



# DIESEL POWERED GENERATING SETS

55 kVA  
170

44 kW  
136



Generating Set Model	Power Pf.0,8 400 / 230 V - 50 Hz	
	Standby kVA	Prime kVA
	AC 55	55
AC 66	66	60
AC 110	110	100
AC 150	150	135
AC 170	170	155

**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, turbocharged
- Direct injection fuel system
- Mechanical governor control system
- Electronic governor control system AC110, AC150, AC170
- 12 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 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, 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
- 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 lifting and moving, central lifting
- Thermally insulated engine exhaust system
- Exterior emergency stop push button
- Easy maintenance and operation

### 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

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

#### 1. Auto. Mains Failure Control Panel - P 602

Panel equipments:

- Control with DSE, model 6020 module
  - Static battery charger
  - Emergency stop push button.
- a) DSE 6020 Module Features:**
- Automatic control generating set start and stop
  - 3 phase generator and mains voltage monitoring
  - Transfer between mains and generator power
  - Scrolling digital LCD display
  - 4-line, 64x132 graphic display with LED backlight
  - Front panel configuration of timers and alarm trip points
  - Easy push button control
  - STOP/RESET - MANUAL - AUTO - TEST - START
  - LCD display Scroll push-button
  - Page button
  - Remote start
  - Micro processor controlled
- b) Metering via LCD Display:**
- Generator Volt (L-L, L-N)
  - Generator Ampere (L1,L2,L3)
  - Generator Frequency (Hz)
  - Configurable timing
  - Event log(5) events
  - Engine hours run
  - Engine oil pressure (PSI)
  - Engine speed RPM
  - Engine cooling temperature (°C)
  - Plant battery volts
  - Mains Volts (L-L, L-N)
  - Mains frequency (Hz)

#### c) Protections

##### Shutdowns

- Under/Over Speed
- Fail to stop
- Over current electrical trip
- Engine low oil pressure
- High coolant temperature
- Fail to start
- Under/over generator frequency
- Under/over generator voltage
- Emergency stop
- Oil pressure sensor open
- Coolant temperature sensor open

##### Warning

- Under/Over generator voltage
- Over/under generator frequency
- Over/under speed
- Engine low oil pressure
- High coolant temperature
- Battery high/low voltage
- Charge alternator failure
- Fail to stop

#### d) LED Indications:

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



DSE 6020

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

Model			AC 55	AC 66	AC 110	AC 150	AC 170		
Power	Standby	kVA	55	66	110	150	170		
		kW	44	52,8	88	120	136		
Pf. 0,8	Prime	kVA	50	60	100	135	155		
		kW	40	48	80	108	124		
Engine Make			Cummins						
Model			S3,8-G6	S3,8-G7	6BTA5,9-G5	6BTAA5,9-G6	6BTAA5,9-G7		
Gross Engine Power Output (at rated rpm)		kW	53,6	64,9	102	145	160		
		HP	71,9	87	137	195	215		
Aspiration and Cooling			Turbocharged	Turbocharged & IC	Turbocharged & AC	Turbocharged & IC			
Total Displacement		Liter	3,8			5,9			
No. of Cylinders and Build			4 - Sıralı			6 - Sıralı			
Engine Speed		rpm	1500						
Bore ve Stroke		mmxmm	97 x 128			102 x 120			
Compression Ratio			17,5 : 1		17,6 : 1	16,5 : 1			
Governor Type			Mechanic			Electronic			
Fuel Consumption		(L/h)	Load	1/2	6,5	6,1	12	18	19
				3/4	9,5	11	18	27	29
				Full	12,8	14,7	25	35	37
Fuel Tank Capacity		Liter	100	240	240	470	470		
Total Oil Capacity		Liter	11	11	16,4	16,4	16,4		
Coolant Capacity (Engine and radiator)		Liter	14,5	16,5	19,8	21,4	21,4		
Radiator Cooling Air		m <sup>3</sup> /min	50,3	88,5	215,4	162	162		
Air intake - Engine		m <sup>3</sup> /min	3,6	4,6	7,9	8,95	12,4		
Exhaust Gas Flow		m <sup>3</sup> /min	4,2	4,88	21,4	31,2	32,5		
Exhaust Gas Temperature		°C	546	509	533	520	533		

IC: Inter Cooler  
AC: After Cooler

**Open Types**

Dimensions (Length x Width x Height)	m	1,78 x 0,95 x 1,20	2,15 x 1,05 x 1,45	2,17 x 1,05 x 1,56	2,75 x 1,3 x 1,75	
Dry Weight	kg.	870	950	1250	-	1535

**Sound Attenuated Types**

Canopy Model		AK 30	AK 40	MS 60		
Dimensions (Length x Width x Height)	m	2,4 x 1,01 x 1,46	3,1 x 1,11 x 1,74	3,96 x 1,36 x 2,1		
Dry Weight	kg.	1140	1300	1600	2240	2270

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

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

- Low water level
- Electronic governor control (for AC 55, 66)
- Oil heater
- Remote radiator (Except AC66, AC150, AC170)

**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

**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
- Sound proof canopy



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

Aksa Jeneratör Sanayi A.Ş.  
Rüzgarlıbahçe Mah., Özalp Çıkma, No:10  
34805, Kavacık - Beykoz / İSTANBUL  
T: 0216 681 00 00 F: 0216 681 57 81  
e-mail: akxa@akxa.com.tr www.akxa.com.tr