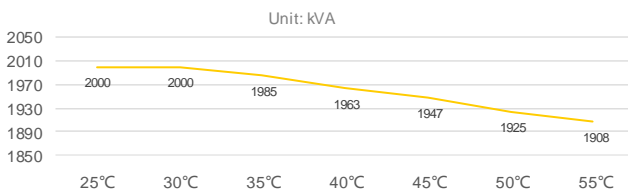


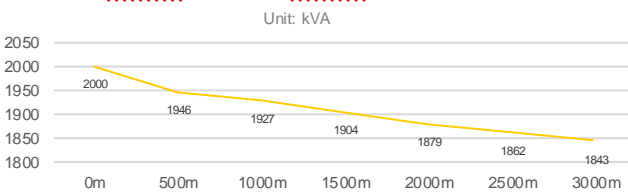


MODEL		LSP2000S3	
Power Pf.0.8	Standby	kVA	2000
		kW	1600
	Prime	kVA	1850
		kW	1480
	Frequency	Hz	50
	Voltage	V	230/400
Rated speed	rpm	1500	

Temperature (Celsius) Derate Curves



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.

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.

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 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.

Perkins engine Model: 4016TAG1A



Main features:

- Economic power
 - Individual four valve per cylinder heads give optimized gas flows, whilst digitally governed unit fuel injectors ensure ultra fine fuel atomization and hence controlled rapid combustion, for efficiency and economy
 - Commonality of components with other engines in the 4000 Series family allows reduced parts stocking levels
- Reliable power
 - Developed and tested using the latest engineering techniques and finite element analysis for high reliability
 - Low oil usage and low wear rates
 - High compression ratio ensures clean rapid starting in all conditions
 - Support comes from a worldwide network of 4,000 distributors and dealers
- Compact, clean and efficient power
 - Exceptional power to weight ratio and compact size gives optimum power density for ease of installation and more cost effective transportation
 - Designed to provide excellent service access for ease of maintenance
- Cost effective power
 - Compact size and low noise
 - Lower fuel consumption and oil use
 - 500 hours service intervals
 - 2 year warranty



Engine Specifications

Engine Brand	PERKINS
Engine Model	4016TAG1A
Cylinder No.& Configuration	16 cylinder Diesel.VEE type
Working Mode	Turbocharged and air-cooled charge air
Bore x Stroke	mm 160*190
Displacement	L 61.123
Compression Ratio	13.6:1
Rated Power	kW 1588
Rated Speed	1500
Lubrication System	Splash Lubrication
Lube Oil	Conforms above CF class or SAE10W-30,15w-40
Lube Oil Capacity	L 214
Battery Capacity	200AH*4
Fuel Type	Diesel:0#(Summer),-10#(Winter),-35#(Cold)
Fuel Consumption 25% load	L/H 102
Fuel Consumption 50% load	L/H 185
Fuel Consumption 75% load	L/H 277
Fuel Consumption 100% load	L/H 383

Alternator

Type	4-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	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	3-Phase Sensing, $\pm 0.25\%$
One-step load acceptance	100% of Rating
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 dripproof construction.
- Superior voltage waveform from two-thirds pitch windings and skewed stator.
- Digital solid-state volts-per-hertz voltage regulator with $\pm 0.25\%$ 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

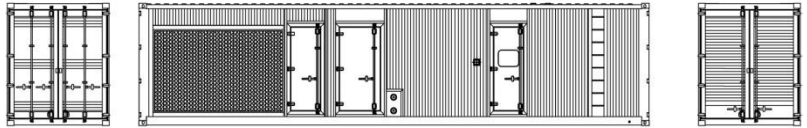
Baseframe

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

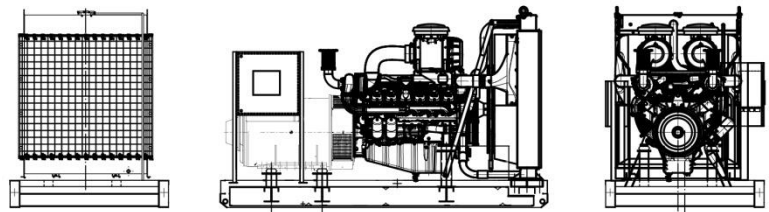
Canopy

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

Overview Dimension & Weight



LSP2000S3 (Containerized type)					
Configuration	L= Length (mm)	W= Width (mm)	H= Height (mm)	Weight (kg)	Fuel Tank Capacity (L)
Containerized Type	ISO 40'ft HQ			15100	3064



LSP2000E3 (Open type)					
Configuration	L= Length (mm)	W= Width (mm)	H= Height (mm)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	5400	2650	2650	10500	-

Contact your distributor / dealer for more information

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