

GENERATING SET GE 45 YSX

The images are for reference



FEATURES

- Version also available with Stage 3A engine
- Automatic voltage regulation AVR with three-phase sensing
- The rounded edges of the canopy designed for rainwater drainage away
- 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 | 46 kVA (36.8 kW) / 400V / 66.4 A |
| * PRP three-phase power | 42 kVA (33.6 kW) / 400V / 60.6 A |
| * COP three-phase 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, TURBOCHARGED

| Model | YANMAR 4TNV98T-Z Stage 3A | YANMAR 4TNV98T |
|--|----------------------------------|----------------|
| * Stand-By net power | 41.9 kW (57 hp) | |
| * PRP net power | 37.9 kW (51.5 hp) | |
| * COP net power | / | |
| Cylinders / Displacement | 4 / 3.3. lit. | |
| Bore / Stroke | 98 / 110 (mm) | |
| Compression ratio | 18.5 : 1 | |
| BMEP (Brake Mean Effective Pressure : LTP - PRP) | / | |
| Speed governor type | Electronic | Mechanical |
| FUEL CONSUMPTION | | |
| 110 % (Stand-by power) | 11 lit./h | |
| 100 % to PRP | 9.8 lit./h | |
| 75 % to PRP | 7.4 lit./h | |
| 50 % to PRP | 5.1 lit./h | |
| COOLING SYSTEM | | |
| Total system cap. - only engine | 9 lit. - 4.2 lit. | |
| Fan air flow | 70 m³/min | |
| LUBRICATION SYSTEM | | |
| Total oil system capacity | / | |
| Oil capacity in sump | 4.5 lit. (min) - 11.2 lit. (max) | |
| Oil consumption at full load | / | |

* Output powers according to ISO 3046-1

| | |
|-----------------------------------|-------------------|
| EXHAUST SYSTEM | |
| Maximum exhaust gas flow | / |
| Max. exhaust gas temp. | 620 °C |
| Maximum back pressure | 9.8 kPa (0.1 bar) |
| External diameter exhaust pipe | / |
| ELECTRICAL SYSTEM | |
| Starter motor power | 2.3 kW |
| Battery charging alternator cap. | 40 A |
| Cold start | - 15 °C |
| With cold start aid | / |
| AIR FILTER | |
| Combustion air flow | 3.2 m³/min |
| HEAT REJECTED AT FULL LOAD | |
| To exhaust system | / |
| To water and oil | / |
| Radiated to room | / |
| To charge cooler | / |



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ALTERNATOR

| SYNCHRONOUS, THREE-PHASE, SELF-EXCITED, SELF-REGULATED, BRUSHLESS | |
|---|-----------------------------------|
| Continuous power | 47 kVA |
| Stand-by power | 42 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. | ± 1.0 % |
| Sustained short circuit current | 3 In |
| Transient dip (100% load) | 10 % |
| Recovery time | ≤ 3 sec. |
| Efficiency at 100% load | 89.3 % (400V - Cos φ 0.8) |
| Insulation | Classe H |
| Connection - Terminals | Stella - N°12 |
| Electromagnetic compatibility (R.F.I. suppr.) | EN 55011 |
| Waveform distortion - THD | < 3 % |
| Telephone interference - THF | < 2 % |

| REACTANCES (20 kVA - 400V) | |
|----------------------------------|-----------------------------|
| Direct axis synchronuos - Xd | 253 % |
| Direct axis transient - X'd | 20 % |
| Subdirect axis transient - X''d | 8 % |
| Quadrature axis synchronuos - Xq | 141 % |
| Quadr. axis subtransient - X''q | / |
| Negative sequence - X2 | / |
| Zero sequence - X0 | / |
| TIME CONSTANTS | |
| Transient - T'd | 0.014 sec |
| Subtransient - T''d | 0.008 sec |
| Open circuit - T'do | 0.180 sec |
| Armature - Ta | / |
| Short-circuit ratio Kcc | 0.60 |
| Cooling air flow | 0.13 m³/sec. |
| Coupling I Bearing | Diretto SAE 3 -11.5 ½ - N°1 |

GENERAL SPECIFICATIONS

| | |
|---------------------------|---------------|
| Fuel tank capacity | 100 lt. |
| Running time (75% to PRP) | 13.5 h |
| Starter battery | 12 Vdc -100Ah |
| IP protection degree | IP 44 |

| | | |
|--|--------------------------|----|
| * Measured acoustic power LwA (pressure LpA) | 90 dB(A) (65 dB(A) @ 7m) | |
| * Guaranteed acoustic power LwA (pressure LpA) | 91 dB(A) (66 dB(A) @ 7m) | |
| Performance class (ISO 8528) | G3 | 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
- Circuit breakers and ELCB-GFI for 230V 16A 30 mA sockets
- Earth terminal (PE)

| CONTROL PANEL VERSION WITH OUTPUT SOCKETS | |
|---|-------------------------------|
| SOCKETS | 1x 400V 63A 3P+N+T CEE |
| Every 16A and 32A socket is protected by its own circuit breaker and GFI 30mA | 1x 400V 32A 3P+N+T CEE |
| | 1x 400V 16A 3P+N+T CEE |
| | 2x 230V 16A 2P+T CEE o 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 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 Hight-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 45 YSX



DRY WEIGHT MACHINE:

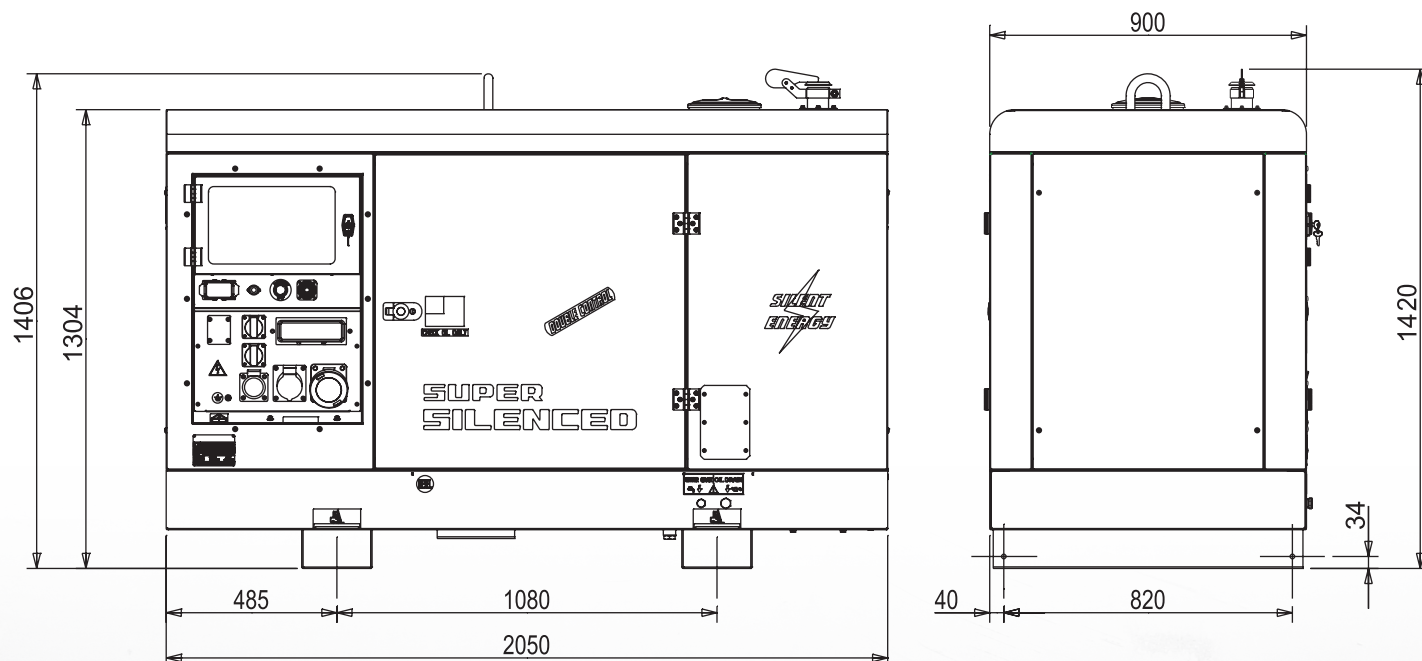
- 1020 Kg (tank version 100 lt)
- 1210 Kg (tank version 350 lt)

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 42 - 809 (60 A)
- Remote control TCM35
- Site tow CTL20
- Earthing kit
- Galvanized skid base frame
- Road trailer CTV1/O
- Road trailer CTV1/S



VERSIONS ON REQUEST

- Version with electrical panel with 5 EC Sockets:
1x400V 63A 3P+N+T CEE
1x400V 32A 3P+N+T CEE
1x400V 16A 3P+N+T CEE
2x230V 16A 2P+T CEE
- Version with electrical panel with 5 EC Sockets and SCHUKO:
1x400V 63A 3P+N+T CEE
1x400V 32A 3P+N+T CEE
1x400V 16A 3P+N+T CEE
2x230V 16A 2P+T SCHUKO



FACTORY INSTALLATION OPTIONS

- Engine heater
- Gauges - water temperature and oil pressure
- Spark arrestor
- 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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