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|-----------------|-----------|-----|----------|
|                 | MODEL     |     | LSC275S3 |
| Power<br>Pf.0.8 | Standby   | kVA | 275      |
|                 |           | kW  | 220      |
|                 | Prime     | kVA | 250      |
|                 |           | kW  | 200      |
|                 | Frequency | Hz  | 50       |

230/400

1500

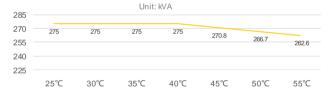
### Temperature (Celsius) Derate Curves

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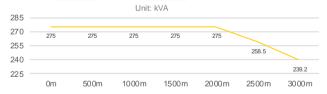
rpm

Voltage

Rated speed



#### Altitude (meters) Derate Curves



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 50Hz 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 50Hz 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.



# **Cummins engine Model: 6LTAA8.9-G2**

### Main features:

· Accessory drive

Single Poly Vee belt drive for fan, alternator and water pump, with self-tension idle for minimum maintenance

· Complete rebuild ability

Cylinder block has multiple rebore capability. Service cylinder sleeves and valve guides are also available

· Compact size

Easy for installation and ready access for routine maintenance

Filters

Fleetguard spin-on fuel filter and full-flow lubricating oil filter

· Cold start capability

Minimum ambient temperature for unaided cold start -12°C

Minimum ambient temperature for aided (with coolant heater) cold start -35°C

# **Engine Specifications**

| Engine Brand                |     | CUMMINS                     |
|-----------------------------|-----|-----------------------------|
| Engine Model                |     | 6LTAA8.9-G2                 |
| Cylinder No.& Configuration |     | 6 cylinder Diesel L type    |
| Working Mode                |     | Turbocharged and air-cooled |
|                             |     | charge air                  |
| Bore x Stroke               | mm  | 114*145                     |
| Displacement                | L   | 8.9                         |
| Compression Ratio           |     | 16.6:1                      |
| Rated Power                 | kW  | 220                         |
| Rated Speed                 |     | 1500                        |
| Lubrication System          |     | Splash Lubrication          |
| Lube Oil                    |     | Conforms above CF class or  |
|                             |     | SAE10W-30,15w-40            |
| Lube Oil Capacity           | L   | 27.6                        |
| Battery Capacity            |     | 150AH*2                     |
| Fuel Type                   |     | Diesel:0#(Summer),-         |
|                             |     | 10#(Winter),-35#(Cold)      |
| Fuel Consumption 25% load   | L/H | 15                          |
| Fuel Consumption 50% load   | L/H | 27                          |
| Fuel Consumption 75% load   | L/H | 39                          |
| Fuel Consumption 100% load  | L/H | 53                          |





#### **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





Audiovisual annunciation with NFPA 110 Level 1 capability. Programmable microprocessor logic and digital display features. Safeguard circuit protection standard. 12- or 24-volt engine electrical system capability. Remote start, remote annunciation, and remote communication options. Refer to M6-46 for additional controller features and accessories

## **Key Features**

- > 4-line back-lit LCD text display
- > Five key menu navigation
- > Front panel editing with PIN protection
- > LED and LCD alarm indication
- Customisable status screens
- Power save mode
- Support for up to three remote display units
- > 9 configurable inputs
- > 8 configurable outputs
- Flexible sender inputs
- Configurable timers and alarms
- 3 configurable maintenance alarms
- Multiple date and time scheduler
- Configurable event log (250)Control logic facilities
- > Easy access diagnostic page
- > CAN and Magnetic Pick-up / Alt. Sensing
- > Fuel usage monitor and low fuel alarms
- Charger alternator failure alarm

- Manual speed control
- Manual fuel pump control
- > Engine exerciser
- > "protections disabled" feature
- > kW overload protection
- Power monitoring
- Load switching (load shedding and dummy load outputs)
- Automatic load transfer
- > Unbalanced load protection
- > Independent Earth Fault trip
- > USB connectivity
- Backed up real time clock
- Configurable display languages
- ➤ User selectable RS232 and RS485 communications
- > SMS Messaging (additional external modem required)
- Additional display screens to help with modem diagnostics
- > Integral PLC editor



# **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 (optional)
- Water jacket heater (optional)

#### **Alternator**

- Class H insulation
- IP23 Protection
- Automatic Voltage Regulator (AVR)
- PMG excitation
- 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

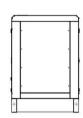
## **Baseframe**

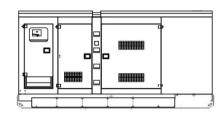
- Forklift pockets
- Pulling slots
- Earth wire protection
- Built-in anti vibration mountings
- Fuel outlet value
- Standard fuel tank
- Enlarged fuel tank (optional)
- Separated fuel tank (optional)

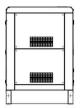
## Canopy

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

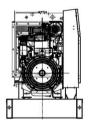
## **Overview Dimension & Weight**

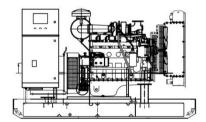


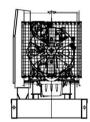




| LSC275S3 (Silent type) |                |               |                |             |                           |
|------------------------|----------------|---------------|----------------|-------------|---------------------------|
| Configuration          | L= Length (mm) | W= Width (mm) | H= Height (mm) | Weight (kg) | Fuel Tank<br>Capacity (L) |
| Silent Type            | 3620           | 1232          | 2000           | 2600        |                           |







| LSC275E3 (Open type) |                |               |                |             |                           |
|----------------------|----------------|---------------|----------------|-------------|---------------------------|
| Configuration        | L= Length (mm) | W= Width (mm) | H= Height (mm) | Weight (kg) | Fuel Tank<br>Capacity (L) |
| Open Type            | 2680           | 1150          | 1700           | 1950        |                           |

Contact your distributor / dealer for more information

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