HIMOINSA
A YANMAR COMPANY

HSF-90 T5

HS | STATIONARY RANGE
Powered by FPT_IVECO



SERVICE		PRP	ESP
POWER	kVA	83	90
POWER	kW	66	72
RATED SPEED	r.p.m.	1.500	
STANDARD VOLTAGE	V	400/230	
AVAILABLE VOLTAGES	V	230/115 · 380/220 · 415/240	
RATED AT POWER FACTOR	Cos Phi	0,8	

HS | STATIONARY RANGE

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, 25ºC, 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

Continuous Power (COP): According to Standard ISO 8528-1:2018, this is the maximum power available for continuous loads for unlimited running hours a year between the maintenance times recommended by the manufacturer under the environmental conditions established by the same.

G2 class load acceptance in accordance with ISO 8528-5:2018

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Manufacture facilities:
SPAIN • FRANCE • INDIA • CHINA • USA • BRAZIL • ARGENTINA

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

STANDARD SOUNDPROOFING

- HS40
- WATER-COOLED
- THREE PHASE
- 50 HZ
- NON COMPLYING 97/68/EC
- DIESEL

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.

The illustrations and images are indicative and may not coincide in their entirety with the product.

Industrial design under patent.

Engine Specifications | 1.500 r.p.m.

Rated Output (PRP)	kW	72,5
Rated Output (ESP)	kW	79,9
Manufacturer		FPT_IVECO
Model		NEF45SM3
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	21,2
Fuel Consumption 100% PRP	l/h	19,4
Fuel Consumption 80 % PRP	l/h	15,4
Fuel Consumption 50 % PRP	l/h	9,6
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

- Diesel engine
- 4-stroke cycle
- Water-cooled
- 12V electrical system
- Dry air filter
- Radiator with pusher fan
- Mechanical governor
- Hot parts protection
- Moving parts protection

Generator Specifications | MECC ALTE

Manufacturer		MECC ALTE
Model		ECP32.2L4C
Poles	No.	4
Connection type (standard)		Star-series
Mounting type		S-3 11"1/2
Insulation	Class	H class

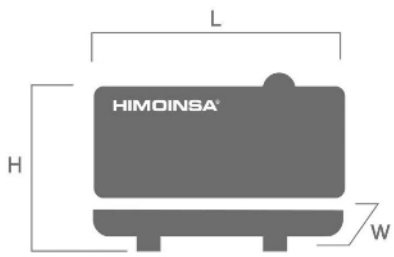
Enclosure (according IEC-34-5)	IP23
Exciter system	Self-excited, brushless
Voltage regulator	A.V.R. (Electronic)
Bracket type	Single bearing
Coupling system	Flexible disc
Coating type	Standard (Vacuum impregnation)

- Self-excited and self-regulated
- IP23 protection
- H class insulation

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WEIGHT AND DIMENSIONS

		Standard Version
Length (L)	mm	2.600
Height (H)	mm	1.500
Width (W)	mm	910
Maximum shipping volume	m³	3,55
Weight with liquids in radiator and sump	Kg	1195
Fuel tank capacity	L	195
Autonomy	Hours	13
		Steel tank



SOUND PRESSURE

Sound pressure level	dB(A)@7m	69 ± 2,4
Sound pressure level with attenuation system	dB(A)@7m	66 ± 2,4

APPLICATION DATA

EXHAUST SYSTEM

Maximum exhaust temperature	°C	516
Maximum allowed back pressure	kPa	5
Heat dissipated by exhaust pipe	KCal/Kwh	543

NECESSARY AMOUNT OF AIR

Intake air flow	m³/h	273
Cooling Air Flow	m³/s	2,2
Alternator fan air flow	m³/s	0,262

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	195

Soundproofed version

- Steel chassis
- Lower power cable outlet with aluminum cover
- Side auxiliary cable outlet with aluminum cover
- Modular tank and retention tray system. Allows easy removal and / or maintenance of the equipment
- Wide access to the engine compartment because of a removable door
- Fuel tank in retention tray
- Soundproofing with foam and polyurethane film
- 4 side lifting points
- Anti-vibration shock absorbers
- Fuel tank
- Fuel level gauge
- External emergency stop switch
- Bodywork made from high quality steel plate
- High mechanical strength
- Epoxy polyester powder coating
- Full access for maintenance (water, oil and filters, no need to remove the canopy)
- Versatility to assemble a high capacity chassis with a metallic fuel tank
- IP Protection according to ISO 8528-13:2016
- Manual oil extraction pump (Opcional).
- Noise reduction kit (Opcional).
- Fuel transfer pump (Opcional).

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ISO 9001
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FEATURES OF THE CONTROL UNITS

		M7X	CEM 7	CEA 7	CEC 7	M7X+CEC7
Generator Readings	Voltage between phases	•	•	•	•	•
	Voltage between neutral and phase	•	•	•	•	•
	Current intensities	•	•	•	•	•
	Frequency	•	•	•	•	•
	Apparent power (Kva)	•	•	•	•	•
	Active power (Kw)	•	•	•	•	•
	Reactive power (kVAr)	•	•	•	•	•
	Power factor	•	•	•	•	•
Mains Readings	Voltage between phases			•	•	•
	Voltage between phases and neutral			•	•	•
	Current intensities			•	•	•
	Frequency			•	•	•
	Apparent power			•		
	Active power			•		
	Reactive power			•		
	Power factor			•		
Engine Readings	Coolant temperature	•	•	•		•
	Oil pressure	•	•	•		•
	Fuel level (%)	•	•	•		•
	Battery voltage	•	•	•		•
	R.P.M.	•	•	•		•
	Battery charge alternator voltage	•	•	•		•
Engine Protections	High water temperature	•	•	•		•
	High water temperature by sensor	•	•	•		•
	Low water temperature by sensor	•	•	•		•
	Low oil pressure	•	•	•		•
	Low oil pressure by sensor	•	•	•		•
	Low water level	•	•	•		•
	Unexpected shutdown	•	•	•		•
	Fuel storage	•	•	•		•
	Fuel storage by sensor	•	•	•		•
	Stop failure	•	•	•		•
	Battery voltage failure	•	•	•		•
	Battery charge alternator failure	•	•	•		•
	Overspeed	•	•	•		•
	Underspeed	•	•	•		•
	Start failure	•	•	•		•
	Emergency stop	•	•	•	•	•

• Standard (o) Optional

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		M7X	CEM 7	CEA 7	CEC 7	M7X+CEC7
Alternator Protections	High frequency	●	●	●	●	●
	Low frequency	●	●	●	●	●
	High voltage	●	●	●	●	●
	Low voltage	●	●	●	●	●
	Short-circuit	●	●	●		●
	Asymmetry between phases	●	●	●	●	●
	Incorrect phase sequence	●	●	●	●	●
	Inverse power	●	●	●		●
	Overload	●	●	●		●
	Genset signal drop	●	●	●	●	●
Counters	Total hour counter	●	●	●	●	●
	Partial hour counter	●	●	●	●	●
	Kilowatt meter	●	●	●	●	●
	Starts valid counters	●	●	●	●	●
	Starts failure counters	●	●	●	●	●
	Maintenance	●	●	●	●	●
Communications	RS232		ⓞ	ⓞ	ⓞ	ⓞ
	RS485		ⓞ	ⓞ	ⓞ	ⓞ
	Modbus IP		ⓞ	ⓞ	ⓞ	ⓞ
	Modbus		ⓞ	ⓞ	ⓞ	ⓞ
	CCLAN		ⓞ	ⓞ		
	Software for PC		ⓞ	ⓞ	ⓞ	ⓞ
	Analogue modem		ⓞ	ⓞ	ⓞ	ⓞ
	GSM/GPRS modem		ⓞ	ⓞ	ⓞ	ⓞ
	Remote screen		ⓞ	ⓞ		
	Tele signal		ⓞ (8 + 4)	ⓞ (8 + 4)		
	J1939	ⓞ M7XJ	ⓞ	ⓞ		ⓞ M7XJ
Features	Alarm history	● (100)	● (10) / (opc. +100)	● (10) / (opc. +100)	● (10) / (opc. +100)	● (100)
	External start	●	●	●	●	●
	Start inhibition	●	●	●	●	●
	Mains failure start			●	●	●
	Start under normative EJP	●	●	●		●
	Pre-heating engine control	●	●	●		●
	Genset contactor activation	●	●	●	●	●
	Mains & Genset contactor activation			●	●	●
	Fuel transfer control	●	●	●		●
	Engine temperature control	●	●	●		●
	Manual override	●	●	●		●
	Programmable alarms	●	●	●		●
	Genset start function in test mode	●	●	●	●	●
	Programmable outputs	●	●	●		●
	Multilingual		●	●	●	●
Special Functions	GPS Positioning		ⓞ	ⓞ		
	Synchronisation		ⓞ	ⓞ		
	Mains synchronization		ⓞ	ⓞ		
	Second Zero elimination		ⓞ	ⓞ		
	RAM7		ⓞ	ⓞ		
	Remote screen		ⓞ	ⓞ		

● Standard ⓞ Optional

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CONTROL PANELS



AS5

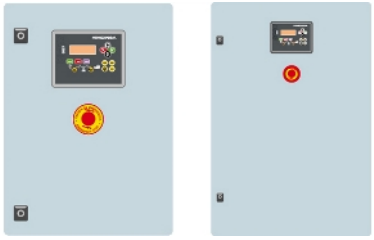
Automatic panel WITHOUT transfer switch and WITHOUT mains control with CEM7 unit. (*) AS5 as optional with CEA7 unit. Automatic panel without transfer switch and WITH mains control.



AS7

Automatic control panel WITHOUT Transfer Switch and WITHOUT mains control with M7X unit.

Digital control unit M7X



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



AS7 + CC2

Automatic control panel WITH transfer switch and WITH mains control. The display will be on the genset and on the cabinet.

Digital control unit M7X+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

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
- 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)
- Battery Switch (Opcional).
- Leakage detector (Opcional).
- Optional Battery (Optima) (Opcional).

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