

# AC 2500

Engine : Cummins  
 Alternator : Mecc Alte  
 Control System : P 732 control system



## ISO8528

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

## SZUTEST

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



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, 50 Hz, PF 0,8

Voltage	Standby Rating (ESP)		Prime Rating (PRP)		
	kVA	kW	kVA	kW	Amp
400/230	2500,00	2000,00	2000,00	1600,00	2886,00

**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

### OPTIONAL EQUIPMENTS

#### ENGINE

- Remote Radiator Cooling
- Electronic governor control
- Fuel-Water Separator Filter
- Low water level alarm
- Oil heater

#### ALTERNATOR

- Anti-Condensation Heater
- Over sized alternator
- PMG excitation + AVR
- Single Phase ( 4 lead)
- Main line circuit breaker

#### CONTROL SYSTEM

- Automatic synchronising and power control system ( multi gen-set Parallel)
- Paralel 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
- Manual oil drain pump
- Electrical oil drain pump
- Low and high fuel level alarm
- Residential silencer
- Enclosure: weater protective or sound attenuated
- Duct adapter ( on radiator)
- Inlet and outlet motorised louvers
- Inlet and outlet acoustic baffles
- Trailer
- Tool kit for maintenance
- 1500/3000 hours maintenance kit
- Double wall chassis
- Supplied with oil and coolant - 30 °C
- Battery isolating switch
- Battery heater
- Main Fuel Tank
- Automatic transfer switch

#### TRANSFER SWITCH

- Three Pole Contactor
- Four Pole Contactor
- Three or four pole contactor
- Motor Switch
- Three or four pole motor operated circuit breaker

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## ● DIESEL ENGINE SPECIFICATIONS

Manufacturer		Cummins		
Model		QSK 60 G13		
No. of Cylinders and Build		16-cylinder, V - Type		
Aspiration and Cooling		Turbo Charged and Two Pump Two Loop		
Maximum Standby Power		1500 rpm		
		2164,00 kW [2901,00HP]		
Total Displacement	L	60,200		
Bore and Stroke	mm	159 x 190		
Compression Ratio		14,5:1		
Rated Speed (rpm)	rpm	1500		
Governor		Electronic		
Oil Capacity	L	280,00		
Intake Air Flow	m <sup>3</sup> /min.	154,40		
Exhaust Gas Flow	m <sup>3</sup> /min.	293,20		
Exhaust Gas Temperature	° C	507,00		
Start System		24 V d.c.		
Fuel Consumption	Load	%100	%75	%50
	L/h	399,00	302,00	210,00

## ● ALTERNATOR SPECIFICATIONS

Make		Mecc Alte
Model		ECO46-1,5L/4
Frequency	Hz	50
Power	kW	2300,00
Design		Brushless, 4 poles
Cos Phi		0,80
Phase		3
Voltage	V	400/230
Current	A	2324,00
Insulation Class		H
Temperature		H
Stator		2 / 3 steps
Rotor		Single Bearing System, Flexible Disc
Excitation System		Electronic ( AVR )

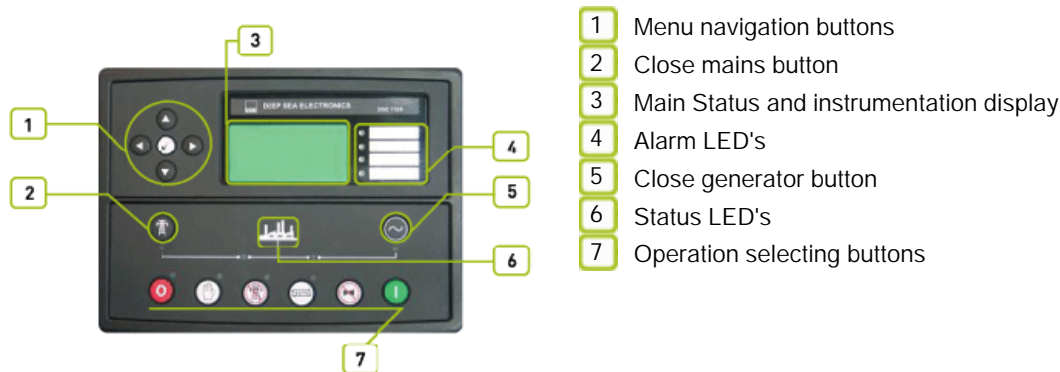
## ● DIEMENSIONS AND WEIGHT

Open Type	Dry Weight	Lenght	Width	Height	Tank Capacity
	kg.	mm.	mm.	mm.	L
AC 2500	17200,00	6000,00	2494,00	3320,00	2000,00
Canopy	Dry Weight	Lenght	Width	Height	Tank Capacity
	kg.	mm.	mm.	mm.	L
AK 99	22800.00	9000	2800	3300/4800	2200

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## 1 P 732 control system - Control System



### 2 Devices

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

### 3 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

### 4 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.

## 5 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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## Instruments

- ENGINE
- Engine speed
- Oil pressure
- Coolant temperature
- Run time
- Battery volts
- Engine maintenance due
- GENERATOR
- Voltage (L-L, L-N)
- Current (L1-L2-L3)
- Frequency
- Earth current
- kW
- Pf
- kVAr
- kWh, kVAh, kVArh
- Phase sequence
- MAINS
- Voltage (L-L, L-N)
- Frequency

## Protection Circuits

- WARNING
- Charge failure
- Battery under voltage
- Fail to stop
- Low fuel level (opt.)
- kW over load
- Negative phase sequence
- Loss of speed signal
- PRE-ALARMS
- Low oil pressure
- High engine temperature
- Low engine temperature
- Over /Under speed
- Under/over generator frequency
- Under/over generator voltage
- ECU warning
- SHUT DOWNS
- Fail to start
- Emergency stop
- Low oil pressure
- High engine temperature
- Low coolant level
- Over /Under speed
- Under/over generator frequency
- Under/over generator voltage
- Oil pressure sensor open
- Phase rotation
- ELECTRICAL TRIP
- Earth fault
- kW over load
- Generator over current
- Negative phase sequence

## Options

- High oil temperature shut down
- Low fuel level shut down
- Low fuel level alarm
- High fuel level alarm
- EXPANSION MODULES
- Editional LED module (2548)
- Expension relay module (2157)
- Expansion input module (2130)

## Standards

- Electrical Safety / EMC compatibility
- BS EN 60950 Electrical business equipment
- BS EN 61000-6-2 EMC immunity standard
- BS EN 61000-6-4 EMC emission standard

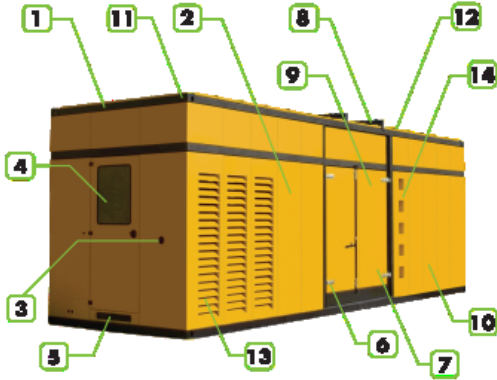
## Static Battery Charger

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## AK 99 - 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 baseframe . Located at the back of the generator set
- 5
- 6 Cables out locations are back of the canopy.
- 7 Corrosion-resistant locks and hinges.
- 8 oil could be drained via valve and a hose
- 9 Exhaust system on the canopy.
- 10 special large access doors for easy maintenance
- 11 the cap on the canopy provides easy access to radiator cap.
- 12 Lifting points similar to ISO container , located on each top corner of the canopy.
- 13
- 14 sound proofing materials

## 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

Width	mm.	2800
Length	mm.	9000
Height	mm.	3300/4800
Fuel Tank Capacity	L	2200