



Super Silent version

DESCRIPTIVE

- Connection terminal box rental type
- Retention bund
- Tandem upstream/downstream for fuel separator prefilter
- Dual frequency 50/60Hz
- Oil drainage pump
- Heavy duty air filter with interchangeable cartridge
- Battery isolating switch
- Soundproofed Rental Dry container
- Security lighting/Shut-off valve
- Automatic filling up oil system
- Oil filter centrifugal
- Automatic full pack

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 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.

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Engine ref.	12V4000G23F
Alternator ref.	LSA 50.2 VL10
Performance class	G3

GENERAL CHARACTERISTICS

Frequency (Hz)	50
Voltage (V)	400/230
Max power ESP (kVA)	1650
Max power ESP (kWe)	1320
Max power PRP (kVA)	1500
Max power PRP (kWe)	1200
Intensity (A)	2382
Standard Control Panel	KERYs

DIMENSION / SUPER SILENT SOUND LEVEL

%RefCiale_2%	#RefCiale_2#
%LongE_2%	#LongE_2#
%LargE_2%	#LargE_2#
%HautE_2%	#HautE_2#
%PdNetE_2%	#PdNetE_2#
%CapaE_2%	#CapaE_2#
%Auton75E_2%	#Auton75E_2#
%DB1M_2% #Incert_lb_2_1#	#DB1M_2# #Incert_va_2_1#
%DB7M_2% #Incert_lb_2_2#	#DB7M_2# #Incert_va_2_2#
#LWA50HzLabel_2#	#LWA50HzValue_2#

DIMENSION/ SILENT SOUND LEVEL

Commercial reference of the enclosure	CPU20
Length (mm)	6058
Width (mm)	2438
Height (mm)	2591
Dry weight (kg)	20240
Tank capacity (L)	1370
Autonomy @ 75% of load (h)	0
Acoustic pressure level @1m in dB(A) #Incert_lb_2_1#	90 (0,70)
Acoustic pressure level @7m in dB(A) #Incert_lb_2_2#	81 (0,70)
Sound power level guaranteed (Lwa)	111



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ENGINE CHARACTERISTICS

GENERAL ENGINE DATAS

Engine brand	MTU
Engine ref.	12V4000G23F
Air inlet system	Turbo
Cylinders configuration	V
Number of cylinders	12
Displacement (L)	57,20
Charge Air coolant	Air/Water DC
Bore (mm) x Stroke (mm)	170 x 210
Compression ratio	16.5
Speed (RPM)	1500
Pistons speed (m/s)	10,50
Maximum stand-by power at rated RPM (kW)	1575
Frequency regulation, steady state (%)	+/- 0.5%
BMEP (bar)	19,86
Governor type	Electronic

COOLING SYSTEM

Radiator & Engine capacity (L)	594
Max water temperature (°C)	104
Outlet water temperature (°C)	100
Fan power (kW)	
Fan air flow w/o restriction (m3/s)	
Available restriction on air flow (mm H2O)	
Type of coolant	Glycol-Ethylene
Thermostat modulating range HT (°C)	79/92

EMISSIONS

Emission PM (mg/Nm3) 5% O2	<50
Emission CO (mg/Nm3) 5% O2	<300
Emission HC+NOx (g/kWh)	
Emission HC (mg/Nm3) 5% O2	<150

EXHAUST

Exhaust gas temperature @ ESP 50Hz (°C)	455
Exhaust gas flow @ ESP 50 Hz (L/s)	4000
Max. exhaust back pressure (mm H2O)	500

FUEL

Consumption @ 110% load (L/h)	351
Consumption @ 100% load (L/h)	317
Consumption @ 75% load (L/h)	241
Consumption @ 50% load (L/h)	168
Maximum fuel pump flow (L/h)	1500

OIL

Oil capacity (L)	260
Min. oil pressure (bar)	3,50
Max. oil pressure (bar)	7
Oil consumption 100% load (L/h)	0,95
Oil sump capacity (L)	200

HEAT BALANCE

Heat rejection to exhaust (kW)	828
Radiated heat to ambient (kW)	75
Heat rejection to coolant (kW)	

AIR INTAKE

Max. intake restriction (mm H2O)	150
Intake air flow (L/s)	1600



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ALTERNATOR CHARACTERISTICS

Alternator ref.	LSA 50.2 VL10	Continuous Nominal Rating 40°C (kVA)	1640
Number of Phase	Three phase	Standby Rating 27°C (kVA)	1800
Power factor (Cos Phi)	0,80	Efficiencies 100% of load (%)	95,60
Altitude (m)	0 to 1000	Air flow (m3/s)	1,80
Overspeed (rpm)	2250	Short circuit ratio (Kcc)	0,3290
Number of pole	4	Direct axis synchro reactance unsaturated (Xd) (%)	362
Capacity for maintaining short circuit at 3 In for 10 s	Yes	Quadra axis synchro reactance unsaturated (Xq) (%)	184
Insulation class	H	Open circuit time constant (T'do) (ms)	4058
T° class (H/125°), continuous 40°C	H / 125°K	Direct axis transient reactance saturated (X'd) (%)	16
T° class, standby 27°C	H / 163°K	Short circuit transient time constant (T'd) (ms)	180
AVR Regulation	Yes	Direct axis subtransient reactance saturated (X''d) (%)	13,60
Total Harmonic Distortion in no-load DHT (%)	<3.5	Subtransient time constant (T''d) (ms)	18
Total Harmonic Distortion, on load DHT (%)	<3.5	Quadra axis subtransient reactance saturated (X''q) (%)	14,20
Wave form : NEMA=TIF	<50	Subtransient time constant (T''q) (ms)	18
Wave form : CEI=FHT	<2	Zero sequence reactance unsaturated (Xo) (%)	
Number of bearing	1	Negative sequence reactance saturated (X2) (%)	13,94
Coupling	Direct	Armature time constant (Ta) (ms)	27
Voltage regulation at established rating (+/- %)	0,50	No load excitation current (io) (A)	0,78
Recovery time (Delta U = 20% transient) (ms)	500	Full load excitation current (ic) (A)	3,26
Indication of protection		Full load excitation voltage (uc) (V)	40,80
Technology		Engine start (Delta U = 20% perm. or 50% trans.) (kVA)	
		Transient dip (4/4 load) - PF : 0,8 AR (%)	11
		No load losses (W)	16536,5
			2
		Heat rejection (W)	59233,9
			0
		Unbalanced load acceptance ratio (%)	50

KERYS, synchronisation and adaptability



The KERYS Rental control unit has been designed to meet the specific requirements of professionals in terms of operating and monitoring mobile generating sets. It therefore offers a wide range of functions. This control unit is fitted as standard to all generating sets designed to be used for synchronisation and is offered as an option across the rest of our range. This ultra-comprehensive control unit enables highly precise management of the genset parameters. Its multifunction switch can be used to easily select the type of synchronisation adapted to the user's needs (solo, synchronisation between gensets and a single genset coupled to the grid).

The 3 coupling modes available are as follows:

Genset in SOLO use (A612)
Genset coupled in Power plant configuration (A632)
Genset coupled to the grid (1)

(1) In this position, it is possible to select the coupling mode on the screen:

Generating set with permanent grid coupling without normal/emergency switching - grid coupling + resale (A641)
Generating set with permanent grid coupling without normal/emergency switching + 0 Kw power step on grid (A642)
Generating set with temporary grid coupling and normal/emergency switching (A651)
Generating set with permanent grid coupling and normal/emergency switching (A661).