PI 1500Y

Industrial Generating Set

PRECISION INDUSTRIES

POWERED BY YC DIESEL

MODEL	rpm / Hz	VOLTAGE	PRIME (1)	STANDBY (2)
PI 1500Y	1800 / 60	480 /277 V	1375kVA /1100kWe	1500kVA / 1200kWe

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) (1)	1289 kW_m
Rated Output (ESP) (2)	1165 kW_m
Engine Make & Model	YC12VTD1860-D32
No. of Cylinders	12 V, 90°
Cycle	4 Strokes
Aspiration	Turbocharged, water-air intercooled
Cooling Method	Water
Governing Type	Electronic
Governing Class	ISO 8528 G3
Compression Ratio	14:01
Displacement	39.2 L
BorexStroke (mm)	152×180 mm
Battery and Charger Alternator	24V

AIR SYSTEM	
Air Filter Type	Dry paper element
Combustion Air Flow (PRP)	79.8 m^3/min
Combustion Air Flow (ESP)	86.4 m^3/min
Radiator Air Flow	2430 m^3/min

COOLING SYSTEM	
Total Coolant Capacity (L)	467 L
Water Pump Type	Centrifugal Eng-Driven
Radiator Fan Load	73 kW
Heat Radiation to Room (PRP)	68 kW
Heat Radiation to Room (ESP)	104 kW

LUBRICATION SYSTEM	
Oil Filter	TBA
Total Oil Capacity	（215）L
Oil Pan low level/ high level	160/210 L
Oil Type	API CH4/CI4; SAE 15W-40

FUEL SYSTEM	
Fuel Filter:	
Recommended Fuel	Class A2 Diesel
Fuel Consumption Standby	341.9 L/hr
Fuel Consumption 100% PRP	307.7 L/hr
Fuel Consumption 75% PRP	240.4 L/hr
Fuel Consumption 50% PRP	170.1 L/hr

EXHAUST SYSTEM	
Muffler Type	Residential grade
Max. Back Pressure	10 kPa
Exhaust Gas Flow (PRP/ESP)	191.5 / 208.3m^3/min
Exhaust Gas Temperature(PRP/ESP)	≤550^{0}C/≤550^{0}C

ALTERNATOR SPECIFICATIONS	
Rated Output (Prime) (1)	1694 kVA
Rated Output (Standby) (2)	1762 kVA
Alternator Make & Model	Stamford S6L1D-H41
Number of Poles	4
Number of Winding Leads	6 Lead std/ 12 lead optional
Type of Bearing	Single
Insulation Class / Temp Rise	H/H
Efficiency @ Rated Voltage	95.00%
Ingress Protection Rating	IP 23
Excitation System	PMG
AVR Model	MX321

ALTERNATOR OPERATING DATA	
Overspeed	2250 r.p.m
Voltage Regulation	± 0.5%
Waveform distortion	NO LOAD < 1.5% NON-DISTORTING BALANCED LINEAR LOAD < 5.0%
Radio Interface	BS EN 61000-6-2 & BS EN 61000-6-4,VDE 0875G, VDE 0875N
Cooling Air Flow	2.27 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.

Data Tolerance limit ± 5%

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CONTROLLER SPECIFICATIONS

Controller Make & Model	DeepSea 6120 MKII
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, Hz, kVA, kW, Vdc
Event Log	Alarms log, Hrs log
Communication	USB

ENCLOSURE SPECIFICATIONS

Enclosure Type	Acoustic & Weather Proof
Anticorrosive Protection	
Polyester Powder Coated Galvanized Sheet	
Ingress Protection Rating	IP23
Lifting	ISO Standard Lifting
Emergency	External Emergency Push Botton
Canopy RAL Color	RAL 9010
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) Appx	Wet Weight (kg) Appx
OPEN	5000	2455	2650	N/A	10777	10877
CLOSE	30 FEET HC CONTAINER			N/A	13942	14042

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 ºC 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

الصناعات الدقيقة
PRECISION INDUSTRIES

Address: 24b St., Community 365 Al Quoz Ind. 2, Dubai, UAE | Tel: +971 4 338 4033 | Fax: +971 4 338 3997
info@pi-dubai.com | www.pi-dubai.com