



REDSTAR™

Passionate about Value

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Standby Generator 450kVA



DESIGN SPECIFICATIONS

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- 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: Canopy, soundproof and on road trailer

STANDARD GENSET SPECIFICATIONS

ENGINE

- CUMMINS heavy duty diesel engine
- Four cycle, water cooled, turbo charged and after cooled
- Electronic Governor Control System
- Direct injection fuel system
- Replaceable wet type cylinder liners
- 4 valves per cylinder
- 24 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 oil sump 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 genset 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
- To enable for lifting 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 panel is mounted on the genset base frame. The control panel is equipped as follows;
- Control Modules Common Features
- Automatic controls generating set, start and shutdown
- 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
- Control Modules Common Features
- Generator Volts(F-F/F-N)
- Generator Amperes(L1,L2,L3)
- Generator Frequency (Hz)
- Generator kVA
- Generator kW
- Generator Cos j

- Engine Temperature (Cantigrade & Fahrenheit)
- Engine Speed RPM
- Engine hours run
- Plant attery volts
- XCommon Alarms
- Under / over generator volts
- Under / over generator frequency
- Over current
- Low oil pressure
- High engine temperature
- Under / over speed
- Low coolantlevel
- Fail to start
- Fail to stop
- Emergency stop
- Charge fail
- Low / High battery volts
- Auto Mains Failure Control System P2020
- Control with DSE model 5220
- 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
- Auto Start Control System P2010
- Control with DSE model 5210 module
- Emergency stop push button
- Additional Features
- Provides signal to load transfer
- Easy pushbutton control
- Stop / Reset-Auto-Manual-Test-Start

Standby Generator 450kVA

Diesel Generating Set 400 / 230 V - 50 Hz

Output Rating	
Power	Pf. 0.8
STANDBY	515 kVA 412 kW
Prime	460 kVA 368 kW

Diesel Engine									
Engine Make	Cummins								
Model	QSX 15 G6								
Gross engine power output at rated rpm	459kW 615hp								
Aspiration and Cooling	Turbo Charge Air Cooled								
Total Displacement	15Lt								
Cylinders and Build	6 - inline								
Engine Speed	1500 rpm								
Bore and Stroke	137 x 169mm								
Compression Ratio	17:01								
Governor	Electronic								
Fuel Consumption at full load	<table border="1"> <thead> <tr> <th>Load</th> <th>1/2</th> <th>3/4</th> <th>Full</th> </tr> </thead> <tbody> <tr> <td>L/hr</td> <td>51.3</td> <td>74.3</td> <td>95.9</td> </tr> </tbody> </table>	Load	1/2	3/4	Full	L/hr	51.3	74.3	95.9
Load	1/2	3/4	Full						
L/hr	51.3	74.3	95.9						
Fuel Tank Capacity	620L								
Oil Capacity	91L								
Water Capacity	90L								
Air Intake - Engine	3.2 m ³ /min								
Exhaust Gas Flow	9.5 m ³ /min								

OPEN TYPE	
Dimensions (length x width x height)	1730 x 900 x 1100
Dry weight	930

SOUND ATTENUATED TYPE	
Canopy Model	ASM 3C
Dimensions (length x width x height)	2260 x 970 x 1300mm
Dry weight	1170 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