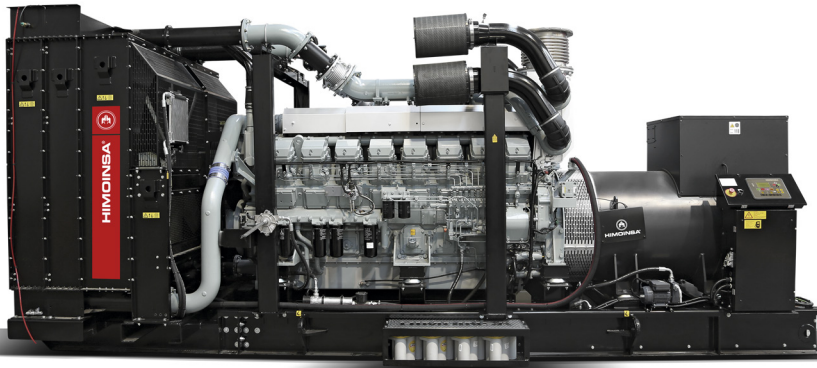




HIMOINSA

MODEL
HTW-2295 T5
HEAVY RANGE
Open Skid
Powered by MITSUBISHI



K48



WATER-COOLED



THREE PHASE



50 HZ



DIESEL

Generating Rates



SERVICE		PRP / DCC	ESP
Power	kVA	2284	2525
Power	kW	1827	2020
Rated Speed	r.p.m.	1.500	
Standard Voltage	V	400/230	
Available Voltages	V	380/220 - 415/240	
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)
- 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 8528-1:2018 normative: 1000 mbar, 25°C, 30% relative humidity.

Prime Power (PRP):

According to ISO 8528-1:2018, 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 8528-1:2018, 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

Data Center Continuous Power (DCC): Complies with Uptime Institute: Tier III & IV. The manufacturer declares a load factor for grid failure of 100% per 24h and an average load factor per year less than 75%. No overload margin available. It can be operated for an unlimited number of hours per year. Applicable in countries with stable network. If the model is for DCC application, inform Factory.

G2 class load acceptance in accordance with ISO 8528-5:2013

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Engine Specifications 1.500 r.p.m.

ENGINE		PRP / DCC	ESP
Rated Output	kW	1899	2106
Manufacturer		MITSUBISHI	
Model		S16R2 PTAW	
Engine Type		4-stroke diesel	
Injection Type		Direct	
Aspiration Type		Turbocharged and after-cooled	
Number of cylinders and arrangement		16-V	
Bore and Stroke	mm	170 x 220	
Displacement	L	79,9	
Cooling System		Water	
Lube Oil Specifications		API CF, SAE 15W40	
Compression Ratio		14,0:1	
Fuel Consumption ESP	l/h	560,7	
Fuel Consumption 100% PRP	l/h	500,2	
Fuel Consumption 75 % PRP	l/h	369,9	
Fuel Consumption 50 % PRP	l/h	251,3	
Fuel Consumption 25 % PRP	l/h	139,1	
Lube oil consumption with full load	g/kWh	0,8	
Total oil capacity including tubes, filters	L	290	
Total coolant capacity	L	500	
Governor	Type	Electrical	
Air Filter	Type	Dry	

Generator

Generator		
Manufacturer		STAMFORD
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		Single bearing
Coupling system		Flexible disc
Coating type		Standard (Vacuum impregnation)



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Application Data

Exhaust System

Maximum exhaust temperature	°C	497
Exhaust Gas Flow	m ³ /min	498
Maximum allowed back pressure	mm H ₂ O	600
Heat dissipated by exhaust pipe	KCal/Kwh	615,26

Necessary Amount Of Air

Intake air flow	m ³ /h	11280
Cooling Air Flow	m ³ /s	38,6
Alternator fan air flow	m ³ /s	2,95

Starting System

Starting power	kW	7,5 x 2
Starting power	CV	10,2 x 2
Recommended battery	Ah	400
Auxiliary Voltage	Vdc	24
Starter current peak	A	1250
Nominal starter current	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	450



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Dimensions



Weight and Dimensions

(L) Length	mm	6.664
(H) Height	mm	2.519
(W) Width	mm	2.200
Maximum shipping volume	m ³	36,93
(*) Weight with liquids in radiator and sump	kg	16.440
Fuel tank capacity	L	450
Autonomy	Hours	1

(*) (with standard accessories)

STANDARD VERSION

Himoinsa 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

M5

Digital manual Auto-Start control panel and thermal magnetic protection (depending on current and voltage) and differential with CEM7. Digital control unit CEM7

AS5

Automatic panel WITHOUT transfer switch and WITHOUT mains control with CEM7 unit. (*) AS5 as optional with CEA7 unit. Automatic panel without transfer switch and WITH mains control.

CC2

Himoinsa Switching cabinet WITH display. Digital control unit CEC7

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 CEM7+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



Controller features (I)

- : Standard
- x : Not included
- : Optional

Generator Readings	CEM 7	CEA 7	CEC 7	CEM7 + CEC7
Voltage between phases	•	•	•	•
Voltage between neutral and phase	•	•	•	•
Current intensities	•	•	•	•
Frequency	•	•	•	•
Apparent power (Kva)	•	•	•	•
Active power (Kw)	•	•	•	•
Reactive power (kVAr)	•	•	•	•
Power factor	•	•	•	•
Mains Readings	CEM 7	CEA 7	CEC 7	CEM7 + CEC7
Voltage between phases	x	•	•	•
Voltage between phases and neutral	x	•	•	•
Current intensities	x	•	•	•
Frequency	x	•	•	•
Apparent power	x	•	x	x
Active power	x	•	x	x
Reactive power	x	•	x	x
Power factor	x	•	x	x
Engine Readings	CEM 7	CEA 7	CEC 7	CEM7 + CEC7
Coolant temperature	•	•	x	•
Oil pressure	•	•	x	•
Fuel level (%)	•	•	x	•
Battery voltage	•	•	x	•
R.P.M.	•	•	x	•
Battery charge alternator voltage	•	•	x	•
Engine Protections	CEM 7	CEA 7	CEC 7	CEM7 + CEC7
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	CEM 7	CEA 7	CEC 7	CEM7 + CEC7
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	CEM 7	CEA 7	CEC 7	CEM7 + CEC7
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	CEM 7	CEA 7	CEC 7	CEM7 + CEC7
Total hour counter	•	•	•	•
Partial hour counter	•	•	•	•
Kilowatt meter	•	•	•	•
Starts valid counters	•	•	•	•
Starts failure counters	•	•	•	•
Maintenance	•	•	•	•
Communications	CEM 7	CEA 7	CEC 7	CEM7 + CEC7
RS232	•	•	•	•
RS485	•	•	•	•
Modbus IP	•	•	•	•
Modbus	•	•	•	•



Controller features (III)

- : Standard
- x : Not included
- : Optional

Communications	CEM 7	CEA 7	CEC 7	CEM7 + CEC7
CCLAN	•	•	x	•
Software for PC	•	•	•	•
Analogue modem	•	•	•	•
GSM/GPRS modem	•	•	•	•
Remote screen	•	•	x	•
Tele signal	• (8 + 4)	• (8 + 4)	x	• (8 + 4)
J1939	•	•	x	•
Features	CEM 7	CEA 7	CEC 7	CEM7 + CEC7
Alarm history	• (10) / (opc. +100)	• (10) / (opc. +100)	• (10) / (opc. +100)	• (10) / (opc. +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	CEM 7	CEA 7	CEC 7	CEM7 + CEC7
GPS Positioning	•	•	x	•
Synchronisation	•	•	x	•
Mains synchronization	•	•	x	•
Second Zero elimination	•	•	x	•
RAM7	•	•	x	•
Remote screen	•	•	x	•
Programming timer	•	•	x	•



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Generator set features

Engine

- Oil temperature sensor
- Coolant level sensor
- Exhaust gas compensator
- Diesel engine
- 4-stroke cycle
- Water-cooled
- 24V electrical system
- Standard air filter
- Standard fuel filter
- Standard oil filter
- Radiator with blower fan
- HTW sender
- LOP sender
- Electronic 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)
- 4-pole thermal magnetic circuit breaker
- Connection panel wired to the safety protection (open thermal magnetic protection and alarm)
- Maintenance-free and anti-explosion battery
- Battery isolator
- 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
- Oil sump extraction kit
- Anti-vibration shock absorbers
- Optional :
 - Steel industrial silencer -15db(A) attenuation
 - Steel residential silencer -35db(A) attenuation.



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PDF Summary

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