

# PI 14.3P

Industrial Generating Set



MODEL rpm / Hz		VOLTAGE	PRIME <sup>(1)</sup>		STANDBY <sup>(2)</sup>
PI14.3P	1500 / 50	400 / 230	13.0kVA / 10.4		14.3kVA / 11.4kWe
Full rated power ava eam.	ilable upto 100 meter	elevation at ambient of 27deg	C, for other temperature and	altitude limits	please consult application
ENGINE SPECIFICATIONS			FUEL SYSTEM		
Rated Output (PRP) <sup>(1)</sup>		12.2 kW <sub>m</sub>	Fuel Filter: Split element fuel filter		er
Rated Output (ESP) <sup>(2)</sup>		13.5 kW <sub>m</sub>	Recommended Fuel		Class A2 Diesel
Engine Make & Model		Perkins 403D-15G	Fuel Consumption Standby		4.8 L/hr (1.05 US ga
No. of Cylinders		3 Vertical In-line	Fuel Consumption 100% PRP		3.6 L/hr (0.95 US ga
Cycle		4 Strokes	Fuel Consumption 75% PRP		2.8 L/hr (0.74 US ga
Aspiration		Naturally Aspirated	Fuel Consumption 50% PRP		2 L/hr (0.53 US gal/h
Cooling Method		Water	EXHAUST SYSTEM		
Governing Type		Mechanical	Muffler Type		Residential Grac
Governing Class		<b>G2</b> - ISO 8528 Part 1	Max. Back Pressure		10.2 kPa
Compression Ratio		22.5:1	Exhaust Gas Flow (PRP/ESP)		2.7 / 2.9 m <sup>3</sup> /min
Displacement		1.49 L (91.3in <sup>3</sup> )	Exhaust Gas Temperature(PRP/ESP)		445 <sup>0</sup> C/490 <sup>0</sup> C
BorexStroke (mm/in)		84x90 / 3.3x3.5	ALTERNATOR SPECIFICATIONS		IONS
Battery and Charger Alternator		12 VDC, 65 Amp	Rated Output (Prime) <sup>(1)</sup>		15 kVA
AIR SYSTEM			Rated Output (Standby) <sup>(2)</sup>		16 kVA
Air Filter Type		Dry Element	Alternator Make & Model		Leroy somer TAL 040D
Combustion A	r Flow (PRP)	1.1 m <sup>3</sup> /min	Number of Poles		4
Combustion A	r Flow (ESP)	1.1 m <sup>3</sup> /min	Number of Winding Leads		6/12
Radiator Air Fl	ow	25.2 m³/min	Type of Bearing		Single
	STEM		Insulation Class / Temp Rise		H/H
Total Coolant	Capacity (L)	6.0L (1.6 US gal)	Efficiency @ Rated Voltage		84.80%
Water Pump T	уре	Centrifugal Eng-Driven	Ingress Protection Rating		IP 23
Radiator Fan L	oad	0.3 kW	Excitation System		Self Excited
Heat Radiation to Room (PRP)		3.2 kW	AVR Model R120		
Heat Radiation	to Room (ESP)	3.5 kW	ALTERNATOR OPERATING		DATA
LUBRICATION SYSTEM			Overspeed		2250 r.p.m
Oil Filter Type Spin o		on full flow filter	Voltage Regulation		± 1.0 %
Total Oil Capacity		6.0L (1.6 US gal)	Waveform distortion		No load < 2.5%, Linear load < 5%
Oil Pan		4.5L(1.18 US gal)	Radio Interface Standard		EN61000-6-2:2001
Oil Type API CH4/		CI4; SAE 15W-40	Cooling Air Flow		0.06 m³/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.









**Industrial Generating Set** 



### **CONTROLLER SPECIFICATIONS**

Controller Make & M	DeepSea 6120 MKII		
Operation Mode	MRS / AMF (optional)		
Display Graphic Back		-lit LCD (128x64) pixles	
Ingress Protection F	IP65		
Binary Inputs/Outpu	8/6		
Analog Inputs	4		
Measurement	Vac, A, Hz, kVA, kW, Vdc		
Event Log Alarms log		g, Hrs log	
Communication	USB		

#### **ENCLOSURE SPECIFICATIONS**

Acoustic & Weather Proof

Anticorrosive Protection

Enclosure Type

Polyester Powder Coated Galvanized Sheet

Ingress Protection F	IP23		
Lifting ISO Star		ndard Lifting	
Emergency	External Emergency Push Bott		
Canopy RAL Color	RAL 9010		
Baseframe RAL Col	RAL 9011		
Noise Pressure leve	67 dB(A)		

### **GENSET DIMENSIONS & WEIGHT**

GENSET TYPE	Length (mm)	Width (mm)	Height (mm)	Fuel Tank Capacity (L)	Dry Weight (kg) Appx	Wet Weight (kg) Appx
OPEN	1635	755	1270	100	526	550
CLOSE	2152	1004	1342	169	730	765

Note: The following dimensions are for preliminary guidance. For more detailed and accurate dimensions, please refer to the General Arrangement Drawing (GAD).

## **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.

Residential Grade Muffler with rain cap.

#### **OPTIONAL FEATURES**

Advanced Controllers are available on request.

4 poles manual / Motorized Circuit breaker

Pre heating system

Static Battery Charger

Critical grade muffler

Electronic governor

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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