

60Hz POWER RATINGS ¹

Voltage AC	Phase	PF	Standby		Prime ²	
			kW	A	kW	A
120/240	1	1	275	1146	248	1031
120/208	3	0.8	275	954	248	859
277/480	3	0.8	275	413	248	372
347/600	3	0.8	275	331	248	298

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

SGCW275 T6

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

ENGINE SPECIFICATION

Manufacturer	Cummins
Model	KTA 19GC FR4414
Crank shaft speed: rpm	1800
Fuel type	Natural Gas
Aspiration	Turbocharged
Number of cylinder	6
Cylinder arrangement	Inline
Displacement: L	18.8
Bore: mm	159
Stroke: mm	159
Engine standby power: kW	275
Engine prime power: kW	247.5
Cooling	Water cooled
Governor	Woodward EG-3P
Starting motor voltage	24V DC
Compression ration	8.5:1
Air cleaner type	2 Stage/with secondary filter

EXHAUST SYSTEM

Maximum engine exhaust temperature: °F (°C)	1025.6 (552)
Exhaust gas flow: CFM (m3/hr)	2549.0 (4330.8)
Max. permissible back pressure: PSI (kPa)	1.016 (7)

AIR INTAKE & COOLANT^{1 2 3}

Engine combustion air flow: CFM (m3/hr)	890 (1513)
Coolant capacity: Litre	30

HEAT BALANCE

Heat at rejection to coolant: kW	337.0
Heat at rejection radiation from engine: kW	77.0
Heat at rejection to engine exhaust: kW	297.0

LUBRICATION SYSTEM

Oil pan capacity: Litre	102.0
Oil pan capacity with filter: Litre	97.0
Oil cooler	Full flow Integral
Recommended lubricating oil grade	CES 20074, 15W40
Oil consumption at full load: Litre/hr	-
Oil pressure: PSI (kPa)	45.1 (310.5)

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.

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ENGINE ELECTRICAL SYSTEM

Starting motor voltage	24V DC
Battery capacity	2X4D, 24V, 1000A
Cranking Amps minimum	900

FUEL SYSTEM

Recommended fuel	ASTM-D975-No1 and 2-D JIS KK 2204EN 598
Fuel supply line, min. ID: mm	50.0
Fuel supply line max. pressure: kPa	172
Fuel supply line min. pressure: kPa	48.0

FUEL CONSUMPTION ¹

	Standby Power		Prime Power
100% Load Standby: BTU/hr	3149186.1	100% Load Prime: BTU/hr	2856514.0
75% Load Standby: BTU/hr	2512890.3	75% Load Prime: BTU/hr	2362517.5
50% Load Standby: BTU/hr	1837124.9	50% Load Prime: BTU/hr	1778100.1
25% Load Standby: BTU/hr	1383923.6	25% Load Prime: BTU/hr	1245531.2

ALTERNATOR SPECIFICATION

Alternator manufacturer	STAMFORD
Alternator model	HCI434
Voltage	120V - 480V, 600V
Alternator type	Four pole, Rotating field
Excitation system	Brushless, PMG (MX341)
Power factor	0.8
Number of leads	12 leads reconnectable (120V-480V), 6 leads dedicated (600V)
Stator pitch	2/3
Enclosure rating	IP23
Amortisseur windings	Full
Voltage regulation	± 1%
TIF	<50
Line harmonics	5% MAXIMUM
Alternator cooling air flow: CFM (m3/hr)	2100 (3568)

STANDARD FEATURES

• Radiator with pusher fan	• Vibration isolators
• 2 Stage/with secondary filter	• 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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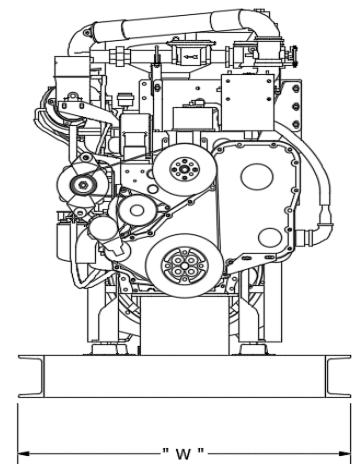
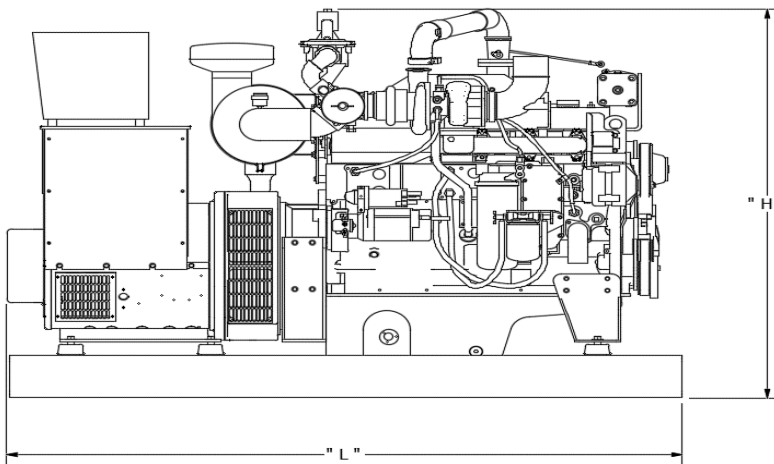
Control Systems Standard Features - Generator Digital Control Panel

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 DATA²

L = LENGTH - inch (mm)	W = WIDTH - inch (mm)	H = HEIGHT - inch (mm)	DRY WEIGHT - lbs (kg)
111 (2819.4)	71 (1803.4)	101 (2565.4)	8000.0 (3628.8)

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.



Simson Maxwell

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