

### 60Hz POWER RATINGS <sup>1</sup>

Voltage AC	Phase	PF	Standby		Prime <sup>2</sup>	
			kW	A	kW	A
120/240	1	1	175	729	157	654
120/208	3	0.8	175	607	157	545
277/480	3	0.8	175	263	157	236
347/600	3	0.8	175	210	157	189

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

<sup>2</sup> 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

**SGCW175 T6**

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

### ENGINE SPECIFICATION

Manufacturer	Cummins
Model	GTA855E FR10796
Crank shaft speed: rpm	1800
Fuel type	Natural Gas
Aspiration	Turbocharged
Number of cylinder	6
Cylinder arrangement	Inline
Displacement: L	14
Bore: mm	140
Stroke: mm	152
Engine standby power: kW	175
Engine prime power: kW	157
Cooling	Water cooled
Governor	Woodward F Series
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)	1151.6 ( 622 )
Exhaust gas flow: CFM (m3/hr)	1092.0 ( 1855.4 )
Max. permissible back pressure: PSI (kPa)	1.016 ( 7 )

### AIR INTAKE & COOLANT<sup>1 2 3</sup>

Engine combustion air flow: CFM (m3/hr)	450 ( 765 )
Coolant capacity: Litre	21

### HEAT BALANCE

Heat at rejection to coolant: kW	236.0
Heat at rejection radiation from engine: kW	48.0
Heat at rejection to engine exhaust: kW	162.0

### LUBRICATION SYSTEM

Oil pan capacity: Litre	26.5
Oil pan capacity with filter: Litre	34.0
Oil cooler	Full flow Integral
Recommended lubricating oil grade	CES 20074, 15W40
Oil consumption at full load: Litre/hr	-
Oil pressure: PSI (kPa)	37.5 ( 258.5 )

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

<sup>2</sup> SIMMAX offers unit mounted radiator or remote radiator solutions based on site requirements.

<sup>3</sup> 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 596
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 <sup>1</sup>

	Standby Power		Prime Power
100% Load Standby: BTU/hr	2157355.0	100% Load Prime: BTU/hr	1957472.9
75% Load Standby: BTU/hr	1673426.4	75% Load Prime: BTU/hr	1550153.4
50% Load Standby: BTU/hr	1269257.9	50% Load Prime: BTU/hr	1138705.7
25% Load Standby: BTU/hr	1069666.1	25% Load Prime: BTU/hr	721409.6

### ALTERNATOR SPECIFICATION

Alternator manufacturer	STAMFORD
Alternator model	UCDI274
Voltage	120V - 480V
Alternator type	Four pole, Rotating field
Excitation system	Brushless, Self excited (PMG option available)
Power factor	0.8
Number of leads	12 leads reconnectable (120V-480V)
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)	1463 ( 2486 )

### 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

<sup>1</sup> Total fuel consumption may vary based on the radiator fan power consumption.

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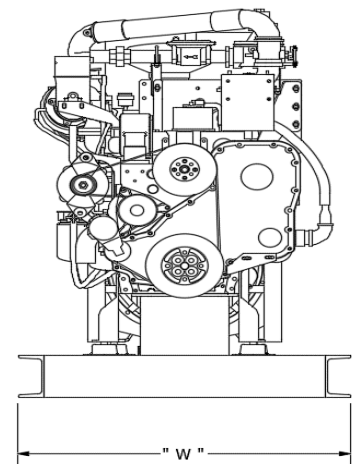
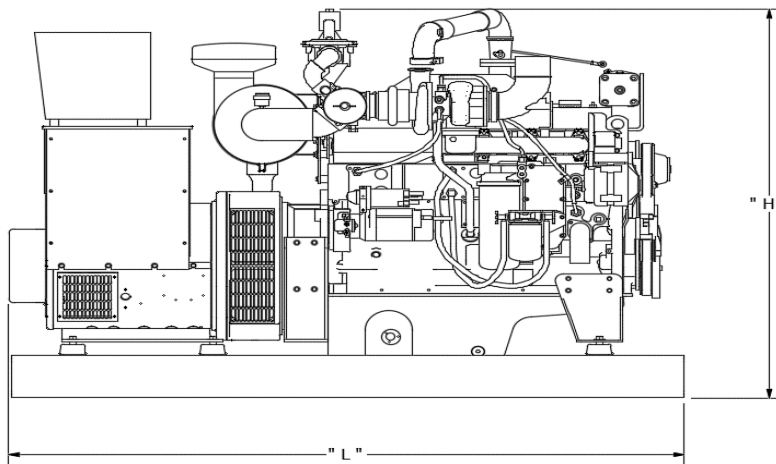
## Control Systems Standard Features - Generator Digital Control Panel

### 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 <sup>1</sup>



### GENERATOR DATA<sup>2</sup>

L = LENGTH - inch (mm)	W = WIDTH - inch (mm)	H = HEIGHT - inch (mm)	DRY WEIGHT - lbs (kg)
105 ( 2667 )	50 ( 1270 )	70 ( 1778 )	5400.0 ( 2449.4 )

<sup>1</sup>Images are reference only.

<sup>2</sup>All 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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