

الصناعات <mark>المقيقية</mark> PRECISION INDUSTRIES ®

## PI 24P / PI 26P



Industrial Generating Set						
MODEL rpm / Hz		VOLTAGE	PRIME <sup>(1)</sup>		STANDBY <sup>(2)</sup>	
PI 24P / PI 26P	1800 / 60	480 / 277	24 kVA/19.2 k		26 kVA/20.8kWe	
Full rated power availab eam.	ble upto 100 meter	elevation at ambient of 27degC	, for other temperature and a	ltitude limits p	please consult application	
ENGINE SPECIF	ICATIONS		FUEL SYSTEM			
Rated Output (PRP) (1)		22 kW <sub>m</sub>	Fuel Filter: Split element fuel filte		er	
Rated Output (ESP) (2)		24.3 kW <sub>m</sub>	Recommended Fuel		Class A2 Diesel	
Engine Make & Model		Perkins 404A-22G1	Fuel Consumption Standby		6.9 L/hr (1.82 US gal/hr)	
No. of Cylinders		4 Vertical In-line	Fuel Consumption 100% PRP		6.2 L/hr (1.63 US gal/hr)	
Cycle		4 Strokes	Fuel Consumption 75% PRP		4.8 L/hr (1.26 US gal/hr)	
Aspiration		Naturally Aspirated	Fuel Consumption 50% PRP		3.5 L/hr (0.92 US gal/hr)	
Cooling Method		Water	EXHAUST SYSTEM			
Governing Type		Mechanical	Muffler Type		Residential Grade	
Governing Class		<b>G2</b> - ISO 8528 Part 1	Max. Back Pressure	Max. Back Pressure		
Compression Ratio		23.3:1	Exhaust Gas Flow (PRP/ESP)		4.34 / 4.76 m <sup>3</sup> /min	
Displacement		2.2 L (135.2in <sup>3</sup> )	Exhaust Gas Temperature		440°C/510°C	
BorexStroke (mm/in)		84x100 / 3.3x3.9	ALTERNATOR SPECIFICATIO		IONS	
Battery and Charger Alternator		12 VDC ,65 Amp	Rated Output (Prime) <sup>(1)</sup>		24 kVA	
AIR SYSTEM			Rated Output (Standby) <sup>(2)</sup>		26.4 kVA	
Air Filter Type		Dry Element	Alternator Make & Model		Stamford S0L2-G1	
Combustion Air F	low (PRP)	1.74 m <sup>3</sup> /min	Number of Poles		4	
Combustion Air F	low (ESP)	1.74 m <sup>3</sup> /min	Number of Winding Leads		12	
Radiator Air Flow	,	41.4 m³/min	Type of Bearing		Single	
COOLING SYST	EM		Insulation Class / Ter	Insulation Class / Temp Rise		
Total Coolant Ca	pacity (L)	7.0L (1.8 US gal)	Efficiency @ Rated Voltage		85.2%	
Water Pump Typ	e	Centrifugal Eng-Driven	Ingress Protection Rating		IP 23	
Radiator Fan Loa	d	0.4 kW	Excitation System		Self Excited	
Heat Radiation to Room (PRP)		3.8 kW	AVR Model	AVR Model Stamford		
Heat Radiation to Room (ESP)		4.6 kW	ALTERNATOR OP	ALTERNATOR OPERATING		
LUBRICATION SYSTEM			Overspeed		2250 r.p.m	
Oil Filter Type	Spin	on full flow filter	Voltage Regulation		± 1.0 %	
Total Oil Capacity	/	10.6L (2.8 US gal)	Waveform distortion		No load < 2.5%, Linear load < 5%	
Oil Pan		8.9 L (2.35 US gal)	Radio Interface EN 6100		00-6-2 & EN 61000-6-4	
Oil Type	API CH4/0	CI4; SAE 15W-40	Cooling Air Flow		0.126 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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**Industrial Generating Set** 



CONTROLLER SPECIFICATIONS					
Controller Make & N	DeepSea 4520				
Operation Mode	MRS / AMF (optional)				
Display	-lit LCD (128x64) pixles				
Ingress Protection F	IP65				
Binary Inputs/Outpu	4 / 4				
Analog Inputs	3				
Measurement	Vac, A, Hz, kVA, kW, Vdc				
Event Log	Alarms lo	og, Hrs log			
Communication	USB				

### **ENCLOSURE SPECIFICATIONS**

Enclosure Type	Acoustic & Weather Proof				
Anticorrosive Protection					
Polyester Powder Coated Galvanized Sheet					
Ingress Protection F	IP23				
Lifting	ISO Standard Lifting				
Emergency External E		mergency Push Button			
Canopy RAL Color	RAL 2000				
Baseframe RAL Col	RAL 9011				
Noise Pressure leve	72 dB(A)				

### GENSET DIMENSIONS & WEIGHT

GENSET TYPE	Length (mm)	Width (mm)	Height (mm)	Fuel Tank Capacity (L)	Dry Weight (kg)	Wet Weight (kg)
OPEN	1635	755	1270	101	575	590
CLOSE	2152	1004	1328	169	790	840

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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