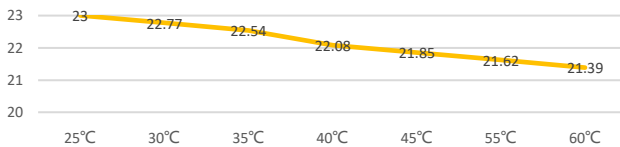


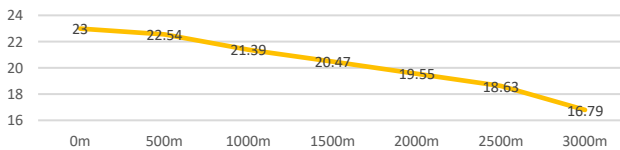


MODEL		LSY23S3	
Power Pf.0.8	Standby	kVA	23.1
		kW	18.5
	Prime	kVA	21
		kW	16.8
	Frequency	Hz	50
	Voltage	V	230/400
Rated speed	rpm	1500	

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, 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.

**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: YND490D

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### 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

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Engine Brand .....	LEES
Engine Model .....	YND490D
Cylinder No.& Configuration .....	4 cylinder Diesel L type
Working Mode .....	Naturally Aspirated
Bore x Stroke .....	mm 90x100
Displacement .....	L 2.54
Compression Ratio .....	18
Rated Power .....	kW 21
Rated Speed .....	1500
Lubrication System .....	Splash Lubrication
Lube Oil .....	Conforms above CD class or SAE10W-30,15W-40
Lube Oil Capacity .....	L 8
Battery Capacity .....	12V45Ah x1
Fuel Type .....	Diesel:0#(Summer),- 10#(Winter),-35#(Cold)
Fuel Consumption 25% load .....	L/H 1.87
Fuel Consumption 50% load .....	L/H 2.98
Fuel Consumption 75% load .....	L/H 4.05
Fuel Consumption 100% load .....	L/H 5.45

## 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 drip-proof 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



### 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

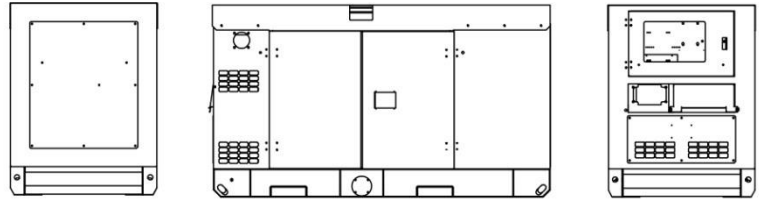
### Baseframe

- Forklift pockets
- Pulling slots
- Earth wire protection
- Built-in anti vibration mountings
- Fuel outlet 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



LSY23S3 (Silent type)					
Configuration	L= Length (mm)	W= Width (mm)	H= Height (mm)	Weight (kg)	Fuel Tank Capacity (L)
Silent Type	1840	800	1050	780	70

Contact your distributor / dealer for more information

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