

# **GGW200G**

## INDUSTRIAL SPARK-IGNITED GENERATOR SET



Main Features		
Frequency	Hz	50
Voltage	V	400/230
Power factor	cos ф	0.8
Phase		3
Fuel		Natural Gas



Power Rating		
Emergency Standby Power ESP	kVA	200
Emergency Standby Power ESP	kW	160
Prime power PRP	kVA	180
Prime power PRP	kW	144



#### **Designed to the following standards:**

Ratings definition according to standard ISO8528 1:2005 normative 1000mbar, 25°C, 30% relative humidity.

#### **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.



BS 5514 and 6271

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Engine specifications		
Engine Brand		Generac
Nr. of cylinder and disposition		6 in line
Displacement	cm³	14200
Bore	mm	135
Stroke	mm	165
Compression Ratio		9.5:1
Aspiration		Turbocharged aftercooled
Operating Speed-Nominal	rpm	1500
Speed governor		Electronic
Frequency Regulation (steady state)	% (+/-)	0.25
Fuel		Natural Gas
Ignition		Electronic
Carburetor		Down Draft
Fuel consumption 75% ESP	kg/hr	30.3
Fuel consumption 100% ESP	kg/hr	37.2
Operating Fuel Pressure	kPa	1.7-2.7
Engine cooling system		Water
Cooling fan	Туре	Mechanical
Coolant capacity	1	54.9
Oil Pump	Туре	Gear
Oil filtration	Туре	Full Flow Spin- On Cartridge
Oil capacity	1	34.3
Electric circuit	V	24



Alternator Specifications		
Alternator		Mecc Alte
Model		ECO38-2S
Poles		4
Class		Н
Туре		Brushless
Standard AVR		DSR
Voltage tolerance	%	1
IP protection		23
Voltage regulation system		Electronic



Fuel Consumption Rates		
Fuel type		Natural Gas
Fuel consumption 25% ESP	sm³/hr	23.4
Fuel consumption 50% ESP	sm³/hr	32.7
Fuel consumption 75% ESP	sm³/hr	41.5
Fuel consumption 100% ESP	sm³/hr	51.0
Refence gas with density of 0.73 kg/smc and HHV=37.6 MJ/smc		



#### **STANDARD FEATURES**

#### **ENGINE SYSTEM**

- · Oil Drain Extension
- · Heavy Duty Air Cleaner
- · Fan Guard
- Stainless Steel Flexible Exhaust Connection
- · Factory-Filled Oil And Coolant
- · Industrial Exhaust Silencer
- · Air Filter restriction indicator

#### **Fuel System**

- · Primary And Secondary Fuel Shutoff
- · Fuel Line NPT Connection

#### **Cooling System**

- Close Coolant Recovery System
- UV/Ozone resistant hoses
- Factory Installed Radiator
- 50/50 Ethylene Glycol Antifreeze
- Radiator Drain Extension

#### **Electrical System**

- · Battery Charging Alternator
- · Battery Cables
- Battery Tray
- **Rubber-Booted Engine Electrical Connections**
- · Solenoid Activated Starter Motor

#### **ALTERNATOR SYSTEM**

- · Class H Insulation Material
- 2/3 Pitch
- · Skewed Stator
- · Auxiliary Winding Excitation System
- Sealed Bearing
- · Amortisseur Widing
- · Full-Load Capacity Alternator

#### **GENERATOR SET**

- · Internal Genset Vibration Isolation
- Wrapped Exhaust Piping (Enclosed Only)Bottom (floor) power cable outlet
- 1-year Warranty or 1000 hours
- Exhaust silencer Mounted in the Discharge Hood (Enclosed Sets)

#### **ENCLOSURE** (if selected)

- · High-Performance Sound Absorbing Material
- Gasketed Doors
- · Galvanized Sheet Metal Construction
- Upward Facing Discharge Hood (exhaust)
- · Stainless Steel Hinges









Advanced integrated gen-set control platform that includes all drives and functions to manage the gas gen-set and perform an optimal combustion of the fuel, while maximizing performance.

- User Interface (UI)
  7" Colour Display with touch screen
- User-friendly icons
- · Remote Connection via WiFi or Bluetooth

#### **Mode of Operation**

- Manual Automatic (ACP)
- Parallel (MPP) genset-to-genset with 4-Poles motorized CB available in MPP configurations
- Single gen-set automatic start (2-Wire)
- · Single Gen-set with Mains Failure control (AMF)
- · Gen-to-gen parallel (unlimited) with remote start

#### **Program Functions**

- Programmable Crank Limiter
- 7-Day programmable Excerciser
- RS232/485 Communications
- LAN communication
- 3-Phase sensing Voltage Regulator
- · 2-Wire start Capability
- Date/Time Fault History (event Log)
- Isochronus Governor Control
- · Audible Alarms and shutdown
- · Auto On/Off Manual Switch
- E-Stop Button (Mushroom)
- Customizable Alarms, Warnings, Events
- · Modbus protocol
- · Predictive Maintenance Algorithm
- · Sealed Boards
- Password Parameter Adjustment Protection
- Single Point Ground
- · Alarm Information Automatically Announced on the touchscreen display

#### **Full System Status Display**

- Power Output (kW)
- Power Factor Cos(φ)
- · kWh total and last run
- · Active/Reactive/Apparent Power
- · All Phase AC voltage
- All Phase Currents
- Oil Pressure
- · Coolant Temperature
- Coolant Level
- **Engine Speed**
- Battery Voltage
- Frequency

#### **Alarms And Warnings**

- · Oil Pressure
- Coolant Temperature
- Coolant Level
- · Low Fuel Pressure Alarm
- **Engine Overspeed**
- Battery Voltage
- Alarms and Warnings times and date staped
- Snap Shot of key Operation Parameters during Alarms and Warnings
- Alarms and Warinings Spelled Out (No Alarm Codes)
- Multilingual

#### **Other Protections**

- Circuit Breaker (III poles)
- Emergency stop button
- 4-Poles motorized CB (Optional MPP)









Installation data		
Total air flow	m³/min	494.48
Exhaust gas flow	m³/min	65
Exhaust gas temperature	°C	689
Max exhaust backpressure	mbar	25.4





Electrical Data		
Nominal current	Α	259.92
Max current	Α	288.68
Circuit breaker	Α	320

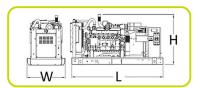


# OPEN VERSION



### Dimensional data

Length	(L) mm	3540
Width	(W) mm	1500
Height	(H) mm	1870
Weight	kg	2630

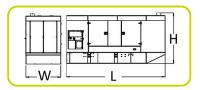


# **CANOPY VERSION**



# **Dimensional data Canopy Version**

Length	(L) mm	4402
Width	(W) mm	1538
Height	(H) mm	2240
Weight	kg	3700



#### **Noise Level**

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

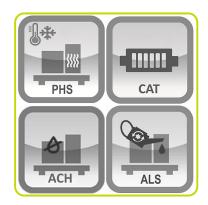


### **OPTIONAL FEATURES**

To be ordered with equipment (when necessary)

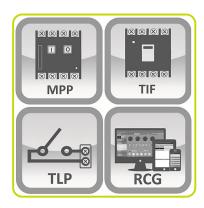
#### **GENSET EQUIPMENT**

Coolant Pre-Heating System (convection type)	PHS
3-Way catalytic muffler	CAT
Upsized Alternator	UAL
Alternator anti-condensation heater	ACH
Permanent Magnet Generator on alternator	PMG
Genset Metal Nameplate	GMN
Without Batteries	WBAT
Automatic Lube Oil Top Up System with lube oil tank	ALS
Different Canopy Colour	DCC



#### **CONTROL PANEL**

Genset-to-Genset Parallel Control (4-Poles motorized CB)	MPP
Four poles circuit breaker	TIF
Auxiliary Contact for remote signalization	TLP
Remote Connection kit with Antenna	RCG



# Accessories Items available as accessory equipment : Load Transfer Switch [Accessories for ACP Panel] LTS



