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## **GENERATING SET** GE 35 YSC

The images are for reference



POWER RATINGS

50 Hz

0.8

33 kVA (26.4 kW) / 400V / 47.6 A

30 kVA (24 kW) / 400V / 43.3 A

11 kVA / 230V / 47.8 A

#### FEATURES

- Automatic voltage regulation AVR
- 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
- 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
- Complies with regulation 2016/1628/EU FOR STATIONARY USE ONLY



#### 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

\* Stand-By three-phase power

\* PRP three-phase power

\* PRP single-phase power

\* COP three-phase power

\* Output powers according to ISO 8528-1

Frequency

 $\cos \phi$ 

4 STROKE, DIREC	4 STROKE, DIRECT INJECTION, NATURAL ASPIRATED	
Model	YANMAR 4TNV98	
* Stand-By net power	34.1 kW (46.4 hp)	
* PRP net power	30.7 kW (41.7 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	Mechanical	
FUEL CONSUMPTION		
110 % (Stand-by power)	9 lit./h	
100 % to PRP	8.1 lit./h	
75 % to PRP	6.1 lit./h	
50 % to PRP	4.2 lit./h	
COOLING SYSTEM		
Total system cap only engine	9 lit 4.2 lit.	
Fan air flow	70 m <sup>3</sup> /min	
LUBRICATION SYSTEM		
Total oil system capacity	/	
Oil capacity in sump	5.5 lit. (min) - 10.5 lit. (max)	
Oil consumption at full load	/	
* Output powers according to ISO 3046-1		

EXHAUST SYSTEM	
Maximum exhaust gas flow	/
Max. exhaust gas temp.	630 °C
Maximum back pressure	9.8 kPa (0.1 bar)
External diameter exhaust pipe	/
ELECTRICAL SYSTEM	12 Vdc
Starter motor power	2.3 kW
Battery charging alternator cap.	40 A
Cold start	- 15 °C
With cold start aid	/
AIR FILTER	Dry
Combustion air flow	2.2 m <sup>3</sup> /min
HEAT REJECTED AT FULL LOAD	
To exhaust system	/
To water and oil	1
Radiated to room	/
To charge cooler	/





## ALTERNATOR

SYNCHRONOUS, THREE-PHASE, SELF-EXCITED, SELF-REGULATED, BRUSHLESS	
Continuos power	30 kVA
Stand-by power	33 kVA
Three phase voltage	380-415 Vac
Frequency	50 Hz
Cos φ	0.8
Model A.V.R.	HVR-11
Voltage regulation acc.	± 1.0 %
Sustained short circuit current	2.5 In
Transient dip (100% load)	10 %
Recovery time	≤ 3 sec.
Efficiency at 100% load	87.1 % (400V - Cos φ 0.8)
Insulation	Class H
Connection - Terminals	Star - N°12
Electromagnetic compatibility ( R.F.I. suppr.)	EN 55011
Waveform distorsion - THD	< 3 %
Thelephone interference - THF	/

REACTANCES (30 kVA - 400V)	
Direct axis synchronuos - Xd	243 %
Direct axis transient - X'd	19 %
Subdirect axis transient - X"d	8 %
Quadrature axis synchronuos - Xq	135 %
Quadr. axis subtransient - X"q	1
Negative sequence - X2	/
Zero sequence - X0	1
TIME CONSTANTS	
Transient - T'd	0.01 sec
Subtransient - T"d	0.005 sec
Open circuit - T'do	0.125 sec
Armature - Ta	/
Short-circuit ratio Kcc	0.58
Cooling air flow	0.115 m <sup>3</sup> /sec.
Coupling   Bearing	Direct SAE 3 -11.5 1/2 - N°1

### **GENERAL SPECIFICATIONS**

Fuel tank capacity	100 lt.
Running time (75% to PRP)	9 h
Starter battery	12 Vdc -80Ah
IP protection degree	IP 23

* Measured acoustic power LwA (pressure LpA)	94 dB(A) (69 dB(A) @ 7m)
* Guaranteed acoustic power LwA (pressure LpA)	96 dB(A) (71 dB(A) @ 7m)
Performance class (ISO 8528)	G2

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

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### AUTOMATIC CONTROL PANEL

- Controller InteliNano Plus
- Controller supply switch
- Battery charge warning light fault
- Emergency stop buttom
- 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	S CONTROLLER CHARACTERISTICS
Operating mode	• MAN AUTO
Display	• Graphic back-light LCD display 128x64 pixels
LEDs	<ul> <li>Engine operation</li> <li>AUTO operating mode</li> <li>Alarm</li> </ul>
Buttons	<ul> <li>START button</li> <li>STOP button</li> <li>AUTO button</li> <li>N° 2 buttons for controller programming</li> </ul>
Generator Measures	<ul> <li>Voltage : L1-L2/L2-L3/L3-L1/N-L1/N-L2/N-L3</li> <li>Voltage : L1-L2 (Automatic control panel only)</li> <li>Current : I1</li> <li>Powers : kVA</li> <li>Frequency</li> </ul>
Engine Measures	<ul> <li>Water temperature (optional)</li> <li>Oil pressure (optional)</li> <li>Fuel level</li> <li>Rpm meter</li> <li>Battery voltage</li> <li>Maintance</li> <li>Hours meter</li> </ul>
Generator Protections	<ul> <li>Short circuit</li> <li>Over-Udervoltage</li> <li>Over-Uderfrequency</li> <li>Phase sequence (Automatic control panel only)</li> </ul>
Engine Protections	<ul> <li>Overspeed</li> <li>High water temperature alarm</li> <li>High water temperature warning</li> <li>Low oil pressure warning</li> <li>Low fuel level warning</li> <li>Under battery voltage</li> <li>Battery charge alternator failure</li> <li>Start failure</li> <li>Stop failure</li> <li>Emergency stop</li> </ul>

AMF functions (Automatic control panel only)	<ul> <li>Measure mains voltage : L1-L2 / L2-L3 / L3- L1 - N-L1 / N-L2 / N-L3</li> <li>Measure mains frequency</li> <li>Three phase detection</li> <li>Over-Under mains voltage</li> <li>Over-Under mains frequency</li> <li>Phase sequence</li> </ul>
Features	<ul> <li>Event log and alarms (10 events)</li> <li>Operator interface with icons, no text</li> <li>Remote Start and Stop</li> <li>Pre-heating</li> <li>Fully programmable from the panel or from PC</li> <li>Direct connection to engines with ECU via Can bus J1939</li> <li>Manual operation (MRS) with remote start</li> <li>IP65 protection</li> <li>Operation temperature: -20°C / +70°C</li> </ul>
Communication	<ul> <li>Setup USB port</li> <li>CAN BUS interface (J1939 only)</li> </ul>

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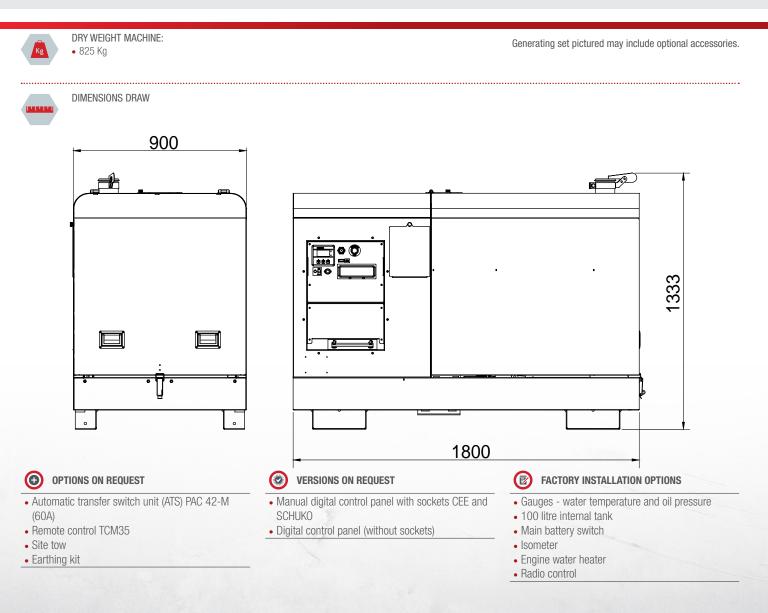
CONTROL PANEL VERSION WITH OUTPUT SOCKETS	
<b>SOCKETS</b> Every socket is protected by its own circuit breaker	1x 400V 63A 3P+N+T CEE 1x 400V 32A 3P+N+T CEE 1x 400V 16A 3P+N+T CEE 1x 230V 16A 2P+T CEE 1x 230V 16A 2P+T CEE 1x 230V 16A 2P+T SCHUKO





# WEIGHT - DIMENSIONS AND ACCESSORIES

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#### **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) 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.

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