

TM30 SINGLE PHASE MITSUBISHI ENGINE

DIESEL GENSET

MODEL	TM30 Single Phase
Stand-by Power @ 60Hz	30kW / 30 kVA
Prime Power @ 60Hz	27 kW / 27 kVA

Standard Features

General features :

- Engine (MITSUBISHI , S4S.Y262SD)
- Engine EPA Carb Charge alternator 12 V , Governor:Meca/Mechanical
- Alternator (MECC ALTE , ECO 32-3S)
- Single bearing alternator IP 21 , insulation class H /H
- Radiator 50°C [122°F]°C max. T° air inlet with coolant cap
- Skid and vibration isolators
- Dry type air filter
- Main line circuit breaker
- Microprocessor control panel
- 12 V battery, rack and cable
- Industrial silencer (loose)
- User manual ^pCSA Certified (consult us)



Generator Ratings

Voltage	HZ	Phase	P.F	Standby Amps	Standby Ratings kW/kVA	Prime Ratings kW/kVA
240MONO	60	1	1	125	30 / 30	27 / 27

Stand-By ratings are available for the duration of any power outage. No overload capacity is specified at this ratings. Prime ratings are available per BS 5514, DIN 6271, ISO-3046 and IEC 34-1 with 10% overload capacity one hour in twelve hours.

Conditions of sale

- We provide a full line of products with high quality recognized engines and alternators.
- Service and parts are available from our distributors as a single source of responsibility.
- Each and every unit is factory tested. All generator sets are also prototype tested.
- Two years limited warranty , please refer to the conditions terms . Five years extended are also available.

ENGINE DATA

Manufacturer / Model	MITSUBISHI S4S.Y262SD , 4-cycle, Athmo , N/A
Cylinder Arrangement	4 X L
Displacement	3.33L [203.2C.I.]
Bore and Stroke	94mm [3.7in.] X 120mm [4.7in.]
Compression ratio	22 : 1
Rated RPM	1800 Rpm
Piston Speed	7.2m/s [23.6ft./s]
Max. stand by Power at rated RPM	40.04kW [54BHP]
Frequency regulation, steady state	+/-2. 5%
BMEP	7.28bar [105psi]
Governor : type	Meca/Mechanical

Exhaust System

Exhaust gas flow	122L/s [259cfm]
Exhaust temperature	600°C [1112°F]
Max back pressure	680mm CE [27in. WG]

Fuel System

110% (Stand By power)	11.5L/h [3.0gal/hr]
100% (of the Prime Power)	9.8L/h [2.6gal/hr]
75% (of the Prime Power)	8.2L/h [2.2gal/hr]
50% (of the Prime Power)	6L/h [1.6gal/hr]
Total fuel 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	0.11L/h [0.0gal/hr]
Oil capacity carter	9L [2.4gal]

Thermal balance 100% load

Heat rejection to exhaust	35kW [1990Btu/mn]
Radiated heat to ambient	6kW [341Btu/mn]
Heat rejection to coolant	35kW [1990Btu/mn]

Air intake

Max. intake restriction	200mm CE [8in. WG]
Engine air flow	45L/s [95cfm]

Coolant System

Radiator & engine capacity	8.9L [2.4gal]
Max water temperature	111°C [232°F]
Outlet water temperature	93°C [199°F]
Fan power	1.5 kW
Fan air flow	1m3/s [2119cfm]
Available restriction on air flow	10mm CE [0.4in. WG]
Type of coolant	Gencool
Thermostat	76.5-90 °C

Emissions

HC	N/A
CO	N/A
Nox	N/A
PM	N/A

ALTERNATOR SPECIFICATIONS

GENERAL DATA

- Compliance with NEMA MG21, UTE NF C51.111, VDE 0530, BS 4999, CSA standards.
- Vacuum-impregnated windings with epoxy varnish.
- IP21 drip proof.

ALTERNATOR DATA

Manufacturer / Type	MECC ALTE ECO 32-3S
Number of phase	3
Power factor (Cos Phi)	0.8
Altitude	1000
Overspeed	rpm
Pole : number	4
Exciter type	No
Insulation : class, temperature rise	H / H
Voltage regulator	AVR
Sustained short circuit current	
Total harmonics (TGH/THC)	
Wave form : NEMA = TIF – TGH/THC	
Wave form : CEI = FHT – TGH/THC	
Bearing : number	1
Coupling	Direct
Voltage regulation 0 to 100% load	
Recovery time (20% Volt dip) ms	ms
SkVA with 90 % of nominal sustained voltage (at 0.4 PF)	N/A

OTHER ALTERNATOR DATA

Continuous nominal rating @ 40°C	48 kVA
Standby rating @ 27°C	52.8 kVA
Efficiencies @ 4/4 load	88.8 %
Air flow	14.5m3/s [30723.62cfm]
Short circuit ratio;50 (Kcc)	0.8
Direct axis synchro reactance unsaturated (Xd)	190 %
Quadra axis synchro reactance unsaturated (Xq)	98 %
Open circuit time constant;50 (T'do)	1.4 ms
Direct axis transient reactance saturated (X'd)	14.3 %
Short circuit transient time constant (T'd)	61 ms
Direct axis subtransient reactance saturated (X''d)	10 %
Subtransient time constant (T''d)	15 ms
Quadra axis subtransient reactance saturated (X''q)	30.6 %
Zero sequence reactance unsaturated (Xo)	2.7 %
Negative sequence reactance saturated (X2)	21.5 %
Armature time constant (Ta)	31 ms
No load excitation current (io)	A
Full load excitation current (ic)	A
Full load excitation voltage (uc)	V
Recovery time (Delta U = 20% transitoire)	ms
Motor start (Delta = 20% perm. Or 50% trans.)	kVA
Transient dip (4/4 charge) – PF : 1.8 AR	%
No load losses	kW
Heat rejection	kW

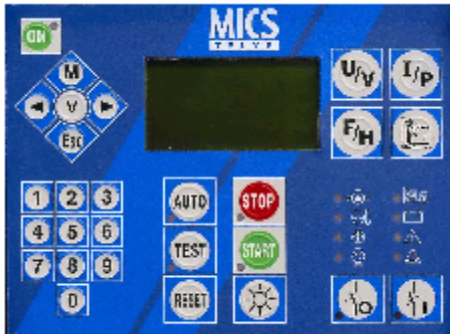
Control Panels

NEXYS



Specifications :Frequency meter, Ammeter, Voltmeter
Alarms and faults Oil pressure, water temperature, Overcrank,
Overspeed, Min/max alternator, Low fuel level, Emergency stop Engine
parameters Hours counter, Engine speed, Battery voltage, Fuel level, Air
preheating

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

Options

Engine and Radiator

- Heat shield protection
- Oil drain extension
- Heavy duty air filter
- Lube oil drain pump
- Radiator core guard
- Battery charger
- Block heater

Alternator

- Anti condensation heater
- Enforced impregnation
- Oversized alternator

Control panel

- NFA 110 level 1
- Paralleling system
- Remote annunciator
- Oil temperature shutdown
- Key start panel

Exhaust

- Residential silencer
- Critical silencer
- Flexible exhaust conn.

Literature

- Parts
- Maintenance

Fuel

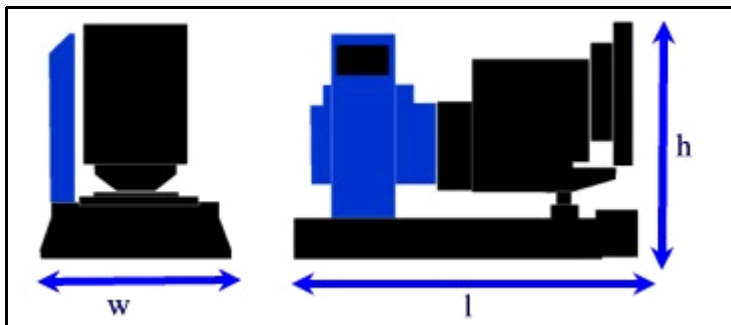
- Day tank
- Subbase fuel tanks UL
- Water separator fuel filter

Enclosure M107

- Silent 70 db @ 23 Ft (stby)

Weight and Dimensions

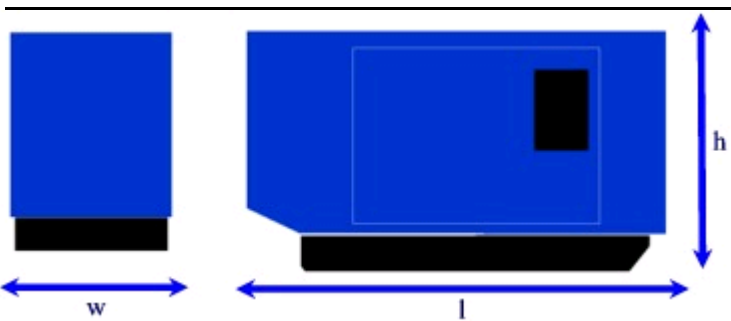
Open Model



Overall size l x w x h :
 1515mm [60in] x 780mm [31in] x 1120mm [44in]

Weight :
 634kg [1397lbs] Net 744kg [1640lbs] Brut

With Optional Enclosure



Overall size l x w x h :
 2100mm [83in] x 920mm [36in] x 1445mm [57in]

Weight :
 1005kg [2215lbs] Net 1105kg [2435lbs] Brut