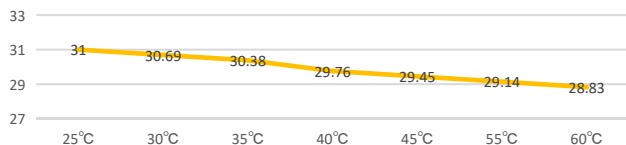


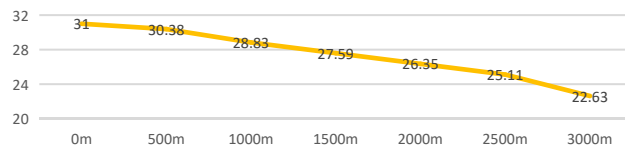


| MODEL           |             |     | LSY31S-6                                       |
|-----------------|-------------|-----|--|
| Power<br>Pf.1.0 | Standby     | kVA | 30.8   |
|                 |             | kW  | 30.8   |
|                 | Prime       | kVA | 28   |
|                 |             | kW  | 28   |
|                 | Frequency   | Hz  | 60   |
|                 | Voltage     | V   | 208/120; 220/127; 416/240;<br>440/254; 480/277 |
|                 | Rated speed | rpm | 1800   |

Temperature (Celsius) Derate Curves  
Unit: kVA



Altitude (meters) Derate Curves  
Unit: kVA



#### Standard reference Conditions:

Standard reference condition 25°C (77°F ) air inlet temp, 100m (328ft) A.S.L 30% relative humidity. Fuel consumption data with diesel fuel with specific gravity of 0.85 and conforming to BS 2869: 1998, Class A2.

#### LEES generator sets meet the standards of

ISO9001, CE, BS5000, ISO 8528, ISO 3046, IEC 60034, NEMA MG-1.22.



#### Standard Features

- LEES Power provides one-source responsibility for the generating system and accessories.
- The generator set and its components are prototype-tested, factory-built, and production-tested.
- The generator set complies with ISO 8528-5, Class G3 requirements for transient performance.
- The generator set accepts rated load in one step.
- The 60Hz generator set engine is certified by the Environmental Protection Agency (EU or MEP) to conform to EU2、EU3 nonroad emissions regulations.(≤560KW)
- A one-year limited warranty covers all systems and components. Two-, five-, and ten-year extended warranties are also available.

#### Generator Features

- The brushless, rotating-field generator has broadrange reconnectability.
- The pilot-excited, permanent-magnet generator (PMG) provides superior short-circuit capability
- Controllers are available for all applications. See controller features inside.
- The low coolant level shutdown prevents overheating (standard on radiator models only).
- Integral vibration isolation eliminates the need for under-unit vibration spring isolators.
- An electronic, isochronous governor delivers precise frequency regulation.
- Electronic engine controls and a generator microprocessor controller combine to deliver one of the most advanced control systems in today's generator market.

## Engine Specifications

|                             |   |
|-----------------------------|---|
| Engine Brand                | LEES  |
| Engine Model                | Y4100D                                      |
| Cylinder No.& Configuration | 4 cylinder Diesel L type                    |
| Working Mode                | Naturally Aspirated                         |
| Bore x Stroke               | 100x118mm                                   |
| Displacement                | 3.707L                                      |
| Compression Ratio           | 18  |
| Rated Power                 | 36kW  |
| Rated Speed                 | 1800  |
| Lubrication System          | Splash Lubrication                          |
| Lube Oil                    | Conforms above CD class or SAE10W-30,15W-40 |
|                             |   |
| Lube Oil Capacity           | 13L   |
| Battery Capacity            | 6-QW-60(580)*2                              |
| Fuel Type                   | Diesel:0#(Summer),-10#(Winter),-35#(Cold)   |
|                             |   |
| Fuel Consumption 25% load   | 3.05L/H                                     |
| Fuel Consumption 50% load   | 4.99L/H                                     |
| Fuel Consumption 75% load   | 6.85L/H                                     |
| Fuel Consumption 100% load  | 8.36L/H                                     |

## ALTERNATOR

|   |  |
|---|--|
| Type  | 3-Pole, Rotating-Field                     |
| Exciter type  | Brushless, Permanent-Magnet, Pilot Exciter |
| Voltage regulator   | Solid-State, Volts/Hz                      |
| Insulation  | NEMA MG1, Class H                          |
| Material  | Synthetic, Nonhygroscopic                  |
| Temperature rise  | Prime 130°C, 150°C Standby                 |
| Bearing: quantity, type   | 1, Sealed                                  |
| Coupling  | Flexible Disc                              |
| Amortisseur windings  | Full                                       |
| Rotor balancing   | 125% 60 Hz, 150% 50 Hz                     |
| Voltage regulation, no-load to full-load(with < 0.5% drift due to temp. variation | Single-Phase Sensing, $\pm 1\%$            |
| One-step load acceptance  | 100% of Rating(ALTERNATOR)                 |
| Unbalanced load capability  | 100% of Rated Standby                      |

- NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting.
- Sustained short-circuit current of up to 300% of the rated current for up to 10 seconds.
- Sustained short-circuit current enabling downstream circuit breakers to trip without collapsing the generator field.
- Self-ventilated and drip-proof construction.
- Superior voltage waveform from two-thirds pitch windings and skewed stator.
- Digital solid-state.volts-per-hertz voltage regulator with  $\pm 1\%$  no-load to full-load regulation.
- Brushless alternator with brushless pilot exciter for excellent load response.

## Controller

### Key Features

- Using microprocessor as a core, graphics LCD with big screen and backlight, key touch for operation
- Have a RS485 port, can be used for communicate to PC
- All parameters can be set from the front panel, or be set by PC used SG72
- Security password-protected programming levels
- All parameters use digital modulation, with higher reliability and stability
- Built-in speed/frequency detecting units can accurately judge the states such as crank success and over speed
- Power supply range is wide, accommodating to different starting battery voltage environment
- Built-in watch dog can never be dead halt, ensuring smooth program execution
- Modular configuration design, inserted type connection terminals, flush type installation, compact structure, easy installation



### Protection

- High engine temperature
- Low oil pressure
- Over speed
- Under speed
- Loss of speed signal
- Generator over frequency
- Generator under frequency
- Generator over voltage
- Generator under voltage
- Generator over current
- Fail to start
- Auxiliary inputs

### Precision measure and display of

- Mains voltage
- Mains frequency
- Mains current
- Generator voltage
- Generator current
- Generator frequency
- Generator active power (kW)
- Generator inactive power (kW)
- Generator apparent power (kVA)
- Generator power factor
- Generator starts count
- Generator hour count
- Cumulate electric energy (kWh)
- Generator temperature
- Generator pressure
- Generator fuel level
- Start battery voltage

## Generating Sets Standard and Optional Features

### Engine

- 4-stroke, water-cooled diesel engine
- Standard air filter
- Standard fuel filter
- Standard oil filter
- Oil temperature sensor
- Low coolant level sensor
- Radiator with blowing fan
- Industrial silence
- Fuel water separator
- Water jacket heater (optional)

### Alternator

- Class H insulation
- IP23 Protection
- Automatic Voltage Regulator (AVR)
- PMG excitation (optional)
- Single bearing alternator
- Class F or class B temperature rise (optional)
- Digital Voltage Regulator (optional)
- Double bearing (optional)
- Anti-Condensation Heater (optional)
- IP41 Protection (optional)

### Electrical system

- Maintenance-free and anti-explosion battery
- Standard breaker
- ABB breaker (optional)
- ATS (optional)
- Battery charger (optional)
- GMS monitoring (optional)

### Packing

- Engine manual
- Alternator manual
- Gensets operation and maintenance manual
- Tool kit

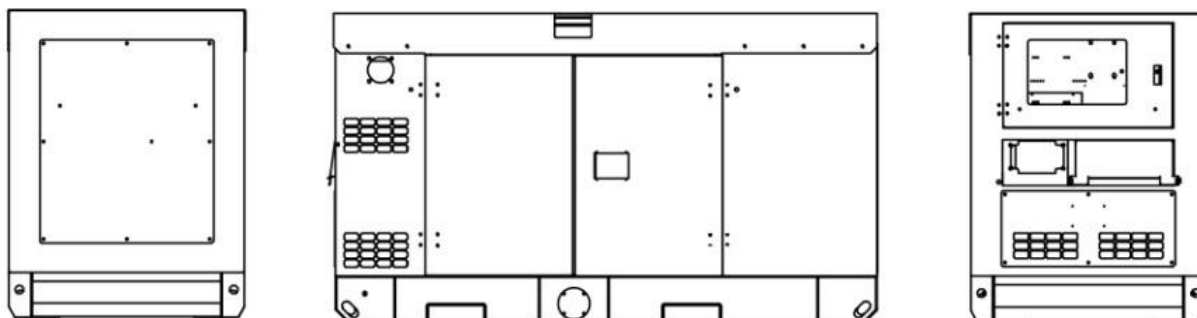
### Baseframe

- Forklift pockets
- Pulling slots
- Earth wire protection
- Built-in anti vibration mountings
- Fuel outlet value
- Standard fuel tank
- Enlarged fuel tank (optional)
- Separated fuel tank (optional)

### Canopy

- Weatherproof & sound-attenuated canopy
- Sound-absorbing material
- Lifting lug
- Emergency stop button
- Inside silencer

## Overview Dimension & Weight



| LSY31S-6 (Silent type) |                |               |                |             |                       |
|------------------------|----------------|---------------|----------------|-------------|-----------------------|
| Configuration          | L= Length (mm) | W= Width (mm) | H= Height (mm) | Weight (kg) | Fuel Tank Capacity(L) |
| Silent Type            | 2100           | 880           | 1145           | 995         | 95                    |



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