

# PI 1510P / PI 1669P

Industrial Generating Set



PRIME (1) STANDBY<sup>(2)</sup> MODEL rpm / Hz VOLTAGE 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 FUEL SYSTEM** 1332 kWm Rated Output (PRP)<sup>(1)</sup> Fuel Filter: Full-flow spin-on fuel oil filters Rated Output (ESP) (2) 1459 kW<sub>m</sub> Recommended Fuel Class A2 Diesel Perkins 4012-Fuel Consumption Standby 341 L/hr (90. US gal/hr) Engine Make & Model 46TAG2A No. of Cylinders Fuel Consumption 100% PRP 12, 60° Vee form 310 L/hr (81.8 US gal/hr) Fuel Consumption 75% PRP 234 L/hr (61.8 US gal/hr) Cycle 4 Strokes Turbocharged & Air to Fuel Consumption 50% PRP Aspiration 157 L/hr (41.4 US gal/hr) Air Charge Cooled Cooling Method Water **EXHAUST SYSTEM** Electronic **Residential Grade** Governing Type Muffler Type Governing Class G2 - ISO 8528 Part 1 Max. Back Pressure 3 kPa 13:1 Exhaust Gas Flow 320 m<sup>3</sup>/min **Compression Ratio** Displacement 45.8 L (2797.in<sup>3</sup>) Exhaust Gas Temperature 455<sup>0</sup>C BorexStroke (mm/in) 160x190 /6.3x7.5 ALTERNATOR SPECIFICATIONS **Battery and Charger Alternator** 24 VDC, 40 Amp Rated Output (Prime) (1) 1875 kVA **AIR SYSTEM** Rated Output (Standby)<sup>(2)</sup> 2060 kVA Alternator Make & Model Air Filter Type **Dry Element** Leroysomer LSA50.2L8 Number of Poles 4 Combustion Air Flow (PRP) 120 m<sup>3</sup>/min Combustion Air Flow (ESP) 128 m<sup>3</sup>/min Number of Winding Leads 6 Radiator Air Flow 1944 m<sup>3</sup>/min Type of Bearing Single COOLING SYSTEM Insulation Class / Temp Rise H/H Total Coolant Capacity (L) 210 L (55.5 US gal) Efficiency @ Rated Voltage 95.2% Water Pump Type IP 23 Centrifugal Eng-Driven Ingress Protection Rating Radiator Fan Load 64 kW Excitation System Aux winding/ PMG Heat Radiation to Room (PRP) Leroysomer D350 96 kW AVR Model ALTERNATOR OPERATING DATA Heat Radiation to Room (ESP) 107 kW LUBRICATION SYSTEM Overspeed 2250 r.p.m Oil Filter Type Full-flow spin-on oil filters Voltage Regulation ± 0.25 % No load < 3.5%, **Total Oil Capacity** 177 L (46.75 US gal) Waveform distortion Linear load < 5% Oil Pan Radio Interface EN 61000-6-2 & EN 61000-6-4 159 L (42 US gal) Oil Type API CH4/CI4; SAE 15W-40 Cooling Air Flow 2.2 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.





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CONTROLLER SPECIFICATIONS					
Controller Make & Model		DeepSea 6120MKIII			
Operation Mode		MRS / AMF (optional)			
Display	Graphic Back-lit LCD (128x64) pixles				
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 9001				
Baseframe RAL Color		RAL 9011				
Noise Pressure level @ 7m		86 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 C	ontainer	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.

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.

#### **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

#### 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.



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ISO