

### 60Hz POWER RATINGS

| Voltage AC | Phase | PF  | Standby |     | Prime* |     |
|------------|-------|-----|---------|-----|--------|-----|
|            |       |     | KW      | A   | Kw     | A   |
| 120/240    | 1     | 1   | 95      | 397 | 91     | 378 |
| 120/208    | 3     | 0.8 | 97      | 336 | 92     | 320 |
| 277/480    | 3     | 0.8 | 97      | 146 | 93     | 139 |
| 347/600    | 3     | 0.8 | 97      | 117 | 93     | 112 |

\* 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                    | TCD914L06                   |
| 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          | 6.47                        |
| Bore: mm                 | 102                         |
| Stroke: mm               | 132                         |
| Engine standby power: kW | 105.0                       |
| Engine prime power: kW   | 100.0                       |
| Cooling                  | Air cooled                  |
| Governor                 | Mechanical                  |
| 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) | 1567.4 ( 853 )  |
| Exhaust gas flow: CFM (m3/hr)               | 500.0 ( 849.6 ) |
| Max. permissible back pressure: PSI (kPA)   | 1.088 ( 7.5 )   |

#### COOLING SYSTEM

|  |                 |                               |
|--|-----------------|-------------------------------|
| Radiator cooling air flow: CFM (m3/hr)         | 3160 ( 5369 )   | @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)        | 325 ( 553 )     |                               |
| Total intake air requirement: CFM (m3/hr)      | 3485 ( 5921.1 ) |                               |
| Total coolant capacity: Litre                  | NA              |                               |

#### HEAT BALANCE

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

#### LUBRICATION SYSTEM

|  |                       |
|--|-----------------------|
| Oil pan capacity: Litre                | 9.5                   |
| Oil pan capacity with filter: Litre    | 11.5                  |
| Oil cooler                             | Integrated oil cooler |
| Recommended lubricating oil grade      | TBA                   |
| Oil consumption at full load: Litre/hr | 0.138                 |
| Oil pressure: PSI (kPA)                | 29.1 ( 200 )          |

# SIMMAX



**POWER  
GENERATION**

## DIESEL PRODUCT LINE

**SDAC118 T6-T3**  
120/240/208/480/600 Volts  
60 Hz/1800 RPM | Standby/Prime

### ENGINE ELECTRICAL SYSTEM

|                        |                 |
|------------------------|-----------------|
| Starting motor voltage | 12V DC          |
| Battery capacity       | 8D, 12V, 1500A  |
| Cranking Amps minimum  | 1250A 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 | 20                                     |
| Fuel pump type                         | Engine-driven                          |
| Fuel filter                            | Replaceable cartridge                  |

### FUEL CONSUMPTION

|                             | Standby Power |                           | Prime Power |
|-----------------------------|---------------|---------------------------|-------------|
| 100% Load Standby: Litre/hr | 27.6          | 100% Load Prime: Litre/hr | 25.1        |
| 75% Load Standby: Litre/hr  | -             | 75% Load Prime: Litre/hr  | -           |
| 50% Load Standby: Litre/hr  | -             | 50% Load Prime: Litre/hr  | -           |
| 25% Load Standby: Litre/hr  | -             | 25% Load Prime: Litre/hr  | -           |

### ALTERNATOR SPECIFICATION

|  |  |
|--|--|
| Alternator manufacturer                                | STAMFORD                                       |
| Alternator model                                       | UCI274   |
| Voltage  | 120V - 480V, 600V                              |
| 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-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)               | 1308 ( 2223 )                                  |

### 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)    | 175.1 (662.7)   | 350.1 (1325.3)  | 525.2 (1988)  |
| Tank size: L x W x H - inch | 91 x 36 x 16    | 91 x 36 x 28    | 91 x 36 x 40  |
| Tank size: L x W x H - m    | 2.3 x 0.9 x 0.4 | 2.3 x 0.9 x 0.8 | 2.4 x 0.9 x 1 |

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

Rev: A

Date: 3/29/2018

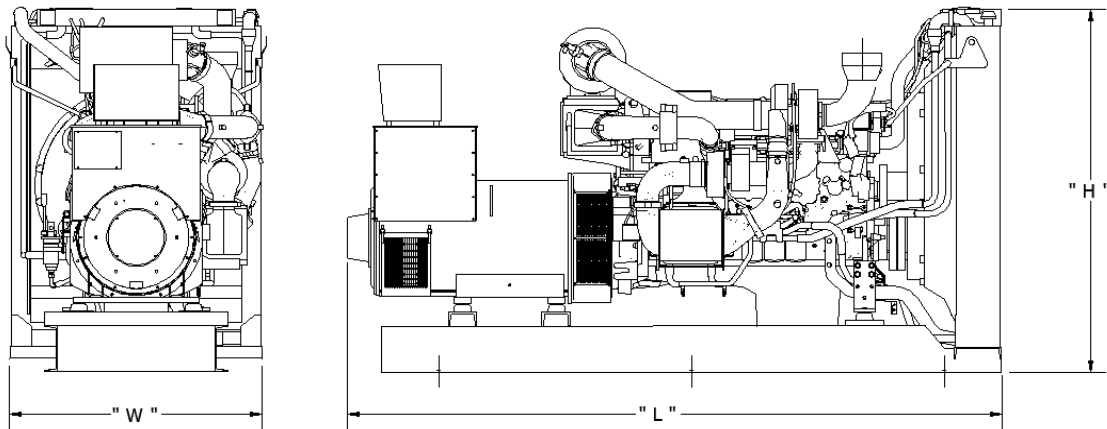
### Control Systems Standard Features - Generator Digital Control Panel

#### 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) |
| 90 ( 2286 )            | 35 ( 889 )            | 49.0 ( 1244.6 )        | 2801.5 ( 1270.5 )     |

\* 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

