



MODEL
HSY-20 M5
HS | STATIONARY RANGE
Open Skid
Powered by YANMAR

-  K1
-  WATER-COOLED
-  SINGLE PHASE
-  50 HZ
-  DIESEL

Generating Rates



SERVICE		PRP	ESP
Power	kVA	16,6	19
Power	kW	13,2	15,2
Rated Speed	r.p.m.	1.500	
Main voltage	V	230 V (m)	
Available Voltages	V	240/120	
Rated at power factor	Cos Phi	0,8	

01

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, 25°C, 30% relative humidity.

Limited-time running power (LTP):

According to Standard ISO 8528-1:2020, this is the maximum power available for a limited operating time of 500 Hours a year between the maintenance times recommended by the manufacturer under the environmental conditions established by the same.

Emergency Standby Power (ESP):

According to 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

"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		PRP	ESP
Rated Engine Output	kW	16,4	18,9
Manufacturer		YANMAR	
Model		4TNV88HSPU	
Engine Type		4-stroke diesel	
Injection Type		Direct	
Aspiration Type		Natural	
Number of cylinders and arrangement		4-L	
Bore and Stroke	mm	88 x 90	
Displacement	L	2,19	
Cooling System		Coolant	
Lube Oil Specifications		SAE 3 class 10W30 / API grade CD,CF	
Compression Ratio		19,1	
Lube oil consumption with full load	g/kWh	0,27	
Total oil capacity	L	7,4	
Total coolant capacity	L	5,5	
Governor	Type	Mechanical	
Air Filter	Type	Dry	
Inner diameter exhaust pipe	mm	51,6	

Generator

Generator		
Manufacturer		MECC ALTE
Poles	No.	4
Connection type (standard)		Double delta
Mounting type		S-4 7,5"
Insulation	Class	H class
Enclosure (according IEC-34-5)		IP23
Exciter system		Self-excited, brushless
Voltage regulator		A.V.R. (Electronic)
Bracket type		Single bearing
Coupling system		Flexible disc
Coating type		Standard (Vacuum impregnation)

Application Data

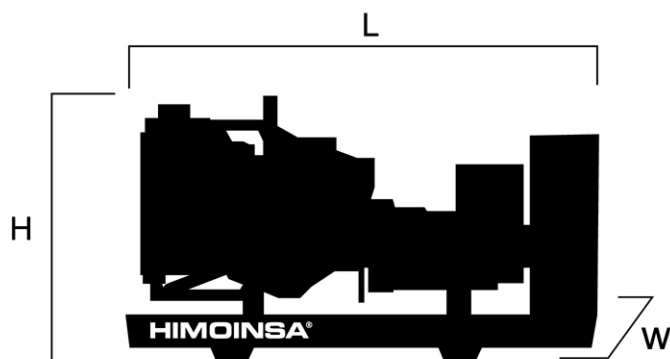
Exhaust System		
Maximum exhaust temperature	°C	500
Exhaust Gas Flow	m ³ /min	4,72
Maximum allowed back pressure	mm H ₂ O	1300

Necessary Amount Of Air		
Intake air flow	m ³ /h	88,7
Cooling Air Flow	m ³ /s	0,8
Alternator fan air flow	m ³ /s	0,11

Starting System		
Starting power	kW	1,4
Starting power	CV	1,9
Recommended battery	Ah	60
Auxiliary Voltage	Vdc	12

Fuel System		
Fuel Oil Specifications		Diesel
Fuel Tank	L	60
Fuel Consumption ESP	l/h	5,02
Fuel Consumption 70 % ESP	l/h	3,49

Dimensions



Weight and Dimensions

(L) Length	mm	1.450
(W) Width	mm	620
(*) Weight with liquids in radiator and sump	kg	Ask
Fuel tank capacity	L	60
Autonomy (70% ESP)	Hours	17
Autonomy (100% ESP)	Hours	12

(*) (with standard accessories)

STANDARD VERSION

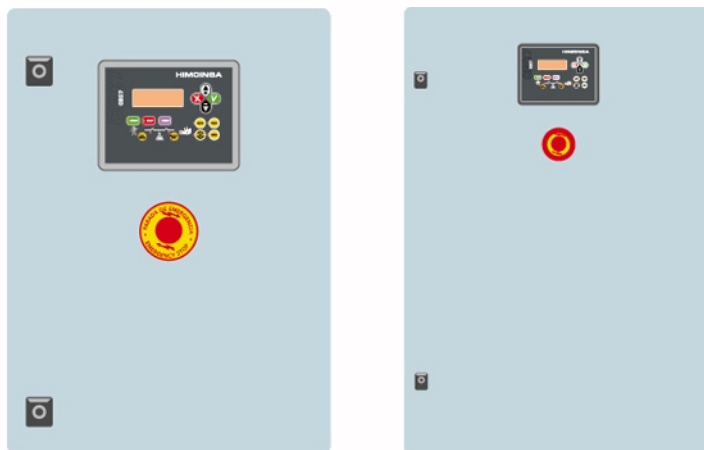
Himoinsa China has the right to modify any feature without prior notice.
Weights and dimensions based on standard products. Illustrations may include optional equipment.
Technical data described in this catalogue correspond to the available information at the moment of printing.
Industrial design under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

Local Distributor

CONTROL PANEL MODEL

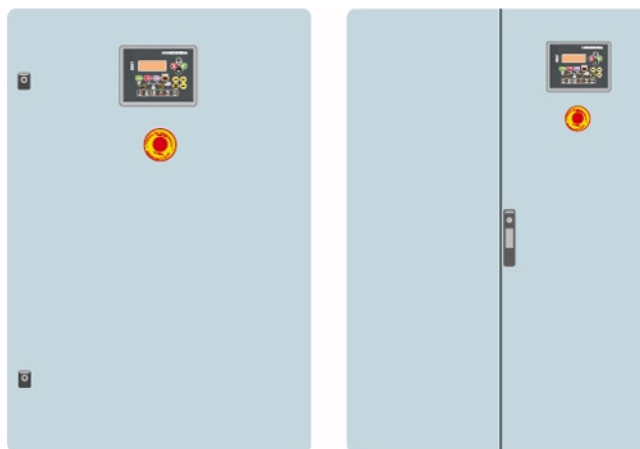
CC2

Himoinsa Switching cabinet WITH display. Digital control unit CEC7



AC5

Automatic mains failure control panel. Wall-mounted cabinet WITH transfer switch and thermal magnetic protection (depending on current and voltage). Digital control unit CEA7



M5

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



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CONTROL PANEL MODEL

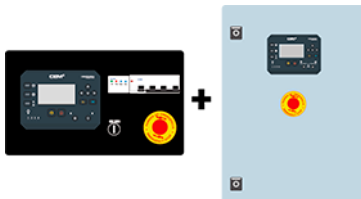
AS5

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	CEA 7	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	•	•	•
Mains Readings	CEA 7	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	CEA 7	CEC 7	CEM 8
Coolant temperature	•	x	•
Oil pressure	•	x	•
Fuel level (%)	•	x	•
Battery voltage	•	x	•
R.P.M.	•	x	•
Battery charge alternator voltage	•	x	•
Engine Protections	CEA 7	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	•
Unexpected shutdown	•	x	•

Controller features (II)

- : Standard
- x : Not included
- : Optional

Engine Protections	CEA 7	CEC 7	CEM 8
Fuel storage	•	x	•
Fuel storage by sensor	•	x	•
Stop failure	•	x	•
Battery voltage failure	•	x	•
Battery charge alternator failure	•	x	•
Overspeed	•	x	•
Underspeed	•	x	•
Start failure	•	x	•
Emergency stop	•	•	•
Alternator Protections	CEA 7	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	CEA 7	CEC 7	CEM 8
Total hour counter	•	•	•
Partial hour counter	•	•	•
Kilowatt meter	•	•	•
Starts valid counters	•	•	
Starts failure counters	•	•	•
Maintenance	•	•	•
Communications	CEA 7	CEC 7	CEM 8
RS232	•	•	x
RS485	•	•	•
Modbus IP	•	•	•
Modbus	•	•	•

Controller features (III)

- : Standard
- x : Not included
- : Optional

Communications	CEA 7	CEC 7	CEM 8
CCLAN	•	x	•
Software for PC	•	•	•
Analogue modem	•	•	•
GSM/GPRS modem	•	•	x
Remote screen	•	x	•
Tele signal	• (8 + 4)	x	•
J1939	•	x	•
Features	CEA 7	CEC 7	CEM 8
Alarm history	• (100)	• (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
Fuel transfer control	•	x	•
Engine temperature control	•	x	•
Manual override	•	x	•
Programmable alarms	•	x	•
Genset start function in test mode	•	•	•
Programmable outputs	•	x	•
Multilingual	•	•	•
Special Functions	CEA 7	CEC 7	CEM 8
GPS Positioning	•	x	x
Synchronisation	x	x	x
Mains synchronization	x	x	x
Second Zero elimination	x	x	x
RAM7	•	x	•
Remote screen	•	x	•

Generator set features

Engine

- Diesel engine
- 4-stroke cycle
- Water-cooled
- 12V electrical system
- Dry air filter
- Radiator with pusher fan
- Mechanical governor
- Hot parts protection
- Moving parts protection

Alternator

- Self-excited and self-regulated
- IP23 protection
- H class insulation

Electrical system

- Electric control and power panel with measurements devices and control unit (according to necessity and configuration)
- Adjustable earth leakage 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)
- Optional :
 - Battery Switch
 - Leakage detector
 - Optional Battery (Optima)

Open set version

- Steel chassis
- Emergency stop button
- Anti-vibration shock absorbers
- Chassis with integrated fuel tank
- Fuel level gauge
- Steel industrial silencer -15db(A) attenuation
- Optional :
 - Manual oil drain pump
 - Fuel transfer pump
 - Steel residential silencer -35db(A) attenuation.

PDF Summary

Created : 19/01/2026 11:14

Author : Himoinsa

Number of pages : 11

Report Type: Data Sheet - Hs | stationary range

Generated by: HIMOINSA Engineering Dept.

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