MODEL: LSC520S3-6 Powered by CUMMINS



LEES generator sets meet the standards of

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

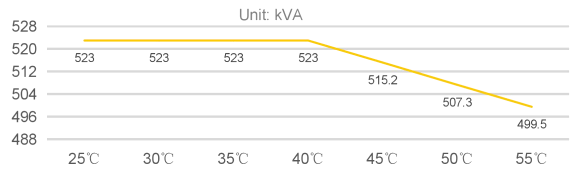
Standard Features

- 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 G2 or 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 (EPA Tier) to conform to EPA, ESE Tier3 or Tier4 nonroad emissions regulations.(≤560kW)
- A one-year limited warranty covers all systems and components. Two-, three-year extended warranties are also available.

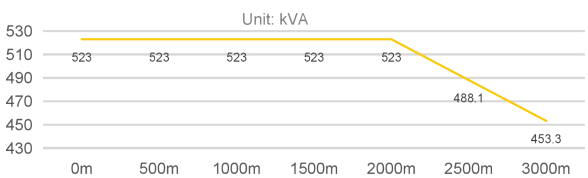
Generator Features

- 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.

Temperature (Celsius) Derate Curves



Altitude (meters) Derate Curves



MODEL			LSC520S3-6
Power Pf.0.8	Standby	kVA	523
		kW	418
	Prime	kVA	475
		kW	380
	Frequency	Hz	60
	Voltage	V	127/220 , 255/440, 138/240, 277/480
	Temp Rise	Clas	H
	Insulation	Clas	H
	Rated speed	rpm	1800

Standard reference Conditions:

Standard reference condition 25℃ (77℉) 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 Equipment

Engine

- Air cleaners
- Oil pump
- Oil drain extension and shut-off valve
- Full flow oil filters
- Closed crankcase ventilation
- Jacket water pump
- Thermostats
- Blower fan and fan drive
- Radiator - unit mounted
- Electric starting motor - 24V
- Governor - electronic isochronous
- Base - formed steel
- SAE flywheel and bell housing
- Charging alternator - 24V
- Battery and cables
- Flexible fuel connectors
- Flexible exhaust connection

General

- Q255 carbon steel material
- Acoustic enclosure and base frame with powder-coated coating
- Minimum sheet metal thickness of the acoustic enclosure: ≥ 2.0 mm
- Protection rating: IP23 (static), IP21 (dynamic)Weatherproof & sound-attenated canopy
- Sound-absorbing material
- Lifting lug
- Emergency stop button
- Inside silencer

Digital control panel(s)

- Digital metering
- Engine parameters
- Generator protection functions
- Engine protection
- CANBus ECU communications
- Windows®-based software
- Multilingual capability
- Communications to remote annunciator
- Programmable input and output contacts
- UL recognized, CSA certified, CE approved
- Event recording
- IP 54 front panel rating with integrated gasket
- NFPA 110 compatible

Generator

- 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
- Self-ventilated and drip-proof
- Superior voltage waveform
- Digital, solid state, volts-per-hertz regulator
- Brushless alternator with brushless pilot exciter
- 4 pole, rotating field
- 125 ° C prime temperature rise
- 1-bearing, sealed
- Flexible coupling
- Full amortisseur windings
- 125% rotor balancing
- 3-phase voltage sensing
- ± 0.25% voltage regulation no load to full load
- 100% of rated load - one step
- 5% maximum total harmonic distortion

Brushless, rotating field generator

- 2/3 pitch windings
- Permanent Magnet Generator (PMG) supply to regulator
- 300% short circuit capability

Packing

- Engine manual
- Alternator manual
- Generator protection functions
- Tool kit

Digital control unit

- Automatically transfers between mains (utility) and generator(DSE7320 MKII only) for convenience.
- Hours counter provides accurate information for monitoring and maintenance periods
- User-friendly set-up and button layout for ease of use
- Multiple parameters are monitored & displayed simultaneously for full visibility
- The module can be configured to suit a wide range of applications for user flexibility
- PLC editor allows user configurable functions to meet user specific application requirements.

Application Data

Engine

Manufacturer……CUMMINS

Model……QSG12-G4

Type……N/A

Displacement……N/A

Bore……N/A

Stroke……N/A

Compression ratio……N/A

Rated rpm……1800

Engine governor……Electronic

Maximum power……418kW

Steady state frequency band……60HZ

Air cleaner

Liquid capacity……N/A

Total oil system……N/A

Engine jacket water capacity……N/A

System coolant capacity……N/A

Electrical

Electric volts DC……N/A

Cold cranking amps under -18 ℃

Batteries……N/A

DC Charger…… 24V

Fuel system

Fuel supply connection size……N/A

Fuel return connection size……N/A

Maximum fuel lift……N/A

Recommended fuel ……0# Diesel

Total fuel flow……N/A

Fuel consumption

At 100% of power rating……N/A (L/h)

At 75% of power rating…… N/A (L/h)

At 50% of power rating……N/A (L/h)

Cooling - radiator system

Ambient capacity of radiator……N/A

Maximum restriction of cooling air…… N/A

Water pump capacity…… N/A

Heat rejection to coolant……N/A

Heat rejection to after cooler……N/A

Heat radiated to ambient……N/A

Fan power……N/A

Air requirements

Aspirating……N/A

Air flow required for radiator cooled unit……N/A

Remote cooled applications; air flow required for dissipation of radiated generator set heat for a maximum of 25 ℃ rise…… N/A

* Air density = 1.184 kg/m3

Exhaust system

Gas temperature (stack)……N/A

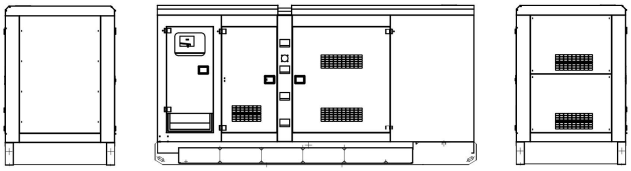
Gas volume at stack temperature……N/A

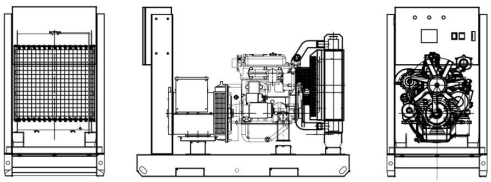
Maximum allowable back pressure at outlet of engine, before piping……N/A

Standard and optional features

System	Standard	Optional
Air intake system	• Standard dry type air filters • Charge air intercooler • Air intake pipework	• Heavy-duty two stage air filters with mechanic dust evacuation • Exhaust turbochargers
Exhaust system	• Standard engine interface • Exhaust elbows • Exhaust bellows • Exhaust silencers 15 db(A)	• Exhaust silencers 25 db(A) • Exhaust silencers 30 db(A) • Exhaust silencers 40 db(A) • Stainless Steel Exhaust Pipe (304)
Base frame	• Resilient mounting for engine and alternator • Lifting lugs • Forklift pockets	• Integrated fuel tank • Integrated spill-proof design
Electrical	• Maintenance-Free Lead-Acid Battery • Battery switch • 3PMCCB • DSE7320 MKII • 3A charger • Starter battery	• DSE / DEIF / ComAp • Low-Temperature Cylindrical Wound Battery • 4P MCCB circuit breaker • 100-4000ATS • GMS monitoring • Water jacket heater • 5A / 10A charger
Alterator	• Automatic Voltage Regulator • Class H insulation, H temperature rise • IP23 Protection • Excitation • Single bearing alternator	• Windings RTD • Bearing RTD • Anti-condensation heater • SIE 3 Harsh Environment Protection • Excitation Failure Protection Module • Class F or class B temperature rise • Double bearing • IP41 Protection
Fuel System	• 1140L(Silent type)	• Electric shut-off valve • Switching type fuel level sensor • 4-20mA fuel level sensor • Turbine type fuel flow meter • 1000L Double-Layer Fuel Tank • Fuel-water separator
Cooling System	• 50℃ copper radiator driven by motor	• 50℃ or 55℃ radiator • VFD electric fan
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 (Silent type)	• Enlarged fuel tank (optional) • Separated fuel tank (optional)

Overview Dimension & Weight





LSC520S3-6 (Silent type)			
Configuration	L×W ×H (mm)	Weight (kg)	Fuel Tank Capacity(L)
Silent type	4700×1630×2400	5500	1140

LSC520E3-6 (Open type)			
Configuration	L×W ×H (mm)	Weight (kg)	Fuel Tank Capacity(L)
Open type	3160×1380×2250	4700	/

Note: For reference only. Do not use for installation design. Contact your local dealer for precise weights and dimensions.

Sound Data

Unit type	Prime 75% load
Open power unit (dB(A) at 7m)	/
Enclosed power unit (dB(A) at 7m)	/

Sound dala is provided at 7 mn(23 ft).

WUXI LEES POWER COMPANY LIMITED
No. 1, Ningzhou Road, Huishan DistrictWuxi, China, 214000
Tel: 86-510-85166446
Web:www.leespower.com
Email: lees@leespower.com

LEES POWER (UK) LTD
23A Buckingham Avenue, Slough Trading Estate, Slough, Berkshire, SL1 4QA, UK
Tel:+44(0)2081080326
Web:www.leespower.uk
Email: lees@leespower.com

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