

# ADG 210

Engine : Doosan  
 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.

**CE** This generator set is available with CE certification.

**2000/14/EC** Enclosed product is tested EU noise legislation 2000/14/EC

## Rated Power, 3 Phase, 50 Hz, PF 0,8

Voltage	Standby Rating (ESP)		Prime Rating (PRP)		
	kVA	kW	kVA	kW	Amp
400/230	210.00	168.00	190.00	152.00	274.00

**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.

## Optional Equipments

### ENGINE

- Remote Radiator Cooling
- Low Coolant level alarm
- Oil heater

### WISE ACCESSORIES

- Manual oil drain pump
- Electrical oil drain pump
- Enclosure: weater protective or sound attenuated
- Duct adapter ( on radiator)
- Inlet and outlet motorised louvers
- Tool kit for maintenance
- 1500/3000 hours maintenance kit
- Supplied with oil and coolant - 30 °C
- Automatic transfer switch

### ALTERNATOR

- Anti-Condensation heater
- Over sized alternator
- Single Phase ( 4 lead)
- Main line circuit breaker

### CONTROL SYSTEM

- Automatic synchronising and power control system ( multi gen-set Parallel )
- Paralel system with mains.
- Remote annunciator panel
- Alarm output relays
- Remote communication with modem
- Earth fault, single set
- Charging ammeter

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## ● Natural Gas Powered Engine Specification

Manufacturer	Doosan	
Model	GE 12TI	
No. Of Cylinders and Build	6 Cylinder V Type	
Aspiration and Cooling	Turbo Charged and After Cooled	
Maximum Standby Power	1500 d/dk	192.0kW[HP]
Total Displacement	L	11.051
Bore and Stroke	Bore and Stroke	123 x 155
Compression Ratio	10,5 : 1	
Rated Speed	rpm	1500
Governor	Electronic	
Fuel Consumption	m <sup>3</sup> /h	43
Gas Pressure	mbar	70 - 300
Oil Capacity	L	25
Water Capacity	L	21
Absorbed Air Discharge	m <sup>3</sup> /min.	780
Disposal Air	m <sup>3</sup> /sec	4,50
Exhaust Gas Flow	m <sup>3</sup> /min.	1380
Exhaust Gas Temperatures	° C	545
Electricity System	24 Vdc	

## ● Alternator Specification

Manufacturer	Mecc Alte	
Model	ECO38 - 1SN	
Power	kW	180
Design	Brushless, 4 poles	
Cos fi	0,80	
Phase	3	
Voltage	V	400/230
5_ia	A	259
Insulation Class	H	
Stator	2 / 3 steps	
Excitation System	Electronic ( AVR )	

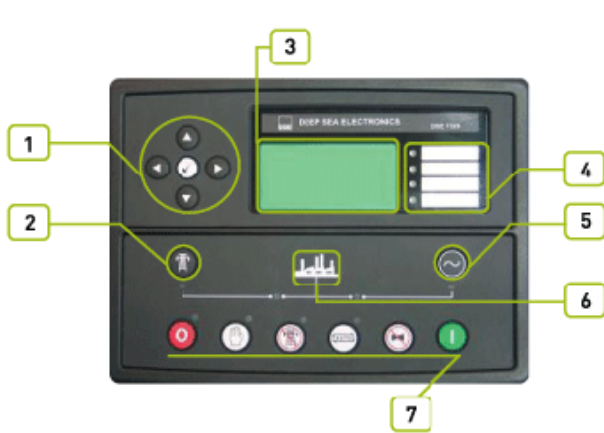
## ● Dimensions and Weight

Open Type	Dry Weight	Lenght	Width	Height
	kg.	mm.	mm.	mm.
<b>ADG 210</b>	2320	2970	1010	1710
Sound Attenuated Type	Dry Weight	Lenght	Width	Height
	kg.	mm.	mm.	mm.
<b>MS 60</b>	2900	3960	1300	2100

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## P 732 control system - Control System



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

## Devices

DSE, model 7320 Auto Mains Failure control module  
 Static battery charger 5A, 220/240 volt  
 Emergency stop push button and fuses for control circuits

## Structure And Paint

Comonents 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

## Montage

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

## Generator Control Unit

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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

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## Indicator

- 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

- WARNING
- Charge failure
- Battery under voltage
- Fail to stop
- Low fuel level (opt.)
- kW over load
- Negative phase sequence
- 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

## Optional Properties

- 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

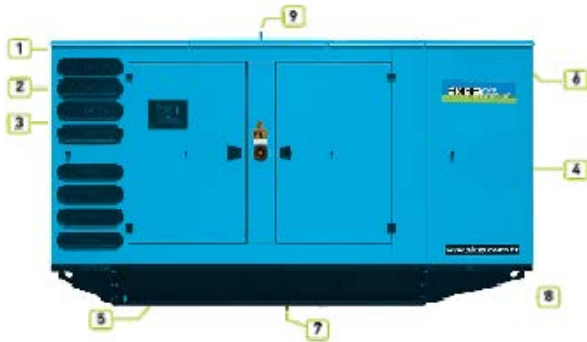
## Electronic Charge Equipment

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# ADG 210

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## MS 60 - Canopy



- 1 Steel structures
- 2 Emergency stop push button
- 3 Control panel is right side of the set.
- 4 Corrosion-resistant locks and hinges
- 5 Sump drains valves
- 6 Exhaust system in the canopy
- 7 Lockable, large doors o each side
- 8 Sound proof foam metarial
- 9 Lifting points

## Introduction

Sound-attenuated and Weather-protective Enclosures Sound-attenuated and weather protective enclosures for generating sets from Aksa, meet event 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.

## Standart Specification

- Compact footprint, low profile design.
- Enclosure, generator set, exhaust system and fuel tank are pre-ssembled, 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 aproved by the notified body Szutest

Canopy Model		AK 61
Width	mm.	1300
Lenght	mm.	3960
Height	mm.	2100