



HIMOINSA®
THE ENERGY



MODEL
HFW-100 T5
INDUSTRIAL RANGE
Standard soundproofing
Powered by FPT_IVECO

- D10
- WATER-COOLED
- THREE PHASE
- 50 HZ
- STAGE 2
- DIESEL

Generating Rates



SERVICE		PRP	STANDBY
Power	kVA	100	110
Power	kW	80	88
Rated Speed	r.p.m.	1.500	
Standard Voltage	V	400/230	
Available Voltages	V	230 - 230/132	
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.
- 2006/95/EC Low voltage.
- 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 8528-1:2005 normative: 1000 mbar, 25°C, 30% relative humidity.

Prime Power (PRP):

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.

Emergency Standby Power (ESP):

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

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 • BRASIL

Subsidiaries:

ITALY | PORTUGAL | POLAND | GERMANY | SINGAPORE | UAE | MEXICO | PANAMÁ | ARGENTINA | UK



Ctra. Murcia - San Javier, km. 23,6 | 30730 San Javier (Murcia) SPAIN | Tel.: +34 902 19 11 28 / +34 968 19 11 28
Fax: +34 968 19 12 17 | Export Fax +34 968 19 04 20 | E-mail: info@himoinsa.com | www.himoinsa.com





Engine Specifications 1.500 r.p.m.

ENGINE		PRP	STANDBY
Rated Output	kW	87,5	96,2
Manufacturer		FPT_IVECO	
Model		NEF45TM2A	
Engine Type		4-stroke diesel	
Injection Type		Direct	
Aspiration Type		Turbocharged and after-cooled	
Number of cylinders and arrangement		4 - L	
Bore and Stroke	mm	104 x 132	
Displacement	L	4,5	
Cooling System		Liquid (water + 50% glycol)	
Lube Oil Specifications		ACEA E3 - E5	
Compression Ratio		17,5 : 1	
Fuel Consumption Standby	l/h	24,4	
Fuel Consumption 100% PRP	l/h	22	
Fuel Consumption 80 % PRP	l/h	16,2	
Fuel Consumption 50 % PRP	l/h	11	
Lube oil consumption with full load		0,5 % of fuel consumption	
Total oil capacity including tubes, filters	L	12,8	
Total coolant capacity	L	18,5	
Governor	Type	Mechanical	
Air Filter	Type	Dry	
Inner diameter exhaust pipe	mm	70,3	

Generator

Generator		
Poles	No.	4
Connection type (standard)		Star-series
Mounting type		S-3 11"1/2
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	535
Exhaust Gas Flow	Kg/s	0,148
Maximum allowed back pressure	kPa	5
Exhaust Flange Size (external diameter)	mm	90
Heat dissipated by exhaust pipe	KCal/Kwh	731,6

Necessary Amount Of Air

Intake air flow	m3/h	427
Cooling Air Flow	m3/s	2,2
Alternator fan air flow	m3/s	0,514

Starting System

Starting power	kW	3
Starting power	CV	4,08
Recommended battery	Ah	100
Auxiliary Voltage	Vdc	12

Fuel System

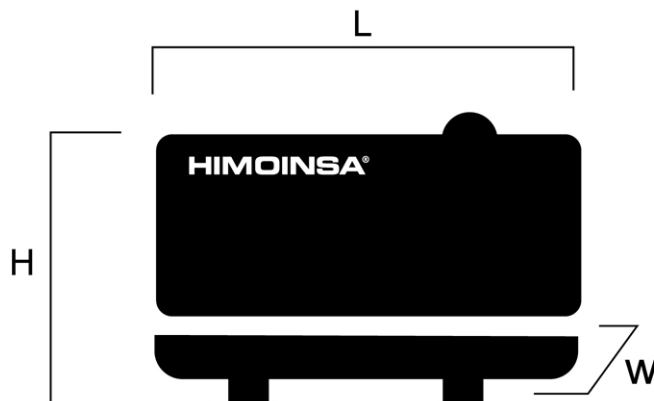
Fuel Oil Specifications		Diesel
Fuel Tank	L	288
Other fuel tank capacities	L	450, 850



HIMOINSA®
THE ENERGY

MODEL
HFW-100 T5
INDUSTRIAL RANGE
Standard soundproofing
Powered by FPT_IVECO

Dimensions



D10 Weight and Dimensions			
(L) Length	mm	2.750	
(H) Height	mm	1.760	
(W) Width	mm	1.100	
Maximum shipping volume		m3	5,32
(*) Weight with liquids in radiator and sump	Kg	1.689	
Fuel tank capacity		L	288
Autonomy		Hours	18
Sound pressure level		dB(A)@7m	69 ± 2,3
(*) (with standard accessories)			

STANDARD VERSION (Plastic tank)

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



Dimensions of Other Available Versions

Weight and Dimensions		
(L) Length	mm	2.750
(H) Height	mm	1.900
(W) Width	mm	1.100
Maximum shipping volume	m3	5,75
(*) Weight with liquids in radiator and sump	Kg	1.807
Fuel tank capacity	L	450
Autonomy	Hours	28
Sound pressure level	dB(A)@7m	69 ± 2,3
(*) (with standard accessories) HIGH CAPACITY VERSION (Steel tank)		

Weight and Dimensions		
(L) Length	mm	2.750
(H) Height	mm	2.163
(W) Width	mm	1.100
Maximum shipping volume	m3	6,54
(*) Weight with liquids in radiator and sump	Kg	1.937
Fuel tank capacity	L	850
Autonomy	Hours	52
Sound pressure level	dB(A)@7m	69 ± 2,3
(*) (with standard accessories) HIGH CAPACITY VERSION (Steel tank)		



HIMOINSA®
THE ENERGY

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



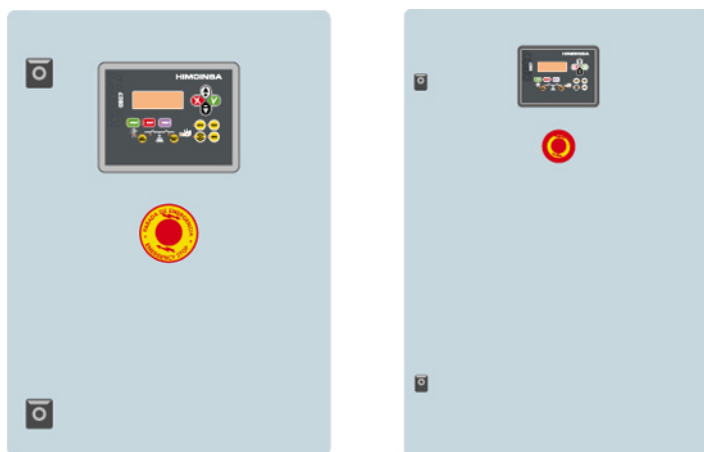
AS5

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



MODEL
HFW-100 T5
INDUSTRIAL RANGE
Standard soundproofing
Powered by FPT_IVECO

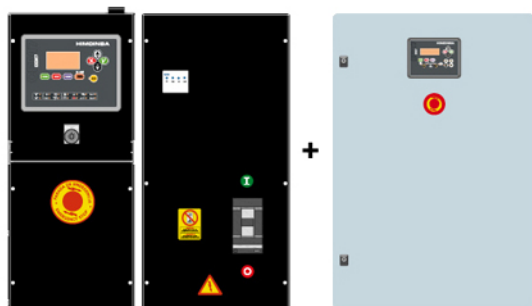


HIMOINSA®
THE ENERGY

CONTROL PANEL MODEL

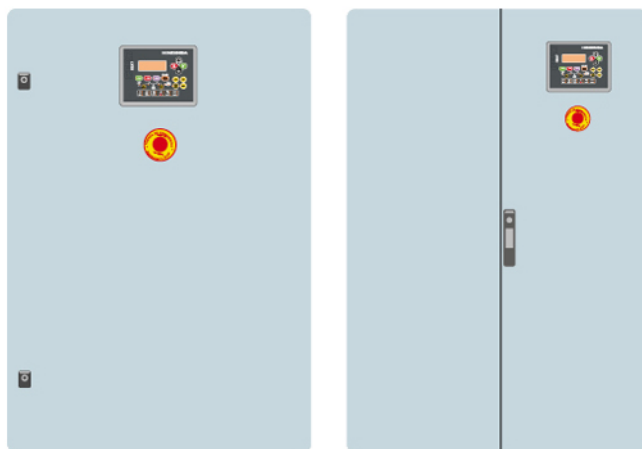
AS5 + CC2

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



MODEL
HFW-100 T5
INDUSTRIAL RANGE
Standard soundproofing
Powered by FPT_IVECO



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	•



Generator set features

Engine

- Diesel engine
- 4-stroke cycle
- 12V electrical system
- Radiator with blower fan
- Water separator filter (no visible level)
- Mechanical governor
- Dry air filter
- Hot parts protection
- Moving parts protection
- Optional :
 - ATA bulbs
 - BPA bulbs
 - Radiator water level sensor

Alternator

- Self-excited and self-regulated
- 4 poles
- AVR governor
- IP23 protection
- H class insulation
- Single drive-shaft
- Flexible disc coupling

Electrical system

- Electric control and power panel with measurements devices and control unit (according to necessity and configuration)
- 4-pole thermal magnetic circuit breaker
- Adjustable earth leakage protection (time & sensitivity) standard in M5 and AS5, 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)
- Optional :
 - Battery isolator

Soundproofed version

- Steel chassis



HIMOINSA®
THE ENERGY

MODEL
HFW-100 T5
INDUSTRIAL RANGE
Standard soundproofing
Powered by FPT_IVECO

Generator set features

Soundproofed version

- Oil sump extraction kit
 - Versatility to assemble a high capacity chassis with a metallic fuel tank
 - Anti-vibration shock absorbers
 - Fuel tank
 - Fuel level gauge
 - Emergency stop button
 - Bodywork made from high quality steel plate
 - High mechanical strength
 - Low level of noise emissions
 - Soundproofing provided by high-density volcanic rock wool
 - Epoxy polyester powder coating (salt spray test of more than 1000 hours)
 - Full access for maintenance (water, oil and filters, no need to remove the bonnet)
 - Reinforced lifting hooks for crane hoisting
 - Watertight chassis (acts as a double barrier against liquid retention)
 - Fuel tank drain plug
 - Chassis drain plug
 - Chassis ready for future mobile kit installation
 - Steel residential silencer -35db(A) attenuation.
- Optional :
- 3-way valve fuel filling (available in 1/2" and 3/8" fittings)
 - Fuel transfer pump



HIMOINSA®
THE ENERGY

MODEL
HFW-100 T5
INDUSTRIAL RANGE
Standard soundproofing
Powered by FPT_IVECO

PDF Summary

Created : 29/11/2016 09:43

Author : Himoinsa

Number of pages : 13

Report Type: Data Sheet - Industrial range

Generated by: HIMOINSA Engineering Dept.

Page 1. Genset data

Page 2. Engine Specifications. Generator Specifications.

Page 3. Installation Data

Page 4. Dimensions

Page 5. Dimensions of Other Available Versions

Page 6. Control Panel Model

Page 7. Control Panel Model

Page 8. Controller features (I)

Page 9. Controller features (II)

Page 10. Controller features (III)

Page 11. Generator Features & Options

Page 12. Generator Features & Options

Page 13. PDF Summary (ID454E38333137363230)

http://www.himoinsa.com/generating-sets/831_22/diesel-generator-hfw-100_t5-fpt_iveco-50hz-industrial-range-prp_100kva.aspx



13



Ctra. Murcia - San Javier, km. 23,6 | 30730 San Javier (Murcia) SPAIN | Tel.: +34 902 19 11 28 / +34 968 19 11 28
Fax: +34 968 19 12 17 | Export Fax +34 968 19 04 20 | E-mail: info@himoinsa.com | www.himoinsa.com

