MITSUBISHI DIESEL ENGINE TECHNICAL INFORMATION	ITEM NO.	T0217-0003C (1/4)
	DATE	August, 2013

Specification Sheets of S6R2-PTAA-C Engine

Specification Sheets of S6R2-PTAA-C Engine are enclosed herein.

Revision		Engine Engineering Department High Speed Engine Designing Section		
		Approved by	Checked by	Drawn by
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GENERAL ENGINE DATA

Type	4-Cycle, Water Cooled	
Aspiration	Turbo-Charged, Air to Air Cooler	
Cylinder Arrangement	Inline	
No.of Cylinders	6	
Bore mm(in.)	170	(6.69)
Stroke mm(in.)	220	(8.66)
Displacement liter(in^3)	29.96	(1828)
Compression Ratio	14.1:1	
Dry Weight - Engine only - kg(lb)	2850	(6284)
Wet Weight - Engine only - kg(lb)	2995	(6604)

PERFORMANCE DATA

Steady State Speed Stability Band at any Constant Load		
Hydraulic (std.) or Electric Governor - %	±0.25 or better	
Maximum Overspeed Capacity - rpm	1750	
Moment of inertia of Rotating Components - $N \cdot m^2$($lbf \cdot ft^2$)	409	(991)
(Includes Std.Flywheel)		
Cyclic Speed Variation with Flywheel a 1500rpm	1/95	

ENGINE MOUNTING

Maximum Bending Moment at Rear Face of Flywheel Housing - N·m(lbf·ft)	1961	(1447)

AIR INLET SYSTEM

Maximum Intake Air Restriction (Includes piping		
With Clean Filter Element - mm H_2O (in.H_2O)	400	(15.7)
With Dirty Filter Element - mm H_2O (in.H_2O)	635	(25.0)

EXHAUST SYSTEM

Maximum Allowable Back Pressure - mm H_2O (in.H_2O)	600	(23.6)

LUBRICATION SYSTEM

Oil Pressure at Idle - MPa(psi)	0.2～0.3	(29～43)
at Rate Speed - MPa(psi)	0.49～0.64	(71～93)
Maximum Oil Temperature - °C(°F)	110	(230)
Oil Capacity of Standard Pan High - liter (U.S.gal)	84	(22.2)
Low - liter (U.S.gal)	52	(13.7)
Total System Capacity (Includes Oil Filter) - liter (U.S.gal	94	(24.8)
Maximum Angle of Installation (Std. Pan) Front Down	11.5°	
(Engine Only) Front Up	10°	
Side to Side	22.5°	

COOLING SYSTEM

Coolant Capactiy - Engine only - liter (U.S.gal	55	(14.5)
Maximum External Friction Head at Engine Outlet - MPa(psi	0.034	(5.0)
Maximum Static Head of Coolant above Crankshaft Center - m(ft	10	(32.8)
Maximum Outlet Pressure of Engine Water Pump - MPa(psi	0.20	(28.6)
Standard Thermostat (modulating)Range - °C(°F)	71～85	(160～185)
Maximum Coolant Temperature at Engine Outlet - °C(°F)	98	(208)
Minimum Coolant Expansion Space - % of System Capacit	10	
Maximum Cooling Air Temperature at Air to Air Cooler Inlet, TAA type °C(°F)	40	(104)
Maximum Air Restriction on Discharge Side of Radiator and Fan-mm H_2O(in.H_2O)	10	(0.4)

The specifications are subject to change without notice

APPLICATION : GENERATOR

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FUEL SYSTEM

Fuel Injector	Mitsubishi PS6 Tpye × 1	
Maximum Suction Head of Feed Pump - mm Hg (in. Hg	75	(3.0)
Maximum Static Head of Return & Leak Pipe - mm Hg (in.Hg	150	(5.9)

STARTING SYSTEM

Battery Charging Alternator - V-Ah	24-30	
Starting Motor Capacity - V -kW	24-7.5	
Maximum Allowable Resistance of Cranking Circuit - mΩ	2.5	
Recommended Minimum Battery Capacity		
At 5°C(41°F) and above - Ah	200	
Below 5°C(41°F) through - 5°C(23°F)	500	

ENGINE RATING

All data represent net performance with standard accessories such as air cleaner, inlet /exhaust manifolds, fuel oil system, L.O. pump, etc. under the condition of 100kPa(29.6inHg) barometric pressure, 77°F(25°C) ambient temperature and 30% relative humidity.

ITEM	UNIT	STAND-BY POWER			PRIME POWER		
		50Hz			50Hz		
Engine Speed	rpm	1500			1500		
No. of Cylinders		6					
Bore	mm (in.)	170 (6.69)					
Stroke	mm (in.)	220 (8.66)					
Displacement	liter ($in.^3$)	29.96 (1828)					
Brake Horse power with Fan	kW (HP)	710 (952)			645 (864)		
Brake Horse power without Fan	kW (HP)	730 (978)			665 (891)		
Brake Mean Effective Pressure with Fan	MPa (psi)						
Brake Mean Effective Pressure without Fan	MPa (psi)	1.9 (274)			1.7 (250)		
Mean Piston Speed	m/s (ft/min)	11.0 (2165)			11.0 (2165)		
Fuel Consumption	g/kWh (g/HPh)	208 (155.5)			206 (153.9)		
Maximum Regenerative Power Absorption Capacity without Fan	kW (HP)	64 (86)			64 (86)		
Intake Air flow	m^3/min (CFM)	60 (2119)			54 (1907)		
Exhaust Gas Flow	m^3/min (CFM)	159 (5614)			143 (5049)		
Coolant Flow	liter/min (U.S. GPM)	670 (177)			670 (177)		
Cooling Air Flow (Std. Fan)	m^3/min (CFM)	726 (25635)			726 (25635)		
Fan Loss Horse Power (Std. Fan)	kW (HP)	20 (27)			20 (27)		
Radiated Heat to Ambient	kJ/hr (BTU/min)	189421 (2993)			170521 (2694)		
Heat Rejection to Coolant	kJ/hr (BTU/min)	820833 (12969)			738921 (11675)		
Heat Rejection to Air to Air Cooler	kJ/hr (BTU/min)	757691 (11971)			682079 (10777)		
Heat Rejection to Exhaust	kJ/hr (BTU/min)	1992666 (31484)			1769920 (27965)		
Noise Level (1 m height & distance) (excludes, lntake,Exhaust & Fan)	dB(A)	TBD			TBD		