

GENERATING SET GE 225 FXC

The images are for reference



FEATURES

- Automatic voltage regulation "AVR"
- Large doors for better and easy maintenance (air, oil, fuel filters replacement)
- Control panel with digital control unit available with automatic or manual version
- Bunded base suitable to contain any liquids leakage from engine avoiding environmental pollution
- Single point lifting eye
- Complies with regulation 2016/1628/EU FOR STATIONARY USE ONLY



water cooled



diesel



three-phase power



electric starter

POWER RATINGS	
* Stand-By three-phase power (LTP)	220 kVA (176 kW) / 400V / 317.5A
* PRP three-phase power	200 kVA (160 kW) / 400V / 288.7A
* PRP single-phase power	165 kVA (132 kW) / 400V / 238.2A
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	FPT N67 TM7	FPT N67 TE3F (Stage3A)
* Stand-By net power	194 kW (264 hp)	195 kW (265 hp)
* PRP net power	176.5 kW (240 hp)	175 kW (238 hp)
* COP net power	141.5 kW (192.5 hp)	140 kW (190 hp)
Cylinders / Displacement	6/ 6700 cm ³ (6.7 lit.)	
Bore / Stroke	104 / 132 (mm)	
Compression ratio	17.5 : 1	
BMEP (Brake Mean Effective Pressure : LTP - PRP)	2332 kPa - 2116 kPa	2328 kPa - 2089 kPa
Speed governor type	Mechanic	Electronic
FUEL CONSUMPTION		
110 % (Stand-by power)	49 lit./h	49 lit./h
100 % to PRP	42.1 lit./h	45,5 lit./h
75 % to PRP	37.3 lit./h	41,9 lit./h
50 % to PRP	24 lit./h	29,9 lit./h
COOLING SYSTEM		
Total system cap. - only engine	25.5 lit. - 10.5 lit.	
Fan air flow	228 m ³ /min.	
LUBRIFICATION SYSTEM		
Total oil system capacity	17 lit.	
Oil capacity in sump	8 lit. (min) - 12 lit. (max)	8 lit. (min) - 15 lit. (max)
Oil consumption at full load	< 0.05 lit./h	

* Output powers according to ISO 3046-1

EXHAUST SYSTEM		
Maximum exhaust gas flow	13.16 kg/mim.	14,73 kg/mim.
Max. exhaust gas temp.	600 °C	580 °C
Maximum back pressure	5 kPa (0.05 bar)	6 kPa (0.06 bar)
External diameter exhaust pipe	/	
ELECTRICAL SYSTEM	12 Vdc	
Starter motor power	3 kW	
Battery charging alternator cap.	90 A	
Cold start	- 10 °C	
With cold start aid	- 25 °C	
AIR FILTER	Dry	
Combustion air flow	9.76 m ³ /min.	11.03 m ³ /min.
HEAT REJECTED AT FULL LOAD		
To exhaust system	598 kcal/kWh	/
To water and oil	443 kcal/kWh	/
Radiated to room	107 kcal/kWh	/
To charge cooler	98 kcal/kWh	/



ALTERNATOR

SYNCHRONOUS, THREE-PHASE, SELF-EXCITED, SELF-REGULATED, BRUSHLESS	
Continuous power	200 kVA
Stand-by power	220 kVA
Three phase voltage	380 - 415 Vac
Frequency	50 Hz
Cos φ	0.8
Model A.V.R.	MARK VX (11000013)
Voltage regulation acc.	$\pm 0.5\%$
Sustained short circuit current	3In
Transient dip (100% load)	< 20 %
Recovery time	< 0.3 sec
Efficiency at 100% load	92 % (400V - Cos φ 0.8)
Insulation	Class H
Connection - Terminals	Star - N°12
Electromagnetic compatibility (R.F.I. suppr.)	EN 55011
Waveform distortion - THD	< 2 %
Telephone interference - THF	< 2 %

REACTANCES (200 kVA - 400V)	
Direct axis synchronuos - Xd	349 %
Direct axis transient - X'd	23.4 %
Subdirect axis transient - X''d	15.7 %
Quadrature axis synchronuos - Xq	144 %
Quadr. axis subtransient - X''q	17.2 %
Negative sequence - X2	16.5 %
Zero sequence - X0	6.6 %
TIME CONSTANTS	
Transient - T'd	0.103 sec
Subtransient - T''d	0.008 sec
Open circuit - T'do	1.072 sec
Armature - Ta	0.012 sec
Short-circuit ratio Kcc	0.34
Grado di Protezione IP	IP 23
Cooling air flow	1.7 m ³ /sec.
Coupling Bearing	Direct SAE 3 - 11 1/2 - N°1

GENERAL SPECIFICATIONS

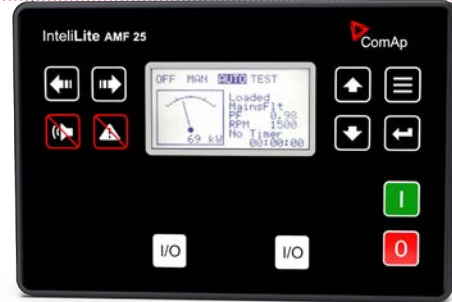
Fuel tank capacity	230 lt.	
Running time (75% to PRP)	6 h	5.5 h
Starter battery	12 Vdc -100Ah / 800A CCA(EN)	
IP protection degree	IP 44	

* 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)	G3

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

CONTROL PANEL

- Controller IntiLite AMF25
- Controller supply switch
- Siren
- Emergency stop button
- TCM 35 remote control plug
- Four pole circuit breaker
- PAC (ATS) plug - Automatic control panel only
- Battery charger - Automatic control panel only
- Earth terminal (PE)



AMF25 CONTROLLER CHARACTERISTICS	
Operating mode	<ul style="list-style-type: none"> • OFF - MAN. - AUTO - TEST
Display	<ul style="list-style-type: none"> • Graphic back-light LCD display 128x64 pixels
LEDs	<ul style="list-style-type: none"> • Gen-set voltage OK • Gen-set failure • GCB ON (only for Automatic transfer unit) • Mains voltage OK (only for Automatic transfer unit) • Mains failure (only for Automatic transfer unit) • MCB ON (only for Automatic transfer unit)
Buttons	<ul style="list-style-type: none"> • START button • STOP button • FAULT RESET button • RESET HORN button • MODE selection button • Pulsante chiusura/apertura GCB button • Pulsante chiusura/apertura MCB button • N° 4 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 • Current : I1 - I2 - I3 • Powers : kVA - kW - kVAR (totali e per fase) • Energy : kVAh - kWh - kVARh • Cos φ (medium and per phase) • Frequency
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"> • Historical events • 3 programmable test timers • Panel or PC programming • 3 selectable languages • Direct connection to engines with ECU 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"> • RTU Modbus (optional board with RS232 & RS485 outputs is needed) • TCP/IP Modbus (optional Ethernet board with RJ45 output is needed) • SNMP Modbus (optional Ethernet board with RJ45 output is needed) • Internet (optional Ethernet board optional is needed) • GSM/GPRS (integrated Modem board optional is needed) for Gen-set remote control via SMS or internet • GPS / 4G modem (optional) (geographical tracking via WebSupervisor

CONTROL PANEL VERSION WITH OUTPUT SOCKETS	
SOCKETS	1x 125A 400V 3P-N-T IP67
Each socket is protect by own automatic switch.	1x 63A 400V 3P-N-T IP67
Circuit breaker for 125A and 63A sockets.	1x 32A 400V 3P-N-T IP67
GFI and circuit breaker 30mA for 32A and 16A socket.	1x 16A 400V 3P-N-T IP67
	1x 230V 2P-T IP67
	1x 230V 2P-T Schuko IP54

WEIGHT - DIMENSIONS AND ACCESSORIES

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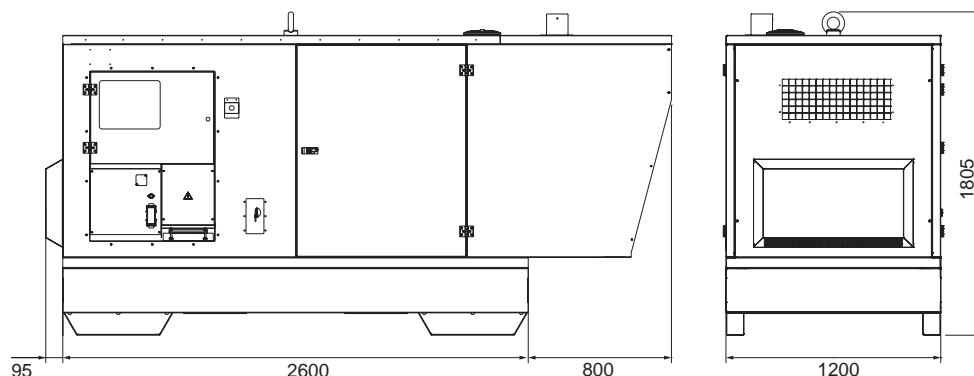
DRY WEIGHT MACHINE:

- 2210 kg

Generating set pictured may include optional accessories.



DIMENSIONS DRAW



OPTIONS ON REQUEST

- Automatic transfer switch unit (ATS) PAC 275 M (400A)
- Remote control TCM35
- Earthing kit



VERSIONS ON REQUEST

- Version with manual control panel 6 output sockets EC and SCHUKO (see Control board with output sockets section)
- Manual digital control panel (without sockets)
- Parallel switch board



FACTORY INSTALLATION OPTIONS

- Electronic leakage relay
- Isometer
- Volt adjustable from control panel
- Radio control
- Fuel tank 120 lt.
- Fuel tank 350 lt.
- Fuel tank 840 lt.
- Spark arrestor
- Automatic fuel transfer system
- Engine water heater WH
- 3-way valve fuel system with quick connection for external fuel tank supply
- Main battery switch
- Plug-in module with double RS232 and RS485 port
- GSM modem with antenna
- GPS / 4G modem with antenna
- Internet / Ethernet plug-in module with Web Server
- Input / Output extension module (No. 16 tot.)

GENERAL INFORMATION

COMPLIANCE GENERATING SETS WITH EC DIRECTIVES AND STANDARDS

2006/42 / EC (Machinery Directive)

2014/35 / UE (Low Voltage Directive)

2014/30 / UE (Electromagnetic Compatibility Directive)

ISO 8528 (Reciprocating internal combustion engine driven alternating current generating sets)



ISO 9001:2015 - Cert. 0192

WARRANTY

All devices are covered by the manufacturer's warranty.

Non-contractual document. Specification subject to change without notice.

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