



LFG

LIGHTWEIGHT FIELD GENERATOR

NOW IN SERVICE

Presenting the LFG – HGI's 2kW Lightweight Field Generator, currently in use and in production for the British MoD.

After months of successful military trials, exacting specifications and significant investment, HGI is now able to offer the LFG to its customer base, with the pedigree you would expect from a set designed for the rigours of MoD service.

This advanced, lightweight 2kW generator has been selected by the Ministry of Defence as the standard British Army 2kW generator for service throughout the world over the next 15 years. Designed and built to a very demanding specification, the LFG has many advantages over conventional machines.

Testing & Trials

As is standard with equipment entering MoD service, the LFG was subjected to the most exhaustive tests, ensuring that the set would excel in any conceivable environment. Tests included:

- Severe vibration and bump programmes
- Extreme temperature tests at maximum output
- Exhaustive reliability qualification testing over 48 battlefield mission cycles, equating to 8800 hours runtime.
- EMC testing to Defstan 59-41 Class C, and no radio interference at 15 metres
- Electrical performance to Defstan 61-5 (Part 2)

PMG: Permanent Magnet Generator

The LFG utilizes a PMG type alternator and inverter, allowing significantly reduced weight, and vastly increasing fuel efficiency over a standard alternator.

- Multi-output 28v DC/110v AC/230v AC
 - Supplies any combination of either AC voltage and 28v DC at the same time up to 2.2kW on 10% overload
- Perfect sine wave output
- Highly robust



2kW

Vari-Speed Operation: Hatz 1B20 Engine with Acoustic Enclosure

- Single cylinder air-cooled engine – hand or 24v electric start from power through the intervehicle connector
- Vari-speed: 2650 and 3200rpm settings via switch on the engine
 - 2650 rpm for outputs up to 2kW in normal conditions
 - 3200 rpm for operating at 10% overload, high temperature or altitude
 - Run at a lower rpm when full output isn't required, for increased efficiency and noise reduction.
- MDPE Engine Enclosure
 - Medium density poly-ethelene acoustic enclosure, with rigid-foam liner for sound insulation, significantly reduces engine noise for operation in sensitive environments, and situations where low noise is preferable
- Runs on diesel or AVTUR fuel
- Fuelled from adjacent standard 25 litre jerry can allowing 25 hours running time at full load
- Easily fitted and removed 2m exhaust extension

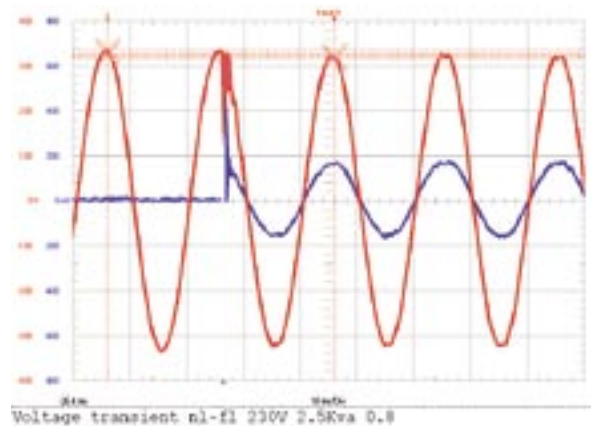
Additional Information

- -40 to +49 °C operation
- 76kg total weight
- 600mm L x 500mm W x 550mm H



Performance

- Electrical Performance parameters exceed requirements of Def Stan 61-5 (part 2).
- Excellent Voltage Regulation
- Perfect Sine Wave Output
- Rapid response to load changes.



Summary

- + **Whole life costs significantly reduced by dual speed inverter technology**
- + **Low cost of ownership**
- + **Multi output capabilities of LFG allow for rationalising of an existing generator fleet**
- + **Significantly reduced weight**
- + **Vastly increased fuel efficiency**
- + **Reduced engine noise**
- + **Perfect sine wave output**
- + **Highly robust**