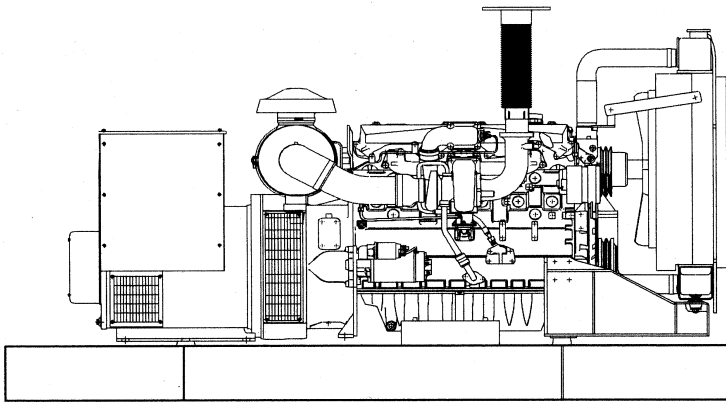


Lynx Power Systems

Model: 10SD

Ratings:

	50Hz	60Hz
Standby:	kw	
	kva	
Prime:	kw	
	kva	



Product Features

- * System reliability and longevity begin with design experience and integrity.
- * Heavy duty 4 cycle industrial engine for reliability and fuel efficiency.
- * Heavy duty steel base with integral vibration isolators.
- * Single source responsibility for the generator set and accessories.
- * Microprocessor based control system providing digital metering and monitoring.
- * Brushless rotating field generator with class H insulation.
- * Unit conforms to CSA, NEMA, EGSA, ANSI and other standards.
- * Prototype and production tested to insure one step load acceptance per NFPA 110.
- * Two year limited warranty on generator sets and accessories.

Application & Engineering Data

Engine

Engine Specifications	60Hz	50Hz
Manufacturer		
Engine, Model, Type		
Cylinder Arrangement		
Displacement, cu. in. (L)		
Bore and Stroke, in. (mm)		
Compression ratio		
Piston Speed, ft/sec. (m/sec)		
Rated RPM		
Max. Power at Rated RPM, hp (kw)		
Cylinder Head Material		
Crankshaft Material		
Governor Type Make / Model		
Frequency regulation, no load to full load		
Frequency regulation, steady state		†
Air Cleaner type, all models		
Combustion air, cfm (m ³ /min.)		

Cooling

Cooling System	60Hz	50Hz
Ambient Temperature °F (°C)		
Radiator system capacity, including engine, gal. (L)		
Engine jacket water flow, gpm (Lpm)		
Heat rejected to cooling water at rated kw, dry exhaust Btu / min.		
Water pump type		
Fan diameter, including blades, in (mm)		
Fan hp (kw)		
Max. restriction of cooling air, intake and discharge side of rad., in. LBF in ² (kPa)		
Radiator - cooled cooling air cfm (m ³ /min.)		

Lubrication

Lubricating System	60Hz	50Hz
Type		
Oil pan capacity with filter, qts. (L)		
Oil filter, quantity, type		
Oil cooler		

Control Panel

Standard Control Panel provides: Digital readout of AC volts, AC amps and frequency; continuous display of engines. Oil pressure, water temperature and battery voltage; display of running time, system diagnostics and service information, safety shutdowns for overcrank, overspeed, low oil pressure and high water temperature; and remote and local start/stop capabilities with speed signal monitoring.

Engine Electrical

Engine Electrical System	60Hz	50Hz
Battery charging alternator:		
Ground (negative/positive).....		
Volts (DC).....		
Ampere rating.....		
Starter motor rated voltage (DC)		
Recommended battery cold cranking amps (CCA) rating 5 °F (-15 °C)		
Quantity of batteries		
Battery voltage (DC)		

Fuel

Fuel System	60Hz	50Hz
Fuel supply line, min. ID, in. (mm)		
Fuel return line, min. ID, in. (mm)		
Max. lift, engine-driven fuel pump, ft. (m)		
Max. fuel flow, gph (Lph)		
Fuel prime pump		
Fuel filter		
Recommended fuel		

Fuel Consumption

Fuel Consumption	60Hz	50Hz
Diesel, gph (Lph) at % of load		
100%		
75%		
50%		

Exhaust

Exhaust System	60Hz	50Hz
Exhaust flow at rated kw, cfm (m ³ /min.)		
Exhaust temperature at rated kw, dry exhaust, °F (°C)		
Maximum allowable back pressure, in. Hg (kPa)		
Exhaust outlet size at hookup, in. (mm)		

Generator Specifications

Standards

UC224 and UC274 industrial generators meet the requirements of BS5000, VDE0530, UTE5100, NEMA MG1-22, CEMA, IEC34-1, CSA22.2 and AS1359.

Excitation Systems

SX440 & SX460 AVRs

With these self-excited systems the main stator provides power via the automatic voltage regulator (AVR) to the exciter stator. The high efficiency semiconductors of the (AVR) ensure positive build up from initial low levels of residual voltage.

The exciter rotor output is fed to the main rotor through a three phase full wave bridge rectifier. The rectifier is protected by a surge suppressor against surges caused, for example, by short circuit or out of phase paralleling. The SX440 will support a range of electronic accessories, including a "droop" Current Transformer (CT) to permit parallel operation with other as generators.

Insulation

The insulation system is Class "H".

All wood components are impregnated with materials and processes designed specifically to provide protection against the harsh environments encountered in generator applications. Varnishes and resins are selected and developed to provide the high build required for static windings and the high mechanical strength required for rotating components.

Shaft

All generator rotors are dynamically balanced to better than BS6861: Part 1 Grade 2.5 for minimum vibration in operation.

Windings & Electrical Performance

All generator stators are wound to 2/3 pitch. This eliminates triplen (3rd, 9th, 15th...) harmonics on the voltage waveform and is found to be the optimum design for trouble-free supply of non linear loads. The 2/3 pitch design avoids excessive neutral currents, sometimes seen with higher winding pitches, when in parallel with the mains.

A fully connected damper winding reduces oscillations during paralleling. This winding, with 2/3 pitch and carefully selected pole and tooth designs, ensures very low waveform distortion.

Telephone Interference

THF (as defined by BS4999 Part 40) is better than 2%. TIF (as defined by ASA C50.12) is better than 50.

Radio Interference

The absence of brushgear and the high quality AVR ensures low levels of interference with radio transmissions.

Additional RFI suppression may be supplied if required.

Enclosure

IP22 (NEMA 1) is standard for all industrial generators Protection to IP23 (60degrees from vertical) is available as an option at reduced ratings (5% derate).

Inlet air filters are available as an option on all generators, at reduced ratings (5% derate).

Quality Assurance

Generators are manufactured using production procedures having a quality assurance level to BS EN (ISO9001)

Standard Features and Accessories

Standard Features

- * Heavy Duty Steel Base
- * Vibration Isolators
- * Battery Rack
- * Battery Cables
- * Owners Manual
- * Oil Drain Valve with Extensions
- * Flex Exhaust Connector

Accessories

- Water Jacket Heater
- Exhaust Silencer
- Silencer Mounting Kit for Enclosure
- Weather Enclosure
- Sound Attenuated Enclosure
- Sub-base Fuel Tank
- Flexible Fuel Tank
- Battery
- Battery Heater
- Battery Charger
- Electronic Isochronous Governor
- PMG Exciter

Accessories

- Generator Strip Heater
- Line Circuit Breaker
- Lynx 100 Controls
- Lynx 200 Controls
- Lynx 300 Controls
- Alarm Horn
- Dry Contact Kit
- Remote Annunciator
- Interactive Telecommunications

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