



GENERATING SET GE 40 YR-5

The images are for reference



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.

POWER RATINGS

* Stand-By three-phase power	38 kVA (30.4 kW)/ 400V / 54.8A
* PRP three-phase power	34 kVA (27.2 kW)/ 400V / 49A
* COP power	/
Frequency	50 Hz
Cos φ	0.8

* Output powers according to ISO 8528-1

FEATURES

- RENTAL line generator.
- Engine with electronic engine speed regulation
- Exhaust gas post-treatment with DOC (catalyst) and DPF (particulate filter)
- Fuel pre-filter and filter with water-in-fuel indicator
- Oversized steel base to protect the canopy
- Dragging slide integrated in the base
- Side anti-tipping pockets for handling with forklifts
- Central lifting hook with anti-scratch protection plate
- Rounded edges to allow the outflow of rainwater
- Sealed base capable of containing any leaks of liquids present in the engine, avoiding environmental pollution
- Large capacity steel tank
- External access for cleaning and emptying the tank
- External filling of the fuel tank with safety key
- Large access doors to allow easy maintenance (replacement of air, oil, fuel filters)
- Access door for cleaning and checking the radiator
- Door with viewing window for the control panel
- External access for filling the radiator
- External plugs for oil and water drainage
- 3-way valve for fuel transfer from external tank with quick filling connections housed in a special niche (OPTIONAL)
- Tilting rain cover at the exhaust gas outlet
- Low noise level
- Fuel level sensor
- Leak detection sensor in the crankcase
- Battery disconnect switch
- Emergency button
- Power cable connection terminal board
- Electrical distribution panel with three-phase and single-phase output sockets
- Four-pole general magnetothermic switch
- Electronic differential relay adjustable in current and intervention time
- Insulation monitor (as an alternative to the electronic differential relay)
- Primary brand brushless alternator with three-phase sensing "AVR" electronic voltage regulation
- Alternator windings protected with marine impregnation



water cooled



diesel



three-phase power



electric



rental serie



ENGINE 1500 RPM

4 STROKE, DIRECT INJECTION, NATURAL ASPIRATED	
Model	YANMAR 4TNV98C
* Stand-By net power	35 kW (47.6 hp)
* PRP net power	31.5 kW (42.7 hp)
* COP net power	/
Cylinders / Displacement	4 / 3.319 lit. (3319 cm ³)
Bore / Stroke	98 / 110 (mm)
Compression ratio	18.3 : 1
BMEP (Brake Mean Effective Pressure : LTP - PRP)	/
Speed governor type	Electronic
FUEL CONSUMPTION	
110 % (Stand-by power)	9.9 lit./h
100 % to PRP	8.4 lit./h
75 % to PRP	5.9 lit./h
50 % to PRP	3.7 lit./h
COOLING SYSTEM	
Total system cap. - only engine	8.5 lit. - 4.5 lit.
Fan air flow	65 m ³ /min.
LUBRICATION SYSTEM	
Total oil system capacity	10.5 lit.
Oil capacity in sump	4.5 lit.
Oil consumption at full load	/

EXHAUST SYSTEM	
Maximum exhaust gas flow	8.5 m ³ /min.
Max. exhaust gas temp.	530 °C
Maximum back pressure	8.1 - 13.9 kPa (81 - 139 mbar)
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	2.24 m ³ /min
HEAT REJECTED AT FULL LOAD	
To exhaust system	/
To water and oil	/
Radiated to room	/
To charge cooler	/

* Output powers according to ISO 3046-1

ALTERNATOR

SYNCHRONOUS, THREE-PHASE, SELF-EXCITED, 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 I _n
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 (With N) - N°12
Electromagnetic compatibility (R.F.I. suppr.)	EN 55011
Waveform distortion - THD	< 3 %
Telephone interference - THF	< 2 %

REACTANCES (42 kVA - 400V)	
Direct axis synchronous - X _d	253 %
Direct axis transient - X' _d	20 %
Subdirect axis transient - X'' _d	8 %
Quadrature axis synchronous - X _q	141 %
Quadr. axis subtransient - X'' _q	/
Negative sequence - X ₂	/
Zero sequence - X ₀	/
TIME CONSTANTS	
Transient - T' _d	0.014 sec
Subtransient - T'' _d	0.008 sec
Open circuit - T' _{do}	0.180 sec
Armature - T _a	/
Short-circuit ratio K _{cc}	0.60
IP protection degree	IP 23
Cooling air flow	0.13 m ³ /sec.
Coupling Bearing	Direct SAE 3 - 11 ½ - N°1

GENERAL SPECIFICATIONS

Fuel tank capacity	150 lit.
Running time (75% to PRP)	25.5 h
Starter battery	12 Vdc -100Ah / 800A CCA(EN)
IP protection degree	IP 44

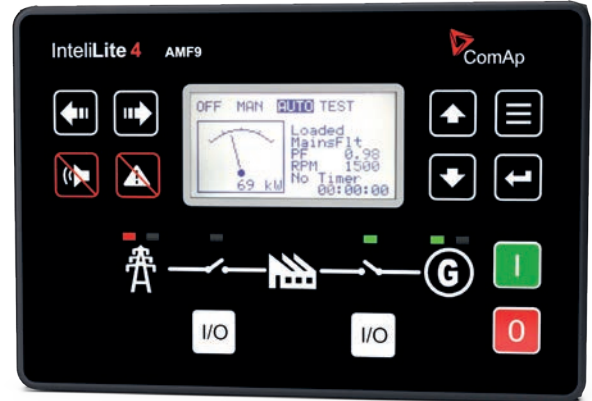
* Measured acoustic power L _{WA} (pressure L _{pA})	90 dB(A) (65 dB(A) @ 7m)
* Guaranteed acoustic power L _{WA} (pressure L _{pA})	92 dB(A) (67 dB(A) @ 7m)
Performance class (ISO 8528)	G3

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

CONTROL PANEL

DIGITAL CONTROL PANEL

- InteliLite4 AMF9 controller
- Power switch
- Horn
- Emergency stop button
- Forced regeneration button
- Forced regeneration request light
- Engine failure warning light (PCD)
- Post-treatment failure warning light
- Switch magnetermic
- Electronic differential relay
- Power terminal block
- Output sockets: 1x 400V 63A 3P+N+T CEE IP67
1x 400V 32A 3P+N+T CEE IP67
1x 400V 16A 3P+N+T CEE IP67
1x 230V 16A 2P+T CEE IP67
1x 230V 16A 2P+T SCHUKO
- Differential-magnetohermic switch for 400V 32A socket
- Differential-magnetohermic switch for 400V 16A socket
- 2 Differential-magnetohermic switches for 230V 16A sockets
- Earth terminal (PE)



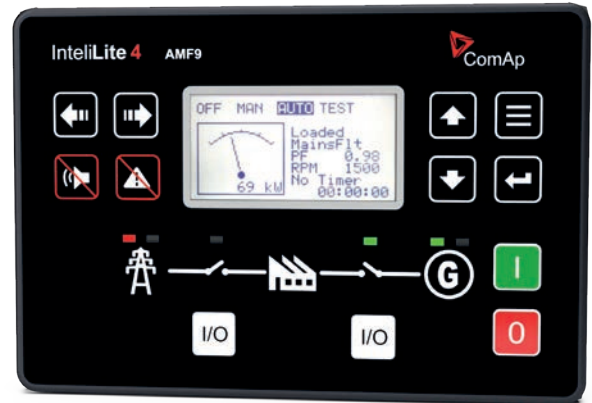
INTELLILITE4 AMF9 CONTROLLER CHARACTERISTICS	
Operating mode	<ul style="list-style-type: none"> • OFF - MAN.- AUTO - TEST
Display - Pulsanti-LEDs	<ul style="list-style-type: none"> • Backlit display, LCD 132x64 pixels • Buttons / Buttons: START - STOP - RESET ALARMS / FAULT RESET • LEDs: Generator / GCB ON status - Grid status
Generator Measures	<ul style="list-style-type: none"> • Voltage : L1-L2 / L2-L3 / L3-L1 - N-L1/N-L2/N-L3 • Current : I1 - I2 - I3 • Frequency Hz • Powers : kVA - kW - kVAR (totali e per fase) • Energy : kVAh - kWh - kVARh • Cos φ (medium and per phase)
Engine Measures	<ul style="list-style-type: none"> • Water temperature • Oil pressure • Fuel level • Rpm meter • Battery voltage • Maintance • Hours meter • Starts number
Generator Protections	<ul style="list-style-type: none"> • Overload • Overcurrent • Short circuit • Over-Udervoltage • Over-Uderfrequency • Voltage asymmetry • Unbalanced current • Phase sequence
Engine Protections	<ul style="list-style-type: none"> • Overspeed • High water temperature warning • Low oil pressure warning • Low fuel level warning • Over-Uder battery voltage • Battery charge alternator failure • Start failure • Stop failure • Emergency stop • Low water level shutdown (option)

AMF functins (Automatic control panel only)	<ul style="list-style-type: none"> • 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 • Voltage asymmetry • Phase sequence • Dual mutual stand-by application
Features	<ul style="list-style-type: none"> • Event history, 150 stored events • 3 programmable test timers • Programming from panel or from PC • 3 selectable languages (other languages available) • Direct connection to engines with ECU (Stage V, Tier 4 Final) via Can Bus J1939 • External Start and Stop • Programmable inputs and outputs • Alternative configurations (50 / 60Hz) • IP 65 protection • Operating temperature: -20 ° C - + 70 ° C
Communication	<ul style="list-style-type: none"> • USB port • RS232- RS485 (optional) • Modbus RTU / TCP (optional) • GSM modem. Commands alarms, events via SMS (optional) • Internet connection with Ethernet (optional) • Online control and monitoring on web pages (embedded web server) (optional) • SNMP (optional) • GPS / 4G modem (optional) (geographical tracking via WebSupervisor) • Internal PLC support

CONTROL PANEL

DIGITAL CONTROL PANEL (VERS. DGUV- "B")

- InteliLite4 AMF9 controller
- Power switch
- Horn
- Emergency stop button
- Forced regeneration button
- Forced regeneration request light
- Engine failure warning light (PCD)
- Post-treatment failure warning light
- Switch magnetermic
- Isolation monitor
- Power terminal block
- Equipotential earth terminal
- Output sockets: 1x 400V 63A 3P+N+T CEE IP67
1x 400V 32A 3P+N+T CEE IP67
1x 400V 16A 3P+N+T CEE IP67
2x 230V 16A 2P+T SCHUKO
- Differential switch for 400V 63A Type B socket
- Differential-magnetohermic switch for 400V 32A Type B socket
- Differential-magnetohermic switch for 400V 16A Type B socket
- 2 Differential-magnetohermic switches for 230V 16A Type B sockets



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WEIGHT - DIMENSIONS AND ACCESSORIES

GE 40 YR-5



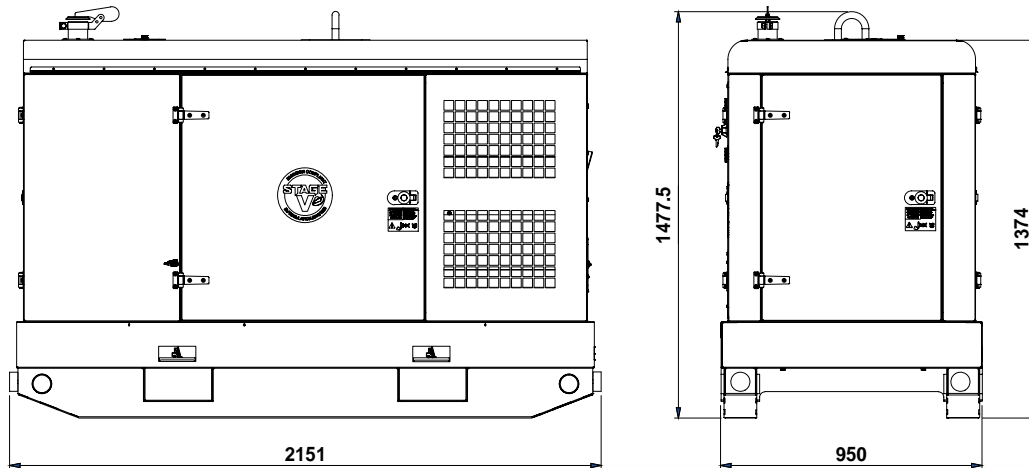
DRY WEIGHT MACHINE:

- 1085Kg

Generating set pictured may include optional accessories.



DIMENSIONS DRAW



ACCESSORIES ON REQUEST

- Internet-Ethernet plug-in module including Web server
- GPS/4G modem with antenna
- Plug-in module with dual port RS232 and RS485
- 15 LED's Remote Annunciator (configurable)
- Road trailer CTV1/O
- Road trailer CTV1/S
- Earthing kit MT25

AVAILABLE VERSIONS

CN1T80G1	400T230M DIGITAL CONTROL PANEL
CN1T80G1H	400T230M DIGITAL CONTROL PANEL • 3-way valve fuel system with quick connection for external fuel tank supply
CN1T80U1	400T230M DIGITAL CONTROL PANEL DGUV-"B"
CN1T80U1H	400T230M DIGITAL CONTROL PANEL DGUV-"B" • 3-way valve fuel system with quick connection for external fuel tank supply

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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