



HIMOINSA®
THE ENERGY

MACGEN™
POWER GENERATION LTD.



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	107
Power	kW	79	86
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	

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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

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Manufacture facilities:

SPAIN • FRANCE • INDIA • CHINA • USA • BRASIL

Subsidiaries:

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



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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	

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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)



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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

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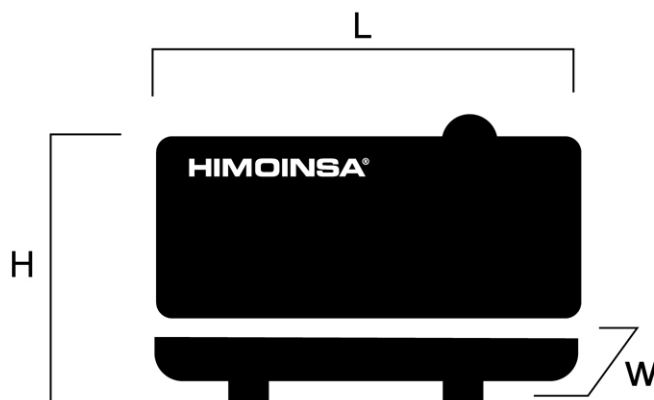


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Dimensions



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 (Steel 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.

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MacGen Power Generation



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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

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HIGH CAPACITY VERSION (Steel tank)



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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



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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