

# **Industrial Generating Set**



MODEL	rpm / Hz	VOLTAGE	PRIME (1)	STANDBY (2)
PI 770P	1500 / 50	400 / 230	700 kVA / 560 kWe	770 kVA / 616 kWe

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

ENGINE SPECIFICATIONS			
Rated Output (PRP	584 kW <sub>m</sub>		
Rated Output (ESP)	628 kW <sub>m</sub>		
Engine Make & Mod	Perkins 2806A - E18TTAG4		
No. of Cylinders	6 Vertical In-line		
Cycle	4 Strokes		
Aspiration		Turbocharged	
Cooling Method		Water	
Governing Type		Electrical	
Governing Class	G2 - ISO 8528 Part 1		
Compression Ratio	14.5:1		
Displacement	18.1 L (1104.in <sup>3</sup> )		
BorexStroke	145x183 mm		
Battery and Charger	24 VDC , 70 Amp		
AIR SYSTEM			
Air Filter Type		Dry Element	
Combustion Air Flor	37 m <sup>3</sup> /min		
Combustion Air Flor	w (ESP)	40 m <sup>3</sup> /min	
Radiator Air Flow		702 m³/min	
COOLING SYSTEM	VI		
Total Coolant Capa	city (L)	110 litres	
Water Pump Type		Centrifugal Eng-Driven	
Radiator Fan Load	29 kW		
Heat Radiation to Ro	91 kW		
Heat Radiation to Ro	100 kW		
LUBRICATION SYSTEM			
Oil Filter Type Full-flow re		eplaceable 'Ecoplus' filter	
Total Oil Capacity	68 litres		
Oil Pan	56 L (14 US gal)		
Oil Type API CH4/		CI4; SAE 15W-40	
71			

or other temperature and	altitude limits <sub>l</sub>	please consult application	
FUEL SYSTEM			
Fuel Filter: Replaceable 'Ecoplus' fuel filter elements with primary filter/water separator			
Recommended Fue	Class A2 Diesel		
Fuel Consumption	160 L/hr		
Fuel Consumption 1	145 L/hr		
Fuel Consumption 7	108 L/hr		
Fuel Consumption 5	0% PRP	76 L/hr	
EXHAUST SYSTE	M		
Muffler Type		Residential Grade	
Max. Back Pressure	е	5 kPa	
Exhaust Gas Flow (F	119 / 128 m³/min		
Exhaust Gas Temp (PRP/ESP)	461°C/465°C		
ALTERNATOR SP	IONS		
Rated Output (Prim	660 kVA		
Rated Output (Stan	730 kVA		
Alternator Make & I	Leroy somer TAL 047 F		
Number of Poles		4	
Number of Winding	Leads	6	
Type of Bearing		Single	
Insulation Class / Te	mp Rise	H/H	
Efficiency @ Rated	Voltage	94.7%	
Ingress Protection I	Rating	IP 23	
Excitation System	Self excited		
AVR Model	R150		
ALTERNATOR OP	ERATING	DATA	
Overspeed	2250 r.p.m		
Voltage Regulation		± 1 %	
Waveform distortion		No load < 1.5%, Linear load < 5%	
Radio Interface	0-6-2 & EN 61000-6-4		
Cooling Air Flow	0.9 m³/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.



# PI 770P

## **Industrial Generating Set**





CONTROLLER SPECIFICATIONS			
Controller Make & I	DeepSea 6120		
Operation Mode	MRS / AMF (optional)		
Display	-lit LCD (128x64) pixles		
Ingress Protection I	IP65		
Binary Inputs/Output	8/6		
Analog Inputs	4		
Measurement Vac, A, H		z, kVA, kW, Vdc	
Event Log Alarms log		g, Hrs log	
Communication	USB		

ENCLOSURE SPECIFICATIONS			
Enclosure Type Acous		ic & Weather Proof	
Anticorrosive Protection			
Polyester Powder Coated Galvanized Sheet			
Ingress Protection F	IP23		
Lifting ISO Star		ndard Lifting	
Emergency External E		mergency Push Button	
Canopy RAL Color	RAL 9010		
Baseframe RAL Col	RAL 9010		
Noise Pressure level @ 7m		84 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	2110	2630	1450	5875	5990
CLOSE	5873	2224	2817	1650	7010	7100

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

Jacket water pre-heater

Static Battery Charger

Critical grade muffler

Fuel Filter / Water seperator Fuel Filter

Remote Annunciator

#### **Application**

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



