Diesel Generating Sets

Engine: Cummins
Alternator: Stamford
Control System: P 732 control system

ISO 8528
This generator set has been designed to meet ISO 8528 regulation.

ISO 9001
This generator set is manufactured in facilities certified to ISO 9001.

CE
This generator set is available with CE certification.

2000/14/EC
Enclosed product is tested according to EU noise legislation 2000/14/EC

### 3 Phase Ratings, 60 Hz, PF 0,8

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Standby Rating (ESP)</th>
<th>Prime Rating (PRP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>480/277</td>
<td>1530,00 kVA</td>
<td>1275,00 kw</td>
</tr>
<tr>
<td>380/220</td>
<td>1370,00 kVA</td>
<td>1246,00 kw</td>
</tr>
<tr>
<td>208/120</td>
<td></td>
<td>2366,00 Amp</td>
</tr>
</tbody>
</table>

**Standby Rating (ESP):** Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. ESP is in accordance with ISO 8528. Overload is not allowed.

**Prime Rating (PRP):** Applicable for supplying power to varying electrical load for unlimited hours. PRP is in accordance with ISO 8528. 10% overload capability is available for a period of 1 hour within 12-hour period of operation, in accordance with ISO 3046.

### STANDARD SPECIFICATIONS
- Heavy duty, water cooled diesel engine
- Radiator with mechanical fan
- Protective grille for rotating and hot parts
- Electric starter and charge alternator
- Starting battery (with lead acid) including rack and cables
- Engine coolant heater
- Steel base frame and anti-vibration isolators
- Spare external fuel tank (open set)
- Flexible fuel connection hoses
- Single bearing, class H alternator
- Industrial exhaust silencer and steel bellows supplied separately
- Static battery charger
- Manual for application and installation

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OPTIONAL EQUIPMENTS

ENGINE
- Remote Radiator Cooling
- Fuel-Water Separator Filter
- Oil heater

ALTERNATOR
- Anti-Condensation Heater
- Oversized alternator
- Main line circuit breaker

CONTROL SYSTEM
- Automatic synchronising and power control system (multi gen-set Parallel)
- Parallel system with mains
- Transition synchronization with mains
- Remote annunciator panel
- Remote relay output
- Alarm output relays
- Remote communication with modem
- Earth fault, single set
- Charge Ammeter

OTHER ACCESSORIES
- Automatic or manual fuel filling system
- Electrical oil drain pump
- Low and high fuel level alarm
- Residential silencer
- Enclosure: weather protective or sound attenuated
- Duct adapter (on radiator)
- Inlet and outlet motorised louvers
- Inlet and outlet acoustic baffles
- Trailer
- Tool kit for maintenance
- Supplied with oil and coolant - 30 °C
- Main Fuel Tank
- Automatic transfer switch

TRANSFER SWITCH
- Three Pole Contactor
- Four Pole Contactor
- Three or four pole motor operated circuit breaker
### Diesel Engine Specifications

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Cummins</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>KTA 50-G9</td>
</tr>
<tr>
<td>No. of Cylinders and Build</td>
<td>16-cylinder, V - Type</td>
</tr>
<tr>
<td>Aspiration and Cooling</td>
<td>Turbo Charged and After Cooled</td>
</tr>
<tr>
<td>Maximum Standby Power</td>
<td>1800 rpm</td>
</tr>
<tr>
<td>Total Displacement</td>
<td>50,300 L</td>
</tr>
<tr>
<td>Bore and Stroke</td>
<td>159 X 159 mm</td>
</tr>
<tr>
<td>Compression Ratio</td>
<td>13,9:1</td>
</tr>
<tr>
<td>Rated Speed (rpm)</td>
<td>1800 rpm</td>
</tr>
<tr>
<td>Governor</td>
<td>Electronic</td>
</tr>
<tr>
<td>Oil Capacity</td>
<td>204,00 L</td>
</tr>
<tr>
<td>Coolant Capacity</td>
<td>643,00 L</td>
</tr>
<tr>
<td>Intake Air Flow</td>
<td>124,50 m³/min.</td>
</tr>
<tr>
<td>Exhaust Gas Flow</td>
<td>301,00 m³/min.</td>
</tr>
<tr>
<td>Exhaust Gas Temperature</td>
<td>515,00 °C</td>
</tr>
<tr>
<td>Start System</td>
<td>24 V d.c.</td>
</tr>
<tr>
<td>Fuel Consumption</td>
<td>Load %100</td>
</tr>
<tr>
<td>L/h</td>
<td>330,00</td>
</tr>
</tbody>
</table>

### Alternator Specifications

<table>
<thead>
<tr>
<th>Make</th>
<th>Stamford</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>P1 743C</td>
</tr>
<tr>
<td>Frequency</td>
<td>Hz 60</td>
</tr>
<tr>
<td>Power</td>
<td>kw 1512,00</td>
</tr>
<tr>
<td>Design</td>
<td>Brushless, 4 poles</td>
</tr>
<tr>
<td>Cos Phi</td>
<td>0,80</td>
</tr>
<tr>
<td>Phase</td>
<td>3</td>
</tr>
<tr>
<td>Voltage</td>
<td>V 480/277</td>
</tr>
<tr>
<td>Current</td>
<td>A 2272,00</td>
</tr>
<tr>
<td>Insulation Class</td>
<td>H</td>
</tr>
<tr>
<td>Temperature</td>
<td>H</td>
</tr>
<tr>
<td>Stator</td>
<td>2 / 3 steps</td>
</tr>
<tr>
<td>Rotor</td>
<td>Single Bearing System, Flexible Disc</td>
</tr>
<tr>
<td>Excitation System</td>
<td>Electronic (AVR)</td>
</tr>
</tbody>
</table>

### Dimensions and Weight

<table>
<thead>
<tr>
<th>Type</th>
<th>Dry Weight</th>
<th>Length</th>
<th>Width</th>
<th>Height</th>
<th>Tank Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC 1530-6</td>
<td>10400,00</td>
<td>5450,00</td>
<td>1950,00</td>
<td>2450,00</td>
<td>2000,00</td>
</tr>
<tr>
<td>Canopy</td>
<td>16400,00</td>
<td>9000</td>
<td>2270</td>
<td>2550/3210</td>
<td>1900</td>
</tr>
</tbody>
</table>

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### Diesel Generating Sets

**P 732 control system - Control System**

1. Menu navigation buttons
2. Close mains button
3. Main Status and instrumentation display
4. Alarm LED's
5. Close generator button
6. Status LED's
7. Operation selecting buttons

### Devices

- DSE, model 7320 Auto Mains Failure control module
- Static battery charger
- Emergency stop push button and fuses for control circuits

### Construction and Finish

- Components installed in sheet steel enclosure. Phosphate chemical, pre-coating of steel provides corrosion resistant surface
- Polyester composite powder topcoat forms high gloss and extremely durable finish
- Lockable hinged panel door provides for easy component access

### Installation

- Control panel is mounted generating set baseframe on robust steel stand or power module.
- Located at side of generating set with properly panel visibility.

### Generating Set Control Unit

- The DSE 7320 control module is a standard addition to our generator sets from 220 kVA upwards and it has been designed to start and stop diesel and gas generating sets that include electronic and non electronic engines. The DSE 7320 includes the additional capability of being able to monitor a mains (utility) supply and is therefore suitable for controlling a standby generating set in conjunction with an automatic transfer switch. The DSE 7320 also indicates operational status and fault conditions, automatically shutting down the generating set and indicating faults by means of its LCD display on the front panel.

**Standard Specifications**

- Microprocessor controlled
- 132 x 64 pixel LCD display makes information easy to read
- Front panel programming and also via PC software
- Soft touch membrane keypad and five key menu navigation
- Remote communications via RS232, RS485 and ethernet and SMS messaging
- Event logging (50) showing date and time
- Multiple date and time engine exercise mode and maintenance scheduler
- Engine block heater control
- Controls: stop, manual, auto, test, start, mute lamb test/transfer to generator, transfer to mains, menu navigation

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**AK 98 - Canopy**

1. Steel structure made from steel sheet and steel profiles.
2. Canopy and panels made from powder coated sheet steel.
3. Emergency stop push button.
4. Control panel is mounted on the base frame. Located at the back of the canopy.
5. Corrosion-resistant locks and hinges.
6. Oil could be drained via valve and a hose.
7. Exhaust system on the canopy.
8. Special large access doors (marine type) for easy maintenance.
9. Fuel tank is at front of the canopy, easy access to the fuel tank via lockable door.
10. Lifting points similar to ISO container, located on each top corner of the canopy.
11. Integrated ladder built in to side of the canopy allows access to the top of the canopy.
13. Integrated sound proofing material.
14. The cap on the canopy provides easy access to radiator cap.

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**Introduction**

Sound-attenuated and weather protective enclosures for generating sets from Aksa, meet even the sound requirements and provide optimum protection from inclement weather and development by our specialist acoustic engineers. Our modular designed sound insulated canopies provide ease of access for servicing and general maintenance and interchangeable components permitting on-site repair. Enclosures are designed to optimize genset cooling performance, providing you with confidence that genset ratings and ambient capability.

**Standard Specifications**

- Compact footprint, low profile design.
- Enclosure, generator set, exhaust system and fuel tank are pre-assembled, pre-integrated and shipped as one package.
- Body made from steel components treated with polyester powder coating.
- Fire retardant foam insulation.
- Easy access to all service points.
- Exhaust system inside canopy.
- Large doors on each side.
- Control panel viewing window in a lockable access door.
- Emergency stop push button mounted on enclosure exterior.
- Cooling fan and battery charging alternator fully guarded.
- Fuel fill and battery can only be reached via lockable access doors.
- Lifting points on the top of canopy and base frame.
- Customer options available to meet your applications needs.
- Aksa makes its generating sets’ noise level tests in accordance with directive 2000/14/EC. Validation of the noise level test has been approved by the notified body Szutest.

<table>
<thead>
<tr>
<th>Specification</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width</td>
<td>mm.</td>
<td>2270</td>
</tr>
<tr>
<td>Lenght</td>
<td>mm.</td>
<td>9000</td>
</tr>
<tr>
<td>Height</td>
<td>mm.</td>
<td>2550/3210</td>
</tr>
<tr>
<td>Fuel Tank Capacity</td>
<td>L</td>
<td>1900</td>
</tr>
</tbody>
</table>

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