T22K

Engine MITSUBISHI , S4Q2-SD
Alternator MECC ALTE , ECO 28 1L/4

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	17.6 / 22.0	16.0 / 20.0	30.6		
400/230	17.6 / 22.0	16.0 / 20.0	31.8	Length: 1700mm [67in] Width: 896mm [35in] Heigth: 1121mm [44in]	560kg [1235 lbs] Net 660kg [1455 lbs] Gross
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		

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
	M127	71	61	Length: 2080mm [82in] Width: 960mm [38in] Heigth: 1415mm [56in]	790kg [1742lbs] Net 890kg [1962lbs] Gross	100 L
	M127-DW	71	61	Length: 2160mm [85in] Width: 966mm [38in] Heigth: 1582mm [62in]	971kg [2141lbs] Net 1201kg [2648lbs] Gross	230 L

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ENGINE SPECIFICATIONS

STANDARD FEATURES	Manufacturer / Model	MITSUBISHI S4Q2-SD , 4-strokes, Athmo , [N/A] 4 X
	Cylinder Arrangement	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. stand by 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]
	Max. fuel pump 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	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 LEVEL	PM	120 mg/Nm3
	CO	290 mg/Nm3
	Nox	1020 mg/Nm3
	HC	30 mg/Nm3

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ALTERNATOR SPECIFICATIONS

GENERAL DATAS	Manufacturer	MECC ALTE
	Type	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
	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	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
	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 (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 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]

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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

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