



# HIMOINSA



MODEL  
**HF-160 T5**  
 INDUSTRIAL RANGE  
 Standard soundproofing  
 Powered by FPT\_IVECO

- E10
- WATER-COOLED
- THREE PHASE
- 50 HZ
- STAGE 2
- DIESEL

## Generating Rates



SERVICE		PRP	STANDBY
Power	kVA	160	175
Power	kW	127	140
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.
- 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

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

### 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 • BRAZIL • ARGENTINA

### Subsidiaries:

PORTUGAL | POLAND | GERMANY | UK | SINGAPORE | UAE | PANAMA | DOMINICAN REPUBLIC | ARGENTINA | ANGOLA | SOUTH AFRICA



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	137,7	152
Manufacturer		FPT_IVECO	
Model		NEF67TM3A	
Engine Type		4-stroke diesel	
Injection Type		Direct	
Aspiration Type		Turbocharged and after-cooled	
Number of cylinders and arrangement		6-L	
Bore and Stroke	mm	104 x 132	
Displacement	L	6,7	
Cooling System		Liquid (water + 50% glycol)	
Lube Oil Specifications		ACEA E3 - E5	
Compression Ratio		17,5 : 1	
Fuel Consumption Standby	l/h	39	
Fuel Consumption 100% PRP	l/h	36	
Fuel Consumption 80 % PRP	l/h	29	
Fuel Consumption 50 % PRP	l/h	18	
Lube oil consumption with full load		0,5 % of fuel consumption	
Total oil capacity including tubes, filters	L	17,2	
Total coolant capacity	L	25,5	
Governor	Type	Mechanical	
Air Filter	Type	Dry	
Inner diameter exhaust pipe	mm	70	

## Generator

Generator		
Manufacturer		STAMFORD
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	570
Exhaust Gas Flow	kg/s	0,205
Maximum allowed back pressure	kPa	5
Exhaust Flange Size (external diameter)	mm	120
Heat dissipated by exhaust pipe	KCal/Kwh	688,9

Necessary Amount Of Air		
Intake air flow	m <sup>3</sup> /h	586
Cooling Air Flow	m <sup>3</sup> /s	3,8
Alternator fan air flow	m <sup>3</sup> /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	450
Other fuel tank capacities	L	600, 1.100



## Dimensions



<b>E10</b> Weight and Dimensions		
(L) Length	mm	3.300
(H) Height	mm	1.956
(W) Width	mm	1.200
Maximum shipping volume	m <sup>3</sup>	7,75
(*) Weight with liquids in radiator and sump	kg	2.210
Fuel tank capacity	L	450
Autonomy	Hours	16
Sound pressure level	dB(A)@7m	68 ± 2,4
(*) (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

<i>Weight and Dimensions</i>		
(L) Length	mm	3.300
(H) Height	mm	1.956
(W) Width	mm	1.200
Maximum shipping volume	m <sup>3</sup>	7,75
(*) Weight with liquids in radiator and sump	kg	2.300
Fuel tank capacity	L	600
Autonomy	Hours	21
Sound pressure level	dB(A)@7m	68 ± 2,4
<i>(*) (with standard accessories)</i>		HIGH CAPACITY VERSION (Steel tank)

<i>Weight and Dimensions</i>		
(L) Length	mm	3.300
(H) Height	mm	2.179
(W) Width	mm	1.200
Maximum shipping volume	m <sup>3</sup>	8,63
(*) Weight with liquids in radiator and sump	kg	2.465
Fuel tank capacity	L	1.100,0
Autonomy	Hours	38
Sound pressure level	dB(A)@7m	68 ± 2,4
<i>(*) (with standard accessories)</i>		HIGH CAPACITY VERSION (Steel tank)



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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



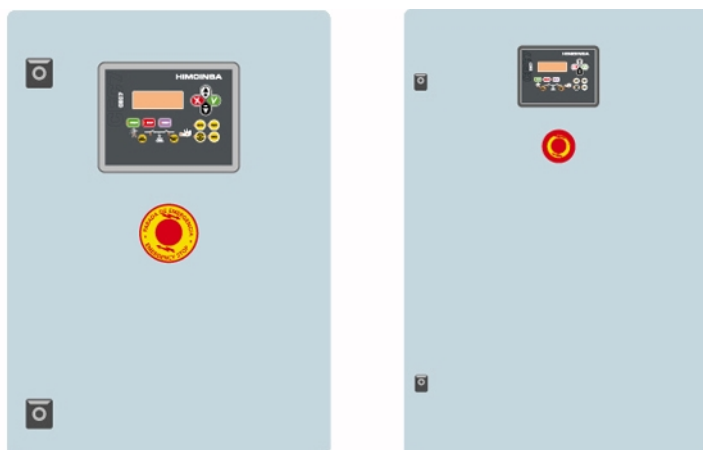
### AS5

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



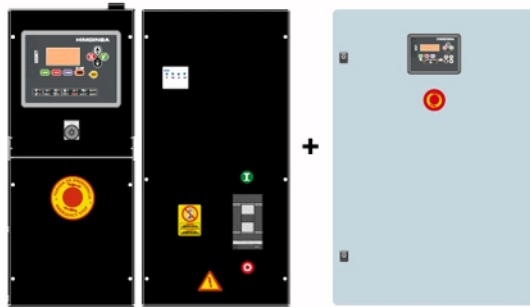


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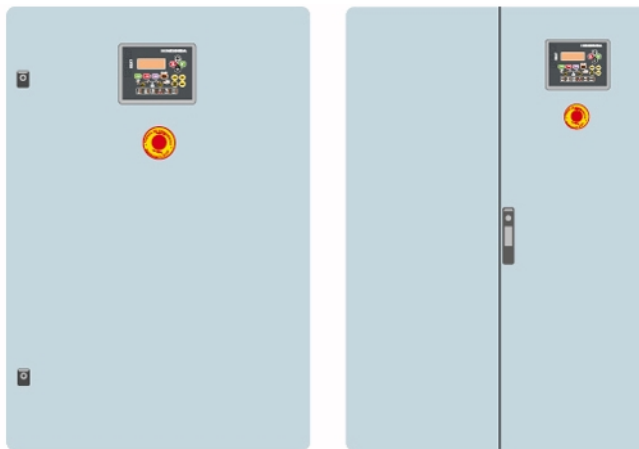
### AS5 + CC2

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	•



## 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

### Soundproofed version

- Steel chassis
- 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
- 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



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## Generator set features

### Soundproofed version

- Chassis drain plug
- Chassis ready for future mobile kit installation
- Steel residential silencer -35db(A) attenuation.
- Oil sump extraction kit
- Versatility to assemble a high capacity chassis with a metallic fuel tank
- IP Protection according to ISO 8528-13:2016
- Optional :
  - 3 way valve for external fuel supply (available in 1/2" and 3/8" fittings)
  - Fuel transfer pump



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## PDF Summary

Created : 08/06/2018 00:22

Author : Himoinsa

Number of pages : 13

Report Type: Data Sheet - Industrial range

Generated by: HIMOINSA Engineering Dept.

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