



A.B.N 16 009 431 029

D.E.S.S. POWER

Diesel Engine Services & Spares

Proudly 100% Australian owned since 1989

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DPA110CR Diesel Genset

General Technical Data

| | |
|--------------------|--------------|
| Model | DPA110CR |
| Standby rating kVA | 110 |
| Standby rating kW | 88 |
| Prime Rating kVA | 100 |
| Prime Rating kW | 80 |
| Engine Make | Cummins |
| Engine Model | 6BT5.9G2 |
| Frequency | 50Hz |
| Cylinders | 6 |
| Aspiration | Turbocharged |
| Governor | Electronic |



General Features

- Industry leading Cummins diesel engine and Stamford alternator
- Sound attenuating / weatherproof canopy
- Forklift slots for easy transportation
- Top lift point for crane mobility
- 50°C Radiator as standard

- 24 hour bunded fuel tank
- Lockable battery isolator
- Deep Sea Electronics control panel
- Direct injection fuel system
- Emergency stop push button installed outside of the canopy
- Skid-mount base with anti-vibration pads

- Solid built canopy
- ISO 9001:2000 certified
- Dry type air filter and 2-stage fuel filter
- 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. Output ratings according to ISO 3046 and 8528.

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Dimensions and Weights

Enclosed Genset

Overall size L x W x H, mm 3400 x 1163 x 1824

Weight, net, kg 2,100kg

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

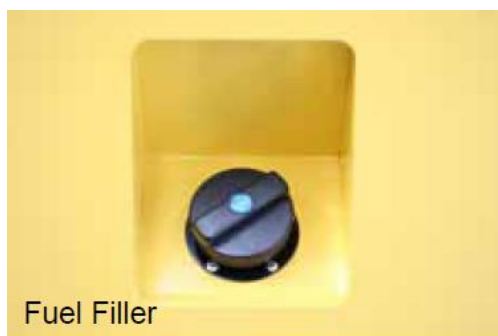
| | |
|----------------------------------|--------------|
| Engine Model | 6BT5.9G2 |
| Engine Manufacturer /Brand | Cummins |
| Type and Cylinder | 6 - inline |
| Induction System | Turbocharged |
| Bore x Stroke mm | 102 x 120 |
| Compression Ratio | 17.5:1 |
| Displacement L | 5.9 |
| Engine Speed rpm | 1500 |
| Engine power output at rated rpm | 123 hp |
| Oil Capacity L | 16.4 |
| Coolant Capacity L | 32.9 |
| Fuel Tank Capacity L | 550 |
| Fuel consumption at full load | 22L/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

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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 ($^{\circ}$ C & $^{\circ}$ F)
- Generator Frequency (Hz)
- Plant battery volts
- Engine hours run
- Mains Volts (Ph-Ph/Ph-N)

Advanced Soundproofing Design



Top Crane Lift Points



Quality Lockable Battery Isolator



External Fuel Valves



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