

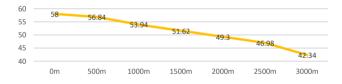


|                 | MODEL       | LSY58S3-6 |  |  |
|-----------------|-------------|-----------|--|--|
| Power<br>Pf.0.8 | Standby     | kVA       | 57.3   |  |
|                 |             | kW        | 45.8   |  |
|                 | Prime       | kVA       | 52.1   |  |
|                 |             | kW        | 41.7   |  |
|                 | Frequency   | Hz        | 60   |  |
|                 | Voltage     | V         | 208/120; 220/127;<br>416/240; 440/254; 480/277 |  |
|                 | Rated speed | rpm       | 1800   |  |

# Temperature (Celsius) Derate Curves Unit: kVA



# Altitude (meters) Derate Curves Unit: kVA



LEES generator sets meet the standards of ISO9001, CE, BS5000, ISO 8528, ISO 3046, IEC 60034, NEMA MG-1.22.

#### 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.

#### **Standard Features**

- >LEES Power provides one-source responsibility for the generating system and accessories.
- >The generator set and its components are prototype-tested, factorybuilt, and production-tested.
- >The 60Hz generator set offers a AUS 2012 listing and CE 2015 listing.
- >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.

RATINGS: All three-phase units are rated at 0.8 power factor. Standby ratings: Standby ratings apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Ratings are in accordance with ISO-3046/1, BS 5514, AS 2789, and DIN 6271. Prime power ratings:Prime power ratings apply to installations where utility power is unavailable or unreliable. At varying load, the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour in twelve. Ratings are in accordance with ISO-8528/1, overload power in accordance with ISO-3046/1, BS 5514, AS 2789, and DIN 6271.For limited running time and base load ratings, consult LEES. Obtain the technical information bulletin (TIS-101) on ratings guidelines for the complete ratings definitions. LEES reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.



## LEES engine Model: Y4102ZLD

# **LEES**

#### Main features:

- · Four-cylinder, water-cooled, in-line diesel engine
- · Efficient fuel system for max power output and durability
- Large-capacity air cleaner
- · Cost effective, fuel efficient and reliable performance
- · Functional engine with compact structure
- · Excellent after-sales service and sufficient spare parts supplying
- · Easy installation and ready access for routine maintenance

### **Engine Specifications**

| Engine Brand   | LEES  |
|--|---|
| Engine Model   | Y4102ZLD  |
| Cylinder No.& Configuration                                  | 4 cylinder Diesel L type  |
| Working Mode   | Inter cooler Turbo  |
| Bore x Stroke mm   | 102x118   |
| Displacement L   | 3.875   |
| Compression Ratio  | 18  |
| Rated Power kW   | 53  |
| Rated Speed  | 1800  |
| Lubrication System   | Splash Lubrication  |
| Lube Oil   | Conforms above CD class or  |
|  |   |
|  | SAE10W-30,15W-40  |
| Lube Oil Capacity L  | SAE10W-30,15W-40<br>13  |
| Lube Oil Capacity L  Battery Capacity                        |   |
|  | 13  |
| Battery Capacity   | 13<br>12V80Ah x2  |
| Battery Capacity   | 13<br>12V80Ah x2<br>Diesel:0#(Summer),-   |
| Battery Capacity  Fuel Type                                  | 13<br>12V80Ah x2<br>Diesel:0#(Summer),-<br>10#(Winter),-35#(Cold)                 |
| Battery Capacity   | 13<br>12V80Ah x2<br>Diesel:0#(Summer),-<br>10#(Winter),-35#(Cold)<br>5.08         |
| Fuel Consumption 25% load L/H  Fuel Consumption 50% load L/H | 13<br>12V80Ah x2<br>Diesel:0#(Summer),-<br>10#(Winter),-35#(Cold)<br>5.08<br>8.11 |



#### **Alternator**

Type Exciter type

Voltage regulator
Insulation
Material
Temperature rise
Bearing: quantity, type
Coupling
Amortisseur windings
Rotor balancing
Voltage regulation, no-load to
full-load(with < 0.5% drift due
to temp. variation
One-step load acceptance
Unbalanced load capability

4-Pole, Rotating-Field Brushless, Permanent-Magnet, Pilot Exciter Solid-State, Volts/Hz NEMA MG1, Class H Synthetic, Nonhygroscopic 130°C, 150°C Standby 1, Sealed Flexible Disc Full

3-Phase Sensing,  $\pm 0.25\%$ 

125% 60 Hz, 150% 50 Hz

100% of Rating 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 dripproof construction.
- Superior voltage waveform from two-thirds pitch windings and skewed stator.
- Digital solid-state.volts-per-hertz voltage regulator with ±0.25% 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)
- > Condensed 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

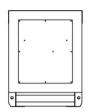
#### **Baseframe**

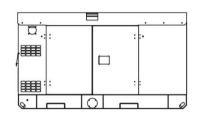
- Forklift pockets
- Pulling slots
- Earth wire protection
- Built-in anti vibration mountings
- Fuel outlet value
- Standard fuel tank
- Enlarged fuel tank (optional)
- Separated fuel tank (optional)

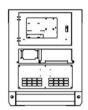
#### Canopy

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

#### **Overview Dimension & Weight**







| LSY58S3-6 (Silent type) |                |               |                |             |                           |  |  |  |
|-------------------------|----------------|---------------|----------------|-------------|---------------------------|--|--|--|
| Conf iguration          | L= Length (mm) | W= Width (mm) | H= Height (mm) | Weight (kg) | Fuel Tank<br>Capacity (L) |  |  |  |
| Silent Type             | 2460           | 1000          | 1257           | -           | 140                       |  |  |  |

Contact your distributor / dealer for more information

#### **WUXI LEES POWER COMPANY LIMITED**

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