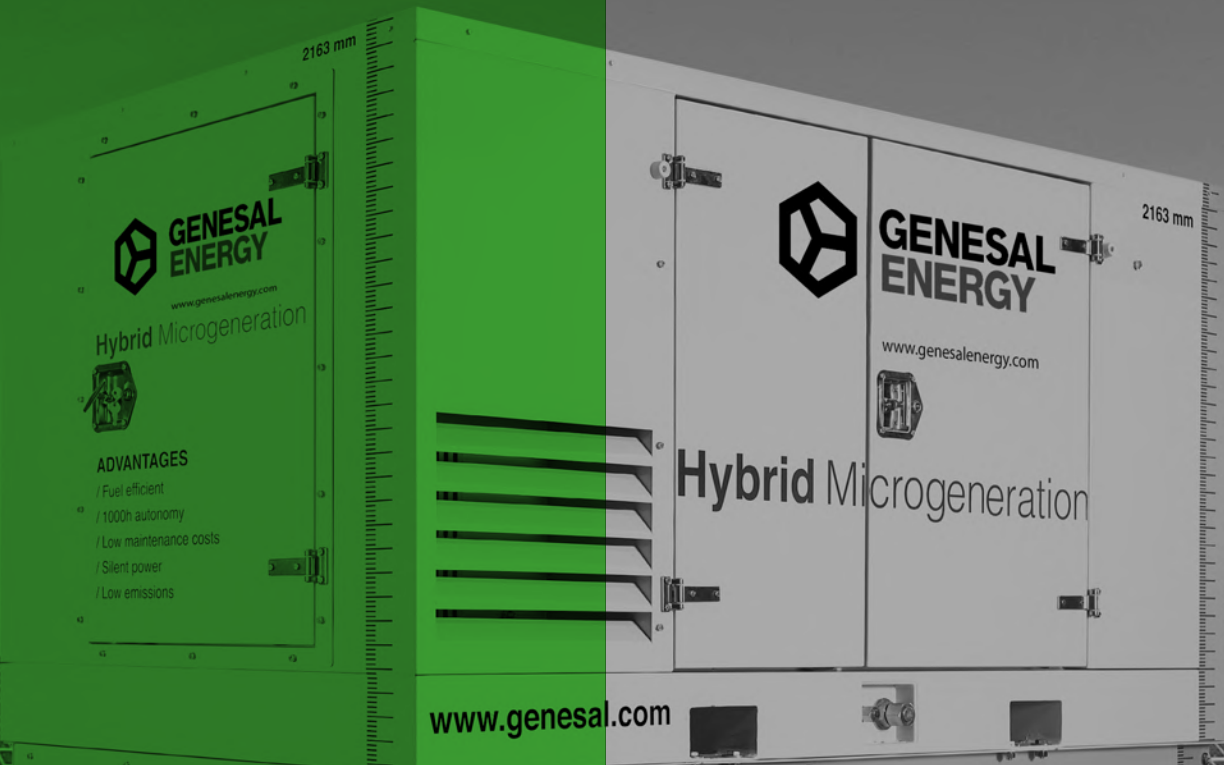




**GENESAL
ENERGY**



**HYBRID
MICROGENERATION SYSTEM**

**CHOOSE THE
BEST ENERGY
SOLUTION**

CONTAINER OPTIMIZED

ADVANTAGES
/ Fuel efficient
/ 1000h autonomy
/ Low maintenance costs
/ Silent power
/ Low emissions

CONTAINER OPTIMIZED

48 V / 230 V / 400 V

HYBRID MICROGENERATION SYSTEM

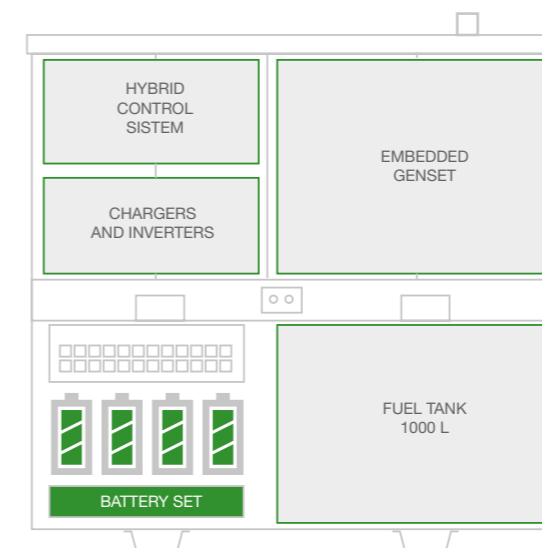


Available in 60 Hz/1,800 rpm, please contact your local GENESAL ENERGY authorised dealer for further information.

Hybrid Microgeneration System

- 48 V DC output, for telecoms applications (80 A).
- Output type UPS at 230 V or 400 V, 50 Hz AC and auxiliary output at 230 V or 400 V, 50 Hz AC available when the genset is operational.
- Maximum output rate at 48 V DC: 4,000 W.
- Voltage Min/Max: 46.5-58 V.
- UPS output available power at 230 V: up to 9,000 VA.
- Auxiliary output available power while charging batteries: up to 10,000 W.
- Battery: 24 cell acid-lead 10 PzS 48 V 1,250 Ah.
- Autonomy of batteries at half load 48 V DC: 18 h, with an discharging capacity of 60 % during 365 cycles/year.
- Estimated battery life: 5 years.
- Estimated time for full battery charge: less than 6 hours with an approximate fuel consumption of 21 litres.
- Genset autonomy without servicing: 1,000 hours / 167 days or 5.5 months approx.
- Fuel tank autonomy: 45 days, possible due to its double walled high capacity and very efficient genset.
- Optional Fuel Transfer System, from an exterior fuel tank to the interior fuel tank. Includes a visual fuel gauge.
- Engine: 4-cylinder, 4-stroke diesel powered Perkins 404D-22G engine. Output rate reaches 20.3 kWm at 1,500 rpm in prime power (PRP).
- The genset control panel includes a GEINTEL controller. It controls and protects the genset, the battery, the battery charging system, and the emergency power connections.
- The fuel transfer system and other external systems may be connected to the control panel and managed remotely.
- Remote control performed through LAN RS232, RS485 Modbus Ethernet or GSM Modem. SMS text messages available.

The Hybrid System



- INTEGRATED SYSTEM**
- MODULAR DESIGN**
- CONTAINER OPTIMIZED**
- ECO-FRIENDLY**



Components



Fuel tank



High capacity battery



Battery with battery switch



Fuel transfer pump



Radiator coolant level sensor



Fuel filling and oil drainage



Automatic oil refill reservoir



Distilled water tank



Cyclonic oil filter



Engine battery maintainer from external grid

Advantages

- ❖ **LOW FUEL CONSUMPTION**
- ❖ **1,000 h AUTONOMY**
- ❖ **LOW MAINTENANCE COSTS**
- ❖ **SUPER SILENT**
- ❖ **LOW EMISSIONS**
- ❖ **REDUCED DIMENSIONS**

- ❖ Reduction of the genset operating hours up to 75 %.
- ❖ Extended autonomy, with service intervals up to 4-6 months long.
- ❖ Fuel savings beyond 65 %.
- ❖ Increased engine life, thanks to the optimization of load levels and working conditions.
- ❖ Dual voltage availability: 48 V DC and 230/400 V AC.
- ❖ All functions may be easily controlled through a remote control module. Even added functions.
- ❖ The hybrid module is integrated in a metallic soundproof canopy, built with electrowelded, galvanized steel plates. It includes wide doors that allow access to the interior for inspection and maintenance operations. Locks and hinges are made with stainless steel. Painting includes a primer and an acrylic coating. The canopy may be divided in 2 parts in order to ease transportation and installation.



Battery inverters / chargers



Control panel



Oil level monitoring system



We have all the energy needed to adapt to any kind of situation. We are experts in the manufacture and assembly of specialised generator sets.



**GENESAL
ENERGY**

European **Engineering**

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