



Image for demonstration purposes

## **Generating Set SUPERSILENT - diesel**

## GE.BD.035/032.SS+011

1500 rpm - Threephase - 50Hz - 400V Automatic Panel with AMF without ATS



## **Standard equipment**

## Canopy Soundproofing

Removable soundproof canopy Painting canopy (ral) in galvanized sheet steel Soundproofing with class 1 polyester material Handles with key lock and automatic closing Special baffles for air intake and air expulsion Inspection doors for controls and maintenance

### Exhaust

Exhaust rain cap Insulated exhaust pipes Internal residential muffler - 35dB(A)

## Fuel Supply

Single wall daily tank with bunded base Automatic shutdown system for low fuel level Fuel gauge

## THANGLING

Lifting hook integrated into the bearing structure Base frame with anti-overturning forklift pockets Forkliftable on the short side

### Base Frame

Bunded base at 110% of fuel tank capacity Anti-vibrating mounting pads Battery compartment externally accessible for easy service

## Engine

High coolant temperature and low oil pressure shutdown system External oil drain points Engine liquids (oil and antifreeze) Tropicalized radiator Rotating parts protection Electronic speed governor

#### Alternator

Avr automatic voltage regulator Impregnation for marine environment lp23

## Panel & connection

Emergency stop button Tamperproof panel ip55 Cable output from the bottom lp44 wiring Start-up battery (pre-charged) Grounding point

## Documentation

Ce conformity declaration User and maintenance manual Wirings diagrams

### Normatives

All generating sets are compliant to CE marking 2014/30/UE electromagnetic compatibility 2000/14/CE noise emission for outdoor use Factory-designed systems built according to ISO 9001:2015 CEI EN 60204-1:2018 - Electrical equipment of machines















# **Primary data**

Speed	RPM	1500	
Frequency	Hz	50	
PRP	KVA	32	
Prp - prime power	KW	25,6	
Ltp - standby power	KVA	35	
Ltp - standby power	KW	28,0	
Standard voltage	V	400/230	
Current	A	46,2	
Cosfi	0,8	0,8	
General electrical protection		*	
Circuit-breaker rated current	A	50	
Туре		Magnetothermal switch on panel board	
Circuit-breaker poles	N	4P	
Noise level +/- 3dB(A)	(0/4)		
LWA	dB(A)	88	
Sound pressure level @ 7 mt	dB(A)	63	
Sound pressure level @ 1 mt	dB(A)	72	
Fuel Consumption			
Туре		diesel	
Standard fuel tank capacity	lt	110	
Autonomy @ 75% load	h	21	
Fuel consumption at 100% load	lt/h	7,6	
Fuel consumption at 75% load	lt/h	5,4	
Fuel consumption at 50% load	lt/h	4,1	
General data			
Rated capacity	Ah	1x100	
Auxiliary voltage	V	12	
Exhaust gas temperature	°C	650	
Exhaust diameter	mm	60	
Weight and Dimensions			
Dimensions (I x w x h)	cm	190x90x150	

Kg (+/-3%)

913

Weight with liquids (excluding optionals and fuel)





# Engine

Factory		Baudouin
Model		4M06G33/5
Emissions stage		Stage 0
Speed governor		Electronic
Radiator	°C	50
Cooling	Tipo	liquid (water + 50% Paraflu11)
Active net power	Kwm	28,7
Nominal net power	CV	39
Cycle	Tipo	4 strokes
Aspiration	Tipo	Turbo
Numbers of cylinders	N	4
Cylinders arrangement		L
Bore	mm	89
Stroke	mm	92
Total displacement	lt	2,288
Engine oil features		15W40-API CI-4/CH-4 ACEA E5-E7
Total oil capacity	lt	12
Total coolant capacity	lt	16
Iso 8528-5 class		G2

# Alternator

### $\ensuremath{^{*}}$ May vary based on stock availability. However, a primary brand will be used.

Factory		Stamford
Model		S1L2-J1
Prime power prp 3ph+n	KVA	35
Voltage regulator (voltage accuracy)	+/- %	1
Poles	N°	4
Phases	N°	3+N
Standard windings connection		Star Series
Stator/rotor impregnation		H (Outdoor Temp 40°C)
Efficiency	%	88
Engine coupling		Elastic disk
Short circuit current		>= 300% (3In)
Protection degree	IP	23
Cooling system		Self ventilating
Maxium overspeed	rpm	2250
Exciter		Diode bridge

# Standard operating environmental conditions

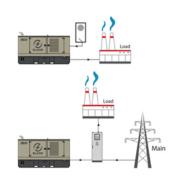
Ambient temperature	°C	25
Relative humidity	%	30
Max altitude	mt	1000





# **Control Systems on board QLE-A-OSC-30**





operating scheme - schema di funzionamento

## **QLE** Multifunction panel without switching on board

The QLE command and control panel offers outstanding protection, monitoring and control for small and middle size generator sets. Elcos's control module MC2 offers advanced features to meet the most demanding on-site application. Elcos's control module MC2 is designed for offer an easy user interface. Variant without transfer switch on board. ATS panel type QC as optional. The panel manages the QC panels directly or any other ATS panel. The output line is protected by a breaker which protects from overload, short circuit.

## Mechanical features

Protection degree	IP	55

## Battery charger

Model		ELCOS - CB1
Maximum output current	Α	2,5
Output dc voltage (selectable)	Vdc	12-24
Input ac voltage (selectable)	Vac	220-260
Frequency	Hz	50-60

# Remotable functions in terminal box

Gs start
Genset contactor close/open command
Common alarm - volt free output
Gs test without load

Gs lock
Mains contactor close/open command
Common alarm - dc output





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## Control Module



#### **ELCOS Brand** Model MC2 AMF - MRS Operating mode

#### **Specifics**

#### **Applications**

Emergency to the mains Stand-alone

#### **ENGINE MEASURES**

Fuel tank level % Total run time Battery voltage Battery charging voltage Start-ups counter Engine speed

#### **ALTERNATOR MEASURES**

Generator voltage I1, I2, I3 Generator voltage l1-n, l2-n, l3-n Generator frequency

#### **MAINS MEASURES**

Mains voltage I1, I2, I3 Mains voltage I1-n, I2-n, I3-n Mains frequency

#### **COMMUNICATION PORTS**

Configurable via pc using usb port

#### **EQUIPMENT**

Microprocessor logic Back-lit display Programmable by pc software 10 event log Icons management Stop button Start button Aut mode button Reset alarm button

#### PRE-ALARMS/ ALARMS

Common alarm Fuel reserve (pre-alarm) Low fuel level (alarm) Charge alternator failed (dinamo) Low oil pressure (alarm) High coolant temperature (alarm) Battery undervoltage Gs failure to start Gs failure to stop Genset overvoltage Genset undervoltage Genset high frequency Genset low frequency Maintenance request Emergency button pressed Genset negative phase sequence

## VISUALIZATIONS ON CONTROL

#### MODULE/DISPLAY

Pre-alarms Alarms Engine measures Alternator measures Mains measures Operating mode Genset status Mains status Mains contactor status Genset contactor status

#### **CONTROL MODULE FUNCTIONS**

Automatic start and stop when the mains fails (7) Remote start and stop Manual start and stop Emergency stop button on panel board Remote emergency stop Remote lock





## **OPTIONAL**



Canopy customized painting (ral) Double soundproofing -2 dB(A) @ 7 mt Lift-off doors kit Ip 43 conveyors

## Exhaust

Exhaust pipe
Exhaust manifold protection
Exhaust flexible expansion joint
Exhaust flexible pipe
(fap) anti-particulate filter
Exhaust catalyst (cat)

## Fuel Supply

Oversized tank
Fuel connections
Bulk tank connections with 3 way valve
Automatic fuel refilling system on board
Automatic fuel refilling system on trestle

## Engine

Engine pre-heater 230vsuper hot
Engine pre-heater 230v
Oil pressure and coolant temperature gauge (only with qpe or +14 variant)
Oil change pump
Engine liquids + 50°c, - 40°c (oil and antifreeze)
Battery disconnector
Automatic refilling oil system
1000 working hours spare parts kit
Cyclone air filter
Redundant start-up battery kit

## Alternator

Avr pre-arranged for parallel Anti-condensation heater

## Panel & connection

Rcd block Automatic transfer switch (qc) Elcos polivalent panel (qpe)

#### **PRP**

Engines of this rating provide unlimited hours of usage in a variable load application. The average load factor should not exceed 70% of the engine's prime power rating with a maximum number of 500 operational hours at 100% prime power rating. An overload capability of 10% is available, however, is limited to a period of 1 in every 12 hours

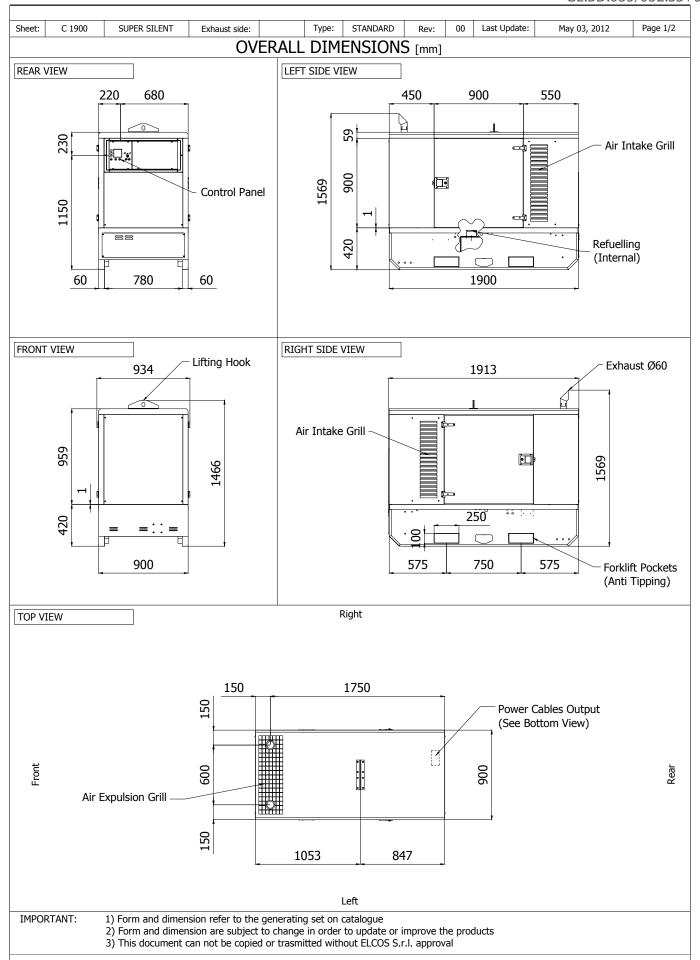
### **LTP**

Limited-time running power is defined as the maximum power available, under the agreed operating conditions, for which the generating set is capable of delivering for up to 500h of operation per year with the maintenance intervals. The overload is not allowed.





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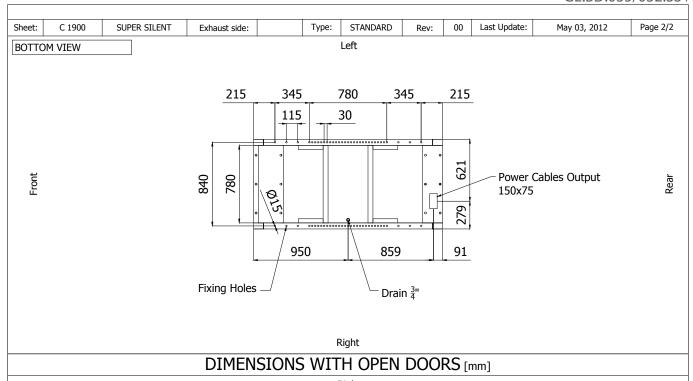


Data and technical specifications are subject to change in order to update or improve the products.

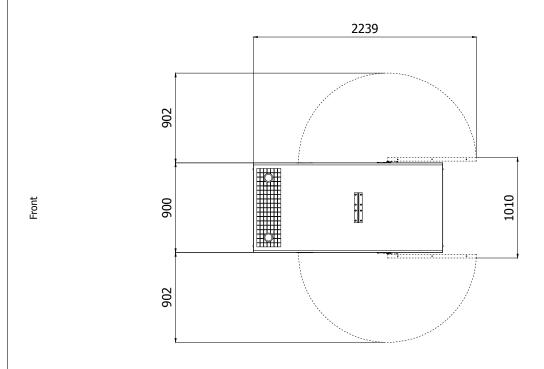




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Right



Left

Note: With Lifting-Off Door Solution consider only canopy dimensions.

(Models with "Control Panel" behind rear door will mount a special cover to protect it)

## VENTILATION OF THE ROOM

The windows area in the generating set room needs to be (recommended):

Aspiration: 0.30 m2 Expulsion: 0.20 m2

ATTENTION: for a correct ventilation the expulsion air and the exaust gas needs to be conveyed in the open-air

IMPORTANT:

- 1) Form and dimension refer to the generating set on catalogue
- 2) Form and dimension are subject to change in order to update or improve the products
- 3) This document can not be copied or trasmitted without ELCOS S.r.l. approval

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