



# TMC2000L 50Hz POWERED BY MITSUBISHI SERIES



## TECHNICAL SPECIFICATIONS

### DIESEL GENERATING SET 400/230V-50Hz-3Phase

Model	TMC2000L	
Power(ESP)	kVA/kw	2000/1600
Power(PRP)	kVA/kw	1860/1488
Rated Voltage	V	400
Rated Current	A	2887
Rated rotation speed	r/min	1500
Power Factor		0.8
Fuel Consumption	Litre/hour	416
Fuel Tank Capacity	Litre	
Noise level	dB(A)@ 1m	≤85

## WEIGHT AND DIMENSIONS

GEN-Set	Dimension ( L*W*H )	Weight
Open Type	5320 mm×2180 mm×2880mm	13600 kg
Silent Type	12000mm×3200mm×3670mm	21880kg

### STANDARDS:

**Genset:** GB/T2820—2009,ISO8528

**Alternator:** LEROY SOMER , LSA 52.3 S5

**Diesel Engine:** SME , S16R-PTA2-C

**Standby Power:** Continues running at variable load for duration of an emergency. No overload is permitted on these ratings.

**Prime Power:** Continues running at variable load for unlimited periods with 10% overload available for 1 hour in any 12 hour period.

### CONFIGURATION:

**Standard:** Engine, alternator, cooling system, Base frame (excluding fuel tank), shock absorber, air inlet system, control box (including mains floating charge), plastic fan blades (when the engine and water tank do not bring).

**Optional:** Base frame (including fuel tank), water jacket heater, fuel water separator, fuel heater, fuel level sensor (only supporting underframe tank), switch box (with switch), power switch, the water level sensor, motor anti condensation heater, automatic fueling system (only supporting base frame including fuel tank), battery frame.

**Accessories:** Silencer, bellow, exhaust silencing system accessories (with the matching engine), regular battery, starting cord assembly, data of gen-set, random tool (with the matching engine).





# ENGINE Specification

**Manufacturer: SME**

<b>Model</b>	S16R-PTA2-C
<b>Engine speed Rated</b>	1500 RPM
<b>Cylinder /Arrangement</b>	16 / 60°V
<b>Displacement</b>	65.37 L
<b>Bore and Stroke</b>	170 mm×180 mm
<b>Compression ratio</b>	13.5 : 1
<b>Max. stand by power at rated RPM</b>	1760 KW
<b>Frequency regulation , steady state</b>	±0.25 %
<b>Governor : type</b>	Electrical
<b>Aspiration and Cooling</b>	Turbo-charged , After cooler

## Exhaust System

<b>Exhaust gas flow</b>	415 m³/min
<b>Max back pressure</b>	600mm H2O

## Fuel System

<b>Fuel consumption100% (of the Prime Power)</b>	416 L / h
<b>Fuel consumption75% (of the Prime Power)</b>	
<b>Fuel consumption50% (of the Prime Power)</b>	
<b>Fuel consumption110% (of the Prime Power)</b>	458 L / h

## Oil system

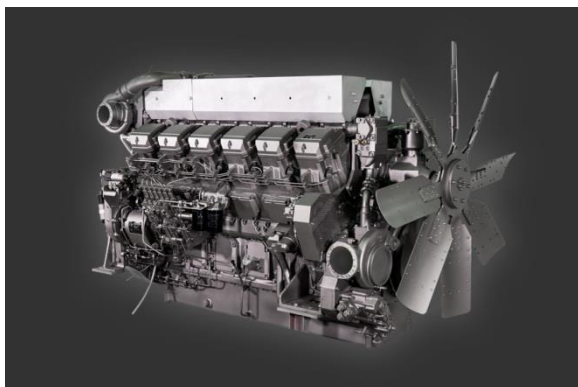
<b>Total oil capacity w/filters</b>	230 L
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## Air intake


<b>Engine air flow</b>	157 m³/min
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## Coolant System

<b>Engine capacity</b>	170 L
<b>Max water temperature</b>	98°C
<b>Thermostat</b>	71-85°C
<b>Coolant flow</b>	1650L/min



- SME engines with high-strength design, working durably, stably and reliably.
- Tolerance for impact resistance and output sufficient.
- Low fuel consumption, low vibration and noise, simple and low cost maintenance.

Note: All data sheets are for reference only and  subject to change without prior notice.



# ALTERNATOR Specification

**Manufacturer: LEROY SOMER**

Type	LSA52.3 S5
Number of phase power	3
Factor (Cos Phi)	0.8
Pole	4
Bearing	1
Coupling	Direct
Exciter type	AREP + PMI
Insulation : class , temperature rise	H / H
Degree of protection	IP23
AVR model	R449
Altitude	≤1000m
Winding Pitch	2/3
Winding Leads	6/12

## FEATURES

- Tight control of procedures right from the initial sales offering through to delivery to the customer, including the design process, manufacturing start-up and production.
- A total quality policy based on making continuous progress in improving operational procedures, involving all departments in the company in order to give customer satisfaction as regards delivery times, conformity and cost.
- Indicators used to monitor process performance.
- Corrective actions and advancements with tools such as FMECA, QFD, MAVP,
- MSP/MSQ and Hoshin type improvement workshops on flows, process re-engineering, plus Lean Manufacturing and Lean Office.
- Annual surveys, opinion polls and regular visits to customers in order to ascertain and detect their expectations.



## STANDARDS

IEC 60034, NEMA MG 1.32 - 33, ISO 8528/3, CSA, UL 1446, UL 1004 on request and depending on voltages, marine.

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# Control Panel

**Model:** SGC 420

**SINGLE GENSET CONTROLLERS.**

## DIMENSIONS

### OVERALL

233mm x 173mm x 38.5mm

### PANEL CUTOUT

219mm x 158mm



### KEY FEATURES

- Auto, manual and remote start/stop modes with night restriction option
- 17 inputs, configurable
- 5 resistive
- 2 analogue I/V
- 1 differential
- 9 digital
- 7 digital outputs, configurable
- Modbus over RS-485
- Manually configurable from the controller front buttons or from a PC using DEIF Smart Connect utility software
- Backlit full graphics LCD with power saving feature for extended battery lifetime
- Supports the battery charging alternator I/O interface
- Supports Auto mode (site battery monitoring, AMF, remote start/stop, auto exercise and cyclic) and manual running modes
- Magnetic Pickup Unit (MPU) interface for engine speed measurement
- Auto exercise mode (2 events) to start and stop the genset for a preconfigured time
- Monitors 1-phase/3-phase voltage, frequency, load current and power factor for generator
- Monitors engine safety parameters like lube oil pressure, engine temperature, fuel level and more
- Monitors telecom site battery backup level and shelter temperature to reduce engine running and fuel consumption at telecom tower sites
- Controls start relay, fuel relay, alarm horn and more as digital outputs
- Event log for 100 events with real time clock (RTC) stamps and engine running hours information
- Counters for engine starts, engine trips, engine running hours, genset and Mains kWh, kVAh, kvarh
- Measures mains kW, kVA
- CANbus for engine communication with support for Stage 5/ Tier 4 Final

### KEY FUNCTIONS

- LCD display
- True RMS voltage and current monitoring
- RS-485 base communication
- Monitoring of engine and alternator parameters
- Fully configurable inputs and outputs for a wide range of functions