



# REDSTAR™

Passionate about Value

PH 1800 REDSTAR

www.redstarequipment.com.au

## Standby Generator 500kVA



### DESIGN SPECIFICATIONS

- High quality, reliable and complete power unit.
- Compact design
- Easy Start and maintenance possibility
- Every generating set is subject to a comprehensive test programme which includes full load testing and checking and proving of all control and safety shut down functions testing
- Fully engineered with a wide range of options and accessories:

#### Standard Genset Specification Engine

- Cummins heavy - duty diesel engine
- Four cycle, water cooled, turbo charged
- Electronic Governor Control System
- Direct injection fuel system
- Replaceable wet type cylinder liners
- 4 Valves per cylinder (for AC 400 and AC 440)
- 24 Volt 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 hose and manual sump oil drain valve
- Industrial capacity silencer and steel bellows
- Jacket water heater (automatic models)
- Operation manuals and 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
- The generating set can be lifted or carefully

pushed / pulled by base frame

- Base frame design incorporates an integral fuel tank
- 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 outside of canopy
- Easy lifting and moving
- Easy maintenance and operation

#### Quality Standards

- The equipment meets the following standards: ISO 3046, VDE 0530, BS 5000, IEC 34. The generating set manufactured by a fully 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 Module Common Features:

- Automatic controls generating set, start and stop
- 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
- Mains frequency (Hz)
- 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
- Under / Over main volts
- Under / Over main frequency
- Low coolant level
- Fail to start
- Fail to stop
- Emergency stop
- Charge fail
- Low / High battery volts

#### I - Auto Main 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.



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## Standby Generator 500kVA

230 / 400 V - 50 Hz

### Output Rating

Power Pf. 0.8

**STANDBY** 550kVA  
440kW

**Prime** 500 kVA  
400 kW

### Diesel Engine

Engine Make Cummins  
Model KTA 19 G4  
Gross engine power output at rated rpm 504kWm  
675hp  
Aspiration and Cooling Turbo After Cooled  
Cylinders Capacity 18.9Lt  
Cylinders and Build 6 - in line  
Engine Speed 1500 rpm  
Bore and Stroke 159 x 159mm  
Compression Ratio 13.9 : 1  
Governor Electronic

Fuel Consumption	Load	1/2	3/4	Full
L/hr	57	82	107	

Fuel Tank Capacity 550 L  
Oil Capacity 50 L  
Water Capacity 92 L

Radiator Cooling Air 780 m<sup>3</sup>/min  
Air Intake - Engine 32 mm<sup>3</sup>/min  
Exhaust Gas Flow 88 m<sup>3</sup>/min  
Exhaust Gas Temperature 538°C  
Heat Radiated to Ambient 64kW  
Engine Derating - Altitude 4% per 300m. Above 1000m  
Engine Derating - Temperature 2% per 10°C Above 40°C  
Alternator Voltage Regulation ± %1

### OPEN TYPE

Dimensions (length x width x height) 3430 x 1300 x 2110  
Dry weight 4100 KG

### SOUND ATTENUATED TYPE

Dimensions (length x width x height) 4900 x 1590 x 2520MM  
Dry weight 5550KG  
Fuel Tank Capacity 850Lt

## UPSPEC OPTIONS

### Diesel Engine

- Engine oil heater

### Accessories

- Bulk Fuel Tank
- 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