

Gas generator set
Sound-proof type
GR24S-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℃ to 50℃. The coolant heater is needed when the temperature is below 5℃
- 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 GR3.8E01N
- · Close coupled to PowerLink alternator PL1G
- Microprocessor control module GCC92

· Main circuit breaker: 50A

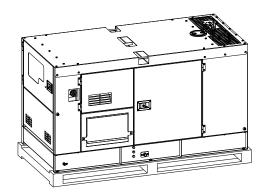
Excitation system: Self excited

A.V.R model: SX440

- · Emergency 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

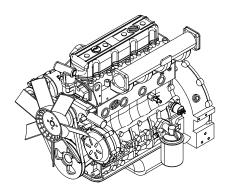
### General technical data



Model	GR24S-NG
Structure type	R
Dry weight	945.54kg
Noise level @7m	50dBA
Dimensions L×W×H	2250x970x1136mm
Prime Power	30kVA/24kW
Electric efficiency	29.5%

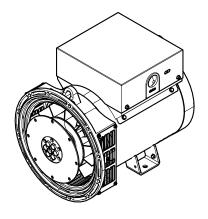
Voltage		380V	400V	415		415V
Ampere		45.6A	43.3A		41.7A	
Natural Gas Consumption						
Frequency/Lo	ad	25%	50%	75	5%	100%
50Hz (m³/h)	)	2.1	4.1	6	.0	8.1

# Gas engine



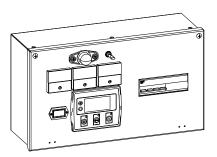
Engine Manufacturer/Brand	POWERLINK
Engine Model	GR3.8 E01N
Dry Weigh (approx.)	318Kg
Number of Cylinders	4
Bore	102mm
Stroke	118mm
Displacement	3.854L
Compression Ratio	10.5
Burn type	stoichiometric
Excess air factor	1.2
Intake System	Natural aspiration
Cooling System	Water cooled
Fan	Pusher
Battery Voltage	12V
Type of Fuel	Natural gas
Type of Oil	SAE 40
Type of Coolant	Glycol mixture
Prime Power	33kW

### **Alternator**



Alternator Manufacturer/Brand	PowerLink
Alternator Model	PL1G
Exciter	Brushless
Cooling Fan	Cast alloy aluminum
Windings	100% copper
Insulation Class	H
Winding Pitch	2/3
Terminals	12
Drip Proof	IP23
Altitude	≤1000m
Overspeed	2250rpm
Air Flow 5.3m³/min(	(50Hz),5.8m³/min(60Hz)
Voltage Regulation	±1.0%
Total harmonic TGH / THCat no load	d < 1.5 % - on load < 5%
Telephone Interference	THF<2%;TIF<45

# **GCC92 Control System**

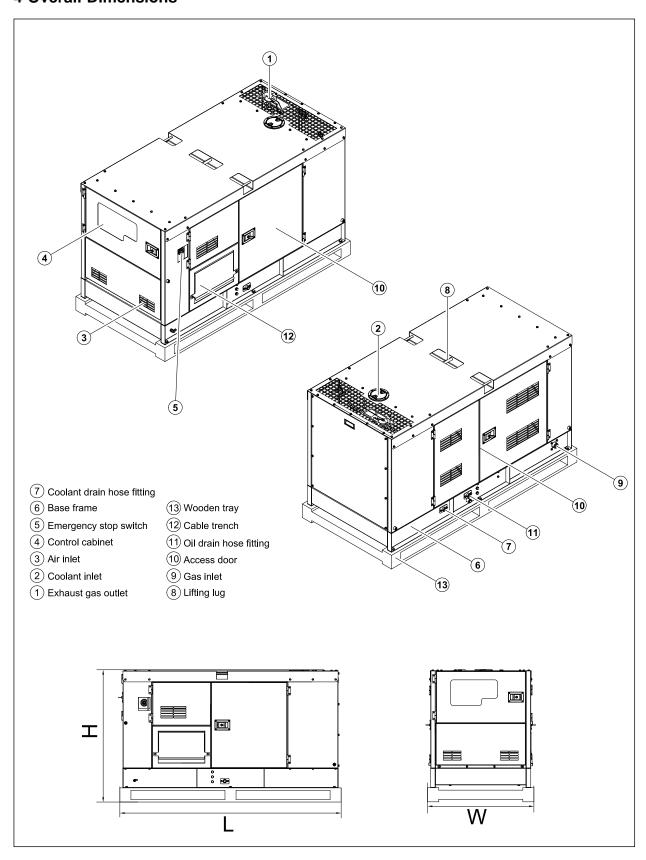


GCC92 is an advanced control module based on microprocessor designed to control the engine via a key switch and push buttons on the front panel. The module is used to start and stop the engine and indicate fault conditions, automatically shutting down the engine and giving a true first up fault condition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

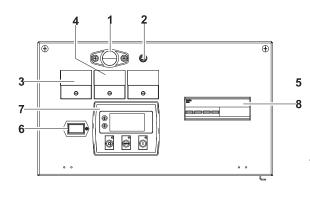
#### **Standard Control Function**

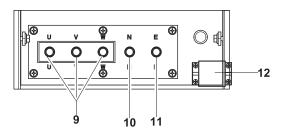
- Manual Engine Control Module
- Low Oil Pressure
- High Engine Temperature
- Auxiliary Shutdown
- Overspeed Protection
- Protection hold-off timer
- Charge Failure warning

# **4 Overall Dimensions**

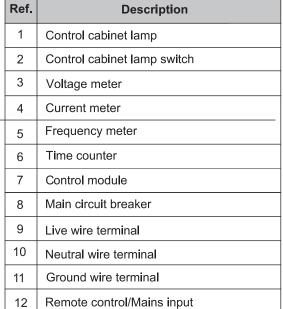


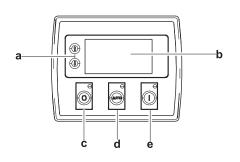
# **5 Control System**





Control & field wiring cabinet





Control me	odule
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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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