



# REDSTAR™

Passionate about Value

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## Standby Generator 50kVA



### 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: Electrical, mechanical, soundproof canopy and mobile units

### STANDARD GENSET SPECIFICATIONS

#### ENGINE

- CUMMINS heavy duty diesel engine
- Four cycle, water cooled, turbo charged
- Mechanical Governor Control System
- Electronic Governor on AC 90
- Direct injection fuel system
- 12 Vdc 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 valve
- Industrial capacity exhaust silencer and steel bellow
- Jacket water heater (automatic models)
- Operation manuals and circuit diagram documents

#### ALTERNATOR

- Brushless, single bearing system, 4 poles
- Insulation class H
- Standard degree of protection IP21
- Self-exciting and self-regulating
- Stator winding 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 bung 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 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
- Modular canopy can also be installed at a later date

#### 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.

#### WARRANTY

- 12 months warranty from commissioning date as standard.

#### 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 panel with DSE 720 module
- Static battery charger
- Emergency stop push button

#### a) Generating Set control module DSE720 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

#### STOP/RESET – MANUAL – AUTO – TEST - START

- LCD display Scroll push button
- b) Metering via LCD Display
- Generator Volt (F-N)
- Generator Ampere (L1, L2, L3)
- Generator Frequency (Hz)
- Mains Volts (F-F/F-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.

# Standby Generator 50kVA

Diesel Generating Set 400 / 230 V - 50 Hz

## Output Rating

Power Pf. 0.8

**STANDBY** 55 kVA  
44 kW

**Prime** 50 kVA  
40 kW

## Diesel Engine

Engine Make Cummins  
Model 4 BT 3.3-G2  
Gross engine power output at rated rpm 451kW  
68hp  
Aspiration and Cooling Turbo Charged  
Total Displacement 3.3Lt  
Cylinders and Build 4 - inline  
Engine Speed 1500 rpm  
Bore and Stroke 95 x 115mm  
Compression Ratio 17:01  
Governor Mechanical

Fuel Consumption at full load	Load	1/2	3/4	Full
	L/hr	5.9	8.4	11.5

Fuel Tank Capacity 160L  
Oil Capacity 8L  
Coolant Capacity 15L

Air Intake - Engine 3 m<sup>3</sup>/min  
Exhaust Gas Flow 8.2 m<sup>3</sup>/min  
Alternator Voltage Regulation ± %1

## OPEN TYPE

Dimensions (length x width x height) 1860 x 920 x 1320  
Dry weight 785

## SOUND ATTENUATED TYPE

Canopy Model ASM4  
Dimensions (length x width x height) 2500 x 970 x 1570mm  
Dry weight 1195 kg

## UPSPEC OPTIONS

### Diesel Engine

- Remote Radiator
- Engine oil heater

### Alternator

- 3 pole output circuit breaker
- Anti condensation heater
- Over sized alternator

### Accessories

- Bulk Fuel Tank
- Automatic Fuel filling system
- Fuel warter seperator filter
- Residential silencer
- Sound Proof Canopy
- Manual fuel filling system
- Low fuel alarm
- 4 Pole contactor
- Electrical oil drain pump

## GO CUSTOMISED

- Skid Mount Options
- External Switches
- Lifting Frames & Fabrication
- Custom Paint