PI 909C /PI 1000C

Cummins G-DRIVE

Rev-2

Industrial Generating Set

MODEL	rpm / Hz	VOLTAGE	PRIME (1)	STANDBY (2)
PI 909C /PI 1000C	1800 / 60	480 / 277	909.0 kVA / 727.2 kWe	1000.0 kVA / 800.0 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)	809 kW _m		
Rated Output (FRP)	895 kW _m			
Engine Make & Mod	Cummins QSK23-G3			
No. of Cylinders	6 Vertical In-line			
Cycle		4 Strokes		
<u> </u>		Turbocharged and		
Aspiration		Charge Air cooled		
Cooling Method		Water		
Governing Type		Electronic		
Governing Class		G2 - ISO 8528 Part 1		
Compression Ratio		16.0 : 1.0		
Displacement		23.15 L / 1413 in ³		
Bore/Stroke (mm / in)		(170/170)/(6.69/6.69)		
Battery and Charger	Alternator	24 VDC, 35 Amp		
AIR SYSTEM				
Air Filter Type		Dry Element		
Combustion Air Flow (PRP)		65.64 m ³ /min		
Combustion Air Flow	v (ESP)	67.92 m ³ /min		
Radiator Air Flow		996 m³/min		
COOLING SYSTEM				
Total Coolant Capa	city	46.5 L / 12.3 US gal		
Water Pump Type		Centrifugal Eng-Driven		
Radiator Fan Load	24.2 Kw			
Heat Radiation to Ro	om (PRP)	76 Kw		
Heat Radiation to Ro	85 kW			
LUBRICATION SYSTEM				
Oil Filter Type Spin on full flow filter				
Total Oil Capacity	1	103.0 L / 27.0 US gal.		
Oil Pan	Oil Pan			
Oil Type	Oil Type API CH4/			
Oil Type	CI4; SAE 15W-40			

Fuel Filter: Spin on full flow filter with water separator				
Recommended Fuel	Class A2 Diesel			
Fuel Consumption Standby	212.0 L/hr / 56.1 US gal/hr			
Fuel Consumption 100% PRP	189.0 L/hr / 49.8 US gal/hr			
Fuel Consumption 75% PRP	139.0 L/hr / 36.7 US gal/hr			
Fuel Consumption 50% PRP	97.0 L/hr / 25.7 US gal/hr			
EVITATIOT CVCTEM				

EXHAUST SYSTEM			
Muffler Type	Residential grade		
Max. Back Pressure	10.16 kPa		
Exhaust Gas Flow (PRP/ESP)	166.38 / 183.36 m ³ /min		
Exhaust Gas Temperature (PRP/ESP) 467 / 514 °C			

ALTERNATOR SPECIFICATIONS				
Rated Output (Prime) (1125 kVA			
Rated Output (Stand by	Rated Output (Stand by) (2)			
Alternator Make & Mod	Alternator Make & Model			
Number of Poles		4		
Number of Winding Lea	Number of Winding Leads			
Type of Bearing		Single		
Insulation Class / Temp Rise		H/H		
Efficiency		95.2%		
Ingress Protection Rating		IP 23		
Excitation System		Separately Excited by P.M.G		
AVR Model Stamfo		rd - MX321		

ALTERNATOR OPERATING DATA				
Overspeed		2250 r.p.m		
Voltage Regulation		± 0.5 %		
Wafeform distortion		No load <1.5% Linear load <5%		
Radio Interface Standa		rd EN61000-6-2:2001		
Cooling Air Flow		1.71 m ³ /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 & Model		DeepSea 6120	
Operation Mode		MRS / AMF (optional)	
Display Graphic Back		:-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	Acoustic & Weather Proof			
Anticorrosive Protection				
Polyester Powder Coated Galvanized Sheet				
Ingress Protection F	IP23			
Lifting	ISO Stan	dard Lifting		
Emergency External E		mergency Push Button		
Canopy RAL Color		RAL 2000		
Baseframe RAL Color		RAL 9011		
Noise Pressure level @ 7m		85 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	2050	2400	1700	7175	7345
CLOSE	5873	2224	2818	1835	12850	13000

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, Defence, Mining, Agriculture,



