

PI 750Y

Industrial Generating Set



MODEL	rpm / Hz	VOLTAGE	PRIME (1)	STANDBY (2)
PI 750Y	1500 / 50	400 /230 V	660kVA /528kWe	730kVA / 584kWe

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

No. of Cylinders Cycle Aspiration Cooling Method Governing Type Governing Class Compression Ratio Displacement Battery and Charger Alternator Combustion Air Flow (PRP) Radiator Air Flow Coolling SySTEM Total Coolant Capacity Heat Radiation to Room (PRP) Alter Cyste Coll Type Cycle 4 Strokes Turbocharged, air-a intercooled Water Belectronic governo 180 8528 G2 14:01 19.6 L 19.6 L 19.6 L 19.6 L 19.6 L 19.7 L 19.6 L 19.6 L 19.7 L 19.6 L	ENGINE SPECIFICATIONS			
Engine Make & Model No. of Cylinders Cycle Aspiration Cooling Method Governing Type Governing Class Compression Ratio Displacement Battery and Charger Alternator Combustion Air Flow (PRP) Combustion Air Flow (ESP) Radiator Air Flow COOLING SYSTEM Total Coolant Capacity (L) Water Radiation to Room (PRP) Displacement Row Dil Type Combustion Air Flow (PRP) Conbustion Air Flow Cool Roy System Total Coolant Capacity (L) Heat Radiation to Room (PRP) Heat Radiation to Room (ESP) Coll Pan Oil Type Row Stroke (Mm) Air Filter Type Cytype, filter car Aur System Dry-type, filter car Aur May	Rated Output (PRP)	561 kW _m		
No. of Cylinders Cycle Aspiration Cooling Method Governing Type Governing Class Compression Ratio Displacement Battery and Charger Alternator Combustion Air Flow (PRP) Combustion Air Flow (ESP) Radiator Air Flow COOLING SYSTEM Total Coolant Capacity (L) Heat Radiation to Room (PRP) Water Alternation Cycle 4 Strokes Turbocharged, air-aintercooled Water Lubrica Governor Belectronic governor 150 8528 G2 14:01 19.6 L 152×180 mm 152×180 mm 24V AIR SYSTEM Air Filter Type Dry-type, filter care 40 m³/min 160 m³/min Cooli Ng SySTEM Total Coolant Capacity (L) Heat Radiation to Room (PRP) Heat Radiation to Room (PRP) Heat Radiation to Room (PRP) Oil Filter TBA Total Oil Capacity Oil Type Typ	Rated Output (ESP)	616 kW _m		
Cycle Aspiration Cooling Method Cooling Method Governing Type Governing Class Compression Ratio Displacement Battery and Charger Alternator Combustion Air Flow (PRP) Combustion Air Flow (ESP) Alator Air Flow COOLING SYSTEM Total Coolant Capacity (L) Water Pump Type Combustion to Room (PRP) Heat Radiation to Room (ESP) Coil Pan Oil Type Assertic Turbocharged, air-ainter airtheocoled Turbocharged, air-aintercooled Turbocharged, air-ai	Engine Make & Mod	Yuchai YC6TD900-D31		
Aspiration Cooling Method Governing Type Governing Class Compression Ratio Displacement BorexStroke (mm) Battery and Charger Alternator Combustion Air Flow (PRP) Combustion Air Flow (ESP) Radiator Air Flow COOLING SYSTEM Total Coolant Capacity (L) Water Pump Type Radiation to Room (PRP) LUBRICATION SYSTEM Oil Filter Total Capacity Oil Pan Oil Type Cooli Ty	No. of Cylinders	No. of Cylinders		
Cooling Method Water Governing Type electronic governor Governing Class ISO 8528 G2 Compression Ratio 14:01 Displacement 19.6 L BorexStroke (mm) 152×180 mm Battery and Charger Alternator 24V AIR SYSTEM Air Filter Type Dry-type, filter care Combustion Air Flow (PRP) 40 m³/min Combustion Air Flow (ESP) 42.8 m³/min Radiator Air Flow 1160 m³/min COOLING SYSTEM Total Coolant Capacity (L) 130.5 L Water Pump Type Centrifugal Eng-Driven Radiator Fan Load 20 kW Heat Radiation to Room (PRP) 46 kW Heat Radiation to Room (ESP) 56 kW LUBRICATION SYSTEM Oil Filter TBA Total Oil Capacity 55 L Oil Type 15W-40 in summer; 10W-30 centrifugal Eng-Driven	Cycle		4 Strokes	
Governing Type electronic governo Governing Class ISO 8528 G2 Compression Ratio 14:01 Displacement 19.6 L BorexStroke (mm) 152×180 mm Battery and Charger Alternator 24V AIR SYSTEM Air Filter Type Dry-type, filter car Combustion Air Flow (PRP) 40 m³/min Combustion Air Flow (ESP) 42.8 m³/min Radiator Air Flow 1160 m³/min COOLING SYSTEM Total Coolant Capacity (L) 130.5 L Water Pump Type Centrifugal Eng-Driven Radiator Fan Load 20 kW Heat Radiation to Room (PRP) 46 kW Heat Radiation to Room (ESP) 56 kW LUBRICATION SYSTEM Oil Filter TBA Total Oil Capacity 55 L Oil Pan 36.6 L Oil Type	Aspiration			
Governing Class Compression Ratio Displacement BorexStroke (mm) Battery and Charger Alternator AIR SYSTEM Air Filter Type Combustion Air Flow (PRP) Combustion Air Flow (ESP) Radiator Air Flow Total Coolant Capacity (L) Water Pump Type Radiator Fan Load Heat Radiation to Room (PRP) Wheat Radiation to Room (ESP) Coll Filter Total Cil Capacity Total Capacity Total Capacity Total Capacity Total Radiation to Room (PRP) Total Radiation to Room (PRP) Total Capacity TBA Total Oil Capacity TBA Total Oil Capacity TSD TSD TSD TSD TSD TSD TSD TS	Cooling Method		Water	
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Displacement 19.6 L BorexStroke (mm) 152×180 mm Battery and Charger Alternator 24V AIR SYSTEM Air Filter Type Dry-type, filter care Combustion Air Flow (PRP) 40 m³/min Combustion Air Flow (ESP) 42.8 m³/min Radiator Air Flow 1160 m³/min COOLING SYSTEM Total Coolant Capacity (L) 130.5 L Water Pump Type Centrifugal Eng-Driven Radiator Fan Load 20 kW Heat Radiation to Room (PRP) 46 kW Heat Radiation to Room (ESP) 56 kW LUBRICATION SYSTEM Oil Filter TBA Total Oil Capacity 55 L Oil Pan 36.6 L Oil Type 15W-40 in summer; 10W-30 c	Governing Class		ISO 8528 G2	
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Combustion Air Flow (ESP) Radiator Air Flow 1160 m³/min COOLING SYSTEM Total Coolant Capacity (L) Water Pump Type Radiator Fan Load Peat Radiation to Room (PRP) Heat Radiation to Room (ESP) Centrifugal Eng-Driven 46 kW Heat Radiation to Room (ESP) Total Oil Filter TBA Total Oil Capacity Type 15W-40 in summer; 10W-30 co	Air Filter Type		Dry-type, filter cartr	
Radiator Air Flow COOLING SYSTEM Total Coolant Capacity (L) Water Pump Type Radiator Fan Load Peat Radiation to Room (PRP) Heat Radiation to Room (ESP) Centrifugal Eng-Driven 46 kW Heat Radiation to Room (ESP) Total Oil Filter TBA Total Oil Capacity Type 15W-40 in summer; 10W-30 co	Combustion Air Flow	v (PRP)	40 m ³ /min	
Total Coolant Capacity (L) Water Pump Type Radiator Fan Load Heat Radiation to Room (PRP) Heat Radiation to Room (ESP) Centrifugal Eng-Driven 20 kW Heat Radiation to Room (PRP) Heat Radiation to Room (ESP) Total Oil Capacity Oil Pan 36.6 L 15W-40 in summer; 10W-30 ce	Combustion Air Flow	(ESP)	42.8 m ³ /min	
Total Coolant Capacity (L) Water Pump Type Radiator Fan Load Heat Radiation to Room (PRP) Heat Radiation to Room (ESP) Centrifugal Eng-Driven 20 kW Heat Radiation to Room (PRP) Heat Radiation to Room (ESP) Total Oil Filter TBA Total Oil Capacity Type Tow-40 in summer; 10W-30 co	Radiator Air Flow		1160 m³/min	
Water Pump Type Radiator Fan Load 20 kW Heat Radiation to Room (PRP) Heat Radiation to Room (ESP) Centrifugal Eng-Driven 20 kW Heat Radiation to Room (PRP) Fig. 156 kW LUBRICATION SYSTEM Oil Filter TBA Total Oil Capacity TBA Total Oil Capacity Total Oil Capacity Total Oil Type Town-40 in summer; 10W-30 companies.	COOLING SYSTEM	1		
Radiator Fan Load Heat Radiation to Room (PRP) Heat Radiation to Room (ESP) LUBRICATION SYSTEM Oil Filter TBA Total Oil Capacity Oil Pan Oil Type 15W-40 in summer; 10W-30 co	Total Coolant Capac	city (L)	130.5 L	
Heat Radiation to Room (PRP) Heat Radiation to Room (ESP) LUBRICATION SYSTEM Oil Filter TBA Total Oil Capacity Oil Pan Oil Type 15W-40 in summer; 10W-30 co	Water Pump Type		Centrifugal Eng-Driven	
Heat Radiation to Room (ESP) 56 kW LUBRICATION SYSTEM Oil Filter TBA Total Oil Capacity 55 L Oil Pan 36.6 L Oil Type 15W-40 in summer; 10W-30 c	Radiator Fan Load		20 kW	
Cil Type Cil Ty	Heat Radiation to Room (PRP)		46 kW	
Total Oil Capacity 55 L Oil Pan 36.6 L Oil Type 15W-40 in summer; 10W-30 c	Heat Radiation to Room (ESP)		56 kW	
Total Oil Capacity 55 L Oil Pan 36.6 L Oil Type 15W-40 in summer; 10W-30 c	LUBRICATION SYS	STEM		
Oil Pan 36.6 L Oil Type 15W-40 in summer; 10W-30 c	Oil Filter	Oil Filter		
Oil Type 15W-40 in summer; 10W-30 c	Total Oil Capacity		55 L	
Oll Type	÷ · · · · · · · · ·			
other environmentally suitable	()II IVne			

UEL SYSTEM			
Fuel Filter:			
Recommended Fue	Class A2 Diesel		
Fuel Consumption S	Standby	174.1 L/hr	
Fuel Consumption 10	00% PRP	154.3 L/hr	
Fuel Consumption 75	5% PRP	112.9 L/hr	
Fuel Consumption 50)% PRP	74.4 L/hr	
EXHAUST SYSTE	VI		
Muffler Type		Residential	
Max. Back Pressure)	10 kPa	
Exhaust Gas Flow (P	RP/ESP)	121 / 128 m ³ /min	
Exhaust Gas Temperature(PRP/E	550°C/550°C		
ALTERNATOR SP	ECIFICAT	IONS	
Rated Output (Prime	670 kVA / 660kVA		
Rated Output (Stand	738 kVA / 730kVA		
Alternator Make & N	Stamford HCI544F / LeroySomer TAL-A473-F		
Number of Poles		4	
Number of Winding	Leads	12	
Type of Bearing		Single	
Insulation Class / Tel	mp Rise	H/H	
Efficiency @ Rated	Voltage	95% / 95%	
Ingress Protection F	Rating	IP 23	
Excitation System		Self Excited	
AVR Model	AS440	/ R150	
ALTERNATOR OP	ERATING	DATA	
Overspeed		2250 r.p.m	
Voltage Regulation		± 1.0 % / ± 0.8	
Waveform distortion		1.5% NON-DISTORTING D LINEAR LOAD < 5.0%	
Radio Interface	00-6-2 & BS EN 61000-6- 0875G, VDE 0875N		
Cooling Air Flow		1.035 m³/sec / 0.9 m³/se	

⁽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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Industrial Generating Set



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

ENCLOSURE SPECIFICATIONS			
Enclosure Type Acousti		c & Weather Proof	
Anticorrosive Protection			
Polyester Powder Coated Galvanized Sheet			
Ingress Protection F	IP22		
Lifting	Lifting ISO Star		
Emergency External E		mergency Push Botton	
Canopy RAL Color	RAL 2000		
Baseframe RAL Col	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) Appx	Wet Weight (kg) Appx
OPEN	3650	2295	2630	1430	5875	5990
CLOSE	5873	2224	2817.8	1835	8815	9015

Note: The following dimensions are for preliminary guidance. For more detailed and accurate dimensions, please refer to the General Arrangement Drawing (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.

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

Pre heating system

Static Battery Charger

Critical grade muffler

Electronic governor

Remote Annunciator

Application

Infrastructure, Industrial , Residential , Telecom, Defense , Mining , Aggriculture



