

# PI 275P

## **Industrial Generating Set**



MODEL	rpm / Hz	VOLTAGE	PRIME (1)	STANDBY (2)
PI275P	1500 / 50	400 / 230	250 kVA / 200 kWe	275 kVA / 220 kWe

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

ENGINE SPECIFICATIONS			
Rated Output (PRP)	222 kW <sub>m</sub>		
Rated Output (ESP)	244 kW <sub>m</sub>		
Engine Make & Mod	Perkins 1506A-E88TAG3		
No. of Cylinders	6 Vertical In-line		
Cycle	4 Strokes		
Aspiration		Turbocharged Aftercooled	
Cooling Method		Water	
Governing Type		Electronic	
Governing Class		G2 - ISO 8528 Part 1	
Compression Ratio		16.1:1	
Displacement	8.8 L (537.in <sup>3</sup> )		
BorexStroke (mm/in	)	112x149 / 4.5x 5.8	
Battery and Charger	24 VDC , 45 Amp		
AIR SYSTEM			
Air Filter Type		Dry Element	
Combustion Air Flov	14.1 m <sup>3</sup> /min		
Combustion Air Flov	15 m <sup>3</sup> /min		
Radiator Air Flow		370 m³/min	
COOLING SYSTEM	ı		
Total Coolant Capac	city (L)	29.6 L (7.81 US gal)	
Water Pump Type		Centrifugal Eng-Driven	
Radiator Fan Load		8 kW	
Heat Radiation to Ro	15 kW		
Heat Radiation to Ro	15 kW		
LUBRICATION SYSTEM			
Oil Filter Type Spin		on full flow filter	
Total Oil Capacity		41 L (9.01 US gal)	
Oil Pan		36 L (9.5 US gal)	
Oil Type API CH4/		CI4; SAE 15W-40	

FUEL SYSTEM	
Fuel Filter: Spin on primary,se separator	econdary and water filter
Recommended Fuel	Class A2 Diesel
Fuel Consumption Standby	60.7 L/hr (15.9 US gal/hr)
Fuel Consumption 100% PR	P 55.5 L/hr (14.6 US gal/hr)
Fuel Consumption 75% PRP	41.6 L/hr (10.98 US gal/hr
Fuel Consumption 50% PRP	28.9 L/hr (7.63 US gal/hr)
EXHAUST SYSTEM	
Muffler Type	Residential Grade
Max. Back Pressure	10 kPa
Exhaust Gas Flow (PRP/ESP	37.5 / 40.4m <sup>3</sup> /min
Exhaust Gas Temperature(PRP/ESP)	537°C/558°C
ALTERNATOR SPECIFICA	ATIONS
Rated Output (Prime) (1)	250 kVA
Rated Output (Standby) (2)	275 kVA
Alternator Make & Model	Stamford UCDI274K
Number of Poles	4
Number of Winding Leads	12
Type of Bearing	Single
Insulation Class / Temp Rise	H/H
Efficiency @ Rated Voltage	92.4%
Ingress Protection Rating	IP 23
Excitation System	Self Excited
AVR Model Stam	ford - AS440
ALTERNATOR OPERATIN	NG DATA
Overspeed	2250 r.p.m
Voltage Regulation	± 1 %
Waveform distortion	No load < 1.5%, Linear load < 5%
Radio Interface EN 6	1000-6-2 & EN 61000-6-4
Cooling Air Flow	0.58 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.





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CONTROLLER SPECIFICATIONS				
Controller Make & N	DeepSea 6120			
Operation Mode	MRS / AMF (optional)			
Display	Display Graphic Back			
Ingress Protection F	IP65			
Binary Inputs/Outpu	8 / 6			
Analog Inputs	4			
Measurement Vac, A, H		z, kVA, kW, Vdc		
Event Log	g, Hrs log			
Communication	USB			
Measurement Vac, A, H Event Log Alarms lo		4 z, kVA, kW, Vdc		

ENCLOSURE SPECIFICATIONS				
Enclosure Type Acousti		c & Weather Proof		
Anticorrosive Protection				
Polyester Powder C	Polyester Powder Coated Galvanized Sheet			
Ingress Protection F	Ingress Protection Rating			
Lifting ISO Star		ndard Lifting		
Emergency External E		mergency Push Button		
Canopy RAL Color		RAL 2000		
Baseframe RAL Color		RAL 9011		
Noise Pressure level @ 7m		80 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	3015	1200	1980	515	2265	2475
CLOSE	4414	1614	2235	760	3290	3315

Note: The dimensions are only for priliminary guidance, Please refer to general arrangement 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.

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



