



MM16 SINGLE PHAS

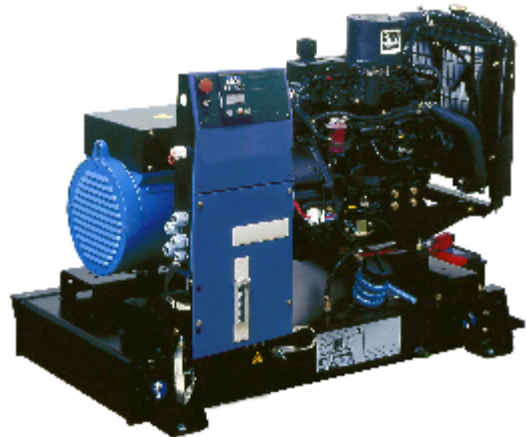
DIESEL GENSET

MODEL	MM16 Single Phase
Stand-by Power @ 60Hz	15kW / 15 kVA
Prime Power @ 60Hz	14 kW / 14 kVA

Standard Features

General features :

- Engine (MITSUBISHI , S4L2.Y262SD)
- Engine EPA Carb Charge alternator 12 V , Governor:Meca/Mechanical
- Alternator (MECC ALTE , ECO 28 1L/4)
- Single bearing alternator IP 23 , 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	63	15 / 15	14 / 14

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 S4L2.Y262SD , 4-cycle, Athmo , N/A
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	1800 Rpm
Piston Speed	5.52m/s [18.1ft./s]
Max. stand by Power at rated RPM	19.58kW [26BHP]
Frequency regulation, steady state	+/-2. 5%
BMEP	6.74bar [98psi]
Governor : type	Meca/Mechanical

Exhaust System

Exhaust gas flow	58.3L/s [124cfm]
Exhaust temperature	430°C [806°F]
Max back pressure	700mm CE [28in. WG]

Fuel System

110% (Stand By power)	N/A
100% (of the Prime Power)	5.3L/h [1.4gal/hr]
75% (of the Prime Power)	4.2L/h [1.1gal/hr]
50% (of the Prime Power)	3.3L/h [0.9gal/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	0.03L/h [0.0gal/hr]
Oil capacity carter	5.4L [1.4gal]

Thermal balance 100% load

Heat rejection to exhaust	16kW [910Btu/mn]
Radiated heat to ambient	2.5kW [142Btu/mn]
Heat rejection to coolant	17kW [967Btu/mn]

Air intake

Max. intake restriction	200mm CE [8in. WG]
Engine air flow	21.7L/s [46cfm]

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	0.9 kW
Fan air flow	0.9m3/s [1907cfm]
Available restriction on air flow	10mm CE [0.4in. WG]
Type of coolant	Gencool
Thermostat	82-95 °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

	MECC ALTE ECO 28 1L/4
Manufacturer / Type	3
Number of phase	0.8
Power factor (Cos Phi)	1000
Altitude	rpm
Overspeed	4
Pole : number	No
Exciter type	H / H
Insulation : class, temperature rise	AVR
Voltage regulator	
Sustained short circuit current	
Total harmonics (TGH/THC)	
Wave form : NEMA = TIF – TGH/THC	
Wave form : CEI = FHT – TGH/THC	1
Bearing : number	Direct
Coupling	ms
Voltage regulation 0 to 100% load	N/A
Recovery time (20% Volt dip) ms	
SkVA with 90 % of nominal sustained voltage (at 0.4 PF)	

OTHER ALTERNATOR DATA

Continuous nominal rating @ 40°C	kVA
Standby rating @ 27°C	24.2 kVA
Efficiencies @ 4/4 load	84.2 %
Air flow	5.5m3/s [11653.79cfm]
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)	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



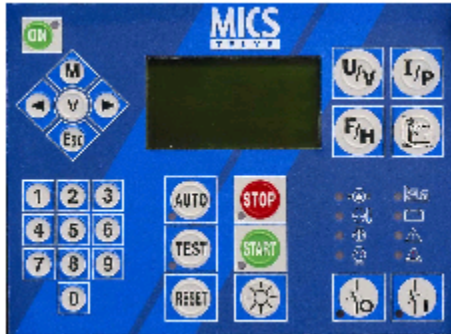
Control Panels

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

- NFPA 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

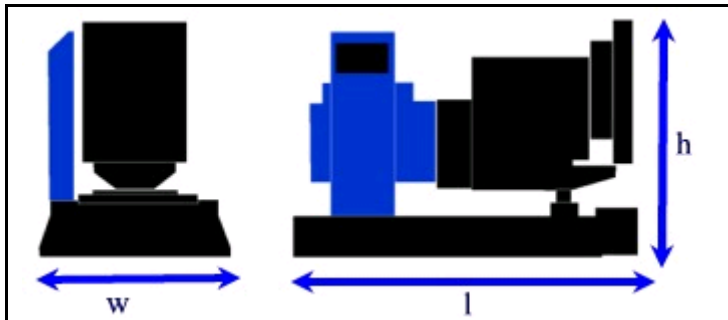
- Day tank
- Subbase fuel tanks UL
- Water separator fuel filter

Enclosure M126

- Silent 65 db @ 23 Ft (stby)

Weight and Dimensions

Open Model



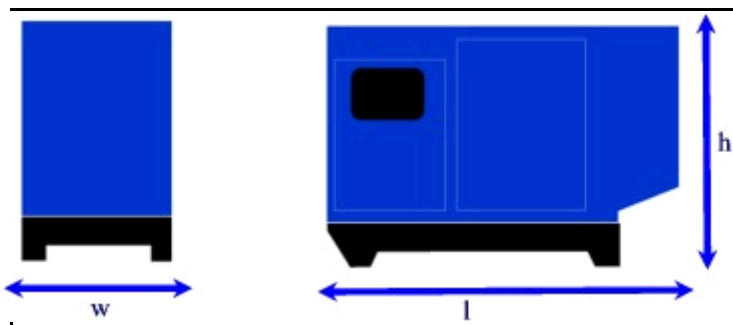
Overall size l x w x h :

1405mm [55in] x 715mm [28in] x 1053mm [41in]

Weight :

452kg [996lbs] Net 506kg [1115lbs] Brut

With Optional Enclosure



Overall size l x w x h :

1750mm [69in] x 715mm [28in] x 1230mm [48in]

Weight :

600kg [1322lbs] Net 654kg [1441lbs] Brut