

DESIGN SPECIFICATIONS

- ✓ High quality, reliable, long life 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: Electrical, mechanical, soundproof canopy and mobile units.



400 / 230 V - 50 Hz	Generating Set Model		AC 110	AC 150	AC 160	AC 200
Power Pf. 0,8	Standby	kVA	110	150	160	200
	Prime	kVA	100	135	140	180

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. 35 °C for AC 160.

STANDARD GENSET SPECIFICATIONS

ENGINE

- CUMMINS heavy - duty diesel engine.
- Four cycle, water cooled, turbo charged.
- Mechanical Governor Control System.
- Electronic Governor on AC 160.
- Direct injection fuel system.
- Replaceable cylinder liners.
- 12 Volt D.C. starter and charge alternator.
- 24 Volt D.C., AC 150 and AC 200.
- 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 sump oil drain valve.
- 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.
- Stator windings with 2 / 3 pitch for improved harmonics.
- Impregnation with tropicalised 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.
- Base frame design incorporates an integral fuel tank.
- 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.
- Forklift pockets within base frame.

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 manufactured from aluminium plated steel.
- Emergency stop push button is installed outside of canopy.
- Easy lifting and moving.
- Easy maintenance and operation.
- Modular canopy can also be installed at a later date.
- Thermally insulated engine exhaust system.

QUALITY STANDARDS

- The equipment meets the following standards: ISO 3046, VDE 0530, BS 4999, BS 5000, IEC 34. The generator sets are manufactured by a full accredited ISO 9001 Szutest.



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 Panel - P300:

Control panel equipments:

- Control with DSE 720 module.
- Static battery charger.
- Emergency stop push button.

a) Generating Set Control Module DSE 720 Features:

- The module is used to monitor a mains supply and automatically start a standby generator set.
- Scrolling digital LCD display.
- Front panel configuration of timers and alarm trip points.
- Easy push button control.
- OFF - MANUAL - AUTO - TEST - START
- LCD display Scroll push button.

b) Metering via LCD Display:

- Generator Volt (L - N).
- Generator Ampere (L1, L2, L3).
- Generator Frequency (Hz).
- Mains Volts (L - L / L - N).
- Engine temperature.
- Engine oil pressure.
- Engine speed.
- Engine hours run.
- Plant battery volt.

c) Alarms:

- Over current.
- Over speed.
- Under / Over mains volt.
- Under / Over mains frequency.
- Low oil pressure.
- High engine temperature.
- Low battery volt.
- Charge fail.
- Start failure.
- Emergency stop.

d) Led Indications:

- Mains available.
- Mains on load.
- Generator available.
- Generator on load.

2. Power Outlet Terminal Board Mounted on the Genset Base Frame.



DSE 720

TECHNICAL DATA

DIESEL GENERATING SETS 400 / 230 V - 50 Hz

GROUP	MODEL			AC 110			AC 150			AC 160			AC 200				
	Power	Standby	kVA	110	150	160	200	Prime	kVA	100	135	140	180	kW	88	120	128
Pf. 0,8	kVA		100	135	140	180	kW		80	108	112	144					
DIESEL ENGINE	Engine Make			Cummins			Cummins			Cummins			Cummins				
	Model			6 BT 5,9 G 6			6 CT 8,3 G 2			6 BTA 5,9 G 2			6 CTA 8,3 G 2				
	Gross Engine Power Output (at rated rpm)		kWm hp	107			135			145			180				
				143			181			194			241				
	Aspiration and Cooling			Turbo Charged			Turbo Charged			Turbo Charged & After Cooled			Turbo Charged & After Cooled				
	Cubic Capacity		Liter	5,88			8,3			5,88			8,3				
	Cylinders and Build			6 - In Line			6 - In Line			6 - In Line			6 - In Line				
	Engine Rated Speed		rpm	1500			1500			1500			1500				
	Bore and Stroke		mm. x mm.	102 x 120			114 x 135			102 x 120			114 x 135				
	Compression Ratio			16,5:1			16,8:1			16,5:1			16,8:1				
	Governor Type			Mechanical			Mechanical			Electronic			Mechanical				
	Fuel Consumption		Load l / h.	1 / 2	3 / 4	Full	1 / 2	3 / 4	Full	1 / 2	3 / 4	Full	1 / 2	3 / 4	Full		
				12	17,8	24	15	22	30	17	24	31	20	30	40		
	Fuel Tank Capacity		Liter	215			360			215			360				
	Total Oil Capacity		Liter	14			23,8			16,4			23,8				
	Coolant Capacity (raditor and engine)		Liter	23			36			25,6			36				
	Radiator Cooling Air		m ³ / min.	90			210			138			186				
	Air Intake Engine		m ³ / min.	5,6			9,5			9			12,5				
	Exhaust Gas Flow		m ³ / min.	17			25,3			25,2			30				
	Exhaust Gas Temperature		°C	577			521			591			536				
Heat Radiated to Ambient		kW	14			18			22			24					
Engine Derating - Altitude			4 % per 300 m. Above 1000 m.			4 % per 300 m. Above 1525m			4 % per 300 m. Above 1000 m.			4 % per 300 m. Above 1525 m.					
Engine Derating - Temperature			2 % per 11 °C Above 40 °C			2 % per 11 °C Above 40 °C			15% per 10 °C Above 35 °C			2 % per 11 °C Above 40 °C					

OPEN TYPES

Dimensions (length x width x height)	m.	2,15 x 1,0 x 1,67	2,32 x 1,1 x 1,65	2,15 x 1,0 x 1,67	2,32 x 1,1 x 1,65
Dry Weight	kg.	1295	1650	1330	1700

SOUND ATTENUATED TYPES

		ASM5	ASM6	ASM5	ASM6
Dimensions (length x width x height)	m.	3,11 x 1,06 x 1,75	3,27 x 1,16 x 1,9	3,11 x 1,06 x 1,75	3,27 x 1,16 x 1,9
Dry Weight	kg.	1760	2170	1790	2200

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

OPTIONAL EQUIPMENTS

Diesel Engine

- Electronic governor control (except AC 160).
- Oil heater.
- Remote radiator.

Alternator

- 3 pole outlet circuit breaker
- Oversized alternator.
- Anti - condensation heater.

Panel

- Charge ammeter.
- Transfer switch 3 pole.
- Transfer switch 4 pole.
- Earth fault, single set.



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.
- Manual oil drain pump.
- Tool kit for maintenance.

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