

## 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	6.69291339
Stroke mm(in.)	220	8.66141732
Displacement liter(in <sup>3</sup> )	29.96	1828.27137
Compression Ratio	14.0:1	
Dry Weight - Engine only - kg(lb)	2370	5225.85
- Radiator & Piping - kg(lb)	471	1038.555
Wet Weight - Engine only - kg(lb)	2515	5545.575
- Radiator & Piping - kg(lb)	557	1228.185

## 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 - kgf·m <sup>2</sup> (lbf·ft <sup>2</sup> )	41.74	990.683039
(Includes Std. Flywheel)		
Cyclic Speed Variation with Flywheel at 1500rpm	1/97	
1200rpm	1/60	
1000rpm	1/43	

## ENGINE MOUNTING

Maximum Bending Moment at Rear Face of Flywheel Housing - kgf·m(lbf·ft)	200	1446.921
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## AIR INLET SYSTEM

Maximum Intake Air Restriction (Includes piping)		
With Clean Filter Element - mm H <sub>2</sub> O (in.H <sub>2</sub> O)	400	15.7480315
With Dirty Filter Element - mm H <sub>2</sub> O (in.H <sub>2</sub> O)	635	25

## EXHAUST SYSTEM

Maximum Allowable Back Pressure - mm H <sub>2</sub> O (in.H <sub>2</sub> O)	600	23.6220472
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## LUBRICATION SYSTEM

Oil Pressure at Idle - kgf/cm <sup>2</sup> (psi)	2~3	(29~43)
at Rate Speed - kgf/cm <sup>2</sup> (psi)	5~6.5	(71~93)
Maximum Oil Temperature - °C(°F)	110	230
Oil Capacity of Standard Pan High - liter (U.S.gal)	80	21.13383
Low - liter (U.S.gal)	50	13.2086437
Total System Capacity (Includes Oil Filter) - liter (U.S.gal)	100	26.4172875
Maximum Angle of Installation (Std. Pan) Front Down	11.5°	
(Engine Only) Front Up	10°	
Side to	22.5°	

## COOLING SYSTEM

Coolant Capacity - Engine only - liter (U.S.gal)	55	14.5295081
- Radiator & Piping - liter (U.S.gal)	86	22.7188672
Maximum External Friction Head at Engine Outlet - kgf/cm <sup>2</sup> (psi)	0.35	5
Maximum Static Head of Coolant above Crankshaft Center - m(ft)	10	32.808399
Maximum Outlet Pressure of Engine Water Pump - kgf/cm <sup>2</sup> (psi)	2	28.5714286
Standard Thermostat (modulating) Range - °C(°F)	71~85 (160~185)	
Maximum Coolant Temperature at Engine Outlet - °C(°F)	98	208.4
Minimum Coolant Expansion Space - % of System Capacity	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 <sub>2</sub> O(in.H <sub>2</sub> O)	10	0.39370079

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## FUEL SYSTEM

Fuel Injector .....	Mitsubishi PS6 Type x 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 - m $\Omega$ .....	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 29.38 in. (746 mm) Hg barometric pressure, 85° F(29.4°C) ambient temperature and 0.38 in.(9.7mm) Hg vapor pressure.

ITEM	UNIT	STAND-BY POWER			STAND-BY 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. <sup>3</sup> )	29.96 (1828)					
Brake Horse power with Fan	HP (kW)	1000 (746)			909 (678)		
Brake Mean Effective Pressure with Fan	kgf/cm <sup>2</sup> (psi)	20.3 (289)			18.5 (263)		
Mean Piston Speed	m/s (ft/min)	11.0 (2165)			11.0 (2165)		
Maximum Regenerative Power Absorption Capacity without Fan	HP (kW)	86 (64)			86 (64)		
Intake Air flow	m <sup>3</sup> /min (CFM)	65 (2295)			58 (2048)		
Exhaust Gas Flow	m <sup>3</sup> /min (CFM)	171 (6038)			153 (5402)		
Coolant Flow	liter/min (U.S. GPM)	670 (177)			670 (177)		
Cooling Air Flow (Std. Fan)	m <sup>3</sup> /min (CFM)	726 (25635)			726 (25635)		
Fan Loss Horse Power (Std. Fan)	HP (kW)	27 (20)			27 (20)		
Radiated Heat to Ambient	kcal/hr (BTU/min)	48623 (3216)			43568 (2882)		
Heat Rejection to Coolant	kcal/hr (BTU/min)	210699 (13935)			188796 (12487)		
Heat Rejection to Air to Air Cooler	kcal/hr (BTU/min)	194491 (12863)			174273 (11526)		
Heat Rejection to Exhaust	kcal/hr (BTU/min)	525513 (34757)			462673 (30601)		
Noise Level (1 m height & distance) (excludes, Intake,Exhaust & Fan)	dB(A)	106			104		

The specifications are subject to change without notice.

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