

# 515 - 825 kVA / 412 - 660 kW **CUMMINS** POWERED

**GENERATING SETS** 

#### **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: Canopy, soundproof canopy and mobile units



231/400 V-50 Hz	Generating Set Model		ACQ 515	ACQ 550	AC 550	AC 650	AC 703	AC 825
Powe rPf. 0,8	Standby	kVA	515	550	550	650	703	825
	Prime	kVA	460	500	500	590	638	750

Standby: Continuous running at variable load for duration of an emergency. No overload is permitted on these ratings. In accordance with ISO 3046, BS 5514.

: Continuous running at variable load for unlimited periods with 10% overload available for 1 hour in any 12 hour period. In accordance with ISO 8528, ISO 3046, BS 5514. Contact us for the other running periods. Power ratings based on a 40°C (104 °F) ambient temperature reference.

#### 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 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 oil sump drain pump
- Industrial capacity exhaust silencer and steel bellow
- · Jacket water heater (at automatic models)
- Operation manuals and circuit diagrams documents

#### **ALTERNATOR**

- Brushless, single bearing system, 4 poles
- Insulation class H
- Standard degree of protection IP21
- Self-exciting, self regulating
- Stator windings with 2 / 3 pitch for improved harmonics
- Impregnation with tropicalised epoxy varnish
- Solid State Automatic Voltage Regulator

### **CHASIS**

- 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 the base frame
- · Dial type fuel gauge and drain plug 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 on 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, IEC 34. The generating set is manufactured by a full 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 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

#### 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
- Common Alarms

- Under / over generator volts
- Under / over generator frequency Fail to start
- Over current
- · Low oil pressure
- High engine temperature
- · Under / over speed
- · Charge fail

• Fail to stop

- · Low / high battery volts

· Engine oil pressure (PSI & Bar)

Engine Temperature (°C & °F)

· Engine speed RPM

• Engine hours run

· Plant battery volts

· Low coolant level

· Emergency Stop

#### I - Auto Mains 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



DSF 5220

DSE 5210