



## LSY60S3

-  50HZ
-  Water-cooled
-  Three Phase
-  Diesel

Model		LSY60S3
Standby Power	KVA	60
	KW	48
Prime Power	KVA	55
	KW	44
Frequency	Hz	50
Rated Voltage	V	230/400
Rated speed	rpm	1500

YTO Group Corporation is a leading construction machinery manufacturer in China. Founded in 1955, YTO brand has been awarded China Top Brand and Recommended Export Brand, which are popular with customers all over the world. YTO engine meet CE, EPA standard.

LEES YTO range of diesel generator set features compact structure, perfect portability, reliable power, and low emission.

**Engine specification → Model: Y4105ZLD**

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
- Excellent fuel consumption with 198 g/kw.h

**General data**

<b>Cylinder No.</b>	4
<b>Cylinder arrangement</b>	In-line
<b>Cycle</b>	4 stroke
<b>Induction system</b>	Turbocharged
<b>Combustion system</b>	Direct injection
<b>Cooling system</b>	Water-cooled
<b>Bore X Stroke (mm)</b>	108X135
<b>Displacement (L)</b>	4.95
<b>Compression ratio</b>	17:1
<b>Direction of rotation</b>	Anti-clockwise, viewed on flywheel
<b>Lubrication capacity (L)</b>	14
<b>Coolant capacity (L)</b>	6
<b>Dimension (LXWXH) (mm)</b>	840X830X900
<b>Dry weight (kg)</b>	410±20 kg

**Fuel consumption**

<b>Engine speed</b>	1500 rev/min	
	g/hr	l/hr
<b>Standby</b>	221	10
<b>Prime power</b>	226	11.3
<b>75% of prime power</b>	227	8.39
<b>50% of prime power</b>	229	6.13

**Engine ratings**

<b>Engine speed</b>	<b>Type of operation</b>	<b>Generator output (net)</b>		<b>Gross engine power</b>		<b>Net engine power</b>	
		kVA	kW	kWm	bhp	kWm	bhp
<b>1500</b>	Prime power	50	42	45	61	40	54
<b>1500</b>	Standby power	55	45	50	69	45	61

The above ratings represent the engine performance capabilities to conditions specified in ISO 8528/1, ISO 3046/1:1986, BS 5514/1  
 Prime power: power available at variable load with a load factor not exceeding 80% of the prime power rating. Overload of 10% permitted for 1 hour in every 12 hours' operation

Standby power: power available in the event of a main power network failure up to a maximum of 500 hours per year of which up to 300 hours may be run contiously. No overload is permitted

**LEES alternator → Model: LA 224E**

Main features:

- 12 wire reconnectable stator/terminal arrangement
- Easy access for installation and maintenance
- 2/3 pitch winding as standard, to avoid excessive neutral currents
- Class H insulation with severe environmental protection as standard
- Built to conform with all leading industrial and marine standards
- 460 AVR as standard with 1.5% regulation and 2 phase sensing
- IP23 as standard

**LEES LA224E: 3 phase, 0.8 power factor, 50Hz, 1500rpm**

Class – Temp rise	Cont. H – 125/40°C			
Voltage (V)	416	440	460	480
Power (kVA)	67.5	70	72.5	75
Power (kW)	54	56	58	60
Efficiency (%)	88.8	89.2	89.4	89.6
kW input	60.8	62.8	64.9	67.0

**Alternator specifications**

Control system	Self excited
A.V.R.	SX460
Voltage regulation	±1.0%
Insulation system	H 级
Protection	IP23
Stator winding	Double layer lap
Winding pitch	2/3
Winding leads	12
Stator wdg. resistance	0.101 Ohms per phase at 22°C series star connected
Rotor wdg. resistance	0.69 Ohms at 22°C
Excited stator resistance	20 Ohms at 22°C
Excited rotor resistance	0.078 Ohms per phase at 22°C
Waveform distortion	No load <1.5% non-distorting balanced linear load <5.0%
Maximum overspeed	2250 Rev/Min
Bearing drive end	BALL.6309-2RS (ISO)
Packing crate size	105X57X96 (cm)
Telephone interference	THF<50
Cooling air	0.31 m3/sec 657 cfm

**Control module → Model: HGM420U**

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



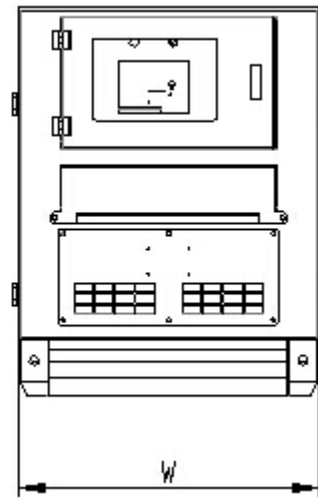
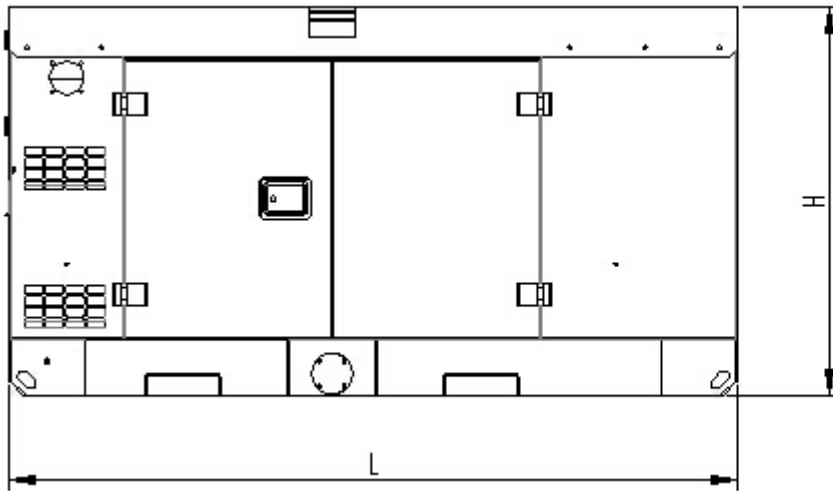
**Protection:**

- 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

**Overview dimension & Sound levels**



<b>LSY60S3</b>			
<b>Configuration</b>	<b>L= Length (mm)</b>	<b>W= Width (mm)</b>	<b>H= High (mm)</b>
<b>Enclosed set</b>	2566	1006	1257

## 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
- 24V electrical system
- Radiator with blowing fan
- Industrial silence
- **Fuel water separator (optional)**
- **Water jacket heater (optional)**

### Alternator:

- Class H insulation
- IP23 Protection
- Automatic Voltage Regulator (AVR)
- Single bearing alternator
- **PMG excitation (optional)**

### Electrical system:

- 6110 control module
- Maintenance-free and anti-explosion battery
- Standard breaker
- **6120 control module (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 8 hours fuel tank
- **Separated fuel tank (optional)**

### Canopy:

- Weatherproof & sound-attenuated canopy
- Sound-absorbing material
- Lifting lug
- Emergency stop button
- Inside silencer
- **Trailer (optional)**

## Contact your distributor / dealer for more information

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