# PRIME POWER

## DIESEL GENERATING SET 400/230 V - 50 Hz - 3PHASE

| POWER RATING | | PRIME | STANDBY |
|---|---|---|---|
| POWER | kVA | 38 | 41 |
| | kW | 30 | 33 |
| Rated Speed | r.p.m | 1500 | |
| Available Voltages | V | 400/230 - 380/220-415/240V-440/254 etc | |
| Rated at power factor | Cos Phi | 0.8 | |

**Standard Reference Conditions:**  25°C (77°F) Air Inlet Temp, 100m(328 ft) A.S.L. 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 over 24 hours 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 hours 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 hours of operation shall not exceed 70 % of the ESP

| ENGINE | | PRIME | STANDBY |
|---|---|---|---|
| Rated Output | kW | 47 | 52 |
| Manufacturer | | Cummins | |
| Model | | 4BTA3.9-GM47 | |
| Number of Cylindirs and arrangement | | 4 Cycle, 4 Cylinder in Line | |
| Aspiration Type | | Turbocharged | |
| Bore and Stroke | mm | 102X120 | |
| Compresion Ratio | | 17.3:1 | |
| Cooling System | | Water-cooled | |
| Engine Speed/Frequency | rpm/Hz | 1500/50HZ | |
| Coolant Capacity | L | N/A | |
| Starting System | | Electric 24 volt DC | |
| Displacement | L | 3.9 | |
| Lubricant system Capacity | L | 9 | |

| Battery Volatge / Capacity | | 24VDC | | | |
|---|---|---|---|---|---|
| Governor | Type | Electronic | | | |
| Air Filter | Type | Dry | | | |
| Fuel Consumption | Load | 100% | 75% | 50% | 25% |
| | L/h | 12.0 | 9.0 | 6.0 | 3.0 |

**ENGINE:**Marine 4 stroke cooled diesel engine complete with air,fuel and oil filters,electric starting and charging equipment

**COOLING:With heat exchanger,sea water pump cooling**

**ELECTRICAL SYSTEM:**12/24V upto.Axial type starter motor,battery charging alternator,high capacity lead acid battery,and battery tray mounted on the generator base frame,and heavy duty interconnecting cable with terminations.

| ALTERNATOR MANUFACTURER | STAMFORD | Marathon |
|---|---|---|
| Model | PM144K | MP-H-30-4 |
| Excitation System | Self Excited | |
| Number of Poles | 4 | |
| Connection Type | Star-Series | |
| Insulation Class | Class H | |
| Voltage Regulator | A.V.R. (Electronic) | |
| Bracker Type | Single bearing | |
| Steady Voltage Precision | ± 0.5% | |
| Couping System | Flexible disc | |
| Coating Type | Standard ( Vacuum impregnation ) | |
| Underspeed Protection | Standard | |
| Ingress Protection Rating | IP23 | |
| Wave Form NEMA=TIF | <50 | |

## CONTROL PANEL:  CUMMINS



## Voltage Regulation

Δ Voltage regulation maintanined within ±0.5%

Δ Between 0.8 and 1.0 lagging and unity

Δ From no load to full load

Δ At speed droop variation upto 4.5%

## Frequency Adjustable Ratio

Change load from 0-100%,within 1.0%( electric speed regulator),within 4.5%( mechanical speed regulator)

## Frequency Undulation

Δ Load from 0-100%,frequency undulation within 0.25%

Δ No load wire volts max undulation ration\ within 1.8%

Δ Three Phrase balanced load in the order of 5%

Δ Effect factor of Telecom

Δ TIF better than 50

Δ THF to IEC60034 Part 40 better than 2%

## Quality Standards

ISO9001:2000,ISO14000,ISO3046

ISO8528 BS4999

BS5514,AS1359,ICE34

CE Compliance

## Gensets Dimensions & Weight & Fuel Tank Capacity

Open type:LxWxH (mm),Dry Weight / Kgs, Fuel tank ( L )

1650*850*1300, 800kgs

**Local Distributor:**