



RL6_1b

Engine ref.	LDW1003
Kohler Alternator description	KH00290M
Performance class	G1

GENERAL CHARACTERISTICS

Frequency (Hz)	50 Hz
Voltage (V)	230 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
- 230V-16A Auxiliary plug

Standard Control Panel	APM202
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PROJECTOR

Number of projectors	4
Projector model	Metal Halide
Total power (We)	4000
Luminosity (lumens)	400000

FULL VERSION DIMENSION

Length (mm)	4380
Width (mm)	1230
Height (mm)	1760
Dry weight (kg)	670,00
Tank capacity (L)	110,00
Autonomy @ 75% of load (h)	
Autonomy @ 50% of load (h)	

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 Inlet 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 UNCERTAINTY

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

Acoustic pressure level @1m in dB(A) 50Hz (75% PRP)
Acoustic pressure level @7m in dB(A) 50Hz (75% PRP)

GENERAL ENGINE DATAS

Engine brand	KOHLER
Engine ref.	LDW1003
Air inlet system	Atmo
Cylinder configuration	L
Number of cylinders	3
Displacement (l)	1,03
Charge Air coolant	
Bore (mm) x Stroke (mm)	75,00 x 77,6
Compression ratio	22,8 : 1
Speed 50Hz (RPM)	1500
Pistons speed (m/s)	3,88
Maximum stand-by power at rated RPM (kW)	8,5
Frequency regulation, steady state (%) +/- 2.5%	
BMEP @ PRP (bar)	6,0
Governor type	Mechanical

COOLING SYSTEM

Radiator & Engine capacity (l)	4,50
Fan power 50Hz (kW)	0,15
Fan air flow w/o restriction (m3/s)	0,85
Available restriction on air flow (mm H2O)	
Type of coolant	Glycol-Ethylene

EMISSIONS

Emission PM 50Hz (g/kW.h)	
Emission CO 50Hz (g/kW.h)	
Emission THC+NOx (g/kWh)	0,000
Emission HC 50Hz (g/kW.h)	

EXHAUST

Exhaust gas temperature @ ESP (°C)	440
Exhaust gas flow @ ESP (l/s)	30,7
Max. exhaust back pressure (mm H2O)	750

FUEL

Fuel consumption @ ESP Max Power (l/h)	2,7
Fuel consumption @ PRP Max Power (l/h)	2,5
Fuel consumption @ 75% of PRP Power (l/h)	1,9
Fuel consumption @ 50% of PRP Power (l/h)	1,3
Maximum fuel pump flow (l/h)	50,0

OIL

Oil system capacity including filters (l)	2,40
Min. oil pressure (bar)	1,4
Max. oil pressure (bar)	7,0
Oil consumption 100% ESP 50Hz (l/h)	0,040
Oil sump capacity (l)	2,30

HEAT BALANCE

Heat rejection to exhaust (kW)	9
Radiated heat to ambient (kW)	1,0
Heat rejection to coolant HT (kW)	9

AIR INTAKE

Max. intake restriction (mm H2O)	200
Combustion air flow (l/s)	12,80

Kohler Alternator description	KH00290M	Continuous Nominal Rating 40°C (kVA)	6,0
Number of Phase	Single phase	Standby Rating 27°C (kVA)	
Power factor (Cos Phi)	1,0	Efficiencies 100% of load (%)	76,5
Altitude (m)	0 à 1000	Air flow (m3/s)	0,048
Overspeed (rpm)	1500	Short circuit ratio (Kcc)	
Number of pole	4	Direct axis synchro reactance unsaturated (Xd) (%)	
Capacity for maintaining short circuit at 300% of rated current for 10 s	No	Quadra axis synchro reactance unsaturated (Xq) (%)	
Insulation class	H	Open circuit time constant (T'do) (ms)	
T° class (H/125K), continuous 40°C	H / 125°K	Direct axis transient reactance saturated (X'd) (%)	
T° class (H/163K), standby 27°C	H / 163°K	Short circuit transient time constant (T'd) (ms)	
AVR Regulation	No	Direct axis subtransient reactance saturated (X''d) (%)	
Total Harmonic Distortion in no-load DHT (%)		Subtransient time constant (T''d) (ms)	
Total Harmonic Distortion, on linear load DHT (%)		Quadra axis subtransient reactance saturated (X''q) (%)	
Wave form : NEMA=TIF		Subtransient time constant (T''q) (ms)	
Wave form : CEI=FHT		Zero sequence reactance unsaturated (Xo) (%)	
Number of bearing	Single Bearing	Negative sequence reactance saturated (X2) (%)	
Coupling	Direct	Armature time constant (Ta) (ms)	
Voltage regulation at established rating (+/- %)		No load excitation current (io) (A)	
Recovery time (Delta U = 20% transient) (ms)		Full load excitation current (ic) (A)	
Indication of protection	IP 21	Full load excitation voltage (uc) (V)	
Technology	Brushless	Engine start (Delta U = 20% perm. or 30% trans.) (kVA)	
		Transient dip (4/4 load) - PF : 0,8 AR (%)	
		No load losses (W)	
		Heat rejected to ambient air (kW)	
		Unbalanced load acceptance ratio (%)	

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.