

# GRW2501 / S5



Power Rating		
Emergency Standby Power ESP	kVA	275.0
Emergency Standby Power ESP	kW	220.0
Prime power PRP	kVA	250.0
Prime power PRP	kW	200.0
Frequency	Hz	50
Voltage	V	400/230
Phases	Nº	3
Power factor	cos ф	0.8
Max current	А	397
Nominal current	А	361
Fuel		Diesel
[50Hz] Exhaust emission level		Stage V
VERSION SWITCHABLE [50/60Hz]		YES









## Ratings definition (ISO-8528)

ESP - Emergency Standby Power:

It is the maximum power available during a variable electrical power sequence, under the stated operating conditions, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200 h of operation per year with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. The permissible average power output over 24 h of operation shall not exceed 70 % of the ESP.

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.

G2 class load acceptance in accordance with ISO 8528-5:2013 Higher performance classes check upon request.

# Gensets are compliant with EC mark which includes the following directives:

- 2006/42/CE Machinery safety.
- 2014/30/UE Electromagnetic compatibility.
- 2014/35/UE electrical equipment designed for use within certain voltage limits
- 2000/14/EC Sound Power level. Noise emissions outdoor equipment. (amended by 2005/88/EC) If applicable
- 97/68/EC Emissions of gaseous and particulate pollutants. (amended by 2002/88/EC & 2004/26/EC) -If applicable
- EN 12100, EN 13857, EN 60204

Company with quality certification ISO 9001







Power supply 60Hz 480V Three Phase (with supplement DFS)		
Frequency	Hz	60
Voltage	V	480/277
Phases	Nº	3
Power factor	cos φ	0.8
Emergency Standby Power ESP	kVA	333.1
Emergency Standby Power ESP	kW	266.5
Prime power PRP	kVA	301.5
Prime power PRP	kW	241.2
Max current	А	401
Nominal current	А	363



Power supply 60Hz 208V Three Phase (with supplement DFS + VSS)		
Frequency	Hz	60
Voltage	V	208/120
Phase	Nº	3
Power factor	cos ф	0.8
Emergency Standby Power ESP	kVA	292.0
Emergency Standby Power ESP	kW	233.6
Prime power PRP	kVA	265.0
Prime power PRP	kW	212.0
Max current	Α	811
Nominal current	Α	736



Engine specifications		
Engine Brand		FPT
Model		C87TEVP01
Engine cooling system		Water
Nr. of cylinder and disposition		6 in line
Displacement	cm <sup>3</sup>	87000
Aspiration		Turbocharged aftercooled
Speed governor		Electronic
Oil capacity	1	27
Lube oil consumption PRP (max)	%	0.25
Coolant capacity	I	43
Electric circuit	V	24
Fuel		Diesel
DEF consumption (as % of Fuel consumption)	%	9.5
VERSION SWITCHABLE [50/60Hz]		YES
ENGINE DATA	Hz	50
ENGINE DATA	Hz	50
[50Hz] Operating Speed-Nominal	rpm	1500
[50Hz] Operating Speed-Nominal	rpm	1500
[50Hz] Exhaust emission level		Stage V
[50Hz] Specific fuel consumption 75% PRP	g/kWh	199.4
[50Hz] Specific fuel consumption 100% PRP	g/kWh	199.7
ENGINE DATA	Hz	60
ENGINE DATA	Hz	60
[60Hz] Operating Speed-Nominal	rpm	1800
[60Hz] Operating Speed-Nominal	rpm	1800
[60Hz] Specific fuel consumption 75% PRP	g/kWh	203.1
[60Hz] Specific fuel consumption 100% PRP	g/kWh	203



Alternator Specifications		
Alternator		LEROY SOMER
Model	LS	SA 46.3 S5
Туре		Brushless
Class		Н
IP protection		23
Insulation Protection Systems		Protection System 2
Poles		4
Winding leads		12
Voltage regulation system		Electronic
Voltage tolerance	%	0.5



Installation data		
[50Hz] Cooling air	m³/min	272.80
[50Hz] Exhaust gas flow PRP	m³/min	55
[50Hz] Exhaust gas temperature ESP	°C	600
[60Hz] Cooling air	m³/min	342.80
[60Hz] Exhaust gas flow PRP	m³/min	55
[60Hz] Exhaust gas temperature ESP	°C	600



# **Genset Equipment**

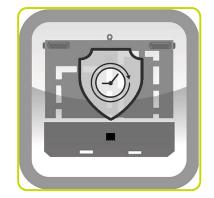
#### **CANOPY**

Canopy painted made up of modular panels with 1000h+ tested salt spray resistant zinced metal sheet, with access doors on each side with high quality gaskets and lockable handles for easy maintenance and service.

#### BASE FRAME

Heavy duty base guarantees the highest standards of durability and resistance, painted using a high quality powder coating process (1000+h tested salt spray resistance).

Fully bunded, able to retain 110% of all the sets fluids, the base frame is provided with integrated fork pockets and pull bar for easy maneuverability and site positioning.



## SINGLE LIFTING POINT

Access easy by rung and handle incorporated (available on both sides).

## MANUAL BATTERY SWITCH

#### EARTH ROD

Earth stock with cable fixed inside the genset.

## **DOCS HOLDER**

Box intenal for documents, manuals and electrical drawings.

## HOT PARTS PROTECTIONS

#### LUBE OIL DRAIN PUMP

Makes it easier to the engine oil change.

## FUEL VALVE (6 WAY)

System designed for use the fuel from external tank and increase the autonomy of the generator.

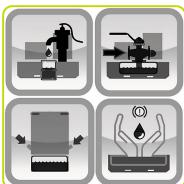
#### **FUEL TANK**

Integrated metal fuel tank complete with double fuel refiling point (one each side).

# LEAK PROOF TRAY WITH DETECTOR SENSOR

Fluid leak check in the leak proof tray.





Fuel Tank - Autonomy		
Fuel tank location		Internal
Fuel tank material		Metal
Fuel tank capacity	1	800
[50Hz 400V] Fuel consumption 75% PRP	l/h	39.59
[50Hz 400V] Running time 75% PRP	h	20.21
[50Hz 400V] Fuel consumption 100% PRP	l/h	52.72
[50Hz 400V] Running time 100% PRP	h	15.17
[60Hz 480V] Fuel consumption 75% PRP	l/h	49.74
[60Hz 480V] Running time 75% PRP	h	16.08
[60Hz 480V] Fuel consumption 100% PRP	l/h	65.00
[60Hz 480V] Running time 100% PRP	h	12.31





## **DEF** tank

DEF tank Capacity	I	80
DEF consumption (as % of Fuel consumption)	%	9.5
[50Hz 400V] DEF Autonomy 75% PRP	h	21.27
[60Hz 480V] DEF Autonomy 75% PRP	h	16.93



Control panel - Options Available:	
AUTOMATIC CONTROL PANEL	ACP
MODULAR PARALLEL PANEL	MPP



# **ACP - AUTOMATIC CONTROL PANEL**

#### CONTROL SECTION:

- Auto Mains Failure (AMF) function
- Gen-set controller for single genset operating in standby or prime power modes
- Full gen-set monitoring and protection
- Detailed event and performance log with time and date
- Emergency push button
- Extra Instrumentation (analogue): Fuel level meter; Mechanical hour counter
- Differential protection with internal switch
- 5A Battery charger.
- Potentiometer for voltage adjustment (internal)

## SOCKET SECTION:

- Two wires facility for remote start/stop
- Plug for auxiliary power supply
- · Multipin connector for LTS
- · Socket Kit: Equipment and configurations available as a supplement.

## POWER SECTION:

- It integrates 4 poles modular circuit breaker suitably rated with thermal and magnetic
- Large and robust busbar with cables passage opening from the bottom for easy power cable connection.
- Provided with safety switch to trip circuit breaker if operator open the power section door to operate on the bus bar.

# **MPP - MODULAR PARALLEL PANEL**

## CONTROL SECTION:

- Modular parallel panel allows the genset to work in parallel (up to 32 gen-sets)
- Easy switching between parallel to mains or multiple genset applications
- Full gen-set monitoring and protection
- Detailed event and performance log with time and date
  Colour display 7" TFT with 800x480 px resolution
- · Wide range of communication and connection capabilities available
- Emergency push button
- Extra Instrumentation (analogue): Fuel level meter; Mechanical hour counter
- · Differential protection with internal switch
- 5A Battery charger.
- Potentiometer for voltage adjustment (internal)

#### SOCKET SECTION:

- · Multi-pin connectors for paralle running.
- Two wires facility for remote start/stop.
- Plug for auxiliary power supply.
- · Socket Kit: Equipment and configurations available as a supplement.

#### POWER SECTION

- It integrates 4 poles motorized moulded case circuit breaker suitably rated with thermal and magnetic overloads
- Large and robust busbar with cables passage opening from the bottom for easy power cable connection.
- Provided with safety switch to trip circuit breaker if operator open the power section door to operate on the bus bar.





# **CANOPY VERSION**

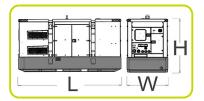
- Weatherproof Enclosure made of galvanized sheet metal allows to protect genset from
- corrosion and aggressive condition. Soundproofing by means washable and fireproof soundproofing material, to get noise attenuation. Exaust silencer integrated in the genset shape with flat rain flap.

  • Plastic Bumper (protections for the transport and stocking).



# **Dimensional data Canopy Version**

Length	(L) mm	4165
Width	(W) mm	1500
Height	(H) mm	2130



Weight	Kg	4334

## Noise Level 50Hz

Guaranteed noise level (LWA)	dB(A)	97
Noise pressure level @ 1 m	dB(A)	78
Noise pressure level @ 7 m	dB(A)	67



# **Supplements:**

To be ordered with equipment (when necessary)

## **GENSET CONTROL EQUIPMENT**

Dual Frequency Switch (50/60Hz)	Y400/230V 50Hz Y480/277V 60Hz	DFS
Voltage Selector Switch 2 postions (only with ACP/MPP and DFS)	Y400/230V 50Hz Y480/277V 60Hz YY208/120V 60Hz	VSS1



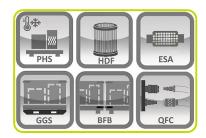
## **ELECTRICAL OPTION**

Internal Canopy Lighting system with manual switch	ICL
Control section internal lighting (automatic with door switch)	CLS
DSE2157 Output (8) Expansion Module	ARM7
DSE890 MKII DSEWebNet ® Gateway 4G (GSM/Ethernet)	RGW2
DSE855 USB to Ethernet Communications Device	RGW9
Engine analogue gauges (water temp / oil pressure)	EAG
Insulation Monitoring Device (Replace standard differential protection)	IMD
Socket kit	SPK
Power lock	PWL
Bus bar arrangement	ERDF



## **MECHANICAL OPTION**

Pre-heating system	PHS
Air Inlet Preheater	APH
Heavy-Duty Air Filter	HDF
Exhaust Spark Arestor ATEX certified	ESA
Air Shut-Off Valve	ASV
Galvanized Sliding Skid	GGS
Baseframe Bumpers	BFB
Quick Fit Fuel and Urea connectors - Stage V	QFC - S5
Quick Fit Fuel and Urea connectors inside the canopy - StageV	QFC1 - S5



#### **Accessories**

Items available as accessory equipment	:
Site trailer	STR
Road Trailer	RTR
Road Trailer with Drawbar Height-Adjustable	RTR-B
Load Transfer Switch [Accessories for ACP Panel]	ITS

