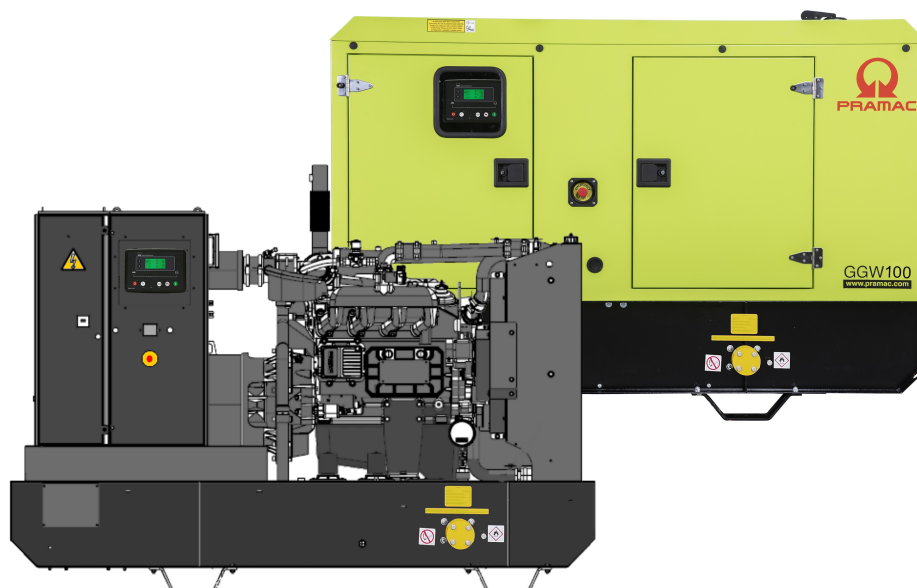


GGW100G



Main Features

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



Power Rating

Emergency Standby Power ESP	kVA	100
Emergency Standby Power ESP	kW	80
Prime power PRP	kVA	90
Prime power PRP	kW	72



Ratings definition (ISO-8528-1)

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: Higher performance classes check upon request.

Gensets are compliant with EC mark which includes the following directives and standards and subsequent modification and integration:

- 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 2016/1628 EC) – If applicable
- ISO 8528 as applicable
- 2011/65 ROHS
- EN 12100, EN 13857, EN 60204 as referred into the ISO8528-13

Company with quality certification ISO 9001



Engine specifications

Engine Brand	Generac	
Nr. of cylinder and disposition	8 V angle	
Displacement	cm ³	8900
Bore	mm	114.3
Stroke	mm	108
Compression Ratio	9.9:1	
Aspiration	Natural	
Operating Speed-Nominal	rpm	1500
Frequency Regulation (steady state)	% (+/-)	1
Fuel	Natural Gas	
Ignition	Electronic	
Operating Fuel Pressure	kPa	1.7-4.0
Engine cooling system	Water	
Cooling fan	Type	Mechanical
Coolant capacity	l	24
Electric circuit	V	12

Alternator Specifications

Alternator	Mecc Alte	
Model	ECP34-1M/4C	
Poles	4	
Class	H	
Type	Brushless	
Standard AVR	DSR	
Voltage tolerance	%	1
IP protection	23	
Voltage regulation system	Electronic	

Fuel Specifications and Consumption

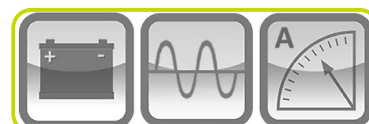
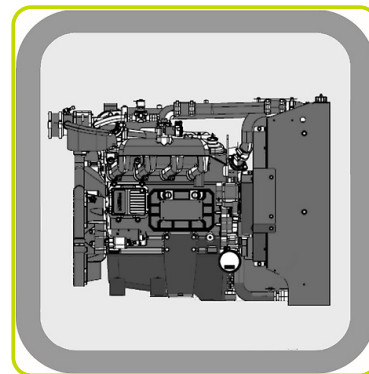
Fuel type	Natural Gas	
Fuel consumption 75% ESP	sm ³ /hr	22.9
Fuel consumption 100% ESP	sm ³ /hr	28.6
Fuel consumption 75% PRP	sm ³ /hr	21
Fuel consumption 100% PRP	sm ³ /hr	26.5
Refence gas with density of 0.73 kg/smc and HHV=38 MJ/smc		
Flanged Fuel Line Connection	DN50 PN10	

Installation data

Total air flow	m ³ /min	165.62
Exhaust gas flow	m ³ /min	23
Exhaust gas temperature	°C	596

Electrical Data

Battery capacity	Ah	100
Nominal current	A	128.28
MAX current (calculated on label value)	A	144.34
Circuit breaker	A	160



STANDARD FEATURES

ENGINE SYSTEM

- Oil Drain Extension
- Heavy Duty Air Cleaner
- Fan Guard
- Stainless Steel Flexible Exhaust Connection
- Factory-Filled Oil And Coolant

Fuel System

- Primary And Secondary Fuel Shutoff
- Flanged Fuel Line Connection
- Electronic pressure regulator with automatic Air-Fuel ratio control
- Stoichiometric combustion (rich-burn) with engine exhaust lambda-sensor

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
- Ignition coils rack-mounted
- GENERAC Electronic fuel ignition (EFI) module

ALTERNATOR SYSTEM

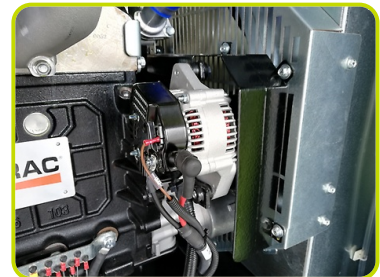
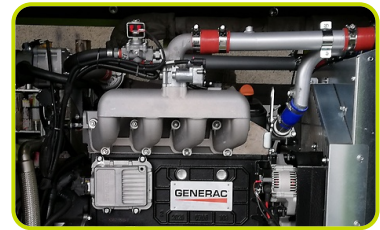
- Class H Insulation Material
- 2/3 Pitch
- Skewed Stator
- Auxiliary Winding Excitation System
- Sealed Bearing
- Amortisseur Winding
- Full-Load Capacity Alternator

GENERATOR SET

- Internal Genset Vibration Isolation
- Wrapped Exhaust Piping (Enclosed Only)
- Bottom (floor) power cable outlet
- 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)
- Steel Hinges



ACP - AUTOMATIC CONTROL PANEL

Deep Sea Electronics DSE G8600 Controller

The G8600 is a parallel genset controller with integral heater designed for complex paralleling applications. The G8600 can be configured to provide paralleling for up to 32 generators on a single site and provides a wide range of high-end features for multiple application environments. The module is configurable for use as a single-set controller, multi-set controller, mains (utility) controller or group controller.

Features

- Multiple bus sectioning
- Group controller functionality
- Spinning reserve
- Load demand schemes
- Advanced MSC link (AMSC)
- Advanced PLC functionality
- Multi-purpose PIDs
- Phase locking
- Virtual inputs
- On-screen mimic (SLDs)
- Multiple application support
- Multi-level pin protected front panel editor
- Integral LCD display heater
- Enhanced high-resolution 240 x 128 pixel display
- Single or multiple generator control
- Latest ECU / ECM support
- Load sharing & VAR sharing
- Virtual shared inputs, outputs and data via AMSC
- Touch screen panel PC support (DSE SCADA)
- Zero sequence voltage protection
- Integral gasket (IP65 protection)
- Built-in governor & AVR control
- DSE digital AVR support
- Base load (kW export) control
- Positive & negative kVAr export control
- Dead bus synchronising
- Mains (utility) decoupling protection
- Multiple language support
- 3-phase generator sensing & protection
- 3-phase mains (utility) sensing
- 3-phase bus sensing
- Mains (utility) failure detection
- Generator current, protection & power monitoring
- Configurable timers
- Integrated SNMP
- Data logging
- PC configuration
- DSENet® (Expansion support)
- Flexible I/O (inputs/outputs)
- Automatic and front panel breaker control
- Power-save mode

Other Protections

- Main Line Circuit Breaker, Thermal Magnetic 3-Poles 100% rated (Single-Set configuration)
- Main Line Circuit Breaker, Motor-Operated with Thermal Magnetic protection, 3-Poles 100% rated (Modular-Parallel configuration)



MPP - MODULAR PARALLEL PANEL

Deep Sea Electronics DSE G8600 Controller

The G8600 is a parallel genset controller with integral heater designed for complex paralleling applications. The G8600 can be configured to provide paralleling for up to 32 generators on a single site and provides a wide range of high-end features for multiple application environments.

Features

- Multiple bus sectioning
- Group controller functionality
- Spinning reserve
- Load demand schemes
- Advanced MSC link (AMSC)
- Advanced PLC functionality
- Multi-purpose PIDs
- Phase locking
- Virtual inputs
- On-screen mimic (SLDs)
- Multiple application support
- Multi-level pin protected front panel editor
- Integral LCD display heater
- Enhanced high-resolution 240 x 128 pixel display
- Single or multiple generator control
- Load sharing & VAr sharing
- Virtual shared inputs, outputs and data via AMSC
- Touch screen panel PC support (DSE SCADA)
- Zero sequence voltage protection
- Integral gasket (IP65 protection)
- Built-in governor & AVR control
- DSE digital AVR support
- Base load (kW export) control
- Positive & negative kVAr export control
- Dead bus synchronising
- Mains (utility) decoupling protection
- Multiple language support
- 3-phase generator sensing & protection
- 3-phase mains (utility) sensing
- 3-phase bus sensing
- Mains (utility) failure detection
- Generator current, protection & power monitoring
- Configurable timers
- Integrated SNMP
- Data logging
- PC configuration
- DSENet® (Expansion support)
- Flexible I/O (inputs/outputs)
- Automatic and front panel breaker control
- Power-save mode

Other Protections

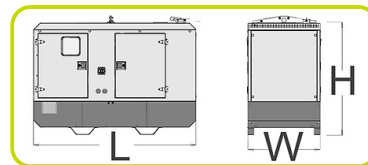
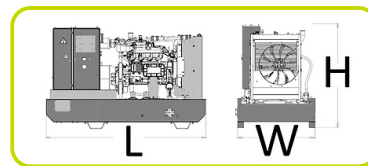
- 3 Poles motorized circuit breaker
- Emergency stop button
- 4 Poles motorized circuit breaker (optional TIF)

Dimensional data Open Version

Length	(L) mm	2606
Width	(W) mm	1122
Height	(H) mm	1488
Weight	kg	1082

Dimensional data Canopy Version

Length	(L) mm	3090
Width	(W) mm	1130
Height	(H) mm	1790
Weight	kg	1622



Noise Level

Guaranteed noise level (LWA)	dB(A)	97
Noise pressure level @ 1 m	dB(A)	79
Noise pressure level @ 7 m	dB(A)	68

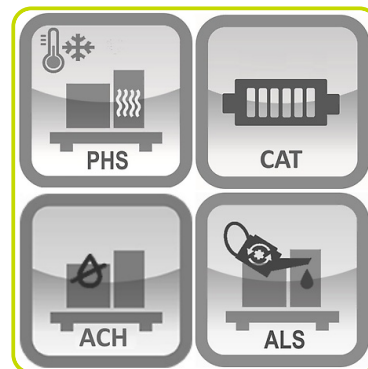


OPTIONAL FEATURES

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
Starting Batteries	BAT
Automatic Lube Oil Top Up System with lube oil tank	ALS
Different Canopy Color	DCC



CONTROL PANEL

Four poles circuit breaker	TIF
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