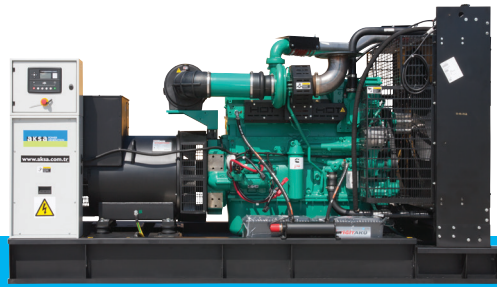




# DIESEL POWERED GENERATING SETS

**350**  
**550** kVA

**280**  
**440** kW



Generating Set Model	Power Pf.0,8 400 / 230 V - 50 Hz	
	Standby	Prime
	kVA	kVA
AC 350	350	300
AC 400	400	360
AC 500	500	455
AC 550	550	500

**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

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

### ALTERNATOR

- Brushless, single bearing system, 4 poles, flexibel disc
- Insulation class H
- Standard degree of protection IP23
- Self-exciting and self-regulating
- Solid state automatic voltage regulator
- Screen protected and drip proof
- Impregnation with tropicalized epoxy varnished
- Stator winding with 2/3 pitch for improved harmonics
- 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
- All metal canopy parts are painted by electrostatic polyester powder paint
- Panel window
- Lockable doors on each side.
- Easy maintenance and operation
- Easy lifting and moving, central lifting
- Thermally insulated engine exhaust system
- Exterior emergency stop push button.

### QUALITY STANDARDS

- ISO 9001:2008, TS ISO 8528-4, TS ISO 8528-5, TS ISO 8528-8, BS EN ISO 14001:2004, BS OHSAS 18001:2007, TS 12650
- Generators Sets' voltage and frequency regulation comply with ISO 8528-5
- Generators Sets' can take 100% load at one step according to NFPA110

### 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
- 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 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)

###### Generator

- Volts (L-L / L-N)
- Currents (L1, L2, L3)
- Frequency (Hz)
- kW
- Cosφ
- kVA, kVA<sub>r</sub>,
- kWh, kVAh, kVA<sub>r</sub>h
- Phase sequence

##### 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

###### 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

##### d) Led Indication

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



**DSE 7320**

## DIESEL GENERATING SETS 400 / 230 V - 50Hz

**GROUP**
**DIESEL ENGINE**

Model			AC 350	AC 400	AC 500	AC 550	
Power	Standby	kVA	350	400	500	550	
		kW	280	320	400	440	
Pf. 0,8	Prime	kVA	300	360	455	500	
		kW	240	288	364	400	
Engine Make			Cummins				
Model			QSL9 - G5	NTA 855 G4	QSX15-G6	QSX15-G8	
Gross Engine Power Output (at rated rpm)			kW	310	351	459	500
			Hp	415	470	615	670
Aspiration and Cooling			Turbocharged & IC	Turbocharged & AC	Turbocharged & IC		
Total Displacement			Liter	8,8	14	15	
No. of Cylinders and Build			6 - Inline				
Engine Speed			rpm				
			1500				
Bore ve Stroke			mmxmm	114 x 145	140 x 152	137 x 169	137 x 169
Compression Ratio				16,8 : 1	14,0 : 1	17,0:1	17,0:1
Governor Type			Electronic				
Fuel Consumption	L/h	Load	1/2	31	39	51,3	54,7
			3/4	46	57	74,3	78,7
			Full	63	76	95,9	103
Fuel Tank Capacity			Liter	470	700	850	
Total Oil Capacity			Liter	26,5	38,6	91	91
Coolant Capacity (Engine and radiator)			Liter	28,6	66	66	66
Radiator Cooling Air			m <sup>3</sup> /min	475	456	708	708
Air intake - Engine			m <sup>3</sup> /min	20,4	26	33	36,3
Exhaust Gas Flow			m <sup>3</sup> /min	31,2	73,5	82,2	82,2
Exhaust Gas Temperature			°C	560	541	515	515

*IC: Inter Cooler*
*AC: After Cooler*
*\*at standby power*

### Open Types

Dimensions (Length x Width x Height)	m	2,9 x 1,3 x 1,87	3,15 x 1,55 x 2,07	3,38 x 1,55 x 2,1	
Dry Weight	kg.	2630	3130	3815	3850

### Sound Attenuated Types

Canopy Model		MS 60	MS 70	MS 80	
Dimensions (Length x Width x Height)	m	3,96 x 1,36 x 2,1	4,46 x 1,61 x 2,48	4,81 x 1,61 x 2,62	
Dry Weight	kg.	3450	4200	4815	4850

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

### Optional Equipments

#### Diesel Engine

- Oil heater
- Remote radiator (AC 400)

#### Alternator

- 3 pole output circuit breaker
- Anti-condensation heater
- Oversized alternator

#### 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 drain pump
- Low fuel level alarm
- Residential silencer
- Enclosure or soundproof canopy
- Trailer
- Tool kit for maintenance



Akxa makes its sound attenuated generator sets sound pressure level tests in accordance with Directive 2000/14/EC.

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