

# GENERATING SET GE 55 FSX



## FEATURES

- Fuel pre-filter with indicator of the presence of water in the fuel
- Fuel and engine oil filter
- Anti-tipping side pockets for handling with forklifts
- Central lifting hook
- Rounded edges to allow rainwater to flow
- 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 (replacing air, oil, fuel filters)
- Door with viewing porthole for the control panel
- External plugs for draining oil and water
- 3-way valve for transferring fuel from an external tank with quick filling connections housed in a special niche (OPTIONAL)
- Swinging rain cover at the exhaust gas outlet
- Surface painting based on epoxy powder
- Low level of noise emissions
- Fuel level sensor
- Battery disconnect switch
- Basement leak detection sensor
- Emergency button
- Control panel version: MANUAL | AUTOMATIC | MANUAL WITH SOCKETS
- General four-pole thermomagnetic switch
- Electronic differential relay adjustable in current and trip time (OPTIONAL) as standard with the electrical distribution panel
- Top brand brushless alternator with three-phase sensing "AVR" electronic voltage regulation
- Alternator windings protected with marine impregnation

POWER RATINGS	
* Stand-By three-phase power (LTP)	55 kVA(44 kW) /400V / 79,4A
* PRP three-phase power	50 kVA(40 kW) /400V / 72,2A
* COP single-phase power	40 kVA(32 kW) /400V / 57,7A
Frequency	50 Hz
Cos φ	0.8

\* Output powers according to ISO 8528-1

## GENERAL SPECIFICATIONS

Fuel tank capacity	100 lt
Running time (75% to PRP)	10.8 h
Starter battery	12 Vdc -80Ah / 670A CCA(EN)
IP protection degree	IP 44
Measured acoustic power Lwa (pressure LpA)	94 dB(A) (69 dB(A) @ 7m)
Performance class (ISO 8528)	G2
Max. ambient temperature	40 °C



water cooled



diesel



three-phase power



electric



super silenced

## 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 unlimited numbers 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 (IVECO) – N45 AM2.S500
* Stand-By net power	50,7 kW (69 hp)
* PRP net power	45 kW (61,2 hp )
* COP net power	36 kW (49 hp )
Cylinders / Displacement	4/ 4500 cm <sup>3</sup> (4.5 lt.)
Bore / Stroke	104 / 132 (mm)
Compression ratio	17.5 : 1
BMEP (Brake Mean Effective Pressure : LTP - PRP)	924 kPa
Speed governor type	Mechanical
FUEL CONSUMPTION	
110 % (Stand-by power)	14,8 lt./h
100 % to PRP	11,5 lt./h
75 % to PRP	9,2 lt./h
50 % to PRP	6,2 lt./h
COOLING SYSTEM	
Total system cap. - only engine	10,0 lt - 8,5 lt
Fan air flow	132 m <sup>3</sup> /min.
LUBRIFICATION SYSTEM	
Total oil system capacity	12.8 l
Oil capacity in sump	8.5 lt ÷ 5.5 lt.
Oil consumption at full load	< 0.017 l/h

EXHAUST SYSTEM	
Maximum exhaust gas flow	3,52 kg/mim.
Max. exhaust gas temp.	483 °C
Maximum back pressure	10 kPa (0,1 bar)
External diameter exhaust pipe	/
ELECTRICAL SYSTEM	
Starter motor power	3 kW
Battery charging alternator cap.	90 A
Cold start	-10°C
With cold start aid	- 25 °C
AIR FILTER	
Combustion air flow	3,33 m <sup>3</sup> /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	50 kVA
Stand-by power	55 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 %
Sustained short circuit current	3 In
Transient dip (100% load)	< 10 %
Recovery time	< 0.3 sec
Efficiency at 100% load	89,4 % (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 %
Telephone interference - THF	< 2 %

REACTANCES (50 kVA - 400V)	
Direct axis synchronuos - X <sub>d</sub>	255 %
Direct axis transient - X' <sub>d</sub>	20 %
Subdirect axis transient - X'' <sub>d</sub>	7 %
Quadrature axis synchronuos - X <sub>q</sub>	146 %
Quadr. axis subtransient - X'' <sub>q</sub>	/
Negative sequence - X <sub>2</sub>	/
Zero sequence - X <sub>0</sub>	/
TIME CONSTANTS	
Transient - T' <sub>d</sub>	0,014 sec
Subtransient - T'' <sub>d</sub>	0,009 sec
Open circuit - T' <sub>do</sub>	0,188 sec
Armature - T <sub>a</sub>	/
Short-circuit ratio K <sub>cc</sub>	0.62
Grado di Protezione IP	0.17 m <sup>3</sup> /sec.
Coupling   Bearing	Direct SAE 3 - 11 ½ - N°1



# CONTROL PANELS

GE 55 FSX

## MANUAL CONTROL PANEL (TERMINAL BLOCK ONLY)

- IntelliLite 4 AMF9 Controller
- Power switch
- Horn
- Emergency stop button
- Connector for TCM 35 remote control
- Switch magnetermic
- Power terminal block
- Earth terminal (PE)

## AUTOMATIC CONTROL PANEL (TERMINAL BLOCK ONLY)

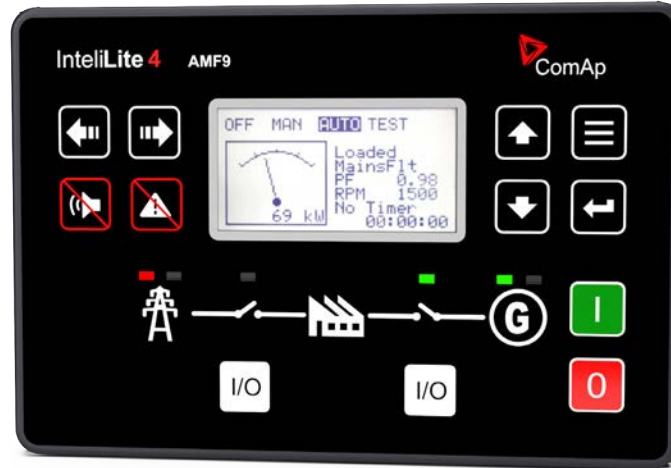
- IntelliLite 4 AMF9 Controller
- Power switch
- Horn
- Emergency stop button
- Connector for TCM 35 remote control
- PAC connection terminal block (ATS)
- Charger
- Switch magnetermic
- Power terminal block
- Earth terminal (PE)

## MANUAL CONTROL PANEL WITH SOCKETS

- IntelliLite 4 AMF9 Controller
- Power switch
- Horn
- Emergency stop button
- Connector for TCM 35 remote control
- 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+E SCHUKO
- Magnetothermic switch for 400V 63A socket
- Differential circuit breaker for 400V 32A socket
- Differential circuit breaker for 400V 16A socket
- Differential circuit breaker for 230V 16A socket
- Earth terminal (PE)

# CONTROL PANELS

GE 55 FSX



AMF25 CONTROLLER CHARACTERISTICS	
Operating mode	<ul style="list-style-type: none"> <li>OFF - MAN. - AUTO - TEST</li> </ul>
Display	<ul style="list-style-type: none"> <li>Graphic back-light LCD display 128x64 pixels</li> </ul>
LEDs	<ul style="list-style-type: none"> <li>Gen-set voltage OK</li> <li>Gen-set failure</li> <li>GCB ON (only for Automatic transfer unit)</li> <li>Mains voltage OK (only for Automatic transfer unit)</li> <li>Mains failure (only for Automatic transfer unit)</li> <li>MCB ON (only for Automatic transfer unit)</li> </ul>
Buttons	<ul style="list-style-type: none"> <li>START button</li> <li>STOP button</li> <li>FAULT RESET button</li> <li>RESET HORN button</li> <li>MODE selection button</li> <li>Pulsante chiusura/apertura GCB button</li> <li>Pulsante chiusura/apertura MCB button</li> <li>N° 4 buttons for controller programming</li> </ul>
Generator Measures	<ul style="list-style-type: none"> <li>Voltage : L1-L2 / L2-L3 / L3-L1 - N-L1/N-L2/N-L3</li> <li>Current : I1 - I2 - I3</li> <li>Powers : kVA - kW - KVAR (totali e per fase)</li> <li>Energy : kVAh - kWh - kVARh</li> <li>Cos (medium and per phase)</li> <li>Frequency</li> </ul>
Engine Measures	<ul style="list-style-type: none"> <li>Water temperature</li> <li>Oil pressure</li> <li>Fuel level</li> <li>Rpm meter</li> <li>Battery voltage</li> <li>Maintance</li> <li>Hours meter</li> <li>Starts number</li> </ul>
Generator Protections	<ul style="list-style-type: none"> <li>Overload</li> <li>Overcurrent</li> <li>Short circuit</li> <li>Over-Undervoltage</li> <li>Over-Underfrequency</li> <li>Voltage asymmetry</li> <li>Unbalanced current</li> <li>Phase sequence</li> </ul>

Engine Protections	<ul style="list-style-type: none"> <li>Overspeed</li> <li>High water temperature warning</li> <li>Low oil pressure warning</li> <li>Low fuel level warning</li> <li>Over-Under battery voltage</li> <li>Battery charge alternator failure</li> <li>Start failure</li> <li>Stop failure</li> <li>Emergency stop</li> <li>Low water level shutdown (option)</li> </ul>
AMF functins (Automatic control panel only)	<ul style="list-style-type: none"> <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>Voltage asymmetry</li> <li>Phase sequence</li> <li>Dual mutual stand-by application</li> </ul>
Features	<ul style="list-style-type: none"> <li>Event log and alarms</li> <li>Tests run scheduler (Automatic test or scheduled starts)</li> <li>Engine idle management (Idle)</li> <li>Remote Start and Stop</li> <li>Pre-heating</li> <li>5 selectable languages (other languages available)</li> <li>Setpoints adjustable via controller buttons or PC</li> <li>Direct connection to engines with ECU via Can bus J1939</li> <li>Configurable inputs and outputs (only via PC)</li> <li>IP65 protection</li> <li>Operation temperature: -20°C / +70°C</li> </ul>
onnectivity (OPTIONAL)	<ul style="list-style-type: none"> <li>GSM / GPRS modem</li> <li>4G GSM and GPS modem (locator)</li> <li>Ethernet module (MODBUS TCP and SNMP protocols - RJ45 output)</li> <li>RS232 and RS485 communication module</li> </ul>

# WEIGHT - DIMENSIONS AND ACCESSORIES

GE 55 FSX



### DRY WEIGHT MACHINE:

- 1155 kg
- 1345 kg (350 lt)

Generating set pictured may include optional accessories.

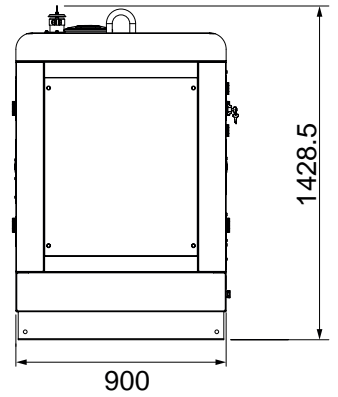
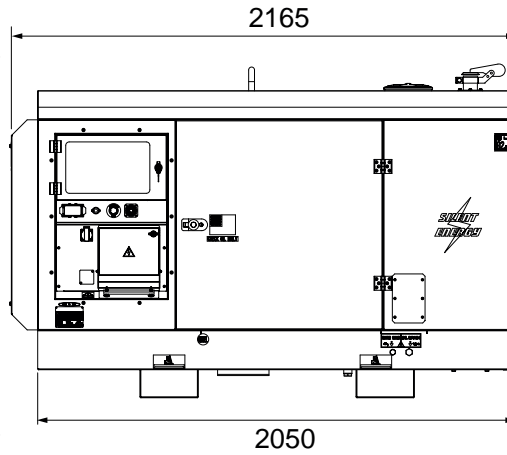


### DIMENSIONS DRAW

- 2165 x 900 x 1730 (tank version 350 lt)
- For version with **100 lt tank**, see the illustrations as shown below.

### ACCESSORIES ON REQUEST

- Internet plug-in module
- GPS/4G modem with antenna
- Plug-in module with double RS232 and RS485 port
- Report card for 15 alarms/statuses (configurable)
- Teleswitching panel (ATS), PAC 70 (100A) (Only with Automatic control panels)
- Teleswitching panel (ATS) PAC-I 70 (100A) (Only with manual control panels)
- TCM35 remote control
- Slow towing CTL20
- CTV1 road trolley
- Drag sled
- MT25 earthing



### VERSIONS IN ADDITION TO THE STANDARD FEATURES

	PLUS	REMOTE	3WAY	350L	HEATER	ISOMETER	GFI	TOP
T. Water + P. Oil	✓	✓	✓	✓		✓		✓
GFI Eletr.	✓	✓	✓	✓			✓	✓
Radio control		✓						
3-way valve			✓			✓		✓
350l tank				✓				✓
Engine water heater					✓			✓
Isometer						✓		
Glow plugs		✓						

### AVAILABLE VERSION

MANUAL WITH TERMINAL BLOCK (WITHOUT SOCKETS)		AUTOMATIC WITH TERMINAL BLOCK (WITHOUT SOCKETS)		MANUAL WITH SOCKETS + TERMINAL BLOCK	
<b>CJ4V3051</b>	STANDARD	<b>CJ4V30F1</b>	STANDARD	<b>CJ4V30G1R</b>	GFI
<b>CJ4V3051BR</b>	PLUS	<b>CJ4V30F1A</b>	HEATER	<b>CJ4V30G1BR</b>	PLUS
<b>CJ4V3051BDRW</b>	REMOTE	<b>CJ4V30F1ABR</b>	PLUS+HEATER	<b>CJ4V30G1BDRW</b>	REMOTE
<b>CJ4V3051BHR</b>	3WAY	<b>CJ4V30F1ABLR</b>	PLUS+HEATER+350L	<b>CJ4V30G1BHR</b>	3WAY
<b>CJ4V3051BLR</b>	350L	<b>CJ4V30F1ABHLR</b>	TOP	<b>CJ4V30G1BHT</b>	ISOMETER
<b>CJ4V305A1BHRL</b>	TOP			<b>CJ4V30G1BLR</b>	350L
				<b>CJ4V30G1ABHLR</b>	TOP

### 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 9001:2008 - Cert. 0192

#### WARRANTY

All devices are covered by the manufacturer's warranty.

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