GENERATING SET
GE 40 KR-5

The images are for reference

FEATURES

- Engine with electronic engine speed regulation
- Exhaust gas after-treatment with DOC (catalyst) and DPF (particulate filter)
- Integrated dummy load (6 kW) for automatic regeneration independent of the connected electrical utilities
- Oversized steel base to protect the canopy
- Dragging slide integrated in the base
- Side anti-tip pockets for handling with forklifts
- Central lifting hook with anti-scratch protection plate
- Sealed base capable of containing any leaks of liquids present in the engine, avoiding environmental pollution
- Easy maintenance (replacement of air, oil, fuel filters)
- External access for filling the radiator
- Fuel level sensor
- Leak detection sensor in the crankcase
- Low liquid level sensor in the radiator
- Battery disconnect switch
- Emergency button
- Electronic "AVR" voltage regulation with three-phase detection with marine impregnation protected windings

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 | rental serie

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 1903TCR
* Stand-By net power	33.9 kW (46.1 hp)
* PRP net power	30.7 kW (41.7 hp)
* COP net power	/
Cylinders / Displacement	3 / 1.816 lit. (1861 cm³)
Bore / Stroke	88 / 102 (mm)
Compression ratio	/
BMEP (Brake Mean Effective Pressure : LTP - PRP)	/
Speed governor type	Electronic
FUEL CONSUMPTION	
110 % (Stand-by power)	9.6 lit./h
100 % to PRP	8.7 lit./h
75 % to PRP	6.5 lit./h
50 % to PRP	4.5 lit./h
COOLING SYSTEM	
Total system cap. - only engine	9 lit. - / lit.
Fan air flow	142.8 m³/min.
LUBRICATION SYSTEM	
Total oil system capacity	8.9 / lit.
Oil capacity in sump	/
Oil consumption at full load	/

EXHAUST SYSTEM	
Maximum exhaust gas flow	170 / kg/h
Max. exhaust gas temp.	520 °C
Maximum back pressure	7 kPa (0.07 bar)
External diameter exhaust pipe	/
ELECTRICAL SYSTEM	12 Vdc
Starter motor power	2 kW
Battery charging alternator cap.	80 A
Cold start	- 15 °C
With cold start aid	/
AIR FILTER	Dry
Combustion air flow	2.3 m³/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	
Continuos 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
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 % (230V - Cos φ 0.8)
Insulation	Class H
Connection - Terminals	Star (With N) - N°12
Electromagnetic compatibility (R.F.I. suppr.)	EN 55011
Waveform distorsion - THD	< 3 %
Thelephone interference - THF	< 2 %

REACTANCES (42 kVA - 400V)	
Direct axis synchronuos - Xd	253 %
Direct axis transient - X'd	20 %
Subdirect axis transient - X"d	8 %
Quadrature axis synchronuos - 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
IP protection degree	IP 23
Cooling air flow	0.13 m³/sec.
Coupling | Bearing	Direct SAE 3 -11 ½ - N°1

GENERAL SPECIFICATIONS

Fuel tank capacity	150 lt.
Running time (75% to PRP)	23 h
Starter battery	12 Vdc -100Ah / 800A CCA(EN)
IP protection degree	IP 44

* Measured acoustic power LwA (pressure LpA)	90.6 dB(A) (65.6 dB(A) @ 7m)
* Guaranteed acoustic power LwA (pressure LpA)	91 dB(A) (66 dB(A) @ 7m)
Performance class (ISO 8528)	G3

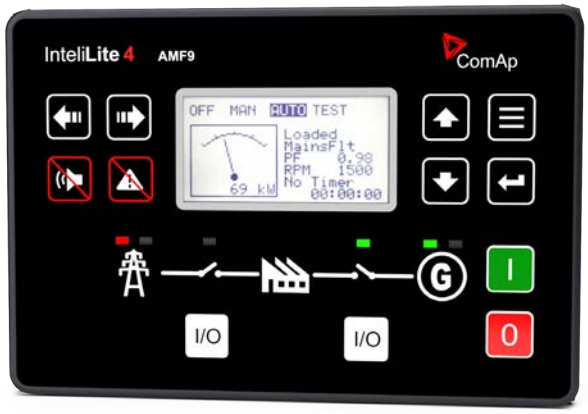
* Acoustic power according to European Directive 2000/14/CE

CONTROL PANEL

GE 40 KR-5

Digital Control Panel

- Intelilite4 AMF9 controller
- Power switch
- Siren
- Emergency stop button
- Regeneration inhibition button
- Forced regeneration button
- Switch magnetermic
- Power terminal block
- Equipotential earth terminal
- 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
- Differential-magnetothermic switch for 400V 32A socket
- Differential-magnetothermic switch for 400V 16A socket
- 2 Differential-magnetothermic switches for 230V 16A sockets
- Earth terminal (PE)



INTELILITE4 AMF9 CONTROLLER CHARACTERISTICS	
Operating mode	• OFF - MAN.- AUTO - TEST
Display - Buttons-LEDs	• Backlit display, LCD 132x64 pixels • Buttons / Buttons: START - STOP - RESET ALARMS / FAULT RESET • LEDs: Generator / GCB ON status - Grid status
Generator Measures	• 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	• Water temperature • Oil pressure • Fuel level • Rpm meter • Battery voltage • Maintance • Hours meter • Starts number
Generator Protections	• Overload • Overcurrent • Short circuit • Over-Udervoltage • Over-Uderfrequency • Voltage asymmetry • Unbalanced current • Phase sequence
Engine Protections	• 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 shudown (option)

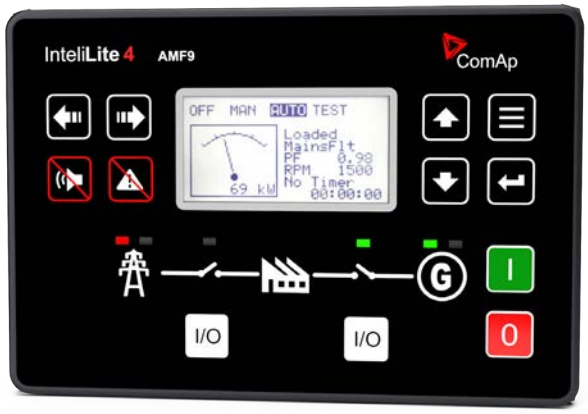
AMF functins (Automatic control panel only)	• Measure mains voltage : L1-L2 / L2-L3 / L3-L1 - N-L1/N-L2/N-L3 • Measure mains frequency • Three phase detection • Over-Under mains voltage • Over-Under mains frequency • Voltage asymmetry • Phase sequence • Dual mutual stand-by application
Features	• Event 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	• USB port • RS232- RS485 (optional) • Modbus RTU / TCP (optional) • Internet connection with Ethernet (optional) • Online control and monitoring on web pages (embedded web server) (optional) • GPS / 4G modem (optional) (geographical tracking via WebSupervisor) • Internal PLC support

CONTROL PANEL

GE 40 KR-5

DIGITAL CONTROL PANEL (VERS. DGUV- "B")

- Intelilite4 AMF9 controller
- Power switch
- Siren
- Emergency stop button
- Regeneration inhibition button
- Forced regeneration button
- Switch magnetermic
- Isolation monitor
- Power terminal block
- Equipotential earth terminal
- 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
  2x 230V 16A 2P+T SCHUKO
- Differential switch for 400V 63A socket
- Differential-magnetothermic switch for 400V 32A socket
- Differential-magnetothermic switch for 400V 16A socket
- 2 Differential-magnetothermic switches for 230V 16A sockets



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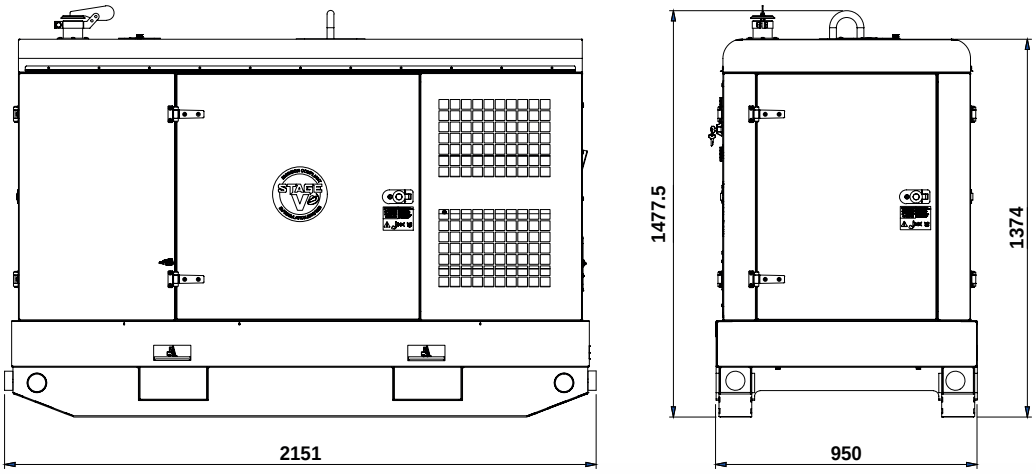
WEIGHT - DIMENSIONS AND ACCESSORIES

DRY WEIGHT MACHINE:
- 1125 Kg

Generating set pictured may include optional accessories.

DIMENSIONS DRAW



ACCESSORIES ON REQUEST

- Internet-Ethernet plug-in module including Web server
- GPS/4G modem with antenna
- Plug-in module with dual port RS232 and RS485
- 15 LED's Remote Annunciator (configurable)
- Road trailer CTV1/O
- Road trailer CTV1/S
- Earthing kit MT25

AVAILABLE VERSIONS

CN1R50G1	400T230M DIGITAL CONTROL PANEL
CN1R50G1H	400T230M DIGITAL CONTROL PANEL • 3-way valve fuel system with quick connection for external fuel tank supply
CN1R50U1	400T230M DIGITAL CONTROL PANEL DGUV-"B"
CN1R50U1H	400T230M DIGITAL CONTROL PANEL DGUV-"B" • 3-way valve fuel system with quick connection for external fuel tank supply

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.