

PI 250C

Industrial Generating Set



Rev-0

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

 PI 250C
 1800 / 60
 480 / 277
 225.0 kVA / 180.0 kWe
 250.0 kVA / 200.0 kWe

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

Rated Output (PRP) ⁽¹⁾	213 kW _m	Fuel Filter: Spin on full flow filter with water separator				
Rated Output (ESP) (2)	237 kW _m	Recommended Fuel		Class A2 Diesel		
Engine Make & Model	Cummins 6CTAA8.3-G7	Fuel Consumption Star	tion Standby 60.0		60.0 L/hr /15.9 US gal/hr	
No. of Cylinders	6 In-line	Fuel Consumption 100%	% PRP 53.0 L/hr / 14.0 US gal/h		14.0 US gal/hr	
Cycle	4 Strokes	Fuel Consumption 75%	Fuel Consumption 75% PRP 39.0 L		.0 L/hr / 10.3 US gal/hr	
Aspiration	Turbocharged and Air to Air Aftercooled	Fuel Consumption 50% PRP		27.0 L/hr / 7.1 US gal/hr		
Cooling Method	Water	EXHAUST SYSTEM	EXHAUST SYSTEM			
Governing Type	Electronic	Muffler Type	Muffler Type		Residential Grade	
Governing Class	G2 - ISO 8528 Part 1	Max. Back Pressure	Max. Back Pressure		10 kPa	
Compression Ratio	16.7 : 1	Exhaust Gas Flow (PRP/ESP)		37.62 / 40.2 m ³ /min		
Displacement	8.3 L / 506 in ³	Exhaust Gas Temperature (PRP/ESP) 437/498°C				
Bore/Stroke (mm)	114 x 135	ALTERNATOR SPECIFICATIONS				
Battery and Charger Alternator	12 VDC, 100 Amp	Rated Output (Prime) ⁽¹⁾		255.0 kVA		
AIR SYSTEM		Rated Output (Stand by) ⁽²⁾		280.0 kVA		
Air Filter Type	Dry Element	Alternator Make & Model		Stamford UCI274H		
Combustion Air Flow (PRP)	23.4 m ³ /min	Number of Poles	Number of Poles		4	
Combustion Air Flow (ESP)	25.2 m ³ /min	Number of Winding Leads		12		
Radiator Air Flow	322.8 m ³ /min	Type of Bearing		Single		
COOLING SYSTEM		Insulation Class / Temp	Insulation Class / Temp Rise		Н/Н	
Total Coolant Capacity	53.3 L / 14.08 US gal	Efficiency		93.3%/93.6%		
Water Pump Type	Centrifugal Eng-Driven	Ingress Protection Rati	Ingress Protection Rating		IP 23	
Radiator Fan Load	12 kW	Excitation System		Self Excited		
Heat Radiation to Room (PRP)	22 Kw	AVR Model	R Model Stamford		rd - AS440	
Heat Radiation to Room (ESP)	22 kW	ALTERNATOR OPERATING DATA				
LUBRICATION SYSTEM		Overspeed	Overspeed		2250 r.p.m	
Oil Filter Type Spin	on full flow filter	Voltage Regulation		± 1.0 %		
Total Oil Capacity	23.8 L / 6.28 US gal.	Wafeform distortion	Wafeform distortionNo load <1.5%Linear load <5%			
Oil Pan	18.9 L / 4.99 US gal.	Radio Interface	Radio Interface Standard EN61000-6-2:2001		0-6-2:2001	
Oil Type API CH4/	/CI4; SAE 15W-40	Cooling Air Flow 0.617 m ³ /sec		/sec		

(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

(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.





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CONTROLLER SPECIFICATIONS

Controller Make & M	DeepSea 6120		
Operation Mode	MRS / AMF (optional)		
Display	Graphic Back-lit LCD (128x64) pixles		
Ingress Protection F	IP65		
Binary Inputs/Outpu	8 / 6		
Analog Inputs		4	
Measurement	Vac, A, Hz, kVA, kW, Vdc		
Event Log	Alarms log, Hrs log		
Communication		USB	

ENCLOSURE SPECIFICATIONS Enclosure Type Acoustic & Weather Proof Anticorrosive Protection Polyester Powder Coated Galvanized Sheet Ingress Protection Rating IP23 Lifting ISO Standard Lifting Emergency External Emergency Push Button Canopy RAL Color RAL 2000 Baseframe RAL Color RAL 9011 77 dB(A) Noise Pressure level @ 7m

GENSET DIMENSIONS & WEIGHT

GENSET TYPE	Length (mm)	Width (mm)	Height (mm)	Fuel Tank Capacity (L)	Dry Weight (kg)	Wet Weight (kg)
OPEN	3100	1265	1715	530	1685	1710
CLOSE	4650	1355	2207	543	2547	2697

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.

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, Defence, Mining, Agriculture,

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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ISO