# SHENZHEN ASAHI POWER TECHNOLOGY

Technical Datasheet of Cummins CDL1000SA Diesel Generator Set



Model Specs: Cummins KTA50-G3, Stamford LVI634G, Deepsea DSE6210

### **GENERAL FEATURES:**

Composed of Cummins Engine and Stamford, Marathon Alternator, Leroy-Somer, Engga

12V/24V DC starter motor and battery system

Brushless, Self-excited, IP23, insulation class H Alternator

Self enclosed water-cooling system, Steel Chassis

Key start panel control system as standard, digital auto start panel is optional

Optional 8-hours operation fuel tank or Base fuel tank

Optional open type or silent canopy, ATS, Sync system

All generating sets have gone through rigorous testing before delivery, including 50% load, 75% load, 100% load, 110% load and all protection function (over-speed stop, high water temp., low oil pressure, battery charging failure, emergency stop)

Criterion: ISO8528, GB/T2820, ISO3046, BS4999, BS5514, BS5000, EN12601:2001, EN60034-22:1997, EN60204-1:2006, ISO9001:2000 Quality Management & ISO14001:2004, SGS, TLC



#### **GENERAL MAIN TECHNICAL DATA**

| 3 Phase, 50Hz@1500RPM, 400/230V (380/220V, 415/240V, 440/254V are optional) |                 |                  |                  |          |            |                   |
|---|-----------------|------------------|------------------|----------|------------|-------------------|
| Voltage   | Phase<br>Factor | Prime Power      | Standby Power    | Engine   | Alternator | Control<br>System |
| 400/230V  | 3P/0.8          | 1000 kw 1250 kva | 1100 kw 1375 kva | KTA50-G3 | LVI634G    | DSE6210           |

### WEIGHT AND DIMENSIONS

| Gen-Set     | Dimensions (L x W x H)      | Weight (kg) |  |
|-------------|-----------------------------|-------------|--|
| Open Type   | 5500 mm x 2200 mm x 2500 mm | 11800 kg    |  |
| Silent Type | 6200 mm x 2500 mm x 3200 mm | 15400 kg    |  |

## **ENGINE SPECIFICATION**

| Engine Brand            | Cummins                     |  |  |
|-------------------------|-----------------------------|--|--|
| Engine Model            | KTA50-G3                    |  |  |
| Engine Type             | 16 Cylinders, V type        |  |  |
| Bore * Stroke (mm * mm) | 159*159                     |  |  |
| Displacement            | 50 L                        |  |  |
| Prime Power             | 1097kw/ 1500rpm             |  |  |
| Standby Power           | 1200kw/ 1500rpm             |  |  |
| Aspiration              | Turbocharged & Inter-cooled |  |  |
| Cooling System          | Water-cooled                |  |  |
| Speed Stability         | ≤5%                         |  |  |
| Starting Method         | Electric Starting           |  |  |
| Governor Method         | Mechanical Governor         |  |  |

### ALTERNATOR SPECIFICATION

Alternators are available for all applications. Stamford, Marathon, Leroy-Somer and Engga are available. According to their different functions, the control systems can be specified for key start controller model.

Stamford **Alternator Brand Alternator Model** LVI634G Alternators meet the requirement of 230/400V **Rated Voltage** BSEN 60034 and the relevant section of Frequency 50 HZ other international standards such as BS5000,VDE0530,NEMA MG1-32, IEC34, Winding Connection 3-phrase, 4-wire CSA22.2-100, AS1359, Other standards and **Power Factor (COS)** 0.8 certifications can be considered on request. **Exciting Method Brushless Self-exciting** The2/3 pitch design avoids excessive **Insulation Class** Class H neutral currents. With the 2/3 pitch and **Protection Class** IP23 carefully selected pole and tooth designs, ensures very low waveform Winding Pitch Two Thirds distortion. **Voltage Regulator** AVR Brushless alternator with brushless pilot **Voltage Regulation** ≤±1.0% exciter for excellent load response. Class H Efficiency 94.9% ~ 95.2% insulation, easy to parallel with mains or other generators, standard 2/3 pitch stator **Waveform Distortion** < 1.5% (no load) windings avoid excessive neutral currents. **Maximum Overspeed** 2250 Rev/Min **Telephone Interference (THF)** < 2%

#### **CONTROL SYSTEM**

Controllers are available for all applications. UK Deepsea, ComAp and SmartGen are available. By different functions, Control systems can be specified for key start control, automatic start control, PCRC three remote control.

#### Standard: Deep Sea DSE6210 Digital Auto Start

Providing the standard functions as follows:

- (Also can be made according to the customers' special requirements)
- \* Start/Stop controller
- \* Ampere meter
- \* Voltmeter and selector switch
- \* Frequency/ Water temperature/ Oil pressure/ Hour counter/ Battery/ Voltage
- \* Emergency stop pushbutton
- \* Alarm System: Over speed, High Engine Temperature, Low Oil Pressure, Charge Failure
- \* Protection System: Over speed, High Engine Temperature, Low Oil Pressure, Emergency

Stop. And the other protection function presetting

Optional: Deep Sea DES6220 or Digital Auto Start (AMF) HGM170HC Key Start

#### ASSEMBLY/ WARRANTY

- 1. Engine, Alternator coupled by SAE flange with full torsion analysis, No harmful vibration
- 2. Anti-vibration pads are used between the engine, alternator feet and the base frame.

3. All iron, steel surfaces have been treated by grit blast cleaning and coating. Then covered by special three layers painting which provides an excellent corrosion resistant surface.

4. ASAHI provides one-source responsibility for the generator, with 12 months guarantee.

#### **OPTIONAL PARTS**





DSE6210

