

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: Container or soundproof container and mobile units.



400 / 230 V - 50 Hz	Generating Set Model		ACQ 881	ACQ 1030	ACQ 1130
Power Pf. 0,8	Standby	kVA	880	1030	1130
	Prime	kVA	800	930	1030

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 (104 °F) 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 Vdc 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.

SILENCE TYPE CONTAINER

- Container (ACQ 881 except).
- Sandwich mineral wool attenuation on the roof surface.
- Lockable doors on each side.
- Removable roof.
- Acoustic baffles for the air inlet and outlet.
- Aluminium internal floor.
- Exhaust silencer manufactured from aluminium plated steel.
- White paint finishing (RAL 9010).
- 500 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		ACQ 881			ACQ 1030			ACQ 1130			
	Power	Standby	kVA	880			1030			1130		
Pf. 0,8	Prime		kW	704			824			904		
			kVA	800			930			1030		
		kW	640			744			824			
DIESEL ENGINE	Engine Make		Cummins			Cummins			Cummins			
	Model		QSK 23 G3			QST 30 G3			QST 30 G4			
	Gross Engine Power Output (at rated rpm)		kWm	768			895			970		
			hp	1030			1200			1300		
	Air Cooling		Turbo Charged and Charge Cooled			Turbo Charged and After Cooled			Turbo Charged and After Cooled			
	Cubic Capacity		Litre	23,15			30,48			30,48		
	Cylinders and Build		6 - In Line			12 - 50° Vee			12 - 50° Vee			
	Engine Rated Speed		rpm	1500			1500			1500		
	Bore and Stroke		mm. x mm.	170 x 170			140 x 165			140 x 165		
	Compression Ratio		16,0 : 1			14,0 : 1			14,0 : 1			
	Governor Type		Electronic			Electronic			Electronic			
	Fuel Consumption		Load	1 / 2	3 / 4	Full	1 / 2	3 / 4	Full	1 / 2	3 / 4	Full
			L. / h.	85	121	161	94	139	184	102	151	202
	Fuel Tank Capacity		Litre	600			1250			1250		
	Total Oil Capacity		Litre	103			154			154		
	Coolant Capacity (raditor and engine)		Litre	120			175			342		
	Radiator Cooling Air		m ³ / min.	1056			1086			1488		
	Air Intake Engine		m ³ / min.	53			56			60		
	Exhaust Gas Flow		m ³ / min.	148			163			180		
	Exhaust Gas Temperature		°C	543			563			575		
	Heat Radiated to Ambient		kW	71			105			115		
	Engine Derating - Altitude		3,4 % Per 300 m. Above 1200 m.			4 % Per 300 m. Above 1000 m.			5 % Per 300 m. Above 1000 m.			
Engine Derating - Temperature		20 % Per 10 °C Above 40 °C			2 % Per 11 °C Above 40 °C			4 % Per 5 °C Above 50 °C				
Alternator Voltage Regulation		± 1 %			± 1 %			± 1 %				

OPEN TYPE				
Dimensions (length x width x height)	mm.	4200 x 1700 x 2230	4240 x 1770 x 2330	4400 x 2000 x 2350
Dry weight	kg.	6160	7200	7600

SOUND ATTENUATED TYPE		AK 90	AKS 95
Dimensions (length x width x height)	mm.	6500 x 2200 x 2340	7915 x 2300 x 2350
Dry Weight	kg.	9100	11500
Fuel Tank Capacity	Litre	-	500

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

OPTIONAL EQUIPMENTS

Diesel Engine

- Remote radiator (except ACQ 881).
- 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.

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