



# GENERATING SET GE 65 PS SX

The images are for reference



## FEATURES

- Automatic voltage regulation "AVR" with three-phase sensing
- Round edges for a better rain flow
- Bunded base suitable to contain any liquids leakage from engine avoiding environmental pollution
- External caps for oil and water drain
- Large doors for better and easy maintenance (air, oil, fuel filters replacement)
- Central lifting eye
- Forklift pockets
- Ready for connection to automatic transfer unit EAS (AMF + ATS)
- Meets EC directives for noise and safety



water cooled



diesel



three-phase power



electric



super silenced

## POWER RATINGS

* Stand-By three-phase power (LTP)	66 kVA (52,8 kW) / 400V / 95.2A
* PRP three-phase power	60 kVA (48 kW) / 400V / 86.6A
* PRP single-phase power	22 kVA / 230V / 95.6A
* COP power	/
Frequency	50 Hz
Cos φ	0.8

\* Output powers according to ISO 8528-1

## DEFINITION

Valid declared powers up to the followings environmental conditions: temperature 25°C, altitude 100 meters above sea level)

**LTP power: stand-by power:** Maximum available power for use with variable loads for a yearly number of hours limited at 500 h. No overload is admitted.

**PRP power:** continue power with variable loads. Maximum power for use with variable loads for a yearly illimited nubers of hours.

**COP power:** continuous power with constant load. Maximum power for use with constant loads for a yearly unlimited numbers of hours.

## ENGINE 1500 RPM

### 4 STROKE, TURBOCHARGED

	PERKINS - 1104D-44TG3 (In compliance with Stage 3A)	PERKINS - 1103A-33TG1
Model	PERKINS - 1104D-44TG3 (In compliance with Stage 3A)	PERKINS - 1103A-33TG1
Cylinders / Displacement	4 / 4400 cm <sup>3</sup> (4.4 lt.)	3 / 3300 cm <sup>3</sup> (3.3 lt.)
Bore / Stroke	105 / 127 (mm)	
Compression ratio	18.23 : 1	17.25 : 1
* Stand-By net power	59 kWm (80.2 hp)	59.3 kWm (80.6 hp)
* PRP net power	54 kWm (73.4 hp)	53.8 kWm (73.1 hp)
* COP net power	/	
BMEP (Brake Mean Effective Pressure : LTP - PRP)	1158 kPa - 1047 kPa	1467 kPa - 1333 kPa
Speed governor type	Mechanical	
<b>FUEL CONSUMPTION</b>		
110 % (Stand-by power)	235 g/kWh - 18.2 lt./h	218.1 g/kWh - 15.4 lt./h
100 % to PRP	235 g/kWh - 16.5 lt./h	217 g/kWh - 13.9 lt./h
75 % to PRP	232 g/kWh - 12.4 lt./h	216.5 g/kWh - 10.4 lt./h
50 % to PRP	230 g/kWh - 8.3 lt./h	225 g/kWh - 7.2 lt./h
<b>COOLING SYSTEM</b>		
Total system cap. - only engine	16.5 lt - 7 lt.	10.2 lt - 4.4 lt.
Fan air flow	82 m <sup>3</sup> /min.	89 m <sup>3</sup> /min.
<b>LUBRICATION SYSTEM</b>		
Total oil system capacity	8 lt	8.3 lt
Oil capacity in sump	5.5 lt ÷ 7 lt	6.2 lt ÷ 7.8 lt
Oil consumption at full load	< 0.015 lt./h	< 0.015 lt/h

\* Output powers according to ISO 3046-1

<b>EXHAUST SYSTEM</b>		
Maximum exhaust gas flow	12.5 m <sup>3</sup> /min	10.4 m <sup>3</sup> /min
Max. exhaust gas temp.	560 °C	571 °C
Maximum back pressure	12 kPa (0.12 bar)	10 kPa (0.10 bar)
External diameter exhaust pipe	/	
<b>ELECTRICAL SYSTEM</b>		
	12 Vdc	
Starter motor power	3.2 kW	3 kW
Battery charging alternator cap.	65 A	
Cold start	- 10°C	
With cold start aid	- 25 °C	
<b>AIR FILTER</b>		
	Dry	
Combustion air flow	4.9 m <sup>3</sup> /min.	3.9 m <sup>3</sup> /min.
<b>HEAT REJECTED AT FULL LOAD</b>		
To exhaust system	57.8 kW - 2618.3 Btu/min.	46 kW - 2618.3 Btu/min.
To water and oil	46.8 kW - 2162.9 Btu/min	38 kW - 2162.9 Btu/min
Radiated to room	9.3 kW - 626.1 Btu/min.	11 kW - 626.1 Btu/min.
To charge cooler	/	



## ALTERNATOR

SYNCHRONOUS, THREE-PHASE, SELF-EXCITED, SELF-REGULATED, BRUSHLESS	
Continuous power	60 kVA
Stand-by power	65 kVA
Three phase voltage	380-415 Vac
Frequency	50 Hz
Cos φ	0.8
Model A.V.R.	HVR-30 (3ph. sensing)
Voltage regulation acc.	± 1%
Sustained short circuit current	3 I <sub>n</sub>
Transient dip (100% load)	10 %
Recovery time	≤ 3 sec.
Efficiency at 100% load	89,4 % (400V - Cos φ 0.8)
Insulation	Class H
Connection - Terminals	Star - N°12
Electromagnetic compatibility ( R.F.I. suppr.)	EN55011
Waveform distorsion - THD	< 3 %
Telephone interference - THF	< 2 %

REACTANCES (50 kVA - 400V)	
Direct axis synchronous - X <sub>d</sub>	260 %
Direct axis transient - X' <sub>d</sub>	21 %
Subdirect axis transient - X'' <sub>d</sub>	7 %
Quadrature axis synchronous - X <sub>q</sub>	148 %
Quadr. axis subtransient - X'' <sub>q</sub>	/
Negative sequence - X <sub>2</sub>	/
Zero sequence - X <sub>0</sub>	/
TIME CONSTANTS	
Transient - T' <sub>d</sub>	0.015 sec
Subtransient - T'' <sub>d</sub>	0.009 sec
Open circuit - T' <sub>do</sub>	0.195 sec
Armature - T <sub>a</sub>	/
Short-circuit ratio K <sub>cc</sub>	0.63
Cooling air flow	0.20 m <sup>3</sup> /sec
Coupling   Bearing	Direct SAE 3 -11 ½ - N°1

## GENERAL SPECIFICATIONS

Fuel tank capacity	100 lt.	
Running time (75% to PRP)	8 h	9.5 h
Starter battery	12 Vdc -74 Ah	
IP protection degree	IP 44	

* Measured acoustic power L <sub>WA</sub> (pressure L <sub>pA</sub> )	91 dB(A) (66 dB(A) @ 7m)
* Guaranteed acoustic power L <sub>WA</sub> (pressure L <sub>pA</sub> )	92 dB(A) (67 dB(A) @ 7m)
Performance class (ISO 8528)	G2

\* Acoustic power according to European Directive 2000/14/CE

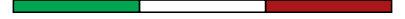
## CONTROL PANEL

- Fuel level gauge
- Siren
- Emergency stop button
- Local-Remote Start switch
- EAS plug
- TCM 35 remote control plug
- Voltmeter switch 0 - RS - ST - TR
- Four pole circuit breaker
- Terminal output with bus bar
- Output sockets 1x 230V 16A 2P+T SCHUKO
- Earth leakage with integral over-current circuit breaker for 230V 16A socket 30mA
- Earth terminal (PE)

CONTROL PANEL VERSION WITH OUTPUT SOCKETS	
<b>SOCKETS</b> Every 16A and 32A socket is protected by its own circuit breaker and GFI 30mA	1x 400V 63A 3P+T CEE 1x 400V 32A 3P+T CEE 1x 400V 16A 3P+T CEE 1x 230V 16A 2P+T CEE 2x 230V 16A 2P+T SCHUKO

EP6 CONTROLLER CHARACTERISTICS	
Operating mode	OFF - MAN. - AUTO
Display	4-digits display
LEDs	Engine is running AUTO mode
Buttons/controls	Starter key AUTO button N° 5 buttons for controller programming
Measures	Generator voltage Generator current Frequency Engine speed Battery voltage Charger battery voltage Hourmeter
Alarms	Low oil pressure High temperature Belt break Low level fuel Emergency stop button Starting failure Over-under generator voltage Over-under frequency Over-under speed High-low battery voltage Overload generator Internal memory failure
Functions	Remote starting (only to AUTO) Cold start aid Automatic periodic test (only to AUTO) Generator contactor control





# WEIGHT AND SIZE

GE 65 PS SX



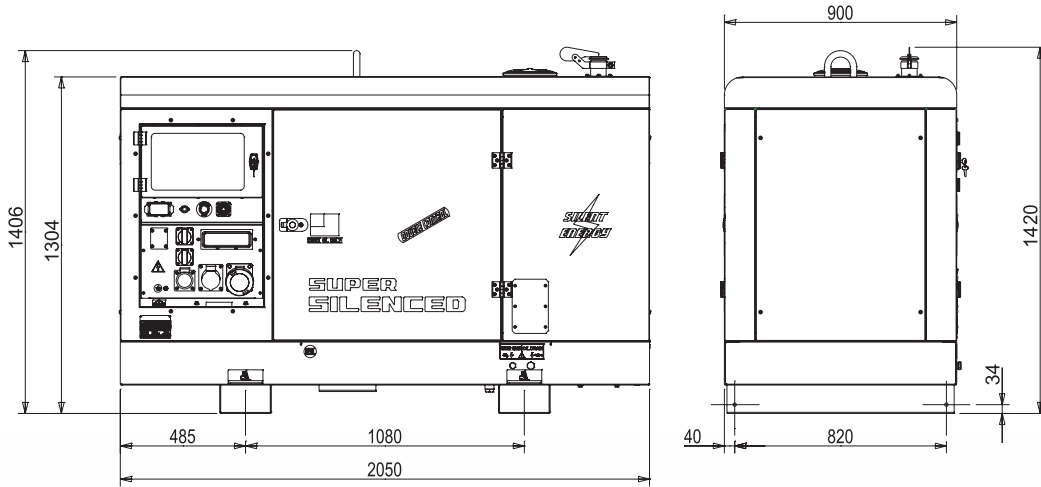
- DRY WEIGHT MACHINE:**
- 1200 Kg (tank version 100 lt)
  - 1390 Kg (tank version 350 lt)

Generating set pictured may include optional accessories.

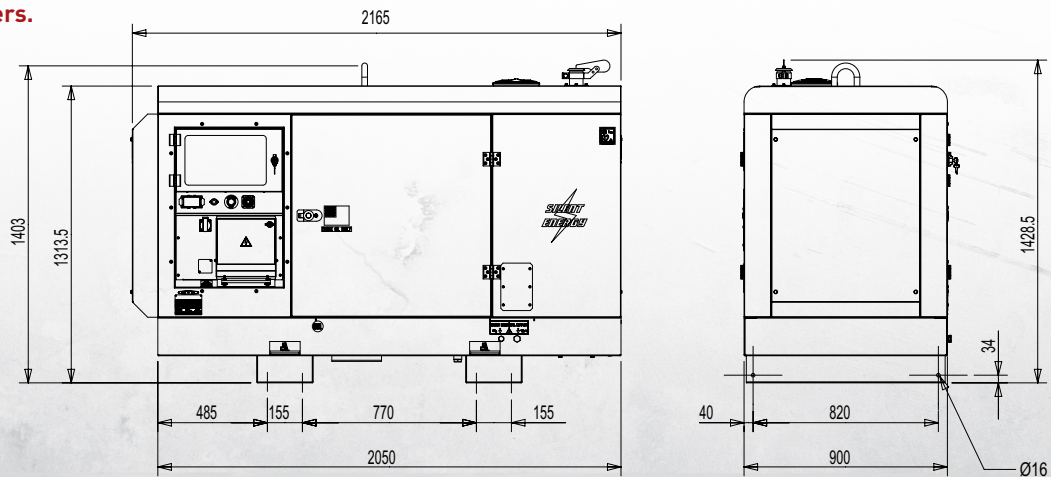


**DIMENSIONS DRAW**

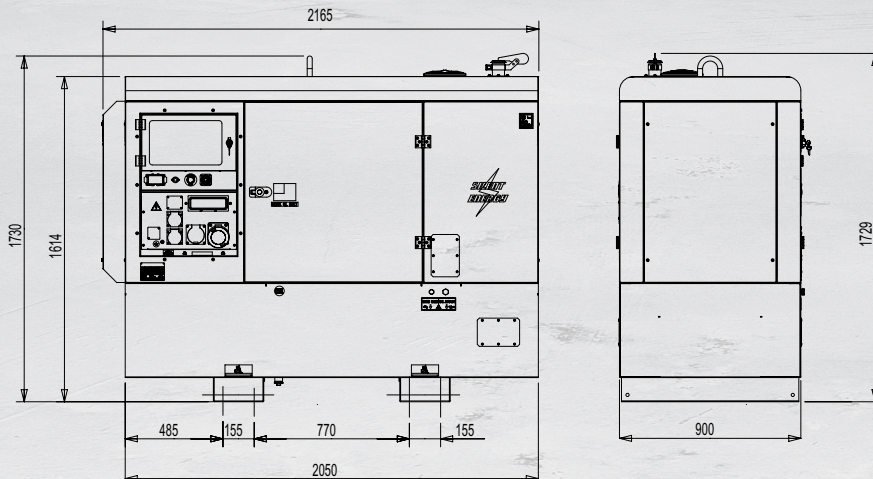
**Standard Vers.**



**N° 4 cylinders Vers.**



**Tank Vers. 350l**



# ACCESSORIES

GE 65 PS SX

## OPTIONS ON REQUEST

- Automatic transfer unit EAS 76 - 809 (110 A)
- Remote control TCM35
- Site tow CTL20
- Earthing kit
- Galvanized skid base frame

## VERSIONS ON REQUEST

- Version with electrical panel with 5 Sockets:
  - 1x 400V 63A 3P+T CEE
  - 1x 400V 32A 3P+T CEE
  - 1x 400V 16A 3P+T CEE
  - 1x 230V 16A 2P+T CEE
  - 2x 230V 16A 2P+T SCHUKO

## FACTORY INSTALLATION OPTIONS

- Engine heater
- Gauges - water temperature and oil pressure
- Spark arrestor
- Cold start aid
- 3-way valve fuel system with quick connection for external fuel tank supply
- 350 litre internal tank
- Main battery switch
- Electronic leakage relay
- Isometer
- Radio control

## GENERAL INFORMATION

### COMPLIANCE GENERATING SETS WITH EC DIRECTIVES AND STANDARDS

- 2006/42 / EC (Machines Directive)
- 2014/35 / EU (Low Voltage Directive)
- 2014/30 / EU (EMC Directive)
- 2000/14 / EC (Directive Acoustic Emission for machines for use outdoors)
- ISO 8528 (Reciprocating internal combustion engine driven alternating current generating sets )



ISO 9001:2008 - Cert. 0192

### WARRANTY

All devices are covered by the manufacturer's warranty.

The company reserves the right to change this specification without notice. For further information please contact the sales department.

© MOSA - Viale Europa, 59 - 20090 Cusago (Milano) - Italy - phone +39-0290352.1 - fax + 39-0290390466 E-mail: info@mosa.it Web site: www.mosa.it

