PowerGen Remote Power Series

Qnergy
Renewable. Reliable. Resilient.

Benefits

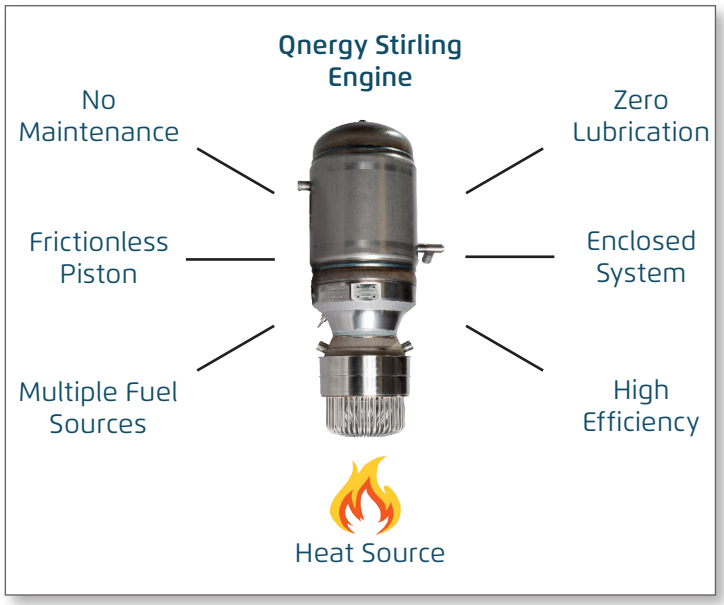
- Environmentally Robust
- Multiple Fuel Sources
- Zero Maintenance Generator
- Quick Installation
- Lower Cost/kW
- Small Footprint
- Long Operating Life

PowerGen Series

Designed for rugged and remote operation, the PowerGen remote power generator provides reliable electrical power supply to the most demanding and mission-critical loads. Based on Qnergy's no-maintenance and highly reliable PCK series Stirling engines, the generator package can work seamlessly with a variety of fuel supplies, including: natural gas, propane, ethane, biogas, and multiple associated gas streams. By means of its flexible and modular design, this generator package can be tailored to provide a broad range of power output architectures to meet the electrical requirements of each specific site load.

Assembled using lean manufacturing processes, the PowerGen is built to meet strict quality standards. The integrated components and controls are all designed to maximize the customer's ability to control and monitor their power-generation asset while minimizing servicing of any kind.

What Makes Qnergy PowerGen Your Remote Power Solution?



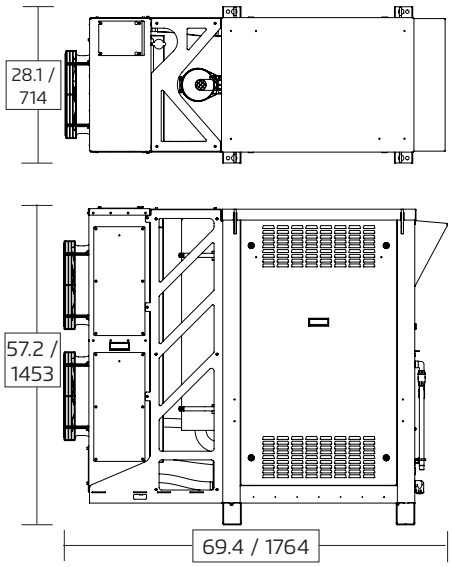
Each PowerGen Remote Power Systems utilizes Qnergy's unique PCK80 Stirling Generator

Applications

- Power Backup
- Biogas to Electricity
- Telecommunication
- Enhanced Oil Recovery (EOR)
- Cathodic Protection
- SCADA
- Automation & Controls
- Remote Micro-Grid

Qnergy has an experienced design and integration team that works to meet customer specific power needs!

PowerGen Base Dimensions (in/mm)



PowerGen Specification	Value
Max/Min Power Output[1]	5,650 Watts / 1,500 Watts
Fuel Type	NG, LPG, Propane, Wellhead Gas (Sweet)
Fuel Consumption (min / max)	1,433 / 3,964 ft³/day (Natural Gas) 15.2 / 44.4 gal/day (Propane
Fuel Pressure Range	3-50 PSI (Natural Gas) 2-10 PSI (Propane)
Wobbe Index (min / max) Caloric Value (min / max)	832 / 2,163 BTU/ft³ 751 / 3,382 BTU/ft³
Ambient Temperature Operation[2] Ambient Temperature Rated (Startup)	-13°F to 122°F 5oF to 122oF
Cabinet Electrical Rating	IP54
Altitude[3]	5% derate every 1,000 ft (above 5,000 ft)
Maintenance[4]	Engine (none); System (Semi-Annually)
Certification	cETLus (UL2200)
Emissions (NOx @ 5% O_2) Emissions (CO @ 5% O_2)	30 PPM (66 mg/kWh) 9 PPM (12 mg/kWh)
Weight (Dry)	866 lbs (392 kg)

1 At 15°C Ambient, Efficiency varies with load (see below table)

2 Ask about a low temperature operation package (down to -40°F)

3 Above 5000ft power output will de-rate by 5% per 1000ft

4 Conditions and hours may require more frequent activity

Configuration Options to Meet Your Needs:

Electrical Configuration	Output	Max Power @ 86°F | 122°F
± HVDC (±332 to ±365)	Output A: +HVDC Output B: -HVDC	5.65 kW | 5.1 kW
120 Vac Sync	Ouput A: 120 Vac 60Hz Output B: 120 Vac 60Hz	3.12 kW | 3.12 kW
120 V / 240 Vac Split Phase	Output A: 120 Vac 60Hz Output B: 120 Vac 60Hz	3.12 kW | 3.12 kW
120 Vac / 240 Vac 2 Phase	Output A: 120 Vac 60Hz Output B: 240 Vac 60Hz	A: 1.56 kW | 1.56 kW B: 2.5 kW | 2.5 kW
240 Vac Sync	Output A: 240 Vac 60Hz Output B: 240 Vac 60Hz	5.65 kW | 5.1 kW
± HVDC / 120 Vac	Output A: + HVDC Output B: 120 Vac 60Hz	Output A: 3 kW | 3 kW Output B: 1.56 kW | 1.56 kW
± HVDC / 240 Vac	Output A: + HVDC Output B: 240 Vac 60Hz	Output A: 3 kW | 3 kW Output B: 2.5 kW | 2.5 kW

Low voltage DC (24 VDC / 48 VDC) require the use of the Qnergy Power Interface Package (PIP)

Qnergy is a company focused on providing energy to a world market looking for innovative, cost effective, and efficient ways to energize the future. With more than 40 years of expertise and proven reliability, Qnergy brings proprietary, high-performance Stirling engine technology to the marketplace for commercial, industrial, and residential applications.

How It Works

Using a highly efficient thermodynamic process, Qnergy's free-piston Stirling engine (FPSE) generator can create electricity from virtually any heat source. The heat input creates a temperature differential across the engine causing the helium inside the engine to expand and contract, which in turn drives a linear reciprocating motion of the piston. The FPSE directly converts the reciprocating motion of the piston into electrical power via the integral linear alternator.

The Qnergy engine has fewer moving parts than traditional kinematic Stirling engines, and no direct-contact points that cause wear and require lubrication. The Qnergy engine is truly a maintenance-free technology and offers long-life performance, two key features that make it an ideal power source.

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