

# PI 625C

# **Industrial Generating Set**



MODEL	rpm / Hz	VOLTAGE	PRIME (1)	STANDBY (2)
PI 625C	1800 / 60	480 / 277	563kVA / 450.4kWe	625 kVA / 500 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)	507 kW <sub>m</sub>	
Rated Output (ESP)	563 kW <sub>m</sub>		
Engine Make & Model		Cummins QSX15G9	
No. of Cylinders		6 Vertical In-line	
Cycle		4 Strokes	
Aspiration		Turbocharged and Charge ai rcooled	
Cooling Method		Water	
Governing Type		Electronic	
Governing Class		G2 - ISO 8528 Part 1	
Compression Ratio		17:01	
Displacement		15 L / 912 in <sup>3</sup>	
Bore/Stroke (mm)		137 x 169	
Electrical Starting Syst	tem	24 VDC, 35A	
AIR SYSTEM			
Air Filter Type		Dry Element	
Combustion Air Flow (PRP)		36.9 m <sup>3</sup> /min	
Combustion Air Flow	(ESP)	42.72 m <sup>3</sup> /min	
Radiator Air Flow		708 m3/min	
COOLING SYSTEM			
Total Coolant Capaci	ty	50 L / 13.2 US gal.	
Water Pump Type		Centrifugal Eng-Driven	
Radiator Fan Load		16 kW	
Heat Radiation to Room (PRP)		42 Kw	
Heat Radiation to Room (ESP)		36 kW	
LUBRICATION SYSTEM			
Oil Filter Type	Spin	on full flow filter	
Total Oil Capacity		91 L / 24 US gal.	
Oil Pan		72 L /22 US gal.	
O'1 T	4516114	1014 045 4514 40	

API CH4/CI4; SAE 15W-40

Fuel Filter: Spin on full flow filter with water separator				
Recommended Fuel	Class A2 Diesel			
Fuel Consumption Standby	136 L/hr / 35.9 US gal/hr			
Fuel Consumption 100% PRP	117.8L/hr / 31.1 US gal/hr			
Fuel Consumption 75% PRP	90.5 L/hr / 23.9 US gal/hr			
Fuel Consumption 50% PRP 65.3 L/hr / 17.2 US gal/hr				
EVILLIA COVOTELL				

EXHAUST SYSTEM	
Muffler Type	Residential grade
Max. Back Pressure	10.13 kPa
Exhaust Gas Flow (PRP/ESP)	90.6 / 108.9 m <sup>3</sup> /min
Exhaust Gas Temperature	488 °C

ALTERNATOR SPECIFICATIONS				
Rated Output (Prime) (1)		644 kVA		
Rated Output (Stand b	694 kVA			
Alternator Make & Model		Stamford HCI544D		
Number of Poles		4		
Number of Winding Leads		12		
Type of Bearing		Single		
Insulation Class / Temp Rise		H/H		
Efficiency		94.4%/94.7%		
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	ard EN61000-6-2:2001			
Cooling Air Flow	1.312m <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.





Oil Type



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CONTROLLER SPECIFICATIONS				
Controller Make & Model		DeepSea 6120		
Operation Mode		MRS / AMF (optional)		
Display Graphic Back		-lit LCD (128x64) pixles		
Ingress Protection Rating		IP65		
Binary Inputs/Outputs		6 / 4		
Analog Inputs		4		
Measurement Vac, A, H		z, kVA, kW, Vdc		
Event Log Alarms lo		g, Hrs log		
Communication		USB		

ENCLOSURE SPECIFICATIONS					
Enclosure Type	Enclosure Type Acous				
Anticorrosive Protec	Anticorrosive Protection				
Polyester Powder Co	Polyester Powder Coated Galvanized Sheet				
Ingress Protection R	Ingress Protection Rating IP23				
Lifting	ISO Stan	dard Lifting			
Emergency	Emergency External				
Canopy RAL Color		RAL 2000			
Baseframe RAL Color		RAL 9011			
Noise Pressure level @ 7m		86.2 dB(A)			

### **GENSET DIMENSIONS & WEIGHT**

GENSET TYPE	Length (mm)	Width (mm)	Height (mm)	Fuel Tank Capacity (L)	Dry Weight (kg)	Wet Weight (kg)
OPEN	4200	1450	2385	1100	5000	5150
CLOSE	6300	1624	2605	1375	6250	6437.5

Note: Open type dimension does not include breaker panel dimension. Refer to GAD for details

### 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

# الماناءات الدقية المالة PRECISION INDUSTRIES

## **Application**

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



