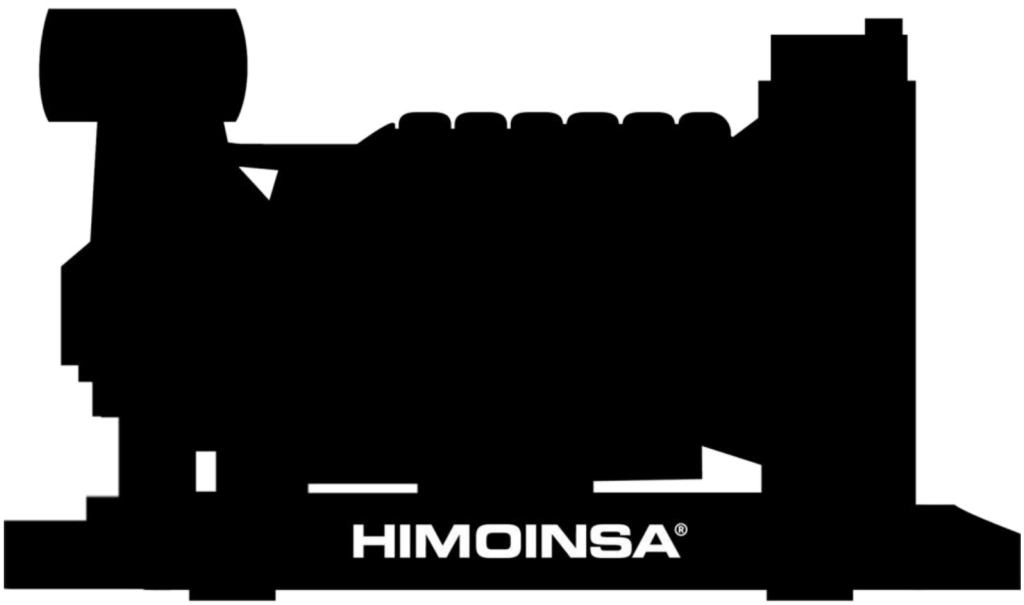
HIMOINSA
A YANMAR COMPANY

MODEL

HGM-1880 T6 BIO

HEAVY RANGE
Open Skid
Powered by MTU



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

Generating Rates

SERVICE		COP
Power	kVA	1877
Power	kW	1877
Rated Speed	r.p.m.	1.500
Main voltage	V	480/277
Rated at power factor	Cos Phi	1

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)
- 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

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Engine Specifications 1.500 r.p.m.

ENGINE		COP
Rated Engine Output	kW	2000
Manufacturer		MTU
Model		20V4000L32
Engine Type		4-stroke Otto Cycle
Injection Type		Carburization
Aspiration Type		Turbocharged and after-cooled
Number of cylinders and arrangement		20-V
Bore and Stroke	mm	170 x 210
Displacement	L	95,3
Cooling System		Coolant
Lube Oil Specifications		SAE 40
Compression Ratio		13,9
Fuel Consumption 100% COP	Nm^3/h	915,2
Fuel Consumption 75 % COP	Nm^3/h	699,8
Fuel Consumption 50 % COP	Nm^3/h	496,6
Lube oil consumption with full load	g/kWh	0,2
Total oil capacity including tubes, filters	L	378
Total coolant capacity	L	790
Governor	Type	Electrical
Air Filter	Type	Dry

Generator

Generator		
Manufacturer		LEROY SOMER
Poles	No.	4
Connection type (standard)		Star
Mounting type		S-00 21"
Insulation	Class	H class
Enclosure (according IEC-34-5)		IP23
Exciter system		Self-excited, brushless
Voltage regulator		A.V.R. (Electronic)
Bracket type		Double drive-shaft
Coupling system		Flexible disc
Coating type		Standard (Vacuum impregnation)

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Application Data

Exhaust System		
Maximum exhaust temperature	ºC	443
Exhaust Gas Flow	m^3/min	132,3
Maximum allowed back pressure	mbar	60

Necessary Amount Of Air		
Intake air flow	m^3/h	7370
Cooling Air Flow	m^3/s	36,7
Alternator fan air flow	m^3/s	2,8

Starting System		
Starting power	kW	9 x 2
Starting power	CV	12,24 x 2
Auxiliary Voltage	Vdc	24

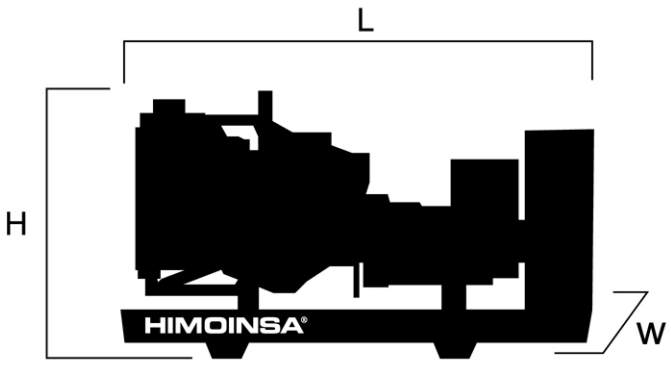
Fuel System		
Fuel Oil Specifications		Biogas
Lower heating value (LHV)	kWh/Nm^3	5
Composition *		60% Methane and 40% Carbon Dioxide
Fuel supply connection size	mm	150
Fuel supply pressure	mbar	130 - 200
Fuel Tank	L	0

** Check other composition*

Gearbox		
Gearbox Efficiency	%	99,4

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Dimensions



Weight and Dimensions		
(L) Length	mm	11.030
(H) Height	mm	2.780
(W) Width	mm	2.150
Maximum shipping volume	m^3	65,91
(*) Weight with liquids in radiator and sump	kg	25.820

(*) (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

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
· 24V electrical system
· Dry air filter
· Remote radiator
· HTW sender
· LOP sender
· Electronic governor
· Hot parts protection
· Moving parts protection

Alternator

· Self-excited and self-regulated
· 4 poles
· AVR governor
· IP23 protection
· H class insulation

Electrical system

· Electric control and power panel with measurements devices and control unit (according to necessity and configuration)
· Battery Switch
· 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
· Anti-vibration shock absorbers
· Steel industrial silencer -15db(A) attenuation
Optional : · Steel residential silencer -35db(A) attenuation.

Gas ramp

· Gas filter
· Double solenoid valve
· Gas pressure regulator
· Low pressure switch
· High pressure switch
· Inlet pressure manometer
· Outlet pressure manometer

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MODEL

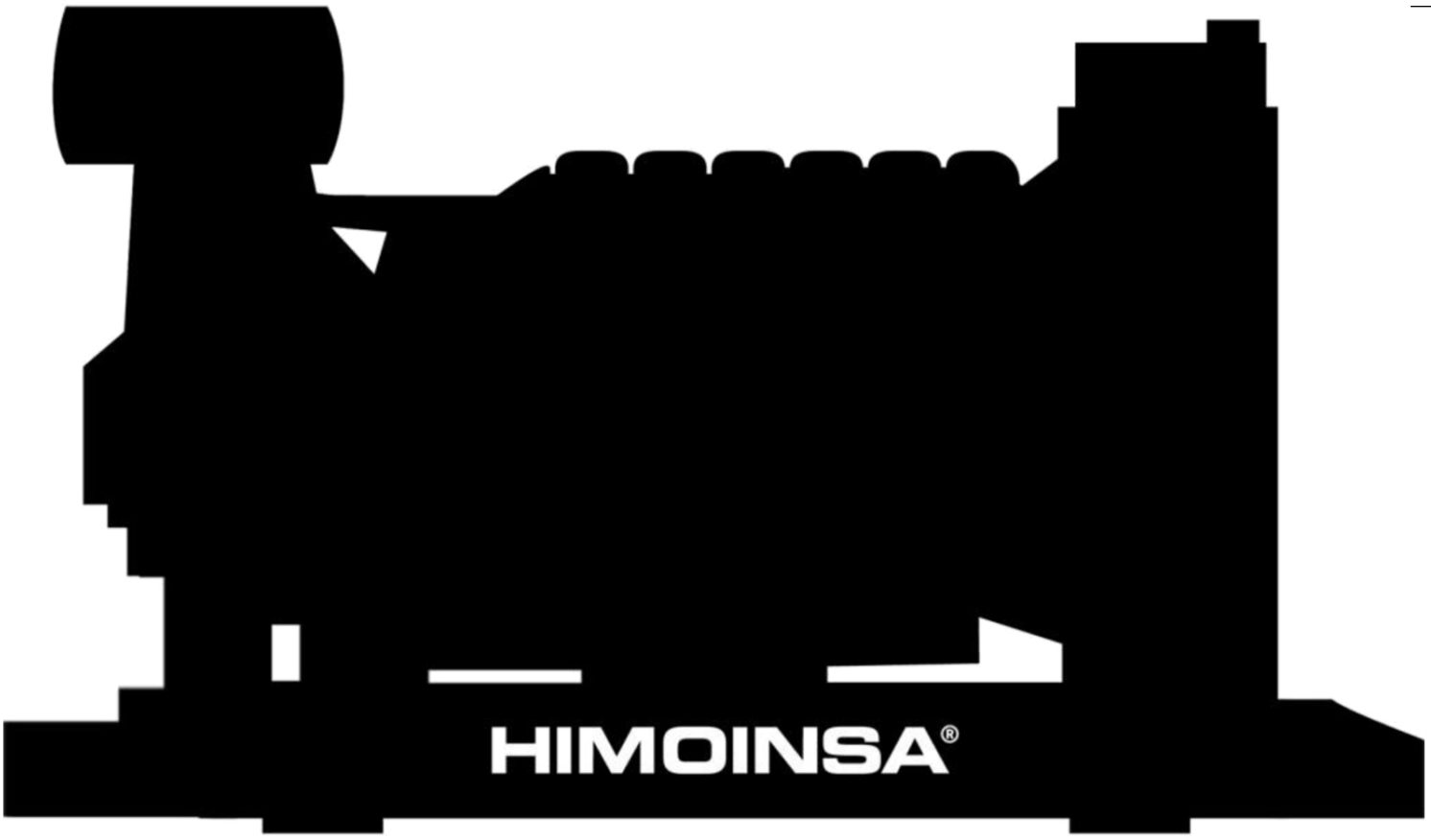
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PDF Summary

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Author : Himoinsa
Number of pages : 10
Report Type: Data Sheet - Heavy range
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Page 1. Genset data
Page 2. Engine Specifications. Generator Specifications.
Page 3. Installation Data
Page 4. Dimensions
Page 5. Control Panel Model
Page 6. Controller features (I)
Page 7. Controller features (II)
Page 8. Controller features (III)
Page 9. Generator Features & Options
Page 10. PDF Summary



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