

60Hz POWER RATINGS

Voltage AC	Phase	PF	Standby		Prime*	
			KW	A	Kw	A
120/240	1	1	228	951	203	847
120/208	3	0.8	230	797	205	710
277/480	3	0.8	231	347	205	309
347/600	3	0.8	231	278	206	248

* Prime power rating for reference only.

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, direct injection diesel engine from a world-renowned manufacturer for economy of operation and maximum reliability and durability. Capable of full-rated load acceptance in one step.
- Cooling: Radiator with belt driven pusher fan.
- Filtration: Heavy 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, battery and belt driven charging alternator.
- CSA certified and meets CSA C282 requirements.

SIMMAX



**POWER
GENERATION**

DIESEL PRODUCT LINE

SVW220 T6-T3

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

ENGINE SPECIFICATION

Manufacturer	Volvo
Model	TAD754GE
EPA certified	Tier-3
Crank shaft speed: rpm	1800
Fuel type	Diesel
Injection	Direct
Aspiration	Turbocharged
Number of cylinder	6
Cylinder arrangement	Inline
Displacement: L	7.15
Bore: mm	108
Stroke: mm	130
Engine standby power: kW	246.0
Engine prime power: kW	219.0
Cooling	Water cooled
Governor	Electronic
Starting motor voltage	24V DC
Compression ration	17.0:1
Air cleaner type	Double stage with cyclone

EXHAUST SYSTEM

Maximum engine exhaust temperature: °F (°C)	977 (525)
Exhaust gas flow: CFM (m3/hr)	1487.0 (2526.5)
Max. permissible back pressure: PSI (kPA)	1.016 (7)

COOLING SYSTEM

Radiator cooling air flow: CFM (m3/hr)	12926 (21962)	@Max 40°C ambient temperature
Max. restriction of cooling air: in.w.g. (kPA)	1.086 (0.3)	
Engine combustion air flow: CFM (m3/hr)	505 (859)	
Total intake air requirement: CFM (m3/hr)	13431 (22819.5)	
Total coolant capacity: Litre	34	

HEAT BALANCE

Heat at rejection to coolant: kW	146.0
Heat at rejection radiation from engine: kW	27.0
Heat at rejection to engine exhaust: kW	182.0

LUBRICATION SYSTEM

Oil pan capacity: Litre	31.0
Oil pan capacity with filter: Litre	34.0
Oil cooler	Integrated full flow
Recommended lubricating oil grade	VDS3/VDS2
Oil consumption at full load: Litre/hr	0.05
Oil pressure: PSI (kPA)	58.1 (400)

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ENGINE ELECTRICAL SYSTEM

Starting motor voltage	24V DC
Battery capacity	4D, 12V, 1000A
Cranking Amps minimum	400 A at +20 °C

FUEL SYSTEM

Recommended fuel	DIN EN590
Fuel supply line, min. ID: mm	15.0
Fuel return line min. ID: mm	15.0
Fuel supply line max. restriction: kpa	35
Fuel pump type	Engine-driven
Fuel filter	Fuel filter 0.005mm Prefilter 0.010mm

FUEL CONSUMPTION

	Standby Power		Prime Power
100% Load Standby: Litre/hr	63.2	100% Load Prime: Litre/hr	60.9
75% Load Standby: Litre/hr	52.1	75% Load Prime: Litre/hr	52.7
50% Load Standby: Litre/hr	37.8	50% Load Prime: Litre/hr	35.2
25% Load Standby: Litre/hr	23.2	25% Load Prime: Litre/hr	22.0

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-600V)
Stator pitch	2/3
Insulation	Class H
Windings - temperature rise / Ambient °C	125 / 40
Enclosure rating	IP23
Bearing	Single, Sealed
Amortisseur windings	Full
Voltage regulation - no load to full load with DSR AVR	± 1%
TIF	<50
Line harmonics	5% MAXIMUM
Alternator cooling air flow: CFM (m3/hr)	2100 (3568)

STANDARD FEATURES

• Radiator with pusher fan	• Standard fuel filter
• Medium-duty, Double stage with cyclone	• All rotating components protected with metal guards
• Heavy-duty engine start batteries with cables	• Operation and installation literature
• Emergency stop switch	• CSA certified
• Control Panel (See next page for details)	• Steel base for mounting on fuel tank/concrete surface

OPTIONAL FEATURE: SUB-BASE FUEL TANK *

Runtime	24 hour	48 hour	72 hour
Tank volume - US gal (L)	400.5 (1516.1)	801 (3032.2)	1201.5 (4548.2)
Tank size: L x W x H - inch	115 x 45 x 22	110 x 45 x 40	163 x 45 x 40
Tank size: L x W x H - m	3 x 1.2 x 0.6	2.8 x 1.2 x 1	4.2 x 1.2 x 1

* All measurements are approximate and for estimation purposes only. The tank dimensions may vary. For specific sizes, contact sales representative.

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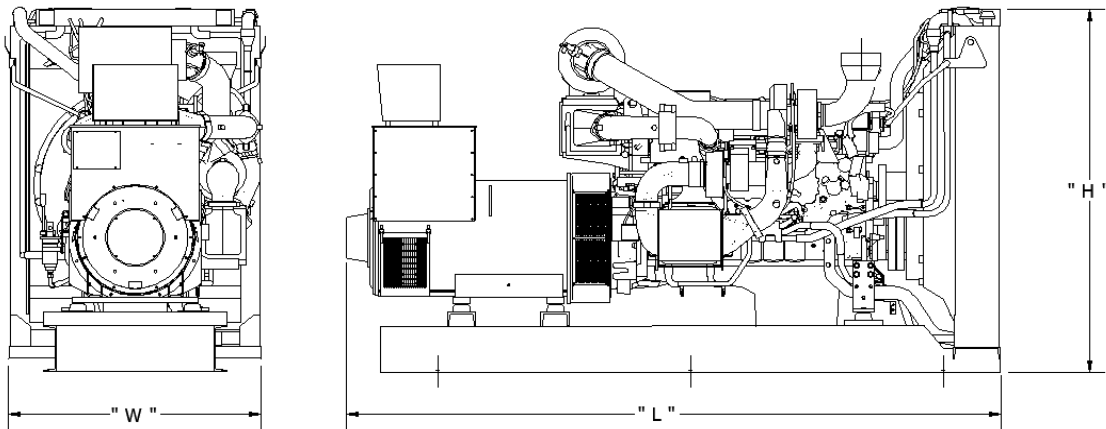
Control Systems Standard Features - Generator Digital Control Panel

Standard Configuration of Control Systems

- 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



Key dimensions and Weights



GENERATOR DATA *

L = LENGTH - inch (mm)	W = WIDTH - inch (mm)	H = HEIGHT - inch (mm)	DRY WEIGHT - lbs (kg)
114.5 (2908.3)	44 (1117.6)	63.0 (1600.2)	5290.3 (2399.3)

* All measurements are approximate and for estimation purposes only. Images are reference only.

Any deviation can change dimensions.

Materials and specifications subject to change without notice.



Simson Maxwell

Calgary | Edmonton | Nanaimo | Port Coquitlam | Prince George | Terrace | Ft. St. John

www.simson-maxwell.com | 800-374-6766

