

.RB Rental Building

Power range 15-500 kVA

Generating sets 1500-1800 RPM - 50/60Hz - 400-230 V/480-277 V



**Mobile
Genset**



**Robustly
Built**



Stage



**Generating sets designed for
rental applications, buildings and
construction sites and
event applications**

**Designed to tackle extreme operating
conditions and to guarantee efficiency
in any type of environment**

www.elcos.net



Power range 15-500 kVA

Power generators 1500-1800 RPM - 50/60Hz - 400-230 V/480-277 V



EU Standards
Compliant



Robust

Generating sets designed for frequent use in harsh conditions.

Easy to handle.

Equipped with premium accessories to be ready for any needs.



Smart

Easy to use, to handle, to connect and to maintain. The safety of all the operations is granted by the provided safety equipment. They can be controlled and managed remotely.



Compact

Designed to be loaded into a truck side by side, to minimise transport costs. Custom paint colours available.

Engine and Alternator Brands

YANMAR

Perkins

FPT
POWERTRAIN TECHNOLOGIES

VOLVO
PENTA

SCANIA

STAMFORD



Rental and Building solutions

ELCOS Gen sets for Rental and Construction markets.

They combine reliability and versatility in line with the needs of Rental Companies.

They cover all the functioning modes, equipped with accessories able to manage any requirement.

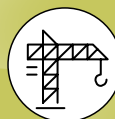
Compact size design, easy to use, they provide a safe and smart user experience. They highly perform when reliable on-demand power is required for limited periods in residential areas, where reduced sound levels are necessary.

Applications

These generators can be used in a variety of applications, such as:



-Construction sites



-Buildings



-Events

-Rental Companies



-Industries

-Hotels



-Malls

-Farms



-Livestocks Farms

-Minings

-Oil & gas



Power range 15-500 kVA

Power generators 1500-1800 RPM - 50/60Hz - 400-230 V/480-277 V

Super soundproofed Canopy

built to be used in extreme environments

Soundproofed with durable
class 1 rated rot-proof polyester fiber

Fully washable product

both externally and internally with a nozzle



Anti-rollover forklift tunnels

to ensure safe lifting
and handling

Daily tank

reinforced with non-cutting
edge bulkheads



External fuel connectors

to ease the connection to an
external tank

Rubber bumpers

to ensure greater protection against
impacts during handling

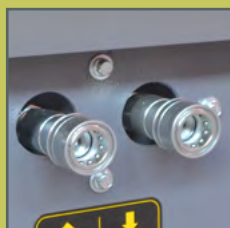
Terminal box accessible from the outside

with cable holders to ensure a secure connection



3-ways valve

to switch between
internal or external
tank



Quick Coupling connectors

to ease the connection to
an external fuel tank



Automatic stop system

due to lack of fuel



Tank inspection hatch

to inspect the tank during
maintenance



Anti-vibration pads

attenuate the vibrations
caused by the unit



Power Terminal Box
for cables with eye,
it avoids damage to the
contacts of the switch



Tank filler
wide tank refilling
point



Document holder
for documents
supplied with the GS



**Galvanized metal
sheet** used to increase
strength and durability



Battery compartment
externally accessible
for easy maintenance

Central Lifting hook

oversized and reinforced, it allows the GS
to be moved with a crane



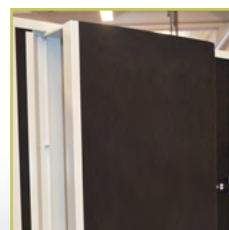
Battery isolator
lockable, it is used during
maintenance and storage



Residential muffler
-35 dBA for enhance
sound attenuation



Wiring
with excellent degree
of resistance with
plug-in connectors



Air intake louvres
guarantee suitable
ventilation in all
conditions



Exhaust terminal pipe
with tilting cap rain cover



**Heat and rotating
part guards** to prevent
injuries to the user

Control Panel Door
with key lock and porthole,
tamper and weather proof

Reinforced frame and brackets

to guarantee robustness during
handling on site and during
transport on trucks or trailers



Oil change pump
for routine oil change



On board tank
equipped with
bulkheads and banded
base



Connection copper bars
for cables with lugs, they
allow to connect more
cables on the same phase



Inspection doors
with double frame and
airtight gasket



**Snap handles with
key lock** to offer
maximum security and
protection

QPE - QPA

15-40 kVA



- Command and control module
- Emergency stop button
- Magneto-thermal switch with release coil
- Differential protection adjustable and excludible
- CE 2P+T 16A 230V IP65 plug
to supply the battery charger and pre-heater
- Battery charger

- **Standard sockets:**
 - n.1 SCHUKO 2P+T 16A 230V IP65
 - n.1 CE 2P+T 16A 230V IP65
 - n.1 CE 3P+N+T 16A 400V IP65
 - n.1 CE 3P+N+T 32A 400V IP65
 - n.1 CE 3P+N+T 63A 400V IP65 (30/40 kVA)
 - General Differential Protection 0.03A*
 - Circuit breaker for each socket
- * For 16A and 32A sockets

QPE - QPA

50-100 kVA



- Command and control module
- Emergency stop button
- Magneto-thermal switch with release coil
- Differential protection adjustable and excludible
- Power terminal block for cables with eye
- Slide and cable holder for power cable entry
- CE 2P+T 16A 230V IP65 plug
to supply the battery charger and pre-heater
- Battery charger

- **Standard sockets:**
 - n.1 SCHUKO 2P+T 16A 230V IP65
 - n.1 CE 2P+T 16A 230V IP65
 - n.1 CE 3P+N+T 16A 400V IP65
 - n.1 CE 3P+N+T 32A 400V IP65
 - n.1 CE 3P+N+T 63A 400V IP65
 - General Differential Protection 0.03A*
 - Circuit breaker for each socket
- * For 16A and 32A sockets

QMC

15-40 kVA



- Command and control module
- Emergency stop button
- Magneto-thermal switch with release coil
- General differential protection
- Remote control connector

- **Sockets:**
 - n.1 SCHUKO 2P+T 16A 230V IP65
 - n.1 CEE 2P+T 16A 230V IP65
 - n.1 CE 3P+N+T 16A 400V IP65
 - n.1 CE 3P+N+T 32A 400V IP65
 - n.1 CE 3P+N+T 63A 400V IP65 (30/40kVA)
 - Circuit breaker for each socket

QPE - QPA

130-250 kVA



- Command and control module
- Emergency stop button
- Magneto-thermal switch with release coil
- Differential protection adjustable and excludible
- Power terminal block for cables with eye
- Slide and cable holder for power cable entry
- CEE 2P+T 16A 230V IP65 plug to supply the battery charger and pre-heater
- Battery charger
- **Standard sockets:**
 - n.1 SCHUKO 2P+T 16A 230V IP55
 - n.1 CE 2P+T 16A 230V IP65
 - n.1 CE 3P+N+T 16A 400V IP65
 - n.1 CE 3P+N+T 32A 400V IP65
 - n.1 CE 3P+N+T 63A 400V IP65
 - General Differential Protection 0.03A*
 - Circuit breaker for each socket

* For 16A and 32A sockets

QPE - QPA

300-500 kVA



- Command and control module
- Emergency stop button
- Magnetothermal switch with release coil
- Differential protection
- Power terminal block for cables with eye
- Slide and cable holder for power cable entry
- CEE 2P+T 16A 230V IP65 plug for C. B. and Heater supply
- Battery charger
- **Standard sockets:**
 - n.1 SCHUKO 2P+T 16A 230V IP65
 - n.1 CE 2P+T 16A 230V IP65
 - n.1 CE 3P+N+T 16A 400V IP65
 - n.1 CE 3P+N+T 32A 400V IP65
 - n.1 CE 3P+N+T 63A 400V IP65
 - General Differential Protection 0.03A*
 - Circuit breaker for each socket

* For 16A and 32A sockets

QMC

50-100 kVA



- Command and control module
- Emergency stop button
- Magneto-thermal switch with release coil
- Remote control connector
- **Sockets:**
 - n.1 SCHUKO 2P+T 16A 230V IP65
 - n.1 CE 2P+T 16A 230V IP65
 - n.1 CE 3P+N+T 16A 400V IP65
 - n.1 CE 3P+N+T 32A 400V IP65
 - n.1 CE 3P+N+T 63A 400V IP65
 - General Differential Protection 0.03A*
 - Circuit breaker for each socket

* For 16A and 32A sockets

QPE

POLYVALENT PANEL

Applications

- ♦ Auto-production (island)
- ♦ Construction site
- ♦ Rental
- ♦ Emergency to the mains

+011
VARIANT

Variant +011

Without integrated switching

With this variant the SWITCHING is externally managed through separate ATS panels (optional).

MC4# evo



→ Equipment

- Microprocessor logic
- Backlit refractive display
- 16-event alarm history list
- Multi-language management
- Troubleshooting with suggestions

→ Engine Measures

- Engine RPM*
- Engine oil pressure BAR
- Engine oil temperature*
- Engine oil level*
- Cooling system pressure*
- Cooling system temperature°C
- Coolant level %
- Fuel consumption*
- Fuel level %
- Total operating hours
- Partial operating hours (resettable)
- Hours to maintenance
- Battery charger voltage
- Start up counter

→ Alternator Measures

- Genset voltage three-phase
- Genset star voltage RN.SN.TN.
- Genset three-phase current
- Genset frequency
- Genset apparent power KVA
- Genset actual power KW
- Genset reactive power KWR
- Genset KWh
- Genset power factor cosfi

→ Controls

- Manual start up and stop
- Automatic start up and stop from AMF
- Start up and stop through contact
- Fuel pump control
- Lock ● Reset
- Programmable automatic test
- Emergency stop button
- Main counter command closed
- G.s. counter command closed

QPA

PARALLEL PANEL

Applications

- ♦ Auto-production (island)
- ♦ Redundancy
- ♦ Rental
- ♦ Load request

+014
VARIANT

Variant +014

With integrated motorized switch

This variant allows the GS to synchronize in parallel with each other, to have power supply management, load management, redundancy, load request. It monitors the GS managing measurements and alarms, It starts it and stops it depending on the system parameters.

IntelGen200



→ Engine measures

- Fuel tank level %
- Engine oil pressure BAR
- Engine Coolant temperature °C
- Total run time Partial run time
- Hours to maintenance
- Battery voltage
- Battery charging voltage
- Start-ups counter
- Engine speed
- Engine Oil temperature
- Cooler temperature
- Engine oil level
- Engine coolant level
- Engine coolant pressure
- Turbo pressure
- Fuel Consumption

→ Misura alternatore

- Generator Voltage L1, L2, L3
- Generator Voltage L1-N, L2-N, L3-N
- Generator frequency
- Generator current L1
- Generator current L1, L2, L3
- Generator Apparent Power kVA
- Generator Active Power kW
- Generator Reactive Power kVAR
- Generator accumulated power kWh
- Power factor Cosfi

→ Misura di rete

- Mains voltage L1, L2, L3
- Mains voltage L1-N, L2-N, L3-N
- Mains frequency

→ Porte di comunicazione

- Can-bus port
- RS485 port with Mod-bus RTU communication
- Configurable via PC using USB port

QMC

MANUAL PANEL

Applications

- ♦ Auto-production (island)
- ♦ Construction site
- ♦ Rental

SM1



+012
VARIANT

Variant +012

Manual panel

With this variant, the GS is controlled manually by the operator and it enables the view of parameters.

→ Equipment

- Digital voltmeter
- Digital frequency
- Digital ammeter
- Digital Kilovoltammeter
- Digital Battery voltage
- Digital fuel level
- Analog hour meter
- Ignition key
- Connector Remote Control
- Emergency stop button

→ Main Measures

- Mains voltage RST
- Mains frequency

→ Signals/Protections

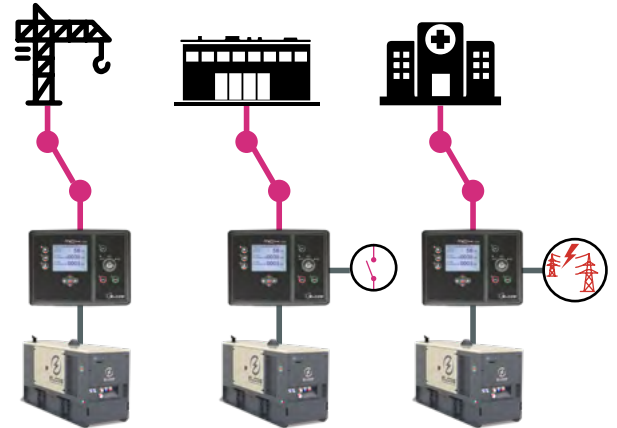
- Failed to start
- Failed to stop
- Low oil level*
- Low oil pressure
- Minimum oil pressure (pre-alarm)
- Low cooling liquid level
- Very high cooling liquid level
- High temperature (pre-alarm)
- Generator battery charger
- No fuel
- Low fuel level (pre-alarm)
- Start up
- Stop
- Fuel pump running
- Battery connected
- Battery charging

- Battery undervoltage
- Battery overvoltage
- Genset overvoltage
- Genset undervoltage
- Genset overload
- Genset short circuit
- Genset maximum frequency
- Genset minimum frequency
- Genset connected
- Genset contactor closed
- Circuit breaker protection
- Mains connected
- Mains overvoltage
- Mains undervoltage
- Mains contactor closed
- Emergency button pressed

→ Communication Interfaces

- CAN-BUS communication
- USB port for saving parameters and firmware updates
- RS485 serial output

Operating diagram



→ Equipment

- Microprocessor Logic
- Back-lit display
- Programmable by PC software
- 250 event log
- Multiple display languages
- STOP -START button
- AUT mode button
- MAN mode button
- OFF mode button
- Reset alarm button
- Alarm mute button
- Transfer to Mains button
- Transfer to generator button

→ Visualizations

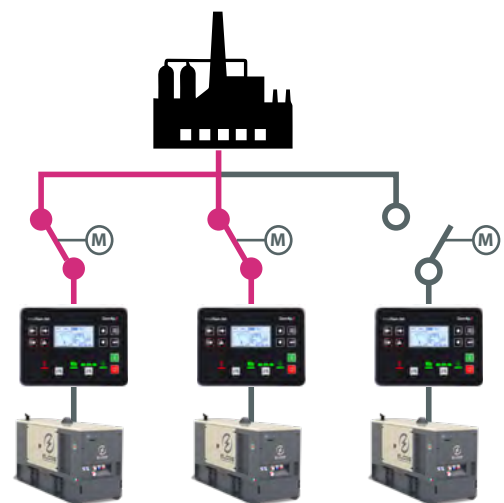
- Pre-alarms/Alarms
- Engine measures
- Alternator measures
- Mains measures
- Date and time
- Operating mode
- Genset status

- Mains status
- Mains contactor status
- Genset contactor status
- Digital Input and Output status

→ Functions

- Automatic start and stop when the Mains Fails
- Remote Start and Stop
- Manual Start and stop
- Emergency stop button on panel board
- Remote emergency stop
- MODBUS commands (Start, Stop, Reset, Test)
- Scada available with PC connected to the controller
- PLC editor
- Manual switching commands

Operating diagram



→ Connector Remote Control

For connecting:

- Radio control Elcos (optional)
- Control with Elcos-Cable to start and stop the genset from distance (optional)

→ Signals / Protectors

- Low oil pressure
- High coolant temperature
- Fault dynamo battery charger
- Fuel reserve (G.S. stops after 5min.)
- Generic Fault
- IP 55

→ Commands

- Manual start and stop
- Emergency stop button

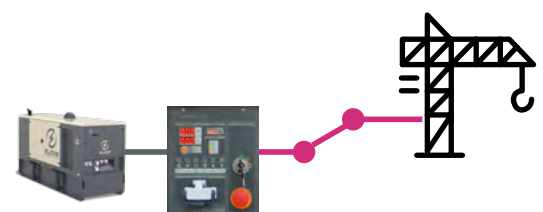
→ Measures engine

- Fuel tank level
- Total working hours
- Battery voltage

→ Measures alternator

- GS Voltage R-S
- GS Current on phase R
- Generator Frequency Hz
- Apparent Power generator KVA

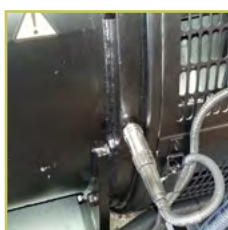
Operating diagram





Engine

Heavy duty air filter
Fuel/Water separator filter
Engine liquids -40 °C
Radiator level sensor
230 Vac engine pre-heater
Automatic oil refilling system



Alternator

230 Vac anti-condensation heaters
RTD-PT100 probes on stator windings
PT100 probe on bearings
Temperature control unit up to 4 PT100 probes



Batteries

Maintenance free high efficiency starter batteries



Fuel Supply

Oversized Tank on board
External refilling point with warning light for full tank
Automatic fuel refilling system on board



Exhaust

Catalytic converter (CAT)
Particulate filter (DPF)
Spark arrestor



Handling

Off-road trailer with 2 pneumatic wheels and tow bar
Roadworthy trailer (80km/h)



Canopy

Custom colour paint
High resistance canopy treatment for corrosive environments
Stainless steel canopy
Internal LED lighting with micro-switches
Door opening alarm system



Electrical System

QPE

MASTER / SLAVE device
GSM remote management modem
EVO remote control system via LAN / GSM / GPRS with GPS
Start-Stop radio control (500 mt indoors / 5 km outdoors range)
Start and Stop module for load request for QPE
50Hz 400V / 60Hz 480V switch selector
Voltage potentiometer with output on the panel
Option with QBM DSE7310 controller on board
Option with QBM ComAp AMF25 controller on board



QMC

Differential protection adjustable
Start-stop radio control (500 mt indoors / 5 km outdoors range)
Auto Start-Stop at load request (QMC)



QPA

Option with ComAp controller on board



RB

Additional socket with thermal breaker
Differential module for single socket 0.3 or 0.03A
Quick coupling connectors installed on board
Mains / GS switching on board (15/100 kVA)

EVO remote control

GSM - GPS - GRPS



- ✓ Generating set status
- ✓ Start and Stop
- ✓ Alarms and Monitoring
- ✓ Fuel level and consumption
- ✓ GPS position

Testing Rooms

TR1

Testing Room 1 from 5 to 1000 kW Certified for phonometric tests

LOW Voltage

50 Hz
400 - 380 - 230 V
60 Hz
480 - 240 - 208 - 220 - 277 V

DC Voltage

48 VDC



Features of Testing Room N° 1

- 607 kW x 2 automatic test with 10 load steps
- 35 kW automatic test with 10 load steps
- 10 kW automatic test in DC with 10 load steps
- Full tests with 6 PT 100 probes, 3 thermal probes
- Air flow test with anemometer
- Vibrations test
- Phonometric test
- Data registration by MODBUS

TR2

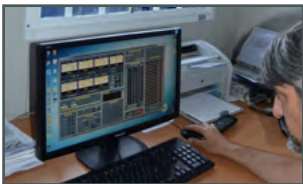
Testing Room 2 from 250 to 4000 kW

LOW Voltage

50 Hz
400 - 380 - 230 V
60 Hz
480 - 240 - 208 - 220 - 277 V

MEDIUM Voltage

50 Hz
3/3.3 - 6/6.3/6.6 - 10/11 - 15 kV
60 Hz
4 - 7.2/11.4 - 12.4/13 kV



Features of Testing Room N° 2

- 3000 kW automatic test with 20 load steps
- Multi-voltage transformer with MV cells
- Full tests with 6 PT 100 probes, 3 thermal probes
- Parallel test for up to 6 containers
- Air flow test with anemometer
- Vibrations test
- Phonometric test
- Data registration by MODBUS

About us



45
Years of experience

Company

Elcos is located in Northern Italy, in the province of Cremona. It has been operating in the domestic and international market for over forty-five years.



Elcos researches and develops products that use innovative technologies in order to optimize its production efficiency and performances provided by its systems, offering the user (from 1 to 3150 kVA) a customized product.

Elcos is an independent group that designs and produces in Italy power generation systems (emergency and self-production) intended for the international market. ELCOS has promoted an internal behavioural code based on customer satisfaction.

Product quality and customer satisfaction: the passions that guide us. The R&D department is constantly studying the possibilities of technological innovation to improve the products proposed, to explore the possibilities of new products and to improve production processes. Always focused on quality, ensuring conformity of the product and the processes according to legislation, by respecting environmental issues.



The R&D department implements existing systems and looks forward to future opportunities that can meet the needs of customers.

Other Elcos products

GE-RB	GE-SS	GE-BF	GE-TLC	GMV-BF	NO BREAK
GDC-HS	GDC-SAPS	GE-ECHO	GE-ZIP	TF	AGRIPLUS

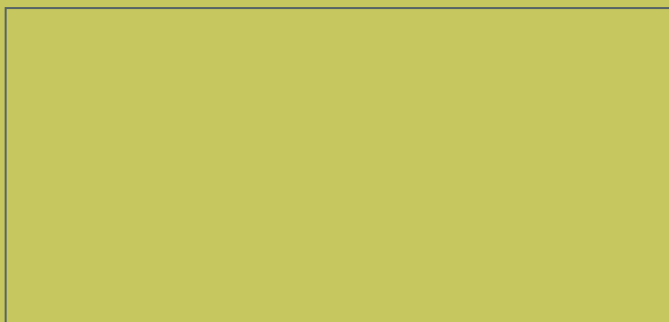


ELCOS
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