

PI 700P

Industrial Generating Set



| MODEL | rpm / Hz | VOLTAGE | PRIME (1) | STANDBY (2) |
|---------|-----------|-----------|-------------------|-------------------|
| PI 700P | 1500 / 50 | 400 / 230 | 650 kVA / 520 kWe | 700 kVA / 560 kWe |

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

| ENGINE SPECIFIC | ATIONS | | |
|----------------------|--------------------------------|--------------------------------|--|
| Rated Output (PRP) | 584 kW _m | | |
| Rated Output (ESP) | 628 kW _m | | |
| Engine Make & Mod | Perkins 2806A- E18TAG2 | | |
| No. of Cylinders | | 6 Vertical In-line | |
| Cycle | | 4 Strokes | |
| Aspiration | | Turbocharged | |
| Cooling Method | | Water | |
| Governing Type | | Electronic | |
| Governing Class | G2 - ISO 8528 Part 1 | | |
| Compression Ratio | 14.5:1 | | |
| Displacement | 18.1 L (1104.in ³) | | |
| BorexStroke | 145x183 mm | | |
| Battery and Charger | 24 VDC , 70 Amp | | |
| AIR SYSTEM | | | |
| Air Filter Type | Air Filter Type | | |
| Combustion Air Flow | v (PRP) | 37 m³/min | |
| Combustion Air Flow | v (ESP) | 40 m ³ /min | |
| Radiator Air Flow | | 702 m³/min | |
| COOLING SYSTEM | 1 | | |
| Total Coolant Capac | city (L) | 61 L (16.1 US gal) | |
| Water Pump Type | | Centrifugal Eng-Driven | |
| Radiator Fan Load | | 9 kW | |
| Heat Radiation to Ro | 41 kW | | |
| Heat Radiation to Ro | 45 kW | | |
| LUBRICATION SYS | | | |
| Oil Filter Type | Full-flow r | eplaceable 'Ecoplus' filter | |
| Total Oil Capacity | 62 L (16.3 US gal) | | |
| Oil Pan | 53 L (14 US gal) | | |
| | | | |

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|---|----------------------------|---|--|
| FUEL SYSTEM | | | |
| Fuel Filter: Replacea primary filter/water sep | | ' fuel filter elements with | |
| Recommended Fue | Class A2 Diesel | | |
| Fuel Consumption S | 143 L/hr (37.8 US gal/hr) | | |
| Fuel Consumption 1 | 132 L/hr (34.86 US gal/hr) | | |
| Fuel Consumption 75% PRP | | 97 L/hr (25.6 US gal/hr) | |
| Fuel Consumption 5 | 66 L/hr (17.4 US gal/hr) | | |
| EXHAUST SYSTEM | Л | | |
| Muffler Type | | Residential Grade | |
| Max. Back Pressure | | 6.9 kPa | |
| Exhaust Gas Flow (PRP/ESP) | | 106 / 114 m ³ /min | |
| Exhaust Gas Temperature (PRP/ESP) | | 555°C/553°C | |
| ALTERNATOR SPECIFICATIONS | | | |
| Rated Output (Prime | e) ⁽¹⁾ | 670 kVA | |
| Rated Output (Stand | dby) ⁽²⁾ | 710 kVA | |
| Alternator Make & Model | | Stamford HCI544F / S5L1D-F41 | |
| Number of Poles | | 4 | |
| Number of Winding | Leads | 12 | |
| Type of Bearing | | Single | |
| Insulation Class / Te | mp Rise | H/H | |
| Efficiency @ Rated | Voltage | 94.8% | |
| Ingress Protection F | Rating | IP 23 | |
| Excitation System | | Self Excited | |
| AVR Model | Stamford | I - AS440 | |
| ALTERNATOR OP | ERATING | DATA | |
| Overspeed | | 2250 r.p.m | |
| Voltage Regulation | | ± 1 % | |
| Waveform distortion | | No load < 1.5%, Linear load < 5% | |
| Radio Interface EN 61000 | | 0-6-2 & EN 61000-6-4 | |
| Cooling Air Flow | | 1.035 m³/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.





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CONTROLLER SPECIFICATIONS DeepSea 6120 Controller Make & Model **Operation Mode** MRS / AMF (optional) Graphic Back-lit LCD (128x64) pixles Display Ingress Protection Rating **IP65** 6/4 Binary Inputs/Outputs 4 **Analog Inputs** Measurement Vac, A, Hz, kVA, kW, Vdc **Event Log** Alarms log, Hrs log Communication **USB**

| ENCLOSURE SPECIFICATIONS | | | | |
|--|------------|----------------------|--|--|
| Enclosure Type Acousti | | c & Weather Proof | | |
| Anticorrosive Protection | | | | |
| Polyester Powder Coated Galvanized Sheet | | | | |
| Ingress Protection Rating | | IP22 | | |
| Lifting | ISO Stan | dard Lifting | | |
| Emergency | External E | mergency Push Button | | |
| Canopy RAL Color | RAL 2000 | | | |
| Baseframe RAL Co | RAL 9011 | | | |
| Noise Pressure level @ 7m | | 84 dB(A)±3dB(A) | | |

GENSET DIMENSIONS & WEIGHT

| GENSET TYPE | Length (mm) | Width (mm) | Height (mm) | Fuel Tank Capacity (L) | Dry Weight (kg) | Wet Weight (kg) |
|-------------|----------------|---------------|-------------|---------------------------|-----------------|-----------------|
| OPEN | 3500 | 2140 | 2385 | 1245 | 4995 | 5110 |
| CLOSE | 5205 | 1824 | 2817 | 1230 | 6388 | 6373 |

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.

Hevy 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.

Industrial Grade Muffler with rain cap.

STANDARD ELECTRICAL FEATURES

An advance Control system is designed to provide a comperhensive 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 seperator Fuel Filter

Remote Annunciator

Application

Infrastructure, Industrial , Residential , Telecom, Defense , Mining , Aggriculture



