

DATA SHEET – EFOY FUEL CELLS – NEW GENERATION



Performance data¹ 12 V

	EFOY 80	EFOY 150
Max. output power	40 W	75 W
Output Power ² within 3.000 hours	24 W	45 W
Max. charging current @ 10.5 V	3.8 A	7.1 A
Recommended minimal battery capacity lead batteries	40 Ah	60 Ah
Maximum adjustable battery capacity lead batteries	800 Ah	
Recommended minimal battery capacity LiFePO4 batteries	20 Ah	30 Ah
Maximum adjustable battery capacity LiFePO4 batteries	600 Ah	
Quiescent current consumption	0,5 W	

Performance data¹ 24 V

	EFOY 80	EFOY 150
Max. output power	40 W	75 W
Output Power ² after 3.000 hours	21 W	43 W
Max. charging current @ 21.0 V	1.9 A	3.6 A
Recommended minimal battery capacity lead batteries	20 Ah	30 Ah
Maximum adjustable battery capacity lead batteries	400 Ah	
Recommended minimal battery capacity LiFePO4 batteries	10 Ah	15 Ah
Maximum adjustable battery capacity LiFePO4 batteries	300 Ah	
Quiescent current consumption	0,6 W	

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General technical data for EFOY Fuel Cells

	EFOY 80	EFOY 150
Nominal voltage	Lead: 12 V / 24 V (Lead-Gel, Lead-Acid, AGM) LiFePO4: 12.8 V / 25.6 V	
Acceptable battery types	Lead: 2 V cells: 6S (12 V) und 12S (24 V) LiFePO4: 3.2 V cells: 4S (12.8 V) und 8S (25.6 V)	
Consumption ³	0.9 l / kWh	
Connectable cartridges	1	
Length fuel cartridge connector	75 cm / 29.5 in	
Weight	6.5 kg	6.9 kg
Dimensions L x D x H	448 x 198 x 275 mm	
User interface	Push button and LED optional 4,3" TFT Display optional Bluetooth adapter – EFOY App optional Ethernet router to EFOY Cloud	
Data interface	RJ-12 socket (CAN & RS232) for the use of accessories RJ-45 socket (Ethernet)	
Communication protocol	MODBUS TCP; clear text protocol (SIO commands)	
Electrical interface	4-pin Plug for EFOY charging cable Power: Positive (+) and negative (-) terminals: 4 mm ² (AWG 12) Sense: Positive (+) and negative (-) terminals: 0.75 mm ² (AWG 20)	
Electrical interface for EFOY accessory	Positive (+) and negative (-) terminals: min 0.75 mm ² (AWG 20) / max 2.5 mm ² (AWG 14) Available voltage: battery voltage, Max. current: 3A	
Noise level ⁴ at 1 m	< 44 dB (A)	< 47 dB (A)
Minimal installation space (L x D x H)	EFOY Fuel Cell Only: 510 x 320 x 290 mm	
Inclination along the roll axis	permanent: max. 35°	
Inclination along the lateral axis	permanent: max. 35°	
Operating temperature ⁵	-20 °C to +40 °C / -4 °F to +104 °F	
Start-up temperature	+3 °C to +40 °C / +37 °F to +104 °F	
Storage temperature	+1 °C to +50 °C / +34 °F to +122 °F	
International Protection (IP-Class)	IP 21	
Altitude	At approx. 2000 m above sea level there is a reduction in performance possible	
Warranty ⁶	24 months within 3.000 operating hours	
Certificates	    	

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Fuel Cartridges

	M5	M10
Volume	5 litres / 1.32 gallons	10 litres / 2.64 gallons
Weight	4.3 kg / 9.5 lbs	8.4 kg / 18.5 lbs
Nominal capacity	5.6 kWh	11.1 kWh
Autonomy @ 50 W	111 h	222 h
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

¹ All performance data apply to the connection of the charging cable to the EFOY.

² The output power varies by $\pm 10\%$ and decreases with the operating hours, depending on the installation situation and the operating conditions. Operation still possible after 3000 h, no guaranteed power output.

³ Effective consumption depends on operating conditions and hours.

⁴ Different noises may occur due to different components.

⁵ The output power may be reduced at temperatures above $+35^{\circ}\text{C}$ / 95°F . At temperatures below 0°C , charging lithium batteries (LiFePO4) may not always be possible.

⁶ Warranty conditions: "Warranty_EFOY 80_150" apply