



T1540

DIESEL GENSET

MODEL	T1540
Stand-by Power @ 50Hz	1232kW / 1540 kVA
Prime Power @ 50Hz	1120 kW / 1400 kVA

Standard Features

General features :

- Engine (MITSUBISHI , S12R-PTA2)
- Charge alternator 24 V , Governor:Elec
- Alternator (LEROY SOMER , LSA50.1L8)
- Single bearing alternator IP 23 , insulation class H /H
- Radiator 49°C [120°F]°C max. T° air inlet with coolant cap
- Skid and vibration isolators
- Dry type air filter
- Main line circuit breaker
- Microprocessor control panel
- 24 V battery, rack and cable
- Industrial silencer (loose)
- User manual



Generator Ratings

Voltage	HZ	Phase	P.F	Standby Amps	Standby Ratings kW/kVA	Prime Ratings kW/kVA
415/240	50	3	0.8	2143	1232 / 1540	1120 / 1400
400/230	50	3	0.8	2223	1232 / 1540	1120 / 1400
380/220	50	3	0.8	2340	1232 / 1540	1120 / 1400

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.

Conditions of sale

- SDMO provides a full line of products with high quality recognized engines and alternators.
- Service and parts are available from SDMO distributors as a single source of responsibility.
- Each and every units is factory tested. All generator sets are also prototype tested.
- Warranty according to our standard conditions. Five years extended also available



ENGINE DATA

Manufacturer / Model	MITSUBISHI S12R-PTA2 , 4-cycle, Turbo , N/A
Cylinder Arrangement	12 X V
Displacement	49.03L [2992.0C.l.]
Bore and Stroke	170mm [6.7in.] X 180mm [7.1in.]
Compression ratio	14.0:1
Rated RPM	1500 Rpm
Piston Speed	9m/s [29.5ft./s]
Max. stand by Power at rated RPM	1315kW [1762BHP]
Frequency regulation, steady state	+/-0. 25%
BMEP	19.9bar [288psi]
Governor : type	Elec

Exhaust System

Exhaust gas flow	4216L/s [8934cfm]
Exhaust temperature	520°C [968°F]
Max back pressure	600mm CE [24in. WG]

Fuel System

110% (Stand By power)	321L/h [84.8gal/hr]
100% (of the Prime Power)	288L/h [76.1gal/hr]
75% (of the Prime Power)	218L/h [57.6gal/hr]
50% (of the Prime Power)	155L/h [41.0gal/hr]
Total fuel flow	588L/h [155.3gal/hr]

Oil System

Total oil capacity w/filters	180L [47.6gal]
Oil Pressure low idle	2.5bar [36.2psi]
Oil Pressure rated RPM	5.8bar [84.0psi]
Oil consumption 100% load	1L/h [0.3gal/hr]
Oil capacity carter	150L [39.6gal]

Thermal balance 100% load

Heat rejection to exhaust	816kW [46398Btu/mn]
Radiated heat to ambient	84kW [4776Btu/mn]
Heat rejection to coolant	698kW [39688Btu/mn]

Air intake

Max. intake restriction	400mm CE [16in. WG]
Engine air flow	1600L/s [3391cfm]

Coolant System

Radiator & engine capacity	300L [79.3gal]
Max water temperature	98°C [208°F]
Outlet water temperature	95°C [203°F]
Fan power	30 kW
Fan air flow	25.9m ³ /s [54884cfm]
Available restriction on air flow	20mm CE [0.8in. WG]
Type of coolant	Gencool
Thermostat	82-94 °C

Emissions

HC	110 mg/Nm ³
CO	590 mg/Nm ³
Nox	3900 mg/Nm ³
PM	100 mg/Nm ³



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	LERROY SOMER LSA50.1L8
Number of phase	3
Power factor (Cos Phi)	0.8
Altitude	< 1000 m
Overspeed	2250 rpm
Pole : number	4
Exciter type	AREP
Insulation : class, temperature rise	H / H
Voltage regulator	R449
Sustained short circuit current	3 IN = 10s
Total harmonics (TGH/THC)	< 4%
Wave form : NEMA = TIF – TGH/THC	< 50
Wave form : CEI = FHT – TGH/THC	< 2%
Bearing : number	1
Coupling	Direct
Voltage regulation 0 to 100% load	+/- 1%
Recovery time (20% Volt dip) ms	< 500 ms
SkVA with 90 % of nominal sustained voltage (at 0.4 PF)	N/A

OTHER ALTERNATOR DATA

Continuous nominal rating @ 40°C	1570 kVA
Standby rating @ 27°C	1881 kVA
Efficiencies @ 4/4 load	95.4 %
Air flow	1.6m ³ /s [3390.19cfm]
Short circuit ratio;50 (Kcc)	0.37
Direct axis synchro reactance unsaturated (Xd)	353 %
Quadra axis synchro reactance unsaturated (Xq)	212 %
Open circuit time constant;50 (T'do)	2720 ms
Direct axis transient reactance saturated (X'd)	24.6 %
Short circuit transient time constant (T'd)	222 ms
Direct axis subtransient reactance saturated (X''d)	13.5 %
Subtransient time constant (T''d)	20 ms
Quadra axis subtransient reactance saturated (X''q)	16.9 %
Zero sequence reactance unsaturated (Xo)	3.2 %
Negative sequence reactance saturated (X2)	15.2 %
Armature time constant (Ta)	41 ms
No load excitation current (io)	1.3 A
Full load excitation current (ic)	5 A
Full load excitation voltage (uc)	63 V
Recovery time (Delta U = 20% transitoire)	< 500 ms
Motor start (Delta = 20% perm. Or 50% trans.)	3420 kVA
Transient dip (4/4 charge) – PF : 1.8 AR	12.5 %
No load losses	20 kW
Heat rejection	63 kW

Control Panels

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

KERYS



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
- Additional specifications Website, Troubleshooting, Assistance and Maintenance, Plotting and logging, Load impact, 8 configurations available, Compliance with international standards...

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Specifications :

- Tachometer, Emergency stop button, client connection terminal strip, EC certified
- Engine parameters :
- Hours counter, Oil pressure gauge, Water temperature indicator, Oil pressure indicator

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

Exhaust

- Residential silencer
- Critical silencer
- Flexible exhaust conn.

Literature

- Parts
- Maintenance

Fuel

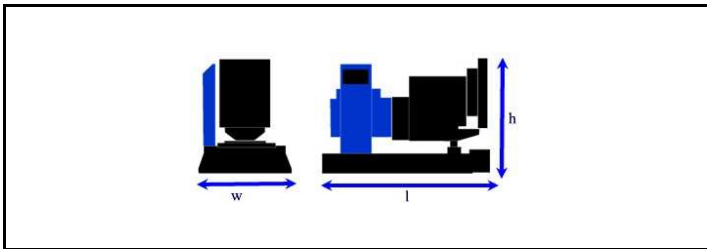
- Day tank
- Subbase fuel tanks UL
- Water separator fuel filter

Contenergy

- ISO20CSi
- Silent 79 db @ 7m [23 Ft] (stby)

Weight and Dimensions

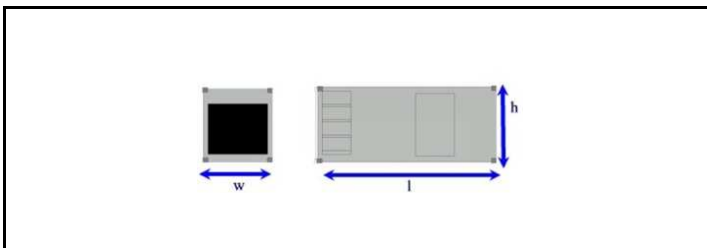
Open Model Excluding option



Overall size l x w x h :
4422mm [174in] x 2000mm [79in] x 2365mm [93in]

Weight :
10147kg [22364lbs] Net 11046kg [24345lbs] Brut

With Optional Enclosure



Overall size l x w x h :
6058mm [239in] x 2438mm [96in] x 2896mm [114in]

Weight :
15059kg [33190lbs] Net 15946kg [35145lbs] Brut