# PI 300C

# **Industrial Generating Set**



Rev-1

479 / 508 °C

MODEL	rpm / Hz	VOLTAGE	PRIME (1)	STANDBY (2)
PI 300C	1500 / 50	400 / 230	275 kVA / 220 kWe	300 kVA / 240 kWe

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

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Rated Output (PRP)	(1)	250 kW <sub>m</sub>	
Rated Output (ESP)	280 kW <sub>m</sub>		
Engine Make & Mod	Cummins 6LTAA9.5-G3		
No. of Cylinders	6 Cylinder, in-line		
Cycle	4 Strokes		
Aspiration		Turbocharged, air-cooled	
Cooling Method		Water	
Governing Type		Electronic	
Governing Class		G2 - ISO 8528 Part 1	
Compression Ratio		16.6 : 1.0	
Displacement		9.5 L / 579 in <sup>3</sup>	
Bore/Stroke (mm / in	)	(116/148) / (4.58/5.82)	
Electrical Starting Sy	24 VDC starter motor		
AIR SYSTEM			
Air Filter Type		Dry Element	
Combustion Air Flow	v (PRP)	16.08 m <sup>3</sup> /min	
Combustion Air Flov	v (ESP)	17.52 m <sup>3</sup> /min	
Radiator Air Flow		7.9 m <sup>3</sup> /sec	
COOLING SYSTEM			
Total Coolant Capac	city	55.5 L / 14.66 US.Gal	
Water Pump Type	Centrifugal Eng-Driven		
Radiator Fan Load	13 kW		
Heat Radiation to Ro	23 kW		
Heat Radiation to Room (ESP)		26 kW	
LUBRICATION SYSTEM			
Oil Filter Type	Spir	on full flow filter	
Total Oil Capacity		32.4 L / 8.6 US gal.	
Oil Pan	27.1 L / 7.2 US gal.		
Oil Type	CI4; SAE 15W-40		

Fuel Filter: Spin on full flow filter with water separator				
Recommended Fuel	Class A2 Diesel			
Fuel Consumption Standby	64.0 L/hr / 17.0 US gal/hr			
Fuel Consumption 100% PRP	56.0 L/hr /14.9 US gal/hr			
Fuel Consumption 75% PRP	42.0 L/hr / 11.1 US gal/hr			
Fuel Consumption 50% PRP	29.0 L/hr / 7.5 US gal/hr			
EXHAUST SYSTEM				
Muffler Type	Residential Grade			
Max. Back Pressure	10 kPa			
Exhaust Gas Flow (PRP/ESP)	44.46 / 50.94 m <sup>3</sup> /min			

Exhaust Gas Temperature (PRP/ESP)

ALTERNATOR SPECIFICATIONS			
Rated Output (Prime)	300.0 Kva		
Rated Output (Stand b	oy) <sup>(2)</sup>	340.0 kVA	
Alternator Make & Mo	del	Stamford HCI444D/ S4L1D-D41	
Number of Poles	Number of Poles		
Number of Winding Le	Number of Winding Leads		
Type of Bearing		Single	
Insulation Class / Temp Rise		H/H	
Efficiency		92.3%	
Ingress Protection Rating		IP 23	
Excitation System		Self Excited	
AVR Model Stamfor		d - AS440	

ALTERNATOR OPERATING DATA			
Overspeed	2250 r.p.m		
Voltage Regulation	± 1.0 %		
Wafeform distortion	No load <1.5% Linear load <5%		
Radio Interface	Standard EN61000-6-2:2001		
Cooling Air Flow	0.8 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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### **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		8/6	
Analog Inputs		4	
Measurement Vac, A, H		z, kVA, kW, Vdc	
Event Log Alarms lo		g, Hrs log	
Communication		USB	

### **ENCLOSURE SPECIFICATIONS**

Enclosure Type	Acousti	c & Weather Proof		
Anticorrosive Protection				
Polyester Powder Coated Galvanized Sheet				
Ingress Protection F	IP22			
Lifting	ISO Standard Lifting			
Emergency	External E	mergency Push Button		
Canopy RAL Color	RAL 2000			
Baseframe RAL Color		RAL 9011		
Noise Pressure level @ 7m		82 dB(A)		

### **GENSET DIMENSIONS & WEIGHT**

GENSET TYPE	Length (mm)	Width (mm)	Height (mm)	Fuel Tank Capacity (L)	Dry Weight (kg)	Wet weight (kg)
OPEN	2850	1420	2130	600	2650	2740
CLOSE	4414	1614	2217	843	3270	3350

### 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

# PRECISION INDUSTRIES

### **Application**

Infrastructure, Industrial, Residential, Telecom, Defence, Mining, Agriculture,

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