PI 1093P

Industrial Generating Set



MODEL	rpm / Hz	VOLTAGE	PRIME (1)	STANDBY (2)
PI 1093P	1500 / 50	400 / 230	1000.0 kVA / 800kWe	1093 kVA / 874.4kWe

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

eam. E <mark>NGINE SPECIFIC</mark>	ATIONS		
Rated Output (PRP)	899 kW _m		
Rated Output (ESP)	985 kW _m		
Engine Make & Mod	Perkins 4008TAG2A		
No. of Cylinders	8 Vertical In-line		
Cycle	4 Strokes		
Aspiration	Turbocharged and Air to air Charge Cooled		
Cooling Method		Water	
Governing Type		Electronic	
Governing Class		G2 - ISO 8528 Part 1	
Compression Ratio		13.6:1	
Displacement	30.56 L (1397.in ³)		
BorexStroke	160x190 mm		
Battery and Charger	Alternator	24 VDC , 40 Amp	
AIR SYSTEM			
Air Filter Type	Dry Element		
Combustion Air Flow	75 m³/min		
Combustion Air Flow	80.5 m ³ /min		
Radiator Air Flow		1350 m³/min	
COOLING SYSTEN	Л		
Total Coolant Capad	city (L)	162 L (42.8 US gal)	
Water Pump Type		Centrifugal Eng-Driven	
Radiator Fan Load		38 kW	
Heat Radiation to Ro	80 kW		
Heat Radiation to Ro	100 kW		
LUBRICATION SYSTEM			
Oil Filter Type	Oil Filter Type Full-flow		
Total Oil Capacity		153 L (40.4 US gal)	
Oil Pan	153 L (40.4 US gal)		
Oil Type	API CH4/	CI4; SAE 15W-40	
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FUEL SYSTEM				
Fuel Filter: Full-flow spin-on fuel oil filters				
Recommended Fue	Class A2 Diesel			
Fuel Consumption S	240 L/hr (63.4 US gal/hr)			
Fuel Consumption 10	215 L/hr (56.7 US gal/hr)			
Fuel Consumption 75	Fuel Consumption 75% PRP			
Fuel Consumption 50	Fuel Consumption 50% PRP			
EXHAUST SYSTEM	Л			
Muffler Type		Residential Grade		
Max. Back Pressure	•	3 kPa		
Exhaust Gas Flow	Exhaust Gas Flow			
Exhaust Gas Tempe (PRP/ESP)	438°C/465°C			
ALTERNATOR SPECIFICATIONS				
Rated Output (Prime	Rated Output (Prime) (1)			
Rated Output (Stand	Rated Output (Standby) (2)			
Alternator Make & M	Alternator Make & Model			
Number of Poles		4		
Number of Winding	Leads	6 Leads / 12 lead optional		
Type of Bearing		Single		
Insulation Class / Ter	mp Rise	H/H		
Efficiency @ Rated	Voltage	94.9%		
Ingress Protection F	Rating	IP 23		
Excitation System	Excitation System			
AVR Model	Stamford	- MX321		
ALTERNATOR OP	ERATING	DATA		
Overspeed	Overspeed			
Voltage Regulation		± 0.5 %		
Waveform distortion	No load < 1.5%, Linear load < 5%			
Radio Interface EN 61000		0-6-2 & EN 61000-6-4		

⁽¹⁾ **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

Cooling Air Flow

⁽²⁾ 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.



1.41 m³/sec



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CONTROLLER SPECIFICATIONS			
Controller Make & Model		DeepSea 6120	
Operation Mode		MRS / AMF (optional)	
Display Graphic Back		x-lit LCD (128x64) pixles	
Ingress Protection Rating		IP65	
Binary Inputs/Outputs		6 / 4	
Analog Inputs	4		
Measurement Vac, A, F		z, kVA, kW, Vdc	
Event Log Alarm		s log, Hrs log	
Communication	USB		

ENCLOSURE SPECIFICATIONS			
Enclosure Type Acousti		c & Weather Proof	
Anticorrosive Protection			
Polyester Powder Coated Galvanized Sheet			
Ingress Protection F	Ingress Protection Rating		
Lifting	Lifting ISO Star		
Emergency External E		mergency Push Button	
Canopy RAL Color		RAL 9001	
Baseframe RAL Color		RAL 9011	
Noise Pressure level @ 7m		87 dB(A)±3dB(A)	

GENSET DIMENSIONS & WEIGHT

GENSET TYPE	Length (mm)	Width (mm)	Height (mm)	Fuel Tank Capacity (L)	Dry Weight (kg)	Wet Weight (kg)
OPEN	4850	2580	2415	2480	9550	9850
CLOSE	20 Feet ISO HC container		NA	10900	11000	

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.

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.

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



