# 50 kVA CNG Generator Set

Simplified Technical Data Sheet | Model PLG-50GF | 50 Hz

PRIME

**40 kW / 50 kVA**

STANDBY 44 kW / 55 kVA

## PRODUCT OVERVIEW



OPEN TYPE



SILENT TYPE WITH CNG ACCESSORIES

## MAIN SPECIFICATIONS

| | | | |
|---|---|---|---|
| **Model** | PLG-50GF | **Fuel** | CNG / natural gas |
| **Prime power** | 40 kW / 50 kVA | **Standby power** | 44 kW / 55 kVA |
| **Rated voltage** | 400/230 V | **Rated current** | 72 A |
| **Frequency** | 50 Hz | **Rated speed** | 1500 rpm |
| **Power factor** | 0.8 | **Configuration** | Silent (open type also listed) |
| **Controller** | SmartGen HGM6110N | **Speed governor** | Electronic |

Rating basis: altitude below 1000 m and ambient temperature below 40 °C. Other voltages: 380/220 V, 415/240 V and 440/254 V on request.

## ENGINE AND ALTERNATOR

| GAS ENGINE | |
|---|---|
| **Model** | Pulita / PC3.9NG |
| **Engine rated power** | 50 kW |
| **Configuration** | Inline, 4-stroke, 4-cylinder |
| **Bore x stroke** | 102 x 120 mm |
| **Displacement** | 3.9 L |
| **Compression ratio** | 11:1 |
| **Aspiration** | Naturally aspirated |
| **Cooling** | Closed-loop water cooling |
| **Start method** | 24 V DC electric |
| **Gas mixer** | Pre-mix |
| **Oil pressure / temp.** | 345-483 kPa / <80 °C |
| **Max. exhaust temp.** | 580 °C |

| ALTERNATOR | |
|---|---|
| **Model** | Pulita / FD2B |
| **Rated output** | 40 kW / 50 kVA |
| **Standby output** | 44 kW / 55 kVA |
| **Connection** | 3-phase, 4-wire |
| **Power factor** | 0.8 |
| **Excitation** | Brushless |
| **Voltage regulation** | Automatic AVR |
| **Insulation** | Class H |
| **Protection** | IP23 |
| **Cooling** | Air cooled |

| LOAD | GAS CONSUMPTION | OPERATING REQUIREMENTS |
|---|---|---|
| **100% prime** | 12 m³/h | 0.8-30 kPa gas pressure range. Pipeline feed: 2-5 kPa. |
| **75% prime** | 10.8 m³/h | Methane >80%. Supply gas must be free of liquid water. |
| **50% prime** | 8.0 m³/h | Humidity <60%. Suggested lubricating oil: 15W-40 CD/F. |

Listed specific gas consumption: ≤0.3 m³/kWh.

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## CONTROLLER AND PROTECTION

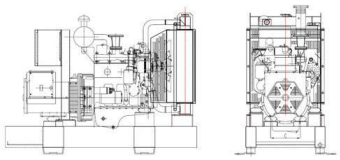



**SmartGen HGM6110N**
Starts and stops the generator remotely. Provides LCD monitoring, alarms and USB configuration.

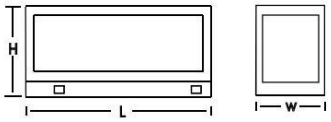
**Protection functions**
Monitors engine speed, oil pressure and coolant temperature, with generator electrical protection and start-failure alarms.

Controller functions: SmartGen HGM6100N series manual. Panel image is for reference.

## DIMENSIONS AND CONFIGURATION



**OPEN TYPE**
2200 x 1000 x 1350 mm
Gross weight: 1010 kg




**SILENT TYPE**
2800 x 1050 x 1750 mm
Gross weight: 1550 kg
Canopy sound level: 70-75 dB*

Dimensions are listed as L x W x H. Confirm the final shipping dimensions. *Canopy sound level is listed without a measurement distance or test conditions.

## STANDARD SUPPLY SCOPE

1. Gas engine
2. Brushless alternator with AVR
3. Digital controller and control cabinet
4. Steel base frame with vibration isolators
5. Gas pressure regulator
6. Ignition system
7. IMPCO air-fuel mixer
8. Electronic speed governor
9. Flame arrester
10. Explosion-protection system
11. MCCB, radiator fan, muffler and air filter
12. Two 12 V maintenance-free starting batteries
13. Installation accessories, toolkit and manuals

## CNG ACCESSORIES AND OPTIONS

| | |
|---|---|
| **Soundproof canopy** | Available with the silent configuration. |
| **CNG cascade** | 500 SCM gas storage capacity. |
| **CNG PRMS** | Pressure regulating and metering station. Confirm the outlet pressure for the installation. |

## WARRANTY

15 months or 1500 operating hours from shipment, whichever comes first. Coverage applies to verified generator set defects and excludes natural disasters, transport or handling damage, improper operation and other external causes. We supply covered spare parts free of charge. After the warranty period, spare parts are available at cost.

Confirm technical data and supplied equipment in the final order documents.