

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: Canopy, soundproof canopy and mobile units.



230/400 V-50 Hz	Generating Set Model		ACQ 515	ACQ 550	AC 550	AC 650	AC 703	AC 825
Power Pf. 0,8	Standby	kVA	515	550	550	650	703	825
	Prime	kVA	460	500	500	590	638	750

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.
- Replaceable wet type cylinder liners.
- 4 Valves per cylinder.
- 24 Vdc starter and charge alternator.
- Replaceable fuel filter, oil filter and dry element air filter.
- 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, 4 poles.
- Insulation class H.
- Standard degree of protection IP 21.
- Self-exciting, self regulating.
- Stator windings with 2/3 pitch for improved harmonics.
- Impregnation with tropicalised epoxy varnish.
- Solid State Automatic Voltage Regulator.

CHASIS

- The complete generating set is mounted as whole on a heavy-duty fabricated, 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.
- 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.
- Exhaust silencer is protected against environment influences.
- Thermally insulated engine exhaust system.
- Emergency stop push button is installed on canopy.
- To enable for lifting easy maintenance and operation.

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:

Control Modules Common Features

- Automatic controls generating set, start and stop.
- 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.

Common 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
- Engine oil pressure (PSI & Bar)
- Engine Temperature (°C & °F)
- Engine speed RPM.
- Engine hours run.
- Plant battery volts.

Common Alarms

- Under / over generator volts.
- Under / over generator frequency.
- Over current.
- Low oil pressure.
- High engine temperature.
- Under / over speed.
- Low coolant level.
- Fail to start.
- Fail to stop.
- Emergency Stop.
- Charge fail.
- Low / high battery volts.

I - Auto Mains Failure Control System P 2020

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

Additional Features

- Monitoring AC mains supply.
- Provides signal to change over switch gear.
- Easy push button control
Stop / Reset - Auto - Manual - Test - Start.

Additional Metering

- Mains volts (F-F / F-N)
- Mains Frequency (Hz)

Additional Alarms

- Under / over mains volts.
- Under / over mains frequency.
- Can data fail.
- Can ECU fail.

2 - Auto Start Control System P 2010

- Control with DSE model 5010 module.
- Emergency stop push button.

Additional Features

- Provides signal to load transfer.
- Easy push button control.
Stop / Reset - Auto - Manual - Test - Start.



DSE 5220



DSE 5010

TECHNICAL DATA

DIESEL GENERATING SETS 230/400 V - 50 Hz

GROUP	MODEL			ACQ 515	ACQ 550	AC 550	AC 650	AC 703	AC 825										
	Power Pf. 0,8	Standby	kVA	515	550	550	650	703	825										
			kW	412	440	440	520	562	660										
	Prime	Prime	kVA	460	500	500	590	638	750										
kW			368	400	400	472	510	600											
DIESEL ENGINE	Engine Make			Cummins	Cummins	Cummins	Cummins	Cummins	Cummins										
	Model			QSX 15 G6	QSX 15 G8	KTA 19 G4	KTA 19 G8	VTA 28 G5	VTA 28 G6										
	Gross Engine Power Output (at rated rpm)		kWm	459	500	504	575	612	722										
			HP	615	670	675	771	820	968										
	Aspiration and Air Cooling			Turbo AC*	Turbo AC*	Turbo AC*	Turbo AC*	Turbo AC*	Turbo AC*										
	Cubic Capacity			Litres	15	15	18,9	18,9	28	28									
	Cylinders and Build			6 - in line	6 - in line	6 - in line	6 - in line	12 - V 40°	12 - V 40°										
	Engine Speed			rpm	1500	1500	1500	1500	1500										
	Bore and Stroke			mmxmm	137 x 169	137 x 169	159 x 159	159 x 159	140 x 152	140 x 152									
	Compression Ratio				17,0:1	17,0:1	13,9:1	13,9:1	13,1:1	13,1:1									
	Governor Type				Electronic	Electronic	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	1/2	3/4	Full	
				L/hr	51,3	74,3	95,9	54,7	78,7	103	57	82	107	60	95	120	73	104	140
	Fuel Tank Capacity			Litres	620	620	550	550	900	900									
	Oil Capacity			Litres	91	91	50	50	83	83									
	Coolant Capacity			Litres	90	90	92	135	176	176									
	Radiator Cooling Air			m ³ /min	690	690	780	780	850	850									
	Air intake - Engine			m ³ /min	36	36	32	40	50	55									
	Exhaust Gas Flow			m ³ /min	81	81	88	107	119	132									
	Exhaust Temperature			°C	526	526	538	549	493	489									
Heat Radiated to Ambient			kW	40	44	64	70	84	90										
Alternator Voltage Regulation				± 1 %	± 1 %	± 1 %	± 1 %	± 1 %	± 1 %										

* AC: Aftercooled

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Open Type

	m	3,6x1,3x1,96	3,6x1,3x1,96	3,43x1,3x2,11	3,43x1,3x2,2	3,9x1,41x2,11	4,0x1,41x2,16
Dimensions (length x width x height)							
Dry Weight	kg	4485	4485	4100	4280	5590	5890

Sound Attenuated Type

		AK 80	AS 710				
Canopy Model							
Dimensions (length x width x height)	mm	4900x1590x2520	5540x1660x2630				
Fuel Tank Capacity	Litres	850	1080				
Weight	kg	5900	5900	5550	5890	7190	7480

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

OPTIONAL EQUIPMENTS

Diesel Engine

- Remote radiator (except ACQ 515 and ACQ 550).
- Oil heater.

Accessories

- Bulk fuel tank.
- Automatic fuel filling system.
- Fuel water separator filter.
- Manual fuel filling system.
- Low fuel level alarm.

Residential silencer.

- Enclosure canopy.
- Sound proof canopy.
- Trailer.
- Electrical oil drain pump.
- Tool kit for maintenance.

Alternator

- 3 pole output circuit breaker (only automatic models).
- Oversized alternator.
- Anti condensation heater.

Panel

- Charge ammeter.
- Transfer switch 3 pole.
- Transfer switch 4 pole.
- Automatic synchronising and power control system.

New



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