

# **PI 66P**

## **Industrial Generating Set**

 MODEL
 rpm / Hz
 VOLTAGE
 PRIME (1)
 STANDBY (2)

 PI66P
 1500 / 50
 400 / 230
 60.0 kVA / 48kWe
 66 kVA / 52.8kWe

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

eam.			
ENGINE SPECIFICAT	IONS		
Rated Output (PRP) (1)	55 kW <sub>m</sub>		
Rated Output (ESP) (2)	60.5 kW <sub>m</sub>		
Engine Make & Model	Perkins 1103A-33TG2		
No. of Cylinders	3 Vertical In-line		
Cycle	4 Strokes		
Aspiration	Turbocharged		
Cooling Method	Water		
Governing Type	Mechanical		
Governing Class	G2 - ISO 8528 Part 1		
Compression Ratio	17.25:1		
Displacement	3.3 L (201in <sup>3</sup> )		
BorexStroke (mm/in)	106x127 / 4.1x 5		
Battery and Charger Alte	ernator 12 VDC , 65 Amp		
AIR SYSTEM			
Air Filter Type	Dry Element		
Combustion Air Flow (F	PRP) 3.8 m <sup>3</sup> /min		
Combustion Air Flow (E	(SP) 3.9 m <sup>3</sup> /min		
Radiator Air Flow	89 m³/min		
COOLING SYSTEM	'		
Total Coolant Capacity	(L) 10.2L (2.7US gal)		
Water Pump Type	Centrifugal Eng-Driven		
Radiator Fan Load	1.2 kW		
Heat Radiation to Room	(PRP) 7 kW		
Heat Radiation to Room	(ESP) 8 kW		
LUBRICATION SYSTEM			
Oil Filter Type	Spin on full flow filter		
Total Oil Capacity	8.0L (2.1 US gal)		
Oil Pan	7.8L (2.06 US gal)		
Oil Type A	API CH4/CI4; SAE 15W-40		

FUEL SYSTEM				
Fuel Filter: Next generation fuel filter				
Recommended Fuel	Class A2 Diesel			
Fuel Consumption Standby	15.9 L/hr (4.2 US gal/hr)			
Fuel Consumption 100% PRP	14.6 L/hr (3.85 US gal/hr)			
Fuel Consumption 75% PRP	10.8 L/hr (2.85 US gal/hr)			
Fuel Consumption 50% PRP	7.56 L/hr (1.99 US gal/hr)			
EXHAUST SYSTEM				
Muffler Type	Residential Grade			
Max. Back Pressure	10 kPa			
Exhaust Gas Flow (PRP/ESP)	10.1 / 10.4 m <sup>3</sup> /min			
Exhaust Gas Temperature (PRP/ESP)	557°C / 571°C			
ALTERNATOR SPECIFICATIONS				
(1)	62.5 kVA			
Rated Output (Prime) (1)	62.5 kVA			
Rated Output (Prime) (1)  Rated Output (Standby) (2)	62.5 kVA 68.8 kVA			
Rated Output (Standby) (2)	68.8 kVA			
Rated Output (Standby) (2)  Alternator Make & Model	68.8 kVA Stamford S1L2-Y1			
Rated Output (Standby) (2)  Alternator Make & Model  Number of Poles	68.8 kVA Stamford S1L2-Y1			
Rated Output (Standby) (2)  Alternator Make & Model  Number of Poles  Number of Winding Leads	68.8 kVA Stamford S1L2-Y1 4 12			
Rated Output (Standby) (2)  Alternator Make & Model  Number of Poles  Number of Winding Leads  Type of Bearing	68.8 kVA Stamford S1L2-Y1 4 12 Single			
Rated Output (Standby) (2)  Alternator Make & Model  Number of Poles  Number of Winding Leads  Type of Bearing  Insulation Class / Temp Rise	68.8 kVA Stamford S1L2-Y1 4 12 Single H/H			
Rated Output (Standby) (2)  Alternator Make & Model  Number of Poles  Number of Winding Leads  Type of Bearing  Insulation Class / Temp Rise  Efficiency @ Rated Voltage	68.8 kVA Stamford S1L2-Y1  4 12 Single H/H 88.8%			
Rated Output (Standby) (2)  Alternator Make & Model  Number of Poles  Number of Winding Leads  Type of Bearing  Insulation Class / Temp Rise  Efficiency @ Rated Voltage  Ingress Protection Rating  Excitation System	68.8 kVA Stamford S1L2-Y1  4  12 Single H/H 88.8% IP 23			
Rated Output (Standby) (2)  Alternator Make & Model  Number of Poles  Number of Winding Leads  Type of Bearing  Insulation Class / Temp Rise  Efficiency @ Rated Voltage  Ingress Protection Rating  Excitation System	68.8 kVA Stamford S1L2-Y1  4  12 Single H/H 88.8% IP 23 Self Excited - AS440			

Total Oil Capacity		8.0L (2.1 US gal)	Waveform distortion		No load < 1.5 / 2%, Linear load < 5%	
Oil Pan		7.8L (2.06 US gal)	Radio Interface	EN 61000	EN 61000-6-2 & EN 61000-6-4	
Oil Type	API CH4/CI4; SAE 15W-40		Cooling Air Flow	Cooling Air Flow		

Voltage Regulation

<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.



±1%

<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



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## **Industrial Generating Set**



#### CONTROLLER SPECIFICATIONS Controller Make & Model DeepSea 4520 **Operation Mode** MRS / AMF (optional) Graphic Back-lit LCD (128x64) pixles Display Ingress Protection Rating **IP65** 4/4 Binary Inputs/Outputs 3 **Analog Inputs** Measurement Vac, A, Hz, kVA, kW, Vdc **Event Log** Alarms log, Hrs log

**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 Emergency Push Button			
Canopy RAL Color		RAL 2000	
Baseframe RAL Color		RAL 9011	
Noise Pressure leve	69 dB(A) ± 3dBA		

### **GENSET DIMENSIONS & WEIGHT**

Communication

GENSET TYPE	Length (mm)	Width (mm)	Height (mm)	Fuel Tank Capacity (L)	Dry Weight (kg)	Wet Weight (kg)
OPEN	1900	750	1400	173	875	895
CLOSE	2307	1044	1415	198	1225	1240

#### 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



