



| MODEL | rpm / Hz | VOLTAGE | PRIME ⁽¹⁾ | STANDBY ⁽²⁾ |
|-------------------|-----------|-----------|----------------------|------------------------|
| PI 114P / PI 126P | 1800 / 60 | 480 / 277 | 114.5 kVA / 91.6kWe | 126.5 kVA / 101.2kWe |

Full rated power available upto 100 meter elevation at ambient of 27degC, for other temperature and altitude limits please consult application team.

ENGINE SPECIFICATIONS

| | |
|-----------------------------------|---|
| Rated Output (PRP) ⁽¹⁾ | 106.8 kW _m |
| Rated Output (ESP) ⁽²⁾ | 117.5 kW _m |
| Engine Make & Model | Perkins 1104C-44TAG2 |
| No. of Cylinders | 4 Vertical In-line |
| Cycle | 4 Strokes |
| Aspiration | Turbocharged & Air to Air Charge Cooled |
| Cooling Method | Water |
| Governing Type | Electronic |
| Governing Class | G2 - ISO 8528 Part 1 |
| Compression Ratio | 18.2:1 |
| Displacement | 4.4 L (269in ³) |
| BorexStroke (mm/in) | 105x127 / 4.1x 5 |
| Battery and Charger Alternator | 12 VDC , 65 Amp |

AIR SYSTEM

| | |
|---------------------------|---------------------------|
| Air Filter Type | Dry Element |
| Combustion Air Flow (PRP) | 7.75 m ³ /min |
| Combustion Air Flow (ESP) | 7.8 m ³ /min |
| Radiator Air Flow | 225.6 m ³ /min |

COOLING SYSTEM

| | |
|------------------------------|------------------------|
| Total Coolant Capacity (L) | 12.6L (3.3 US gal) |
| Water Pump Type | Centrifugal Eng-Driven |
| Radiator Fan Load | 5.1 kW |
| Heat Radiation to Room (PRP) | 8.5 kW |
| Heat Radiation to Room (ESP) | 9.4 kW |

LUBRICATION SYSTEM

| | |
|--------------------|--------------------------|
| Oil Filter Type | Spin on full flow filter |
| Total Oil Capacity | 8 L (2.1 US gal) |
| Oil Pan | 7 L (1.85 US gal) |
| Oil Type | API CH4/CI4; SAE 15W-40 |

FUEL SYSTEM

| | |
|----------------------------------|----------------------------|
| Fuel Filter: Ecoplus fuel filter | |
| Recommended Fuel | Class A2 Diesel |
| Fuel Consumption Standby | 29.7 L/hr (7.84 US gal/hr) |
| Fuel Consumption 100% PRP | 26.9 L/hr (7.10 US gal/hr) |
| Fuel Consumption 75% PRP | 20.2 L/hr (5.33 US gal/hr) |
| Fuel Consumption 50% PRP | 14.1 L/hr (3.72 US gal/hr) |

EXHAUST SYSTEM

| | |
|-----------------------------------|---|
| Muffler Type | Residential Grade |
| Max. Back Pressure | 18 kPa |
| Exhaust Gas Flow (PRP/ESP) | 18.4 / 20.4 m ³ /min |
| Exhaust Gas Temperature (PRP/ESP) | 517 ⁰ C / 574 ⁰ C |

ALTERNATOR SPECIFICATIONS

| | |
|---------------------------------------|------------------|
| Rated Output (Prime) ⁽¹⁾ | 146.3 kVA |
| Rated Output (Standby) ⁽²⁾ | 158.8 kVA |
| Alternator Make & Model | Stamford UCI274D |
| Number of Poles | 4 |
| Number of Winding Leads | 12 |
| Type of Bearing | Single |
| Insulation Class / Temp Rise | H/H |
| Efficiency @ Rated Voltage | 91.0% |
| Ingress Protection Rating | IP 23 |
| Excitation System | Self Excited |
| AVR Model | Stamford - S440 |

ALTERNATOR OPERATING DATA

| | |
|---------------------|-------------------------------------|
| Overspeed | 2250 r.p.m |
| Voltage Regulation | ± 1 % |
| Waveform distortion | No load < 1.5%, Linear load < 5% |
| Radio Interface | EN 61000-6-2 & EN 61000-6-4 |
| Cooling Air Flow | 0.617 m ³ /sec |

⁽¹⁾ **PRIME POWER RATING (PRP):** PRP is defined as 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. The permissible average power output over 24 hours shall not exceed 70% of PRP unless otherwise agreed by RIC engine manufacturer. An overload capability of 10% of 100% of the prime rated electrical power is permitted for emergency use for a period of 1 hour within 12 hours of operation

⁽²⁾ **EMERGENCY STANDBY POWER RATING (ESP):** ESP is defined as the maximum power available during a variable electrical power sequence, under the stated operation condition, for which a generating set is capable of delivering power in the event of a utility power outage or under test condition for up to 200 Hours of operation per year. The permissible average output over 24 hour of operation shall not exceed 70 % of the ESP power rating noting that no over load is permitted.



CONTROLLER SPECIFICATIONS

| | |
|---------------------------|--------------------------------------|
| Controller Make & Model | DeepSea 4520 |
| Operation Mode | MRS / AMF (optional) |
| Display | Graphic Back-lit LCD (128x64) pixels |
| Ingress Protection Rating | IP65 |
| Binary Inputs/Outputs | 4 / 4 |
| Analog Inputs | 3 |
| Measurement | Vac, A, Hz, kVA, kW, Vdc |
| Event Log | Alarms log, Hrs log |
| Communication | USB |

ENCLOSURE SPECIFICATIONS

| | |
|---------------------------|--|
| Enclosure Type | Acoustic & Weather Proof |
| Anticorrosive Protection | Polyester Powder Coated Galvanized Sheet |
| Ingress Protection Rating | IP23 |
| Lifting | ISO Standard Lifting |
| Emergency | External Emergency Push Button |
| Canopy RAL Color | RAL 2000 |
| Baseframe RAL Color | RAL 9011 |
| Noise Pressure level @ 7m | 77 dB(A) ± 3dBA |

GENSET DIMENSIONS & WEIGHT

| GENSET TYPE | Length (mm) | Width (mm) | Height (mm) | Fuel Tank Capacity (L) | Dry Weight (kg) | Wet Weight (kg) |
|-------------|-------------|------------|-------------|------------------------|-----------------|-----------------|
| OPEN | 2195 | 900 | 1445 | 261 | 1295 | 1310 |
| CLOSE | 2977 | 1155 | 1695 | 269 | 1475 | 1500 |

Note: These dimensions are for preliminary guidance. Please refer to GA drawing.

STANDARD MECHANICAL FEATURES

Genset design provides a low noise level with an optimized performance of the ventilation and exhaust systems at 50 °C ambient temperature.

Robust structure design of Enclosure and Baseframe.

Heavy duty lifting lugs.

Multi doors for easy access & maintenance.

Ingress Protection Rating according to BS EN 60529.

Heavy Duty Baseframe with built-in tank & forklift pockets.

Residential Grade Muffler with rain cap.

OPTIONAL FEATURES

Advanced Controllers are available on request.

4 poles manual / Motorized Circuit breaker

Jacket water pre-heater

Static Battery Charger

Critical grade muffler

Fuel Filter / Water separator Fuel Filter

Remote Annunciator

Application

Infrastructure, Industrial, Residential, Telecom,
Defense, Mining, Agriculture

STANDARD ELECTRICAL FEATURES

An advance Control system is designed to provide a comprehensive protection and to monitor the parameters of generating set.

MCCB power circuit breaker.

Battery with charging alternator, cables, and tray.

Sealed harness & high resistant electrical connections.

Fast and accurate protection response.

Generating Set remote start function.

Numeric display with LED. Various languages capable.

