

### 60Hz POWER RATINGS

| Voltage AC | Phase | PF  | Standby |     | Prime* |     |
|------------|-------|-----|---------|-----|--------|-----|
|            |       |     | KW      | A   | Kw     | A   |
| 120/240    | 1     | 1   | 30      | 125 | 29     | 120 |
| 120/208    | 3     | 0.8 | 31      | 108 | 30     | 104 |
| 277/480    | 3     | 0.8 | 31      | 47  | 30     | 45  |

\* 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



## DIESEL PRODUCT LINE

SDW20 T6-T2

120/240/208/480 Volts

60 Hz/1800 RPM | Standby/Prime

### ENGINE SPECIFICATION

|                          |                             |
|--------------------------|-----------------------------|
| Manufacturer             | Deutz                       |
| Model                    | D2011L04i                   |
| 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          | 3.62                        |
| Bore: mm                 | 96                          |
| Stroke: mm               | 125                         |
| Engine standby power: kW | 36.0                        |
| Engine prime power: kW   | 34.5                        |
| Cooling                  | Water cooled                |
| Governor                 | Electronic                  |
| Starting motor voltage   | 12V DC                      |
| Compression ration       | 19.0:1                      |
| Air cleaner type         | Dry type with paper element |

### EXHAUST SYSTEM

|   |                 |
|---|-----------------|
| Maximum engine exhaust temperature: °F (°C) | 1292 ( 700 )    |
| Exhaust gas flow: CFM (m3/hr)               | 330.0 ( 560.7 ) |
| Max. permissible back pressure: PSI (kPA)   | 1.161 ( 8 )     |

### COOLING SYSTEM \*

|  |               |                               |
|--|---------------|-------------------------------|
| Radiator cooling air flow: CFM (m3/hr)         | 1378 ( 2342 ) | @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)        | 124 ( 211 )   |                               |
| Total intake air requirement: CFM (m3/hr)      | 1502 ( 2552 ) |                               |
| Total coolant capacity: Litre                  | 13.5          |                               |

### HEAT BALANCE

|   |      |
|---|------|
| Heat at rejection to coolant: kW            | 20.2 |
| Heat at rejection radiation from engine: kW | 5.0  |
| Heat at rejection to engine exhaust: kW     | TBA  |

### LUBRICATION SYSTEM

|  |                       |
|--|-----------------------|
| Oil pan capacity: Litre                | 8.0                   |
| Oil pan capacity with filter: Litre    | 10.0                  |
| Oil cooler                             | Integrated oil cooler |
| Recommended lubricating oil grade      | TR0199-99-1216        |
| Oil consumption at full load: Litre/hr | 0.05                  |
| Oil pressure: PSI (kPA)                | 29.1 ( 200 )          |

\* SIMMAX recommends to limit the building air intake velocity to 650ft/minute, and the discharge air velocity to 750 ft/min.

# SIMMAX



**POWER  
GENERATION**

## DIESEL PRODUCT LINE

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120/240/208/480 Volts

60 Hz/1800 RPM | Standby/Prime

### ENGINE ELECTRICAL SYSTEM

|                        |                |
|------------------------|----------------|
| Starting motor voltage | 12V DC         |
| Battery capacity       | 4D, 12V, 1000A |
| Cranking Amps minimum  | 950A at +20 °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 | 30                                     |
| Fuel pump type                         | Engine-driven                          |
| Fuel filter                            | Replaceable cartridge                  |

### FUEL CONSUMPTION

|                             | Standby Power |                           | Prime Power |
|-----------------------------|---------------|---------------------------|-------------|
| 100% Load Standby: Litre/hr | 9.9           | 100% Load Prime: Litre/hr | 9.0         |
| 75% Load Standby: Litre/hr  | 7.3           | 75% Load Prime: Litre/hr  | 6.6         |
| 50% Load Standby: Litre/hr  | 5.1           | 50% Load Prime: Litre/hr  | 4.6         |
| 25% Load Standby: Litre/hr  | 3.0           | 25% Load Prime: Litre/hr  | 2.7         |

### ALTERNATOR SPECIFICATION

|  |  |
|--|--|
| Alternator manufacturer                                | STAMFORD                                       |
| Alternator model                                       | PI144  |
| Voltage  | 120V - 480V                                    |
| 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)             |
| 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)               | 251 ( 427 )                                    |

### 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)    | 62.8 (237.6)    | 125.6 (475.2)   | 188.4 (712.8)   |
| Tank size: L x W x H - inch | 66 x 31 x 11    | 66 x 31 x 17    | 66 x 31 x 26    |
| 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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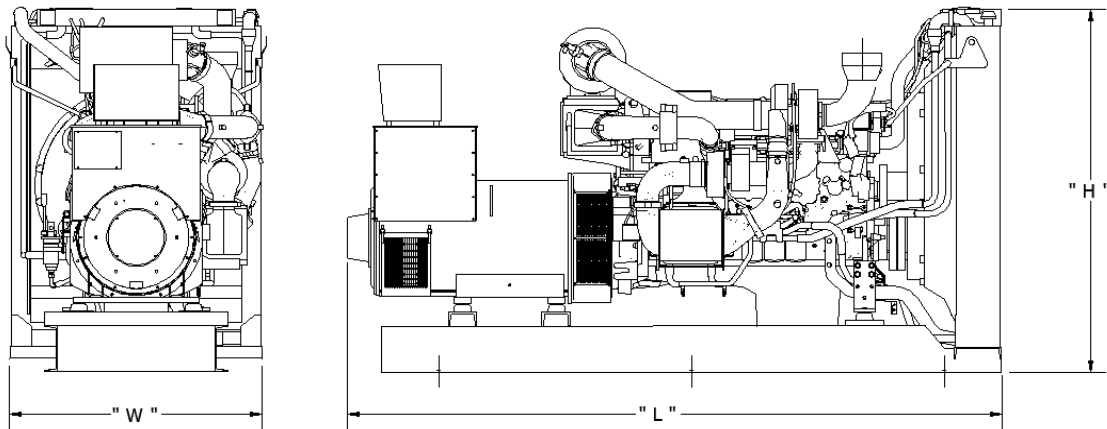
### Control Systems Standard Features - Generator Digital Control Panel

#### 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 )         | 1055.8 ( 478.8 )      |

\* 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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