



DIESEL POWERED GENERATING SETS

aksa POWER
GENERATION

**220
580 kVA**

**176
464 kW**



Generating Set Model	Power Pf.0,8 400 / 230 V - 50 Hz	
	Standby kVA	Prime kVA
AD 220	220	200
AD 275	275	250
AD 330	330	300
AD 410	410	375
AD 490	485	425
AD 510	510	460
AD 580	580	525

Standby: Continuous running at variable load for duration of an emergency. No overload is permitted on these ratings.

Prime: Continuous running at variable load for unlimited periods with 10% overload available for 1 hour in any 12 hour period. Contact us for the other running periods.

STANDARD GENSET SPECIFICATIONS

ENGINE

- DOOSAN heavy duty diesel engine
- Four stroke, water cooled, turbocharged charge air cooled
- Direct injection fuel system
- Electronic governor control system
- 24 V.D.C. starter and charge alternator
- Replaceable fuel filter, oil filter and dry element air filter
- Cooling radiator and fan
- Starter battery (with lead acid) including Rack and Cables
- Flexible fuel connection hoses and oil sump drain valve
- Industrial capacity exhaust silencer and steel bellows
- Jacket water heater
- Manual for application and installation

ALTERNATOR

- Brushless, single bearing system, flexible disc, 4 poles
- Insulation class H
- Standard degree of protection IP21
- Self-exciting and self-regulating
- Impregnation with tropicalized epoxy varnished
- Stator winding with 2/3 pitch for improved harmonics
- Solid state Automatic Voltage Regulator
- Close voltage regulation

CHASSIS

- Steel chassis and antivibration pads
- Base frame design incorporates an integral fuel tank
- The generating set can be lifted or carefully pushed / pulled by the base frame
- Dial type fuel gauge and drain plug on the fuel tank

CANOPY

- All canopy parts are designed with modular principles
- Without welding assembly
- Lockable doors on each side.
- Panel window
- All metal canopy parts are painted by electrostatic polyester powder paint
- Thermally insulated engine exhaust system
- Exterior emergency stop push button.
- Easy lifting and moving
- Easy maintenance and operation

QUALITY STANDARDS

The equipment meets the following standards:
IEC 34-1, ISO 3046, VDE 0530, BS 4999, BS 5000.
The generating sets are manufactured by a full accredited ISO 9001 Szutest.

SZUTEST



TS EN ISO 9001:2008

CONTROL SYSTEM

1) Auto. Mains Failure control panel - P732

Control, supervision and protection panel is mounted on the gen-set base frame. The control panel is equipped as follows:

Equipments:

- Control with DSE, model 7320 module
- Static battery charger
- Emergency stop push button.

a) Control Module DSE 7320 Features

- The module monitors a mains supply and controls a standby generating set with automatic transfer switch
- Module indicates operational status and fault conditions by means of its LCD display
- Microprocessor controlled
- Front panel programming and also via PC software
- 132 x 64 pixel LCD display makes information easy to read
- Soft touch membrane keypad and five key menu navigation
- Remote communication via RS 232, RS 485 and Ethernet and SMS messaging
- Event logging (50) showing date and time
- Multiple date and time engine exercise mode and maintenance scheduler

Controls

Stop - Manual - Auto - Test - Start - Mute/Lamp test -
Transfer to generator - Transfer to mains - Menu navigations buttons

b) Instruments via LCD display

Engine

- Oil pressure (PSI & Bar)
- Temperature (°C & °F)
- Speed RPM
- Run time
- Battery volts
- Maintenance due

Mains

- Volts (L-L / L-N)
- Frequency (Hz)

c) Protections

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

d) Led Indication

- Mains available
- Mains on load
- Generator available
- Generator on load

Generator

- Volts (L-L / L-N)
- Currents (L1, L2, L3)
- Frequency (Hz)
- kW
- Cosφ
- kVA, kVAR,
- kWh, kVAh, kVARh
- Phase sequence

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



DSE 7320

2) Power Outlet Terminal Board Mounted on the Genset Baseframe

DIESEL GENERATING SETS 400 / 230 V - 50Hz

GROUP

DIESEL ENGINE

Model		AD 220	AD 275	AD 330	AD 410	AD 490	AD 510	AD 580	
Power Pf. 0,8	Standby	kVA	220	275	330	410	485	510	580
		kW	176	220	264	328	388	408	464
	Prime	kVA	200	250	300	375	425	460	525
		kW	160	200	240	300	340	368	420
Engine Make		DOOSAN							
Model		P086TI	P126TI	P126TI-II	P158LE-1	P158LE	DP158LC	DP158LD	
Gross Engine Power Output at rated rpm	kW	199	272	294	362	414	449	510	
	HP	267	364	394	485	555	602	683	
Aspiration and Cooling		Turbocharged & Charge Air Cooled							
Total Displacement	Liter	8,07	11,05		14,6		14,618		
No. of Cylinders and Build		6 - Inline			8 - V				
Engine Speed	rpm	1500							
Bore ve Stroke	mmxmm	111 x 139	123 x 155		128 x 142				
Compression Ratio		16,4:1	17,1:1		15,0:1				
Governor		Electronic							
Fuel Consumption	1/2	21,1	27,5	31,3	40	43,9	48,9	55,1	
	L/h Load 3/4	31,7	40	47	58,4	65,1	72,9	83,4	
	Full	43,1	53,3	63,1	78,7	89,3	99,6	115,1	
Fuel Tank Capacity	Liter	380	470		700				
Oil Capacity	Liter	15,5	23		21		22		
Coolant Capacity	Liter	46	52		68,5		90		
Radiator Cooling Air	m³/min	190	370	450	522		550	700	
Air intake - Engine	m³/min	16,95	21,09	22,33	26,1	29,1	30,1	33,1	
Exhaust Gas Flow	m³/min	33,9	49,7	51,2	59,5	78,3	88	98	
Exhaust Gas Temperature	°C	580	593	650	520	580	529	561	

Open Type

Dimensions (Lenght x Width x Height)	m	2,69 x 1,15 x 1,62	3,02 x 1,3 x 1,6		3,03 x 1,55 x 1,99	3,11 x 1,55 x 1,99	3,11 x 1,55 x 1,99	3,11 x 1,55 x 1,99
Dry Weight	kg	1800	2265	2375	3030	3130	3150	3350

Sound Attenuated Type

Canopy Model		AK 50	MS 60		MS 70			
Dimensions (Lenght x Width x Height)	m	3,4 x 1,22 x 1,94	3,96 x 1,36 x 2,1		4,46 x 1,61 x 2,48			
Dry Weight	kg	2175	2950	3065	4025	4150	4100	4200

Manufacturer reserves the right to make changes in model, technical specifications,color,equipment and accessories without prior notice.

Optional Equipments

Diesel Engine

- Oil heater

Alternator

- 3 pole output circuit breaker
- Anti-condensation heater

Panel

- Charge ammeter
- Transfer switch 3 pole
- Transfer switch 4 pole
- Earth fault, single set
- Automatic synchronising and power control

Accessories

- Bulk fuel tank
- Automatic or manual fuel filling system
- Fuel - water separator filter
- Manual oil sump drain pump
- Low fuel level alarm
- Residential silencer
- Enclosure or soundproof canopy
- Trailer
- Tool kit for maintenance



Akso makes its sound attenuated generator sets sound pressure level tests in accordance with Directive 2000/14/EC validation of the sound level test has been approved by the notified body szutest

Akso Jeneratör Sanayi A.Ş.
Rüzgarlıbağçe Mah., Selvi Çıkmazı, No:10
34805, Kavacık - Beykoz / İSTANBUL
T: 0216 681 00 00 F: 0216 681 57 81
e-mail: akso@akso.com.tr www.akso.com.tr

