



| MODEL          | rpm / Hz         | VOLTAGE          | PRIME <sup>(1)</sup>         | STANDBY <sup>(2)</sup>       |
|----------------|------------------|------------------|------------------------------|------------------------------|
| <b>PI 563C</b> | <b>1500 / 50</b> | <b>400 / 230</b> | <b>511.8 kVA / 409.4 kWe</b> | <b>563.0 kVA / 450.4 kWe</b> |

Full rated power available upto 100 meter elevation at ambient of 50degC, for other temperature and altitude limits please consult application team.

|                                   |                                    |
|-----------------------------------|------------------------------------|
| Rated Output (PRP) <sup>(1)</sup> | 458 kW <sub>m</sub>                |
| Rated Output (ESP) <sup>(2)</sup> | 504 kW <sub>m</sub>                |
| Engine Make & Model               | Cummins M15-G8                     |
| No. of Cylinders                  | 6 Vertical In-line                 |
| Cycle                             | 4 Strokes                          |
| Aspiration                        | Turbocharged and Charge air cooled |
| Cooling Method                    | Water                              |
| Governing Type                    | Electronic                         |
| Governing Class                   | G2 - ISO 8528 Part 1               |
| Compression Ratio                 | 23:01                              |
| Displacement                      | 14.5 L                             |
| Bore/Stroke (mm / in)             | (135 / 169)/(5.31/6.65)            |
| Electrical Starting System        | 24 VDC, Starter motor              |

### AIR SYSTEM

|                           |                          |
|---------------------------|--------------------------|
| Air Filter Type           | Dry Element              |
| Combustion Air Flow (PRP) | 32.1 m <sup>3</sup> /min |
| Combustion Air Flow (ESP) | 33 m <sup>3</sup> /min   |
| Radiator Air Flow         | 462 m <sup>3</sup> /min  |

### COOLING SYSTEM

|                              |                        |
|------------------------------|------------------------|
| Total Coolant Capacity       | 83.1 L                 |
| Water Pump Type              | Centrifugal Eng-Driven |
| Radiator Fan Load            | 10.8 kW                |
| Heat Radiation to Room (PRP) | 40 Kw                  |
| Heat Radiation to Room (ESP) | 45 kW                  |

### LUBRICATION SYSTEM

|                    |                          |
|--------------------|--------------------------|
| Oil Filter Type    | Spin on full flow filter |
| Total Oil Capacity | 57 L / 15.1 US gal.      |
| Oil Pan            | 52.0 L / 13.7 US gal.    |
| Oil Type           | API CH4/CI4; SAE 15W-40  |

|  |                           |
|--|---------------------------|
| Fuel Filter: Spin on full flow filter with water separator |                           |
| Recommended Fuel   | Class A2 Diesel           |
| Fuel Consumption Standby                                   | 111 L/hr / 29.2 US gal/hr |
| Fuel Consumption 100% PRP                                  | 99 L/hr / 26.2 US gal/hr  |
| Fuel Consumption 75% PRP                                   | 73 L/hr / 19.3 US gal/hr  |
| Fuel Consumption 50% PRP                                   | 49 L/hr / 12.8 US gal/hr  |

### EXHAUST SYSTEM

|                                   |                                 |
|-----------------------------------|---------------------------------|
| Muffler Type                      | Residential Grade               |
| Max. Back Pressure                | 10.13 kPa                       |
| Exhaust Gas Flow (PRP/ESP)        | 69.5 / 74.6 m <sup>3</sup> /min |
| Exhaust Gas Temperature (PRP/ESP) | 416 / 459 °C                    |

### ALTERNATOR SPECIFICATIONS

|  |                  |
|--|------------------|
| Rated Output (Prime) <sup>(1)</sup>    | 550 kVA          |
| Rated Output (Stand by) <sup>(2)</sup> | 590 kVA          |
| Alternator Make & Model                | Stamford HCI544D |
| Number of Poles                        | 4                |
| Number of Winding Leads                | 12               |
| Type of Bearing                        | Single           |
| Insulation Class / Temp Rise           | H / H            |
| Efficiency                             | 94.3%            |
| Ingress Protection Rating              | IP 23            |
| Excitation System                      | Self Excited     |
| AVR Model                              | Stamford - AS440 |

### ALTERNATOR OPERATING DATA

|                     |   |
|---------------------|---|
| Overspeed           | 2250 r.p.m  |
| Voltage Regulation  | ± 1.0 %   |
| Waveform distortion | No load <1.5%<br>Linear load <5%                        |
| Radio Interface     | BS EN 61000-6-2 & BS EN 61000-6-4, VDE 0875G, VDE 0875N |
| Cooling Air Flow    | 1.035 m <sup>3</sup> /sec                               |

<sup>(1)</sup> **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

<sup>(2)</sup> **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 6120MKII                     |
| 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                | IP22                           |
| Lifting                                  | ISO Standard Lifting           |
| Emergency                                | External Emergency Push Button |
| Canopy RAL Color                         | RAL 2000                       |
| Baseframe RAL Color                      | RAL 9011                       |
| Noise Pressure level @ 7m                | 86.2 dB(A)                     |

### GENSET DIMENSIONS & WEIGHT

| GENSET TYPE | Length (mm) | Width (mm) | Height (mm) | Fuel Tank Capacity (L) | Dry Weight (kg) | Wet Weight (kg) |
|-------------|-------------|------------|-------------|------------------------|-----------------|-----------------|
| OPEN        | 3505        | 2005       | 2310        | 1060                   | 3500            | TBA             |
| CLOSE       | 5205        | 1625       | 2620        | 1039                   | 4950            | TBA             |

Note that these dimensions are subjected to change as part of continuous development process.

### 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, Defence, Mining, Agriculture,



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