

GENERATING SET GE 45 YSC

The images are for reference



FEATURES

- Automatic voltage regulation AVR with three-phase sensing
- The rounded edges of the canopy designed for rainwater drainage away
- Bundled base suitable to contain any liquids leakage from engine avoiding environmental pollution
- External caps for oil and water drain
- Engine cowling side, can be completely opened, which facilitates all maintenance operations
- Central lifting eye
- Control panel with digital control unit
- The forklifts handling is possible from all sides
- Silenced
- Meets EC directives for noise and safety



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
* PRP single-phase power	15.5 kVA / 230V / 67.4 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
Cylinders / Displacement	41.9 kW (57 hp)
Bore / Stroke	37.9 kW (51.5 hp)
Compression ratio	/
* Stand-By net power	4/ 3.3. lit.
* PRP net power	98 / 110 (mm)
* COP net power	18.5 : 1
BMEP (Brake Mean Effective Pressure : LTP - PRP)	/
Speed governor type	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 m ³ /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 m ³ /min
HEAT REJECTED AT FULL LOAD	
To exhaust system	/
To water and oil	/
Radiated to room	/
To charge cooler	/



ALTERNATOR

SYNCHRONOUS, THREE-PHASE, SELF-EXCITED, SELF-REGULATED, BRUSHLESS	
Continuous power	42 kVA
Stand-by power	47 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	Class H
Connection - Terminals	Star - N°12
Electromagnetic compatibility (R.F.I. suppr.)	EN 55011
Waveform distortion - THD	< 3 %
Telephone interference - THF	/

REACTANCES (30 kVA - 400V)	
Direct axis synchronous - Xd	253 %
Direct axis transient - X'd	20 %
Subdirect axis transient - X''d	8 %
Quadrature axis synchronous - 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 Bearing	Direct SAE 3 -11.5 ½ - N°1

GENERAL SPECIFICATIONS

Fuel tank capacity	55 lt.
Running time (75% to PRP)	7.5 h
Starter battery	12 Vdc -80Ah
IP protection degree	IP 23

* Measured acoustic power LwA (pressure LpA)	95 dB(A) (70 dB(A) @ 7m)
* Guaranteed acoustic power LwA (pressure LpA)	97 dB(A) (72 dB(A) @ 7m)
Performance class (ISO 8528)	G2

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

AUTOMATIC CONTROL PANEL

- Controller InteliNano Plus
- Controller supply switch
- Battery charge warning light fault
- Emergency stop button
- TCM 35 remote control plug
- Connection terminal-board PAC (ATS) (Automatic control panel only)
- Battery charger (Automatic control panel only)
- Circuit breaker - ELCB-GFI (Ground Fault Interruptor)
- Circuit breaker
- Power terminal-board
- Earth terminal (PE)

INTELINANO PLUS CONTROLLER CHARACTERISTICS

Operating mode	<ul style="list-style-type: none"> • MAN.- AUTO
Display	<ul style="list-style-type: none"> • Graphic back-light LCD display 128x64 pixels
LEDs	<ul style="list-style-type: none"> • Engine operation • AUTO operating mode • Alarm
Buttons	<ul style="list-style-type: none"> • START button • STOP button • AUTO button • N° 2 buttons for controller programming
Generator Measures	<ul style="list-style-type: none"> • Voltage : L1-L2/L2-L3/L3-L1/N-L1/N-L2/N-L3 • Voltage : L1-L2 (Automatic control panel only) • Current : I1 • Powers : kVA • Frequency
Engine Measures	<ul style="list-style-type: none"> • Water temperature (optional) • Oil pressure (optional) • Fuel level • Rpm meter • Battery voltage • Maintenance • Hours meter
Generator Protections	<ul style="list-style-type: none"> • Short circuit • Over-Undervoltage • Over-Underfrequency • Phase sequence (Automatic control panel only)
Engine Protections	<ul style="list-style-type: none"> • Overspeed • High water temperature alarm • High water temperature warning • Low oil pressure warning • Low fuel level warning • Under battery voltage • Battery charge alternator failure • Start failure • Stop failure • Emergency stop

AMF functions (Automatic control panel only)

- Measure mains voltage : L1-L2 / L2-L3 / L3-L1 - N-L1 / N-L2 / N-L3
- Measure mains frequency
- Three phase detection
- Over-Under mains voltage
- Over-Under mains frequency
- Phase sequence

Features

- Event log and alarms (10 events)
- Operator interface with icons, no text
- Remote Start and Stop
- Pre-heating
- Fully programmable from the panel or from PC
- Direct connection to engines with ECU via Can bus J1939
- Manual operation (MRS) with remote start
- IP65 protection
- Operation temperature: -20°C / +70°C

Communication

- Setup USB port
- CAN BUS interface (J1939 only)

CONTROL PANEL VERSION WITH OUTPUT SOCKETS

SOCKETS

Every socket is protected by its own circuit breaker

- 1x 400V 63A 3P+T CEE
- 1x 400V 32A 3P+T CEE
- 1x 400V 16A 3P+T CEE
- 1x 230V 16A 2P+T CEE
- 1x 230V 16A 2P+T SCHUKO

WEIGHT - DIMENSIONS AND ACCESSORIES

GE 45 YSC



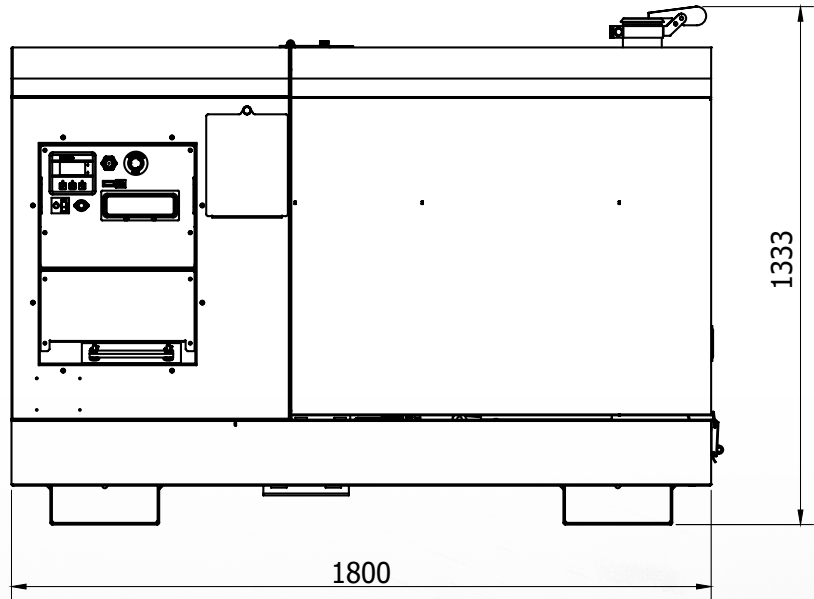
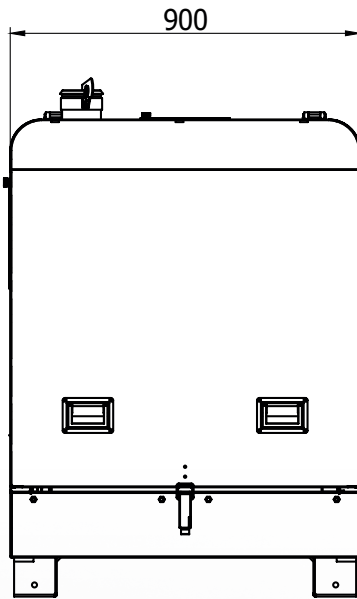
DRY WEIGHT MACHINE:

- 880 Kg

Generating set pictured may include optional accessories.



DIMENSIONS DRAW



OPTIONS ON REQUEST

- Automatic transfer switch unit (ATS) PAC 42-M (60A)
- Remote control TCM35
- Site tow
- Earthing kit



VERSIONS ON REQUEST

- Manual digital control panel with sockets CEE and SCHUKO
- Digital control panel (without sockets)



FACTORY INSTALLATION OPTIONS

- Gauges - water temperature and oil pressure
- 100 litre internal tank
- Main battery switch
- Isometer
- Engine water heater
- 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

