



GENERATING SET GE 40 YSX-5

The images are for reference



FEATURES

- Engine with electronic engine speed control
- Exhaust gas post-treatment with DOC (catalyst) and DPF (particulate filter)
- Fuel pre-filter and fuel filter with water in fuel indicator
- Anti-tipping pockets for handling with forklifts
- Central lifting hook
- Rounded edges to allow rainwater to drain
- Sealed base capable of containing any leaks of liquids present in the engine avoiding environmental pollution
- Large capacity steel tank
- Large access doors to allow easy maintenance (replacement of air, oil, fuel filters)
- External access for filling the radiator
- Door with viewing window for the control panel
- External plugs for oil and water drainage
- 3-way valve for fuel transfer from external tank with quick filling connections housed in special niche (OPTIONAL)
- Tilting rain cover at the exhaust gas outlet
- Low level of noise emissions
- Fuel level sensor
- Battery isolating switch
- Emergency button
- Power cable connection terminal board
- Electrical distribution panel with three-phase and single-phase output sockets (as an alternative to terminal board)
- Four-pole circuit breaker
- High-sensitivity GFI (ELCB) 30mA
- Primary brand brushless alternator with three-phase sensing electronic "AVR" voltage regulation
- Alternator windings protected with impregnation for marine use

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



water cooled



diesel



three-phase power



electric



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 | 35 kVA |
| Stand-by power | 39 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 | 88.6 % (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 (35 kVA - 400V) | |
| Direct axis synchronous - X _d | 240 % |
| Direct axis transient - X' _d | 18 % |
| Subdirect axis transient - X'' _d | 7 % |
| Quadrature axis synchronous - X _q | 133 % |
| Quadr. axis subtransient - X'' _q | / |
| Negative sequence - X ₂ | / |
| Zero sequence - X ₀ | / |
| TIME CONSTANTS | |
| Transient - T' _d | 0.011 sec |
| Subtransient - T'' _d | 0.006 sec |
| Open circuit - T' _{do} | 0.147 sec |
| Armature - T _a | / |
| Short-circuit ratio K _{cc} | 0.58 |
| 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 | 100 lit. / 350 lt |
| Running time (75% to PRP) | 17 h / 59 h (350lt) |
| Starter battery | 12 Vdc -100Ah / 800A CCA(EN) |
| IP protection degree | IP 44 |

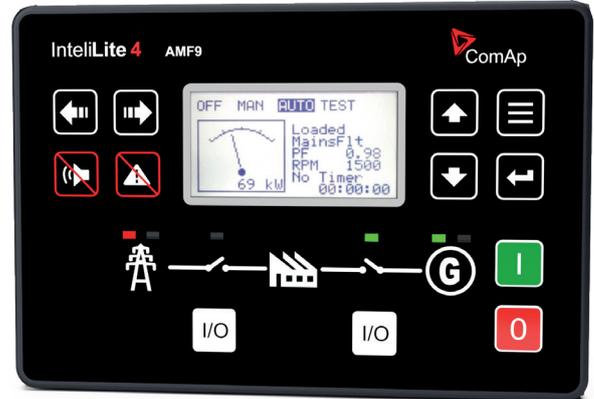
| | |
|-------------------------------------------------------------------------|--------------------------|
| * Measured acoustic power L _{WA} (pressure L _{pA}) | 90 dB(A) (65 dB(A) @ 7m) |
| * Guaranteed acoustic power L _{WA} (pressure L _{pA}) | 92 dB(A) (67 dB(A) @ 7m) |
| Performance class (ISO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

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

CONTROL PANEL

DIGITAL CONTROL PANEL (TERMINAL BOARD ONLY)

- Controller Intellilite4 AMF9
- Supply switc
- Siren
- Emergency stop buttom
- Forced regeneration button
- Forced regeneration request lamp
- Engine failure lamp (PCD)
- Aftertreatment failure lamp (NCD)
- Circuit breaker
- Earth leakage circuit breaker (GFI)
- Power terminal board
- Earth terminal (PE)



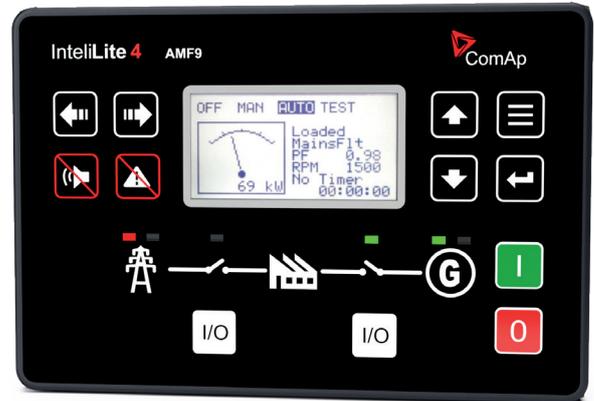
| INTELLILITE4 AMF9 CONTROLLER CHARACTERISTICS | |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 |

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- Circuit breaker
- Earth leakage relay
- Earth terminal (PE)
- 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
- Earth leakage with integral over-current circuit breaker for 400V 32A socket
- Earth leakage with integral over-current circuit breaker for 400V 16A socket
- 2 x Earth leakage with integral over-current circuit breaker for 230V 16A socket



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WEIGHT - DIMENSIONS AND ACCESSORIES

GE 40 YSX-5



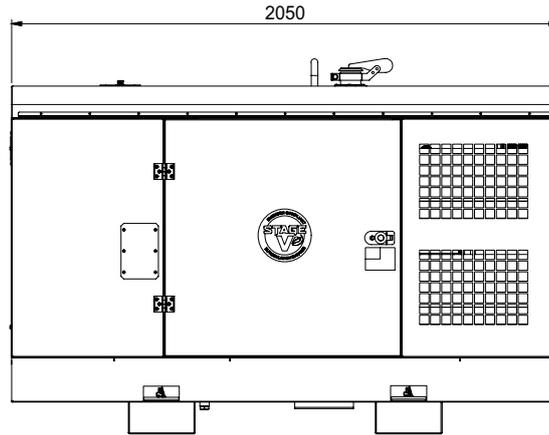
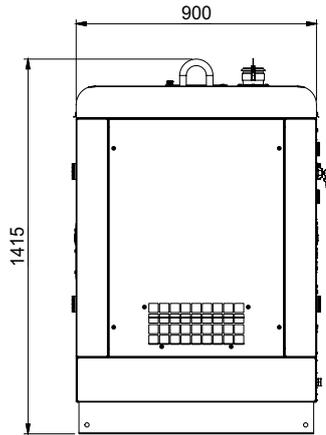
DRY WEIGHT MACHINE:

- 975 Kg
- 1165 Kg (350lt)

Generating set pictured may include optional accessories.



DIMENSIONS DRAW



ACCESSORIES ON REQUEST

- Internet / Ethernet plug-in module with Web Server
- GPS / 4G modem with antenna
- Plug-in module with double RS232 and RS485 ports
- Report card 15 alarms / states (configurable)
- Remote control panel (ATS) PAC-I 42 (60A)
- Slow towing CTL20
- Road trailer CTV1/O
- Road trailer CTV1/S
- Earthing kit MT25
- Galvanized skid base frame



AVAILABLE VERSIONS

| | |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CF0T8051 | 400T230M DIGITAL CONTROL PANEL (terminal board only) |
| CF0T8051GH | 400T230M DIGITAL CONTROL PANEL (terminal board only) • 3-way valve fuel system with quick connection for external fuel tank supply • Leak detection sensor in the base |
| CF0T80G1R | 400T230M DIGITAL CONTROL PANEL (without terminal board) • Earth leakage relay |
| CF0T80G1GHR | 400T230M DIGITAL CONTROL PANEL (without terminal board) • Earth leakage relay • 3-way valve fuel system with quick connection for external fuel tank supply • Leak detection sensor in the base |
| CF0T80G1GHLR | 400T230M DIGITAL CONTROL PANEL (without terminal board) • Earth leakage relay • 3-way valve fuel system with quick connection for external fuel tank supply • Leak detection sensor in the base • Fuel tank : 350l |

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

