

Standby Generator 100



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 fullload 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 on road trailer

STANDARD GENSET SPECIFICATIONS ENGINE:

- CUMMINS heavy duty diesel engine
- Four stroke, water cooled, turbo charged
- Mechanical Governor Control System (Except AC 160 and AC 250)
- Direct injection fuel system
- Replaceable type cylinder liners
- 4 valves per cylinder
- 12 V D.C. 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 sump oil drain pump
- Industrial capacity exhaust silencer and steel bellows
- Jacket water heater (at automatic models)
- Operation manuals and circuit diagram documents

ALTERNATOR:

- Brushless, single bearing system, 4 poles
- Insulation class H
- Standard degree of protection IP21 or IP23
- Self-exciting and self-regulating
- Stator winding with 2/3 pitch
- 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 bung 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 outside of canopy
- Easy lifting and moving
- Easy maintenance and operation

QUALITY STANDARDS:

- The equipment meets the following standards: ISO 3046, VDE 0530, BS 4999, BS 5000, EN 60034-I, IEC 34. The generating set is manufactured by a full accredited NQA-ISO 9001.

WARRANTY:

- 12 months warranty from commissioning date as standard.

CONTROL SYSTEM:

- Control, supervision and protection panels are mounted on the genset base frame. The control panel is equipped as follows:
- Common Instruments:
- 3 Ammeters
- 1 Hours run meter
- 1 Volt-Frequencymeter(by LED) and selector switch
- Engine oil pressure gauge
- Engine coolant temperature gauge
- Emergency stop push button

1) Auto start Control System-P 500

- Control with DSE 704 Module
- Static battery charger
- Thermally delayed overload protection
- Engine water heater control

a) DSE 704 Module Features

- Three phases mains sensing
- Engine protection
- Automatic engine starting and stopping
- Simple push button controlled operation Stop-Reset/Manual/Auto
- Micro processor based design
- Configurable via front panel
- Configurable timer settings
- Adjustable mains fail voltage level
- Mains/Generator, change- over contactor control
- External remote start input

b) Status and fault conditions Displayed by LED illumination:

- High engine temperature, shutdown
- Low oil pressure, shutdown
- Over speed, shutdown
- Charge alternator fault, warning
- Indications for mains/generator and their contactor status

2) Manual Start Control System-ME 40

Control with DSE 701 Module

a) DSE 701 Module Features

- Engine supervision and protection
- Key switch Off/Manual start positions
- Manual start pushbutton

b) Module Emergency LED's

- High engine temperature ,shutdown
- Low oil pressure, shutdown
- Over speed,shutdown
- Low coolant level,shutdown
- Charge failure warning

c) Metering

- 3 Ammeters
- Hours runmeter
- Volt/Frequency meter(by LED) and selector switch
- Engine oil pressure gauge
- Engine coolant temperature gauge
- Emergency stop pushbutton
- 2-1 Alternator Circuit Breaker (Manual Model)



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Standby Generator 100

400 / 230 V - 50 Hz

Output Rating

Power Pf. 0.8

STANDBY

110kVA
88kW

Prime

100 kVA
80 kW

Diesel Engine

Engine Make	Cummins
Model	6 BT 5.9-G6
Gross engine power output at rated rpm	107kWm 143hp
Aspiration and Cooling	Turbo Charged
Cylinders Capacity	5.88Lt
Cylinders and Build	6 - in line
Engine Speed	1500 rpm
Bore and Stroke	102 x 120mm
Compression Ratio	16.5 : 1
Governor	Mechanical

Fuel Consumption	Load	1/2	3/4	Full
	L/hr	12	17.8	24

Fuel Tank Capacity	220L
Oil Capacity	14L
Water Capacity	23L

Air Intake - Engine	5.1 m ³ /min
Exhaust Gas Flow	1019 m ³ /min
Alternator Voltage Regulation	± %1

OPEN TYPE

Dimensions (length x width x height)	2150 x 1000 x 1370
Dry weight	1140 KG

SOUND ATTENUATED TYPE

Canopy Model	ASM5
Dimensions (length x width x height)	3100 x 1000 x 1670MM
Dry weight	1600KG

OPTIONAL EQUIPMENT

- * Electronic governor control system
- * Fuel - Water separator filter
- * Automatic fuel filling system
- * Engine oil heater
- * Manual sump oil drain pump
- * Residential silencer
- * Critical silencer
- * Enclosure, Sound proof canopy
- * Low fuel level alarm
- * Charge voltmeter

- * Charge ammeter
- * Anti condensation heater for alternator
- * Main fuel tank
- * 3 pole alternator circuit breaker (only for automatic models)
- * 4 pole contactor
- * Tool kit
- * Over sized alternator
- * Automatic transfer switch by contactor or motorized circuit breaker
- * Trailer