

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



231/400 V-50 Hz	Generating Set Model		ACQ 2100	ACQ 2250	ACQ 2500
Power G.f. 0,8	Standby	kVA	2100	2250	2500
	Prime	kVA	1900	2000	2250

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.

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 bellow
- Jacket water heater (at automatic models)
- Operation manuals and circuit diagrams documents

ALTERNATOR

- Brushless, single bearing system, 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 will be fixed between the base frame and foundation
- The generating set can be lifted or carefully pushed / pulled by the base frame
- Lifting eyes allow easy transportation by a craine

SILENT TYPE CONTAINER

- 40' high type container
- Sandwich mineral wool attenuation
- Large lockable doors
- Acoustic baffles for the air inlet and outlet
- Steel 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:

Control Modules Common Features

- 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

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
- 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 5210

TECHNICAL DATA

DIESEL GENERATING SETS 231/400 V - 50 Hz												
GROUP	MODEL			ACQ 2100			ACQ 2250			ACQ 2500		
	Power Pf. 0,8	Standby	kVA	2100			2250			2500		
			kW	1680			1800			2000		
		Prime	kVA	1900			2000			2250		
			kW	1520			1600			1800		
DIESEL ENGINE	Engine make			Cummins			Cummins			Cummins		
	Model			QSK 60 G3			QSK 60 G4			QSK 60 G8		
	Gross Engine Power Output (at rated rpm)		kWm	1790			1915			2145		
			hp	2399			2567			2875		
	Aspiration and Air Cooling			Turbo charged and After cooled			Turbo charged and After cooled			Turbo charged and After cooled		
	Cubic Capacity		Litres	60,2			60,2			60,2		
	Cylinders and Build			16-60° Vee			16-60° Vee			16-60° Vee		
	Engine Rated Speed		rpm	1500			1500			1500		
	Bore and Stroke		mmxmm	159 x 190			159 x 190			159 x 190		
	Compression Ratio			14,5:1			14,5:1			14,5:1		
	Governor			Electronic			Electronic			Electronic		
	Fuel Consumption		Load	1/2	3/4	Full	1/2	3/4	Full	1/2	3/4	Full
			L / h	189	263	356	200	291	394	237	342	450
	Fuel Tank Capacity		Litres	2000			2000			2000		
	Total Oil Capacity		Litres	280			280			195		
	Coolant Capacity (radiator and Engine)		Litres	492			492			620		
	Radiator Cooling Air		m³/min	1685			1800			1800		
	Air intake - Engine		m³/min	129			136			157		
	Exhaust Gas Flow		m³/min	306			311			379		
	Exhaust Gas Temperature		°C	415			430			485		
	Heat Radiated to Ambient		kW	185			190			250		
	Engine derating - altitude			3,3% per 300m above 1000m			4,1% per 300m above 800m			3% per 300m above 800m		
	Engine derating - temperature			10% per 10°C above 40°C			16% per 10°C above 40°C			8% per 10°C above 25°C		
	Alternator Voltage Regulation			± 1 %			± 1 %			± 1 %		

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Open Type

Dimensions (length x width x height)	mm	6030 x 2500 x 3230	6050 x 2500 x 3250	6050 x 2600 x 3300
Dry weight	kg	15500	16500	16900

Sound Attenuated Type

Container Model	SCH40		-
Dimensions (length x width x height)	mm	12192 x 2438 x 2800	-

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

OPTIONAL EQUIPMENTS

- Fuel-water separator filter
- Automatic fuel filling system
- Engine oil heater
- Remote radiator
- Residential silencer
- Enclosure or sound proof container
- Low fuel level alarm
- Charge ammeter
- Anti condensation heater for alternator
- Trailer
- Main fuel tank
- 3 pole alternator circuit breaker (only for automatic models)
- Tool Kit
- Over sized alternator
- Automatic transfer switch by motorized circuit breaker
- Automatic Synchronising and power control system



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