

Model: T2200

Engine: MITSUBISHI, S16R-PTAA2

Alternator: LEROY SOMER, LSA51.2M60

Specifications

- Electronic governor
- Mechanically welded chassis with anti-vibration 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



Generator Ratings

Voltage	Power ESP kW/kVA	Power RRP kW/kVA	Standby Amps	Dimensions	Weight
415/240	1760/ 2200	1600 / 2000	3061	Length: 5497 Width: 2286 Height: 2580	14371kg Net 14998kg Gross
400/230	1760/ 2200	1600 / 2000	3176		
380/220	1760/ 2200	1600 / 2000	3343		

RRP: 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 12hour 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.

Terms of Use: Standard reference conditions 25 °C Air Inlet Temp, 100m A.S.L 60% relative humidity. All engine performance data based on the above mentioned continuous ratings.

Engine Data

Manufacturer/Model	mitsubishi S16R-PTAA2, 4-strokes, Turbo
Cylinder arrangement	16 x V
Displacement	65.37L [3989.1C.I.]
Bore and stroke	170mm [6.7in.] X 180mm [7.1in.]
Compression ratio	13.5 : 1
Rated RPM	1500 Rpm
Piston speed	9m/s [29.5ft./s]
Max. standby power at rated RPM	1895kW [2539BHP]
Frequency regulation, steady state	+/- 0.25%
BMEP	23.6bar [342psi]
Governor: type	ELEC

Exhaust System

Exhaust temperature	524°C [975°F]
Exhaust gas flow	7000L/s [14834cfm]
Max back pressure	600mm CE [24in. WG]

Fuel System

110% (Stand by power)	458.1L/h [121.0gal/hr]
100% (of the Prime Power)	401.7L/h [106.1gal/hr]
75% (of the Prime Power)	307.3L/h [81.2gal/hr]
50% (of the Prime Power)	212.8L/h [56.2gal/hr]
Total fuel flow	588L/h [155.3gal/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	1.5L/h [0.396gal/hr]
Oil capacity carter	140L [37.0gal]

Thermal balance 100% load

Heat rejection to exhaust	1443kW [82049Btu/mn]
Radiated heat to ambient	139kW [7904Btu/mn]
Heat rejection to coolant	[N/A]

Air intake

Max. intake restriction	400mm CE [16in. WG]
Engine air flow	2650L/s [5616cfm]

Coolant system

Radiator & engine capacity	413L [109.1gal]
Max water temperature	98°C [208°F]
Outlet water temperature	95°C [203°F]
Fan power	22 kW
Fan air flow w/o restriction	23m ³ /s [48739cfm]
Available restriction on air flow	20mm CE [0.8in. WG]
Type of coolant	Gencool
Thermostat	71-85 °C

Emissions

PM	[N/A]
CO	[N/A]
Nox	[N/A]
HC	[N/A]

Alternator Specifications

Manufacturer/Type	LEROY SOMER (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

Alternator Specifications Continued

SUSTAINED SHORT CIRCUIT CURRENT	
TOTAL HARMONICS (TGH/THC)	< 4 %
WAVE FROM : NEMA = TIF- TGH/THC	< 50
WAVE FROM: 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 NORMAL SUSTAINED VOLTAGE (AT 0.4PF)	[N/A]

Other Alternator Data

CONTINUOUS NOMINAL RATING @ 40° C	2050 kVA
STANDBY RATING @ 27° C	2200 kVA
EFFICIENCIES @ 4/4 LOAD	95.7 %
AIR FLOW	2.5m ³ /s [5297.18cfm]
SHORT CIRCUIT RATIO: 50 (Kcc)	0.35
DIRECT AXIS SYNCHRO REACTANCE UNSATURATED (Xd)	357 %
QUADRA AXIS SYNCHRO REACTANCE UNSATURATED (Xq)	214 %
OPEN CIRCUIT TIME CONSTANT: 50 (T'do)	2800 ms
DIRECT AXIS TRANSIENT REACTANCE SATURATED (X'd)	31.6 %
SHORT CIRCUIT TRANSIENT TIME CONSTANT (T'd)	250 ms
DIRECT AXIS SUBTRANSIENT REACTANCE SATURATED (X'd)	13.5 %
SUBTRANSIENT TIME CONSTANT (T'd)	23 ms
QUADRA AXIS SUBTRANSIENT REACTANCE SATURATED (X'q)	17.5 %
ZERO SEQUENCE REACTANCE UNSATURATED (Xo)	3.3 %
NEGATIVE SEQUENCE REACTANCE SATURATED (X2)	15.7 %
ARMATURE TIME CONSTANT (Ta)	41 ms
NO LOAD EXCITATION CURRENT (io)	1.5 A

Other Alternator Data Continued

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.)	4000 kVA
TRANSIENT DIP (4/4 CHARGE) - PF : 1.8AR	1.8 AR 12 %
NO LOAD LOSSES	17.5kW [17.50Kw]
HEAT REJECTION	70.1 kW