PI 75C

Industrial Generating Set



Rev-1

MODEL	rpm / Hz	VOLTAGE	PRIME (1)	STANDBY (2)
PI 75C	1800 / 60	480 / 277	67.0 kVA / 54.0 kWe	75.0 kVA / 60.0 kWe

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

ENGINE SPECIFICATIONS			
Rated Output (PRP)	67 kW _m		
Rated Output (ESP)	74 kW _m		
Engine Make & Mod	Cummins 4BTAA3.3G12		
No. of Cylinders	4 Vertical In-line		
Cycle	4 Strokes		
Aspiration	Aspiration		
Cooling Method		Water	
Governing Type		Mechanical	
Governing Class	G2 - ISO 8528 Part 1		
Compression Ratio		17.3 : 1	
Displacement		3.3 L / 199 in ³	
Bore/Stroke (mm / i	n)	(95/115) / (3.74/4.53)	
Battery and Charger	12 VDC, 36Amp		
AIR SYSTEM			
	Dry Element		
Air Filter Type		Dry Element	
Air Filter Type Combustion Air Flor	w (PRP)	Dry Element 5.63 m ³ /min	
Combustion Air Flor		5.63 m ³ /min	
Combustion Air Flor	w (ESP)	5.63 m ³ /min 5.7 m ³ /min	
Combustion Air Flow Combustion Air Flow	w (ESP)	5.63 m ³ /min 5.7 m ³ /min	
Combustion Air Flow Combustion Air Flow Radiator Air Flow COOLING SYSTEM	w (ESP)	5.63 m ³ /min 5.7 m ³ /min 112.2 m ³ /min	
Combustion Air Flow Radiator Air Flow COOLING SYSTEM Total Coolant Capa	w (ESP)	5.63 m ³ /min 5.7 m ³ /min 112.2 m ³ /min	
Combustion Air Flow Combustion Air Flow Radiator Air Flow COOLING SYSTEM Total Coolant Capa Water Pump Type	w (ESP)	5.63 m ³ /min 5.7 m ³ /min 112.2 m ³ /min 13 L / 3.43 US gal Centrifugal Eng-Driven	
Combustion Air Flow Radiator Air Flow COOLING SYSTEM Total Coolant Capa Water Pump Type Radiator Fan Load	w (ESP) // city om (PRP)	5.63 m ³ /min 5.7 m ³ /min 112.2 m ³ /min 13 L / 3.43 US gal Centrifugal Eng-Driven 3.46 kW	
Combustion Air Flow Combustion Air Flow Radiator Air Flow COOLING SYSTEM Total Coolant Capa Water Pump Type Radiator Fan Load Heat Radiation to Ro	w (ESP) City om (PRP) om (ESP)	5.63 m³/min 5.7 m³/min 112.2 m³/min 13 L / 3.43 US gal Centrifugal Eng-Driven 3.46 kW 8 Kw	
Combustion Air Flow Combustion Air Flow Radiator Air Flow COOLING SYSTEM Total Coolant Capar Water Pump Type Radiator Fan Load Heat Radiation to Ro	w (ESP) City om (PRP) om (ESP) STEM	5.63 m³/min 5.7 m³/min 112.2 m³/min 13 L / 3.43 US gal Centrifugal Eng-Driven 3.46 kW 8 Kw	
Combustion Air Flow Combustion Air Flow Radiator Air Flow COOLING SYSTEM Total Coolant Capa Water Pump Type Radiator Fan Load Heat Radiation to Ro Heat Radiation to Ro LUBRICATION SYS	w (ESP) City om (PRP) om (ESP) STEM	5.63 m³/min 5.7 m³/min 112.2 m³/min 13 L / 3.43 US gal Centrifugal Eng-Driven 3.46 kW 8 KW	
Combustion Air Flow Combustion Air Flow Radiator Air Flow COOLING SYSTEM Total Coolant Capa Water Pump Type Radiator Fan Load Heat Radiation to Ro Heat Radiation to Ro LUBRICATION SYSTEM Oil Filter Type	w (ESP) City om (PRP) om (ESP) STEM	5.63 m³/min 5.7 m³/min 112.2 m³/min 13 L / 3.43 US gal Centrifugal Eng-Driven 3.46 kW 8 kW 8 kW	

FUEL SYSTEM					
Fuel Filter: Spin on full	Fuel Filter: Spin on full flow filter with water separator				
Recommended Fuel	Class A2 Diesel				
Fuel Consumption St	20 L/hr / 5.3 US gal/hr				
Fuel Consumption 100	18 L/hr / 4.7 US gal/hr				
Fuel Consumption 75%	13 L/hr / 3.5 US gal/hr				
Fuel Consumption 50%	9 L/hr / 2.3 US gal/hr				
EXHAUST SYSTEM					
Muffler Type		Industrial	Industrial Grade		
Max. Back Pressure	Max. Back Pressure				
Exhaust Gas Flow (PR	14.69 / 16.08 m ³ /min				
Exhaust Gas Tempe	Exhaust Gas Temperature (PRP/ESP) 504/539 °C				
ALTERNATOR SPECIFICATIONS					
Rated Output (Prime)	(1)	75.0 Kva			
Rated Output (Stand	80 kVA				
Alternator Make & Mo	Stamford S1L2Y1				
Number of Poles		4			
Number of Winding L	eads	12			
Type of Bearing	Type of Bearing				
Insulation Class / Tem	H/H				
Efficiency	90.4%				
Ingress Protection Ra	IP 23				
Excitation System	Self Excited				
AVR Model Stamford - AS540					
ALTERNATOR OPE	RATING	DATA			
Overspeed	Overspeed				
Voltage Regulation		± 1.0 %			
Wafeform distortion	No load <2% Linear load <5%				
Radio Interface	rd EN61000	0-6-2:2001			

⁽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

Cooling Air Flow

⁽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.



0.176 m³/sec



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

ENCLOSURE SPECIFICATIONS			
Enclosure Type	Enclosure Type Acousti		
Anticorrosive Protection			
Polyester Powder Coated Galvanized Sheet			
Ingress Protection Rating		IP23	
Lifting	ISO Star	idard Lifting	
Emergency	Emergency External E		
Canopy RAL Color		RAL 2000	
Baseframe RAL Col	RAL 9011		
Noise Pressure level @ 7m		70 dB(A)	

GENSET DIMENSIONS & WEIGHT

GENSET TYPE	Length (mm)	Width (mm)	Height (mm)	Fuel Tank Capacity (L)	Dry Weight (kg)	Wet Weight (kg)
OPEN	1860	900	1455	89	840	890
CLOSE	2977	1155	1695	269	1535	1600

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,



