

HYUNDAI

GV222CB



50/60Hz
MULTI
FREQUENCY
GENERATOR



Fuel
Optimized



GENERATOR

Description

- HD Hyundai Infracore introduced new gaseous generator electronic engines GV222 C-Series.
- When compared to other engines of equivalent capacity, it displays a higher output, better fuel efficiency, higher safety, and easier maintenance.
- LPG fuel ready and Hydrogen fuel blending capable (Up to 30%)
- Satisfying EPA SI-Phase 2 and BlmSch V certification compliance, it is expected to become the key product of HD Hyundai Infracore.



Features

[High Power & Economy]

- High performance & Low fuel/oil consumption
- 50/60 Hz switchable without Power De-rating
- G3 Class(ISO 8528-5)

[High Durability]

- High strength design for main structure parts
- Higher warranty period through sufficient verification

[Convenience & Safety]

- Oil maintenance interval: 500hrs without replenishment
- Auto tensioning belt drive system
- Radiator to cover a wide range of usage condition
- Specs for both Natural Gas and Biogas are available
- Safety guard for hazard parts
- Meet REACH & RoHS regulations

Power

50 Hz / 1500 rpm										60 Hz / 1800 rpm									
Standby			Prime/DCP			Continuous				Standby			Prime/DCP			Continuous			
kWm	kWe	kVA	kWm	kWe	kVA	kWm	kWe	kVA		kWm	kWe	kVA	kWm	kWe	kVA	kWm	kWe	kVA	
Natural Gas	475	429	536	444	400	500	355	316	395	520	456	570	473	412	515	378	322	403	
LPG	330	292	365	300	264	330	240	207	259	345	291	364	314	262	328	251	202	253	

Generator efficiency (typical) : 94.5%

kWm= kiloWatt mechanical, net with fan*; kWe= kiloWatt electrical = kWm x Generator eff.; kVA= kiloVoltAmpere

calculations based on a 0.8 power factor = kWe/0.8

1kW= 1 hp x 1.36; 1hp= 1kW x 0.7355

*Based upon technical data



General Data

Type	Natural gas, water cooled, Turbo charged & intercooled
Bore	128 mm
Stroke	142 mm
Displacement	21.9 L
Cylinders and Arrangement	Cast iron, 12 cylinders, V Type(90°)
Battery charging alternator	24V x 45A alternator
Starting voltage	24V
Fuel System	Woodward Electric Fuel Regulator, Controlled by ECU
Used fuel	Pipeline Gas(NG), Wellhead Gas, Bio-Gas, Propane
Lube oil filter type(s)	Full flow, cartridge type
Lube oil capacity(l)	-
Flywheel dimensions	Clutch No. 14 M

Coolpac Data

Cooling method		Jacket Water and Charge Air Cooled
Cooling ratio		50% ethylene glycol; 50% water
Water capacity (L)	with radiator	103 liters
	without radiator	53 liters
Fan power (kWm)		21 kW(50Hz), 37 kW(60Hz)
Cooling system air flow(m³/s)		21.1(50Hz), 25.2(60Hz)

Fuel Consumption

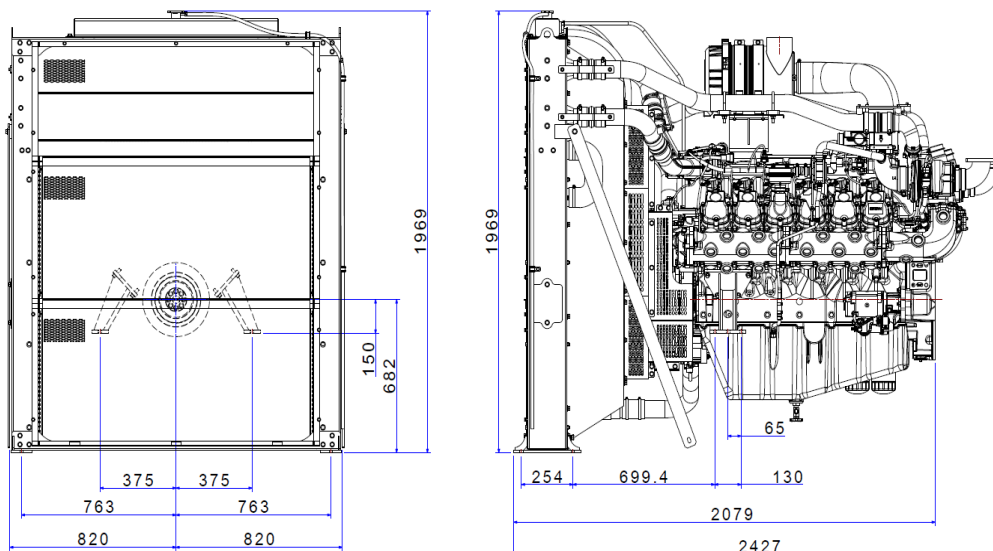
Fuel Consumption 1500 rpm (50Hz)

%	kWm	BHP	kg/hr
Standby Power			
100	475.0	637.0	100.0
Prime Power			
100	444.0	595.4	90.2
75	333.0	446.6	69.1
50	222.0	297.7	49.3
25	111.0	148.9	30.8
Continuous Power			
100	355.0	476.1	81.8

Fuel Consumption 1800 rpm (60Hz)

%	kWm	BHP	kg/hr
Standby Power			
100	520.0	697.3	110.4
Prime Power			
100	473.0	634.3	100.4
75	354.8	475.8	79.0
50	236.5	317.2	56.6
25	118.3	158.6	35.4
Continuous Power			
100	378.0	506.9	84.1

Dimensions



Weights and Dimensions (G-Pack)

Length mm	Width mm	Height mm	Weight (dry) kg
2,427	1,640	1,969	1,982

Power Rating Guide

The power ratings of Emergency Standby and Prime are in accordance with ISO 8528. Fuel Stop power in accordance with ISO 3046. Electric power (kWe) must be considered cooling fan loss, alternator efficiency, altitude derating and ambient temperature.

ESP(STANDBY POWER) is applicable for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. A standby rated engine should be sized for a maximum of an 80% average load factor and 200 hours of operation per year. This includes less than 25 hours per year at the Standby Power rating.

PRP(PRIME POWER) is available for an unlimited number of hours per year in variable load application. Variable load should not exceed a 80% average of the Prime Power rating during any operating period of 24 hours.

The Total operating time at 100% Prime Power shall not exceed 500 hours per year.

A 10% overload capability is available for a period of 1 hour within a 12 hours period of operation.

Total operating time at the 10% overload power shall not exceed 25 hours per year.

COP(CONTINUOUS POWER) is defined as being the maximum power which the generating set is capable of delivering continuously whilst supplying a constant 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.

DCP(DATA CENTRE POWER) is available for variable or continuous electrical loads in a data centre application.

Up to 100 percent load factor is permitted for unlimited time. DCP power definition relies on ISO 8528-1 2018 standard to be followed by generator set manufacturer, and will support Tier I to Tier IV classifications of data centres as per UPTIME institute guidelines. This definition is only back up a reliable utility. Continuous operation at load is available as after approval of Engine manufacturer (HDI).

※ Specifications are subject to change without prior notice.

HD Hyundai Infracore Co., Ltd.

13F, HD Hyundai Group's Global R&D Center, 477, Bundanguseo-ro,

Bundang-gu, Seongnam-si, Gyeonggi-do, Korea(13553)

T.+82-32-211-1114 / enginesales@hd.com

www.hd-hyundaiengine.com

