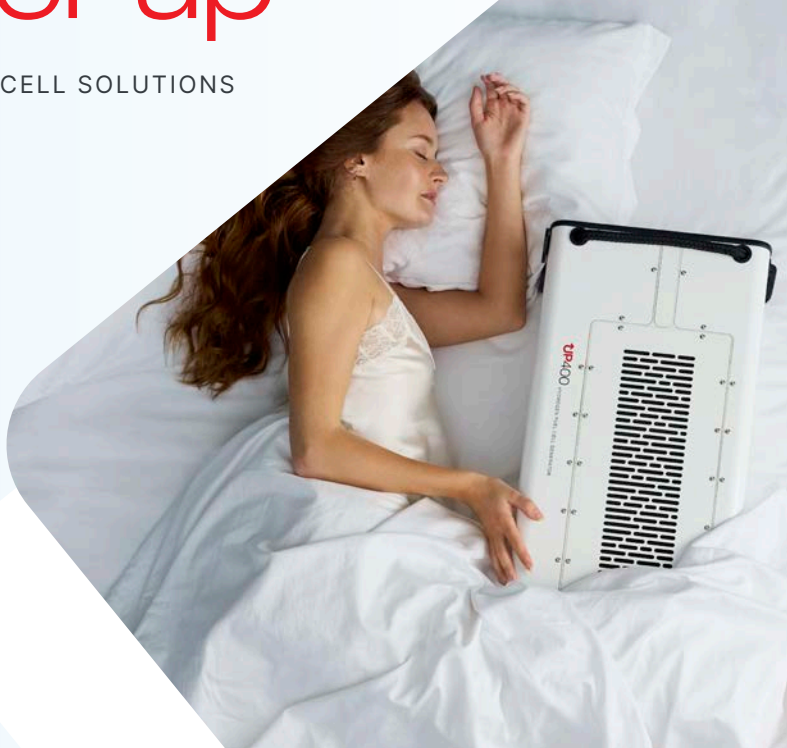


Transforming the way we **power up**

HYDROGEN FUEL CELL SOLUTIONS



Vogt-CTE



At PowerUP Energy Technologies,
we are driven by a singular mission:
to revolutionize the energy sector with
unparalleled reliability and sustainability.

Our journey began in 2016 in UC Berkeley, and since then our team of scientists and technologists has focused on meticulous research to create state-of-the-art hydrogen fuel cell-based electric generators and proton exchange membrane fuel cells.

I can proudly say our products stand at the forefront of innovation, providing zero CO₂ emissions, remarkable portability, silent operation, and minimal maintenance needs. Our generators have become integral to sectors ranging from telecommunications and defense to construction and healthcare, not to mention their vital role in powering off-grid homes.

In a world where climate change is not just a topic of discussion but a call to action, PowerUP emerges as a beacon of sustainable power generation. We are committed to aiding industries worldwide in achieving their net-zero targets, ensuring that our collective future is not only brighter but cleaner.

With a legacy of 20 years in fuel cell technology, PowerUP is synonymous with quality and innovation. Our UP series generators—UP400, UP1K, and UP3K—are designed to be user-friendly, safe, and robust, offering green electricity solutions for both private and commercial use across various industries. And we have not stopped there; our dedication to progress has led us to develop larger solutions that you will see in the following pages, which empower construction sites and heavy machinery.

As we look to the future, our vision of a cleaner tomorrow remains clear. We are here to support you with high-quality, sustainable energy generation that align with our shared values of environmental responsibility and technological advancement.

Thank you for joining us on this journey. Together, we will continue to PowerUP the world, one sustainable solution at a time.



Warm regards,

Ivar Krusenberg
Founder, PowerUP Energy Technologies

PowerUP product line



MINIMAL
MAINTENANCE



SILENT &
ODOURLESS



ZERO CO2
EMISSION



ENHANCED
SAFETY



PLUG & PLAY
SOLUTION



UP400

400 W PORTABLE
HYDROGEN FUEL CELL
GENERATOR



UP400 Industrial

400 W POWER SOLUTION
FOR SMART INDUSTRY



UP1K

1 KW PORTABLE
HYDROGEN FUEL CELL
GENERATOR



UP3K

3 KW PORTABLE
HYDROGEN FUEL CELL
GENERATOR



UPSystem

19" RACK SOLUTION
(INDOOR / OUTDOOR)



UPMobile

20 KW TRAILER-FRIENDLY
MOBILE SOLUTION

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PowerUP
ENERGY TECHNOLOGIES



UP400

400 W PORTABLE HYDROGEN FUEL CELL GENERATOR

First Step in Energy Independence

UP400 is a perfect starting point for off-grid power needs, and it allows full grid independence when connected to solar panels, wind turbines, or even your electrolyser.

Nominal power output	400 W
Nominal output voltage	12/24 V
Current at 24 V	34.7 A
Fuel	Compressed hydrogen (>99.97%)
Fuel consumption at max power	5.2 normal l/min (26 g/hour)
Dimensions (L x W x H)	700 x 222 x 312 mm
Weight	21 kg
Operating ambient temperature	-5°C to 40°C
Noise level	45 dB



UP400 Industrial

400 W POWER SOLUTION FOR SMART INDUSTRY

Intelligent Power Solution for Smart Industry

The UP400 Industrial provides 400W of pure hydrogen fuel cell power, offering a clean, plug-and-play solution that goes beyond basic charging. This is next-generation power, ready for integration or as a standalone source for your most critical assets.

System voltage (VDC)	12 / 24 VDC
Nominal output power	400 W DC
Current at 24 V	17 A
Communication IoT > Router	Ethernet cable (RJ45) / USB-C
Fuel	Gaseous Hydrogen >99.95% (Grade 3.5 or above)
Fuel consumption	65 g / kWh generated 26 g / hour at 400 W
Dashboard information	Generator Status Generator Error(s) Generator Output Voltage and Current Fuel Cell Stack Temperature Fans PWM % Hydrogen Concentration in the air (% volume) Ambient Temperature and Humidity Fuel level (Optional) Accumulated Watt-hours (Gross and Net)
Dimensions (L x W x H)	531 x 232 x 287 mm
Weight	15 kg
Operating ambient temperature:	-5° to 40° C



Smart Integration Ready

Integrate the UP400 Industrial with existing batteries, solar arrays, or industrial power systems to create a resilient, self-sustaining energy source. Its robust design is built for seamless operation within existing industrial processes.



Mission-Critical Versatility

Power everything from remote sensing equipment and data telemetry to security masts, CCTV, and automated lighting infrastructure.



Sustainable & Secure

Utilize zero-emission hydrogen technology to future-proof your operations while ensuring maximum energy security in remote and contested environments.

UP400 vs UP400 Industrial

	UP400	UP400 Industrial
Control panel & H2 inlet	Width side	Length side
Dimensions (L x W x H in mm)	700 × 222 × 312 mm	531 × 232 × 287 mm
Weight (Kg)	21	17
Output voltage range	10...27 V	9...16 V, 19...30 V
Max output current	37.5 A (12 V) – 17 A (24 V)	50 A (12 V mode); 25 A (24 V mode)
Hydrogen Inlet	SS INST QUICK-CONNECT BODY 1.5Cv 1/2in.	Amphenol 8 mm tube
Build-in SIM card (IoT)	NO	YES
Charging the internal battery	only when FC is running	YES Possible from an external DC source
Operation modes	1. Onboard manual ON/OFF 2. Battery auto-power ON/OFF	1. Manual mode 2. Automatic mode 3. UPcloud – remote access (optional)
Battery modes	Factory settings auto-power ON/OFF	1. Battery voltage mode 2. Custom Battery State of Charge (SoC) mode
Maintenance	-	Easier and faster access to air filter, H2 & O2 sensors
Additional features	-	1. 4G LTE modem (for IoT System) 2. I/O connector to connect multiple inputs/outputs 3. Hydrogen inlet pressure display
Optional features	-	1. 4G LTE Modem Antenna 2. CAN port for remote control using RJ45 connector

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UP1K

1 KW PORTABLE HYDROGEN FUEL CELL GENERATOR

Reliable Backup Power for Critical Needs

This 1 kW generator is an ideal solution for disaster relief or powering tools in the construction or defence sector. Pair it with batteries, solar panels, or wind turbines for a smart microgrid.

Nominal power output	1000 W
Nominal output voltage	12/24 V
Current at 24 V	41.7 A
Fuel	Compressed hydrogen (>99.97%)
Fuel consumption at max power	13 normal l/min (65 g/hour)
Dimensions (L x W x H)	700 x 222 x 410 mm
Weight	27 kg
Operating ambient temperature	-5°C to 40°C
Noise level	48 dB



UP3K

3 KW PORTABLE HYDROGEN FUEL CELL GENERATOR

Revolutionising High-Demand Backup Power

The UP3K is a 3 kW hydrogen fuel cell generator for telecom tower backup or other high-demand industries. Its modular design offers scalable power for hybrid or standalone use.

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	48V DC
Fuel	Compressed hydrogen (>99.97%)
Fuel consumption	0,065kg/kWh at 0.5bar(g) input pressure
Dimensions	(L x W x H) 589 × 304 × 578 mm
Weight	42 kg
Communication / Protocols	CAN (optional: RS485, Bluetooth, USB)
Recommended temperature range	-5°C to +40°C (-30°C to +40°C with accessories)
Noise level	65 dB
Features	<ul style="list-style-type: none"> ✓ Grid drop detection ✓ 5x I/O connections (3x dry contact detection, 2x programmable relays) ✓ Remote monitoring and control ✓ Different working modes (Battery mode, Generator mode) ✓ Wide range of supported batteries <div style="margin-left: 20px;"> <p><i>Optional:</i></p> <ul style="list-style-type: none"> ✓ 19" Rack solutions (Indoor/outdoor) ✓ Trailer-based mobile solution available (UPMobile) </div>

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ENERGY TECHNOLOGIES



UPSystem

19" RACK INDOOR / OUTDOOR SOLUTION

Seamless Backup with UP-Series Generators

In UPSystem, PowerUP generators are packaged in a rack with batteries, providing instant backup during blackouts, automatically switching on and off without manual input.

UPSystem	3K	6K
Generators	1 (UP3K)	2 (UP3K)
Power distribution	Customizable for 1-phase DC / AC or 3-phase AC	
System voltage	48 V DC	
Output voltage	48 V DC; 230 V AC or 400 V AC	
Nominal power output	3000 W Peak loads 10 kW (AC from inverter max. 5s)	6000 W Peak loads 10 kW (AC from inverter max. 5s)
Compatible H2 source	External cylinder or cylinder bank with pressure regulator to 0.5 bar g	
Battery bank option	48 V / minimum 100 Ah (5 kWh)	48 V / minimum 100 Ah (5 kWh)
Dimensions (W, L, H) and weight	600 × 850 × 1700 mm, 200 kg	600 × 850 × 2100 mm, 300 kg
IP class	IP20	
Recommended temperature range	-5°C to +40°C	
Operating lifetime	10 000 hours	
Features	<ul style="list-style-type: none">✓ Service monitoring✓ IoT: Full system logs✓ Remote monitoring and control✓ Start/stop signal	

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UPMobile

20 KW TRAILER-FRIENDLY MOBILE SOLUTION

Reliable Hydrogen Power, Wherever You Go

Trailer-friendly UPMobile offers uninterrupted power with an external hydrogen supply and quick-start battery, solving larger power needs at, for example, construction sites.

System voltage (VDC)	42–75 VDC		
Output voltage	42–75 V DC	230 V AC (1P)	400 V AC (3P)
Output current (A)	0–300 A		
Nominal power (kW)	10 kW (BOL) – 9 kW (EOL)		
Rated power (kW)	15 kW (w/o battery)		
FC peak power output (kW)	16,4 kW		
Battery extender capacity (kWh)	6,8 kWh (1 module)		
Battery extender peak power (kW)	34 kW (12 min – 5C)		
Cooling system	Deionized water (0.1 us/cm)		
Fuel	Compressed hydrogen (>99.97%)		
Fuel consumption per kWh	60–73 g/kWh		
Size (L x W x H)	1900 x 1500 x 1500 mm		
Weight (kg)	220 kg		
Start temperature (°C)	> -10°C		
Operating temperature (°C)	from 5°C to 60°C		
Operating hours (h)	20 000 h		
IP rating	IP54		
Noise level	65 dB		

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PowerUP
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Customers from a **broad range** of industries



Healthcare

Pharmacies, health centers, and **clinics in Europe and Africa** use PowerUP as UPS power to battle the instability of the main grid.



Construction

Builders in Europe use PowerUP to power electrical tools and off-grid offices as part of microgrids.



Defence & Security

Tested by the **NATO Energy Security Centre of Excellence** for portability, stealth, resilience, and field capabilities with "highly recommended" credits.



Telecom

Nordic telecom operators **Tele2** and **Telia** use PowerUP at base stations as a UPS solution.



Rescue

Portable electricity solution for **hard-to-reach locations** when the grid is not available.



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



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