

Model: T12KM

Engine: MITSUBISHI, S4L2-SD

Alternator: MECC ALTE, ECO 28 1L/4

Specifications

- Mechanical governor
- Mechanically welded chassis with anti-vibration 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



Generator Ratings

Voltage	Power ESP kW/kVA	Power RRP kW/kVA	Standby Amps	Dimensions	Weight
240MONO	12.0 / 12.0	10.9 / 10.9	50.0	Length: 1405mm Width: 715mm Height: 1053mm	452kg Net 506kg Gross
230MONO	12.0 / 12.0	10.9 / 10.9	52.2		
220MONO	12.0 / 12.0	10.9 / 10.9	54.5		

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.

Canopy Version

Type	dB(A)@7m	Dimensions	Weight	Tank
M126	60.7	Length: 1750 Width: 715 Height: 1230	600kg Net 654kg Gross	50 L
M126-DW	60.7	Length: 1797 Width: 775 Height: 679kg	679kg Net 769kg Gross	93L

All units supplied with canopy as standard except when requested.

Engine Data

Manufacturer/Model	mitsubishi S4L2-SD, 4-strokes, Athmo
Cylinder arrangement	4 x L
Displacement	1.75L [106.8C.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. standby power at rated RPM	16.61kW [22BHP]
Frequency regulation, steady state	+/- 2.5%
BMEP	6.86bar [99psi]
Governor: type	MECA

Exhaust System

Exhaust temperature	410°C [770°F]
Exhaust gas flow	48.7L/s [103cfm]
Max back pressure	700mm CE [28in. WG]

Fuel System

110% (Stand by power)	[N/A]
100% (of the Prime Power)	4.4L/h [1.2gal/hr]
75% (of the Prime Power)	3.4L/h [0.9gal/hr]
50% (of the Prime Power)	2.6L/h [0.7gal/hr]
Total fuel flow	18L/h [4.8gal/hr]

Oil System

Total oil capacity w/filters	5.9L [1.6gal]
Oil Pressure low idle	1bar [14.5psi]
Oil Pressure rated RPM	4bar [58.0psi]
Oil consumption 100% load	0.025L/h [0.007gal/hr]
Oil capacity carter	5.4L [1.4gal]

Thermal balance 100% load

Heat rejection to exhaust	14kW [796Btu/mn]
Radiated heat to ambient	2kW [114Btu/mn]
Heat rejection to coolant	14kW [796Btu/mn]

Air intake

Max. intake restriction	200mm CE [8in. WG]
Engine air flow	18.2L/s [39cfm]

Coolant system

Radiator & engine capacity	4.9L [1.3gal]
Max water temperature	111°C [232°F]
Outlet water temperature	93°C [199°F]
Fan power	0.5 kW
Fan air flow w/o restriction	0.8m ³ /s [1695cfm]
Available restriction on air flow	10mm CE [0.4in. WG]
Type of coolant	Gencool
Thermostat	82-95 °C

Emissions

PM	100 mg/Nm ³
CO	120 mg/Nm ³
Nox	1350 mg/Nm ³
HC	40 mg/Nm ³

Alternator Specifications

Manufacturer/Type	MECC ALTE ()
NUMBER OF PHASE	1
POWER FACTOR (Cos Phi)	1
ALTITUDE	1000
OVERSPEED	[N/A]
POLE: NUMBER	4
EXCITER TYPE	NO
INSULATION: CLASS, TEMPERATURE RISE	H / H
VOLTAGE REGULATOR	AVR
SUSTAINED SHORT CIRCUIT CURRENT	[N/A]
TOTAL HARMONICS (TGH/THC)	[N/A]
WAVE FROM : NEMA = TIF- TGH/THC	[N/A]
WAVE FROM: 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 NORMAL SUSTAINED VOLTAGE (AT 0.4PF)	[N/A]

Other Alternator Data

CONTINUOUS NOMINAL RATING @ 40° C	13 kVA
STANDBY RATING @ 27° C	13 kVA
EFFICIENCIES @ 4/4 LOAD	84.2 %
AIR FLOW	0.0883m ³ /s [187.10cfm]
SHORT CIRCUIT RATIO: 50 (Kcc)	0.65
DIRECT AXIS SYNCHRO REACTANCE UNSATURATED (Xd)	175 %
QUADRA AXIS SYNCHRO REACTANCE UNSATURATED (Xq)	76 %
OPEN CIRCUIT TIME CONSTANT: 50 (T'do)	0.87 ms
DIRECT AXIS TRANSIENT REACTANCE SATURATED (X'd)	16.5 %
SHORT CIRCUIT TRANSIENT TIME CONSTANT (T'd)	0.045 ms

Other Alternator Data Continued

DIRECT AXIS SUBTRANSIENT REACTANCE SATURATED ($X'd$)	9.4 %
SUBTRANSIENT TIME CONSTANT ($T'd$)	0.015 ms
QUADRA AXIS SUBTRANSIENT REACTANCE SATURATED ($X'q$)	21 %
ZERO SEQUENCE REACTANCE UNSATURATED (X_0)	3.2 %
NEGATIVE SEQUENCE REACTANCE SATURATED (X_2)	14.2 %
ARMATURE TIME CONSTANT (T_a)	0.013 ms
NO LOAD EXCITATION CURRENT (i_o)	[N/A]
FULL LOAD EXCITATION CURRENT (i_c)	[N/A]
FULL LOAD EXCITATION VOLTAGE (u_c)	[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 : 1.8AR	[N/A]
NO LOAD LOSSES	[N/A]
HEAT REJECTION	[N/A]