GSW3365M



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

Power Rating		
Standby power LTP	kVA	3300
Standby power LTP	kW	2640
Prime power PRP	kVA	3029
Prime power PRP	kW	2423
PRP Rating available only with engine supplement:		DPA

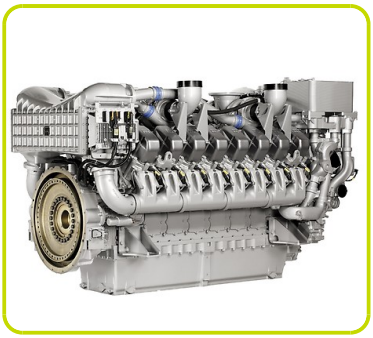
Ratings definition (According to standard ISO8528 1:2005)

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.

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Engine specifications		
Engine manufacturer		MTU
Model		20V4000G84F 3D
Version		50 Hz
PRP Rating only with supplement:		DPA
Engine cooling system		Water
Nr. of cylinder and disposition		20 V
Displacement	cm^3	95400
Aspiration		Turbocharged aftercooled
Speed governor		Electronic
Operating Speed-Nominal	rpm	1500
Prime gross power PRP	kW	2590
Maximum gross power LTP	kW	2850
Oil capacity	l	390
Fuel		Diesel
Specific fuel consumption @ 75% PRP	g/kWh	197
Specific fuel consumption @ PRP	g/kWh	192
Starting system		Electric
Electric circuit	V	24



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

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Alternator Specifications		
Alternator		Leroy Somer
Model		LSA53.2 M9
Voltage	V	400
Frequency	Hz	50
Power factor	cos ϕ	0.8
Voltage regulation system		Electronic
Poles		4
Standard AVR		D510C
Voltage tolerance	%	0.5
Efficiency @ 75% load	%	96.6
Class		H
IP protection		23
Phases		3



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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



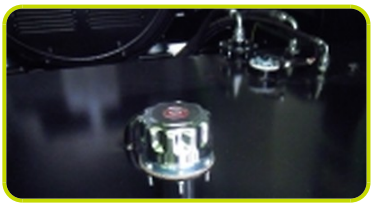
CONTAINER 40':
Soundproof Container made by monoblock structure and designed to satisfy the most disparate needs of the Customer.
Main feature are:
- Structure similar to shipping containers (upper and lower corner castings, monolithic structure, walls and roof made of corrugated steel sheet), making 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.

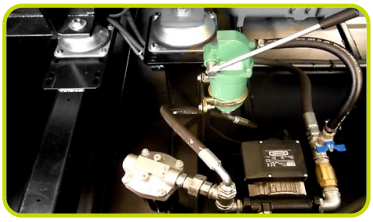


SOUNDPROOF:
The walls, divisors and roof are self supporting and with high acoustic absorption. They are produced in galvanized steel-sheet and subsequently painted with a galvanic deposition of polyester powder. Inside they are composed by a sheet of rock wool .
Exhaust silencers placed inside or outside the container depending on genset model.

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		.







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Dimensional data		
Length	(L) mm	12192
Width	(W) mm	2896
Height	(H) mm	2438



Consumption		
Fuel consumption @ 75% PRP	l/h	458.53
Fuel consumption @ 100% PRP	l/h	592.00

Noise level		
Noise pressure level @ 7 m	dB(A)	77 +/-3

Installation data		
Exhaust gas flow @ PRP	m³/min	468
Exhaust gas temperature @ LTP	°C	545

Electrical Data		
MAX current	A	4763.28

Control panel availability	
AUTOMATIC CONTROL PANEL	ACP
MODULAR PARALLEL PANEL	MPP

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ACP - Automatic control panel

Mounted on the genset, complete with digital control unit for monitoring, control and protection of the generating set, protected through door with lockable handle.



DIGITAL INSTRUMENTATION
- Generating set voltage (3 phases)
- Mains voltage
- Generating set frequency
- Generating set current (3 phases)
- Battery voltage
- Power (kVA - kW - kVAr)
- Power factor Cos φ
- Hours-counter
- Engine speed r.p.m.
- Fuel level (%)
- Engine temperature



COMMANDS AND OTHERS
- Four operation modes: OFF - Manual starting - Automatic starting - Automatic test
- Pushbutton for forcing Mains contactor or Genset contactor
- Push-buttons: start/stop, fault reset, up/down/page/enter selection
- Remote starting availability
- Acoustic alarm
- Automatic battery charger
- USB Communication port
- Settable PASSWORD for protection level



PROTECTIONS WITH ALARM
- Engine protections: low fuel level, low oil pressure, high engine temperature
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage

PROTECTIONS WITH SHUTDOWN
- Engine protections: low fuel level, low oil pressure, high engine temperature
- Genset protection: under/over voltage, overload, under/over battery voltage, battery charger failure

OTHERS PROTECTIONS
- Emergency stop button
- Panel protected through door with lockable handle

ACP - Basic Configurations Available:

POWER PANEL - BREAKERS AVAILABLE:		:
GCB1 - Genset Circuit Breaker 3-pole	A	5000
GCB2 - Genset Circuit Breaker 4-pole	A	5000
ETB - External Terminal Board (with GCB)		Standard
Various Supplement fof Remote Control		RGW [●]
Various supplements for remote signals		ARM [●]
Control Panel Anti-Condensation Heater (ACP)		CAH [●]
Other Configurations and-or special versions available on requests		.





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MPP - Modular parallel panel

Mounted on the genset, complete with digital control unit for monitoring, control, protection and load sharing for both single and multiple gen-sets operating in standby or parallel modes (up to 32 gen-sets in island).



DIGITAL INSTRUMENTATION (5'TFT COLOUR SCREEN)

- Mains: voltage, Intensity, Frequency.
- Mains kW - kVAr - Power factor Cos f.
- Generating set voltage (3 phases).
- Generating set frequency.
- Generating set current (3 phases).
- Generating set Power (kVA - kW - kVAr - Cos f).
- Generating set kWh and kVAh.
- Battery voltage.
- Hours-counter.
- Engine speed r.p.m.
- Fuel level (%).
- Engine temperature - Oil pressure



COMMAND AND OTHERS

- Single Parallel to Mains and Multiple parallel genset Island applications
- Operation modes: OFF- MAN - AUTO - TEST
- Pushbutton for forcing Mains Breaker/contactor or Genset Breaker/contactor.
- Push-buttons: start/stop, fault reset, up/down/page/enter selection.
- Multiple parallel and Power Management operation available.
- Automatic synchronizing and power control (via speed goveroner or ECU)
- Baseload Import/Export and Peak shaving
- Voltage and PF control.
- Configurable digital I/O (8/8) and analogue inputs (4).
- Integrate PLC programmable functions.
- Event-based history (up to 500records).
- Remote starting and Blocking signal availability.
- Acoustic alarm.
- Automatic battery charger.
- Ethernet RJ45, USB A, USB B and RS485 Comunication ports.
- Multi-pin connettor (in and out) for parallel with other generators



PROTECTION

- Engine protections: low fuel level, low oil pressure, high engine temperature.
- Genset protections: under/over voltage, overload, under/over frequency, starting failure, under/over battery voltage
- Others: overcurrent, shortcircuit, reverse power.
- Emergency stop button.
- Panel protected through door with lochetable handle

MPP - Basic Configurations Available:

POWER PANEL - BREAKERS AVAILABLE:		:
GMB1 - Genset Circuit Breaker 3-pole motorized	A	5000
GMB2 - Genset Circuit Breaker 4-pole motorized	A	5000
Various Supplement fof Remote Control		●
Various supplements for remote signals		●
Control Panel Anti-Condensation Heater (MPP)		●
[●] = Supplement available		.
Other Configurations and-or special versions available on requests		.





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