



GENERATING SET GE 50 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
- Supersilenced
- Ready for connection to automatic transfer unit EAS (AMF + ATS)
- Meets EC directives for noise and safety



POWER RATINGS	
* Stand-By three-phase power (LTP)	51 kVA (40.8 kW) / 400V / 73.6 A
* PRP three-phase power	46 kVA (36.8 kW) / 400V / 66.4 A
* PRP single-phase power	17 kVA / 230V / 73.9 A
* 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	
Model	PERKINS 1103A-33TG1
Cylinders / Displacement	3 / 3300 cm ³ (3.3 lt.)
Bore / Stroke	105 / 127 (mm)
Compression ratio	17.25 : 1
* Stand-By net power	45.6 kWm (62 hp)
* PRP net power	41.3 kWm (56.2 hp)
* COP net power	/
BMEP (Brake Mean Effective Pressure : LTP - PRP)	1128 kPa - 1023 kPa
Speed governor type	Mechanical
FUEL CONSUMPTION	
110 % (Stand-by power)	219 g/kWh - 12 lt./h
100 % to PRP	217 g/kWh - 10.7 lt./h
75 % to PRP	220 g/kWh - 8.2 lt./h
50 % to PRP	264 g/kWh - 5.7 lt./h
COOLING SYSTEM	
Total system cap. - only engine	10,2 lt - 4,4 lt.
Fan air flow	53 m ³ /min.
LUBRIFICATION SYSTEM	
Total oil system capacity	8.3 lt
Oil capacity in sump	6.2 lt, ÷ 7.8 lt
Oil consumption at full load	< 016 lt./h

* Output powers according to ISO 3046-1

EXHAUST SYSTEM	
Maximum exhaust gas flow	7,7 m ³ /min
Max. exhaust gas temp.	537 °C
Maximum back pressure	10 kPa (0,10 bar)
External diameter exhaust pipe	/
ELECTRICAL SYSTEM	
Starter motor power	3 kW
Battery charging alternator cap.	65 A
Cold start	- 10°C
With cold start aid	- 25 °C
AIR FILTER	
Combustion air flow	3.1 m ³ /min.
HEAT REJECTED AT FULL LOAD	
To exhaust system	35 kW - 1992 Btu/min.
To water and oil	30 kW - 1707 Btu/min
Radiated to room	8 kW - 455 Btu/min.
To charge cooler	/

ALTERNATOR

SYNCHRONOUS, THREE-PHASE, SELF-EXCITED, SELF-REGULATED, BRUSHLESS	
Continuous power	50 kVA
Stand-by power	55 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 _n
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 distortion - THD	< 3 %
Telephone interference - THF	< 2 %

REACTANCES (50 kVA - 400V)	
Direct axis synchronous - X _d	255 %
Direct axis transient - X' _d	20 %
Subdirect axis transient - X'' _d	7 %
Quadrature axis synchronous - X _q	146 %
Quadr. axis subtransient - X'' _q	/
Negative sequence - X ₂	/
Zero sequence - X ₀	/
TIME CONSTANTS	
Transient - T' _d	0.014 sec
Subtransient - T'' _d	0.009 sec
Open circuit - T' _{do}	0.188 sec
Armature - T _a	/
Short-circuit ratio K _{cc}	0.62
Cooling air flow	0.17 m ³ /sec.
Coupling Bearing	Direct 3 -11 ½ - N°1

GENERAL SPECIFICATIONS

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

* Measured acoustic power L _{WA} (pressure L _{pA})	90 dB(A) (65 dB(A) @ 7m)
* Guaranteed acoustic power L _{WA} (pressure L _{pA})	91 dB(A) (66 dB(A) @ 7m)
Performance class (ISO 8528)	G2

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

CONTROL PANEL

- Controller EP6
- 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
- ELCB-GFI (Ground Fault Interruptor) 30 mA
- 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	
SOCKETS	1x 400V 63A 3P+T CEE
Every 16A and 32A socket is protected by its own circuit breaker and GFI 30mA	1x 400V 32A 3P+T CEE
	1x 400V 16A 3P+T CEE
	2x 230V 16A 2P+T CEE

EP6 CONTROLLER CHARACTERISTICS	
Modalità Operative	OFF - MAN. - AUTO
Display	4-digits display
LEDs	Engine is running AUTO mode
Buttons/controls	Starter key AUTO button N° 5 pulsanti per la programmazione del controller
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 - DIMENSIONS AND ACCESSORIES

GE 50 PS SX



DRY WEIGHT MACHINE:

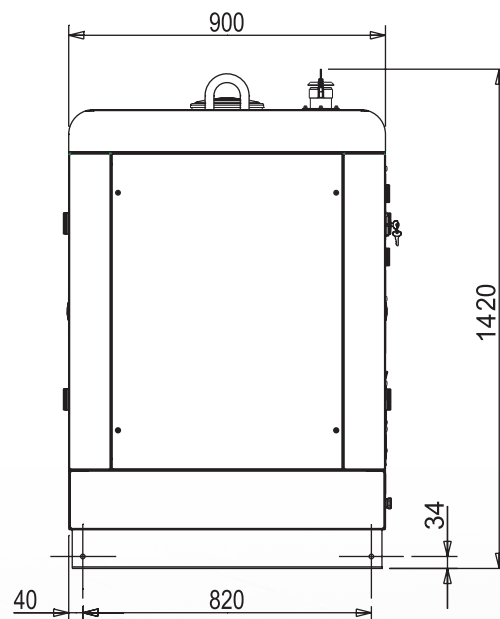
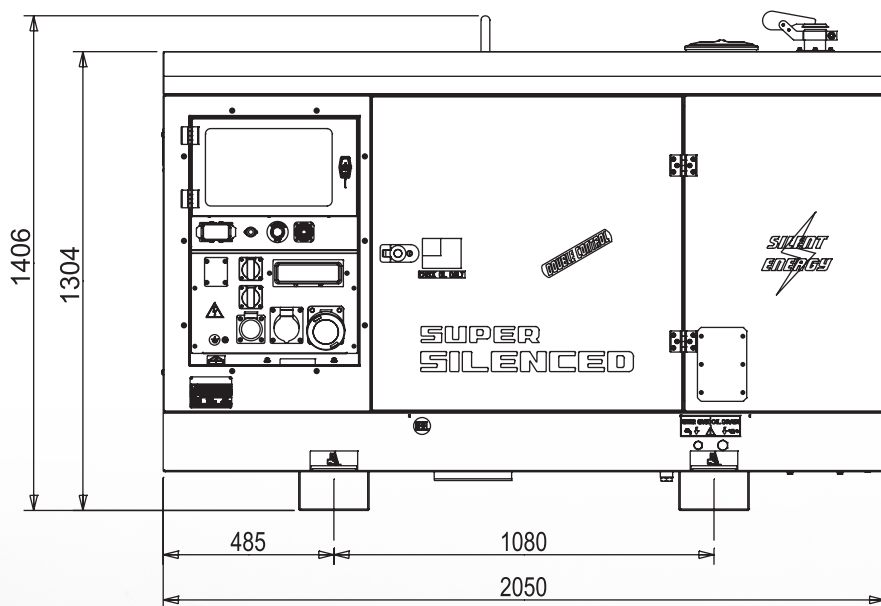
- 1100 Kg (tank version 100 lt)
- 1290 Kg (tank version 350 lt)

Generating set pictured may include optional accessories.



DIMENSIONS DRAW

- 2050 x 900 x 1730 mm (tank version 350 lt)
- For version with **100 lt tank**, see the illustrations as shown below.



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 EC Sockets:
 - 1x400V 63A 3P+N+T CEE
 - 1x400V 32A 3P+N+T CEE
 - 1x400V 16A3P+N+T CEE
 - 2x230V 16A 2P+T CEE



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.

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