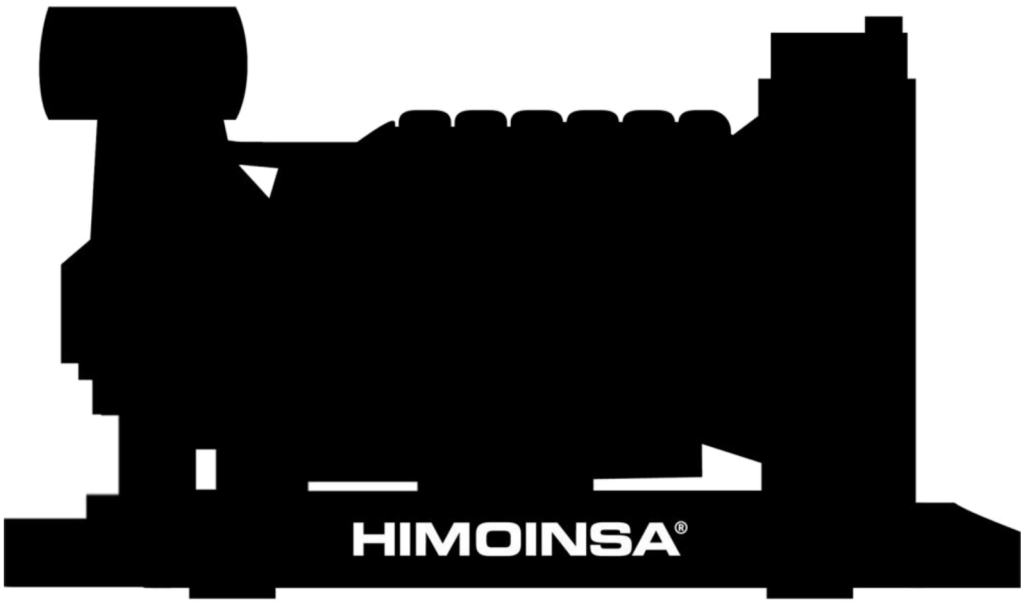
HIMOINSA
A YANMAR COMPANY

MODEL

HGS-1210 T5 BIO

HEAVY RANGE
Open Skid
Powered by GUASCOR



- OPEN SKID
- WATER-COOLED
- THREE PHASE
- 50 HZ
- BIOGAS

Generating Rates

Volts	Rated at power factor	Standby KVA	Standby KW	Prime KVA	Prime KW	COP KW	COP KVA
400/230 V	**1**					**1207,8**	**1207,8**
400/230 V	**0,8**					**1156**	**1445**

Available Voltages= 230/115 - 230 V (t) - 380/220 - 415/240. Rated Speed= 1.500 r.p.m.

HIMOINSA Company with quality certification ISO 9001
HIMOINSA gensets are compliant with EC mark which includes the following directives:

- 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)
- 97/68/EC Emissions of gaseous and particulate pollutants.
- EN 12100, EN 13857, EN 60204

Ambient conditions of reference according to ISO 8528-1:2020 normative: 1000 mbar, 25ºC, 30% relative humidity.

Limited-time running power (LTP):
According to ISO ISO 8528-1:2020, Prime power is 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 (Ppp) over 24 h of operation shall not exceed 70 % of the PRP.

Emergency Standby Power (ESP):
According to ISO ISO 8528-1:2020, Emergency standby power 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

Continuous Power (COP): According to Standard ISO 8528-1:2020, this is the maximum power available for continuous loads for unlimited running hours a year between the maintenance times recommended by the manufacturer under the environmental conditions established by the same.

"Class G2" performance according to the load impact test according to ISO 8528-5:2020

HIMOINSA HEADQUARTERS:
Fábrica: Ctra. Murcia - San Javier, Km. 23,6 | 30730 SAN JAVIER (Murcia) Spain
Tel.+34 968 19 11 28 Fax +34 968 19 12 17 Fax +34 968 19 04 20 | info@himoinsa.com | www.himoinsa.com
Manufacture facilities:
SPAIN • FRANCE • INDIA • CHINA • USA • BRAZIL • ARGENTINA
Subsidiaries:
PORTUGAL | POLAND | GERMANY | UK | SINGAPORE | UAE | PANAMA | DOMINICAN REPUBLIC | ARGENTINA | ANGOLA | SOUTH AFRICA

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Engine Specifications 1.500 r.p.m.

ENGINE		COP
Rated Engine Output	kW	1240
Manufacturer		GUASCOR
Model		G.56HM
Engine Type		4-stroke Otto Cycle
Injection Type		Carburization
Aspiration Type		Turbocharged
Number of cylinders and arrangement		16-V
Bore and Stroke	mm	160 x 175
Displacement	L	56,3
Cooling System		Water + Antifreeze
Lube Oil Specifications		SAE 40
Compression Ratio		11,9
Fuel Consumption 100% COP	kW	2949
Fuel Consumption 80 % COP	kW	2391
Fuel Consumption 75 % COP	kW	2272
Fuel Consumption 50 % COP	kW	1619
Fuel Consumption 25 % COP	kW	955,1
Lube oil consumption with full load	g/kWh	0,15
Total oil capacity	L	419
Heat dissipated by coolant	kW	808
Governor	Type	Electrical
Air Filter	Type	In oil bath

Generator

Generator		
Manufacturer		STAMFORD
Poles	No.	4
Connection type (standard)		Star
Mounting type		S-00 18"
Insulation	Class	H class
Enclosure (according IEC-34-5)		IP23
Voltage regulator		A.V.R. (Electronic)
Bracket type		Double drive-shaft
Coupling system		Elastic Coupling
Coating type		Standard (Vacuum impregnation)

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Application Data

Exhaust System		
Maximum exhaust temperature	ºC	420
Exhaust Gas Flow	kg/s	1,836
Maximum allowed back pressure	mm H_2O	450

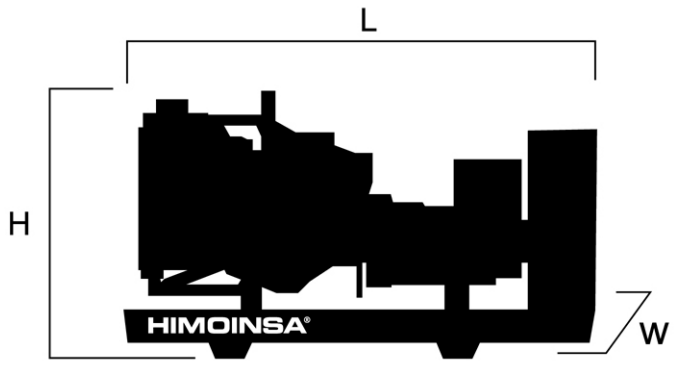
Necessary Amount Of Air		
Intake air flow	m^3/h	5800
Cooling Air Flow	m^3/s	24,11
Alternator fan air flow	m^3/s	2,63

Starting System		
Auxiliary Voltage	Vdc	12

Fuel System		
Fuel Oil Specifications		Biogas
Composition *		62,5% Metano y 36% Dióxido de Carbono y N2 1,5%
Fuel supply pressure	mbar	50 - 240
Fuel Tank	L	0

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Dimensions



Weight and Dimensions		
(L) Length	mm	Ask
(W) Width	mm	Ask
(*) Weight with liquids in radiator and sump	kg	Ask

(*) (with standard accessories)

STANDARD VERSION

Himoinsa China has the right to modify any feature without prior notice.
Weights and dimensions based on standard products. Illustrations may include optional equipment.
Technical data described in this catalogue correspond to the available information at the moment of printing.
Industrial design under patent.

Local Distributor

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CONTROL PANEL MODEL

CC2

Himoinsa Switching cabinet WITH display. Digital control unit CEC7

M5

Control panel with CEM8 Auto-Start controller, thermal-magnetic and earth leakage relay (according to voltage and frequency). Digital control unit CEM 8

AS5

Automatic panel WITHOUT transfer switch and WITHOUT mains control with CEM8 unit. (*) AS5 as optional with CEA8 unit. Automatic panel without transfer switch and WITH mains control. Digital control unit CEM8 CEA8

AS5 + CC2

Automatic panel WITH transfer switch and with mains control. The display will be on the genset and on the cabinet. Digital control unit CEM8+CEC8

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Controller features (I)

• : Standard
x : Not included
• : Optional

Generator Readings	CEC 7	CEM 8
Voltage between phases	•	•
Voltage between neutral and phase	•	•
Current intensities	•	•
Frequency	•	•
Apparent power (Kva)	•	•
Active power (Kw)	•	•
Reactive power (kVAr)	•	•
Power factor	•	•
Low feed pressure	•	•
Sealing check solenoid valve	x	•
Mains Readings	**CEC 7**	**CEM 8**
Voltage between phases	•	x
Voltage between phases and neutral	•	x
Current intensities	•	x
Frequency	•	x
Apparent power	x	x
Active power	x	x
Reactive power	x	x
Power factor	x	x
Engine Readings	**CEC 7**	**CEM 8**
Coolant temperature	x	•
Oil pressure	x	•
Battery voltage	x	•
R.P.M.	x	•
Battery charge alternator voltage	x	•
Engine Protections	**CEC 7**	**CEM 8**
High water temperature	x	•
High water temperature by sensor	x	•
Low water temperature by sensor	x	•
Low oil pressure	x	•
Low oil pressure by sensor	x	•
Low water level	x	•

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Controller features (II)

• : Standard
x : Not included
• : Optional

Engine Protections	CEC 7	CEM 8
Unexpected shutdown	x	•
Stop failure	x	•
Battery voltage failure	x	•
Battery charge alternator failure	x	•
Overspeed	x	•
Underspeed	x	•
Start failure	x	•
Emergency stop	•	•
Alternator Protections	**CEC 7**	**CEM 8**
High frequency	•	•
Low frequency	•	•
High voltage	•	•
Low voltage	•	•
Short-circuit	x	•
Asymmetry between phases	•	•
Incorrect phase sequence	•	•
Inverse power	x	•
Overload	x	•
Genset signal drop	•	•
Counters	**CEC 7**	**CEM 8**
Total hour counter	•	•
Partial hour counter	•	•
Kilowatt meter	•	•
Starts valid counters	•	
Starts failure counters	•	•
Maintenance	•	•
Communications	**CEC 7**	**CEM 8**
RS232	•	x
RS485	•	•
Modbus IP	•	•
Modbus	•	•
CCLAN	x	•

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Controller features (III)

• : Standard
x : Not included
• : Optional

Communications	CEC 7	CEM 8
Software for PC	•	•
Analogue modem	•	•
GSM/GPRS modem	•	x
Remote screen	x	•
Tele signal	x	•
J1939	x	•
Features	**CEC 7**	**CEM 8**
Alarm history	• (100)	•
External start	•	•
Start inhibition	•	•
Mains failure start	•	x
Start under normative EJP	x	•
Pre-heating engine control	x	•
Genset contactor activation	•	•
Mains & Genset contactor activation	•	x
Engine temperature control	x	•
Manual override	x	•
Programmable alarms	x	•
Genset start function in test mode	•	•
Programmable outputs	x	•
Multilingual	•	•
Special Functions	**CEC 7**	**CEM 8**
GPS Positioning	x	x
Synchronisation	x	x
Mains synchronization	x	x
Second Zero elimination	x	x
RAM7	x	•
Remote screen	x	•

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Generator set features

Engine

· Biogas Engine
· 4-stroke cycle
· Water-cooled
· Radiator with pusher fan
· HTW sender
· LOP sender
· Hot parts protection
· Moving parts protection

Alternator

· Self-excited and self-regulated
· 4 poles
· IP23 protection
· H class insulation
· Double drive-shaft

Electrical system

· Electric control and power panel with measurements devices and control unit (according to necessity and configuration)
· Battery Switch
· Adjustable earth leakage protection (time & sensitivity) standard in M12, with thermal magnetic protection
· Battery charger (standard on gensets with automatic control panels)
· Heating resistor (standard on sets with automatic control panels)
· Battery charger alternator with ground connection
· Starter battery/ies installed (cables and bracket included)
· Ground connection electrical installation with connection ready for ground spike (not supplied)

Open set version

· Steel chassis
· Emergency stop button
· Steel industrial silencer -15db(A) attenuation
· Steel residential silencer -35db(A) attenuation.

Gas ramp

· Manual shut-off valve
· Double solenoid valve
· High pressure regulator
· Primary pressure regulator
· Secondary pressure regulator (Zero pressure regulator)
· Low pressure switch
· High pressure switch
· Valve (tightness) testing system
· Inlet pressure manometer
· Outlet pressure manometer
· Special Start/Stop sequence

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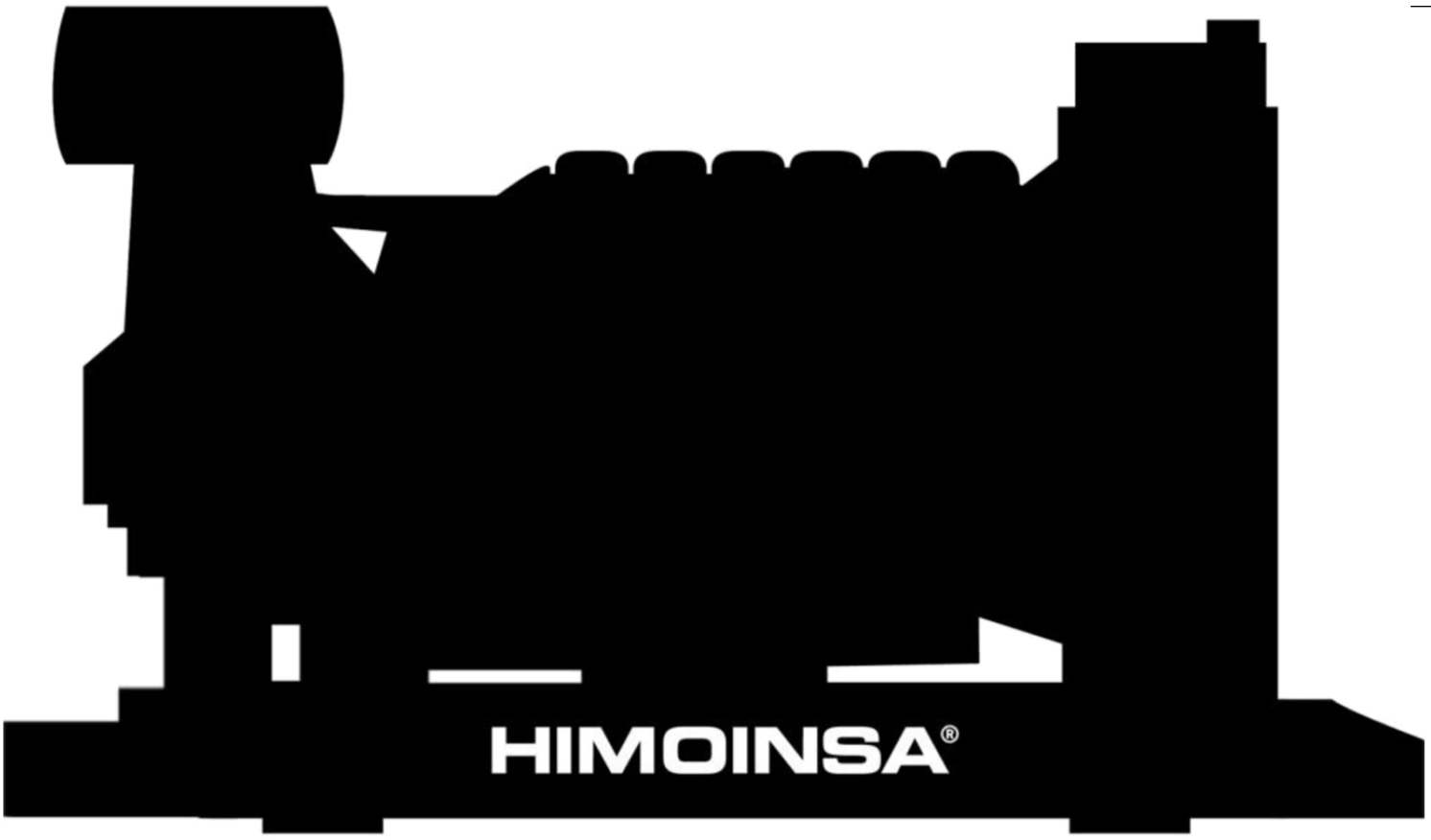
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PDF Summary

Created : 18/02/2026 16:42
Author : Himoinsa
Number of pages : 10
Report Type: Data Sheet - Heavy range
Generated by: HIMOINSA Engineering Dept.

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