



DESIGN SPECIFICATIONS

High quality, reliable and complete power unit.
Compact design
Easy start and maintenance.
Every generating set is subject to a comprehensive test Programme which includes full load testing and checking and providing all control and safety shut down functions testing.
Fully engineered with a wide range of options and accessories, Canopy, soundproof canopy and on road trailer.

400 / 230 V - 50Hz			ACQ 515	ACQ 550	AC 550	AC 650	AC 703	AC 825
Power Factor 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 BS 5514, ISO 3046.

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. Power ratings based on a 40° (104°F) ambient temperature reference.

ENGINE

CUMMINS heavy duty diesel engine.
Four cycle, water cooled, turbo charged and after cooled.
Electronic Governor Control system.
Direct injection fuel system.
Replacement wet type cylinder liners.
4 Valves per cylinder.
24 Volt D.C.starter and charge alternator.
Replacement 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

Newage Stamford brushless single bearing system, 4 Pole.
Insulation class H.
Standard degree of protection IP21 .
Self-exciting and self-regulating.
Stator windings with 2 /3 pitch for improved harmonics.
Impregnation with tropicalized epoxy varnish.
Solid State Automatic Voltage Regulator

CHASSIS

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.
Lifting eyes allow easy transportation by a crane.

CANOPY

All canopy parts are designed with modular principles.
Without welding assembly.
Door on each side.
To enable for lifting, easy maintenance and operation.
canopies are painted by electrostatic polyester powder paint.
Exhaust silencer is protected against environmental influences .
Emergency stop push button is installed outside of canopy .
Easy lifting and moving.
Easy maintenance and operation.
Thermally insulated engine exhaust system.

QUALITY STANDARDS

The equipment meets the following standards: ISO 3046, VDE 0530, BS 4999, BS 5000, IEC 34-1. The generating set is manufactured by a full accredited ISO 9001 NQA

CONTROL SYSTEMS

Deep Sea Control, Supervision and Protection Panel Mounted on genset base frame. The control panel is equipped as follows;
Auto Mains Failure Control Panel P2020
Control with DSE model 5220 module..
Static Battery Charger.
Emergency stop-push button.
Generating Set Control Module DSE 5220 Features
Automatic controls generating set, start and shutdown.
Front Panel programming of the module settings.
Remote communication via RS 232 port or RS 485 2 "modbus" output.
Scrolling digital LCD display.
Event logging of shutdown alarms.
Monitoring AC mains supply.
Provides signal to change over switch gear.
Easy pushbutton control.
Stop / Reset - Auto - Manual - Test - Start.

Metering via LCD Display

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

Alarms

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

Power Outlet-Terminal Board Mounted on the

Genset Base Frame.



DSE 720

TECHNICAL DATA

DIESEL GENERATING SETS 400 / 230 V - 50Hz

MODEL		ACQ 515	ACQ550	AC550	AC650	AC703	AC825	
Power Pf. 0.8	Standby	kVA	515	550	550	650	703	825
		Kw	412	440	440	520	562	660
	Prime	Kva	460	500	500	590	638	750
Kw		368	400	400	472	510	600	
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		kWm	459	500	504	575	612	722
(at rated rpm)		hp	615	670	675	771	820	968
Aspiration and Cooling		Turbo Charge Air Cooled	Turbo Charge Air Cooled	Turbo Charge Air Cooled	Turbo Charge Air Cooled	Turbo Charge Air Cooled	Turbo Charge Air Cooled	
Cubic Capacity		Litre	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 Rated Speed		rpm	1500	1500	1500	1500	1500	
Compression Ratio			17.0:1	17.0:2	13.9:1	13.9:1	13.1:1	13.1:1
Bore and Stroke		mm x mm	137 x 169	137 x 169	159 x 159	159 x 159	140 x 152	140 x 152
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	1/2 3/4 Full
			L/h.	51.3 74.3 95.9	54.7 78.7 103	57 82 107	60 95 120	73 104 140
Fuel Tank Capacity		Litre	620	620	550	550	900	900
Total Oil Capacity		Litre	91	91	50	50	83	83
Coolant capacity (Engine and Radiat		Litre	90	90	92	135	176	176
Air Intake Engine		m3 / min.	33	36	35	40	53	55
Exhaust Gas Flow		m3 / min.	83	82	96	107	123	132
Exhaust Gas Temperature		0°C	515	526	557	549	507	489
Alternator Voltage regulation			Plus / Minus %1	Plus / Minus %1	Plus / Minus %1	Plus / Minus %1	Plus / Minus %1	Plus / Minus %1

All Sets Come With Battery Charger and Engine Heater as Standard.

OPEN TYPES

Dimensions (Length x width x height)	m.	3.6 x 1.3 x 2.0	3.6 x 1.3 x 2.0	3.43 x 1.3 x 2.12	3.43 x 1.3 x 2.2	3.9 x 1.3 x 2.16	4.0 x 1.3 x 2.16
Dry Weight	kg.	4485	4485	4230	4620	5590	5890

SOUND ATTENUATED TYPES

		AK 80	AS 710
Dimensions (Length x width x height)	m.	4.9 x 1.15 x 2.52	5.54 x 1.66 x 2.63
Dry Weight	kg.	850	1080

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

OPTIONAL EQUIPMENTS

Engine

Electronic Governor
Remote Radiator

Alternator

3 Pole Output Circuit Breaker
Oversized Alternator
Anti-Condensation Heater

Panel

Transfer Switch
Auto Mains Failure
Earth Fault



Accessories

Bulk Fuel Tank
Automatic Fuel Filling Systems
Fuel Water Separator
Low Fuel Alarm
Residential Silencer
Trailer
Tool-Kit for maintenance

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