

## DESS POWER

## **Diesel Engine Services & Spares**

Proudly 100% Australian owned since 1989

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### **DPA220CR Diesel Genset**

### **General Technical Data**

Model DPA220CR

Standby rating kVA 220 Standby rating kW 176 Prime Rating kVA 200 Prime Rating kW 160

Engine Make Cummins
Engine Model 6CTAA8.3G2

Frequency 50Hz Cylinders 6

Aspiration Turbocharged & air

cooled

Governor Electronic



### **General Features**

- Industry leading Cummins diesel engine and Stamford alternator
- Sound attenuating / weatherproof canopy
- Forklift slots for easy transportation
- Deep Sea Electronics control panel
- 50°C radiator as standard
- 24 hour bunded fuel tank
- External emergency stop button
- Top crane lift points
- Direct injection fuel system
- Emergency stop push button installed outside of the canopy
- Skid-mount base with anti-vibration pads
- ISO 9001:2000 certified
- Painted by electrostatic polyester powder paint

**Standby Rating:** Standby duty, operation under variable load without overload. **Prime Rating:** Continuous duty, operation under variable load 24/24 hours, with 10% overload permissible for 1/12 hours.

## **Dimensions and Weights**

Sound Attenuated Type

Overall size L x W x H, mm 3600 x 1363 x 2103

Dry Weight, net, kg 3,000kg

## **Diesel Engine Specifications**

CUMMINS is a world leader in the manufacture of high quality, high reliability diesel engines.

- Four stroke, water-cooled, turbocharged
- 50°C radiator as standard
- Direct fuel injection system

### **Technical Data**

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Engine Model	6CTAA8.3G2
Engine Manufacturer /Brand	Cummins
Type and Cylinder	6 - inline
Induction System	Turbocharged
Bore x Stroke mm	114 x 135
Compression Ratio	18:1
Displacement L	8.3
Engine Speed rpm	1500
Engine power output at rated rpm	272 hp
Oil Capacity L	23.8
Coolant Capacity L	41.3
Fuel Tank Capacity L	1100
Fuel consumption at full load	45 L/hr
Governing Type	Electronic

## **Genset Features**

Lockable pressure lock handles



Top crane lift points















- 3 way bypass valves to allow connection to an external fuel tank
- Lockable fuel filling point on outside

## **AC Alternator Specifications**

**STAMFORD ALTERNATOR** STAMFORD has a long history of producing high quality and reliable generator alternators for the global market. Their portfolio of high quality alternators is recognised internationally as an industry standard.

- Brushless, self exciting
- Self regulating
- Class 'H' insulation
- Standard degree of protection is IP21 (IP22/IP23 is available)
- Solid state Automatic Voltage Regulator
- Stator winding with 2/3 pitch for improved harmonics

### **Technical Data**

Design	Brushless single bearing, revolving field
Stator	2/3 pitch
Rotor	Single bearing, flexible disc
Insulation System	Class H
Standard Temperature Rise	125-163°C Continuous
Exciter Type	Self Excited
Phase Rotation	A (U), B (V), C (W)
Alternator Cooling	Direct drive centrifugal blower fan
AC Waveform Total Harmonic Distortion	No load < 1.5%. Non distorting balanced linear load <5%
Telephone Influence Factor (TIF)	<50 per NEMA MG1-22.43
Telephone Harmonic Factor (THF)	<2%

## **Control System**

The Control system is a Deep Sea Electronics DSE6020



# **Auto Mains Failure Control Panel** Panel equipment:

- Control with AMF module
- Static battery charger
- Emergency stop push button

# Generating set control module DSE 6020 features:

- The module is used to monitor main supply and starts and stops of a standby generating set
- Micro-processor based design
- Monitors engine performance and AC power output LED alarm indication
- Automatic control of main and generator contactors
- Front panel configuration of timers and alarm trip points
- CAN and magnetic pick-up versions(specify on ordering)
- 4 digital inputs/3 analogue inputs
- 6 outputs(4 configurable on Magnetic Pick-up, 6 configurable on CANbus version)
- Easy push button control

#### Alarms:

- Over and Under Speed
- Low and High Battery Volt.
- Start and Stop Failure
- Charge fail
- Over Current
- Under / Over Generator Voltage
- Low Oil Pressure
- Emergency stop
- High engine temperature

#### **LED Indications:**

- Mains on load
- Generator on load
- Mains available
- Generator available

#### Metering via LED display:

- Generator Volts (L-L / L-N)
   Generator kVA
- Engine oil pressure (PSI-Bar)
   Generator kW
- Generator Ampere (L1,L2,L3)
   Generator Cos (σ)
- Engine temperature (° C &° F)
- Generator Frequency (Hz)
- Plant battery volts
- Engine hours run
- Mains Volts (Ph-Ph/Ph-N)

## **Advanced Soundproofing Design**



**Quality Lockable Battery Isolator** 



**Top Crane Lift Points** 



**External Fuel Valves** 



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