



# PI 2500C

## Industrial Generating Set



| MODEL    | rpm / Hz  | VOLTAGE   | PRIME <sup>(1)</sup>            | STANDBY <sup>(2)</sup>          |
|----------|-----------|-----------|---------------------------------|---------------------------------|
| PI 2500C | 1500 / 50 | 400 / 230 | 2031 kVA / 1625 kW <sub>e</sub> | 2544 kVA / 2035 kW <sub>e</sub> |

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

|                                   |                                        |
|-----------------------------------|----------------------------------------|
| Rated Output (PRP) <sup>(1)</sup> | 1727 kW <sub>m</sub>                   |
| Rated Output (ESP) <sup>(2)</sup> | 2164 kW <sub>m</sub>                   |
| Engine Make & Model               | Cummins QSK60-G13                      |
| No. of Cylinders                  | 16 Cylinder, 60° Vee                   |
| Cycle                             | 4 Strokes                              |
| Aspiration                        | Turbocharged and Low temp. Aftercooled |
| Cooling Method                    | Water                                  |
| Governing Type                    | Electronic                             |
| Governing Class                   | G2 - ISO 8528 Part 5                   |
| Compression Ratio                 | 14.5 : 1                               |
| Displacement                      | 60.2 L / 3673 in <sup>3</sup>          |
| Bore/Stroke (mm / in)             | (159/190) / (6.26/7.48)                |
| Electrical Starting System        | 24 VDC starter motor                   |

### AIR SYSTEM

|                           |                           |
|---------------------------|---------------------------|
| Air Filter Type           | Dry Element               |
| Combustion Air Flow (PRP) | 154.3 m <sup>3</sup> /min |
| Combustion Air Flow (ESP) | 130.5 m <sup>3</sup> /min |
| Radiator Air Flow         | N/A                       |

### COOLING SYSTEM

|                              |                        |
|------------------------------|------------------------|
| Total Coolant Capacity       | 603 L / 159.3 US gal   |
| Water Pump Type              | Centrifugal Eng-Driven |
| Radiator Fan Load            | 39 kW                  |
| Heat Radiation to Room (PRP) | 158 Kw                 |
| Heat Radiation to Room (ESP) | 211 kW                 |

### LUBRICATION SYSTEM

|                    |                          |
|--------------------|--------------------------|
| Oil Filter Type    | Spin on full flow filter |
| Total Oil Capacity | 280 L / 74 US gal.       |
| Oil Pan            | 261.2 L / 69.0 US gal.   |
| Oil Type           | SAE 15W-40               |

Fuel Filter: Spin on full flow filter with water separator

|                           |                              |
|---------------------------|------------------------------|
| Recommended Fuel          | Class A2 Diesel              |
| Fuel Consumption Standby  | 523.0 L/hr / 138.1US gal/hr  |
| Fuel Consumption 100% PRP | 399.0 L/hr / 105.4 US gal/hr |
| Fuel Consumption 75% PRP  | 302.0 L/hr / 79.7 US gal/hr  |
| Fuel Consumption 50% PRP  | 210.0 L/hr / 55.5 US gal/hr  |

### EXHAUST SYSTEM

|                                   |                                   |
|-----------------------------------|-----------------------------------|
| Muffler Type                      | Residential Grade                 |
| Max. Back Pressure                | 7 kPa                             |
| Exhaust Gas Flow (PRP/ESP)        | 310.2 / 393.0 m <sup>3</sup> /min |
| Exhaust Gas Temperature (PRP/ESP) | 448 / 507 °C                      |

### ALTERNATOR SPECIFICATIONS

|                                        |                             |
|----------------------------------------|-----------------------------|
| Rated Output (Prime) <sup>(1)</sup>    | 2790.0 KVA                  |
| Rated Output (Stand by) <sup>(2)</sup> | 3070.0 kVA                  |
| Alternator Make & Model                | Stamford S7L1D-J41 Wdg 312  |
| Number of Poles                        | 4                           |
| Number of Winding Leads                | 6                           |
| Type of Bearing                        | Single                      |
| Insulation Class / Temp Rise           | H / H                       |
| Efficiency                             | 96.3%                       |
| Ingress Protection Rating              | IP 23                       |
| Excitation System                      | Separately Excited by P.M.G |
| AVR Model                              | Stamford - MX322            |

### ALTERNATOR OPERATING DATA

|                     |                                  |
|---------------------|----------------------------------|
| Overspeed           | 2250 r.p.m                       |
| Voltage Regulation  | ± 0.5 %                          |
| Waveform distortion | No load <1.5%<br>Linear load <5% |
| Radio Interface     | Standard EN61000-6-2:2001        |
| Cooling Air Flow    | 3.1 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 7320MKII                     |
| Operation Mode            | MRS / AMF (optional)                 |
| Display                   | Graphic Back-lit LCD (128x64) pixels |
| Ingress Protection Rating | IP65                                 |
| Binary Inputs/Outputs     | 8/6                                  |
| Analog Inputs             | 6                                    |
| Measurement               | Vac, A, Hz, kVA, kVAR, kW, kWh, Vdc  |
| Event Log                 | Alarms log, Hrs log                  |
| Communication             | USB, RS232, RS485                    |

### 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 9001                       |
| Baseframe RAL Color                      | RAL 9011                       |
| Noise Pressure level @ 7m                | 90 dB(A)                       |

### GENSET DIMENSIONS & WEIGHT

| GENSET TYPE | Length (mm)              | Width (mm) | Height (mm) | Fuel Tank Capacity (L) | Dry Weight (kg) | Wet Weight (kg) |
|-------------|--------------------------|------------|-------------|------------------------|-----------------|-----------------|
| OPEN        | 6754                     | 3173.5     | 3894        | NA                     | TPL             | TPL             |
| CLOSE       | 12m fabricated CONTAINER |            |             | NA                     | TPL             | TPL             |

### 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.

ACB 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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