

Reliable backup power to stay connected

Ensuring continuous and uninterrupted telecom service is more crucial than ever to keep everyone online. PowerUP Energy Technologies has conducted extensive research and development to create a system of smart electric generators based on fuel cell technology providing reliable backup power. When combined with battery packs, these generators can address excess demands and deliver backup power using clean energy from hydrogen, resulting in zero end-user emissions.



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TP3K

The Future of Energy Generation

Introducing PowerUP's revolutionary 3kW hydrogen fuel cell generator - the powerful UP3K. It offers an ideal solution for industries with higher power needs, excelling both as part of hybrid systems and as a standalone power source for critical equipment. The generator is modular, allowing the parallel connection of multiple units to achieve higher power outputs. Combined with the UPSystem, a blackout will trigger an instant power provision from a small battery buffer within milliseconds. The generator is able to take over within seconds performing an alarm start. Once power is restored, the system automatically switches off. This plug-and-play solution requires no manual input and offers a safe, durable, and environmentally friendly backup power option during outages.



Key values



ZERO CO, EMISSION, INDOOR USE ALLOWED



SEAMLESS

POWER

MINIMAL MAINTENANCE TRANSITION REOUIRED



ENHANCED SAFETY



AUTOMATED SETUP

Beginning of life (BOL) Continuous output power at 25°C Continuous output power at 40°C	3000W 2500W
After operation time >5000h Continuous output power at 25°C Continuous output power at 40°C	2500W 2000W
System nominal voltage	48 V DC
Fuel	Gaseous hydrogen (99.95%)
Fuel consumption	0,065 kg/kWh at 0.5 bar(g) input pressure
Dimensions (L x W x H)	589 x 304 x 578 mm
Weight	approx 40 kg
Communication / Protocols	CAN (optional: RS485, Bluetooth, USB)
Recommended temperature range	- 5C to + 40 C (-30C to +40C with accessories)
IP class	IP20; IP54 with accessories

Features:

Grid drop detection 5x I/O connections (3xDi, 2xDo) Remote monitoring and control Different working modes (Battery mode, Generator mode) Wide range of supported batteries

Optional:

19" Rack solutions (indoor/outdoor) Trailer based mobile solution available (UPMobile)



UPMobile

Introducing PowerUP's newest innovation - the UPMobile. Available with either 3kW or 6kW of continuous fuel cell power, this flexible hydrogen fuel cell generator is an ideal solution for industries such as construction, emergency response, telecommunication, security, and surveillance. The UPMobile has an external hydrogen supply for more flexibility and can easily be transported on a trailer. The UPMobile also features an integrated battery for quick starts and instant power.

UP Mobile Version	UPM 3V	UPM 6V			
Fuel Cell(s)	1x UP3K	2x UP3K			
Nominal output power(1)	3000W	6000W			
Peak power output(2)	14kW	28kW			1
Power Distribution	3x3P (1-Phase), 1x5P (3-phase)				
System voltage	48 V DC	48 V DC	-		
Output voltage range	40 V - 60V DC				
Available output voltages	230V AC 50-60Hz 400V AC 50-60Hz				
Integrated Battery storage	48V 8kWh				
Dimensions (W,L,H) and weight	1450 x 1900 x 1700 mm, < 500kg			au sa	
Temperature Range	-33 °C to +45°C		C + 0		
IP Class	IP54				
(1) Temperature 25°C, Stack BC	DL				
(2) Depending on the chosen l	oattery and inverter op	tion			
Features			qo		
Air supply and waste heat duct Integrated thermal manageme	t for stationary installat ent system with active h	ion neating and	Mo	•	PC
Modular rack structure inside f	or different build optio	ns			
Hydrogen safety system includ	led				
CAN Interface with RJ45 ports				•	
Multiple I/O connection points		2			
Remote control and logging					

Easy to lift with forklift or crane

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Hydrogen Safety and consumption

Safety is paramount at PowerUP, and to uphold this commitment, we've designed a specialized hydrogen safety system for our indoor fuel cell generators. This stand-alone system employs an off-the-shelf hydrogen sensor to detect leaks, automatically closing the valve to prevent further leakage until manual reset. With simplified implementation and user-friendly design, it ensures robust functionality and safety for fuel cell generators in rooms up to 60 m3. But it does not end there. Already during our production process we are using high quality 316 stainless steel tube and pipe fittings, assembled by skilled technicians to ensure maximum quality of the internal gas distribution system. Multiple sensors and ATEX rated solenoids are securing leakage free operation and a safe handling of leaked hydrogen should it occur. With inner and outer safety regulated by different controllers we achieve maximum safety and redundancy.

PowerUP's products require pure hydrogen, demanding a purity level of \geq 99.95% (Hydrogen 3.5 or higher). Impurities are tolerated within the limits of EN 17124. Maintaining high hydrogen purity is essential for achieving optimal performance, longevity, reliability, efficiency, and environmental benefits in our generators.

Different cylinder	1x26L (300 bar)	50L (200 bar)	2x 50L (200 bar)	12 x 50L (200 bar)			
options	01/2021 RETES	TING / RICOLLAUDO	n a minimum pressure of 7 - 4 bu				
132	Kg of H2 in cyclinders						
NORT NONCOL PTER NUCTIONS IN EXTERNING INTER IS IN ANY ANY ANY ANY INTER IN ANY ANY ANY ANY ANY ANY ANY ANY ANY AN	0,573	0,736	1,471	8,828			
Nominal power (W)	Hours available						
200	35	45	90	539			
400	22	28	55	333			
1000	9,2	11,9	23,7	142,4			
3000	3,2	4,1	8,2	49			

Get in touch with us to find a solution that fits your needs:

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