

60Hz POWER RATINGS ¹

Voltage AC	Phase	PF	Standby		Prime ²	
			kW	A	kW	A
277/480	3	0.8	1600	2406	1460	2195
347/600	3	0.8	1600	1925	1460	1756
2402/4160	3	0.8	1600	278	1460	253

¹ All the ratings mentioned are without radiator power consumption. Power may vary based on radiator selection

² Prime power rating is for reference only. Actual power may vary depending on fuel gas quality and operating condition like altitude and ambient temperature

Overview of the SIMMAX series of Industrial Generator Sets

Simson-Maxwell generators are factory-built in facilities that utilize the latest technology, mechanical and electrical component assembly, production, and testing. Each model is the result of computer-aided design and modeling backed up by exhaustive prototype-testing. Our development technology results in a unique range of innovative designs for highly reliable generator sets backed-up by a comprehensive warranty covering all components.

Standard Configuration of Industrial Sets

- Long-life, heavy-duty, 4-cycle, Natural Gas (NG) engines from a world-renowned manufacturer for economy of operation and maximum reliability and durability. Capable of step load and rated load acceptance as per engine manufacturer's specification.
- Cooling: Radiator with belt driven pusher fan or motor driven remote radiator.
- Filtration: Light duty replaceable element air-cleaner.
- Alternator: Single bearing, 4-pole, rotating field, self-excited, self-ventilated, 12-wire re-connectable (6-wire dedicated for 600V), 60Hz brushless alternator with Class H insulation. Automatic voltage regulator (AVR) providing close voltage regulation.
- Arrangement: Open skid with engine and alternator units close coupled together and with seismic anti-vibration isolators mounted between the assembly and a heavy-duty steel base. Lifting lugs are provided as per application.
- Auto Start Control Panel: Digital auto-start microprocessor based control panel with remote start capability.
- Starting System: Electric starter motor, battery cables and belt driven charging alternator.
- CSA certified and meets CSA C282 requirements.

SIMMAX



**POWER
GENERATION**

NATURAL GAS PRODUCT LINE

SGWW1600 T6
120/240/208/480/600 Volts
60 Hz/1800 RPM | Standby/Prime

ENGINE SPECIFICATION

Manufacturer	Waukesha
Model	P9394
Crank shaft speed: rpm	1200
Fuel type	Natural Gas
Aspiration	Turbocharged
Number of cylinder	16
Cylinder arrangement	60° V
Displacement: L	153.9
Bore: mm	238
Stroke: mm	216
Engine standby power: kW	1600
Engine prime power: kW	1460
Cooling	Water cooled
Governor	Electronic
Starting motor voltage	24V DC
Compression ration	9.7:1
Air cleaner type	Light duty air cleaner

EXHAUST SYSTEM

Maximum engine exhaust temperature: °F (°C)	1149.8 (621)
Exhaust gas flow: CFM (m3/hr)	11097.8 (18855.4)
Max. permissible back pressure: PSI (kPa)	0.722 (5)

AIR INTAKE & COOLANT^{1 2 3}

Engine combustion air flow: CFM (m3/hr)	3338 (5672)
Coolant capacity: Litre	620

HEAT BALANCE

Heat at rejection to coolant: kW	1803.0
Heat at rejection radiation from engine: kW	218.0
Heat at rejection to engine exhaust: kW	1472.0

LUBRICATION SYSTEM⁴

Oil pan capacity: Litre	-
Oil pan capacity with filter: Litre	980.0
Oil cooler	Integrated full flow
Recommended lubricating oil grade	As per OEM Spec S1015-38
Oil consumption at full load: Litre/hr	2.163
Oil pressure: PSI (kPa)	55.2 (380)

¹ SIMMAX recommends to limit the enclosure air intake velocity to 650ft/minute, and the discharge air velocity to 750 ft/min.

² SIMMAX offers unit mounted radiator or remote radiator solutions based on site requirements.

³ SIMMAX offers options of Air Fuel Ratio Controller and Catalytic converter to ensure engines are emission compliant.

⁴ Oil consumption value is approximate maximum value for reference only.

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ENGINE ELECTRICAL SYSTEM

Starting motor voltage	24V DC
Battery capacity	2X8D, 24V, 1500A
Cranking Amps minimum	-

FUEL SYSTEM

Recommended fuel	As per OEM Spec S7884-14
Fuel supply line, min. ID: mm	50.0
Fuel supply line max. pressure: kPa	414
Fuel supply line min. pressure: kPa	207.0

FUEL CONSUMPTION ¹

	Standby Power		Prime Power
100% Load Standby: BTU/hr	16702885.5	100% Load Prime: BTU/hr	15225539.6
75% Load Standby: BTU/hr	13087909.1	75% Load Prime: BTU/hr	11942717.1
50% Load Standby: BTU/hr	9043102.9	50% Load Prime: BTU/hr	8251831.4
25% Load Standby: BTU/hr	4759645.2	25% Load Prime: BTU/hr	4343176.3

ALTERNATOR SPECIFICATION

Alternator manufacturer	Leroy-Somer
Alternator model	LS661-06
Voltage	480V, 600V (Option available)
Alternator type	Six pole, Rotating field
Excitation system	Brushless, (PMG option available)
Power factor	0.8
Number of leads	TBA
Stator pitch	2/3
Enclosure rating	IP23
Amortisseur windings	Full
Voltage regulation	± 0.5%
TIF	<50
Line harmonics	5% MAXIMUM
Alternator cooling air flow: CFM (m3/hr)	6000 (10195)

STANDARD FEATURES

• Radiator with pusher fan	• Vibration isolators
• Light duty air cleaner	• All rotating components protected with metal guards
• Light-duty engine start batteries with cables	• Operation and maintenance manual
• Emergency stop switch	• CSA certified
• Control Panel (See next page for details)	• Steel base for mounting

¹ Total fuel consumption may vary based on the radiator fan power consumption.

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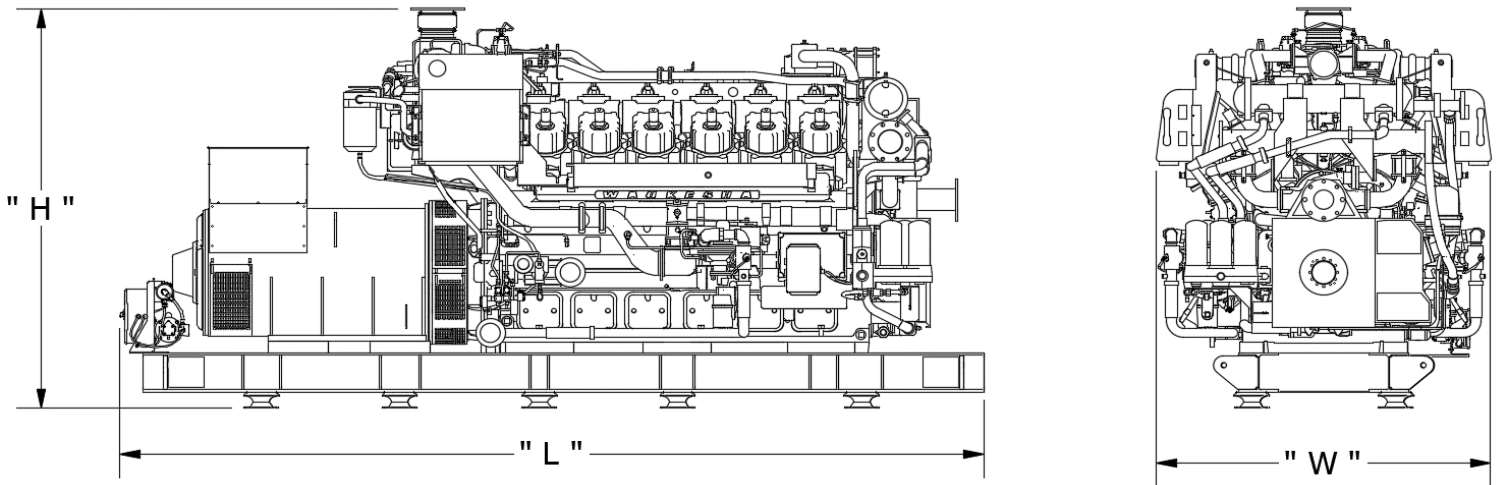
Control Systems Standard Features - Generator Digital Control Panel

Standard Configuration of Control Systems

- IntelliLite MRS 16 Controller
- Numerous control systems available, depending on customer requirements
- Automatic or manual start/stop
- Pre-lube function with timers
- Adjustable crank attempts
- Engine warm up/cooling functions
- Digital metering with alarms and shutdowns
- LCD display
- LED indicators
- In-built PLC function
- RS232 (optional RS485 or CAN) communication
- Data logging up to 350 events
- Password protection
- Option available for IntelliGen-NT controller, expansion modules for additional IOs and communication.



Key dimensions and Weights ¹



GENERATOR DATA ²			
L = LENGTH - inch (mm)	W = WIDTH - inch (mm)	H = HEIGHT - inch (mm)	DRY WEIGHT - lbs (kg)
260 (6604)	90 (2286)	110 (2794)	45118.0 (20465.2)

¹Images are reference only.

²All measurements are approximate and for estimation purposes only. Any deviation can change dimensions. Materials and specifications subject to change without notice.



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