ENERGY GENERATION

GSW3100M

Main Features		
Frequency	Hz	50
Voltage	V	400
Power factor	cos ϕ	0.8
Phase and connection		3

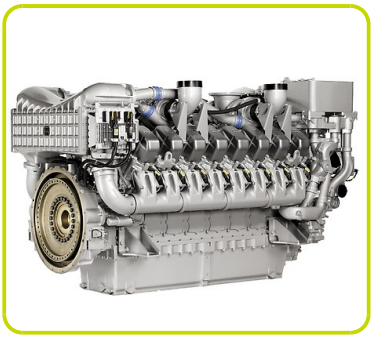
Power Rating		
Standby power LTP	kVA	3171
Standby power LTP	kW	2537
Prime power PRP	kVA	2876
Prime power PRP	kW	2301

Ratings definition (According to standard ISO8528 1:2005)

PRP - Prime Power:
It is defined as being the maximum power which a generating set is capable of delivering continuously whilst supplying a variable electrical load when operated for an unlimited number of hours per year under the agreed operating conditions with the maintenance intervals and procedures being carried out as prescribed by the manufacturer. The permissible average power output over 24 h of operation shall not exceed 70 % of the prime power.

LTP - Limited-Time running Power:
It is defined as the maximum power available, under the agreed operating conditions, for which the generating set is capable of delivering for up to 500 h of operation per year (whose no more than 300 for continuative use) with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. No overload capability is available.

Engine specifications		
Engine manufacturer		MTU
Model		20V4000G63
Version		50 Hz
Engine cooling system		Water
Nr. of cylinder and disposition		20 V
Displacement	cm³	95400
Aspiration		Turbocharged aftercooled
Speed governor		Electronic
Operating Speed-Nominal	rpm	1500
Prime gross power PRP	kW	2420
Maximum gross power LTP	kW	2662
Oil capacity	l	390
Fuel		Diesel
Specific fuel consumption @ 75% PRP	g/kWh	198
Specific fuel consumption @ PRP	g/kWh	192
Starting system		Electric
Electric circuit	V	24



Electric radiator		
Dry weight	Kg	2600
Wet weight	Kg	3000
Coolant capacity	l	300
Cooling fan airflow rate	m³/min	3000
Electrical motor power	kW	90

Fuel system:
• Electronically controlled high-pressure injection with single unit injection pumps (EUP)
• Fuel delivery pump
• Fuel main filter
• Fuel priming pump for initial system filling and venting
• Closed fuel system

Lube oil system:
• Forced-feed lubrication system with piston cooling
• Lube oil circulation pump with safety valve
• Lube oil multi-stage filte
• Lube oil heat exchanger
• Oil filler neck and oil dipstick for measurement on non-running engine
• Closed crankcase venting system

Combustion air system:
• Exhaust turbochargers
• Set of dry-type air filters with contamination indicator

Cooling system :
• Coolant circulation pump and coolant thermostat for jacket water cooling systems
• Electric radiator for jacket water and charge air cooling circuit with integrated expansion tank
• Coolant level sensor

Alternator Specifications		
Brand		Leroy Somer
Model		LSA53.1 M80
Voltage	V	400
Frequency	Hz	50
Power factor	cos ϕ	0.8
Voltage regulation system		Electronic
Poles		4
Standard AVR		R449
Voltage tolerance	%	0.5
Efficiency @ 75% load	%	96.5
Class		H
IP protection		23
Phases		3

Genset equipment

BASE FRAME:
Base frame made of welded steel profiles, complete with anti-vibration mountings properly sized.
The baseframe has a grounding point to connect all metal parts of the generating set and it provides a high structural strength.

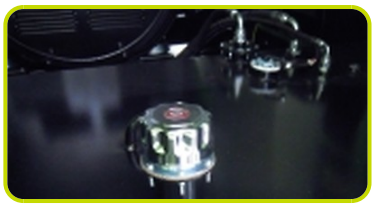
ENGINE COMPLETE WITH:
• Liquids (no fuel)

MANUAL OIL DRAININ PUMP:
• Oil draining facilities

CONTAINER 40':
Soundproof Container made by monoblock structure and designed to satisfy the most disparate needs of the Customer.
Main feature are:
• Structure similar to shipping containers (upper and lower corner castings, monolithic structure, walls and roof made of corrugated steel sheet), making them particularly strong and suitable .
• High resistance to the atmospheric agents
• Polyester powder painting and automatic blasting SA 2.5
• Air inlet and exhaust openings air outlet for genset cooling
• It is foreseen space for housing the electrical panel, if necessary the control panel can be separated from alternator, in a dedicated room.
• The floor is made of textured sheeting reinforced with profiles at steady pace bent.
• Doors single or double swing , these are fixed by sturdy steel hinges and equipped with various systems of locks, such as lever bolt locks, panic bars etc.

SOUNDPROOF:
The walls, divisors and roof are self supporting and with high acoustic absorption. They are produced in galvanized steel-sheet and subsequently painted with a galvanic deposition of polyester powder. Inside they are composed by a sheet of rock wool . Exhaust silencers placed inside or outside the container depending on genset model. Residual noise level of 70±3dB(A) at 7 m

Genset Equipment - Basic Configurations Available:		
BAT – LEAD-ACID STARTING BATTERIES KIT		:
Battery	n	4
Battery Capacity	Ah	220
MBS - Manual Battery Switch		●
INTEGRATED FUEL TANK - VERSIONS AVAILABLE		:
IFT1 - Integrated Fuel Tank (steel)	l	500
IFT2 - Integrated Fuel Tank (steel)	l	1000
FBD - Fully bunded base frame		●
LDS - Leakage detection sensor (only with FBD)		●
FCV - Fuel Cut Off Valve		●
AFP - Automatic Fuel Pump		●
DFP - Double Automatic Fuel Pump		●
PHS - Coolant Pre-Heating System - available for models:		●
ALS - Automatic Lube Oil Top Up System with lube oil tank 100L		●
● : Supplement available		.
Other Configurations and-or special versions available on requests		.



Dimensional data		
Length	(L) mm	12190
Width	(W) mm	2438
Height	(H) mm	2896
Dry weight	Kg	29800

Consumption		
Fuel consumption @ 75% PRP	l/h	410.45
Fuel consumption @ 100% PRP	l/h	531.78

Installation data		
Total air flow	m³/min	3330.00
Exhaust gas flow @ PRP	m³/min	438
Exhaust gas temperature @ LTP	°C	535

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Data Current		
MAX current	A	4462.87
Circuit breaker	A	4000