

Generator Ratings



SERVICE		PRP (Prime)	STANDBY
Power	kVA	20	22
Power	kW	16,2	17,7
Rated Speed	r.p.m.	1.500	
Standard Voltage	V	400	
Available Voltages	V	230 /400V	
Rated at power factor	Cos Phi	0,8	

Definitions

Standby rating

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 ratings. The alternator on this model is peak continuous rated (as defined in ISO 8528-3).

Prime Rating

These ratings are applicable for supplying continuous electrical 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.

Standard Reference Conditions

Note: Standard reference conditions 25°C (77°F) air inlet temp, 100m (328ft) A.S.L. 30% relative humidity.

Fuel consumption data at full load with diesel fuel with specific gravity of 0.85 and conforming to BS2869:1998, Class A2.

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General Data

Documents

A full set of operation and maintenance manuals and circuit wiring diagrams.

Quality Standards

BS4999, BS5000, BSEN60034, BSEN61000, IEC60034

Warranty

All equipment carries full manufacturer's warranty.
2000 hours/12 months



QR Code



Engine Specification

Engine	PRP	Standby
Rated Output (Kw)	19,1	21
Engine Manufacturer	YANMAR	
Engine Model	4TNV84T	
Engine Type	Diesel 4 strokes-cycle	
Injection Type	Direct	
Aspiration Type	Turbocharged	
Cylinders Arrangement	4 - L	
Bore and Stroke (mm)	84 x 90	
Displacement	1,995	
Lube Oil Specifications	SAE 3 class 10W30 / API grade CD,CF	
Compression Ratio	18,9	
Fuel Consumption StandBy (L/hr)	6	
Fuel Consumption 100% PRP (L/hr)	5,64	
Fuel Consumption 75 % PRP (L/hr)	4,25	
Fuel Consumption 50 % PRP (L/hr)	2,99	
Lube Oil Consumption Full Load (g/kwh)	0,27	
Total Oil Capacity (L)	7,4	
Total Coolant Capacity (L)	5,8	
Governor Type	Mechanical	
Air Filter Type	Dry- Heavyduty	
Inner diameter exhaust pipe (mm)	34,7	
Starting System	electric- 12 volt DC	
Battery Voltage	12V	

Alternator Specification

Alternator	
Alternator Manufacturer	Stamford
Alternator Model	PI144E
Poles	4
Winding Conections (standard)	Star-serie
Frame Mounting	S-4 7,5"
Terminals	12
Insulation Type	H class
AVR Model	AS480
Winding Pitch	2/3
Voltage Regulation NL-FL	±1% A.V.R. (Electronic)
IP Rating	IP23
Telephone Interference	THF<2%
Excitation System	self-excited, brushless
Bearing	Single bearing
Coupling	Flexible disc
Coating (Standard)	Vacuum impregnation

Himoinsa reserves the right to modify any characteristic without prior notice.

Weights and dimensions based on standard products.

Illustrations may include optional equipment.

Technical data described here correspond with the available information at the moment of printing.

Industrial design under patent.

Dimensions and Weights

Soundproof



Open Skid



Dimensions and Weights

	Soundproof Model	Open Skid
(L) Length (mm)	2.100	1.700
(H) Height (mm)	1.409	1.286
(W) Width (mm)	975	620
Shipping Volume seaworthy (standard supplier) (m3)	2,88	1,36
(*) Wet weight (Kg)	854	452
Fuel tank capacity (L)	190	76
Autonomy (Hours)	45	18
Sound Level (db(A)@7m)	59	

(*) (with standard accesories) HIGH CAPACITY VERSION (Steel tank)



Generating Sets Standard Features

Electrical system

- 2 pole (single phase) & 4 pole (Three phase) main circuit breaker
- Battery charger
- Battery charging alternator
- Heavy duty starting battery
- Single pole battery Isolator
- Microprocessor controller

Open version

- Anti-vibration mounts
- Easy access for maintenance
- Exhaust heat shields
- Guards for shielding all rotating parts

Enclosed version additional features

- Intergrated high capacity banded fuel tank
- Single point lifting frame
- Sound attenuated canopy enclosure made from high quality powder coated steel
- Attenuation through high density rock wool material
- Steel residential silencer-35db(A) attenuation.
- 2× Emergency stop buttons

Optionals & Accessories

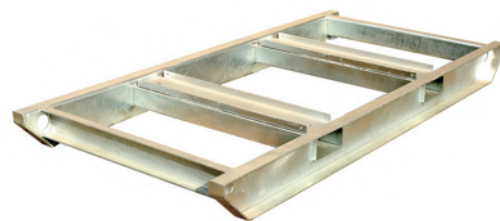
- Galvanized pulling skid with fork lift pockets
- CBR 40 weatherproof outlet panel consisting of 3×15A 1 PH & 1×32A 3PH switched weather proof outlets
- PMG (EBS) excitation
- Anti-condensation heaters
- 3 way fuel valves
- Adjustable earth leakage relay
- Water jacket pre-heater

Output Panel CBR40



Sockets 3×15A + 1×32A
Position: Mounted in rear panel, above alternator.

Galvanized Base Pulling Skid





Control Panel M7



M7 controller is a user friendly microprocessor controller with remote start capability and an LCD display that allows the user to monitor generator conditions and output.

Electrical supply measurements:

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

Automatic external start:

- M7 device provides a digital input in order to start the generator set (only in AUTO mode)

Engine Signals:

Engine warning digital input

- Fuel reserve
- Oil pressure
- High coolant temperature
- Coolant level
- Emergency stop

Engine warning analog input

- Fuel level
- Pressure
- Coolant temperature
- Battery charger alternator voltage
- Battery voltage

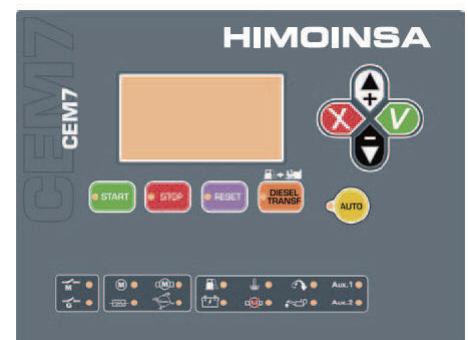
Generator set outputs:

M7 device provides up to 5 outputs that carry up the following features:

- Preheating or glow plug
- Engine control (fuel output or stop pulse)
- Crank output.
- PULL and HOLD injector outputs (case type YANMAR engines)
- 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:

1. Voltage between each Phase & Neutral
2. Voltage between Phases
3. Current (amps) on each Phase
4. Frequency
5. Active, Apparent, & Reactive Power
6. Power Factor
7. Instant Power (kWh) and Accumulative power
8. Fuel level
9. Oil pressure, coolant temperature
10. Battery voltage, battery charging alternator voltage
11. Engine Speed
12. Hours running

Engine Alarms:

1. High coolant temperature
2. Low oil pressure
3. Emergency stop
4. Battery charging alternator
5. Low coolant level
6. Over Speed
7. Under speed
8. Low fuel level by sensor
9. Battery low voltage

Generator Alarms:

1. Over-load
2. Unbalanced voltage
3. Over-voltage
4. Under-voltage
5. Over-frequency
6. Under-frequency
7. Short-circuit
8. Inverse Power
9. Asymmetry among phases