

T33K

Engine MITSUBISHI , S4S.SD
Alternator MECC ALTE , ECO28VL

STANDARD FEATURES

- Mechanical governor
- Mechanically welded chassis with vibration isolators
- Main line 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 + cables
- 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 | 25 / 31 | 23 / 28 | 43 | Length: 1700mm [67in] Width: 896mm [35in] Height: 1144mm [45in] | 660kg [1455lbs] Net 760kg [1675lbs] Gross |
| 400/230 | 26 / 33 | 24 / 30 | 48 | | |
| 380/220 | 26 / 33 | 24 / 30 | 50 | | |
| 240/120 | 26 / 33 | 24 / 30 | 79 | | |
| 230/115 | 26 / 33 | 24 / 30 | 83 | | |
| 220/110 | 26 / 33 | 24 / 30 | 87 | | |
| 200/115 | 26 / 33 | 24 / 30 | 95 | | |


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 Inlet 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 | 73 | 63 | Length: 2080mm [82in] | 890kg [1962lbs] Net | 100 L |
| | | | Width: 960mm [38in] Height: 1415mm [56in] | 990kg [2182lbs] Gross | |





ENGINE SPECIFICATIONS

| | | |
|-------------------|------------------------------------|---|
| STANDARD FEATURES | Manufacturer / Model | MITSUBISHI S4S.SD , 4-strokes, Athmo , N/A 4 X |
| | Cylinder Arrangement | L |
| | Displacement | 3.33L [203.2C.I.] |
| | Bore and Stroke | 94mm [3.7in.] X 120mm [4.7in.] |
| | Compression ratio | 22 : 1 |
| | Rated RPM | 1500 Rpm |
| | Piston Speed | 6m/s [19.7ft./s] |
| | Max. stand by Power at rated RPM | 30.36kW [41BHP] |
| | Frequency regulation, steady state | <5% |
| | BMEP | 6.62bar [96psi] |
| Governor : type | Meca | |
| EXHAUST SYSTEM | Exhaust temperature | 600°C [1112°F] |
| | Exhaust gas flow | 103L/s [218cfm] |
| | Max back pressure | 680mm CE [27in. WG] |
| FUEL SYSTEM | 110% (Stand By power) | 9.9L/h [2.6gal/hr] |
| | 100% (of the Prime Power) | 8.2L/h [2.2gal/hr] |
| | 75% (of the Prime Power) | 6L/h [1.6gal/hr] |
| | 50% (of the Prime Power) | 4.2L/h [1.1gal/hr] |
| | Max. fuel pump flow | 36L/h [9.5gal/hr] |
| OIL SYSTEM | Total oil capacity w/filters | 10L [2.6gal] |
| | Oil Pressure low idle | 1bar [14.5psi] |
| | Oil Pressure rated RPM | 5bar [72.5psi] |
| | Oil consumption 100% load | 0.09L/h [0.0gal/hr] |
| | Oil capacity carter | 9L [2.4gal] |
| THERMAL BALANCE | Heat rejection to exhaust | 29kW [1649Btu/mn] |
| | Radiated heat to ambient | 5kW [284Btu/mn] |
| | Heat rejection to coolant | 29kW [1649Btu/mn] |
| AIR INTAKE | Max. intake restriction | 250mm CE [10in. WG] |
| | Engine air flow | 38L/s [81cfm] |
| COOLANT SYSTEM | Radiator & engine capacity | 8.9L [2.4gal] |
| | Max water temperature | 100°C [212°F] |
| | Outlet water temperature | 93°C [199°F] |
| | Fan power | 0.7 kW |
| | Fan air flow w/o restriction | 1m3/s [2119cfm] |
| | Available restriction on air flow | 250mm CE [9.8in. WG] |
| | Type of coolant | Gencool |
| | Thermostat | 76.5-90 °C |
| EMISSIONS LEVEL | PM | N/A |
| | CO | N/A |
| | Nox | N/A |
| | HC | N/A |



ALTERNATOR SPECIFICATIONS

| | | |
|---|---|----------------------------------|
| GENERAL DATAS | Manufacturer / Type | MECC ALTE ECO28VL |
| | 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 |
| | Sustained short circuit current | [N/A] C |
| | 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 |
| Standby rating @ 27°C | | 33 kVA |
| Efficiencies @ 4/4 load | | 84.8 % |
| Air flow | | 5.3m3/s [11230.01cfm] |
| Short circuit ratio;50 (Kcc) | | 0.62 |
| Direct axis synchro reactance unsaturated (Xd) | | 165 % |
| Quadra axis synchro reactance unsaturated (Xq) | | 71 % |
| Open circuit time constant;50 (T'do) | | 0.93 ms |
| Direct axis transient reactance saturated (X'd) | | 15.4 % |
| Short circuit transient time constant (T'd) | | 46 ms |
| Direct axis subtransient reactance saturated (X''d) | | 8.8 % |
| Subtransient time constant (T''d) | | 12 ms |
| Quadra axis subtransient reactance saturated (X''q) | | 19 % |
| Zero sequence reactance unsaturated (Xo) | | 2.8 % |
| Negative sequence reactance saturated (X2) | | 13.2 % |
| Armature time constant (Ta) | | 11 ms |
| No load excitation current (io) | | [N/A] |
| Full load excitation current (ic) | | 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

