



| MODEL               | rpm / Hz  | VOLTAGE   | PRIME <sup>(1)</sup> | STANDBY <sup>(2)</sup> |
|---------------------|-----------|-----------|----------------------|------------------------|
| PI 1510P / PI 1669P | 1800 / 60 | 480 / 277 | 1510 kVA / 1208kWe   | 1669 kVA / 1335.2kWe   |

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) <sup>(1)</sup> | 1332 kW <sub>m</sub>                    |
| Rated Output (ESP) <sup>(2)</sup> | 1459 kW <sub>m</sub>                    |
| Engine Make & Model               | Perkins 4012-46TAG2A                    |
| No. of Cylinders                  | 12, 60° Vee form                        |
| 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                 | 13:1                                    |
| Displacement                      | 45.8 L (2797.in <sup>3</sup> )          |
| BorexStroke (mm/in)               | 160x190 /6.3x7.5                        |
| Battery and Charger Alternator    | 24 VDC , 40 Amp                         |

### AIR SYSTEM

|                           |                          |
|---------------------------|--------------------------|
| Air Filter Type           | Dry Element              |
| Combustion Air Flow (PRP) | 120 m <sup>3</sup> /min  |
| Combustion Air Flow (ESP) | 128 m <sup>3</sup> /min  |
| Radiator Air Flow         | 1944 m <sup>3</sup> /min |

### COOLING SYSTEM

|                              |                        |
|------------------------------|------------------------|
| Total Coolant Capacity (L)   | 210 L (55.5 US gal)    |
| Water Pump Type              | Centrifugal Eng-Driven |
| Radiator Fan Load            | 64 kW                  |
| Heat Radiation to Room (PRP) | 96 kW                  |
| Heat Radiation to Room (ESP) | 107 kW                 |

### LUBRICATION SYSTEM

|                    |                               |
|--------------------|-------------------------------|
| Oil Filter Type    | Full-flow spin-on oil filters |
| Total Oil Capacity | 177 L (46.75 US gal)          |
| Oil Pan            | 159 L (42 US gal)             |
| Oil Type           | API CH4/CI4; SAE 15W-40       |

### FUEL SYSTEM

|   |                           |
|---|---------------------------|
| Fuel Filter: Full-flow spin-on fuel oil filters |                           |
| Recommended Fuel                                | Class A2 Diesel           |
| Fuel Consumption Standby                        | 341 L/hr (90. US gal/hr)  |
| Fuel Consumption 100% PRP                       | 310 L/hr (81.8 US gal/hr) |
| Fuel Consumption 75% PRP                        | 234 L/hr (61.8 US gal/hr) |
| Fuel Consumption 50% PRP                        | 157 L/hr (41.4 US gal/hr) |

### EXHAUST SYSTEM

|                         |                         |
|-------------------------|-------------------------|
| Muffler Type            | Residential Grade       |
| Max. Back Pressure      | 3 kPa                   |
| Exhaust Gas Flow        | 320 m <sup>3</sup> /min |
| Exhaust Gas Temperature | 455 <sup>0</sup> C      |

### ALTERNATOR SPECIFICATIONS

|                                       |                    |
|---------------------------------------|--------------------|
| Rated Output (Prime) <sup>(1)</sup>   | 2019 kVA           |
| Rated Output (Standby) <sup>(2)</sup> | 2162 kVA           |
| Alternator Make & Model               | Stamford S7L1D-D41 |
| Number of Poles                       | 4                  |
| Number of Winding Leads               | 6                  |
| Type of Bearing                       | Single             |
| Insulation Class / Temp Rise          | H/H                |
| Efficiency @ Rated Voltage            | 95.6%              |
| Ingress Protection Rating             | IP 23              |
| Excitation System                     | Excited by P.M.G.  |
| AVR Model                             | Stamford - MX341   |

### ALTERNATOR OPERATING DATA

|                     |                                     |
|---------------------|-------------------------------------|
| Overspeed           | 2250 r.p.m                          |
| Voltage Regulation  | ± 1 %                               |
| Waveform distortion | No load < 1.5%,<br>Linear load < 5% |
| Radio Interface     | EN 61000-6-2 & EN 61000-6-4         |
| Cooling Air Flow    | 3.16 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.





الصناعات الدقيقة  
PRECISION INDUSTRIES

# PI 1510P / PI 1669P

Industrial Generating Set

POWERED BY



## 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     | 6 / 4                                |
| 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 2000                                 |
| Baseframe RAL Color       | RAL 9011                                 |
| Noise Pressure level @ 7m | 85 dB(A)                                 |

## GENSET DIMENSIONS & WEIGHT

| GENSET TYPE | Length (mm)              | Width (mm) | Height (mm) | Fuel Tank Capacity (L) | Dry Weight (kg) | Wet Weight (kg) |
|-------------|--------------------------|------------|-------------|------------------------|-----------------|-----------------|
| OPEN        | 6219                     | 2005       | 2751        | NA                     | 10777           | 10850           |
| CLOSE       | 30 Feet ISO HC Container |            |             | NA                     | 15400           | 15500           |

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.

Industrial 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



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