

# T8K

Engine MITSUBISHI , L3E-SD  
 Alternator MECC ALTE , ECO3-2S

## STANDARD FEATURES

- Mechanical governor
- Mechanically welded chassis with antivibration suspension
- Power circuit breaker
- Radiator for wiring T°of 50 °C [122 °F] max with mechanical fan
- Protective grille for fan and rotating parts
- 9dB(A) silencer supplied separately
- Charged DC starting battery with electrolyte
- 12 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
415/240	6.0 / 7.5	5.5 / 6.8	10.4	Length: 1220mm [48in] Width: 700mm [28in] Height: 922mm [36in]	280kg [617 lbs] Net 330kg [728 lbs] Gross
400/230	6.0 / 7.5	5.5 / 6.8	10.8		
380/220	6.0 / 7.5	5.5 / 6.8	11.4		
240/120	6.0 / 7.5	5.5 / 6.8	18.0		
230/115	6.0 / 7.5	5.5 / 6.8	18.8		
220/110	6.0 / 7.5	5.5 / 6.8	19.7		
220/127	5.6 / 7.0	5.1 / 6.4	18.4		
200/115	6.0 / 7.5	5.5 / 6.8	21.7		


### 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 25 °C Air Intlet Temp, 100 m A.S.L. 60 % relative humidity. All engine performance data based on the above mentioned maximum continuous ratings.

Type	dB(A)@1m	dB(A)@7m	Dimensions	Weight	Tank
 M125	69	59	Length: 1482mm [58in]	390kg [860lbs] Net	50 L
			Width: 760mm [30in]	440kg [970lbs] Gross	
			Height: 1030mm [41in]		



## ENGINE SPECIFICATIONS

STANDARD FEATURES	Manufacturer / Model	MITSUBISHI L3E-SD , 4-strokes, Athmo , [N/A] 3 X
	Cylinder Arrangement	L
	Displacement	0.95L [58.0C.I.]
	Bore and Stroke	76mm [3.0in.] X 70mm [2.8in.]
	Compression ratio	23 : 1
	Rated RPM	1500 Rpm
	Piston Speed	3.5m/s [11.5ft./s]
	Max. stand by Power at rated RPM	7.37kW [10BHP]
	Frequency regulation, steady state	+/- 2.5%
	BMEP	5.62bar [81psi]
Governor : type	MECA	
EXHAUST SYSTEM	Exhaust temperature	490°C [914°F]
	Exhaust gas flow	23.6L/s [50cfm]
	Max back pressure	800mm CE [31in. WG]
FUEL SYSTEM	110% (Stand By power )	[N/A]
	100% (of the Prime Power)	2.3L/h [0.6gal/hr]
	75% (of the Prime Power)	1.7L/h [0.4gal/hr]
	50% (of the Prime Power)	1.3L/h [0.3gal/hr]
	Max. fuel pump flow	18L/h [4.8gal/hr]
OIL SYSTEM	Total oil capacity w/filters	4.1L [1.1gal]
	Oil Pressure low idle	0.5bar [7.2psi]
	Oil Pressure rated RPM	4bar [58.0psi]
	Oil consumption 100% load	0.006L/h [0.002gal/hr]
	Oil capacity carter	3.6L [1.0gal]
THERMAL BALANCE	Heat rejection to exhaust	7kW [398Btu/mn]
	Radiated heat to ambient	0.5kW [28Btu/mn]
	Heat rejection to coolant	8kW [455Btu/mn]
AIR INTAKE	Max. intake restriction	310mm CE [12in. WG]
	Engine air flow	9.9L/s [21cfm]
COOLANT SYSTEM	Radiator & engine capacity	3.7L [1.0gal]
	Max water temperature	111°C [232°F]
	Outlet water temperature	93°C [199°F]
	Fan power	0.2 kW
	Fan air flow w/o restriction	0.4m <sup>3</sup> /s [848cfm]
	Available restriction on air flow	10mm CE [0.4in. WG]
	Type of coolant	Gencool
	Thermostat	76.5-90 °C
EMISSIONS LEVEL	PM	120 mg/Nm <sup>3</sup>
	CO	250 mg/Nm <sup>3</sup>
	Nox	960 mg/Nm <sup>3</sup>
	HC	30 mg/Nm <sup>3</sup>



## ALTERNATOR SPECIFICATIONS

GENERAL  DATAS	Manufacturer	MECC ALTE	
	Type	ECO3-2S	
	Number of phase	3	
	Power factor (Cos Phi)	0.8	
	Altitude	1000	
	Overspeed	[N/A]	
	Pole : number	4	
	Exciter type	NO	
	Insulation : class, temperature rise	H / H	
	Voltage regulator	SR7/2	
	Total harmonics (TGH/THC)	[N/A]	
	Wave form : NEMA = TIF – TGH/THC	[N/A]	
	Wave form : CEI = FHT – TGH/THC	2	
	Bearing : number	1	
	Coupling	Direct	
	Voltage regulation 0 to 100% load	[N/A]	
	Recovery time (20% Volt dip) ms	[N/A]	
	SkVA with 90% of nominal sustained voltage (at 0.4PF)	N/A	
	OTHER  DATAS	Continuous nominal rating @ 40 °C	8 kVA
		Standby rating @ 27 °C	9 kVA
Efficiencies @ 4/4 load		83.5 %	
Air flow		0.0583m <sup>3</sup> /s [123.53cfm]	
Short circuit ratio;50 (Kcc)		0.78	
Direct axis synchro reactance unsaturated (Xd)		206 %	
Quadra axis synchro reactance unsaturated (Xq)		68 %	
Open circuit time constant;50 (T'do)		0.78 ms	
Direct axis transient reactance saturated (X'd)		18.5 %	
Short circuit transient time constant (T'd)		18 ms	
Direct axis subtransient reactance saturated (X''d)		13.3 %	
Subtransient time constant (T''d)		12 ms	
Quadra axis subtransient reactance saturated (X''q)		72.7 %	
Zero sequence reactance unsaturated (Xo)		6.4 %	
Negative sequence reactance saturated (X2)		18.3 %	
Armature time constant (Ta)		13 ms	
No load excitation current (io)		[N/A]	
Full load excitation current (ic)		[N/A]	
Full load excitation voltage (uc)		[N/A]	
Recovery time (Delta U = 20% transitoire)		[N/A]	
Motor start (Delta = 20% perm. Or 50% trans.)	[N/A]		
Transient dip (4/4 charge) – PF : 1.8 AR	[N/A]		
No load losses	[N/A]		
Heat rejection	[N/A]		



## CONTROL PANEL

### Standard



### NEXYS

Specifications :  
Frequency meter, Ammeter, Voltmeter  
Alarms and faults Oil pressure, water temperature,  
Overcrank, Overspeed ( >60 kVA), Min/max alternator,  
Low fuel level, Emergency stop  
Engine parameters Hours counter, Engine speed,  
Battery voltage, Fuel level, Air preheating

### 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

