

DESIGN SPECIFICATIONS

- ✓ High quality, reliable and complete power unit.
- ✓ Compact design.
- ✓ Easy start and maintenance possibility.
- ✓ Every generating set is subjected to a comprehensive test programme which includes full load testing and checking and providing of all control and safety shut down functions testing.
- ✓ Full engineered with a wide range of options and accessories: Enclosure or soundproof container and mobile units.



400 / 230 V - 50 Hz	Generating Set Model		AC 1030	AC 1130	AC 1435	AC 1675
Power Pf. 0,8	Standby	kVA	1030	1130	1435	1675
	Prime	kVA	930	1030	1280	1500

Standby : Continuous running at variable load for duration of an emergency. No overload is permitted on these ratings. In accordance with ISO 3046, BS 5514.

Prime : Continuous running at variable load for unlimited periods with 10 % overload available for 1 hour in any 12 hour period. In accordance with ISO 8528, ISO 3046, BS 5514. Contact us for the other running periods. Power ratings based on a 40 °C ambient temperature reference.

STANDARD GENSET SPECIFICATIONS

ENGINE

- CUMMINS heavy - duty diesel engine.
- Four cycle, water cooled, turbo charged and after cooled.
- Electronic Governor Control System.
- Direct injection fuel system.
- 4 Valves per cylinder.
- 24 V D.C. starter and charge alternator.
- Replaceable fuel filters, oil filters and dry element air filters.
- Cooling radiator and fan.
- Starter battery (with lead acid) including Rack and Cables.
- Flexible fuel connection hoses and manual oil sump drain pump.
- Industrial capacity exhaust silencer and steel bellows.
- Jacket water heater (at automatic models).
- Operation manuals and circuit diagrams documents.

ALTERNATOR

- Brushless, single bearing system, flexible disc, 4 poles.
- Insulation class H.
- Standart degree of protection IP21.
- Self - exciting and self - regulating.
- Solid state Automatic Voltage Regulator.
- Impregnation with tropicalised epoxy varnish.
- Stator windings with 2 / 3 pitch for improved harmonics.

CHASSIS

- The complete generating set is mounted as whole on a heavy - duty profile type, steel base frame. Antivibration pads are fixed between the engine / alternator feet and the base frame.
- The generating set can be lifted or carefully pushed / pulled by the base frame.
- Lifting eyes allow easy transportation by a crain.

SILENT TYPE CONTAINER

- 40' Container for AC 1435 and AC 1675.
- Sandwich mineral wool attenuation.
- Lockable doors on each side.
- Acoustic baffles for the air inlet and outlet.
- Aluminium internal floor.
- Residential silencer.
- White paint finishing (RAL 9010).
- 2000 litres fuel tank with retention bund.

QUALITY STANDARDS

- The equipment meets the following standards: ISO 3046, VDE 0530, BS 4999, BS 5000, IEC 34. The generating set is manufactured by a full accredited NQA ISO 9001.



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 System P2020:

- Control with DSE model 5220 module.
- Static battery charger.
- Emergency stop push button.

Control Module Features: DSE Model 5220

- Automatic controls generating set, start and shutdown.
- Front panel programming of the module settings.
- Remote communication via RS 232 port or RS 485 "modbus" output.
- Scrolling digital LCD display.
- Event logging of shutdown alarms.
- Monitoring AC mains supply.
- Provides signal to change over switchgear.
- Easy pushbutton control.
- Stop / Reset - Auto - Manual - Test - Start.

Metering via LCD Display:

- Generator Volts (F - F / F - N).
- Generator Amperes (L1, L2, L3).
- Generator Frequency (Hz).
- Generator kVA.
- Generator kW.
- Generator Cos φ
- Mains frequency (Hz).
- Engine oil pressure (PSI & Bar).
- Engine Temperature (°C & °F).
- Engine speed RPM.
- Engine hours run.
- Plant battery volts.
- Mains volts (F - F / F - N).

Alarms:

- Under / Over generator volts.
- Under / Over generator frequency.
- Over current.
- Low oil pressure.
- High engine temperature.
- Under / Over speed.
- Under / Over mains volts.
- Under / Over mains frequency.
- Low coolant level.
- Fail to start.
- Fail to stop.
- Emergency stop.
- Charge fail.
- Low / High battery volts.
- Can data fail.
- Can ECU fail.



DSE 5220

TECHNICAL DATA

DIESEL GENERATING SETS 400 / 230 V - 50 Hz

GROUP	MODEL			AC 1030			AC 1130			AC 1435			AC 1675		
	Power	Standby	kVA	1030			1130			1435			1675		
Pf. 0,8	Prime		kW	824			904			1148			1340		
			kVA	930			1030			1280			1500		
		kW	744			824			1024			1200			
DIESEL ENGINE	Engine Make			Cummins			Cummins			Cummins			Cummins		
	Model			KTA 38 G3			KTA 38 G5			KTA 50 G3			KTA 50 GS8		
	Gross Engine Power Output (at rated rpm)		kWm	895			970			1227			1429		
				hp	1200			1300			1645			1915	
	Air Cooling			Turbo Charged After Cooled											
	Cubic Capacity		Litre	37,8			37,8			50,3			50,3		
	Cylinders and Build			12 - 60° Vee			12 - 60° Vee			16 - 60° Vee			16 - 60° Vee		
	Engine Rated Speed		rpm	1500			1500			1500			1500		
	Bore and Stroke		mm. x mm.	159 x 159			159 x 159			159 x 159			159 x 159		
	Compression Ratio			13,9 : 1			13,9 : 1			13,9 : 1			14,9 : 1		
	Governor Type			Electronic			Electronic			Electronic			Electronic		
	Fuel Consumption		Load	1 / 2	3 / 4	Full	1 / 2	3 / 4	Full	1 / 2	3 / 4	Full	1 / 2	3 / 4	Full
				L. / h.	104	151	198	113	161	209	139	199	261	167	238
	Fuel Tank Capacity		Litre	1250			1250			2000			2000		
	Total Oil Capacity		Litre	135			135			177			204		
	Coolant Capacity (raditor and engine)		Litre	280			280			Approx. 340			345		
	Radiator Cooling Air		m ³ / min.	1500			1440			1620			1700		
	Air Intake Engine		m ³ / min.	60			73			105			99		
	Exhaust Gas Flow		m ³ / min.	167			198			240			261		
	Exhaust Gas Temperature		°C	570			513			525			510		
Heat Radiated to Ambient		kW	110			137			150			210			
Engine Derating - Altitude			4 % Per 300 m. Above 1525 m.			4 % Per 300 m. Above 1525 m.			5 % Per 300 m. Above 900 m.			4,6 % Per 300 m. Above 900 m.			
Engine Derating - Temperature			2 % Per 11 °C Above 40 °C			2 % Per 11 °C Above 40 °C			9 % Per 10 °C Above 40 °C			12 % Per 10 °C Above 40 °C			
Alternator Voltage Regulation			± 1 %			± 1 %			± 1 %			± 1 %			

OPEN TYPE

Dimensions (length x width x height)	mm.	4300 x 1770 x 2350	4330 x 1770 x 2350	4910 x 2120 x 2260	5450 x 2120 x 2840
Dry weight	kg.	7600	7720	10100	11500

SOUND ATTENUATED TYPE

		AKS 95		SC 40	
Dimensions (length x width x height)	mm.	7915 x 2300 x 2350		12192 x 2438 x 2591	
Dry Weight	kg.	12000	12200	17000	18400
Fuel Tank Capacity	Litre	500	500	2000	2000

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

OPTIONAL EQUIPMENTS

Diesel Engine

- Remote radiator.
- Oil heater.

Alternator

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

Panel

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



Accessories

- Bulk fuel tank.
- Automatic fuel filling system.
- Fuel water separator filter.
- Manual fuel filling system.
- Low fuel level alarm.
- Residential silencer.
- Enclosure container.
- Sound proof container.
- Trailer.
- Electrical pump for oil drain.
- Tool kit for maintenance.

AKSA 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.

Aksa Jeneratör Sanayi A.S. Gülbahar Caddesi 1. Sokak 34212 Güneşli - İstanbul / Turkey
Tel: +90 212 478 66 66 (pbx) Fax: +90 212 657 55 16 e-mail: aksa@aksa.com.tr www.aksa.com.tr