

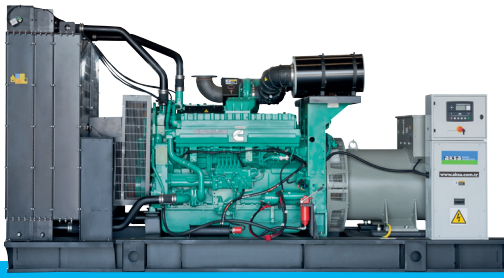


# DIESEL POWERED GENERATING SETS

**aksa** POWER GENERATION

700  
1410 kVA

560  
1128 kW



Generating Set Model	Power Pf.0,8	
	400 / 230 V - 50 Hz	
	Standby	Prime
AC 700	700 kVA	638 kVA
AC 825	825	-
AC 880	880	800
AC 1100	1100	1000
AC 1100K	1100	1000
AC 1410	1410	1280

**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
- 4 valves per cylinder
- 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 pump
- Industrial capacity exhaust silencer and steel bellows
- Starter battery (with lead acid) including Rack and Cables
- Jacket water heater
- Manual for use and installation

### ALTERNATOR

- Brushless, single bearing system, 4 poles, flexible 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
- The generating set can be lifted or carefully pushed / pulled by the base frame
- Separate fuel tank (AC700 and AC825 have integral fuel tank)
- Lifting eyes allow is the transportation by a crane

### ENCLOSURE

- All canopy parts are designed with modular principles
- All metal canopy parts are painted by electrostatic polyester powder paint
- Lockable doors on each side
- Acoustic fire retardant foam is covered in side the enclosure
- Aluminium internal floor (AK99,MS85 except)
- Residential silencer
- The enclosure have four lifting points
- Easy maintenance and operation
- Model AK99 enclosure is droop over style
- Colour black/yellow (RAL 9005 / RAL 1003)
- Emergency stop push button is installed outside of canopy

### 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
- 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)

##### Generator

- Volts (L-L / L-N)
- Currents (L1, L2, L3)
- Frequency (Hz)
- kW
- Cos φ
- kVA, kVAR,
- kWh, kVAh, kVAh
- 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

#### d) Led Indication

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

##### 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**

**DIESEL GENERATING SETS**  
**400 / 230 V - 50Hz**
**GROUP**

Model		AC 700	AC 825	AC 880	AC 1100	AC 1100K	AC 1410
Power	Standby	kVA 700	825	880	1100	1100	1410
		kW 560	660	704	880	880	1128
Pf. 0,8	Prime	kVA 638	-	800	1000	1000	1280
		kW 510	-	640	800	800	1024

**DIESEL ENGINE**

Engine Make		Cummins					
Model		VTA28-G5	VTA 28-G6	QSK 23-G3	QST 30-G4	KTA38G5	KTA 50 G3
Gross Engine Power Output (at rated rpm)	kW	612	722	768	970	970	1227
	HP	820	968	1030	1300	1300	1645
Aspiration and Cooling		Turbo Charged & AC		Turbo Charged & IC	Turbo Charged + 2 Pump & 2 Loop	Turbo Charged & AC	
Total Displacement		28		23,15	30,48	37,8	50,3
No. of Cylinders and Build		12 V		6-Inline	12 V	12 V	16 V
Engine Speed		1500					
Bore ve Stroke		140 x 152	140 x 152	170 x 170	140 x 165	159 x 159	
Compression Ratio		13,1:1	13,1 : 1	16,0:1	14,0 : 1	13,9 : 1	
Governor Type		Electronic					
Fuel Consumption (L/h) Load	1 / 2	73	91	85	102	113	139
	3 / 4	104	133	121	151	161	199
	Full	140	180*	161	202	209	261
Fuel Tank Capacity		1000	1000	1500	1500	1500	2000
Total Oil Capacity		83	83	103	154	135	177
Coolant Capacity (Engine and radiator)		170	170	120	342	350	415
Radiator Cooling Air		651	651	626	1111	1489	1770
Air intake - Engine		52,68	54,84	53,3	60,3	72,8	104,8
Exhaust Gas Flow		122,88	132,72	147,8	178,8	198,4	240,7
Exhaust Gas Temperature		507	489	543	575	513	525

 IC: Inter Cooler  
 AC: After Cooler

\*At standby power

**Open Types**

Dimensions (Lenght x Width x Height)	m	3,81 x 1,55 x 2,27	3,95 x 1,55 x 2,27	3,95 x 1,71 x 2,23	4,4 x 1,78 x 2,34	4,47 x 1,77 x 2,37	4,86 x 2,10 x 2,41
Dry Weight	kg.	5470	5610	5950	7350	8600	9900

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

**Sound Attenuated Types**

Canopy Model	MS 85	AK 90	AK 96	AK 98
Dimensions (Lenght x Width x Height)	5,3 x 1,61 x 2,66	6,5 x 2,2 x 2,35	7,5 x 2,3 x 2,5	9,0 x 2,27 x 2,55 / 3,2
Dry Weight	7030	7170	9100	11000
Fuel Tank Capacity	1000	1100	1500	12250
				14000
				1900

**Optional Equipments**
**Diesel Engine**

- Oil heater
- Remote radiator (AC880 except)

**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
- Remote communications

**Accessories**

- Bulk fuel tank
- Automatic or manual fuel filling system
- Fuel - water separator filter
- Low fuel level alarm
- Residential silencer
- Enclosure or soundproof container
- Trailer
- Tool kit for maintenance



Akşa 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

 Akşa Jeneratör Sanayi A.Ş.  
 Rüzgarlıbağçe Mah., Özalp Çıkmazi, No:10  
 34805, Kavacık - Beykoz / İSTANBUL  
 T: 0216 681 00 00 F: 0216 681 57 81  
 e-mail: akşa@aksa.com.tr www.aksa.com.tr