Certified for US EPA-Tier 2 / Constant Speed
Standard Model [1000kWe/60Hz] MITSUBISHI
S12H-Y2PTAW-1 SPECIFICATION SHEET DIESEL ENGINES

GENERAL ENGINE DATA

Type	4-Cycle, Water Cooled	
Aspiration	Turbo-Charged, Inter Cooler (Fresh water to Cooler)	
Cylinder Arragement	60°V	
No.of Cylinders	12	
Bore mm(in.)	150	(5.91)
Stroke mm(in.)	175	(6.89)
Displacement liter(in^3)	37.11	(2265)
Compression Ratio	14.5:1	
Dry Weight - Engine only - kg(lb)	4300	(9482)
Wet Weight - Engine only - kg(lb)	4560	(10055)

PERFORMANCE DATA

Steady State Speed Stability Band at any Constant Load		
Electric Governor - %	±0.25 or better	
Maximum Overspeed Capacity - rpm	2000	
Moment of inertia of Rotating Components - kgf･m^2(lbf･ft^2) (Includes Std.Flywheel)	55.6	(1319.6)
Cyclic Speed Variation with Flywheel at 1800rpm	1/523	

ENGINE MOUNTING

Maximum Bending Moment at Rear Face of Flywheel Housing - kgf･m(lbf･ft)	200	(1446.9)

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 ldle - kgf/cm^2(psi)	2～3	(29～43)
at Rate Speed - kgf/cm^2(psi)	5～6	(71～86)
Maximum Oil Temperature - °C(°F)	110	230
Oil Capacity of Standard Pan High - liter (U.S.gal)	180	(48)
Low - liter (U.S.gal)	150	(39.6)
Total System Capacity (lncludes Oil Filter) - liter (U.S.gal)	200	(52.8)
Maximum Angle of lnstallation (Std. Pan) Front Down	9.5°	
(Engine Only) Front Up	11°	
Side to Side	22.5°	

COOLING SYSTEM

Coolant Capacity of Jacket (Engine only) - liter (U.S.gal)	83	(21.9)
Coolant Capacity of Air cooler (Engine only) - liter (U.S.gal)	17	(4.5)
Maximum External Friction Head at Engine Outlet - kgf/cm^2(psi) (For Jacket and Air Cooler)	0.35	(5.0)
Maximum Static Head of Coolant above Crankshaft Center - m(ft)	10	(32.8)
Standard Thermostat (modulating)Range of Jacket - °C(°F)	71～85	(160～185)
Standard Thermostat (modulating)Range of Air Cooler - °C(°F)	35～50	(95～122)
Maximum Coolant Temperature at Engine Outlet of Jacket - °C(°F)	98	(208)
Minimum Coolant Expansion Space - % of System Capacity (For Jacket and Air Cooler)	10	(0.4)
Maximum Coolant Temperature at Intercooler lnlet, PTAW type - °C(°F)	45	(113)
Maximum Air Restriction on Discharge Side of Radiator and Fan - mm H_2O(in.H_2O)	10	(0.4)

APPLICATION : GENERATOR

Pub. No. T13-0633-E

Dec. '06 Printed in Japan

FUEL SYSTEM

Fuel Injector	Mitsubishi Electrical controlled Unit injector × 12	
Maximum Suction Head of Feed Pump - mm Hg (in. Hg)	75	(3.0)
Maximum Static Head of Return Pipe - mm Hg (in.Hg)	220	(8.7)

STARTING SYSTEM

Battery Charging Alternator - V- Ah	24-30
Starting Motor Capacity - V - kW	24-7.5 × 2
Maximum Allowable Resistance of Cranking Circuit - m Ω	1.5
Recommended Minimum Battery Capacity	
At 5°C (41°F) and above - Ah	300
Below 5°C (41°F) through - 5°C (23°F)	600

Pub. No. T13-0633-E
Dec. '06 Printed in Japan

Certified for US EPA-Tier 2 / Constant Speed
Standard Model [1000kWe/60Hz] MITSUBISHI

S12H-Y2PTAW-1 SPECIFICATION SHEET DIESEL ENGINES

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		
		60Hz	60Hz		
Engine Speed	rpm	1800	1800		
No. of Cylinders		12			
Bore	mm (in.)	150 (5.91)			
Stroke	mm (in.)	175 (6.89)			
Displacement	liter ($in.^3$)	37.11 (2265)			
Brake Horse power without Fan	HP (kW)	1528 (1140)	1389 (1036)		
Brake Mean Effective Pressure without Fan	kgf/cm^2 (psi)	20.9 (297)	19.0 (270)		
Mean Piston Speed	m/s (ft/min)	10.5 (2067)	10.5 (2067)		
Maximum Regenerative Power Absorption Capacity without Fan	HP (kW)	145 (108)	145 (108)		
Intake Air flow	m^3/min (CFM)	102 (3602)	93 (3284)		
Exhaust Gas Flow	m^3/min (CFM)	270 (9534)	247 (8722)		
Coolant Flow	liter/min (U.S. GPM)	1450 (383)	1450 (383)		
Coolant Flow to Intercooler (PTAW only)	liter/min (U.S. GPM)	500 (132)	500 (132)		
Cooling Air Flow (Std. Fan)	m^3/min (CFM)	–	–		
Allowable Fan Loss Horse Power	HP (kW)	54 (40)	54 (40)		
Radiated Heat to Ambient	kcal/hr (BTU/min)	76835 (5082)	70236 (4645)		
Heat Rejection to Coolant	kcal/hr (BTU/min)	358563 (23715)	327770 (21678)		
Heat Rejection to Air Cooler (PTAW Version)	kcal/hr (BTU/min)	281728 (18633)	257534 (17033)		
Heat Rejection to Exhaust	kcal/hr (BTU/min)	863831 (57133)	794890 (52573)		
Noise Level (1 m height & distance) (excludes, lntake,Exhaust & Fan)	dB(A)	113	111		

The specifications are subject to change without notice.

APPLICATION : GENERATOR

Pub. No. T13-0633-E

Dec. '06 Printed in Japan