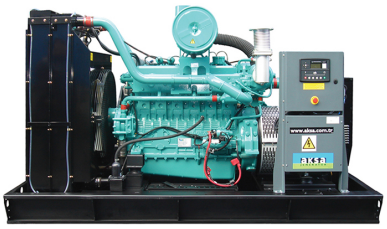
Standby 158 kVA

Natural Gas Genarating Sets Powered

ADG 158

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

	Standby Rating (ESP)		Prime Rating (PRP)		
Voltage	kVA	kW	kVA	kW	Amp
400/230	158.00	126.00	143.00	114.00	206.00

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 perod of operation,in accordance with ISO 3046.

Optional Equipments

ENGINE

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

ALTERNATOR

- Anti-Condensation heater
- Over sized alternator
- Main line circuit breaker

VISE 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

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
No. Of Cylindirs and Build		6-cylinder, Sequential Type
Aspiration and Cooling		Turbo Charged and After Cooled
Maximum Standby Power	1500 d/dk	141.0kW[HP]
Total Displacement	L	8.071
Bore and Stroke	Bore and Stroke	111 x 139
Compression Ratio		10,5 : 1
Rated Speed	rpm	1500
Governor		Electronic
Fuel Consumption	m³/h	31,8
Gas Pressure	mbar	70 - 300
Oil Capacity	L	23
Absorbed Air Discharge	m³ /dk.	618
Disposal Air	m³ /san	3,50
Exhaust Gas Flow	m³ /dk.	990
Exhaust Gas Tempratures	° C	540
Electricity System		24 Vdc

Alternator Specification

Manufacturer		Mecc Alte
Model		ECP34 - 2L
Power	kW	150
Design		Brushless, 4 poles
Cos fi		0,80
Phase		3
Voltage	V	400/230
Akm	A	216
Insulation Class		H
Stator		2 / 3 steps
Excitation System		Electronic (AVR)

Diemensions and Weight

Open Type	Dry Weight	Lenght	Width	Height
	kg.	mm.	mm.	mm.
ADG 158	1960	2860	1010	1700
Sound Attenuated Type	Dry Weight	Lenght	Width	Height
	kg.	mm.	mm.	mm.
MS 60	2500	3960	1300	2100

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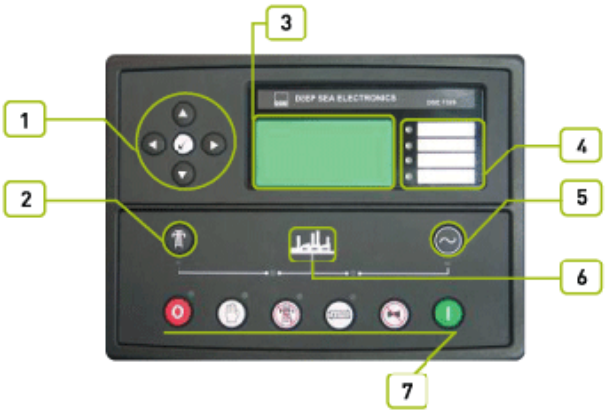
P 732 control system - Control System



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

The DSE 7320 conrol module is a standard addition to our generator sets from 250kVA upwards and it have been designed to start and stop diesel andgas 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 DSE7320 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.

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

Elecrical 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

Battery charger is manufactured with switching-mode and SMD technology and it has high efficincy.
Battery charger models' output V-I characteristic is very close to square and output is 5 amper, 24 volt DC. Input 198 - 260 volt AC. 2405 has fully output shot circuit protection and it can be used as a current source.
2405 charger has high efficiency, long life, low failure rate, light weight and low heat radiated in accordance with linear alternatives.
The charger is fitted with a protection diode across the output. Charge fail output is available. Connect charge fail relay coil between positive output and CF output.

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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		MS 60
Width	mm.	1300
Lenght	mm.	3960
Height	mm.	2100