) |
| Dimensions (L x W x H): | 433 x 188 x 278 mm (17 x 8 x 11 in) |

FUEL

| | |
|---------------------------|---------------------------------|
| Fuel Consumption: | 0.3 liters/day*** |
| Methanol Fuel Cartridges: | 2x10L for ~60 days operation*** |

***Estimate based on manufacturer consumption specification of 0.9L/kWh at 67% charge efficiency w/ no solar power.

REGULATORY

| | |
|---|---|
| TUV testing / compliance: | Fuel Cell TUV tested and compliant with CE, UL, CSA and IEC ratings |
| Transportation: | Fuel Cartridges have TUV GS mark of safety, UN certified for air transport. |
| Environmentally friendly fuel in recyclable container | |

REMOTE ACCESS AND CONTROL

| |
|---|
| Fuel consumption monitoring |
| Lifetime operating hours monitoring |
| Seasonal efficiency algorithms to maximize lifetime |

FUEL SAFETY

Safe, low cost, ultra-pure methanol is used to power EFOY fuel cells. Methanol is a high energy density liquid sold in safe, convenient fuel cartridges.