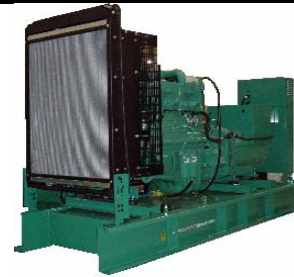


Diesel Powered Generating Sets C400 D5



Standard Genset Features

Cummins water cooled Diesel engine,
Oil and fuel filter fitted, water separator.
Lube-oil drain valve fitted
Electric starter & Charge alternator 24 v D.C
Electronic governor
Normal duty air filter
Single bearing alternator, class H/H , IP23
Standard voltage 400/230 volts 50 Hz
Exciter/Voltage reg - Torque Match as std
PCC2100 without Bargraph
3 pole MCCB
Welded steel base frame with A/V mounting,
Anti Vibration Mounts
Single skin metal fuel tank
Tank capacity of min 12 hours operation a
70% standby load
Loose 9 dB(A) silencer
Set mounted starting battery
Engine & Alternator Munsell Jade Greer
Radiator and Guarding black
Packing under shrunk plastic film
Operation & Maintenance manual
Standard set of labels

Engine Specification

Cummins NTA855G4
In-line direct injection
6-cylinder diesel engine.
Type
Water cooled, four cycle
Turbocharged Aftercooled
Construction
Two valves per cylinder, forged steel
crankshaft and connecting rods, cast iron
block.
Starting
24 volt negative earth. Battery charging
alternator 35 amp on engine. Cranking
current 640 amps at 0°C.
Fuel System
24 volt fail safe actuator. Spin-on paper
element fuel filters with Stanadyne fue
pump injection system with integral
Electronic governor. Dual flexible fuel lines
and connectors. Standard fuel water
separator.
Filters
Air cleaner with dry element and restrictor
indicator. Spin-on full flow lube oil filter.
Cooling
50°C radiator as std
Stone guard. Oil cooler. Drain Tap

Generator Set Performance

Voltage Regulation
Maintains voltage output to within $\pm 1.0\%$
At any power factor between 0.8 and 1.0
At any variations from No load to Full load
At any variations from Cold to Hot
At speed droop variations up to 4.5%.
Frequency Regulation
Isochronous under varying loads from no
load to 100% full load when electronic
governor is fitted.
Random Frequency Variation
Will not exceed $\pm 0.25\%$ of its mean value fo
constant loads – no load to full load
Waveform
Total harmonic distortion open circuit voltage
waveform in the order of 1.8%. Three-phase
balanced load in the order of 5.0%
Telephone Influence Factor (TIF)
TIF better than 50
THF to BS 4999 Part 40 better than 2%
Alternator Temperature Rise
Class H insulation.
Radio Interference
In compliance with BS 800 and VDE levels
G and N.

Alternator Specification

Type
Brushless single bearing, revolving field,
pole, drip proof, screen protected.
Class H Insulation.
IC 01 cooling system.
Fully interconnected damper winding.
AC exciter and rotating rectifier unit.
Epoxy coated stator winding.
Rotor and exciter impregnated with tropical
grade insulating oil and acid resisting
polyester resin. Dynamically balanced rotor
BS 5625 grade 2.5.
Sealed for life bearings.
Layer wound mechanically wedged rotor
Exciter
Triple dipped in moisture, oil and acid
resisting polyester varnish and coated with
anti-tracking varnish.
Output windings with 2/3 pitch for improved
harmonics and paralleling ability.
Close coupled engine/alternator for perfec
alignment.

Generator Set Options

Mechanical Options
Compliance - CE Certification (Guarding)
Fuel options
Fuel Tank deletion
Exhaust Options
Exhaust Silencer - Industrial (9 dB), In-Line
Exhaust Bellows
Exhaust Silencer - Residential (25 dB), In-Line
Installation Kit - Industrial Silence
Warranty
Warranty - 5 Year Extended Standby Applr
Warranty - 2 Year Extended Prime Applr
Voltage Connections
277/480V, 3 Phase
254/440V, 3 Phase
240/416V, 3 Phase
230/400V, 3 Phase
220/380V, 3 Phase
127/220V
115/200V, 3 Phase
110/190V, 3 Phase
Miscellaneous Options

Compliance Standards

To BS4999/5000 pt 99
VDE 0530, UTE5100,
NEMA MG1-22, CEMA
IEC 34, CSA A22.2
AS1359, BSS 5514
ISO 3046 and ISO 8521

| Model name | kVA | | kWe | |
|------------|-------|-------|-------|-------|
| | ESP | PRP | ESP | PRP |
| C400 D5 | 400.0 | 360.0 | 320.0 | 288.0 |

TECHNICAL DATA

| | | | |
|--------------------------------------|--------------------------|---|-----------------------|
| Model | C400 D5 | Speed | 1500 rpm |
| Set output | 380-440 V 50 Hz | Alternator voltage regulation | ±1.0% |
| Prime Rating | 288 kW/360 kVA | Alternator insulation class | H |
| Standby Rating | 320 kW/400 kVA | Fuel consumption (Prime) | 76 l/hr |
| Engine Make | Cummins | Fuel consumption (Standby) | 84 l/hr |
| Engine Model | NTA855G4 | Lubrication system oil capacity | 38.6 Litres |
| Cylinders | Six | Base fuel tank capacity – open set | 750 or 900 Litres |
| Engine build | In-line | Coolant capacity | 65.8 Litres |
| Standard Governor/Class | Electronic/Class G2 | Exhaust temp – prime | 524°C |
| Aspiration and cooling | Turbocharged Aftercooled | Exhaust gas flow – prime | 1128 l/s |
| Bore and stroke | 140 mm x152 mm | Exhaust gas back pressure max | 76 mm Hg |
| Compression Ratio | 14:1 | Air flow – radiator* | 5.99m ³ /s |
| Cubic capacity | 14 Litres | Air intake – engine (Prime) | 408 Litre/s |
| Starting/Min °C | Unaided / -7°C | Minimum air opening to room | 2.10 sq m |
| Battery capacity | 100 A/hr | Minimum discharge opening | 1.39 sq m |
| Gross Engine output – Prime | 317 kWm | Pusher fan head (duct allowance)* | 13 mm Wg |
| Gross Engine output – Standby | 351 kWm | Heat radiated by eng (Prime) | 46 kWm |

PRIME POWER (PRP)

Prime power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.

A 10% overload capability is available for a period of 1 hour within a 12-hour period of operation, in accordance with ISO 3046-1.

STANDBY POWER RATING (ESP)

The Standby Power Rating is applicable for supplying emergency power for the duration of a utility power interruption. No overload, utility parallel or negotiated outage operation capability is available at this rating.

In installations served by unreliable utility sources (where outages last longer or occur more frequently), where operation is likely to exceed 200 hours per year, the prime power rating should be applied.

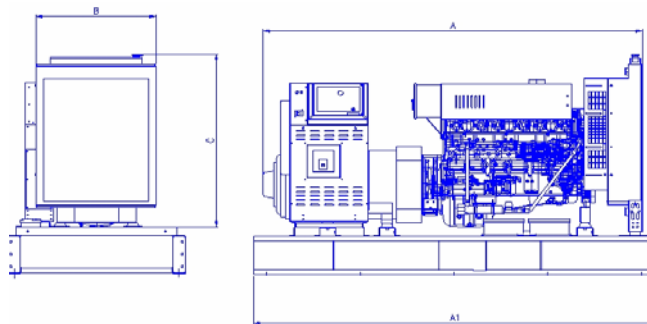
The Standby Power rating is only applicable for emergency and standby applications where the generator set serves as the back up to the normal utility source.

All ratings are based on the following reference conditions:

- Ambient temperature – 27°C

- Altitude above sea level – 150 metres

- Relative humidity – 60%



Dimensions and Weights

| Model | Engine | Length (mm) | Width (mm) | Height (mm) | Set weight wet (Kg) | Set weight dry (Kg) | Enclosed Weight Wet (Kg) |
|---------|----------|-------------|------------|-------------|---------------------|---------------------|--------------------------|
| C400 D5 | NTA855G4 | 3549 | 1100 | 2028 | 2078 | 3643 | 3453 |

Specifications may change without notice

Cummins Power Generation Limited

Manston Park, Columbus Avenue
 Manston, Ramsgate
 Kent CT12 5BF, UK
 Telephone: +44 (0)1843 255000
 Fax: +44 (0)1843 255902
 Email: cpg.uk@cummins.com
www.cumminspower.com
www.cummins.com

See your distributor for more information.

