

# PI 2800M

### Industrial Generating Set

POWERED BY

MITSUBISHI DIESEL ENGINE

Rev-00

 MODEL
 rpm / Hz
 VOLTAGE
 PRIME (1)
 STANDBY (2)

 PI 2800M
 1500 / 50
 400 / 230
 2550kVA /2040kWe
 2800kVA / 2240kWe

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

team.				
ENGINE SPECIFIC	ATIONS			
Rated Output (PRP)	2109 kW <sub>m</sub>			
Rated Output (ESP)	2330 kW <sub>m</sub>			
Engine Make & Moo	Mitsubishi S16R2- PTAW2-E			
No. of Cylinders	No. of Cylinders			
Cycle	4 Strokes			
Aspiration		Turbocharged		
Cooling Method		Water		
Governing Type	Electrical			
Governing Class	ISO 8528-5			
Compression Ratio	14.0:1			
Displacement	79.90 L (4876 in <sup>3</sup> )			
BorexStroke		170x220 mm		
Battery and Charger Alternator		24 VDC ,35 Amp		
AIR SYSTEM				
Air Filter Type		Turbo Filter		
Combustion Air Flow (PRP)		191 m3/min		
Combustion Air Flow (ESP)		212 m <sup>3</sup> /min		
Radiator Air Flow		TBA **m³/min		
COOLING SYSTEM	Л			
Total Coolant Capacity (L)		350 litres		
Water Pump Type		Centrifugal Eng-Driven		
Radiator Fan Load		100 kW		
Heat Radiation to Room (PRP)		168.43 kW		
Heat Radiation to Room (ESP)		187.06 kW		
LUBRICATION SYSTEM				
Oil Filter Type	Full Flow Paper Element			
Total Oil Capacity	Total Oil Capacity			
Oil Pan		260 L(68.7 US gal)		
Oil Type	SAE 10W/SAE 30W/SAE15W-40			

or other temperature and a	iititude iimits piea	se consult application	
FUEL SYSTEM			
Fuel Filter: TBA**			
Recommended Fue	Class A2 Diesel		
Fuel Consumption S	598 L/hr		
Fuel Consumption 10	541 L/hr		
Fuel Consumption 75	406 L/hr		
Fuel Consumption 50	282 L/hr		
EXHAUST SYSTEM	И		
Muffler Type		Residential Grade	
Max. Back Pressure		5.88 kPa	
Exhaust Gas Flow (PRP/ESP)		562/506 m <sup>3</sup> /min	
Exhaust Gas Temperature (PRP/ESP)		550°C/550°C	
ALTERNATOR SPECIFICATIONS			
Rated Output (Prime) (1)		2500 kVA	
Rated Output (Standby) (2)		2750 kVA	
Alternator Make & Model		S7L1D-J41	
Number of Poles		4	
Number of Winding	Leads	6	
Type of Bearing		Single	
Insulation Class / Ter	mp Rise	H/H	
Efficiency @ Rated Voltage		96.3%/96.1%	
Ingress Protection Rating		IP 23	
Excitation System		PMG	
AVR Model	Stamford - N	/IX322	
ALTERNATOR OP	ERATING D	ATA	
Overspeed		2250 r.p.m	
Voltage Regulation		±0.5 %	
Waveform distortion		No load < 1.5%, Linear load < 5%	
Radio Interface EN 61000-6		-2 &EN 61000-6-4	
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<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

Cooling Air Flow

<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.



Data tolerance = +/-5%

3.1 m³/sec

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#### **Industrial Generating Set**

POWERED BY



Rev-00

CONTROLLER SPECIFICATIONS				
Controller Make & Model		DeepSea 6120MKIII		
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 log, Hrs log			
Communication	USB			

ENCLOSURE SPECIFICATIONS			
Enclosure Type	Acoustic & Weather Proof		
Anticorrosive Protection			
Polyester Powder Coated Galvanized Sheet			
Ingress Protection Rating		IP22	
Lifting	ISO Standard Lifting		
Emergency	External Emergency Push Button		
Canopy RAL Color		RAL 9001	
Baseframe RAL Color		RAL 9011	
Noise Pressure level @ 7m		88 dB(A)	

#### **GENSET DIMENSIONS & WEIGHT**

GENSET TYPE	Length (mm)	Width (mm)	Height (mm)	Fuel Tank Capacity (L)	Dry Weight (kg)	Wet Weight (kg)
OPEN	7300	2500	2800	NA	12465	12915
CLOSE	12000	3200	3350	NA	20000	21000

Note: These dimensions are for preliminary guidance. Please refer to GA drawing.

#### 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.

Industrial 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





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