# hyundai P086TI



## DESCRIPTION

- P086TI-Series Engines has been in global generator market for many years and proved its quality as well as reliability.
- P086TI-Series is also acknowledged for its easy maintenance and operation.



## **FEATURES & BENEFITS**

### [East Maintenance & Operation]

- Mechanical type engine
- Commonality of key parts

### [High Durability]

- Higher warranty period through sufficient verification
- 1000hrs /5years (ESP)
- Unlimited /1year (PRP)

# OUTPUT

| 1,500 RPM (50Hz) |     |     |       |     |            |     |         | 1,800 RPM (60Hz) |       |     |            |     |     |     |     |     |     |
|------------------|-----|-----|-------|-----|------------|-----|---------|------------------|-------|-----|------------|-----|-----|-----|-----|-----|-----|
| Standby          |     |     | Prime |     | Continuous |     | Standby |                  | Prime |     | Continuous |     |     |     |     |     |     |
| kWm              | kWe | kVA | kWm   | kWe | kVA        | kWm | kWe     | kVA              | kWm   | kWe | kVA        | kWm | kWe | kVA | kWm | kWe | kVA |
| 199              | 180 | 225 | 181   | 164 | 205        | 127 | 113     | 141              | 223   | 200 | 250        | 203 | 181 | 226 | 142 | 125 | 156 |

• Generator efficiency (typical) : 93.0%

 kWm= kilo Watt mechanical, Gross power; kWe= kilo Watt electric = (kWm-Fan loss) x Generator eff. kVA= kilo Volt Ampere Calculations based on a 0.8 power factor = kWe/0.8



# P086TI

# GENERAL DATA

| Diesel, Water cooled, Turbo charged & Intercooled |  |  |  |
|---------------------------------------------------|--|--|--|
| 111mm                                             |  |  |  |
| 139mm                                             |  |  |  |
| 8.07                                              |  |  |  |
| Cast iron, 6 Cylinder, In-line Type               |  |  |  |
| 28.5V x 45A alternator                            |  |  |  |
| 24V                                               |  |  |  |
| Mechanical Injection Pump                         |  |  |  |
| Full flow, Cartridge type with water drain valve  |  |  |  |
| Full flow, Cartridge type                         |  |  |  |
| Max. 15.5 liters , Min. 12 liters                 |  |  |  |
| SAE NO. 1M / Clutch NO. 14 M                      |  |  |  |
|                                                   |  |  |  |

| COOLING SYSTEM     |                  |                                |  |  |  |  |  |
|--------------------|------------------|--------------------------------|--|--|--|--|--|
| Cooling method     |                  | Fresh water forced circulation |  |  |  |  |  |
| Cooling ratio      |                  | 50% ethylene glycol; 50% water |  |  |  |  |  |
| Water              | with radiator    | 44liters                       |  |  |  |  |  |
| capacity (L)       | Without radiator | 14liters                       |  |  |  |  |  |
| Fan power (kW)     |                  | 5kW(50Hz), 8kW(60Hz)           |  |  |  |  |  |
| Cooling system air | flow (m³/min)    | 3.73                           |  |  |  |  |  |

# FUEL CONSUMPTION

### 1,500 RPM (50Hz)

| %                | kWm   | BHP   | Liters/hr | USgal/hr |  |  |  |  |  |
|------------------|-------|-------|-----------|----------|--|--|--|--|--|
| Standby Power    |       |       |           |          |  |  |  |  |  |
| 100              | 199.0 | 266.9 | 48.4      | 12.79    |  |  |  |  |  |
| Prime Power      |       |       |           |          |  |  |  |  |  |
| 100              | 181.0 | 237.4 | 43.1      | 11.39    |  |  |  |  |  |
| 75               | 135.8 | 178.0 | 31.7      | 8.37     |  |  |  |  |  |
| 50               | 90.5  | 118.7 | 21.1      | 5.57     |  |  |  |  |  |
| 25               | 45.3  | 59.3  | 11.3      | 2.99     |  |  |  |  |  |
| Continuous Power |       |       |           |          |  |  |  |  |  |
| 100 127          |       |       |           |          |  |  |  |  |  |

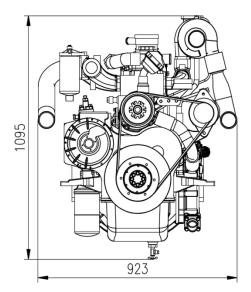
### 1,800 RPM (60Hz)

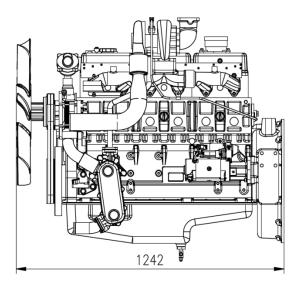
| %                | kWm   | BHP   | Liters/hr | USgal/hr |  |  |  |  |  |
|------------------|-------|-------|-----------|----------|--|--|--|--|--|
| Standby Power    |       |       |           |          |  |  |  |  |  |
| 100              | 223.0 | 299.0 | 56.8      | 15.00    |  |  |  |  |  |
| Prime Power      |       |       |           |          |  |  |  |  |  |
| 100              | 203.0 | 274.9 | 50.6      | 13.37    |  |  |  |  |  |
| 75               | 152.3 | 206.2 | 37.7      | 9.96     |  |  |  |  |  |
| 50               | 101.5 | 137.5 | 25.1      | 6.63     |  |  |  |  |  |
| 25               | 50.8  | 68.7  | 13.8      | 3.65     |  |  |  |  |  |
| Continuous Power |       |       |           |          |  |  |  |  |  |
| 100              | 142.0 |       |           |          |  |  |  |  |  |



# P086TI

# DIMENSIONS





| Weights and Dimensions |                        |     |             |                 |  |  |  |  |  |
|------------------------|------------------------|-----|-------------|-----------------|--|--|--|--|--|
| Item                   | Length (mm) Width (mm) |     | Height (mm) | Dry Weight (kg) |  |  |  |  |  |
| Engine                 | 1,242                  | 923 | 1,095       | 790             |  |  |  |  |  |

## POWER RATING GUIDE

The power ratings of Emergency Standby and Prime are in accordance with ISO 8528. Fuel Stop power in accordance with ISO 3046. Electric power (kWe) must be considered cooling fan loss, alternator efficiency, altitude derating and ambient temperature.

**ESP(STANDBY POWER)** is applicable for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. A standby rated engine should be sized for a maximum of an 70% average load factor and 200 hours of operation per year. This includes less than 25 hours per year at the Standby Power rating.

**PRP(PRIME POWER)** is available for an unlimited number of hours per year in variable load application. Variable load should not exceed a 70% average of the Prime Power rating during any operating period of 24 hours. The Total operating time at 100% Prime Power shall not exceed 500 hours per year. A 10% overload capability is available for a period of 1 hour within a 12 hours period of operation. Total operating time at the 10% overload power shall not exceed 25 hours per year.

**COP(CONTINUOUS POWER)** is defined as being the maximum power which the generating set is capable of delivering continuously whilst supplying a constant 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.

% Specifications are subject to change without prior notice.

