



LBE GENERATORS

CT-320

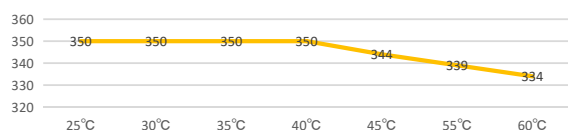
*LBE POWERING YOUR WORLD
anytime. anywhere*

Powered By Cummins

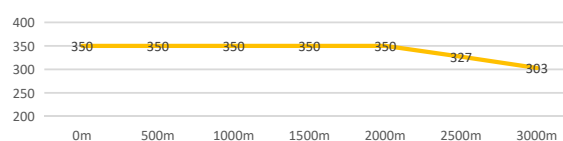


MODEL			CT-320
Power Pf.0.8	Standby	kVA	350
		kW	280
	Prime	kVA	320
		kW	256
	Frequency	Hz	60
	Voltage	V	220/380
	Rated speed	rpm	1800

Temperature (Celsius) Derate Curves
Unit: kVA



Altitude (meters) Derate Curves
Unit: kVA



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.

Note:

The standby power rating of the generating set is where a variable load limited to an annual usage up to 500 hours is applied, with 300 hours of which may be continuous running. Noting that no overload is permitted

Standard Features

- The generator set and its components are prototype-tested, factory-built, and production-tested.
- The generator set complies with ISO 8528-5, Class 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 (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.



LBE GENERATORS

CT-320

*LBE POWERING YOUR WORLD
anytime. anywhere*

Powered By Cummins

Engine Specifications



These engines were developed using unique in-house capability, adapting core technologies in mechanical, electronics, fuel injection, natural or turbo-charging, filtration and emissions systems. These engines have low derating thresholds for temperature and altitude, coupled with 50°C ambient capable radiator cooling system makes these engines great performers in the harsh climate conditions.

CUMMINS / NTA855-G1

Gross Engine Power - PRP [kWm]	343
Gross Engine Power - ESP [kWm]	377
Engine Design	Cast Iron, 6-Cylinder, In-line, 4-Cycle, Diesel
Bore [mm]	125
Stroke [mm]	147
Displacement [liter]	10.8
Compression Ratio	16.2:1
Aspiration System	Turbocharged and Aftercooled
Cooling System	Water Cooled
Cooling Radiator Design	50°C, Unit Mounted Type
Speed Governor Type	Electronic

Features & Benefits

- Advanced engine monitoring, diagnostics, protection and control, coupled with the fuel system, capable of delivering extreme fuel injection pressures with multiple injection events, results in reduced emissions, improved fuel efficiency, lower noise and enhanced engine performance.
- Engine fuel filtration system provides high levels of protection against fuel becoming contaminated with dust, dirt, or water.
- Fitted with a control interface to improve emissions, widely accepted in industry standard, Engine communication module provides advanced engine protection, ensuring faster connectivity along with a superior fault-finding capability.
- Reduced operating costs and extended service intervals for the oil and filter changes.
- Products are supplied complete with cooling radiator and a filters kit.
- Products are covered by high level of technical and after sales support.

CUMMINS / NTA855-G1

Battery Charging Alternator Current [A]	55
Starting Voltage [V]	24
Battery Type	Lead Acid, Heavy Duty
Coolant Capacity [liter]	76.5
Lube Oil Capacity [liter]	36.7
Maximum Back Pressure - Exhaust System [kPa]	10
Cooling System Air Flow [m³/s]	7.8
Intake Air Flow [liter/s]	510
Exhaust Gas Temp. [°C]	473
Exhaust Gas Flow [liter/s]	1169
Recommended Lube. Oil	Grade SAE 15W-40 API CI5
Recommended Coolant	50% Ethylene Glycol & 50% Water
Recommended Fuel	Diesel (BS2869 Class A2 or equivalent)
Engine Filters (Fuel, Oil, Air)	One Set, factory-installed.



LBE GENERATORS

CT-320

*LBE POWERING YOUR WORLD
anytime. anywhere*

Powered By Cummins

ALTERNATOR SPECIFICATION



The Alternator is designed to offer best power generation performances. With its meticulous design and optimized architecture, Provides perfect balance between compactness, reliability, performance and longevity. Whatever your application, the alternator will meet your needs and will adapt to all situations.

The Alternators are in compliance to the main international standards and regulations: IEC 60034, NEMA MG 1.32-33, BS 5000 Part 99, VDE 0530, ISO 8528/3, UL 1446, UL 1004 on request, and depending on voltages, marine regulations, etc. It can be integrated into a CE marked generator.

Alternators are designed, manufactured and marketed in an ISO 9001 and ISO 14001 environments.

LEROY SOMER / TALA46G

Insulation Class	H
Winding Pitch	2/3
Number Of Wires	6
Protection	IP 23
Altitude [m]	≤ 1000
Over-speed [rpm]	2250
Air Flow 60 Hz [m ³ /s]	0.58
Excitation System	SHUNT

Electrical Design:

- Class H insulation
- Low voltage winding
- 6-terminal plate (adapted plate for 6 machine)
- Possibility of star and delta connection
- Optimized performance

Robust Design:

- Compact and rugged assembly to withstand engine vibrations
- Steel frame
- Cast iron flanges and shields
- Single bearing design to be suitable with most diesel engines
- Sealed for life bearing
- Direction of rotation clockwise

LEROY SOMER / TALA46G

AVR Type	R150
Voltage Regulation	± 0.8%
Total Harmonic Distortion THD in no-load	< 3.5%
Total Harmonic Distortion THD in linear load	< 5%
Waveform: NEMA = TIF	< 50
Waveform: I.E.C. = THF	< 2%
Short-circuit current withstand ratio (In)	N/A

Compact Terminal Box:

- Easy access to AVR and terminals
- Standard terminal box with possibility of mounting measurement CTs
- Possibility of current transformer for parallel operation

Environment And Protection:

- The alternators are IP 23
- Standard winding protection for non-harsh environments with relative humidity ≤ 95%



LBE GENERATORS

CT-320

*LBE POWERING YOUR WORLD
anytime. anywhere*

Powered By Cummins

Controller

DSE6110/20 MKIII

**AUTO START & AUTO MAINS (UTILITY)
FAILURE CONTROL MODULES**



DSE6110 MKIII



DSE6120 MKIII

KEY FEATURES

- 4-line back-lit LCD text display
- Multiple display languages
- Five-key menu navigation
- LCD alarm indication
- Customisable power-up text and screen images.
- DSENet® expansion compatibility
- Data logging facility
- Internal PLC editor
- Protections disable feature
- Fully configurable via PC using USB communications
- Front panel configuration with PIN protection
- Power save mode
- 3-phase generator sensing and protection
- 3-phase mains (utility) sensing and protection (DSE6120 MKIII only)
- Automatic load transfer control (DSE6120 MKIII only)
- Generator current and power monitoring (kW, kvar, kVA, pf)
- Mains (utility) current and power monitoring (kW, kvar, kVA, pf) (DSE6120 MKIII only)
- kW overload alarm
- Over current protection
- Breaker control via fascia buttons
- Fuel and start outputs configurable when using CAN
- 6 configurable DC outputs
- 4 configurable analogue/digital inputs
- Support for 0 V to 10 V & 4 mA to 20 mA sensors
- 8 configurable digital inputs
- CAN, MPU and alternator frequency speed sensing in one variant
- Real time clock
- Manual and automatic fuel pump control
- Engine pre-heat and post-heat functions
- Engine run-time scheduler
- Engine idle control for starting & stopping
- Fuel level alarms
- 3 configurable maintenance alarms
- Compatible with a wide range of CAN engines, including Tier 4 engine support
- Uses DSE Configuration Suite PC Software for simplified configuration
- Licence-free PC software
- IP65 rating (with optional gasket) offers increased resistance to water ingress
- Configurable CAN read & transmitted information.
- 1 alternative configuration.

KEY BENEFITS

- Automatically transfers between mains (utility) and generator (DSE6120 MKIII 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.

SPECIFICATIONS

DC SUPPLY

CONTINUOUS VOLTAGE RATING
8 V to 35 V Continuous
5 V for up to 1 minute

CRANKING DROPOUTS

Able to survive 0 V for 100 mS, providing supply was at least 10 V before dropout and supply recovers to 5 V. This is achieved without the need for internal batteries. LEDs and backlight will not be maintained during cranking.

MAXIMUM OPERATING CURRENT
260 mA at 12 V, 150 mA at 24 V

MAXIMUM STANDBY CURRENT
145 mA at 12 V, 85 mA at 24 V

CHARGE FAIL/EXCITATION RANGE
0 V to 35 V

**GENERATOR & MAINS (UTILITY)
VOLTAGE RANGE**
15 V to 415 V AC (Ph to N)
28 V to 719 V AC (Ph to Ph)

FREQUENCY RANGE
3.5 Hz to 75 Hz

**MAGNETIC PICKUP
VOLTAGE RANGE**
+/- 0.5 V to 70 V

FREQUENCY RANGE
10,000 Hz (Imax)

**INPUTS
DIGITAL INPUTS A TO H**
Negative switching

ANALOGUE INPUTS A & D
Configurable as:
Negative switching digital input
0 V to 10 V sensor
4 mA to 20 mA sensor
Resistive sensor

ANALOGUE INPUTS B & C
Configurable as:
Negative switching digital input
Resistive sensor

**OUTPUTS
OUTPUT A & B (FUEL & START)**
10 A DC at supply voltage

AUXILIARY OUTPUTS C, D, E, F, G & H
2 A DC at supply voltage

**DIMENSIONS
OVERALL**
216 mm x 158 mm x 43 mm
8.5" x 6.2" x 1.5"

PANEL CUT-OUT
184 mm x 137 mm
7.2" x 5.3"

MAXIMUM PANEL THICKNESS
8 mm
0.3"

STORAGE TEMPERATURE RANGE
-40°C to +85°C
-40 °F to +185 °F

**OPERATING TEMPERATURE RANGE
NON-HEATED DISPLAY VARIANT**
-30°C to +70°C
-22 °F to +158 °F



LBE GENERATORS

CT-320

*LBE POWERING YOUR WORLD
anytime. anywhere*

Powered By Cummins

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 Grade Silencer
- 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)
- Anti-Condensation 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)
- 127/230 voltage (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



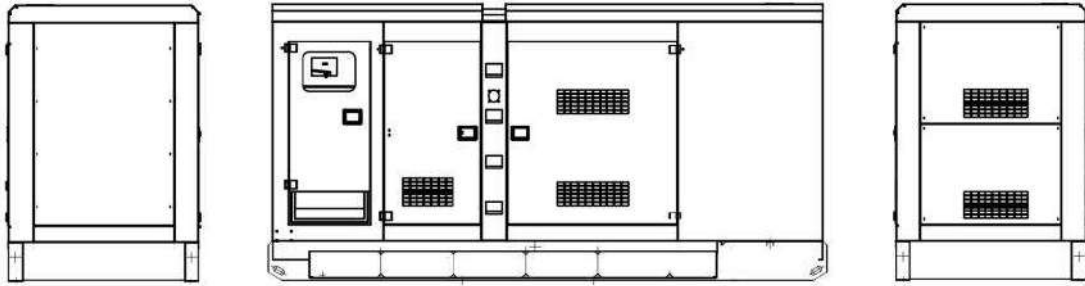
LBE GENERATORS

CT-320

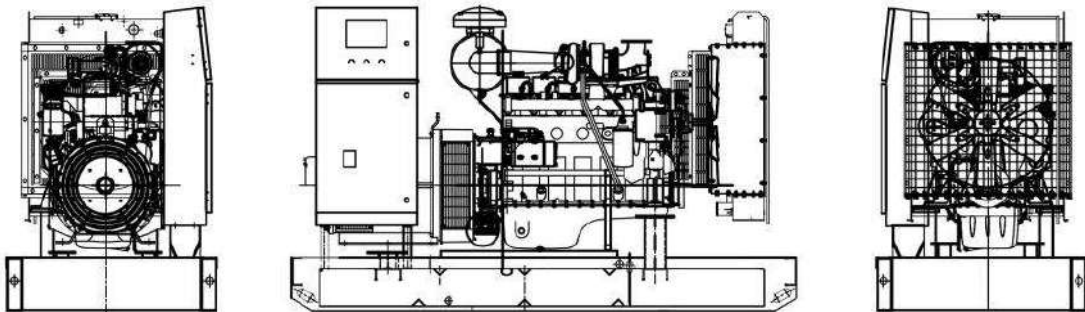
*LBE POWERING YOUR WORLD
anytime. anywhere*

Powered By Cummins

Overview Dimension & Weight



(Silent type)					
Configuration	L= Length (mm)	W= Width (mm)	H= Height (mm)	Weight (kg)	Fuel Tank Capacity(L)
Silent Type	3910	1332	2100	3050	760



(Open type)					
Configuration	L= Length (mm)	W= Width (mm)	H= Height (mm)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	3200	1150	1800	2235	400



3473 As Sayyidah Khadijah Street – 6461 Al Faisaliyah District
23441 Jeddah, Kingdom Of Saudi Arabia
C.R. 7023514651
VAT No. 310940679600003
Phone 0530371038
E-mail INFO@LBE-KSA.COM
Website WWW.LBE-KSA.COM

٣٤٧٣ شارع السيدة خديجة – ٦٤٦١ حي الفيصلية
٢٣٤٤١ جدة، المملكة العربية السعودية
السجل التجاري ٧٠٢٣٥١٤٦٥١
الرقم الضريبي ٣١٠٩٤٠٦٧٩٦٠٠٠٣
الهاتف ٠٥٣٠٣٧١٠٣٨
بريد الكتروني INFO@LBE-KSA.COM
موقع الكتروني WWW.LBE-KSA.COM