

GENERATING SET GE 45 KSX

The images are for reference



FEATURES

- Version also available with Stage 3A engine
- Automatic voltage regulation AVR with three-phase sensing
- The rounded edges of the canopy designed for rainwater drainage away
- Bunded base suitable to contain any liquids leakage from engine avoiding environmental pollution
- External caps for oil and water drain
- Large doors for better and easy maintenance (air, oil, fuel filters replacement)
- Central lifting eye
- Forklift pockets
- Ready for connection to automatic transfer unit EAS (AMF+ATS)
- Complies with regulation 2016/1628/EU FOR STATIONARY USE ONLY



water cooled



diesel



three-phase power



electric



super silenced

POWER RATINGS	
* Stand-By three-phase power	44 kVA (35,2 kW) / 400V / 63,5A
* PRP three-phase power	40 kVA (32 kW) / 400V / 57,7A
* PRP single-phase power	15.5 kVA / 230V / 67.4 A
* COP three-phase power	/
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	KOHLER - KDI 2504TM-40
* Stand-By net power	39.9 kW (54.3 hp)
* PRP net power	36.2 kW (49.2 hp)
* COP net power	/
Cylinders / Displacement	4 / 2482 cm ³ (2.482 lt.)
Bore / Stroke	88 / 102 (mm)
Compression ratio	18.5 : 1
BMEP (Brake Mean Effective Pressure : LTP - PRP)	/
Speed governor type	Mechanical
FUEL CONSUMPTION	
110 % (Stand-by power)	10.6 lt./h
100 % to PRP	9.4 lt./h
75 % to PRP	7.1 lt./h
50 % to PRP	4.9 lt./h
COOLING SYSTEM	
Total system cap. - only engine	9.1 lit.
Fan air flow	120 m ³ /min
LUBRICATION SYSTEM	
Total oil system capacity	/
Oil capacity in sump	11.2 lt.
Oil consumption at full load	< 0.017 l/h

EXHAUST SYSTEM	
Maximum exhaust gas flow	7 lt./mim.
Max. exhaust gas temp.	530 °C
Maximum back pressure	8 kPa (0.08 bar)
External diameter exhaust pipe	/
ELECTRICAL SYSTEM	
Starter motor power	2.2 kW
Battery charging alternator cap.	55 A
Cold start	-10°C
With cold start aid	- 15 °C
AIR FILTER	
Combustion air flow	2.5 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, SELF-REGULATED, 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 In
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 - N°12
Electromagnetic compatibility (R.F.I. suppr.)	EN 55011
Waveform distortion - THD	< 3 %
Telephone interference - THF	/

REACTANCES (42 kVA - 400V)	
Direct axis synchronous - Xd	253 %
Direct axis transient - X'd	20 %
Subdirect axis transient - X''d	8 %
Quadrature axis synchronous - Xq	141 %
Quadr. axis subtransient - X''q	/
Negative sequence - X2	/
Zero sequence - X0	/
TIME CONSTANTS	
Transient - T'd	0.014 sec
Subtransient - T''d	0.008 sec
Open circuit - T'do	0.180 sec
Armature - Ta	/
Short-circuit ratio Kcc	0.60
Cooling air flow	0.13 m³/sec.
Coupling Bearing	Direct SAE 3 -11.5 ½ - N°1

GENERAL SPECIFICATIONS

Fuel tank capacity	100 lt. / 350 lt.
Running time (75% to PRP)	14 h / 49.3h
Starter battery	12 Vdc -80Ah / 700A CCA(EN)
IP protection degree	IP 44

* Measured acoustic power LwA (pressure LpA)	91 dB(A) (66 dB(A) @ 7m)
* Guaranteed acoustic power LwA (pressure LpA)	93 dB(A) (68 dB(A) @ 7m)
Performance class (ISO 8528)	G2

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

MANUAL CONTROL PANEL

- Controller Intellilite4 AMF9
- Supply switch
- Siren
- Emergency stop button
- TCM 35 remote control plug
- Battery charger
- Circuit breaker
- Earth leakage circuit breaker (GFI)
- Power terminal board
- Earth terminal (PE)

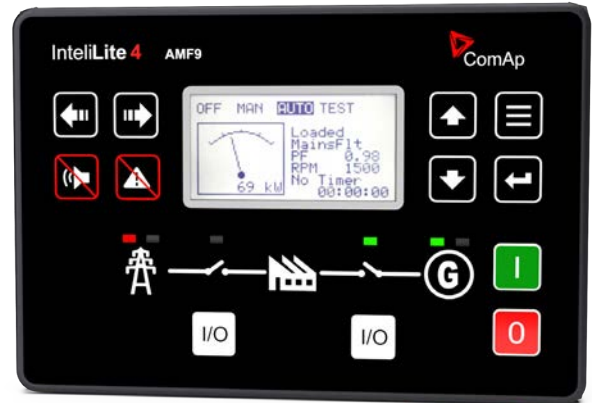
MANUAL CONTROL PANEL WITH SOCKETS

- Controller Intellilite4 AMF9
- Supply switch
- Siren
- Emergency stop button
- TCM 35 remote control plug
- Circuit breaker
- Earth leakage circuit breaker (GFI)
- 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
- Circuit breaker for 400V 32A socket
- Circuit breaker for 400V 16A socket
- Circuit breaker for 230V 16A sockets
- Earth terminal (PE)

CONTROL PANEL

AUTOMATIC CONTROL PANEL

- Controller InteliLite4 AMF9
- Supply switch
- Siren
- Emergency stop button
- TCM 35 remote control plug
- Terminal board for connection to PAC (ATS)
- Battery charger
- Circuit breaker
- Earth leakage circuit breaker (GFI)
- Power terminal board
- Earth terminal (PE)



AMF25 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 • 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 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

WEIGHT - DIMENSIONS AND ACCESSORIES

GE 45 KSX



DRY WEIGHT MACHINE:

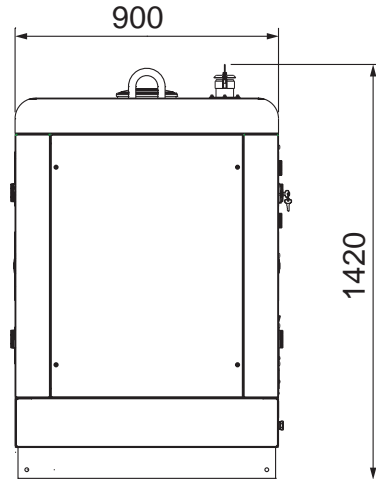
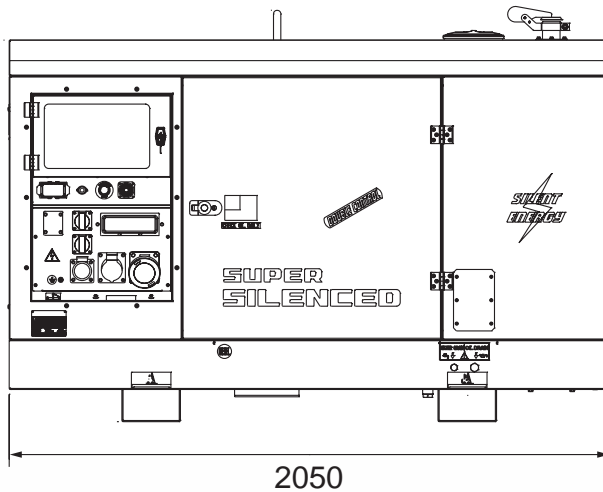
- 1033 Kg
- 1403 Kg (tank version 350 lt)

Generating set pictured may include optional accessories.



DIMENSIONS DRAW

- 2050 x 900 x 1730 mm (tank version 350 lt)
- For version with **100 lt tank**, see the illustrations as shown below.



⊕ OPTIONS ON REQUEST

- Load transfer switch (ATS) PAC 42 (60A) (Only with automatic control panel)
- Load transfer switch (ATS) PAC-I 42 (60A) (Only with Manual control panels)
- Remote control TCM35
- Site tow CTL20
- Road trailer CTV1/O
- Road trailer CTV1/S
- Earthing kit
- Galvanized skid base frame

⊗ VERSIONS ON REQUEST

- Manual control panel with sockets
- Automatic Digital Control Panel (without sockets)
- Control panel Automatic Digital with integrated network / GE switching 80A)

⊖ FACTORY INSTALLATION OPTIONS

- Gauges - water temperature and oil pressure
- Earth leakage relay
- Engine heater
- Insulation monitoring
- Radio control
- Main battery switch
- Spark arrestor
- 3-way valve fuel system with quick connection for external fuel tank supply
- 350 litre internal tank
- Sensor for low level water
- Sensor liquid in base-frame
- Air Grid Heater
- Plug-in module with dual port RS232 and RS485
- 4G/GPS modem with antenna
- Internet-Ethernet plug-in module including Web server
- Remote module for 15 allarms or states

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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