

# RL6U\_1b

Engine ref. Kohler Alternator description Performance class LDW1003 KH00250M G1

### **GENERAL CHARACTERISTICS**

Frequency (Hz) Voltage (V) 60 Hz 240 single phase

#### DESCRIPTIVE

- Telescopic mast 9 m high
- Mast movable through 350°
- Fork lift pockets and lifting rings
- Adjustable stabilising and retractable supports
- Residual Current Device and earthing rod
- GFCI 120V-20A auxiliary socket
- TWISTLOC 240V-30A auxiliary socket

Standard Control Panel	APM202
PROJECTOR	
Number of projectors	4
Projector model	Metal Halide
Total power (We)	4000
Luminosity (lumens)	400000
FULL VERSION DIMENSION	
Length (mm)	4380
	4380 1230
Length (mm)	
Length (mm) Width (mm)	1230

### **POWER DEFINITION**

PRP : Prime Power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO 8528-1. ESP : The standby power rating is applicable for supplying emergency power in variable load applications in accordance with ISO 8528-1. Overload is not allowed.

#### **TERMS OF USE**

According to the standard, the nominal power assigned by the genset is given for 25°C Air Intlet Temperature, of a barometric pressure of 100 kPA (100 m A.S.L), and 30 % relative humidity. For particular conditions in your installation, refer to the derating table.

ASSOCIATED UNCERTAINT

For the generating sets used indoor, where the acoustic pressure levels depends on the installation conditions, it is not possible to specify the ambient noise level in the exploitation and maintenance instructions. You will also find in our exploitation and maintenance instructions a warning concerning the air noise dangers and the need to implement appropriated preventive measures.

#### SOUND LEVELS

Autonomy @ 75% of load (h)

Autonomy @ 50% of load (h)

Acoustic pressure level @1m in dB(A) 60Hz (100% PRP) Acoustic pressure level @7m in dB(A) 60Hz (100% PRP)

# **KOHLER**<sub>®</sub> **SDMO**

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## **ENGINE CHARACTERISTICS**

GENERAL ENGINE DATAS		EXHAUST
Engine brand	KOHLER	Exhaust gas temperature
Engine ref.	LDW1003	Exhaust gas flow @ ESP
Air inlet system	Atmo	Max. exhaust back press
Cylinder configuration	L	
Number of cylinders	3	FUEL
Displacement (I)	1,03	Fuel consumption @ ESF
Charge Air coolant		Fuel consumption @ PRF
Bore (mm) x Stroke (mm)	75 x 77,60	Fuel consumption @ 75%
Compression ratio	22,8 : 1	Fuel consumption @ 50%
Speed (RPM)	1800	Maximum fuel pump flow
Pistons speed 60Hz (m/s)	4,66	
Maximum stand-by power at rated RPM 60Hz (kW)	10	OIL
Frequency regulation, steady state (%)	+/- 2.5%	Oil system capacity includ
BMEP @ PRP 60Hz (bar)	5,90	Min. oil pressure (bar)
Governor type	Mechanical	Max. oil pressure (bar)
		Oil consumption 100% ES
COOLING SYSTEM		Oil sump capacity (I)
Radiator & Engine capacity (I)	4,50	
		HEAT BALANCE
Fan power 60Hz (kW) Fan air flow w/o restriction (m3/s) Available restriction on air flow (mm H2O)	0,22 0,95	Heat rejection to exhaust Radiated heat to ambiant Heat rejection to coolant I
Type of coolant	Glycol-Ethylene	AIR INTAKE
		Max. intake restriction (m Combustion air flow (I/s)

0

### EMISSIONS

Emission PM 60Hz (g/kWh)
Emission CO 60HZ (g/kW.h)
Emission HC+NOx (g/kWh)
Emission HC 60Hz (g/kW.h)

Exhaust gas temperature @ ESP 60Hz (°C) Exhaust gas flow @ ESP 60Hz (I/s) Max. exhaust back pressure (mm H2O)	450 37,40 550
FUEL	
Fuel consumption @ ESP Max Power 60Hz (I/h)	3,40
Fuel consumption @ PRP Max Power 60Hz (I/h)	3
Fuel consumption @ 75% of PRP Power 60Hz (I/h)	2,30
Fuel consumption @ 50% of PRP Power 60Hz (I/h)	1,60
Maximum fuel pump flow 60Hz (I/h)	55

Oil system capacity including filters (I)	2,40
Min. oil pressure (bar)	1,40
Max. oil pressure (bar)	7
Oil consumption 100% ESP 60Hz (I/h)	0,05
Oil sump capacity (I)	2.30

Heat rejection to exhaust (kW)	10
Radiated heat to ambiant (kW)	2
Heat rejection to coolant HT (kW)	10

Max. intake restriction (mm H2O)	250
Combustion air flow (I/s)	15,42

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## **ALTERNATOR CHARACTERISTICS**

Kohler Alternator description	KH00250M	Continuous Nominal Rating 40°C (kVA)	6,50
Number of Phase	Single/Bi phase	Standby Rating 27°C (kVA)	
Power factor (Cos Phi)	1	Efficiencies 100% of load (%)	78
Altitude (m)	0 à 1000	Air flow (m3/s)	0,0580
Overspeed (rpm)	1500	Short circuit ratio (Kcc)	
Number of pole	4	Direct axis synchro reactance unsaturated (Xd) (%)	
Capacity for maintaining short circuit at	No	Quadra axis synchro reactance unsaturated (Xq) (%)	
300% of rated current for 10 s Insulation class	н	Open circuit time constant (T'do) (ms)	
	п Н / 125°К	Direct axis transcient reactance saturated (X'd) (%)	
T° class (H/125K), continuous 40°C T° class (H/163K), standby 27°C	H / 163°K	Short circuit transcient time constant (T'd) (ms)	
AVR Regulation	No	Direct axis subtranscient reactance saturated (X"d)	
Total Harmonic Distortion in no-load	NO	(%) Subtranssignt time constant (T"d) (ma)	
DHT (%)		Subtranscient time constant (T"d) (ms) Quadra axis subtranscient reactance saturated (X"q)	
Total Harmonic Distortion, on linear load		(%)	
DHT (%) Wave form : NEMA=TIF		Subtranscient time constant (T"q) (ms)	
Wave form : CEI=FHT		Zero sequence reactance unsaturated (Xo) (%)	
	Single Degring	Negative sequence reactance saturated (X2) (%)	
Number of bearing	Single Bearing Direct	Armature time constant (Ta) (ms)	
Coupling Voltage regulation at established rating		No load excitation current (io) (A)	
(+/- %)		Full load excitation current (ic) (A)	
Recovery time (Delta U = 20%		Full load excitation voltage (uc) (V)	
transcient) (ms) Indication of protection	IP 21	Engine start (Delta U = 20% perm. or 30% trans.)	
Technology	Brushless	(kVA)	
reemology	Diusiliess	Transcient dip (4/4 load) - PF : 0,8 AR (%)	
		No load losses (W)	
		Heat rejected to ambient air (kW)	

Unbalanced load acceptance ratio (%)



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### **CONTROL PANEL**

APM202, simplicity and security

The APM 202 control panel ensures an easy supervision and a secure functioning. It has been designed in accordance with the other control panels of SDMO ranges and follows the same logic (The temporizations and starting phase cycles are identical to the standard settings of the APM303 control panel). These indicators will show the faults of the genset. For example when there is an overspeed fault, low oil level or temperature problems, the APM202 control panel stops the genset in order to avoid any damage and to ensure the longevity. This APM202 unit integrates three starting attempts. It enables, when there is a start failure (lack of fuel for example), to launch three sequences of starting up.