

# T12K

Engine MITSUBISHI , S3L2-SD  
Alternator MECC ALTE , ECO3-1L

## 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	9.2 / 11.5	8.4 / 10.5	16.0	Length: 1405mm [55in] Width: 715mm [28in] Height: 1053mm [41in]	387kg [853 lbs] Net 438kg [966 lbs] Gross
400/230	9.2 / 11.5	8.4 / 10.5	16.6		
380/220	9.2 / 11.5	8.4 / 10.5	17.5		
240/120	9.2 / 11.5	8.4 / 10.5	27.7		
230/115	9.2 / 11.5	8.4 / 10.5	28.9		
220/110	9.2 / 11.5	8.4 / 10.5	30.2		
220/127	7.6 / 9.5	6.9 / 8.6	24.9		
200/115	9.2 / 11.5	8.4 / 10.5	33.2		



### 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
 M126	70.4	60.4	Length: 1750mm [69in] Width: 715mm [28in] Height: 1230mm [48in]	535kg [1179lbs] Net 586kg [1292lbs] Gross	50 L
 M126-DW	70.4	60.4	Length: 1797mm [71in] Width: 775mm [31in] Height: 1391mm [55in]	615kg [1356lbs] Net 705kg [1554lbs] Gross	93 L





## ENGINE SPECIFICATIONS

STANDARD FEATURES	Manufacturer / Model	MITSUBISHI S3L2-SD , 4-strokes, Athmo , [N/A] 3 X
	Cylinder Arrangement	L
	Displacement	1.31L [79.9C.I.]
	Bore and Stroke	78mm [3.1in.] X 92mm [3.6in.]
	Compression ratio	22 : 1
	Rated RPM	1500 Rpm
	Piston Speed	4.6m/s [15.1ft./s]
	Max. stand by Power at rated RPM	11.33kW [15BHP]
	Frequency regulation, steady state	+/- 2.5%
	BMEP	6.24bar [90psi]
Governor : type	MECA	
EXHAUST SYSTEM	Exhaust temperature	400°C [752°F]
	Exhaust gas flow	36.5L/s [77cfm]
	Max back pressure	700mm CE [28in. WG]
FUEL SYSTEM	110% (Stand By power )	[N/A]
	100% (of the Prime Power)	3.1L/h [0.8gal/hr]
	75% (of the Prime Power)	2.5L/h [0.7gal/hr]
	50% (of the Prime Power)	2.1L/h [0.6gal/hr]
	Max. fuel pump flow	18L/h [4.8gal/hr]
OIL SYSTEM	Total oil capacity w/filters	4.2L [1.1gal]
	Oil Pressure low idle	0.5bar [7.2psi]
	Oil Pressure rated RPM	4bar [58.0psi]
	Oil consumption 100% load	0.018L/h [0.005gal/hr]
	Oil capacity carter	3.7L [1.0gal]
THERMAL BALANCE	Heat rejection to exhaust	10kW [569Btu/mn]
	Radiated heat to ambient	1kW [57Btu/mn]
	Heat rejection to coolant	9.8kW [557Btu/mn]
AIR INTAKE	Max. intake restriction	200mm CE [8in. WG]
	Engine air flow	13.6L/s [29cfm]
COOLANT SYSTEM	Radiator & engine capacity	4.2L [1.1gal]
	Max water temperature	111°C [232°F]
	Outlet water temperature	93°C [199°F]
	Fan power	0.3 kW
	Fan air flow w/o restriction	0.5m3/s [1060cfm]
	Available restriction on air flow	10mm CE [0.4in. WG]
	Type of coolant	Gencool
	Thermostat	82-95 °C
EMISSIONS LEVEL	PM	80 mg/Nm3
	CO	140 mg/Nm3
	Nox	1500 mg/Nm3
	HC	50 mg/Nm3

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SDMO Industries – 12bis rue de la Villeneuve – CS 92848 – 29 228 BREST CEDEX 2

Tel +33 (0)2 98 41 41 41 – Fax : +33 (0)2 98 41 63 07 – [www.sdmo.com](http://www.sdmo.com)





## ALTERNATOR SPECIFICATIONS

GENERAL  DATAS	Manufacturer	MECC ALTE
	Type	ECO3-1L
	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	11 kVA
	Standby rating @ 27°C	12 kVA
	Efficiencies @ 4/4 load	85.5 %
	Air flow	0.055m <sup>3</sup> /s [116.54cfm]
	Short circuit ratio;50 (Kcc)	0.85
	Direct axis synchro reactance unsaturated (Xd)	222 %
	Quadra axis synchro reactance unsaturated (Xq)	71 %
	Open circuit time constant;50 (T'do)	0.82 ms
	Direct axis transient reactance saturated (X'd)	22.2 %
	Short circuit transient time constant (T'd)	38 ms
	Direct axis subtransient reactance saturated (X''d)	15.7 %
	Subtransient time constant (T''d)	14 ms
	Quadra axis subtransient reactance saturated (X''q)	82.5 %
	Zero sequence reactance unsaturated (Xo)	6.2 %
	Negative sequence reactance saturated (X2)	18.9 %
	Armature time constant (Ta)	48 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

