



**DIESEL POWERED
GENERATING SETS**

46 KVA

Standby Power	kVA	46
Prime Power	kVA	42
Voltage	V	380/220
ISO and CE Certified		Yes

Features and Benefits

- **Maximum 46kva Standby Power at 230/380v @50hz 1500rpm**
- **High quality and reliable 4 cylinder 3.9 litre Turbocharged and Intercooled Cummins diesel engine**
- **Ideal for business applications**
- **Silent canopy which can stand outside with lockable doors**
- **Automatic changeover (ATS), Maintenance Free Batteries and Trickle Charger Included**
- **H Specification Insulation, Brushless alternator with AVR provides stable output**
- **High temperature and low oil, water and fuel protection to protect against engine damage**
- **Easy to use Digital Controller with Auto and Manual Start Options**
- **All sets undergo a comprehensive testing / pre delivery inspection prior to delivery**
- **Piece of Mind of earlier of 1 year / 1000 hour warranty**

STANDARD GENSET SPECIFICATIONS

ENGINE

- Cummins heavy duty diesel engine
- Four cylinder water cooled, turbo charged
- Electronic governor control system
- Replaceable wet type cylinder liners
- 24 V.D.C starter and charge alternator
- Replaceable fuel filter, oil filter and dry element air filter
- Cooling radiator and fan
- Fuel connection hoses and manual sump oil drain valve
- Exhaust silencer
- Maintenance free battery including rack and cables
- Jacket water heater (as option)
- Cummins Engine Manual

ALTERNATOR

- Brushless, single bearing system, 4 poles
- Insulation class H with circuit breaker protection
- Standard degree of protection IP 22
- Self-exciting and self-regulating
- AVR SX460 Included
- Screen protected and drip proof
- Stator winding with 2/3 pitch for improved harmonics
- Close voltage regulation

CHASSIS

- Steel chassis and antivibration pads
- Base frame design incorporates an integral fuel tank
- The generator can be lifted or carefully pushed/pulled by the base frame
- Includes diesel level sensor information to the controller

CANOPY

- Ventilation parts are designed with modular principles
- Weather resistant and lined with sound reducing foam
- All metal canopy parts are painted by powder paint
- Panel window
- Lockable doors on each side

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

Panel equipments:

- Smartgen series automatic transfer switch module
- HGM7220 electronic controller
- Emergency stop push button
- Static Battery Charger
- Electrically and mechanically interlocked

a) Generating set control module HGM7220 features

- This module is used to monitor a mains supply and automatically start a standby generating set
- Micro processor based design
- Monitors engine performance and AC power output
- LCD and LED alarm indication ; GSM sms input slot (for HGM7220 option only)
- Front panel configuration of timers and alarm trip points
- Provides signal to change over switch panel
- Event logging and shutdown alarms
- Remote communication via RS232 port or RS485 output
- Easy push button control
- STOP/RESET - MANUAL - AUTO - TEST - START
- Operation indicators accessed by the LCD display Scroll push button

b) Metering via LCD Display:

- Generator volts (L-L / L- N) ; Mains Volts (L-L / L- N)
- Generator Ampere (L1, L2, L3) ; Generator KVA & KW
- Generator Frequency ; Generator Cos
- Engine hours run ; Plant battery volts
- Engine oil pressure (PSI & Bar)
- Engine speed RPM
- Engine temperature degrees C
- GSM sms signal (for HGM7220 option only)

- Easy maintenance and operation
- Easy lifting and moving
- Insulated engine exhaust system
- Exterior emergency stop push button

QUALITY STDS

- The equipment meets the following standards:
- ISO 9001:2000
- CE certified
- Cummins OEM partner



c) Automatic shutdown and fault conditions

- Under / Over Speed ; Fail to Start
- High engine temperature ; Fail to Stop
- Low Oil Pressure ; Charge Fail
- Under / Over generator volts ; Over current
- Under / Over generator frequency ; Emergency Stop
- Under / Over mains frequency
- Under / Over mains voltage
- Low / High battery volts
- Low Diesel level ; Low Oil level



PERFORMANCE SPECIFICATIONS

* All ratings are quoted at maximum ratings at sea level and de rating will be applicable at altitude

ENGINE

Cummins G-Drive

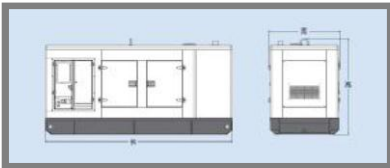
Diesel Generator Model	4BT3.9-G2
Engine Make	Cummins
Displacement	3.9L
Cylinder bore / Stroke mm	102mm x 120mm
Fuel system	PB pump_GAC governor / BYC ASIMCO
Cylinders	4
Standby Power at 1500 RPM (kW/HP)	40 / 54
Base Output Power at 1500 RPM (kW/HP)	36 / 48
Turbo or Normally Aspirated	Turbo charged and intercooled
Fuel Consumption 100%	9.3 L/H
Fuel Consumption 75%	7.3 L/H
Fuel Consumption 50%	5.3 L/H
Fuel Consumption 25%	3.4 L/H
Oil Type	15W40
Oil Capacity	9.5 L
Coolant capacity (engine only)	7.2 L
Starter	24 V
Starting System and Governor	Electronic
Engine Speed	1500 rpm
Torque_NM (Base/Standby)	229 /255
Piston speed m/s	6
Engine Coolant Flow L/sec	2.2
Air Intake Flow (Base/Standby) L/sec	43.6 / 44.9
Exhaust Flow (Base/Standby) L/sec	101 / 108
ExhaustTemp (Base/Standby) C	463 / 487

ALTERNATOR

Insulation Class	H
Type	Brushless
Phase and Connection	3 phase, 4 wire
AVR	YES
AVR Model	SX 460
Voltage Regulation	± 1%
Voltage	380/220V
Rated Frequency	50HZ
Voltage Regulate Change	≥ ±10% UN
Phase change rate	± 1%
Power Factor	0.8
Protection Class	IP22
Stator	2 / 3 pitch
Rotor	Single Bearing

Structure Type: Silent	YES
Dry Weight	1266 kg
ISO 9001 and CE Certified	YES
ATS Unit Included	YES
4 way protection system included	YES
Fuel Tank Running Time	10 hours

DIMENSIONS



46KVA (Silent Type)		
Length x Width x Height, (mm)	Weight (Kg)	
2260 x 1001 x 1608	1266	