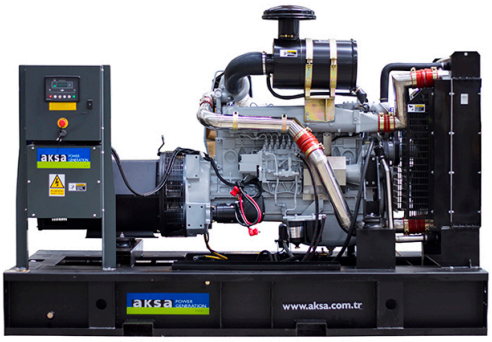
APD 275 C



INTRODUCTION

Aksa power generation system, providing optimum performance, and reliability, for stationary standby, prime power, and continuous duty applications. All generator sets are factory build, and production tested.

Power (kVA)

3 Phase,50 Hz, PF 0.8

VOLTAGE	STANDBY RATING (ESP)		PRIME RATING (PRP)		Standby Amper
	kW	kVA	kW	kVA	
400/231	220,00	275,00	200,00	250,00	396,94

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.

General Characteristics

Model Name	APD 275 C
Frequency (Hz)	50
Fuel Type	Diesel
Engine Made and Model	CUMMINS 6LTAA8.9G2
Alternator Made and Model	AK 4200
Control Panel Model	DSE 7320
Canopy	ASM 6A

ENGINE SPECIFICATIONS

Engine	CUMMINS
Engine Model	6LTAA8.9G2
Number of Cylinder (L)	6 cylinders - in line
Bore (mm.)	114
Stroke (mm.)	145
Displacement (lt.)	8,90
Aspiration	Turbo Charged and Change Air Cooled
Compression Ratio	16.6:1
RPM (d/dk)	1500

Oil Capacity (Total With Filter) (lt)	21
Standby Power (kW/HP)	240/322
Prime Power (kW/HP)	220/295
Block Heater QTY	1
Block Heater Power (Watt)	1500
Fuel Type	Diesel
Injection Type and System	Direct
Type of Fuel Pump	BYC P7100
Governor System	Electronic
Operating Voltage (Vdc)	24 Vdc
Battery and Capacity (Qty/Ah)	2x80
Cooling Method	Water Cooled
Cooling Fan Air Flow (m3/min)	475
Coolant Capacity (engine only / with radiator) (lt)	41,1
Air Filter	Dry Type
Fuel Cons. Prime With %100 Load (lt/hr)	53
Fuel Cons. Prime With %75 Load (lt/hr)	39
Fuel Cons. Prime With %50 Load (lt/hr)	27

ALTERNATOR CHARACTERISTICS

Manufacturer	Aksa
Alternator Made and Model	AK 4200
Frequency (Hz)	50
Power (kVA)	250
VOLTAGE (V)	400
Phase	3
A.V.R.	SX440
Voltage Regulation	(+/-)1%
Insulation System	H
Protection	IP22
Rated Power Factor	0.8
WEIGHT WOUND ROTOR (Kg)	272.6
COOLING AIR (m^3/min)	34.8

Open Gen.Set Dimensions (mm)

LENGHT	2600
WIDTH	1250
HEIGHT	1684
DRY WEIGHT (kg.)	1950
TANK CAPACITY (lt.)	473

Gen.Set Canopy Dimensions (mm)

LENGHT	3648
WIDTH	1313
HEIGHT	2035
DRY WEIGHT (kg.)	2600
TANK CAPACITY (lt.)	473

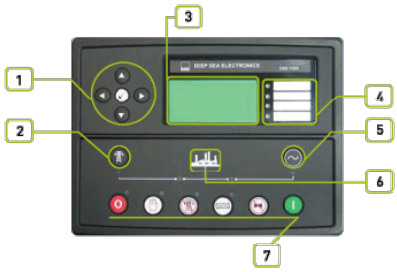
1. Steel structures.
2. Emergency stop push button.
3. Control panel is mounted on the baseframe . Located at the right side of the generator set.
4. Corrosion-resistant locks and hinges.
5. oil could be drained via valve and a hose
6. Exhaust system in the canopy.
7. special large access doors for easy maintanance
8. Base frame -fuel tank.
9. Lifting Points.
10. sound proofing materials.

INTRODUCTION

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 (8 – 275kVA) fit directly to the open generator set to 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.

Control Panel

Control Module	DSE
Control Module Model	DSE 7320
Communication Ports	MODBUS



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

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

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 conrol module is a standard addition to our generator sets from 220 kVA upwards and it has 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.

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, manuel, auto, test, start, mute lamb test/transfer to generator, transfer to mains, menu navigation.

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

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

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

STATIC BATTERY CHARGER

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

2405 has fully output shot circuit protection and ıt 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.

Input: 196-264V.

Output: 27,6V 5A or 13,8V 5A.

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
- Two bearing, class H alternator
- Industrial exhaust silencer and steel bellows supplied separately
- Static battery charger
- Manual for application and installation

OPTIONAL EQUIPMENTS

ENGINE

Fuel-Water Seperator Filter

Oil heater

ALTERNATOR

Anti-Condensation Heater

Main line circuit breaker
CONTROL SYSTEM
Charge Ammeter
TRANSFER SWITCH
Three or four pole contactor
Three or four pole motor operated circuit breaker
OTHER ACCESSORIES
Main Fuel Tank
Manual oil drain pump
Residential silencer
Enclosure: weater protective or sound attenuated
Trailer
Tool kit for maintenance

AKSA CERTIFICATES

- ISO 14001-2004
- TS ISO 8528
- TS ISO 9001-2008
- CE
- SZUTEST
- 2000/14/EC