

GENERATING SET GE 20 PSX

The images are for reference



FEATURES

- Automatic voltage regulation "AVR" with three-phase sensing
- Engine cowling side, can be completely opened, which facilitates all maintenance operations
- The recessed control panel is lockable and houses the sockets and machine
- Central lifting eye
- 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)	22 kVA (17.6 kW) / 400V / 31.8 A
* PRP three-phase power	20 kVA (16 kW) / 400V / 28.9 A
* PRP single-phase power	7 kVA / 230V / 30.4A
* 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, DIRECT INJECTION, NATURAL ASPIRATED

Model	PERKINS - 404A-22G1
* Stand-By net power	20.3 kWm (27.6 hp)
* PRP net power	18.4 kWm (25 hp)
* COP net power	/
Cylinders / Displacement	4/ 2216 cm ³
Bore / Stroke	84 / 100 (mm)
Compression ratio	23.3 : 1
BMEP (Brake Mean Effective Pressure : LTP - PRP)	743.7 kPa – 669.3 kPa
Speed governor type	Mechanical
FUEL CONSUMPTION	
110 % (Stand-by power)	6.1 lt./h
100 % to PRP	5.3 lt./h
75 % to PRP	4 lt./h
50 % to PRP	2.9 lt./h
COOLING SYSTEM	
Total system cap. - only engine	7 lt – 3.6 lt.
Fan air flow	40.2 m ³ /min
LUBRICATION SYSTEM	
Total oil system capacity	10.3 lt
Oil capacity in sump	/
Oil consumption at full load	/

* Output powers according to ISO 3046-1

EXHAUST SYSTEM

Maximum exhaust gas flow	3.94 m ³ /min.
Max. exhaust gas temp.	505 °C
Maximum back pressure	10.2 kPa (0.102 bar)
External diameter exhaust pipe	/
ELECTRICAL SYSTEM	
Starter motor power	2 kW
Battery charging alternator cap.	55 A
Cold start	- 15°C
With cold start aid	/
AIR FILTER	
Combustion air flow	1.45 m ³ /min.
HEAT REJECTED AT FULL LOAD	
To exhaust system	16.6 kW - 944 Btu/min.
To water and oil	19.6 kW - 1114 Btu/min.
Radiated to room	4.4 kW - 250 Btu/min.
To charge cooler	/

ALTERNATOR

SYNCHRONOUS, THREE-PHASE, SELF-EXCITED, SELF-REGULATED, BRUSHLESS	
Continuous power	20 kVA
Stand-by power	23 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	2,5 I _n
Transient dip (100% load)	10 %
Recovery time	≤ 3 sec.
Efficiency at 100% load	86.1 % (400V - Cos ϕ 0,8)
Insulation	Class H
Connection - Terminals	Star - N°12
Electromagnetic compatibility (R.F.I. suppr.)	EN 55011
Waveform distortion - THD	< 3 %
Telephone interference - THF	/

REACTANCES (20 kVA - 400V)	
Direct axis synchronous - X _d	242 %
Direct axis transient - X' _d	19 %
Subdirect axis transient - X'' _d	9 %
Quadrature axis synchronous - X _q	133 %
Quadr. axis subtransient - X'' _q	/
Negative sequence - X ₂	/
Zero sequence - X ₀	/
TIME CONSTANTS	
Transient - T' _d	0.007 sec
Subtransient - T'' _d	0.005 sec
Open circuit - T' _{do}	0.103 sec
Armature - T _a	/
Short-circuit ratio K _{cc}	0,57
IP protection degree	IP 23
Cooling air flow	0.1 m ³ /sec.
Coupling Bearing	Direct SAE 4 - 7 1/2 - N°1

GENERAL SPECIFICATIONS

Fuel tank capacity	60 lt.
Running time (75% to PRP)	21.5 h
Starter battery	12 Vdc -80Ah
IP protection degree	IP 23

* 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)
- Output sockets: 1x400V 32A 3P+N+T CEE
1x400V 16A 3P+N+T CEE
2x230V 16A 2P+T CEE
- Circuit breaker for 400V 16A socket
- Circuit breaker for 230V 16A socket
- Earth terminal (PE)

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 Hoursmeter
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 20 PSX



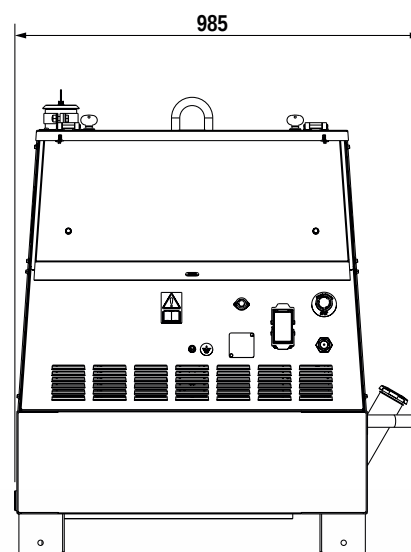
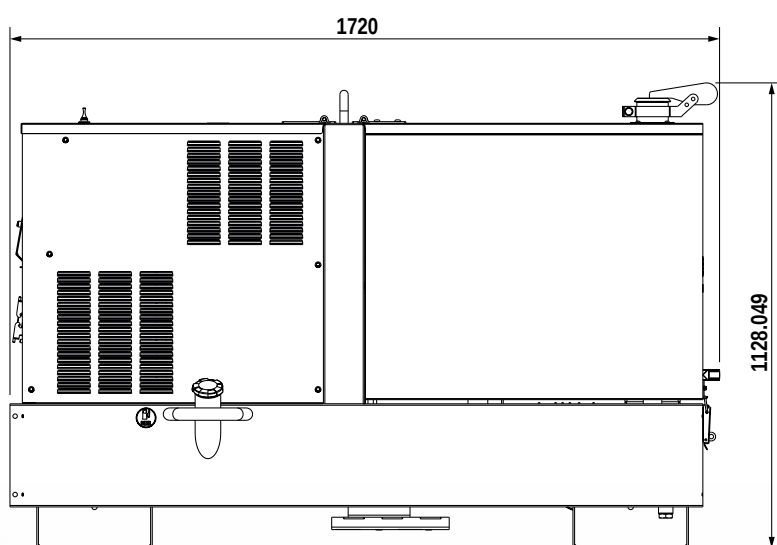
DRY WEIGHT MACHINE:

- 650 Kg

Generating set pictured may include optional accessories.



DIMENSIONS DRAW



OPTIONS ON REQUEST

- Automatic transfer unit EAS 28-809
- Remote control TCM35
- Site tow CTL22
- Road trailer CTV1/O
- Road trailer CTV1/S
- Locking Fuel Cap
- Earthing kit



VERSIONS ON REQUEST

- Version with SCHUKO



FACTORY INSTALLATION OPTIONS

- Gauges - water temperature and oil pressure
- Radio control
- Engine water heater WH
- Spark arrestor
- * Plug-in module with double RS232 and RS485 port
- * GSM modem with antenna
- * Internet / Ethernet plug-in module with Web Server

* Only with EAS

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 9001:2015 - 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.

