



GENERATING SET GE 455 SSX

The images are for reference



FEATURES

- Engine with the lowest fuel consumption in its class
- Electronic speed governor
- Alternator with automatic voltage regulation "AVR"
- Four pole circuit breaker
- Bunded base suitable to contain any liquids leakage from engine avoiding environmental pollution
- Oil drain pump
- Fuel pre-filter with water separator
- Low level water radiator sensor
- Main battery switch
- Large doors for better and easy maintenance (air, oil, fuel filters replacement)
- 2 lifting eyes
- Control panel with digital control unit available with automatic or manual version
- Suitable for a wide range of uses in general construction
- Meets EC directives



water cooled



diesel



three-phase power



electric



silenced

POWER RATINGS	
* Stand-By three-phase power (LTP)	450 kVA (360 kW) / 400V / 649.5A
* PRP three-phase power	410 kVA (328 kW) / 400V / 592A
* COP single-phase power	350 kVA (280 kW) / 400V / 505A
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	SCANIA DC13 072A 02-12
* Stand-By net power	397 kW
* PRP net power	359 kW
* COP net power	302 kW
Cylinders / Displacement	6 in linea / 12.7 lit. (12700 cm ³)
Bore / Stroke	130 / 160 (mm)
Compression ratio	16.3: 1
BMEP (Brake Mean Effective Pressure : LTP - PRP)	/
Speed governor type	Electronic
FUEL CONSUMPTION	
110 % (Stand-by power)	89.2 lit./h
100 % to PRP	79.5 lit./h
75 % to PRP	60 lit./h
50 % to PRP	40.5 lit./h
COOLING SYSTEM	
Total system cap. - only engine	54 lit. - 16 lit.
Fan air flow	540 kg/min
LUBRIFICATION SYSTEM	
Total oil system capacity	38 lit.
Oil capacity in sump	30 lit. (min) - 36 lit. (max)
Oil consumption at full load	< 0.35 lit./h

EXHAUST SYSTEM	
Maximum exhaust gas flow	32 kg/mim.
Max. exhaust gas temp.	509 °C
Maximum back pressure	10 kPa (0.1 bar)
External diameter exhaust pipe	/
ELECTRICAL SYSTEM	
Starter motor power	6 kW
Battery charging alternator cap.	100 A
Cold start	- 10 °C
With cold start aid	/
AIR FILTER	
Combustion air flow	30 kg/min
HEAT REJECTED AT FULL LOAD	
To exhaust system	271 kW
To water and oil	119 kW
Radiated to room	31 kW
To charge cooler	75 kW

* Output powers according to ISO 3046-1



ALTERNATOR

SYNCHRONOUS, THREE-PHASE, SELF-EXCITED, SELF-REGULATED, BRUSHLESS	
Continuous power	410 kVA
Stand-by power	450 kVA
Three phase voltage	380-440 Vac
Frequency	50 Hz
Cos φ	0.8
Model A.V.R.	Digital MEC-20
Voltage regulation acc.	$\pm 0.5\%$
Sustained short circuit current	1800 A
Transient dip (100% load)	< 20 %
Recovery time	< 0.3 sec
Efficiency at 100% load	93,7 % (400V - Cos φ 0,8)
Insulation	Class H
Connection - Terminals	Star - N°12
Electromagnetic compatibility (R.F.I. suppr.)	EN 55011- ClassB, group 1
Waveform distorsion - THD	< 2 %
Telephone interference - THF	< 2 %

REACTANCES (410 kVA - 400V)	
Direct axis synchronuos - Xd	330 %
Direct axis transient - X'd	29.5 %
Subdirect axis transient - X''d	13.2 %
Quadrature axis synchronuos - Xq	175 %
Quadr. axis subtransient - X''q	15.6 %
Negative sequence - X2	14.4 %
Zero sequence - X0	3.3 %
TIME CONSTANTS	
Transient - T'd	0.14 sec
Subtransient - T''d	0.014 sec
Open circuit - T'do	1.6 sec
Armature - Ta	0.018 sec
Short-circuit ratio Kcc	0.38
Grado di Protezione IP	IP 23
Cooling air flow	0,83 m ³ /sec.
Coupling Bearing	Direct SAE 1 -14 - N°1

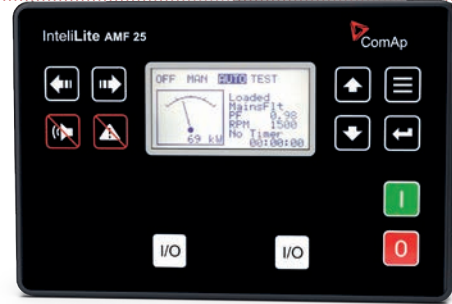
GENERAL SPECIFICATIONS

Fuel tank capacity	580 lt.
Running time (75% to PRP)	9.6 h
Starter battery	24 Vdc [2x12Vdc-180Ah 1100A CCA(EN)]

IP protection degree	IP 44
Acoustic power LwA (pressure LpA)	99 dB(A) (74 dB(A) @ 7m)
Performance class (ISO 8528)	G2

CONTROL PANEL

- Controller IntiLite AMF25
- Controller supply switch
- Siren
- Emergency stop button
- TCM 35 remote control plug
- 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 • Maintenance • Hours meter • Starts number
Generator Protections	<ul style="list-style-type: none"> • Overload • Overcurrent • Short circuit • Over-Undervoltage • Over-Underfrequency • 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-Under battery voltage • Battery charge alternator failure • Start failure • Stop failure • Emergency stop • Low water level shutdown (option)

AMF functions (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

GE 455 SSX



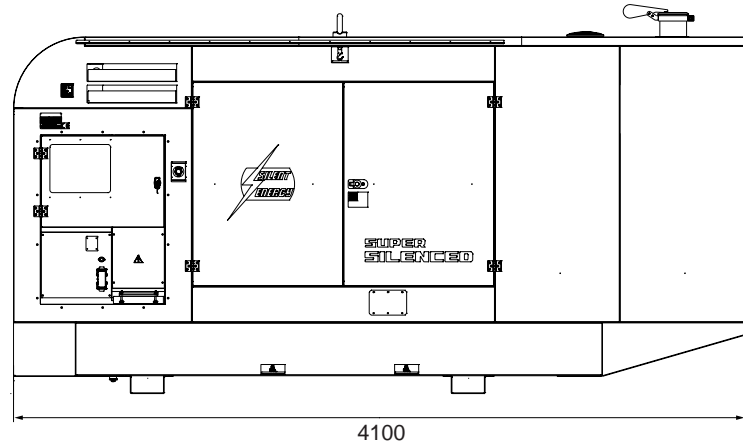
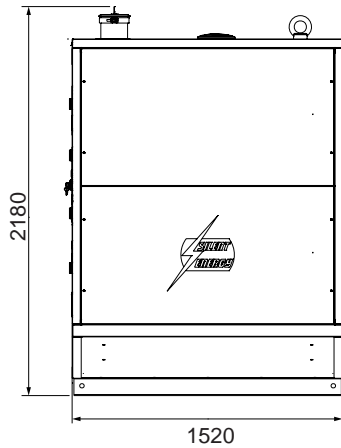
DRY WEIGHT MACHINE:

- 4370 kg

Generating set pictured may include optional accessories.



DIMENSIONS DRAW



OPTIONS ON REQUEST

- Automatic transfer switch unit (ATS) PAC 550-M (800A)
- 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
- Automatic fuel transfer pump
- 3-way valve fuel system with quick connection for external fuel tank supply
- Engine water heater WH
- 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 (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

