

# .BF

Base Frame

Power range **10-3000 kVA**

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



**Designed for  
the industry**



**Wide choice  
of engines**



**Factory  
tested**

**Generating sets  
designed to offer  
power supply solutions**

The BF series generators  
offer a wide range  
of power and engine brands

[www.elcos.net](http://www.elcos.net)



**Power range 10-3000 kVA**

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



**EU Standards  
Compliant**



**Diesel Generators base frame  
for genset room or Containers**

BF generators are the optimal choice for applications in the industrial fields. All BF Generators are factory tested.



**Safe for the operator and  
easy to maintain**

All operations, such as use, commissioning and maintenance are carried out in complete safety, thanks to all the protection devices.



**Fully customizable to fit  
all needs**

Thanks to a wide range of accessories we can configure the generator to be perfectly suited to your needs.

Engine and Alternator Brands

**YANMAR**

**Perkins**



**SCANIA**

**KOHLER**  
IN POWER. SINCE 1920.

**FPT**  
POWERTRAIN TECHNOLOGIES



**Baudouin**



**VOLVO  
PENTA**



**DOOSAN**

**STAMFORD**



MarelliMotori

**LINZ**  
ELECTRIC

**meccalte**



## Electric power supply solutions

The range of Elcos Base Frame Generators offers a reliable energy source for industrial use.

Often used as a primary source of supply in self-production installations or as a mains emergency back-up system.

The range of ELCOS Base Frame Generators allows management in parallel, stand alone or as master and slave modes.

The BF range covers the reference power from 10 to 3000 kVA, equipped with premium engines and alternators brand.

## Applications

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



**-Industries**



**-Data Centers**



**-Hotels**

**-Residential areas**

**-Hospitals**

**-Airports**

**-Malls**



**-Farms**

**-Livestocks Farms**



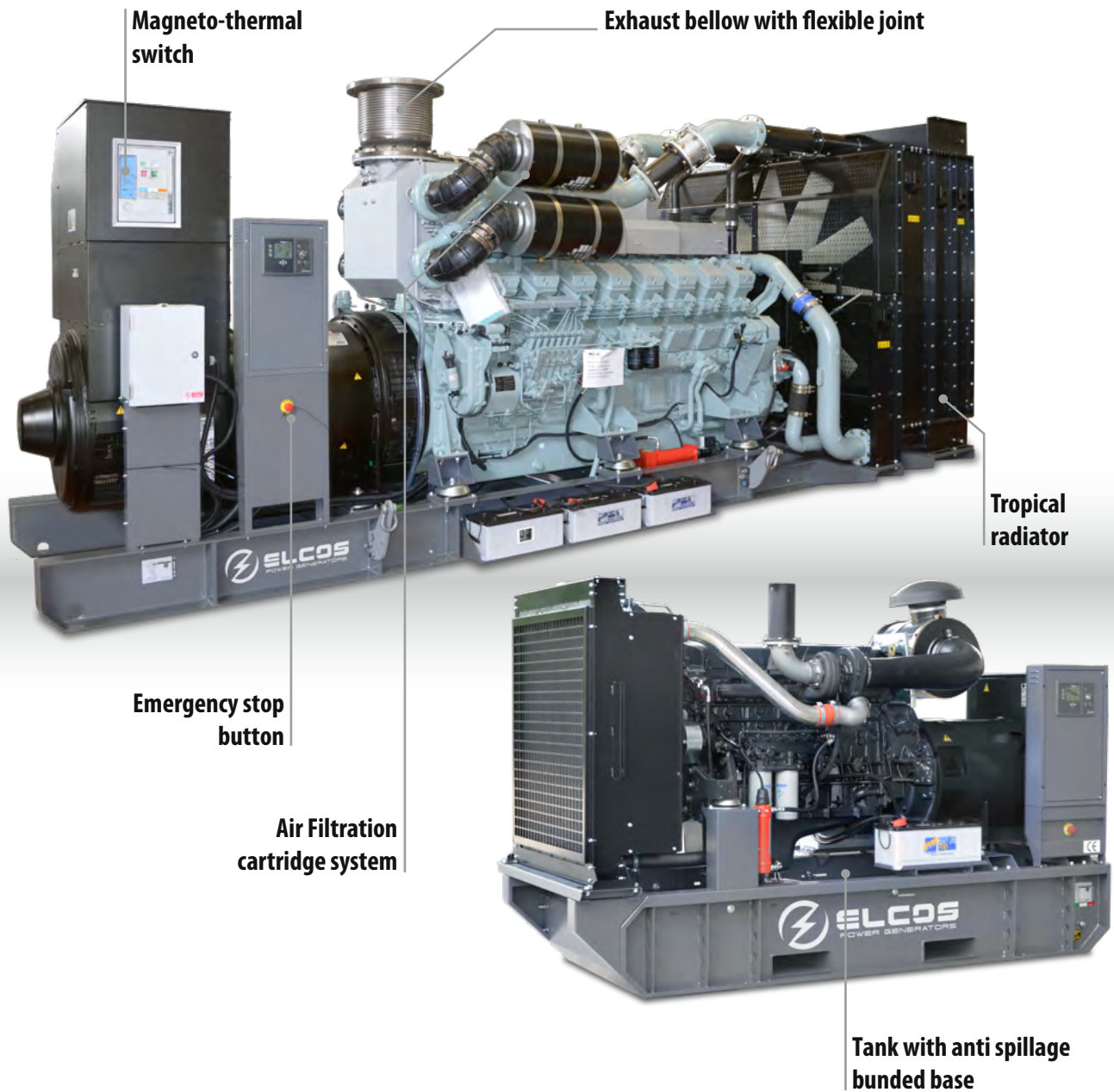
**-Military sites**

**-Oil & Gas**



## Power range 10-3000 kVA

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



### Wiring

excellent degree of resistance with plug in connectors



### Engine heater

for easier cranking in cold environment



### Automatic stop system

due to lack of fuel



### Tank filler

with wide dimensions for easy refuelling



### Anti-vibration pads

attenuate the vibrations caused by the unit



**Integrated tank**  
with oversized collection  
tank (optional)



**External tank  
connections**  
standard feature in  
models without tank  
from 750 kVA upwards



**Silenced muffler**  
supplied in standard  
configuration, it reduces  
engine exhaust noise



**Battery holder**  
designed to facilitate  
maintenance and replace



**Lifting lugs**  
allow lifting of the  
machine, as standard  
from 750 kVA upwards



**Base frame**  
supports the machine  
and allows an easy  
handling



**Rotating part guards**  
to prevent injuries  
to the user

**Command  
and control panel**



**Magneto-thermal  
switch**

**Heat part guards**



**Pre-drilled frame  
for anchoring to the ground**



**Engine Liquids**  
-20 °C oil and antifreeze



**Alternator with switch  
on board**  
for a comfortable and  
safe connection



**Connection copper bars**  
where provided they  
allow to connect more  
cables on the same phase



**Lead-acid starter  
battery**  
supplied pre-charged  
ready to use



**Oil change pump**  
it facilitates oil change

## QPE

### POLYVALENT PANEL

#### Applications

- ♦ Auto-production (island)
- ♦ Emergency to the mains

### MC4# evo



**+011**  
VARIANT

#### Variant +011

##### Without integrated switching

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

#### → 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

#### → 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

#### → Communication Interfaces

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

#### → Equipment

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

#### → 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 cosφ

#### → 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



## QLE

### EMERGENCY PANEL

#### Applications

- ♦ Emergency to the mains

### MC2



**+011**  
VARIANT

#### Variant +011

##### Without integrated switching

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

#### → Controls

- Manual start up and stop
- Automatic start up and stop from AMF
- Test NO load with external timer
- Remote start from dry-contact
- G.S. locked from external
- Emergency stop button
- Mains counter command closed
- Genset counter command closed

#### → Engine Measures

- Fuel level %
- Total operating hours
- Battery charger voltage
- Start up counter
- Engine speed

#### → Alternator Measures

- Gen set voltage three-phase RST
- Gen set star voltage RN.SN.TN.
- Gen set frequency

#### → Main Measures

- Mains voltage RST
- Mains frequency

#### → Equipment

- Microprocessor logic
- Backlit refractive display
- 10 events alarm history list
- Icons management
- Troubleshooting with suggestions

#### → Protections/Alarms

- Failed to start
- Failed to stop
- Low oil pressure
- High temperature
- Generator battery charger
- Fuel reserve (Warning)
- No Fuel (Shutdown)
- Genset overvoltage
- Genset undervoltage
- Genset maximum frequency
- Genset minimum frequency
- Phase rotation





## Engine

---

Heavy duty air filter  
Fuel/Water separator filter  
Engine liquids -40 °C  
Oil suction pump  
Dual redundant starter motors  
Super hot 230 Vac engine pre-heater  
Automatic oil refilling system  
Electrical driven radiator



## Alternator

---

230 Vac anti-condensation heaters  
RTD-PT100 probes on stator windings  
PT100 probe on bearings  
Temperature control unit up to 4 PT100 probes  
Joint and bell housing for coupling in double-bearing alternators



## Batteries

---

Redundant battery system  
DC isolator  
Maintenance free high efficiency starter batteries  
24Vdc NiCd starter batteries



## Exhaust

---

Catalytic converter (CAT)  
Particulate filter (DPF)  
Spark arrestor  
Residential muffler -35 dBA  
Assembly of residential muffler on board  
Exhaust bellow with flexible joint





## Electrical system

On board motorized circuit breaker for parallel management  
**QPE**  
 16-relay module  
 RS485 Converter LAN/USB  
 MASTER / SLAVE device  
 GSM remote management modem  
 Remote panel  
 Remote management software  
 WEB remote management system via LAN/GSM/GPRS with GPS  
 Option with QBM DSE7320 controller on board  
 Option with QBM ComAp AMF25 controller on board  
**QLE / QMC**  
 Differential protection



## Fuel Supply

Oversized tank on board  
 Quick coupling connectors with 3-way valve for external fuel tank connection  
 Automatic fuel refilling system on board



## Separate Switching Panels - ATS

## Separate Parallel Panels

## Services

Factory Acceptance Test (FAT)  
 Vibration test

## Tanks

Double wall fuel tanks with feet and tear valve  
 Single wall fuel tank for outdoor use with  
 bunded base and roof



## External tanks and automatic fuel refilling systems

Automatic fuel refilling system on trestle  
 Tanks with bunded base on trestle

## QC Switching and Automatic Panels

QC Model	Genset Power kVA		Max Current	Change Over Switch	Dimensions (L x W x H) cm	Weight Kg	IP
	400 V	230 V					
QC1.0060	40	22	60	Contactors 4P	60x25x80	47	54
QC1.0090	60	35	90		60x25x80	48	54
QC1.0125	90	50	125		60x25x80	50	54
QC1.0250	165	90	250	Motorized change over switch 4P 230V	60x25x80	56	54
QC2.0400	275	150	400		60x50x160	109	54
QC2.0630	410	250	630		60x50x160	125	54
QC2.0800	550	300	800		60x50x160	128	54
QC3.1250	800	450	1250		80x60x160	220	54
QC4.1600	1050	--	1600		80x80x190	270	54
QC4.2000	1400	--	2000		80x80x190	310	54
QC4.2500	1700	--	2500		80x80x190	350	54
QC4.3150	2200	--	3200		100x100x190	450	54
QC5.4000	2500	--	4000		260x100x190	700	54
QC5.5000	3000	--	5000		260x100x190	800	54



## QLTS Load Transfer Switch Panels

QC Model	Genset Power kVA		Max Current	Change Over Switch	Dimensions (L x W x H) cm	Weight Kg	IP
	400 V	230 V					
QLTS.060	40	22	60	Motorized change over switch 4P 230V	40x16x45	13	54
QLTS.100	60	35	100		40x16x45	13	54
QLTS.160	100	58	160		52x20x60	20	54
QLTS.250	165	90	250		52x20x60	22	54
QLTS.400	275	150	400		60x28x80	40	54
QLTS.630	410	250	630		60x28x80	45	54



## QP.APM Parallel Panels

QP Model	Reference Current	Genset Power	Dimensions	IP
	A	kVA	(L x W x H) cm	

### QP.APM.BM Management parallel modules on board without power switch

QP.APM.BM.DSE	-	130 - 3000	-	54
QP.APM.BM.COM	-	130 - 3000	-	54

### QP.APM Management parallel modules with power switch

QP.APM1	250	60 - 160	60 x 60 x 190	54
QP.APM2	400	180 - 260	60 x 60 x 190	54
QP.APM3	800	300 - 550	60 x 60 x 190	54
QP.APM4	1250	600 - 800	80 x 60 x 190	54
QP.APM5	1600	900 - 1150	80 x 60 x 190	54
QP.APM6	2000	1200 - 1400	80 x 60 x 190	54
QP.APM7	2500	1450 - 1650	80 x 60 x 190	54
QP.APM8	3200	1700 - 2200	100 x 100 x 190	54
QP.APM9	4000	2300 - 2800	100 x 100 x 190	54
QP.APM10	5000	2900 - 3500	120 x 100 x 190	54
O.QP.S107.CONV	RS485/USB Converter for remote connection to a PC			



# 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

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

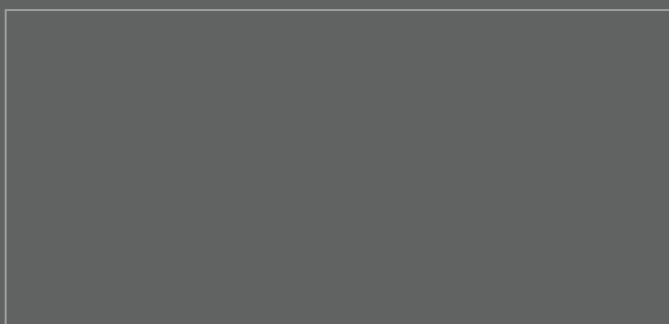


**ELCOS**  
POWER GENERATORS

ELCOS SRL  
Strada Statale 234 Km 58.250 -  
26023 Grumello Cremonese CR - Italy  
tel +39 0372 72330 - fax +39 0372 7233220  
PI 01084730199  
info@elcos.net - elcos@pec.elcos.net



assistenza@elcos.net  
+39.0372.7233300  
elcos.net/service



[www.elcos.net](http://www.elcos.net)