

Tactical Hybrid Generator-THG™

Integrated Hybrid System for 3kW Tactical Quiet Generator (TQG)



THG™ Unit

The THG™ is a hybrid power system that increases the performance and reliability of the legacy 3 kW Tactical Quiet Generator. The THG™ installs beneath the base of any 3 kW TQG.

The THG™ is ideal for applications with average loads that underutilize generator capacity, resulting in wasted fuel. Through the addition of energy storage and power management, the THG™ takes over cycling of the generator, reducing fuel consumption, while delivering digital-quality pure sine wave AC power.

Key Features

- Up to 3 kW output power
- 120 V / 240 V output
- Automatic remote start-stop
- Emergency stop button
- Lithium Iron Phosphate batteries
- Second battery port for additional storage
- Optional solar panels to charge anywhere

Key Benefits

- Provides temporary uninterrupted silent back-up power up to 3.4kW
- Extends TQG lifetime
- Reduce TQG fuel usage up to 50%
- Ease of assembly/disassembly (4 bolts & 2 connectors)
- Mission-ready
- No additional maintenance
- Ruggedized packaging
- Proven reliability
- Proven field performance

Applications

- Forward operating bases
- Weapon systems
- Remote sensors & relays
- GPS systems
- C4ISR equipment
- Silent watch
- Force protection systems
- Expeditionary communications
- Auxiliary power



THG™
Integrated
with TQG



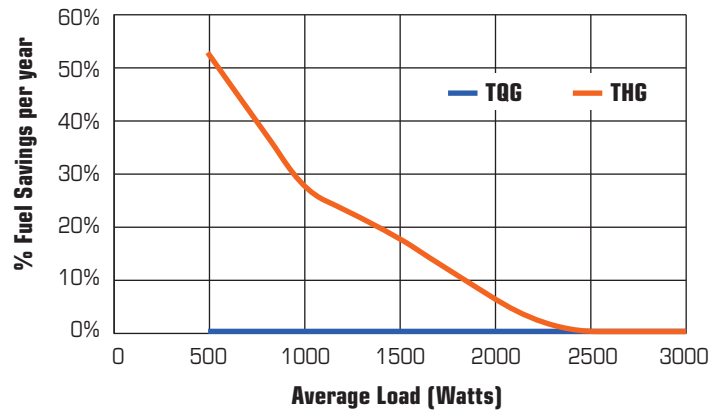
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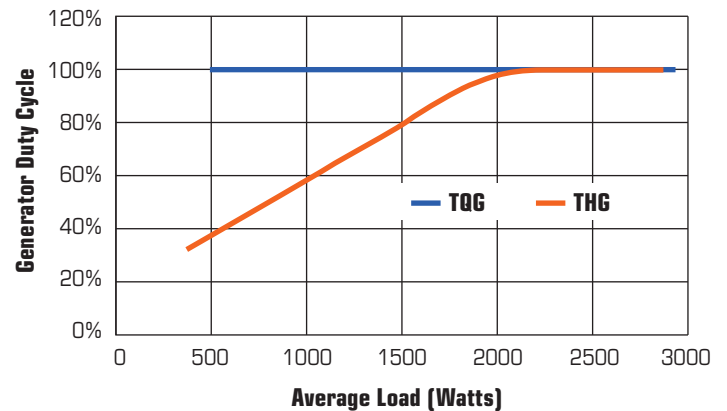


Fuel Savings and Duty Cycle at Various Load Profiles

THG™ Fuel Savings vs Load



TQG vs THG™ Fuel Duty Cycle



Electrical Parameters

AC Output	3.4 kW Max, 6.8 kW Surge
AC Service	120 / 240 V, 60 Hz
AC Outlets	120 V, 10 A
DC Service	24 V NATO, 150 A
Battery	Two 1.3 kWh LiFePO4
Solar Option	560 W, 33.16 V per clamshell

Physical Parameters

Weight (THG™)	207 lbs / 94 kg
Weight (integrated)	477 lbs / 216.5 kg dry
Dimensions (THG™)	34.6" L x 27.5" W x 13.0" H
Dimensions (integrated)	34.6" L x 27.5" W x 39.5" H
IP Rating	IP65
Operating Temp	-4° F to 140° F (-20° C to 60° C)

Notes:

- TQG Data supplied by U.S. Army Expeditionary Energy & Sustainment Systems (E2S2)
- Based upon HOMER simulation with 3.4 kW inverter output power (HOMER is the standard for microgrid optimization)
- Continuous loads exceeding 2300 W should be run in Generator only, bypassing the THG™ Hybrid module
- Generator Duty cycle assumes standalone TQG in continuous duty (24 hrs x 365 = 8760 hrs per year)
- THG™ Duty cycle based upon auto start stop with loads supplied by battery module, generator run for recharge

