



3 PHASE OUTPUTS					
GENERATOR SET MODEL	RATING	50HZ		60HZ	
		KVA	KW	KVA	KW
IA-80	PRIME	80	64	91	73
	STAND-BY	88	70	100	80

Ratings at 0.8 pf - Generator designed to operate in Ambient Temperatures up to 52 °C

Standard Voltages 380 – 415 Volts 3 Phase 50HZ

RATING DEFINATIONS:

PRIME POWER

These ratings are applicable for supplying continuous power (at variable load) in Lieu of commercially purchased power. There is no limitation to the annual hours of operation and this model can supply 10% overload power for 1 hour in 12 hours.

STANDBY POWER

These ratings are applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these rating. When used at standby Rating the alternator will be peak continuous rated (according to ISO3046)

TECHNICAL DATA

Engine model:	NEF45SM3	Cooling system:	Liquid (Water-paraflu 50%)
Engine manufacturer:	IVECO-FPT	Total coolant capacity:	(liters) 10
Emissions statement	Non emissions	Total lubrication system capacity:	(liters) 12.8
Number of cylinders:	04	Engine rotation (viewed facing flywheel):	Counter Clockwise
Cylinder arrangement	Vertical in-line	Engine speed:	RPM 1500
Aspiration:	Turbocharged	Output rated(prime) power:	kWm 73
Combustion system	Direct Injection	Fuel consumption at: 50% load	L/h 9.6
Compression ratio	17.5:1	80% load:	L/h 15.4
Bore/stroke:	mm. 104/132	100% load:	L/h 19.4
Displacement:	(liters) 4.5	Specific lube oil consumption:	<0.1% of fuel Consumption

Note: Ratings in accordance with ISO 8528. For duty at temperature over 40°C and/or altitude over 1000 meters must be considered a power de-rating factor. Net power at flywheel available after 50 hours running with ±3% tolerance

STANDARD SPECIFICATION IA-80

1. ENGINE

IVECO Heavy Duty Diesel Engine.

1.1 Governor

Mechanical Governor

2. COOLING RADIATOR

Radiator and cooling fan complete with protection guards, designed to cool the engine in ambient temperatures up to 52° C.



The radiator is mounted on the base frame to avoid vibrations coming from the engine.

3. FILTRATION SYSTEM

Cartridge type Air Filter with dust indicator. Replaceable Fuel and Lube Oil Filter with Extended life for long maintenance intervals.

4. EXHAUST SYSTEM

Heavy-duty Industrial Silencer.

5. ELECTRICAL SYSTEM

12 Volt Electrical System with Battery Charging Alternator, Starter Motor, High Capacity Maintenance Free Lead Acid Battery, Battery Rack Mounted on the Generating Set Base Frame, and Heavy Duty Interconnecting Cables with Terminals.



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6. ALTERNATOR Screen protected and drip-proof, self-exciting, self-regulating brush-less alternator. Four poles, STAR winding connection, suitable for tropical, humid and saline climates. H class insulation.

7. AUTOMATIC VOLTAGE REGULATOR

Static electronic design voltage regulator. Steady voltage precision within + 1 % from no load to full load including cold and hot variations, at any Power factor between 0.8 and unity.

8. MOTOR STARTING

An overload capacity equivalent to between 160% to 300% (depending on alternator frame size) of full load impedance at zero power factor can be sustained for 10 seconds.

9. MOUNTING ARRANGEMENT

9.1 Base Frame

The complete generating set is mounted on heavy duty steel fabricated base frame Which is anti rust coated.

9.2 Coupling

Engine and alternator are directly coupled by means of SAE flange so there is no possibility of misalignment after prolong use. The engine fly wheel is flexibly coupled to the alternator rotor.

9.3 Anti Vibration Mounting Pads

Anti vibration pads are fitted between engine-alternator base frame ensuring complete vibration isolation of rotating assemblies.

10. FUEL SYSTEM

Base Mounted Heavy Duty Metal Fuel Tank of 08 hours operation capacity is equipped with visual fuel level indicator.

11. DIMENSIONS

Open Type

Length	1300	mm
Width	700	mm
Height	1050	mm
Weight	500	Kg

Silent Type

Length	mm
Width	mm
Height	mm
Weight	Kg

12. CONTROL PANEL

The Manual / Auto starting Deepsea Control Panel has been designed and built to combine all the instruments control and the warning lights for engine and alternator. The sheet steel made panel is carefully painted for tropical climates and is designed for a dusty environment. Includes moulded case three pole circuit breaker with thermal and magnetic release - automatic shut down in case of HWT, LOP and over speed - starting and stop push button - built in signal warning light for high cooling water temperature, low oil pressure, battery charging - hours meter.



13. DOCUMENTATION

A full set of operation and maintenance manual are provided.

14. FACTORY TESTS

Generating set is subject to a strict load test before delivery. A test certificate can be provided as optional.

15. QUALITY STANDARDS

Generating set meets the following standards ISO 8528, IEC 34.1, CEI 2.3, VDE 0530, BS 4999-5000, NF51-100. IVECO - FPT is fully accredited ISO 9001 company.

16. WARRANTY

Generating set is guaranteed for a period of **12 months or 2000 hours** from date of commissioning or **18 months** from date of shipment which ever comes earlier.

