

Application Note and Technical Data

Remote 250 & 400 – Fuel Cell Power Generators

- Worldwide proven since 2014
- High efficiency, low emissions
- Standard Propane and BioLPG
- < 20 % fuel cost versus Methanol
- Up to 10,000 h autonomy, free of water and lubricants
- Maintenance free up to 2 years
- Suitable for hybrid with photovoltaics



The development of NEW ENERDAY high-temperature fuel cells dates back to the early 2000s, with the official product launch of the remote series taking place in 2013. This was the first time that solid oxide ceramic fuel cells (SOFC) fuelled by Propane or natural gas were available for off-grid power supply in Europe. Since then, hundreds of remote fuel cell devices have been manufactured and delivered to customers worldwide for their professional applications.

The new Remote 250 fuel cell generator is suitable for applications with between 50 and 240 W average load. It is characterised by optimised efficiency and reduced fuel consumption, a lower weight and a longer autonomy time compared to the established Remote 400, which forms the technical basis of the device family. The proven Remote 400 is recommended between 230 and 340 W average load and can be parallelised for higher outputs or redundancy.

Compared to other off-grid generators, the use of commercially available standard Propane and unrivalled efficiency in this power segment means that a very favourable total cost of ownership (TCO) can be achieved. The preferred configuration is the combination with photovoltaics for the summer months, which reduces the operation of the fuel cell to 3,000...4,000 operating hours per year typically, covering the winter season and periods of bad weather. The NEW ENERDAY remote fuel cells start automatically when required and, unlike other fuel cell technologies, adapt to the energy demand of the customer load during generation.



Technical Data

	Remote 250	Remote 400
Nominal Power	250 W	350 W
Power Range	50...250 W	80...350 W
Recommended Load Range	50...220 W	220...315 W
Voltage / Battery Technologies	24 V, VRLA (AGM/Gel Deep cycle), LFP on request	
Heat-up time to generation	<3 hours	5 hours
Fuel	Propane / BioLPG (DIN 51622/HD-5), NG/LNG on request	
Daily Fuel Consumption	0.96...1.8 kg / 2.12...4 lbs	1.8...2.54 kg / 4.0...5.6 lbs
Noise Emissions in 7 m / 21 ft distance, additional noise adsorber optional< available	< 49 dB(A) during generation < 55 dB(A) at heat-up	
Weight & Dimensions (LxWxH)	39 kg / 521 x 466 x 358 mm 86 lbs / 20.5 x 18.3 x 14.1 in	50 kg / 565 x 465 x 365 mm 110lbs / 22.2 x 18.3 x 14.4 in
Ambient Conditions	-20...+55 °C / -4...131 °F, IP50 lower temperatures possible with proper integration	
Regular Maintenance	every 2 years	
Autonomy (depending on fuel reserve)	Up to 7,000 opHrs	Up to 10,000 opHrs
Typical Stack Life (continuous winter operation + PV; refurbishment afterwards)	15,000 operating hours = 4...6 years in PV-FC hybrid systems with 3...4,000 operating hours per year	
Connections	8 mm fuel connector, Batterie (+/-), TCP/IP Ethernet	

