

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



Power range 15-500 kVA

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







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















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**



-Oil & gas





















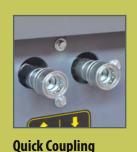
Power range 15-500 kVA

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





3-ways valve to switch between internal or external tank



Rubber bumpers

impacts during handling

to ensure greater protection against

connectors
to ease the connection to
an external fuel tank



Automatic stop system due to lack of fuel



with cable holders to ensure a secure connection

Terminal box accessible

from the outside

Tank inspection hatch to inspect the tank during maintenance



reinforced with non-cutting

edge bulkheads

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

Central Lifting hook



Document holder for documents supplied with the GS



Galvanized metal sheet used to increase strength and durability



Battery compartment externally accessible for easy maintenance



Control Panel Door

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



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



Oil change pump for routine oil change



On board tank equipped with bulkheads and bunded hase



with key lock and porthole, tamper and weather proof

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

Panel on board



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

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

^{*} For 16A and 32A sockets

QPEPOLYVALENT PANEL

Applications

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





→ 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

PARALLEL PANEL

Applications

Redundancy

◆ Load request

Rental

Auto-production (island)

+011

VARIANT

Variant +011 Without integrated switching

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

DSE 8610 MKII



→ Equipment

- Microprocessor logic
- LCD display
- Events history (up to 250 records)

Alternator Measures

- Gen-set voltage Ph-Ph
- Gen-set voltage Ph-N
- Bus synchronization voltage
- Synchronoscope
- Gen-set current
- Gen-set Frequency
- Gen-set apparent power KVA
- Gen-set active power KW
- Gen-set reactive power KVAr
- Gen-set produce power KWh
- Power factor Cosfi

→ Engine Measures

- Engine RPM
- Engine fuel level
- Oil system pressure
- Fuel consumption
- Total operating hours
- Partial operating hours (resettable)
- Hours to maintenance
- Battery/battery charger voltage
- Start-up counter

+()14 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, Itnstarts it and stops it depending on the system parameters.

QMC MANUAL PANEL

Applications

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







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

Control and command modules



Main Measures

- Mains voltage RST
- Mains frequency

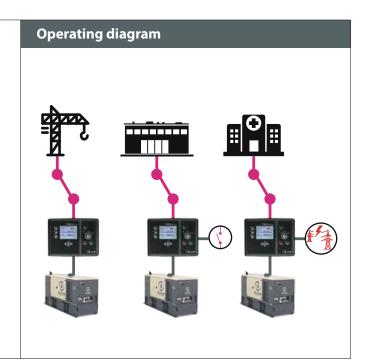
Signals/Protections

- 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



Controls

- Automatic synchronizing and power control (speed governor or ECU)
- Peak shaving
- Load shedding
- Load sharing
- Voltage and PF control (AVR)
- R.O.C.O.F. and vector shift protection
- Manual start up and stopl
- Start up and stop through remote contact
- Manual and Automatic mode button
- Buttons for manual command of the MAINS and G.S. switches
- Lock
- Alarms Reset
- Mute siren button
- Programmable automatic test
- Emergency stop button
- Controller redundancy
- Dead bus sensing
- Bus failure detection
- Dead bus synchronising
- SCADA monitoring via DSE software

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 batterycharger
- 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 workinghours
- Battery voltage

Measures alternator

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

Operating diagram





Power Generators 15 - 200 kVA

1500/1800 RPM DIESEL 50 /60 HZ 400-230 /480-277 V





(2)	(LT k\	(P)	(PI	RP VA		()			SPEED	(CM)	KG			(dBA)	switch
(2)	50 HZ	60 HZ	50 HZ	60 HZ	BRAND	CODE	COOLING	STAGE	GOVERNOR	LxWxH	WEIGHT kg	TANK It	LOAD@75%-h	NOISE @ 7 m	SWITCH A
15 kVA															
GE.YA.017\015.RB	17	19	15	17	Yanmar	3TNV88	W50°	Stage 3A	М	195x95x150	684	110	43	56	25
20 kVA															
GE.YA.022\020.RB	22	25	20	23	Yanmar	4TNV88	W50°	Stage 3A	М	195x95x150	724	110	28	57	32
30 kVA															
GE.YA.037\033.RB	37	38	33	35	Yanmar	4TNV98	W50°	Stage 3A	М	195x95x150	870	110	22	61	50
40 kVA															
GE.YA3A.044\040.RB	44	49	40	46	Yanmar	4TNV98T ZGECS	W50°	Stage 3A	E	195x95x150	906	110	16	61	63
60 kVA															
GE.AI3A.066\060.RB	66	73	60	66	FPT	N45SM1F	W50°	Stage 3A	М	265x115x168	1370	250	20	63	100
GE.PK3A.066\060.RB	66	-	60	-	Perkins	1104D-44TG3	W50°	Stage 3A	М	265x115x168	1385	250	22	64	100
80 kVA															
GE.AI3A.088\080.RB	88	-	80	-	FPT	N45TE1F	W50°	Stage 3A	E	265x115x168	1563	250	16	64	125
GE.PK3A.088\080.RB	88	100	80	91	Perkins	1104D-E44TAG1	W50°	Stage 3A	E	265x115x168	1591	250	15	63	125
100 kVA															
GE.AI3A.110\100.RB	110	-	100	-	FPT	N45TE2F	W50°	Stage 3A	E	265x115x168	1586	250	14	65	160
GE.PK3A.110\100.RB	110	125	100	114	Perkins	1104D-E44TAG2	W50°	Stage 3A	E	265x115x168	1621	250	13	65	160
GE.VO3A.110\100.RB	110	115	100	103	Volvo	TAD 551 GE	W50°	Stage 3A	Е	345x122x190	2226	400	22	63	160
130 kVA															
GE.AI3A.140\130.RB	144	148	130	135	FPT	N67TM1F	W50°	Stage 3A	М	345x122x190	2369	400	16	64	250
GE.VO3A.150\135.RB	144	151	130	135	Volvo	TAD 750 GE	W50°	Stage 3A	E	345x122x190	2688	400	18	65	250
150 kVA															
GE.AI3A.165\150.RB	165	-	150	-	FPT	N67TE1F	W50°	Stage 3A	E	385x122x205	2482	400	15	66	250
GE.VO3A.165\150.RB	165	172	150	155	Volvo	TAD 751 GE	W50°	Stage 3A	E	385x122x205	2801	400	15	65	250
180 kVA															
GE.AI3A.190\170.RB	190	-	170	-	FPT	N67TE2F	W50°	Stage 3A	E	385x122x205	2508	400	13	66	250
200 kVA															
GE.AI3A.220\200.RB	220	-	200	-	FPT	N67TE3F	W50°	Stage 3A	E	385x122x205	2578	400	10	66	400
GE.VO3A.225\205.RB	220	252	200	226	Volvo	TAD 753 GE	W50°	Stage 3A	E	385x122x205	2931	400	12	66	400
250 kVA			-	-											
GE.AI3A.275\250.RB	275	290	250	264	FPT	C87TE3F	W50°	Stage 3A	E	415x155x230	3453	600	11	66	400
GE.SCS5.275\250.RB	275	-	250	-	Scania	DC09 320A 02-61	W50°	Stage 5	E	415x155x230	3425	600	16	66	400
GE.VO3A.275\250.RB	275	287	250	255	Volvo	TAD 754 GE	W50°	Stage 3A	E	385x122x205	3032	400	10	66	400



GE.RB

Power Generators 250 - 500 kVA

1500/1800 RPM DIESEL 50 /60 HZ 400-230 /480-277 V





(3)	(LT k	TP VA	(PI	RP VA		>	(Ic)		SPEED	(ÎM)	(KG	(X)		(d) dBA	switch
(3)	50 HZ	60 HZ	50 HZ	60 HZ	BRAND	CODE	COOLING	STAGE	GOVERNOR	LxWxH	WEIGHT kg	TANK It	LOAD@75%-h	NOISE@7m	SWITCH A
300 kVA															
GE.AI3A.335\300.RB	335	300	300	273	FPT	C10TE1F	W50°	Stage 3A	E	415x155x230	3698	600	12	67	630
GE.SCS5.330\300.RB	330	-	300	-	Scania	DC09 320A 02-63	W50°	Stage 5	Е	415x155x230	3878	600	13	65	630
GE.VO3A.360\325.RB	360	375	325	340	Volvo	TAD 1351 GE	W50°	Stage 3A	E	415x155x230	4205	600	12	65	630
350 kVA															
GE.AI3A.385\350.RB	385	340	350	309	FPT	C13TE1F	W50°	Stage 3A	Е	415x155x230	3909	600	9	67	630
GE.SCS5.385\350.RB	385	-	350	-	Scania	DC13 320A 02-61	W50°	Stage 5	Е	415x155x230	4262	600	12	66	630
GE.VO3A.375\350.RB	400	438	364	401	Volvo	TAD 1352 GE	W50°	Stage 3A	E	415x155x230	4180	600	11	66	630
350 kVA															
GE.AI3A.385\350.RB	385	340	350	309	FPT	C13TE1F	W50°	Stage 3A	Е	415x155x230	3909	600	9	67	630
GE.SCS5.385\350.RB	385	-	350	-	Scania	DC13 320A 02-61	W50°	Stage 5	Е	415x155x230	4262	600	12	66	630
GE.VO3A.375\350.RB	400	438	364	401	Volvo	TAD 1352 GE	W50°	Stage 3A	Е	415x155x230	4180	600	11	66	630
400 kVA															
GE.AI3A.440\400.RB	440	365	400	331	FPT	C13TE2F	W50°	Stage 3A	Е	415x155x230	4045	600	8	67	630
GE.SCS5.440\400.RB	440	-	400	-	Scania	DC13 320A 02-62	W50°	Stage 5	E	415x155x230	4406	600	11	66	630
GE.VO3A.450\410.RB	440	437	400	397	Volvo	TAD 1355 GE	W50°	Stage 3A	Е	415x155x230	4316	600	10	66	630
450 kVA															
GE.SCS5.500\450.RB	495	-	450	-	Scania	DC16 320A 02-61	W50°	Stage 5	E	475x185x250	5271	1150	19	68	800
GE.VO3A.510\460.RB	500	564	455	506	Volvo	TAD 1650 GE	W50°	Stage 3A	E	475x185x250	5291	1150	15	68	800
500 kVA															
GE.SCS5.550\500.RB	550	-	500	-	Scania	DC16 320A 02-62	W50°	Stage 5	Е	475x185x250	5444	1150	17	68	800
GE.VO3A.550\500.RB	550	645	500	573	Volvo	TAD 1651 GE	W50°	Stage 3A	E	475x185x250	5364	1150	15	68	800









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

OPE

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)





OPA

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)



Testing Rooms

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

TR1

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

Testing Room 2 from 250 to 4000 kW

TR2

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









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-55	GE-BF	GE-TLC	GMV-BF	NO BREAK
- G	3. 1 2 2 3 3 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		and the second		ELCOS
GDC-HS	GDC-SAPS	GE-ECHO	GE-ZIP	7F	AGRIPLUS
	SAPS		80		







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