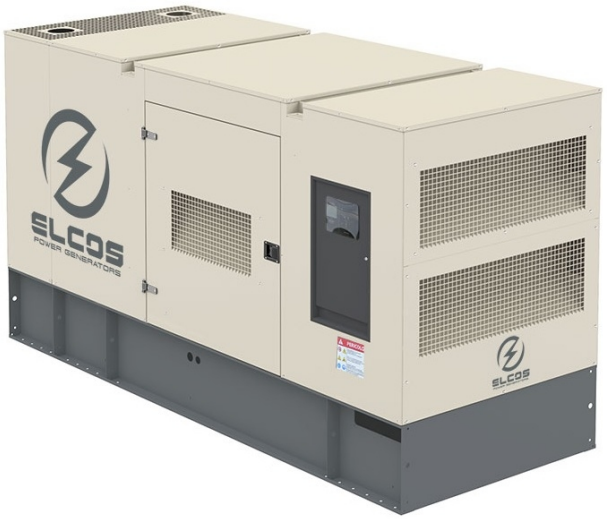


Image for demonstration purposes

Generating Set
PROFESSIONAL - Diesel

GE.BD.385/350.PRO+011

1500 rpm - Threephase - 50Hz - 400V
Multifunction panel without switching on board

.PRO

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
Inspection doors for controls and maintenance
Inspection doors with hermetic gasket

Exhaust
Exhaust rain cap
Insulated exhaust pipes
Internal residential muffler

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

Handling
N.4 lifting hooks integrated into the bearing structure
Loadable side by side for truck transportation

Base Frame
Anti-vibrating mounting pads
Anti pollution bunded base

Engine
Oil pressure and coolant temperature gauge (only with qpe or +14 variant)
Tropicalized radiator
Electronic speed governor

Alternator
Avr automatic voltage regulator
Avr pre-arranged for parallel
Impregnation for marine environment
Ip23

Panel & connection
Emergency stop button
Magnetothermal circuit breaker on alternator board
Tamperproof panel ip55
Cable output from the bottom
Ip44 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

General Information

Speed	*RPM*	**1500**
Frequency	*Hz*	**50**
PRP	*KVA*	**350**
Prp - prime power	*KW*	**280,0**
Ltp - standby power	*KVA*	**385**
Ltp - standby power	*KW*	**308,0**
Standard voltage	*V*	**400/230**
Current	*A*	**505,78**
Voltage for current calculation	*V*	**400**
Cosfi	*0,8*	**0,8**

General electrical protection

Circuit-breaker rated current	*A*	**630**
Type		**Magnetothermal switch on the alternator board**
Circuit-breaker poles	*N*	**4P**

Noise level +/- 3dB(A)

LWA	*dB(A)*	**97**
Sound pressure level @ 7 mt	*dB(A)*	**72**
Sound pressure level @ 1 mt	*dB(A)*	**81**

Fuel Consumption

Type		**Diesel**
Standard fuel tank capacity	*lt*	**400**
Autonomy @ 75% load	*h*	**7**
Fuel consumption at 100% load	*lt/h*	**82,1**
Fuel consumption at 75% load	*lt/h*	**60,6**
Fuel consumption at 50% load	*lt/h*	**40,9**

General data

Rated capacity	*Ah*	**2x120**
Auxiliary voltage	*V*	**24**
Exhaust gas temperature	*°C*	**580**
Exhaust gas flow	*l/s*	**1053**
Combustion air flow	*l/s*	**386**
Cooling fan airflow	*mc/s*	**6,6**
Exhaust diameter	*mm*	**140**

Weight and Dimensions

Dimensions (l x w x h)	*cm*	**395x154x220**
Weight with liquids (excluding optionals and fuel)	*Kg (+/-3%)*	**3756**

Engine

Factory		**Baudouin**
Model		**6M21G385/5**
Emissions stage		**Stage 0**
Speed governor		**Electronic**
Radiator	*°C*	**50**
Cooling	*Tipo*	**liquid (water + 50% Paraflu11)**
Active net power	*Kwm*	**327**
Nominal net power	*CV*	**444,3**
Cycle	*Tipo*	**4 strokes**
Aspiration	*Tipo*	**Turbo**
Numbers of cylinders	*N*	**6**
Cylinders arrangement		**L**
Bore	*mm*	**127**
Stroke	*mm*	**165**
Total displacement	*lt*	**12,535**
Engine oil features		**15W40-API CI-4/CH-4 ACEA E5-E7**
Total oil capacity	*lt*	**32**
Total coolant capacity	*lt*	**55**
Iso 8528-5 class		**G2**

Alternator

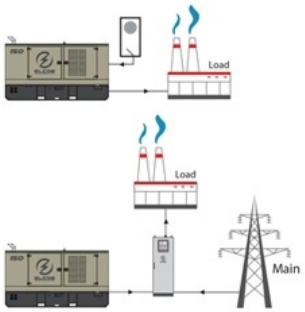
*** May vary based on stock availability. However, a primary brand will be used.**

Factory		**Stamford**
Model		**S4L1D-E**
Single-phase range	*KVA*	**360**
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	*%*	**93,3**
Engine coupling		**Elastic disk**
Short circuit current		**>= 300% (3In)**
Protection degree	*IP*	**23**
Cooling system		**Self ventilating**
Maxium overspeed	*rpm*	**2250**
Waveform distortion	*%*	**<5**
Exciter		**Diode bridge**

Standard operating environmental conditions

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

Control Systems on board QLE-A-SC-3F-V1



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 with transfer switch on board. Switching made with a pair of contacts electrically and mechanically interlocked. 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	*A*	**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

Control Module

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

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 l1, l2, l3
Generator voltage l1-n, l2-n, l3-n
Generator frequency

MAINS MEASURES
Mains voltage l1, l2, l3
Mains voltage l1-n, l2-n, l3-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

Fuel Supply

	**O.G-ACO-AT-CI-02**	External tank connections for supply only from external tank (g without tank) GE 130/700
	**O.G-ACO-BT-P3700-1000**	600 Lt Oversized Fuel Tank on board for BF/PRO (180/250 kVA) (Increased weight and size)
	**O.G-ACO-BT-P3700-600**	1000 Lt Oversized Fuel Tank on board for BF/PRO (180/250 kVA), (Increased weight and size)
	**O.G-ACO-ST-BG-ES2**	"Easy" automatic fuel refilling system on board, controlled by QST2 for QLE panel

Batteries

	**O.G-BAT-BAE-03**	Maintenance free high efficiency starter batteries (130/250 kVA)
	**O.G-BAT-STB-02**	Battery isolator lockable(130/700 kVA)

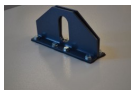
Electrical on board

	**O.Q-QLE-K-DIF-M2**	Adjustable differential protection only for MC2 controller for Gen Sets 50/250 kVA
	**O.Q-QLE-QBM-COM-AMF25**	Additional price for QBM COMAP AMF25 panel replacing the standard QLE-A.
	**O.Q-QLE-QBM-DSE-7320**	Additional price for QBM DSE7320 panel replacing the standard QLE-A.
	**O.Q-QLE-QPE-MC4**	Additional price for QPE-C panel with MC4 replacing the standard QLE-A.

Engine

	**O.G-MOT-K-40C-03**	Engine liquids suitable for -40°C ambient temperature for Gen Sets 130/250 kVA
	**O.G-MOT-PO-02**	Oil change pump for Gen Sets 130/700 kVA
	**O.G-MOT-SC-AC-EL-01**	Engine pre-heater 230V with thermostat on board for Gen Sets 10/100 kVA + 130/250 PRO version
	**O.G-MOT-SC-AC-EL-03**	Super hot engine heater 230V with thermostat on board for Gen Sets 130/250 kVA

Handling

	**O.G-MOV-GC-S2700**	Lifting hook (150/250 kVA) PRO Version

ATS Panels

	QLTS.250A	Wall-mounted ATS switching panel 250A 4P (275 kVA 400V - 160 kVA 230V) Dim. 80 x 28 x 60 cm - 40 kg.

Test

	**MS.CP-LT-02**	FAT - Factory Acceptance Test for single Gen Set from 130 to 400 kVA according to our standard procedures in Elcos factory (max 2 hours - max 4 people - max 1 hour of operation)
	**MS.CP-SP-02**	FAT - Factory Acceptance Test for single custom Gen Set from 130 to 400 kVA max 4 operating hours or parallel system up to 4 units for 1 operating hour, in Elcos factory (max 4 hours - max 4 people)
	**MS.CP-ST-02**	FAT - Factory Acceptance Test for single Gen Set from 130 to 400 kVA according to our standard procedures in Elcos factory (max 4 hours - max 4 people - max 2 hour of operation)

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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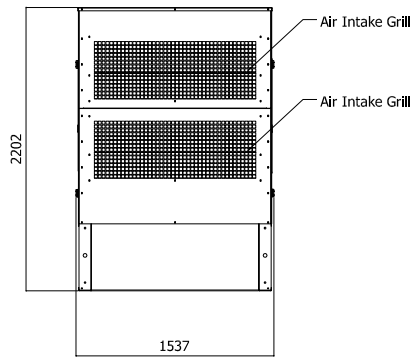
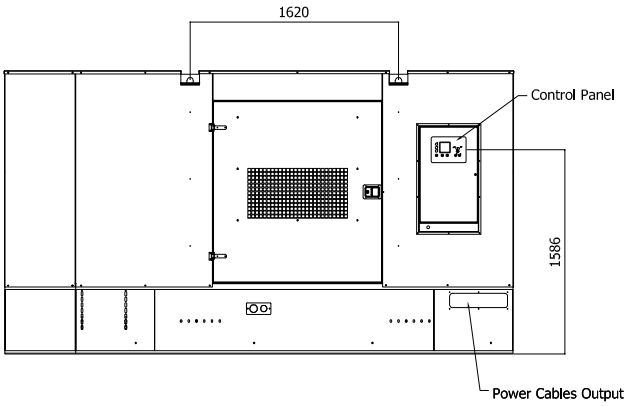
OVERALL DIMENSIONS [mm]

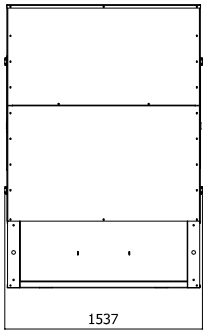
REAR VIEW



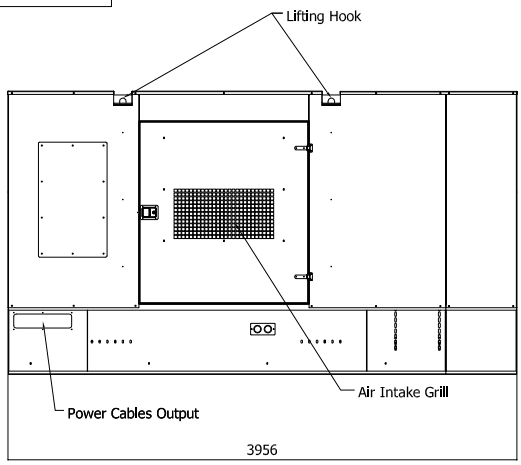
LEFT SIDE VIEW



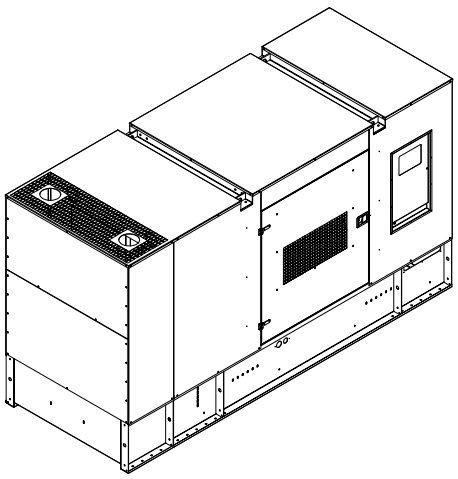
FRONT VIEW



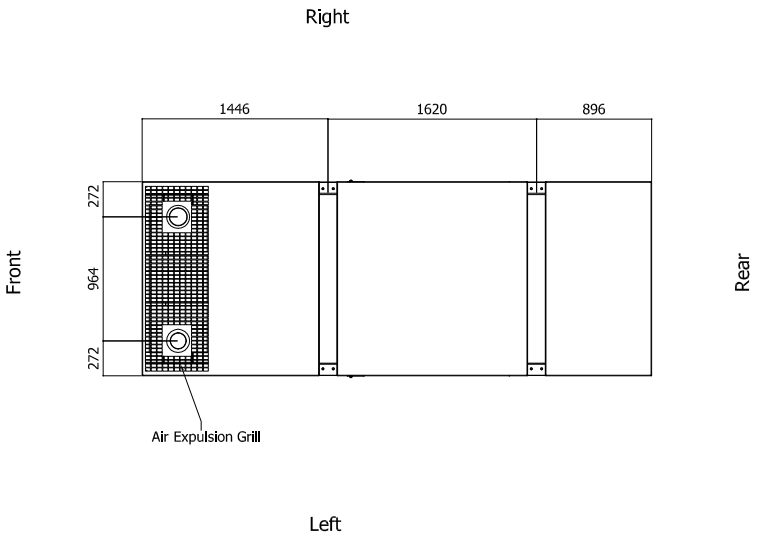
RIGHT SIDE VIEW



3D VIEW



TOP VIEW



IMPORTANT:
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2) Form and dimension are subject to change in order to update or improve the products
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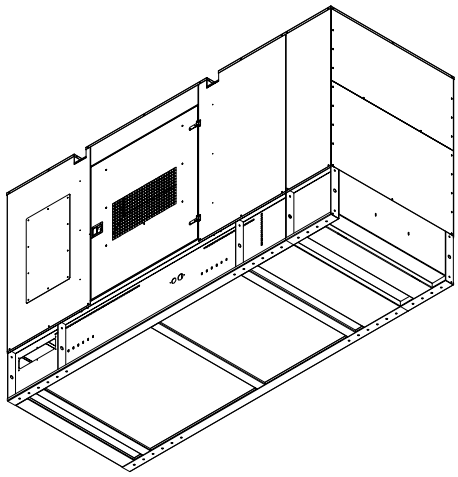
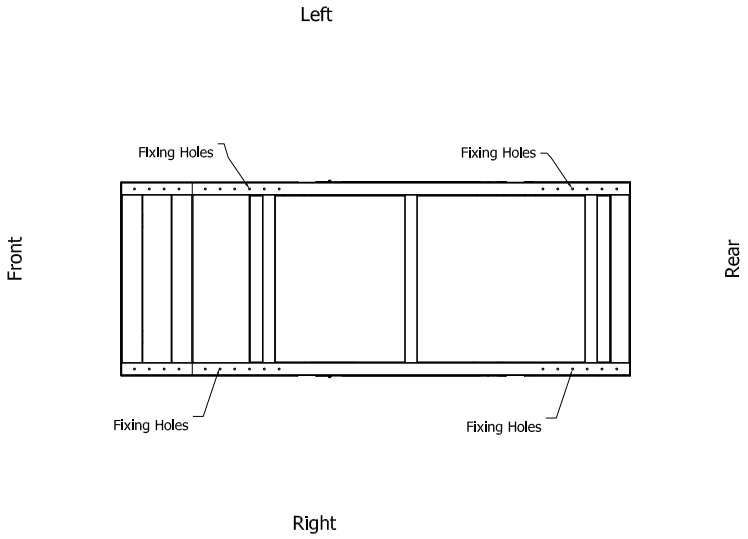
Sheet:	PRO3950	PRO	Exhaust side:		Type:	STANDARD	Rev:	00	Last Update:	15-05-2020	Page 2/2

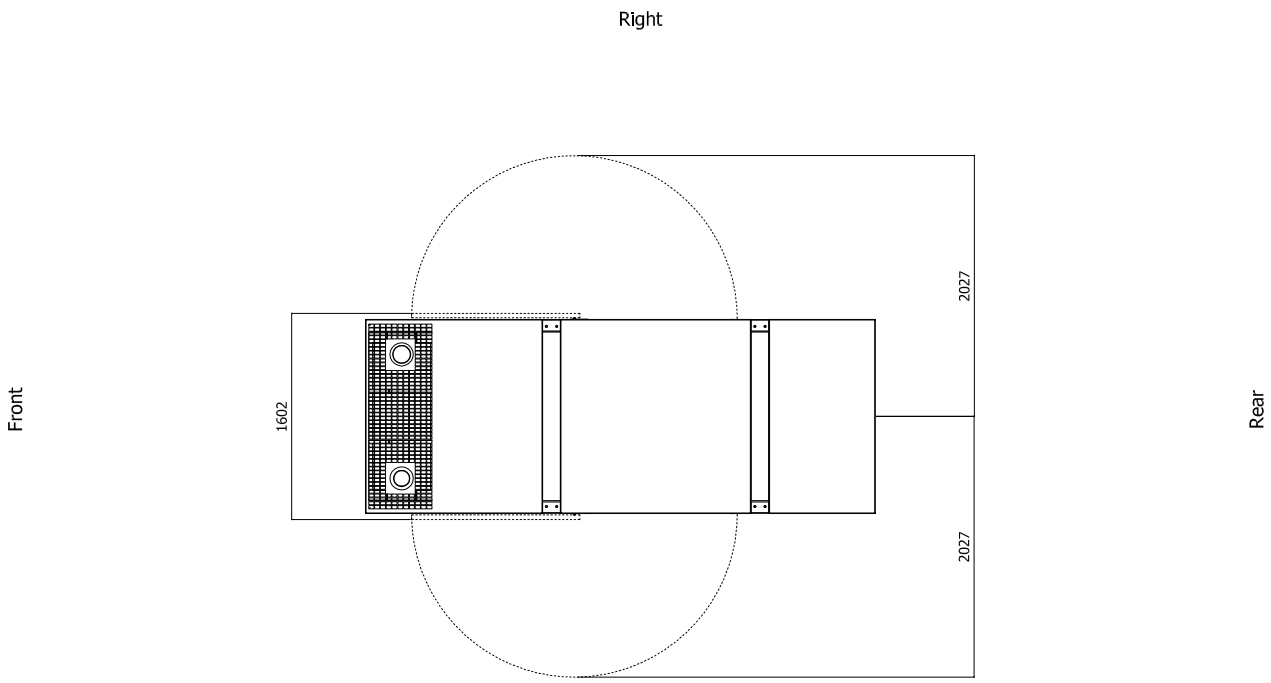
3D BOTTOM VIEW



BOTTOM VIEW



DIMENSIONS WITH OPEN DOORS [mm]



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: 0.90 m2
Expulsion: 0.60 m2
ATTENTION: for a correct ventilation the expulsion air and the exaust gas needs to be conveyed in the open-air

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