



Open Skid Powered by MITSUBISHI





WATER-COOLED



THREE PHASE



50 HZ



DIESEL



Generating Rates



SERVICE		PRP	STANDBY
Power	kVA	1260	1350
Power	kW	1008	1080
Rated Speed	r.p.m.	1.5	500
Standard Voltage	V	400	/230
Available Voltages	V	380/220	- 415/240
Rated at power factor	Cos Phi	0	,8

HIMOINSA Company with quality certification ISO 9001

HIMOINSA gensets are compliant with EC mark which includes the following directives:

- 2006/42/CE Machinery safety.
 2006/95/EC Low voltage.

- 2006/95/EC Low Voltage.
 2004/108/CE Electromagnetic compatibility.
 2000/14/EC Sound Power level. Noise emissions outdoor equipment. (amended by 2005/88/EC)
 97/68/EC Emissions of gaseous and particulate pollutants. (amended by 2002/88/EC & 2004/26/EC)
 EN 12100, EN 13857, EN 60204

Ambient conditions of reference according to ISO 8528-1:2005 normative: 1000 mbar, 25°C, 30% relative humidity.

According to ISO 8528-1:2005, 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.

According to ISO 8528-1:2005, 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

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HTW-1260 T5

Engine Specifications 1.500 r.p.m.

HEAVY RANGE Open Skid Powered by MITSUBISHI

ENGINE		PRP	STANDBY
Rated Output	kW	1080	1190
Manufacturer		MITSU	BISHI
Model		S12R	PTA
Engine Type		Diesel 4 stro	okes-cycle
Injection Type		Dire	ect
Aspiration Type		Turbocharged a	nd aftercooled
Ciylinders Arrangement		12	V
Bore and Stroke	mm	170 x	180
Displacement	L	49,0	03
Cooling System		Wat	ter
Lube Oil Specifications		API CD or CF SA	E 30 or SAE 40
Compression Ratio		14,0):1
Fuel Consumption StandBy	l/h	287,	92
Fuel Consumption 100% PRP	l/h	261,	31
Fuel Consumption 75 % PRP	l/h	201,75	
Fuel Consumption 50 % PRP	l/h	146,03	
Fuel Consumption 25 % PRP	l/h	89,67	
Lube Oil Consumption Full Load	g/kwh	8,0	
Total oil capacity including tubes, filters	L	18	0
Total Coolant Capacity	L	33	5
Governor	Туре	Elect	rical
Air Filter	Туре	Dr	у
Inner diameter exhaust pipe	mm	30	4

Generator

Generator		
Poles	Num	4
Winding Conections (standard)		Star
Frame Mounting		S-0 21"
Insulation	Class	H class
Enclosure (according IEC-34-5)		IP23
Exciter System		self-excited, brushless
Voltage Regulator		A.V.R. (Electronic)
Bearing		Single bearing
Coupling		Flexible disc
Coating type		Standard (Vacuum impregnation)







Application Data

Exhaust System		
Maximum exhaust temperature	°C	520
Exhaust Gas Flow	m3/min	258
Maximum allowed back pressure	mm H2o	600
Heat evacuated through exhaut pipe	KCal/Kwh	587,17

Air Inlet System		
Intake Air Flow	m3/h	5880
Cooling Air Flow	m3/s	30
Alternator fan air flow	m3/s	2,69

Starting System		
Starting Motor	kW	7,5 x 2
Starting Motor	CV	10,2 x 2
Recommended Battery Capacity	Ah	400
Auxiliary Voltage	Vcc	24
Current of starter (Rush)	A	1250
Current of starter (Cranking)	A	400

Fuel System		
Fuel Oil Specifications		Diesel
Maximum power suction pump	mm Hg	75
Maximum return feed pump	mm Hg	150
Fuel Tank	L	400







Dimensions



Weight and Dimensions		
(L) Length	mm	4.457
(н) Height	mm	2.348
(W) Width	mm	2.050
Maximum shipping volume (standard suplier)	m3	21,45
(*) Wet weight	Kg	11.000
(*) Dry weight	Kg	10.486
Fuel tank capacity	L	400
Autonomy	Hours	2
(*) (with standard accesories)		STANDARD VERSION

STANDARD VERSION

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

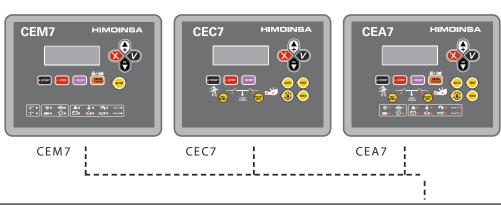
Local Distributor







Control Panel Models



FUNCIONALITY	PANEL MODEL	CONTROLLER MODE
Auto-start	M 5	CEM7
Automatic Control Panel Without Mains Control	AS5	CEM7**
Automatic Control Panel With Mains Control (customer change over contactors)	AS5	CEA7
Automatic Control Panel With Mains Control (Himoinsa change over contactor with display)	AS5XCC2	CEM7+CEC7
Automatic Mains Failure (wall mounted panel)	AC5	CEA7

(**) Pre-heating resistance in the Genset and Battery charger in the control panel included.

Option available: Auto-start control panel without circuit breaker

General Description

CEM 7

The CEM7 controller unit is a device able to control de operation, monitoring and protection of a generating set. The controller unit consists of 2 different modules:

1.The VISUALIZATION module 2.The MEASUREMENTS module VISUALIZATION MODULE Provides information about the status of the device and, at the same time, allows the user to interact with it. It consists on a backlit display and various LEDs for monitoring the status of the controller and buttons that allow the user to control, program and configure the functions of the unit. MEASUREMENTS MODULE Controls and monitors the control board. It is located in the rear part of the panel, in order to reduce the wiring and to avoid electromagnetic disturbances. Every signal, sensor and actuator is connected to this module

The connexion between the visualization module and the measurements module is made with a CAN communication bus.This feature allows the intercommunion of other modules to the main controller with a scalability warranty.

The CEC7 controller unit is a net sings supervision equipment, and control and supply supplier through generating set. The controller unit consists of 2

different modules: 1.The VISUALIZATION module

2.The MEASUREMENTS module

VISUALIZATION MODULE

The visualization module provides information about the status of the device and, at the same time, allows the user to interact with it. With this visualization module the user is able to control, program and configure the functions of the unit. It consists on a backlight display and various LEDs for monitoring the status of the controller and buttons that allow the user to control, program and configure the functions of the unit

MEASUREMENTS MODULE
The measurements module controls and

monitors the control board. It is located in the rear part of the panel, in order to reduce the wiring and to avoid electromagnetic disturbances.

Every signal, sensor and actuator is connected to this module

The connection between the measure module and visualization mode is made by means of a CAN BUS (Communication Bus). This produces an interconnection

between additional modules which guarantees the proper working of the controller.

CEA7 controller is a supervision equipment for mains signal and also a supervision and electrical supply through the genset. This controller is composed by 2 different modules: 1.VISUALIZATION module 2.MEASUREMENTS module VISUALIZATION MODULE

The visualization module provides information about the status of the device

and, at the same time, allows the user to interact with it. With this visualization module the user is able to control, program

and configure the functions of the unit. MEASUREMENTS MODULE

The measurements module controls and monitors the control board. It is located in the rear part of the panel, in order to reduce

the wiring and to avoid electromagnetic disturbances. Every signal, sensor and actuator is connected to this module. Connection between the measure module

and visualization mode is made by

of a CAN BUS (Communication Bus). This produces an interconnection between additional

modules which guarantees the proper working of the controller.







Control & Power Panel

- 1. CM Control Panel.
- 2. CP Power Panel.
- 3. On/Off Switch..
- 4. Emergency Stop.
- 5. Main Line Circuit Breaker for overload protection.
- 6. Main bus /hardwire connection panel with safety protection.

CE-7 Auto-start multilingual control panel

- 1. Voltage between each Phase & Neutral
- 2. Voltage between Phases
- 3. Current (amps) on each Phase
- 4. Frequency
- 5. Active, Aparent & Reactive Power
- 6. Power Factor
- 7. Instant Power (KwH) and Accumulative power)

- 8. Fuel level
- 9. Oil pressure, coolant temperature, oil temperature
- 10. Battery voltage, battery charging alternator voltage
- 11. Engine Speed
- 12. Hours running
- 13. Multilingual (Spanish, English, French, Italian, Portuguese, Polish, German, Chinesse, Russian, Swedish, Norwegian)

Engine Alarms

- 1. High coolant temperature.
- 2. Low oil pressure.
- 3. Battery charge alternator
- 4. Start failure.
- 5. Low water level.
- 6. Fuel storage.
- 7. Overspeed.
- 8. Underspeed.9. Low battery voltage.
- 10. High coolant temperature by sensor.
- 11. Low oil pressure by sensor.
- 12. Low fuel level by sensor.
- 13. Unexpected shutdown.
- 14. Stop failure.
- 15. Low engine temperature.
- 16. Genset voltage drops.
- 17. Emergency stop.

Genset Alarms

- 1. Over-load
- 2. Unbalanced voltage
- 3. Over voltage
- 4. Under voltage
- 5. Over frequency
- 6. Under frequency
- 7. Over load
- 8. Short-circuit
- 9. Inverse Power
- 10. Asymmetry among phases
- 11. Genset contactor Failure

Mains Alarms

- 1. Maximum Mains Voltage.
- 2. Minimum Mains Voltage.
- 3. Maximum Mains Frequency.
- 4. Minimum Mains Frequency.
- 5. Mains phase sequence failure.
- 6. Mains power failure.
- 7. Mains contactor switching failure.

Programmable Alarms: There are 5 programmable alarms on text and action that could be associated to any engine alarms and showed on the auxiliary led 1 and 2 of the display







HTW-1260 T5 HEAVY RANGE

HEAVY RANGE Open Skid Powered by MITSUBISHI

Controllers Features

	CEM 7	CEC 7	CEA 7	CEM7 + CEC
GENERATOR READINGS				
Voltage among phases			•	•
Voltage among phases and neutral	•	•	•	•
Amperage		•	•	•
Frequency		•	•	•
Apparent power (kVA)		•	•	•
Active power (kW)		•	•	•
Reactive power (kVAr)	•	•	•	•
Power factor	•	•	•	•
MAINE DE A DINICE				
MAINS READINGS				
Voltage among phases	X	•	•	•
Voltage among phase and neutral	X	•	•	•
Amperage	X	•	•	•
Frequency	X	•	•	•
Aparent power	X	Х	•	
Active power	X	X	•	•
Reactive power Power factor	X	X	•	•
Power factor	Х	Х	•	•
ENGINE READINGS				
Coolant temperature	•	Х	•	•
Oil pressure	•	Х	•	•
Fuel level (%)	•	Х	•	•
Battery voltage	•	Х	•	•
R.P.M.	•	Х	•	•
Battery charge alternator voltage	•	Х	•	•
ENGINE PROTECTIONS				
High water temperature		Х	•	•
High coolant temperature by sensor	•	X	•	•
Low engine temperature by sensor		Х	•	•
Low oil pressure		Х	•	•
Low oil pressure by sensor		Х	•	•
Low coolent level		Х	•	•
Unexpected shutdown	· · · · · · · · · · · · · · · · · · ·	X	•	•
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				
High frequency	•	•	•	•
Low frequency	•	•	•	•
High voltage	•	•	•	•
Low voltage	•	•	•	•
Short-circuit	•	Х	•	•
Asymmetry among phases	•	•	•	•
Incorrect phase sequence	•	•	•	•
Inverse power	•	Х	•	•
Overload Genset signal droop	•	Х	•	•
		•	•	•



x Not included

Optional

NOTE: All protections are programmable to make "warning" or "stop with cooling time" or "without"







Controllers Features

	CEM 7	CEC 7	CEA 7	CEM7 + C
COUNTERS				
Total hour counter	•	•	•	•
Partial hour counter	•	•	•	•
Kilowatimeter	•	•	•	•
Starts valid counters	•	•	•	•
Starts failure counters	•	•	•	•
Maintenance	•	•	•	•
COMUNICATIONS				
RS232				
RS485	•	•	•	•
Modbus IP	•	•	•	•
Modbus	•	•	•	•
CCLAN	•	х	•	•
Software for PC	•	•	•	•
Analogic modem	•	•	•	•
GSM/GPRS modem	•	•	•	•
Remote screen	•	Х	•	•
Telesignal	•(8+4)		•(8+4)	•(8+4)
J1939	•	Х	•	•
Alarms history External start	(10) / (•+100)	-10	(10) / (•+100)	(10) / (•+100
Start inhibition	<u>.</u>	•	•	•
Mains failure start	•(CEC7)	•	•	•
Start under normative EJP	•(CEC7)	×	•	•
Genset contactor activation	•	X		•
Main & Genset contactor activation	X	•	X .	•
Fuel transfer control	•	x	•	<u> </u>
	•	X	•	<u> </u>
Engine temperature control Manual override	•	X	•	•
Programmable alarms	•	X	•	•
Genset start function in test mode	•	X	•	•
Programmable outputs	•	X	•	•
Multilingual	•	•	•	•
Multilligual	-	-	<u> </u>	-
SPECIAL FUNCTIONS				
Desiries CDC			•	•
Positioning GPS	•		•	•
Synchronization with mains	•		•	•
Synchronization with mains	•		•	•
Synchronization with mains Mains Synchronism	•		•	•
Synchronization with mains Mains Synchronism Second Cero suppression	•		•	•

Standard

CEC7: available when the controller CEC7 is incorparted to the installation

x Not includedOptional

MPS 5.0: available application when the $\,$ module MPS 5. has been incorporated to the panel. Note: AS5 + CC2 configuration, will have all CEM7 funcionality plus CEC7 mains readings.

ISO 9001 (A)





Generating Sets Standard and Optional Features

Engine

- · Standard air filter
- · Standard fuel filter
- · Standard oil filter
- · Oil temperature sensor
- · Coolant level sender
- · Exhaust gas compensator
- · Diesel engine
- · 4 strokes-cycle
- · Water-cooled
- · 24V Electrical system
- · Radiator with blowing fan
- · Electronic governor
- · Sender WT
- · Senders OP
- · Hot parts protection
- · Moving parts protection

— Alternator

· Insulation H class

Electrical system

- · Connection panel wired to the safety protection (open thermalmagnetic protection and alarm)
- · Maintenance-free and anti-explosion battery
- · Pre-heating resistance (standard on automatic control panels) / water jacket heater
- \cdot Battery charger alternator with ground connection
- · Ground connection electrical installation with connection ready for ground pike (not supplied)

Open set version

- · Steel made chassis
- · Emergency stop button
- · Oil sump extraction kit
- · Antivibration shock absorber
- · Chassis with integrated fuel tank
- · Fuel level sensor
- · Steel made residential silencer -15db(A) attenuation

Optional: · Fuel transfer pump

· Steel made residential silencer -35db(A) attenuation.







PDF Summary

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 $http://www.himoinsa.com/generating-sets/235_22/diesel-generator-htw-1260_t5-mitsubishi-50hz-heavy-range-prp_1260kva.aspx.$



