DIESELGENERATORS.CO.UK

Model: T22K
Engine: MITSUBISHI, S4Q2-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
415/240	17.6/22.0	16.0/20.0	30.6	Length: 1700 Width: 896 Height: 1121	560kg Net 660kg Gross
400/230	17.6/22.0	16.0/20.0	31.8		
380/220	17.6/22.0	16.0/20.0	33.4		
240/120	17.6/22.0	16.0/20.0	52.9		
230/115	17.6/22.0	16.0/20.0	55.2		
220/110	17.6/22.0	16.0/20.0	57.7		
220/127	16.0/20.0	14.5/18.2	52.5		
200/115	17.6/22.0	16.0/20.0	63.5		

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 i 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
M127	61	Length: 2080 Width: 960 Height: 1415	790kg Net 890kg Gross	100L
M127-DW	61	Length: 2160 Width: 966 Height: 1582	971kg Net 1201kg Gross	230L

All units supplied with canopy as standard except when requested.

Engine Data

Manufacturer/Model	MITSUBISHI S4Q2-SD , 4-strokes, Athmo
Cylinder arrangement	4 x L
Displacement	2.50L [152.6C.I.]
Bore and stroke	88mm [3.5in.] X 103mm [4.1in.]
Compression ratio	22:1
Rated RPM	1500 Rpm
Piston speed	5.15m/s [16.9ft./s]
Max. standby power at rated RPM	23.87kW [32BHP]
Frequency regulation, steady state	+/- 2.5%
BMEP	6.92bar [100psi]
Governor: type	MECA

Exhaust System

Exhaust temperature	600°C [1112°F]
Exhaust gas flow	74L/s [157cfm]
Max back pressure	680mm CE [27in. WG]

Fuel System

110% (Stand by power)	6.8L/h [1.8gal/hr]
100% (of the Prime Power)	6.2L/h [1.6gal/hr]
75% (of the Prime Power)	4.7L/h [1.2gal/hr]
50% (of the Prime Power)	3.4L/h [0.9gal/hr]
Total fuel flow	36L/h [9.5gal/hr]

Oil System

Total oil capacity w/filters	6.5L [1.7gal]
Oil Pressure low idle	1bar [14.5psi]
Oil Pressure rated RPM	5bar [72.5psi]
Oil consumption 100% load	0.06L/h [0.016gal/hr]
Oil capacity carter	5.5L [1.5gal]

Thermal balance 100% load

Heat rejection to exhaust	21kW [1194Btu/mn]
Radiated heat to ambiant	3kW [171Btu/mn]
Heat rejection to coolant	19kW [1080Btu/mn]

Air intake

Max. intake restriction	200mm CE [8in. WG]
Engine air flow	29L/s [61cfm]

Coolant system

Radiator & engine capacity	8.1L [2.1gal]
Max water temperature	111°C [232°F]
Outlet water temperature	93°C [199°F]
Fan power	0.8 kW
Fan air flow w/o restriction	0.8m3/s [1695cfm]
Available restriction on air flow	10mm CE [0.4in. WG]
Type of coolant	Gencool
Thermostat	76.5-90 °C

Emissions

PM	120 mg/Nm3
CO	290 mg/Nm3
Nox	1020 mg/Nm3
HC	30 mg/Nm3

Alternator Specifications

Manufacturer/Type	MECC ALTE (ECO 28 1L/4)
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	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	20 kVA
STANDBY RATING @ 27° C	20 kVA
EFFICIENCIES @ 4/4 LOAD	84.2 %
AIR FLOW	0.0883m3/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 REACTACE UNSATURATED (Xo)	3.2 %
NEGATIVE SEQUENCE REACTANCE SATURATED (X2)	14.2 %
ARMATURE TIME CONSTANT (Ta)	0.013 ms
NO LOAD EXCITATION CURRENT (io)	[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 : 1.8AR	[N/A]
NO LOAD LOSSES	[N/A]
HEAT REJECTION	[N/A]