



| MODEL | rpm / Hz | VOLTAGE | PRIME ⁽¹⁾ | STANDBY ⁽²⁾ |
|--------|-----------|-----------|----------------------|------------------------|
| PI220P | 1500 / 50 | 400 / 230 | 200.0 kVA / 160kWe | 220 kVA / 176kWe |

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⁾ | 178.9 kW _m |
| Rated Output (ESP) ⁽²⁾ | 196.3 kW _m |
| Engine Make & Model | Perkins 1106A-70TAG4 |
| No. of Cylinders | 6 Vertical In-line |
| Cycle | 4 Strokes |
| Aspiration | Turbocharged Aftercooled |
| Cooling Method | Water |
| Governing Type | Mechanical |
| Governing Class | G2 - ISO 8528 Part 1 |
| Compression Ratio | 16:1 |
| Displacement | 7.01 L (428.in ³) |
| BorexStroke (mm/in) | 105x135 / 4.1x 5.3 |
| Battery and Charger Alternator | 12 VDC , 65 Amp |

AIR SYSTEM

| | |
|---------------------------|--------------------------|
| Air Filter Type | Dry Element |
| Combustion Air Flow (PRP) | 12.6 m ³ /min |
| Combustion Air Flow (ESP) | 13.2 m ³ /min |
| Radiator Air Flow | 234 m ³ /min |

COOLING SYSTEM

| | |
|------------------------------|------------------------|
| Total Coolant Capacity (L) | 21L (5.5 US gal) |
| Water Pump Type | Centrifugal Eng-Driven |
| Radiator Fan Load | 5 kW |
| Heat Radiation to Room (PRP) | 12.8 kW |
| Heat Radiation to Room (ESP) | 13.2 kW |

LUBRICATION SYSTEM

| | |
|--------------------|--------------------------|
| Oil Filter Type | Spin on full flow filter |
| Total Oil Capacity | 16.5 L (4.36 US gal) |
| Oil Pan | 16 L (4.25 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 | 49.4 L/hr (13 US gal/hr) |
| Fuel Consumption 100% PRP | 45.8 L/hr (12 US gal/hr) |
| Fuel Consumption 75% PRP | 34.7 L/hr (9.2 US gal/hr) |
| Fuel Consumption 50% PRP | 23.1 L/hr (6.1 US gal/hr) |

EXHAUST SYSTEM

| | |
|----------------------------|---------------------------------|
| Muffler Type | Residential Grade |
| Max. Back Pressure | 6 kPa |
| Exhaust Gas Flow (PRP/ESP) | 34.9 / 36.8 m ³ /min |
| Exhaust Gas Temperature | 550 ⁰ C |

ALTERNATOR SPECIFICATIONS

| | |
|---------------------------------------|-----------------------|
| Rated Output (Prime) ⁽¹⁾ | 200 kVA |
| Rated Output (Standby) ⁽²⁾ | 220 kVA |
| Alternator Make & Model | Leroy somer TAL 044 M |
| Number of Poles | 4 |
| Number of Winding Leads | 6/12 |
| Type of Bearing | Single |
| Insulation Class / Temp Rise | H/H |
| Efficiency @ Rated Voltage | 92.6% |
| Ingress Protection Rating | IP 23 |
| Excitation System | Self Excited |
| AVR Model | R120 |

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 | 0.29 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 6120 |
| Operation Mode | MRS / AMF (optional) |
| Display | Graphic Back-lit LCD (128x64) pixels |
| Ingress Protection Rating | IP65 |
| Binary Inputs/Outputs | 8 / 6 |
| Analog Inputs | 4 |
| 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 9010 |
| Baseframe RAL Color | RAL 9010 |
| Noise Pressure level @ 7m | 76 dB(A) |

GENSET DIMENSIONS & WEIGHT

| GENSET TYPE | Length (mm) | Width (mm) | Height (mm) | Fuel Tank Capacity (L) | Dry Weight (kg) Appx | Wet Weight (kg) Appx |
|-------------|-------------|------------|-------------|------------------------|----------------------|----------------------|
| OPEN | 2800 | 900 | 1650 | 434 | 1800 | 1850 |
| CLOSE | 3764 | 1155 | 1881 | 455 | 2220 | 2250 |

Note: The following dimensions are for preliminary guidance. For more detailed and accurate dimensions, please refer to the General Arrangement Drawing (GAD).

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.

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.

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

