




**GENESAL
ENERGY**

PRODUCT
CATALOGUE

**CHOOSE THE
BEST ENERGY
SOLUTION**





GENESAL ENERGY is an international company, with its head offices located in Spain dedicated to the industry of distributed energy.

All our activities are entirely built around satisfying the **needs of our customers** through a fully comprehensive operation covering everything from the design and manufacture of a genset to a wide range of after sales services.

GENESAL ENERGY not only **manufactures a standard range of gensets**, but also through our design centre we can apply a high level of technical capabilities for the **development of tailor-made projects**, which include viability studies, detailed planning, execution and start-up on site with expert engineers.

We offer a **wide range of products and services:**

Engineering & Maintenance, giving us the advantage of both high-level flexibility and capability to adapt to our client's needs.

Personalised design capabilities, for made-to-measure projects, following the client's specifications as required.

R&D / CETED (This is our in-house Technological Centre for Distributed Energy).

Electric Generators: Diesel, biodiesel, LPG & LNG.

Hybrid Generators.

Marine Auxiliary Generators.

High efficiency light towers.

Generator systems for combined cycle power plants for emergency back up and black start.

Gensets with special characteristics, for military use or designed for critical environments.

Gensets with remote management systems.

ABOUT US

Experts in offering energy solutions

COMPREHENSIVE SERVICES

From design, all the way through to manufacturing and our after-sales services

More than 25 years' experience in the comprehensive service of generator sets. We accompany the client through every phase of the project.

Our commitment to CETED (our Technological Center for Distributed Energy) makes Genesal Energy a renowned company in the international market in the development of special gensets which provide our clients with energy solutions that are unique in the market.



R&D&i

We develop in-house engineering and technology adapted to the requirements of each client. Specific products that are unique in the market.

ENGINEERING & MANUFACTURING

Power from 5kVA to 3,900 kVA
High quality European products
3,300 kVA load bank



Logistics and distribution

Extensive international network.
Direct supplier relationships.



Turnkey projects

Technical projects office.
Technical assessment.
Commissioning.

AFTER SALES

Maintenance
Remote Management Systems
24/7 Services
Spare parts sale



Training Center

Onsite training facilities available to our customers.

Genesal Energy's after sales service department can define, design and execute specific maintenance plans based on the clients needs. Additionally, they can install, commission and update gensets.

APPLICATIONS

Powerplants
Distribution

Medium voltage
Dual frequency

Low temperatures
Military

Airports
Hospitals

Cogeneration
Telecommunications

PRODUCT RANGES

Creating products for each individual energy need



DIESEL GENERATORS

- Wide range of gensets for industrial and domestic applications.
- From 5 kVA to 3,900 kVA, 50 Hz or 60 Hz.
- Reliable and efficient solutions in COP, PRP and ESP.



GAS GENERATORS

- Liquefied Natural Gas or Liquefied Petroleum Gas.
- From 8 kVA to 425 kVA, 50 Hz or 60 Hz.
- High reliability, low fuel consumption.



SPECIALISED GENERATORS

- Conceptual and basic engineering for the projects.
- Personalised power solutions.
- Full project management from the pre-sale period to the final installation of the genset.
- Tailor made solutions, giving our clients the ideal energy supply system.



MARINE AUXILIARY GENERATORS

- Designed to operate in extreme conditions such as high humidity and to withstand the highly corrosive marine environment.
- Compact in size with low noise emissions.
- Electrical design for marine applications.
- Certification bodies and classification societies such as Lloyd's Register, DNV, Bureau Veritas, ABS, RINA, etc.



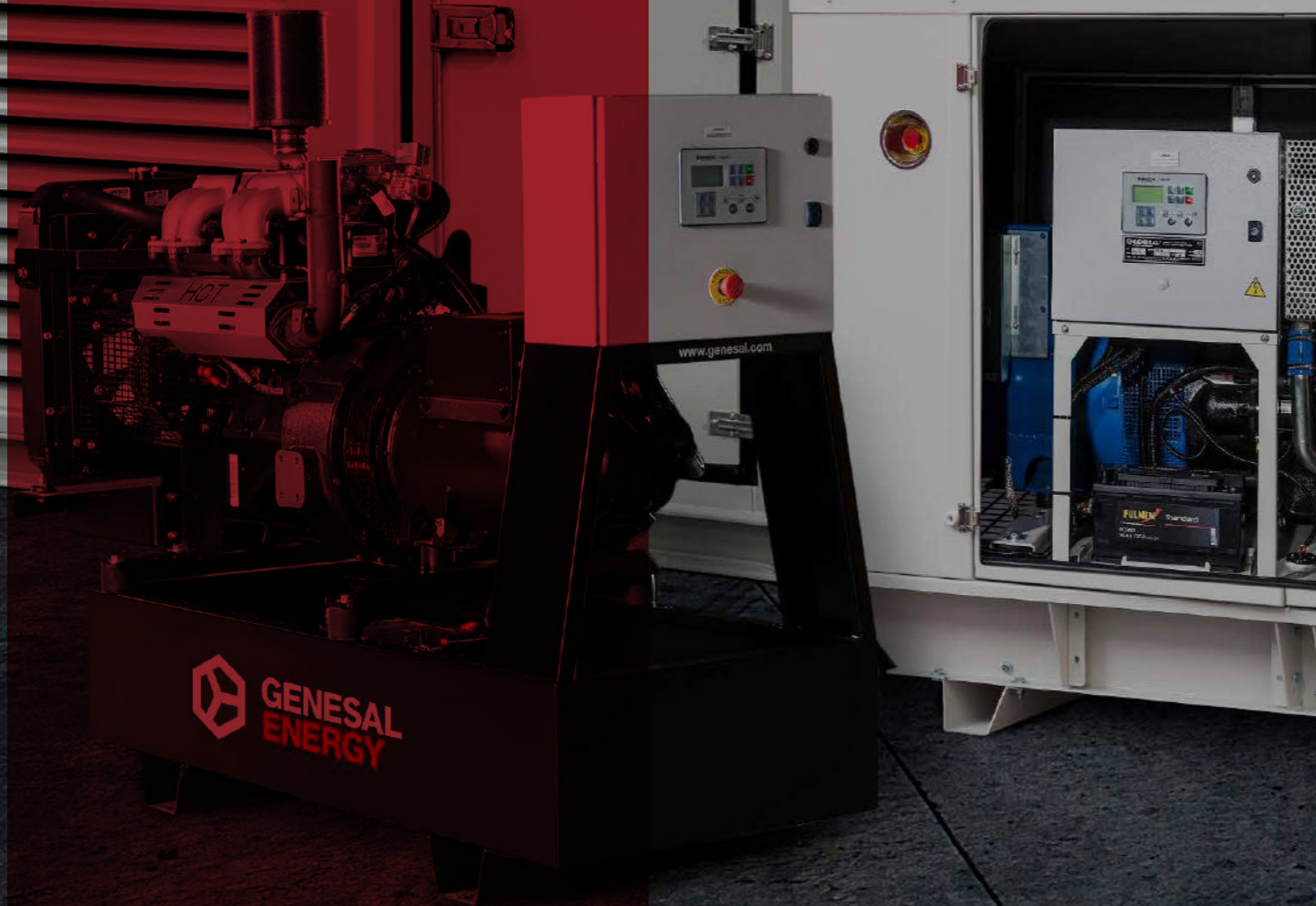
HYBRID GENERATORS

- Product specially designed for smart grid implementation.
- Designed for off-grid facilities with the need for isolated power supply.
- Autonomy ensures efficient power supply for any type of isolated installation.
- High capacity autonomy and hybrid energy with batteries or other renewable sources.



LIGHTING TOWERS GENERATORS

- Designed to operate in the most adverse outdoor environments.
- Up to 180,000 lumens.
- Compact design for easy trailer transport and storage.
- Low energy lighting with high level luminosity (LED).



5-3,900 kVA 50/60 Hz
1,500/1,800 rpm

DIESEL POWER GENERATORS



We offer a wide range of products and services:

GENESAL ENERGY not only manufactures a standard range of gensets, but also through our design centre we can apply a high level of technical capabilities for the development of tailormade projects, which include viability studies, detailed planning, execution and start-up on site with expert engineers.



XS POWER RANGE

The XS power range has been designed for applications where low power output is required. The gensets consist of a mix of high performance with low carbon emissions, and are easily maintainable. They are also highly autonomous due to their low fuel consumption coupled with a large interior fuel tank. These gensets are compact and light, and are ideal for domestic environments.

For 50 Hz: 5-22 kVA
For 60 Hz: 6,6-22 kVA



S POWER RANGE

The S power range is our most versatile range of gensets. This range combines high reliability and versatility to adapt to a wide range of applications. These gensets are high performance products with a wide range of power options for both domestic and professional use.

For 50 Hz: 23-110 kVA
For 60 Hz: 23-125 kVA



M POWER RANGE

The M power range is the answer to industrial needs for a product to deal with medium output requirements. Within this range, we find the ideal option of a high-performance generator with a multitude of options in order to adapt to the client's specifications; this includes specialised developments, generators for emergency situations, even continued power where there is no grid or the mains power is unreliable.

For 50 Hz: 111-385 kVA
For 60 Hz: 126-395 kVA



L POWER RANGE

The L power range is designed to meet high energy demands for areas not considered heavy industry. One of the highlights of this range is the ability of several GENESAL ENERGY gensets to work in parallel with each other, as well as the power/m² ratio which these compact gensets supply, making them ideal for supplying substantial amounts of power in small spaces.

For 50 Hz: 386-825 kVA
For 60 Hz: 396-940 kVA



XL POWER RANGE

The XL power range is the answer to the needs of heavy industry with high output requirements. This range of gensets is defined by its ease of installation; a design entirely adapted to the customer specs; and its transport versatility.

For 50 Hz: 826-3900 kVA
For 60 Hz: 941-3900 kVA

Standard Configuration

Engine

- 12/24 V lead-acid battery and electronic battery charger.
- Engine block coolant heater.
- Protection grid for hot and mobile parts.
- Radiator and cooling fan.

Control and operations panel

- Automatic digital GEINTEL control panel.
- Modes - Automatic / Manual / Testing / Off.
- Periodical automatic start-up test setting available.
- Automatic event registry (100+ events).
- Battery charging in AS Variant (Automatic Start-Up).
- Compatible with EFI engines.
- Three phase network and genset detection using RMS measures.
- Advanced protection systems for mechanical and electrical components (ANSI codes).
- Modbus RTU communication.

20'/40' and HC container

- Sea-worthy approved container.
- Fire-retardant, soundproof interior insulation boards.
- 4 lifting points.
- Lateral access with panic bar handle / Emergency stop button.
- Painting and coating as per customer RAL specifications.

Alternator

- Automatic Voltage Regulation (AVR).
- Single-bearing coupling.
- Short-circuiting capacity: 30 % (3 IN) during 10 seconds.
- IP23 protection.
- Class H insulation.

Canopy

- Made with galvanized steel.
- Fireproof, soundproof interior insulation boards.
- 2 lugs for lifting up operations.
- Wide inlets for maintenance and service operations.
- Lockable doors with 1 single key.
- Stainless steel hinges.
- Painting and coating as per customer RAL specifications.

Others

- Four pole thermal magnetic circuit breaker.
- Fuel tank.
- Low noise emitting flexible exhaust pipe.

Optional Features

Engine

- Electronic engine governor.
- Water/fuel separator pre-filter.
- Diesel pre-filter and water separator.
- Remote cooling and heat-exchanger.
- Remote chiller with plate heat exchangers, dry cooler with circulation pump.
- Oil hand pump.
- 12/24 V nickel-cadmium (Ni-Cd) batteries.
- Battery switch.
- Pneumatic start.
- Hydraulic starter.
- Oil refiller.
- Centrifugal oil filter.
- Double fuel filter with by-pass.
- Manual / Electrical diesel pump.
- Air intake heater.
- Dual frequency (dual 50-60 Hz).

Alternator

- Medium voltage.
- Bare shaft with two roller bearings.
- Permanent magnet generator (PMG).
- De-misting elements.
- Multiple voltage settings.
- PT100 probes in bearings and coilings.
- Close circuit air-air heat exchangers.
- Tropicalisation, marine adaptation and aggressive industrial environments.

Control panel and fuctions

- Shared loading and synchronization.
- Expansion module for remote signals.
- Controller with communication CANbus, Modbus, Profibus, TCP-IP...
- Remote Control Module via Ethernet: RS232-485 ans SNMP.
- Personalised control panel with PLC (Siemens, Rockwell etc), touch screen & protection relay (ANSI norms).
- Fuel level system for automatic diesel filling with solenoid closing valve.

Canopy

- Stainless steel / aluminium canopy.
- Super silent soundproofing and sound deflectors.
- Power sockets.
- Sand filter incorporated in canopy air-intake.
- Particle filters.
- Removable side panels.
- External fuel transfer connection.
- Adapted to seismic legislation.
- Customised design upon request.

Container 10' | 20' | 30' | 40'

- Ultra-compact soundproof system, up to 2,000 kVA in 6 metres longitude and 85 dB (A).
- Automatic and heated blinds.
- Non-slip floor.
- Adapted to extremely low temperatures (-40 °C).
- High solar protection roof panel.
- Snow deflecting roof panel / adaptation for snow mobility (skis).
- Fire detection and extinguishing system.
- Adapted to seismic legislation.
- Interior compartments are independent (control room, the genset and fuel tank).
- Control room incorporates climate control.

Others

- 4 pole automatic motorized circuit breaker.
- Fuel tank options: different sizes, double walled, dangerous fluids, drip tray, automatic fuel transfer system, leakage detection.
- Silenced air inlets and outlets for interior compartments.
- Low noise emission exhaust pipe.
- Tailor-made installations.
- Corrective and preventive maintenance management.

*Other parts can be made to order. Please contact your local GENESAL ENERGY authorised dealer for further information.

50 Hz

60 Hz

	kVA		kW		kVA		kW	
	PRP	LTP	PRP	LTP	PRP	LTP	PRP	LTP
XS	5 - 20	5,5 - 22	4 - 16	4,4 - 17,6	6 - 28	6,6 - 31	4,8 - 22,4	5,3 - 24,8
S	25 - 100	27 - 110	20 - 80	21,6 - 88	33 - 135	36 - 150	26,4 - 108	28,8 - 120
M	125 - 325	138 - 350	100 - 260	110,4 - 280	145 - 360	160 - 395	116 - 288	128 - 316
L	350 - 750	385 - 825	280 - 600	308 - 660	385 - 850	425 - 940	308 - 680	340 - 752
XL	800 - 3000	880 - 3300	640 - 2400	704 - 2640	880 - 3500	970 - 3900	704 - 2800	776 - 3120

Power factor (φ): 0,8

GENESAL ENERGY gensets comply with EC regulations, which include the following norms and directives: ISO 13857:2008 establishes values for safety distances in both industrial and non-industrial environments to prevent machinery hazard zones being reached. 2014/35/EU low voltage directive. 2014/30/EU electromagnetic compatibility. 2000/14/EC relating to the noise emission in the environment by equipment for use outdoors. 2006/42/EC relating to machine safety. Referenced Ambient Conditions: 1.000 mbar, 25 °C, 30 % relative humidity. According to ISO 8528-1:2005: Prime power (PRP) is the maximum power which a generating set is capable of delivering continuously whilst supplying a variable electrical load when operated for an unlimited number of hours per year under the agreed operating conditions with the maintenance intervals and procedures being carried out as prescribed by the manufacturer. The permissible average power output over (Ppp) 24 h of operation shall not exceed 70 % of the PRP. Emergency standby power (ESP) is the maximum power available during a variable electrical power sequence, under the stated operating conditions, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200 h of operation per year with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. The permissible average power output over 24 h of operation shall not exceed 70 % of the ESP. Overload is not allowed.

50/60 Hz 1,500/1,800 rpm

GAS GENERATORS

50 Hz

	kVA		kW		Consumption m³/h	
	PRP	LTP	PRP	LTP	PRP	LTP
LNG	9 - 364	10 - 404	7 - 291	8 - 323	2,8 - 96,8	3,1 - 107,5
LPG	10 - 110	12 - 122	8 - 88	9 - 97	1,4 - 11,4	1,5 - 12,7

- Genset efficiency: 90 %
- Power factor (φ): 0.8
- Properties of natural gas: 0.8 kg/m³ ; 9.87 kWh/m³
- Properties of liquid petroleum gas (as per local specifications)

60 Hz

	kVA		kW		Consumption m³/h	
	PRP	LTP	PRP	LTP	PRP	LTP
GNL	9 - 439	10 - 487	7 - 351	8 - 390	2,9 - 108	3,2 - 120
GLP	11 - 133	12 - 147	9 - 106	10 - 118	1,6 - 14,2	1,8 - 15,8

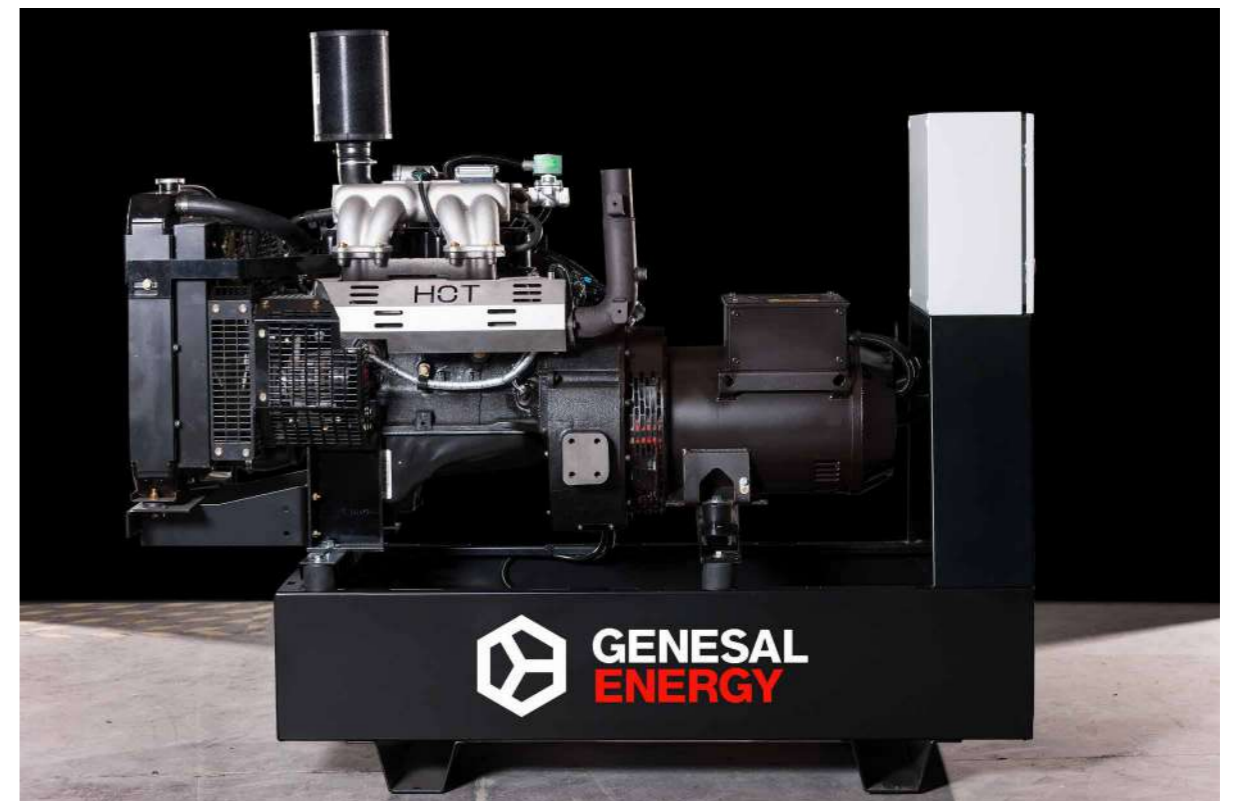
Gas powered gensets by **GENESAL ENERGY** **respect the environment** thanks to highly efficient fuel and low emissions.

Gas powered gensets by GENESAL ENERGY are highly compatible with both mains natural gas and fuel tanks.

GENESAL ENERGY is committed to **developing new energy sources for powering gensets.**

These generators have numerous advantages compared to diesel gensets:

- ⊗ They respect the environment due to reduced particle emissions.
- ⊗ High compatibility and application: They can be installed in remote locations with high capacity fuel provisions.
- ⊗ Economical and reliable: Perfect for applications where continued use is required, signifying a huge saving with respect to diesel.
- ⊗ Highly efficient in co-generation.
- ⊗ Quiet: Gas powered generators cause significantly lower acoustic emissions when compared to a diesel genset.



48 V / 230 V / 400 V

HYBRID MICROGENERATION SYSTEM

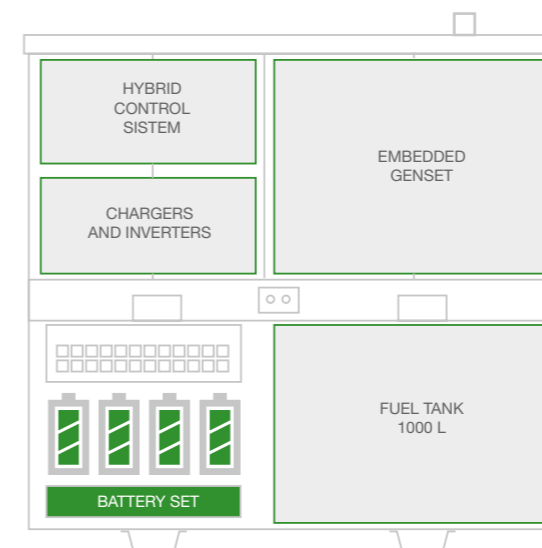


Available in 60 Hz/1,800 rpm, please contact your local
GENESAL ENERGY authorised dealer for further information.

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

MARINE GENSETS

Our marine generators can be used both at port and sea. They are designed to operate in conditions of high humidity and withstand the highly corrosive marine environment. Soundproofed enclosures contribute to a lower noise level, improving the working conditions of those in the area.

In addition the soundproofed enclosures designed by GENESAL ENERGY are a standout feature in the current market. This is achieved through the use of light weight stainless steel and specially coated panels, which give easy access inside for engine for set up and maintenance work.



At Genesal Energy, we take care of the smallest details in the design of every genset we manufacture.

Our engineers will evaluate the client's specific needs to design and build a finished marine genset that guarantees optimum performance, ensuring that our client can confidently and more importantly reliably operate it at sea, not to mention with reduced fuel expense.

Our Marine Generators are characterised by their compact design, with adapted cooling systems (water heat exchanger or radiator) and parts specifically prepared for high durability in a saline corrosive environment. They are configured with an engine and an alternator specially designed for the marine environment, giving you a range of gensets that are highly reliable, an important requirement in this sector.



Standard Configuration

Marine engine.

- Open-circuit heat exchanger.
- Radiator or keel cooling.
- Access to filters through one common point.
- Water collector and exhaust cooler.
- Closed sump vent system.

Marine control panel GENESAL ENERGY ComAp – ID-FLX-LITE.

- Graphic display.
- Engine monitoring and control.
- J1939 interface, it can be configured according to the gen-set features.
- RPM counter.
- Oil pressure gauge.
- Engine temperature gauge.
- Stoppage alarms (oil pressure, oil temperature, and overspeed).
- Warning alarms (battery charger failure, start-stop monitoring).
- Integrated cables, alarms and sensors.
- Programmable PLC.
- RS232 / Modem / Modbus / Ethernet communication.

Marine alternator.

- Insulation class H/H or H/F.
- Protection degree: IP23.
- Voltage regulation: $\pm 0.5\%$ or $\pm 1\%$.
- 12 wires.
- MD35 standard 1-bearing mechanical configuration.
- Multi-voltage.
- Short-circuiting capacity: 30 % (3 IN) during 10 seconds.

Other.

- Galvanised steel base frame with drip tray.
- Stainless steel base frame.
- High quality made-to-measure components.
- 12/24 V batteries.
- Anti-vibration marine mountings.



ComAP IntelliDrive DCU Marine



Water-cooled turbocharger



Inner shock-absorbing mounts



Water-cooled exhaust manifold



Selection valve for keel/radiator cooling

Optional features

- Super-soundproof stainless-steel canopy, resistant to corrosion.
- Removable side panels for easier access to the generating set.
- Mechanical customization.
- Made to measure canopies, exhaust gas pipes, fuel, seawater and oil.
- Dry exhaust pipe.
- Oil drain hand pump.
- Double walled fuel pipe.
- Anti-vibration isolation mounts between main frame and mountings.
- Anti-vibration mountings between the main base frame and the genset building structure.
- Distant control panel, model IGL-RA15, 15 LED's.

- Synchronization and load sharing.
- Certified by key insurers such as Lloyd's Register, DNV, Bureau Veritas, ABS, RINA amongst others.
- Engine controller ComAp IntelliDrive DCU Marine.
- Remote control IntelliDrive DCU Marine can be installed on the ships bridge.
- Double fuel filter.
- Fuel/Water Separator.
- Redundant ECU.
- Customized color (as per RAL codification).
- Front-side power connection available upon request.
- Alternator Permanent Magnet (PMG).
- 12/24 V system with dual pole isolated return.
- Pneumatic start.



1. Oil drain pump
2. Bi-directional pump for oil filling/draining



Header tank heat exchanger



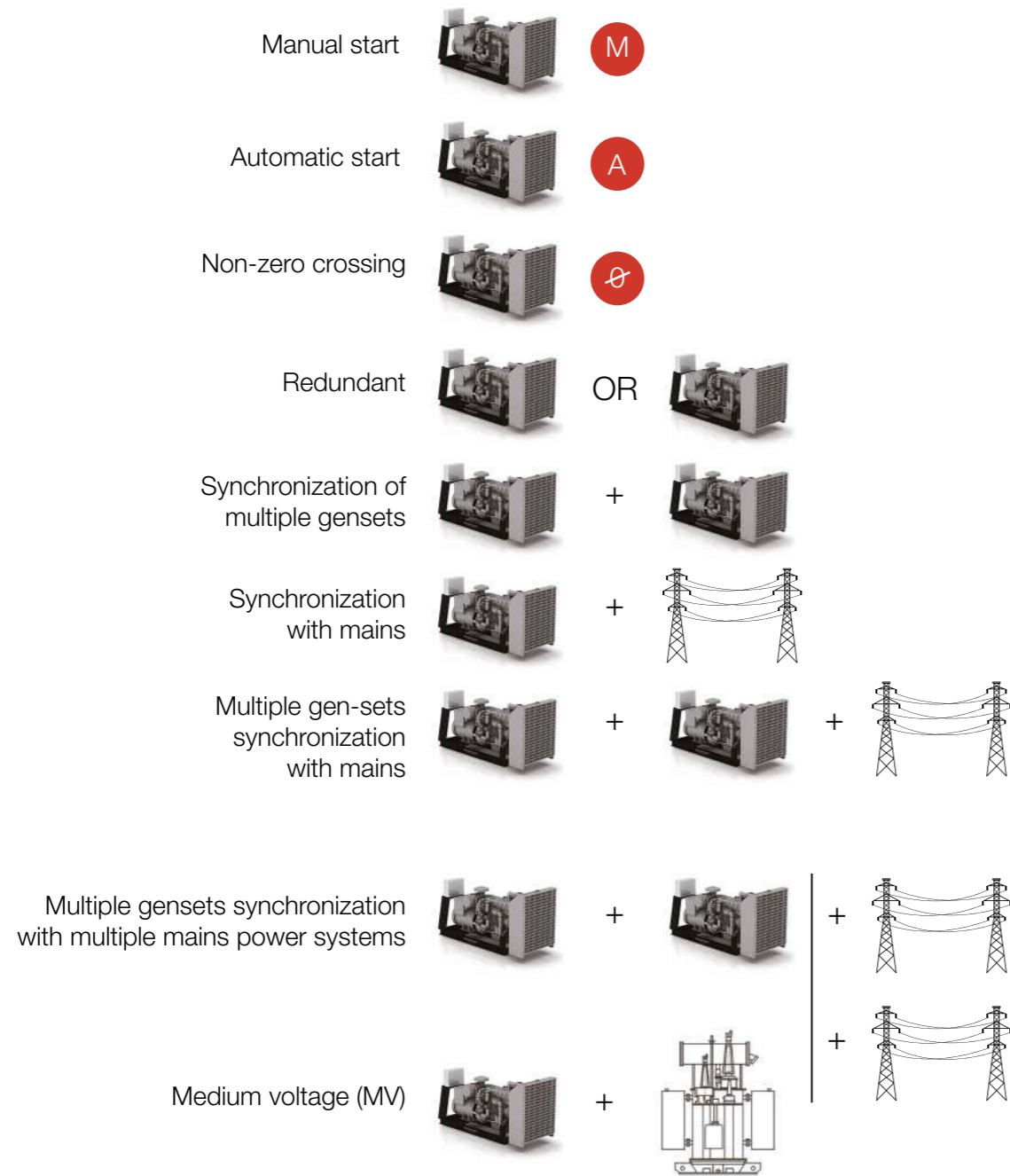
Removable doors



Stainless-steel soundproof enclosure

[Some items are optional]

Electrical Configuration



Canopy / Container power ranges

S POWER



M POWER



L POWER



XL POWER



COMPREHENSIVE SERVICE

**TECHNICAL
SUPPORT
SERVICE**

**Maintenance
services, installation
and repair of
generator sets**

We have the tools and the technical knowledge necessary to carry out the tasks required by the generator set.

Our technical personnel are highly qualified and ready to give a response to any unexpected occurrences **24 hours a day, 365 days a year**. We have got all the right equipment and knowledge necessary to carry out the complex procedures your genset may require.

Maintenance

We design and define tailormade maintenance plans for our clients depending on the type of generator.

■

Commissioning

Once installed, we will carry out the commissioning, testing and verification of each stage of the process and ensure that the generator is in full working order.

■

Modifications

We can adapt gensets to new working conditions such as changes to alarms and configuration, as well as renewals of the control panel, fuel tank and more.

■

Installations

Our experts will personally analyse the genset location in order to record the necessary data. Our engineering department will then design the solution for the genset installation, concluding with the start-up operation.

■

Breakdowns

Our specialists will make your generator operational again in the shortest possible time. Genesal energy has a direct line to all the parts suppliers ensuring quickly delivered replacement parts.

■

COMPREHENSIVE SERVICE

10000 kg
**TECHNICAL
SUPPORT
SERVICE**

**We can detail
and design specific
maintenance programs**

MAINTENANCE

GENESAL ENERGY SAT specifies and designs specific maintenance plans adjusted to the client's requirements, from the biggest multiple unit floats down to the individual working genset.

Corrective maintenance.

GENESAL ENERGY SAT provides troubleshooting solutions for breakdowns which, depending on their origin: mechanical / electrical / electronic, have caused operational deficiencies leading the genset to stop working, and with grave consequences for the user.

Predictive maintenance.

REMOTE MONITORING SYSTEMS

Our system of RMS coupled with the latest technology in electric generators, has led to our recognition as a global reference in our ability to detect product issues through our remote control system using the internet as the main connection to the generator, whether stationary or mobile. Settings changes are applied from our own software remotely, having a very positive impact on our ability to act quickly.

Preventive maintenance.

MAINTENANCE IN ACCORDANCE WITH WORKING ARRANGEMENTS

Our services adapt to the genset active operations:

Emergency Standby Power (ESP).

- Annual technical inspection for filter change, oil etc in accordance with protocols as determined by the integrated elements of the machinery.
- Two annual inspections: change consumables, level checks, properly functioning equipment tests, report on anomalies from visual inspections by the technician and incident assessment if necessary.
- Up to 12 annual technical inspections (consumables replacement, 11 annual technical inspections and tests)*
- Supervision and virtual control of gensets through remote management systems.

Prime Power (PRP).

- Adjustment of the frequency of maintenance and the time of day it is carried out depending on consumables changes and the client's business operating hours.

IMPROVEMENT AND UPDATING ACTIONS

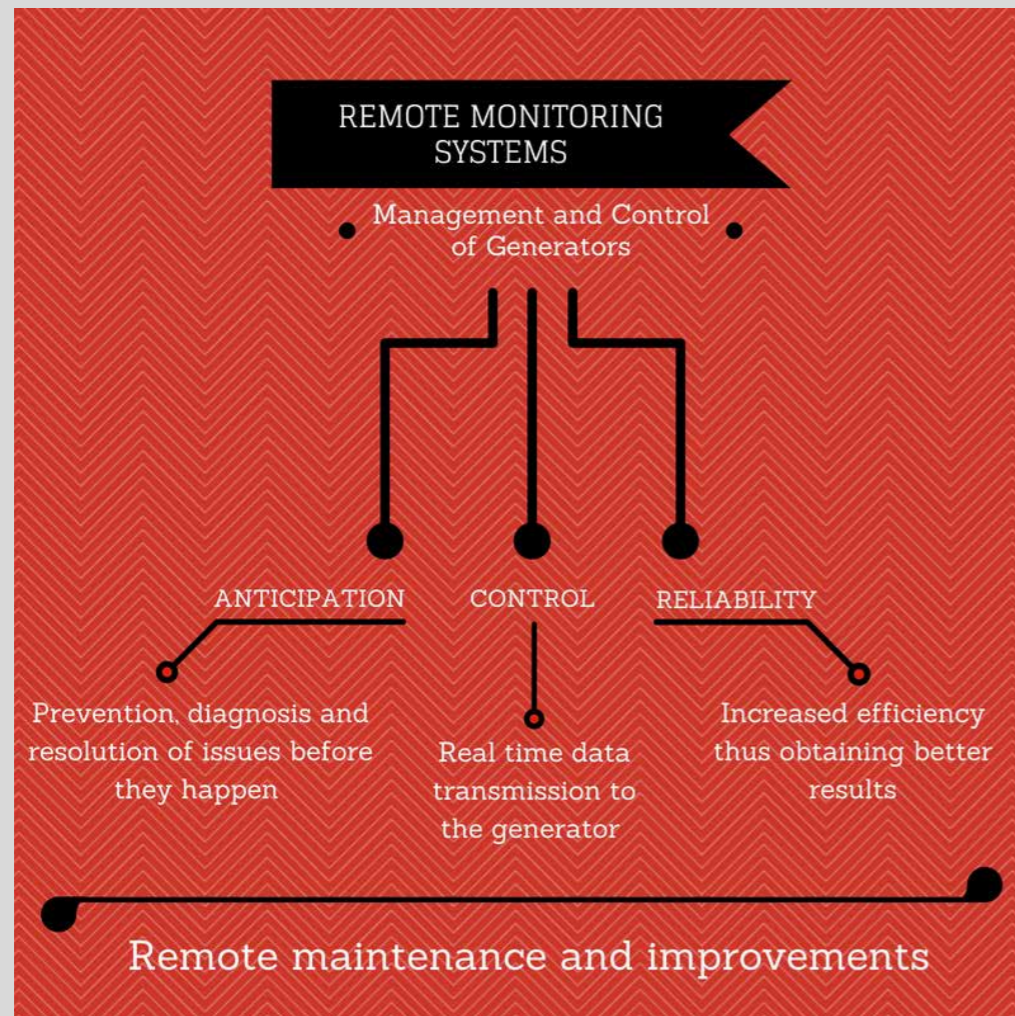
We adapt the product to our customers' changing needs, we change it (new alarm systems, reconfiguring control panels, replacement of control panels, helpline, auxiliary fuel deposits), all to ensure the best support service available. We assure our customer that the best people and equipment will be at their disposal to get the best out of our gensets and avoid unnecessary breakdowns.

- "In situ", performing tests with portable load banks.
- In our own installations, with a 3,300 kVA stationary load bank for variable power factor (cos ϕ) loading.

* Adaptable to the number of visits in relation to the needs of each genset.

REMOTE MONITORING SYSTEMS

Remote control and supervision of gensets.



Remote Management.

Genset control via ethernet connection.

Remote supervision.

Positively affecting response times.

Fault Detection.

Visualisation, control and manoeuvres in real time.

Alarm Management.

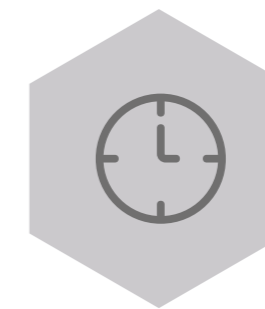
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24HR SERVICE

Through our 24/7 service available 365 days a year, our clients are guaranteed permanent help & assistance to the highest standards.



TELEPHONE HELPLINE



24HR ASSISTENCE



IMMEDIATE ATTENTION AND FOLLOW UP

24/7 TELEPHONE SUPPORT

This area of customer support has been **designed to resolve anomalies or breakdowns that can occur out of hours**. To maximise this service, the employee designated by the customer to manage the generator/s we have installed, is provided with a direct line and access code to a GENESAL ENERGY technician.

This service is specifically aimed at generators that:

- Operational 24/7
- Have technicians in-situ 24/7
- Requiring specialist technical support

24H ASSISTANCE SERVICE

In a situation where the client's own means and/or our technical support over the phone are not sufficient to deal with the issues that have arisen, by hiring this 24/7 assistance service, **Genesal Energy SAT guarantees the presence in-situ of one of our specialist technicians**. Should our spare part inventory and availability of personell allow it, we will aim to fix the genset issue in a maximum time of 24h (this may be less depending on contractual agreement).

Service designed for gensets that:

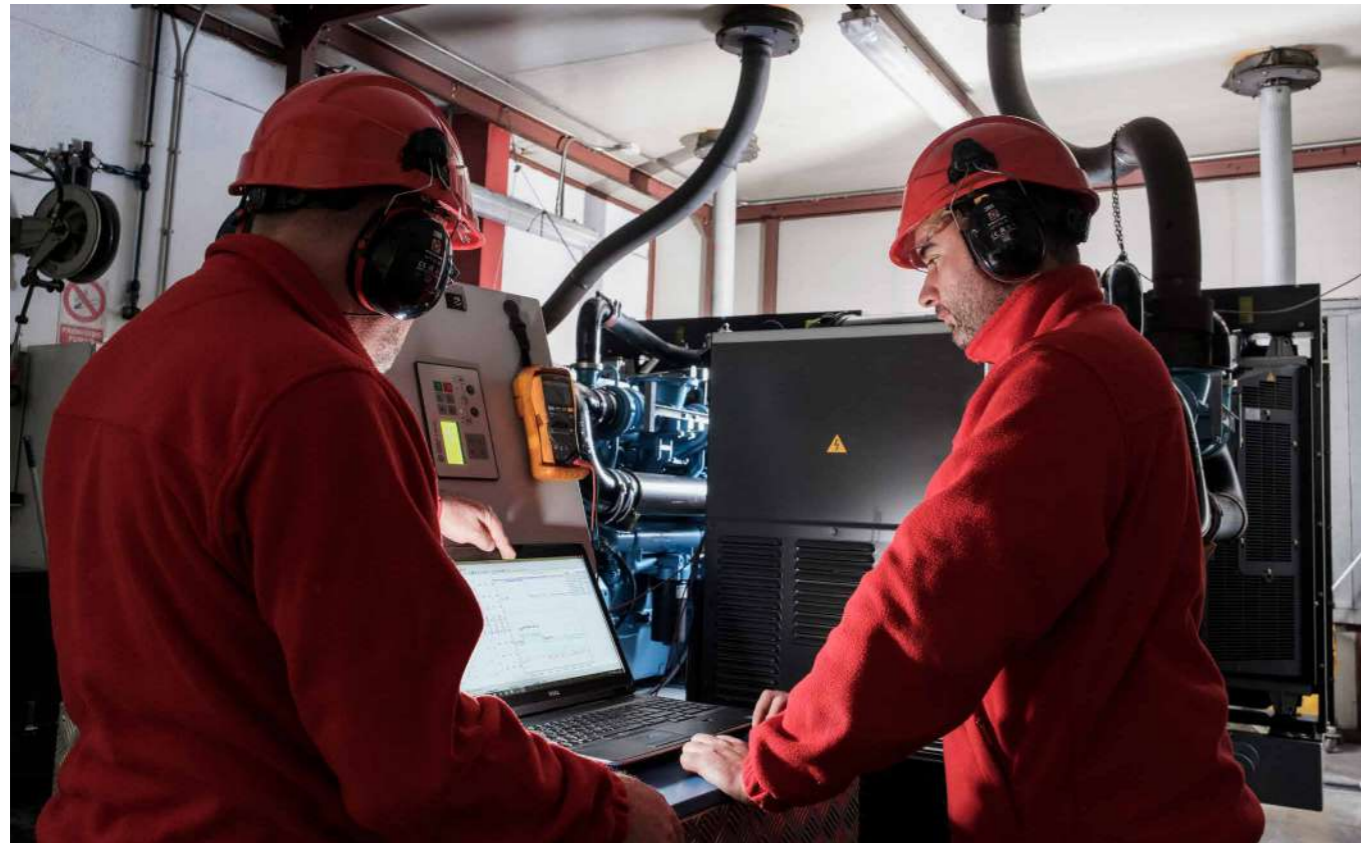
- Supply a critical service
- Need to be operational 24/7
- Require specialised on-site technical support

24

TURNKEY INSTALLATIONS

We carry out the installation and commissioning of Genesal Energy generators.

Specialised technical team will travel to the generators final destination to study the layout and evaluate the different options for installation in order for the client to have the optimal solution. Following this, our team of engineers will complete the installation blueprint, in order to conclude the process with the commissioning in-situ of the generator.



SPARE PARTS FOR SALE

We hold an extensive stock of OEM parts for all the brands we work with, allowing us to respond to any incident in the least amount of time possible and using materials of European quality.



SIEMENS | COMAP | STAMFORD | EATON | ABB | MECCALTE | LEROY SOMMER | G.A.C | ADELSYSTEMS | WOODWARD | SCHNEIDER | EXIDE-TUDOR | EXIDE-OPTIMA | VARTA | MANN FILTER | VENAIR | entre otros...

TRAINING FACILITIES

Our staff are constantly participating in training.

We have on-site training facilities including a large training centre for **providing technical skills courses**, for the benefit of our technical staff, those of our authorised support centres and even for our clients who have personnel in need of technical training to ensure the smooth operation of your gensets.



COMPREHENSIVE SERVICE

AFTER SALES SERVICE

Authorised International Technical Services

NATIONAL SERVICE

We handle all our preventative maintenance in Spain from Head Office with our trained specialists. It allows us to maximise the opportunity for company/customer feedback and develop the best services possible.

We have 15 authorised technical service points who are fully certified and can guarantee maximum effectiveness.

INTERNATIONAL SERVICE

On the international stage, we can count on an extensive network of technical assistance through contractual agreements made with recognised engine and alternator manufacturers, who can carry out a range of services such as commissioning, maintenance and corrective actions.

In addition to our presence in other markets, we are able to cover the Latin American market through our branches, partners and authorized dealers, all of which are in constant contact with our European head office.

To ensure we get the best results, we maintain an extensive stock holding of original and spare parts to complete scheduled maintenance, or for any technical service action anywhere in the world.



**GENESAL
ENERGY**

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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