

T2000U

Engine MITSUBISHI , S16R-PTAA2
 Alternator LEROY SOMER , LSA51.2M60

STANDARD FEATURES

- Electronic governor
- Mechanically welded chassis with antivibration suspension
- Radiator for wiring T° of 50°C [122°F] max with mechanical fan
- Protective grille for fan and rotating parts
- Exhaust outlet with flexible and flanges
- 24 V charging alternator and starter
- Supplied with oil and coolant -30°C
- User manual and commissioning guide



Voltage	Power ESP kWe/kVA	Power PRP kWe/kVA	Standby Amps	Dimensions	Weight
480/277	2000 / 2500	1818 / 2273	3007	Length: 5497mm [216in]	14371kg [31683 lbs] Net
440/254	1920 / 2400	1745 / 2182	3149	Width: 2286mm [90in] Height: 2580mm [102in]	14998kg [33065 lbs] Gross

POWER DEFINITION

PRP : Prime Power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO 8528-1. A 10% overload capability is available for a period of 1 hour within 12-hour period of operation, in accordance with ISO 3046-1 –

ESP : The standby power rating is applicable for supplying emergency power in variable load applications in accordance with ISO 8528-1. Overload is not allowed.

TERM OF USE

Standard reference conditions 40 °C Air Intlet Temp, 1500 m A.S.L. 60 % relative humidity. All engine performance data based on the above mentioned maximum continuous ratings.





ENGINE SPECIFICATIONS

STANDARD FEATURES	Manufacturer / Model	MITSUBISHI S16R-PTAA2 , 4-strokes, Turbo , [N/A] 16 X
	Cylinder Arrangement	V
	Displacement	65.37L [3989.1C.I.]
	Bore and Stroke	170mm [6.7in.] X 180mm [7.1in.]
	Compression ratio	13.5 : 1
	Rated RPM	1800 Rpm
	Piston Speed	10.8m/s [35.4ft./s]
	Max. stand by Power at rated RPM	2105kW [2821BHP]
	Frequency regulation, steady state	+/- 0.25%
	BMEP	21.9bar [317psi]
Governor : type	ELEC	
EXHAUST SYSTEM	Exhaust temperature	[N/A]
	Exhaust gas flow	8033L/s [17023cfm]
	Max back pressure	600mm CE [24in. WG]
FUEL SYSTEM	110% (Stand By power)	522.1L/h [137.9gal/hr]
	100% (of the Prime Power)	470L/h [124.2gal/hr]
	75% (of the Prime Power)	357L/h [94.3gal/hr]
	50% (of the Prime Power)	251.5L/h [66.4gal/hr]
	Max. fuel pump flow	648L/h [171.2gal/hr]
OIL SYSTEM	Total oil capacity w/filters	230L [60.8gal]
	Oil Pressure low idle	2.5bar [36.2psi]
	Oil Pressure rated RPM	6.5bar [94.2psi]
	Oil consumption 100% load	1.8L/h [0.476gal/hr]
	Oil capacity carter	140L [37.0gal]
THERMAL BALANCE	Heat rejection to exhaust	1724kW [98027Btu/mn]
	Radiated heat to ambient	160kW [9098Btu/mn]
	Heat rejection to coolant	N/A
AIR INTAKE	Max. intake restriction	400mm CE [16in. WG]
	Engine air flow	3033L/s [6427cfm]
COOLANT SYSTEM	Radiator & engine capacity	413L [109.1gal]
	Max water temperature	98°C [208°F]
	Outlet water temperature	95°C [203°F]
	Fan power	59 kW
	Fan air flow w/o restriction	[N/A]
	Available restriction on air flow	20mm CE [0.8in. WG]
	Type of coolant	Gencool
	Thermostat	71-85 °C
EMISSIONS LEVEL	PM	N/A
	CO	N/A
	Nox	N/A
	HC	N/A





ALTERNATOR SPECIFICATIONS

GENERAL DATAS	Manufacturer	LEROY SOMER
	Type	LSA51.2M60
	Number of phase	3
	Power factor (Cos Phi)	0.8
	Altitude	< 1000 m
	Overspeed	2250 rpm
	Pole : number	4
	Exciter type	AREP
	Insulation : class, temperature rise	H / H
	Voltage regulator	R449
	Total harmonics (TGH/THC)	< 4 %
	Wave form : NEMA = TIF – TGH/THC	< 50
	Wave form : CEI = FHT – TGH/THC	< 2%
	Bearing : number	1
	Coupling	Direct
	Voltage regulation 0 to 100% load	+/- 1%
	Recovery time (20% Volt dip) ms	< 700 ms
SKVA with 90% of nominal sustained voltage (at 0.4PF)	N/A	
OTHER DATAS	Continuous nominal rating @ 40°C	2460 kVA
	Standby rating @ 27°C	2640 kVA
	Efficiencies @ 4/4 load	95.4 %
	Air flow	2.5m3/s [5297.18cfm]
	Short circuit ratio;50 (Kcc)	0.29
	Direct axis synchro reactance unsaturated (Xd)	389 %
	Quadra axis synchro reactance unsaturated (Xq)	233 %
	Open circuit time constant;50 (T'do)	2800 ms
	Direct axis transient reactance saturated (X'd)	34.4 %
	Short circuit transient time constant (T'd)	250 ms
	Direct axis subtransient reactance saturated (X''d)	15.2 %
	Subtransient time constant (T''d)	23 ms
	Quadra axis subtransient reactance saturated (X''q)	19 %
	Zero sequence reactance unsaturated (Xo)	3.6 %
	Negative sequence reactance saturated (X2)	17.1 %
	Armature time constant (Ta)	41 ms
	No load excitation current (io)	1.5 A
	Full load excitation current (ic)	5.9 A
	Full load excitation voltage (uc)	62 V
	Recovery time (Delta U = 20% transitoire)	< 700 ms
	Motor start (Delta = 20% perm. Or 50% trans.)	4800 kVA
	Transient dip (4/4 charge) – PF : 1.8 AR	12 %
No load losses	30.1 kW	
Heat rejection	88.3 kW	



CONTROL PANEL

Option

M80



Specifications :
 Tachometer, Emergency stop button, client connection terminal strip, EC certified
 Engine parameters :
 Hours counter, Oil pressure gauge, Water temperature indicator, Oil pressure indicator

Option

TELYS



Specifications :
 Frequency meter, Ammeter, Voltmeter
 Alarms and faults Oil pressure, water temperature, No start-up, Overspeed, Min/max alternator, Min/max battery voltage, Low fuel level, Emergency stop
 Engine parameters Hours counter, Oil pressure, Water temperature, Engine speed, Battery voltage, Fuel level

Option

KERYS



Specifications :
 Frequency meter, Ammeter, Voltmeter
 Alarms and faults Oil pressure, water temperature, No start-up, Overspeed, Min/max alternator, Min/max battery voltage, Low fuel level, Emergency stop
 Engine parameters Hours counter, Oil pressure, Water temperature, Engine speed, Battery voltage, Fuel level
 Additional specifications Website, Troubleshooting, Assistance and Maintenance, Plotting and logging, Load impact, 8 configurations available, Compliance with international standards...

