

### 60Hz POWER RATINGS

Voltage AC	Phase	PF	Standby		Prime*	
			KW	A	Kw	A
120/240	1	1	29	122	28	119
120/208	3	0.8	30	105	29	102
277/480	3	0.8	30	46	29	44
347/600	3	0.8	31	37	30	36

\* 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.



#### ENGINE SPECIFICATION

Manufacturer	Deutz
Model	F4M2011
EPA certified	Tier-2
Crank shaft speed: rpm	1800
Fuel type	Diesel
Injection	Direct
Aspiration	Natural
Number of cylinder	4
Cylinder arrangement	Inline
Displacement: L	3.1
Bore: mm	94
Stroke: mm	112
Engine standby power: kW	34.5
Engine prime power: kW	33.5
Cooling	Water cooled
Governor	Mechanical
Starting motor voltage	12V DC
Compression ration	19.0:2
Air cleaner type	Dry type with paper element

#### EXHAUST SYSTEM

Maximum engine exhaust temperature: °F (°C)	1220 ( 660 )
Exhaust gas flow: CFM (m3/hr)	252.0 ( 428.2 )
Max. permissible back pressure: PSI (kPA)	0.436 ( 3 )

#### COOLING SYSTEM

Radiator cooling air flow: CFM (m3/hr)	1271 ( 2160 )	@Max 40°C ambient temperature
Max. restriction of cooling air: in.w.g. (kPA)	0.402 ( 0.1 )	
Engine combustion air flow: CFM (m3/hr)	81 ( 138 )	
Total intake air requirement: CFM (m3/hr)	1352 ( 2297.1 )	
Total coolant capacity: Litre	13.5	

#### HEAT BALANCE

Heat at rejection to coolant: kW	20.5
Heat at rejection radiation from engine: kW	5.0
Heat at rejection to engine exhaust: kW	TBA

#### LUBRICATION SYSTEM

Oil pan capacity: Litre	10.0
Oil pan capacity with filter: Litre	12.0
Oil cooler	Integrated oil cooler
Recommended lubricating oil grade	TR0199-99-1217
Oil consumption at full load: Litre/hr	0.0309
Oil pressure: PSI (kPA)	29.1 ( 200 )

# SIMMAX



**POWER  
GENERATION**

## DIESEL PRODUCT LINE

**SDW28 T6-T2**

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

### ENGINE ELECTRICAL SYSTEM

Starting motor voltage	12V DC
Battery capacity	4D, 12V, 1000A
Cranking Amps minimum	66AH at -5°C

### FUEL SYSTEM

Recommended fuel	ASTM D 975 1-D/2-DJIS K2204 Grade-1/-2
Fuel supply line, min. ID: mm	15.0
Fuel return line min. ID: mm	15.0
Fuel supply line max. restriction: kpa	25
Fuel pump type	Engine-driven
Fuel filter	Single stage Oil and Fuel Filter

### FUEL CONSUMPTION

	Standby Power		Prime Power
100% Load Standby: Litre/hr	10.3	100% Load Prime: Litre/hr	9.4
75% Load Standby: Litre/hr	7.4	75% Load Prime: Litre/hr	6.7
50% Load Standby: Litre/hr	5.2	50% Load Prime: Litre/hr	4.7
25% Load Standby: Litre/hr	3.1	25% Load Prime: Litre/hr	2.8

### ALTERNATOR SPECIFICATION

Alternator manufacturer	STAMFORD
Alternator model	PI144
Voltage	120V - 480V, 600V
Alternator type	Four pole, Rotating field
Excitation system	Brushless, Self excited (EBS option available)
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)	340 ( 578 )

### STANDARD FEATURES

• Radiator with pusher fan	• Standard fuel filter
• Medium-duty, Dry type with paper element	• 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)	65.6 (248.2)	131.2 (496.4)	196.7 (744.5)
Tank size: L x W x H - inch	66 x 31 x 11	66 x 31 x 18	66 x 31 x 27
Tank size: L x W x H - m	1.7 x 0.8 x 0.3	1.7 x 0.8 x 0.5	1.7 x 0.8 x 0.7

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

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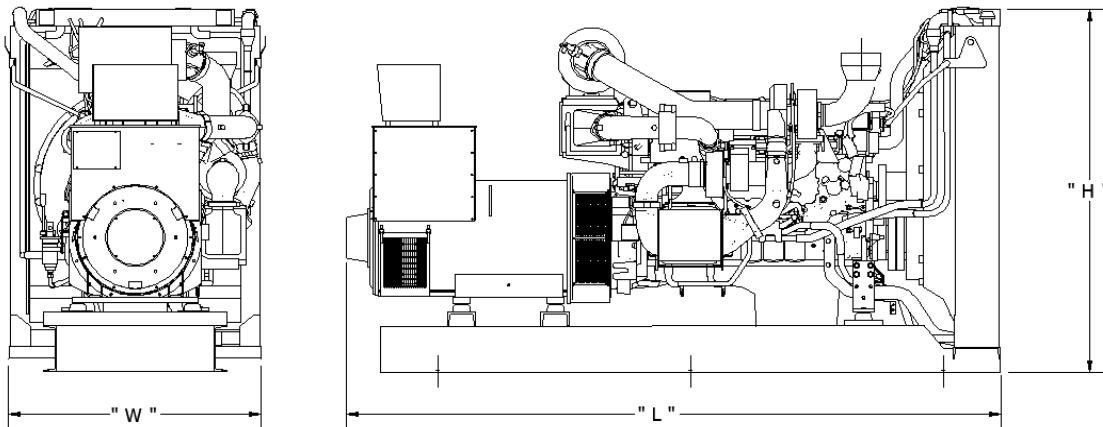
## Control Systems Standard Features - Generator Digital Control Panel

### 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)
65 ( 1651 )	30 ( 762 )	34.0 ( 863.6 )	1215.5 ( 551.3 )

\* 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

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