

Gas generator set Sound-proof type GR16S-NG

SPECIFICATIONS





1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- Conformite Europeenne (CE)
- ISO8528-5:2005
- GB/T2820.5-2009

Environmental Operating Conditions

- · Installation place: Indoors (well ventilated).
- Ambient temperature: -25°C to 50°C. The coolant heater is needed when the temperature is below 5°C
- Humidity: Less than 80%.
- Altitude: Below one thousand (1000) meters above sea level.

Fuel Requirement

- · Fuel type: Natural gas
- · Supply gas pressure: 5kPa to 30kPa
- LHV: More than 36.0MJ/Nm³ or 10.0kW/Nm³

Factory Inspection

- Inspection items.
- Protection devices working test.
- Starting ability in normal temperature.
- 50% rated power load moment capability.
- Voltage deviation and speed variation: 0%, 25%, 50%, 75%, 100%, 110% Load.

Painting Process

- Painting process specifications and colors are based on the manufacturer's standard.
- The customer could also choose the color which the manufacturer offers.

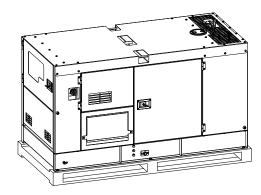
2 General Features

- POWERLINK engine GR2.5E01N
- Close coupled to PowerLink alternator PL1E
- Microprocessor control module GCC92
- Main circuit breaker: 32A
- Excitation system: Self excited
- A.V.R model: SX440Emergency stop switch

- Time counter
- 1x12V/72AH Sealed for life maintenance free battery
- Gas trair
- · Air-fuel ratio control system
- · Speed control system
- Powder coated canopy
- · Lockable battery isolator switch
- Oil filter
- 50°C radiator
- Steel base frame with lifting lugs
- Vibration isolators between the engine/alternator and base frame
- · Dry type air filter
- Operator's Manual / Specifications

3 Equipment Specification

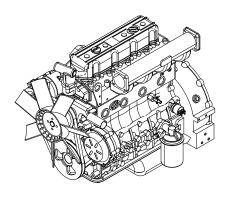
General technical data



Model	GR16S-NG
Structure type	R
Dry weight	753kg
Noise level @7m	50dBA
Dimensions L×W×H	1800x865x1067mm
Prime Power	20kVA/16kW
Electric efficiency	29.1%

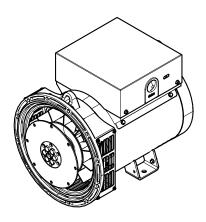
Voltage		380V	400V		415V	
Ampere		30.4A	28.9A		27.8A	
Natural Gas Consumption						
Load		25%	50%	75%		100%
50Hz (m³/h))	1.5	2.8	4	.1	5.5

Gas engine



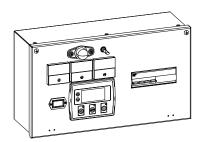
Engine Manufacturer/Brand	POWERLINK
Engine Model	GR2.5E01N
Dry Weigh (approx.)	156Kg
Number of Cylinders	4
Bore	90mm
Stroke	100mm
Displacement	2.545L
Compression Ratio	10.5
Burn type	stoichiometric
Excess air factor	1.2
Intake System	Natural aspiration
Cooling System	Water cooled
Fan	Pusher
Battery Voltage	12V
Type of Fuel	Natural gas
Type of Oil	SAE 40
Type of Coolant	Glycol mixture
Prime Power	21kW

Alternator



Alternator Manufacturer/Brand	PowerLink
Alternator Model	PL1E
Exciter	Brushless
Cooling Fan	Cast alloy aluminum
Windings	100% copper
Insulation Class	Н
Winding Pitch	2/3
Terminals	12
Drip Proof	IP23
Altitude	≤1000m
Overspeed	2250rpm
Air Flow 5.3m³/min(5	50Hz),5.8m³/min(60Hz)
Voltage Regulation	±1.0%
Total harmonic TGH / THCat no load	< 1.5 % - on load < 5%
Telephone Interference	THF<2%;TIF<45

GCC92 Control System

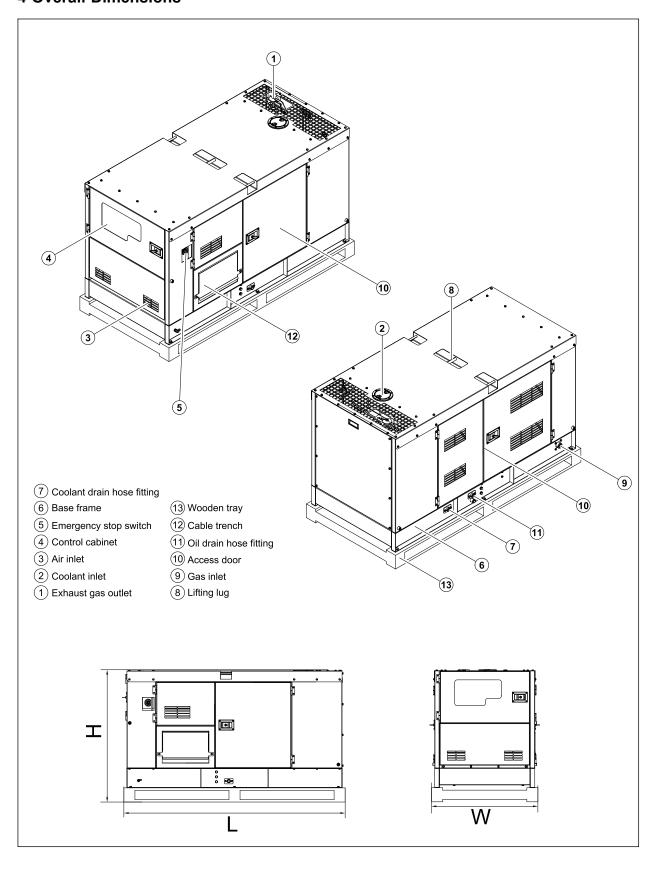


GCC92 is an advanced control module based on microprocessor designed to control the engine via a key switch and push buttons on the front panel. The module is used to start and stop the engine and indicate fault conditions, automatically shutting down the engine and giving a true first up fault condition of an engine failure.

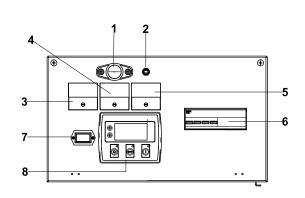
Standard Control Function

- Manual Engine Control Module
- Low Oil Pressure
- High Engine Temperature
- Auxiliary Shutdown
- Overspeed Protection
- Protection hold-off timer
- Charge Failure warning

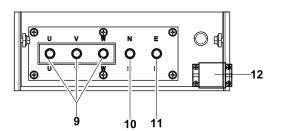
4 Overall Dimensions



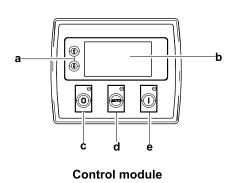
5 Control System



Ref.	Description
1	Control cabinet lamp
2	Control cabinet lamp switch
3	Voltage meter
4	Current meter
5	Frequency meter
6	Main circuit breaker
7	Time counter
8	Control module
9	Live wire terminal
10	Neutral wire terminal
11	Ground wire terminal
12	Remote control/Mains input



Control & field wiring cabinet



Ref.	Description
а	Navigation button; Accept (Configuration mode only)
b	Main status display
С	Stop/reset button; Next page (Configuration mode only)
d	Auto start button; Decrease value/next item (Configuration mode only)
е	Start button: Increase value/next item (Configuration mode only)

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