



# PI 3000C

## Industrial Generating Set



MODEL	rpm / Hz	VOLTAGE	PRIME <sup>(1)</sup>	STANDBY <sup>(2)</sup>
<b>PI 3000C</b>	<b>1500 / 50</b>	<b>400-415</b>	<b>2750 kVA / 2200 kW<sub>e</sub></b>	<b>3000 kVA / 2400 kW<sub>e</sub></b>

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) <sup>(1)</sup>	2304 kW <sub>m</sub>
Rated Output (ESP) <sup>(2)</sup>	2539 kW <sub>m</sub>
Engine Make & Model	Cummins QSK78-G9
No. of Cylinders	18 Cylinder, 60° Vee
Cycle	4 Strokes
Aspiration	Turbocharged and Low temp. Aftercooled
Cooling Method	Water
Governing Type	Electronic
Governing Class	G3 - ISO 8528 Part 1
Compression Ratio	15.5 : 1
Displacement	77.6 L / 4735 in <sup>3</sup>
Bore/Stroke (mm / in)	(170/190) / (6.69/7.48)
Electrical Starting System	24 VDC starter motor

### AIR SYSTEM

Air Filter Type	Dry Element
Combustion Air Flow (PRP)	184.2 m <sup>3</sup> /min
Combustion Air Flow (ESP)	191 m <sup>3</sup> /min
Radiator Air Flow	TBA m <sup>3</sup> /min

### COOLING SYSTEM

Total Coolant Capacity	223.4 L / 59.0 US gal
Water Pump Type	Centrifugal Eng-Driven
Radiator Fan Load	100 kW
Heat Radiation to Room (PRP)	213 Kw
Heat Radiation to Room (ESP)	229 kW

### LUBRICATION SYSTEM

Oil Filter Type	Spin on full flow filter
Total Oil Capacity	466.0 L / 123.0 US gal
Oil Pan	413.0 L / 109.0 US gal
Oil Type	API CH4/CI4; SAE 15W-40

Fuel Filter: Spin on full flow filter with water separator	
Recommended Fuel	Class A2 Diesel
Fuel Consumption Standby	569.0 L/hr / 150.3US gal/hr
Fuel Consumption 100% PRP	528.0 L/hr / 139.4 US gal/hr
Fuel Consumption 75% PRP	406.0 L/hr / 107.1 US gal/hr
Fuel Consumption 50% PRP	291.0 L/hr / 76.7 US gal/hr

### EXHAUST SYSTEM

Muffler Type	Residential Grade
Max. Back Pressure	6.8 kPa
Exhaust Gas Flow (PRP/ESP)	410 / 427 m <sup>3</sup> /min
Exhaust Gas Temperature (PRP/ESP)	422 / 427 °C

### ALTERNATOR SPECIFICATIONS

Rated Output (Prime) <sup>(1)</sup>	2790.0 KVA
Rated Output (Stand by) <sup>(2)</sup>	3070.0 kVA
Alternator Make & Model	Stamford LV 804S Wdg 12
Number of Poles	4
Number of Winding Leads	6
Type of Bearing	Single
Insulation Class / Temp Rise	H / H
Efficiency	96.3%
Ingress Protection Rating	IP 23
Excitation System	Separately Excited by P.M.G
AVR Model	Stamford - DM110

### ALTERNATOR OPERATING DATA

Overspeed	2250 r.p.m
Voltage Regulation	± 1.0 %
Waveform distortion	No load <1.5% Linear load <5%
Radio Interface	Standard EN61000-6-2:2001
Cooling Air Flow	3.2 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.



### CONTROLLER SPECIFICATIONS

Controller Make & Model	DeepSea 7320MKII
Operation Mode	Manual, Autostart and AMF
Display	4-Line back-lit LCD text display
Ingress Protection Rating	IP65
Binary Inputs/Outputs	8/6
Analog Inputs	6
Measurement	Vac, A, Hz, kVA, kVAR, kW, kWh, Vdc
Event Log	Alarms log, Hrs log
Communication	USB, RS232 and RS485

### ENCLOSURE SPECIFICATIONS

Enclosure Type	Acoustic & Weather Proof
Anticorrosive Protection	
	Polyester Powder Coated Galvanized Sheet
Ingress Protection Rating	IP22
Lifting	ISO Standard Lifting
Emergency	External Emergency Push Button
Canopy RAL Color	RAL 9001
Baseframe RAL Color	RAL 9011
Noise Pressure level @ 7m	88 dB(A)

### GENSET DIMENSIONS & WEIGHT

GENSET TYPE	Length (mm)	Width (mm)	Height (mm)	Fuel Tank Capacity (L)	Dry Weight (kg)	Wet Weight (kg)
CLOSE	12000	3200	3350	-	30210	TBA

Note: This dimension is for preliminary consideration. For actual dimension refer to asbuilt GAD.

### 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.

Heavy 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

Advance Digital AVR

55degC Radiator

Jacket water pre-heater

Intelligent Battery charger

Critical grade muffler

Fuel Filter / Water separator Fuel Filter

Anticondensation heater

### Application

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

### STANDARD ELECTRICAL FEATURES

An advance Control system is designed to provide a comprehensive protection and to monitor the parameters of generating set.

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.

