# Data Sheet – EFOY Pro Fuel Cells

| Fuel Cells | EFOY Pro 800 | EFOY Pro 800 Duo | EFOY Pro 2400 | EFOY Pro 2400 Duo |
|---|---|---|---|---|
| Max. nominal power | 45 W | 45 W | 110 W | 110 W |
| Min. nominal power [1] | 25 W | 25 W | 80 W | 80 W |
| Nominal voltage | 12 V dc / 24 V dc | 12 V dc / 24 V dc | 12 V dc / 24 V dc | 12 V dc / 24 V dc |
| Charging current at 12 V / 24 V max.: | 3,75 A / 1,88 A | 3,75 A / 1,88 A | 9,17 A / 4,58 A | 9,17 A / 4,58 A |
| min.: | 2,1 A / 1,05 A | 2,1 A / 1,05 A | 6,7 A / 3,3 A | 6,7 A / 3,3 A |
| Recommended battery capacity [2] at 12 V | 40 to 160 Ah | 40 to 160 Ah | 60 to 350 Ah | 60 to 350 Ah |
| (Lead acid, gel and AGM) at 24 V | 10 to 100 Ah | 10 to 100 Ah | 30 to 175 Ah | 30 to 175 Ah |
| Weight | 8,0 kg / 17.6 lbs | 8,3 kg / 18.3 lbs | 9,0 kg / 19.8 lbs | 9,3 kg / 20.5 lbs |
| Warranty [3] | 24 Month / 4.500 hours | 24 Month / 4.500 hours | 24 Month / 4.500 hours | 24 Month / 4.500 hours |
| Connectable cartridges (with DCS1) | 1 (2) | 2 (4) | 1 (2) | 2 (4) |
| Length fuel cartridge connector | 70 cm / 27.6 in | | | |
| Switching threshold for automatic battery charging at 12 V / 24 V [4] | On: ‹12,3 V / ‹24,6 V<br>Off: ›14,2 V / ›28,4 V | | | |
| Required start-up voltage at 12 V /24 V | ›9 V / ›18,5 V | | | |
| Maximum battery voltage | ‹16 V / ‹32 V | | | |
| Noise level (at 1m / 7m distance) | 42 dB(A) / 25 dB(A) | | | |
| Nominal consumption [5] | 0,9 l/kWh | | | |
| Quiescent current draw at 12 V | 20 mA | | | |
| Operating temperature | -20 °C to +50 °C / -4°F to +122°F | | | |
| Start-up temperature | +3 °C to +50 °C / +37.4 °F to +122°F | | | |
| Storing temperature | +1 °C to +50 °C / +34°F to +122°F | | | |
| Recommended altitude [4] | Standard: ≤1500 m / ≤4920 ft (up to 2000m / 6561 ft) | | | |
| Dimensions L x W x H | 433 x 188 x 278 mm / 17 x 8 x 11 in | | | |
| International Protection (IP-Class) | IP 21 | | | |
| Inclination along the roll axis | Permanent: max. 35°; temporary (‹10 min): max. 45° | | | |
| Inclination along the lateral axis | Permanent: max. 20° | | | |
| User-Interface | At the unit or via Operating Panel OP2 with text display | | | |
| Data-Interface | RJ-45 plug for accessories (e.g. Interface adapter) | | | |
| Electrical Interface | MNL-plug 4-pins (e.g. Tyco Electronics Universal Mate-N-Lok – Nr. 350779) | | | |
| Certificates | CE FC E24 TÜV SÜD TÜV NRTL US TÜV PRODUCT SERVICE GS | | | |
| Standard Equipment | • Operating panel OP2 with cable<br>• Mounting plate for EFOY Pro<br>• Charge line for battery connection<br>• Fuel cartridge holder with belt | | • Exhaust hose<br>• Off heat duct<br>• Service fluid and user manual | |



All technical data at test conditions of 20 °C / 68 °F
Data sheet not valid in USA and Canada
Subject to modifications and errors
Valid from: 03rd April 2013

| Accessories [6] | | |
|---|---|---|
| DuoCartSwitch DCS1 | Dimensions L x W x H | 174 x 119 x 96 mm / 6.9 x 4.7 x 3.8 in |
| | Weight | 0,7 kg / 1.54 lbs |
| | International Protection (IP-Class) | IP 20 |
| | Quiescent current draw | 7.5 mA |
| GSM modem GSM-2-SMS | Dimensions L x W x H | 72 x 32 x 65 mm / 2.8 x 1.3 x 2.6 in |
| | Weight | 0,5 kg / 1.1 lbs |
| | Input Voltage | 8 – 30 V dc |
| | Max. peak current | 3,2 A |
| | Average current draw (Quiescent / SMS / GPRS) | 30 / 100 / 100 mA |
| Fuel cartridge sensor FS1 | Dimensions L x W x H | 50 x 20 x 5 mm / 19.7 x 7.9 x 2.0 in |
| Interface adapter IA1 | Dimensions L x W x H | 60 x 33 x 16 mm / 2.4 x 1.3 x 0.6 in |
| Cluster controller CC1 | Dimensions L x W x H | 149 x 77 x 270 mm / 58.7 x 30.1 x 106.3 in |
| | Weight | 0,16 kg / 1.3 lbs |
| M28 adapter | Dimensions L x W x H | 70 x 70 x 61 mm / 2.8 x 2.8 x 2.4 in |

| Fuel Cartridges | M5 | M10 | M28 (only with M28-Adapter) |
|---|---|---|---|
| Volume | 5 litre / 1.32 US gallons | 10 litre / 2.64 US gallons | 28 litre / 7.4 US gallons |
| Weight | 4,3 kg / 9.5 lbs | 8,4 kg / 18.5 lbs | 22 kg / 48.5 lbs |
| Nominal capacity | 5,5 kWh | 11,1 kWh | 31,1 kWh |
| Dimensions L x W x H | 190 x 145 x 283 mm / 7.5 x 5.7 x 11.1 in | 230 x 193 x 318 mm / 9.1 x 7.6 x 12.5 in | 370 x 285 x 395 mm / 14.6 x 11.2 x 15.6 in with M28 Adapter: 370 x 285 x 425 mm / 14.6 x 11.2 x 16.7 in |

[1] Nominal power varies by ±10 %, decreases with the operation hours. Specification valid within warranty period.
[2] Depends on battery type and application - bigger batteries possible, if additional energy source available (e.g. solar)
[3] Regional warranty conditions for EFOY Pro fuel cells apply.
[4] Factory Setting - can be modified with Interface Adapter and PC or operating panel OP2.
[5] Effective consumption depends on operating conditions.
[6] All EFOY Pro accessories are for operating in following temperature ranges: -20 °C to +50 °C / -4 °F to +122°F