

## 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		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
- Replaceable wet type cylinder liners
- 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, 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 crane

### SILENT TYPE CONTAINER

- 30' and 40' 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

#### 1 - 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			AC 1030			AC 1130			AC 1435			AC 1675				
	Power Pf. 0,8	Standby	kVA	1030		1130		1435		1675							
			kW	824		904		1148		1340							
	Prime	Prime	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					
	Aspiration and Air Cooling			Turbo Charged After Cooled			Turbo Charged After Cooled			Turbo Charged After Cooled			Turbo Charged After Cooled				
	Cubic Capacity			Litres		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			mmxmm		159x159		159x159		159x159		159x159					
	Compression Ratio			13,9:1			13,9:1			13,9:1			14,9:1				
	Governor			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	309
	Fuel Tank Capacity			Litres		1250		1250		2000		2000					
	Total Oil Capacity			Litres		135		135		177		204					
	Coolant Capacity (radiator and Engine)			Litres		280		280		315		345					
	Radiator Cooling Air			m <sup>3</sup> /min		1500		1440		1620		1620					
	Air Intake - Engine			m <sup>3</sup> /min		60		69		96,5		95					
	Exhaust Gas Flow			m <sup>3</sup> /min		151		183		224		242					
	Exhaust Gas Temperature			°C		560		499		520		499					
Heat Radiated to Ambient			kW		110		125		130		299						
Engine derating - altitude			4% per 300m above 1525m			4% per 300m above 1525m			5% per 300m above 900m			4,6% per 300m above 900m					
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 %					

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### Open Type

Dimensions (length x width x height)	mm	4280x1760x2350	4320x1760x2350	4910x2116x2260	5450x2120x2840
Dry weight	kg	7680	7720	10300	11800

### Sound Attenuated Type

Container Model	SC30			SC40	SCH40
Dimensions (length x width x height)	mm	9125x2438x2591		12192x2438x2591	12192x2438x2800
Dry Weight	kg	14300	14700	18300	19700
Sound Level (at full load)	7m / dB(A)	72	73	74	75

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
-  3 pole moulded case circuit breaker (only for automatic models)
-  Tool Kit
-  Main fuel tank
-  Over sized alternator
-  Automatic transfer switch by motorized circuit breaker
-  Trailer
-  Automatic Synchronising and power control system



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