



HIMOINSA

MODEL
HFW-60 T5
 INDUSTRIAL RANGE
 Open Skid
 Powered by FPT_IVECO



- K4
- WATER-COOLED
- THREE PHASE
- 50 HZ
- STAGE 2
- DIESEL

Generating Rates



SERVICE		PRP	ESP
Power	kVA	60	67
Power	kW	48	53
Rated Speed	r.p.m.	1.500	
Standard Voltage	V	240/415	
Available Voltages	V	220/380 - 230/400	
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.
- 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 8528-1:2018 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

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

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Engine Specifications 1.500 r.p.m.

ENGINE		PRP	ESP
Rated Output	kW	53,3	58,8
Manufacturer		FPT_IVECO	
Model		NEF45SM1A	
Engine Type		4-stroke diesel	
Injection Type		Direct	
Aspiration Type		Turbocharged	
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 ESP	l/h	15	
Fuel Consumption 100% PRP	l/h	13,7	
Fuel Consumption 80 % PRP	l/h	10,2	
Fuel Consumption 50 % PRP	l/h	7	
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		
Manufacturer		MECC ALTE
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	483
Exhaust Gas Flow	kg/s	0,09
Maximum allowed back pressure	kPa	6
Heat dissipated by exhaust pipe	KCal/Kwh	655,3

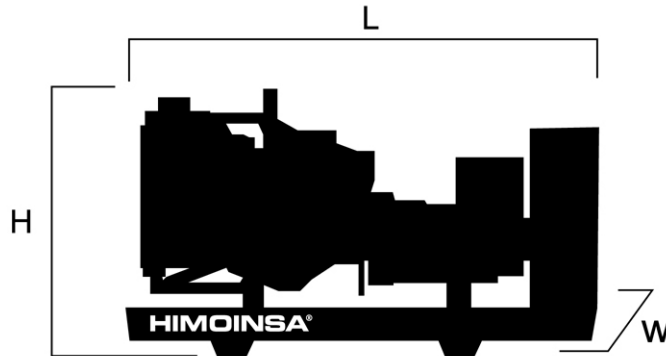
Necessary Amount Of Air		
Intake air flow	m ³ /h	260
Cooling Air Flow	m ³ /s	1,86
Alternator fan air flow	m ³ /s	0,197

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	145



Dimensions



Weight and Dimensions

(L) Length	mm	2.150
(H) Height	mm	1.500
(W) Width	mm	780
Maximum shipping volume	m ³	2,52
(*) Weight with liquids in radiator and sump	kg	948
Fuel tank capacity	L	145
Autonomy	Hours	14

(*) (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



Control Panel M7

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.



M7 Key-start control panel

The M7 device is a monitoring and control electronic system for electrical engine generator sets .

The M7 device is a compact module place in the front panel that develops the following features :

• User's interface. The M7 controller provides information about the status of the generator set and, at the same time, allows the user to interact with it; using M7 keyboard, user is able to configure the functions of the unit.

M7 controller allows to check the last 100 failures registered and a detailed information of the generator set of the last 10 failures.

• Generator set control. M7 controller keep the generator set in working order, including engine control and electrical signal monitoring the generator set, including engine and electrical signal. Every signal, sensor and actuator is connected to the rear part of the M device.

Generator set signals

- Phase to neutral voltage
- Phase to Phase voltage
- Phase current
- Frequency
- Real, apparent and reactive power
- power factor

Engine signals

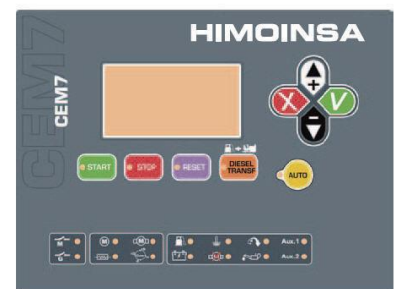
- Fuel reserve
- Oil pressure
- High coolant temperature
- Coolant level
- Emergency stop
- Battery charger alternator voltage
- Battery voltage

Generator set outputs

- Preheating
- Engine control (fuel output or stop pulse)
- Crank output
- Battery charging alternator excitation.
- General warning output

Optional Automatic Controller CEM7

The CEM7 is an Auto-start digital controller which is equipped on Himoinsa generator sets, which is able to control the operation, monitoring and protection of a generator-set.



Controller Display:

- Voltage between each Phase& Neutral
- Voltage between Phases
- Current (amps) on each Phase
- Frequency
- Active, Apparent, & Reactive Power
- Power Factor
- Instant Power (kWh) and Accumulative power
- Fuel level
- Oil pressure, coolant temperature
- Battery voltage, battery charging alternator voltage
- Engine Speed
- Hours running

Engine Alarms:

- High coolant temperature
- Low oil pressure
- Emergency stop
- Battery charging alternator
- Low coolant level
- Over Speed
- Under speed
- Low fuel level by sensor
- Battery low voltage

Generator Alarms:

- Over-load
- Unbalanced voltage
- Over-voltage
- Under-voltage
- Over-frequency
- Under-frequency
- Short-circuit
- Inverse Power
- Asymmetry among phases





Generator set features

Engine

- Diesel engine
- 4-stroke cycle
- Water-cooled
- 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 :
 - HTW sender
 - LOP sender
 - 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

Open set version

- Steel chassis
- Emergency stop button
- Oil sump extraction kit
- Anti-vibration shock absorbers
- Chassis with integrated fuel tank
- Fuel level gauge
- High mechanical strength
- Epoxy polyester powder coating
- Fuel tank drain plug
- Steel industrial silencer -15db(A) attenuation
- Optional :
 - Fuel transfer pump
 - Steel residential silencer -35db(A) attenuation.