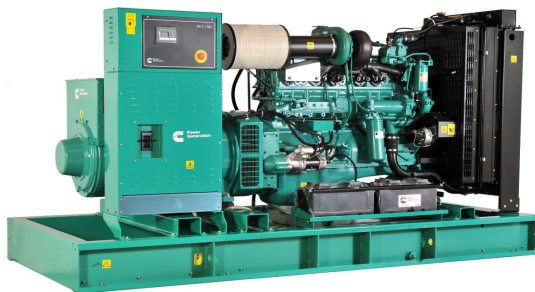


Diesel Generating Sets



C440D5

Our energy working for you.™



Standard Genset Features

Cummins water cooled Diesel engine.
Oil and fuel filter fitted, water separator.
Lube-oil drain valve fitted.
Electric starter and Charge alternator 24 VDC
Electronic governor
Normal duty air filter.
Single bearing alternator.
Set mounted starting battery.
Engine, Alternator, Chassis and Control Command House color: Munsell Jade Green.
Radiator and Guarding in color: Black.
Packing under shrunk plastic film.
Operation and Maintenance manual.
Standard set of labels.
Fuel tank in skid - day tank.

PMG (Permanent Magnet Generating)

Offers enhanced motor starting and fault clearing short circuit capability.

Warranty Standard

Warranty 2 years (Standby) or 1 year (Prime Power)

Generator Set Performance

Voltage Regulation

Maintains voltage output within $\pm 1,0\%$ in the following conditions:
1. At any power factor between 0.8 and 1.0
2. At any load level from no load to full load.
3. At speed droop variations up to 4,5%.

Frequency Regulation

Isochronous under any load from no load to 100% full load when electronic governor is fitted.

Random Frequency Variation

Will not exceed $\pm 0,25\%$ of rated frequency value for constant loads, no load to full load.

Compliance Standards

To BS4999/5000 pt 99,
AS1359, BSS 5514,
ISO 3046 and ISO 8528
IEC 34, CSA A22.2,
AS1359, BSS 5514,
ISO 3046 and ISO 8528

Alternator Specification

Type

Brushless single bearing, revolving field, four pole, protection from water (dripping).
Class H Insulation, IP23 Protection
Vacuum impregnation.
IC 01 cooling system.
Fully interconnected damper winding.
AC exciter and rotating rectifier unit.
Epoxy coated stator winding.
Rotor and exciter impregnated with polyester resin appropriate to the tropical climate, resistant to oil and acids.
Rotor balanced dynamically BS 5625 2,5 degrees.
Permanent lubricant ball bearing
Rotor wound in layers and with mechanics coils.

Exciter

Triple dipped in varnish resistant to oil and acid and coated with anti-tracking varnish.

Winding

Low reactance 2/3 pitch windings; low waveform distortion with non-linear loads, fault clearing short-circuit capability.
Engine/alternator direct coupling for perfect alignment.

Generator Set Options

Exhaust Options

Exhaust silencer - Industrial 9 dB(A).
Exhaust silencer - Residential 29 dB(A)

Warranty

Warranty 5 years extended - (Standby)
Warranty 2 years extended or 6000 hours - (Prime)

Options

Coolant heater
Battery Charger
Automatic Transfer Switches - GTEC
Silencer Enclosures
External Tank

Voltage Connections - 50Hz

Only in 400 V

Fuel Consumption

Ratings	Standby				Prime			
	440 kVA		352 kW		N/A kVA		N/A kW	
Load	Full	3/4	1/2	1/4	Full	3/4	1/2	1/4
Consumption (L/hr)	98	72	50	26	N/A	N/A	N/A	N/A

Observation:

The engine above was tested according to the ISO-3046 respecting the following conditions:

Barometric Pressure = 100 kPa (29.83 in Hg)
Altitude above sea level = 110 m (316 ft)

Ambient temperature = 25° c (77° F)
Relative humidity = 30%

N/A=Not Available

Technical Data

Model	C440D5	Alternator voltage regulation	± 1,0%
Standby Rating	440 kVA / 352 kW	Alternator insulation class	H
Prime Rating	N/A	IP Protection	IP 23
Engine Make	Cummins	Fuel consumption (Standby)	98 l/h
Engine Model	NTA855-G7	Fuel consumption (Prime)	N/A
Cylinders	6 cylinders	Lubrication system oil capacity	36,7 liters
Engine Build	In line	Coolant capacity (only engine)	20,8 liters
Standard Governor/Class	Electronic	Coolant capacity (engine and radiator)	58 liters
Aspiration and cooling	Turbocharged	Exhaust temperature (Prime)	553°C - Standby
Bore and stroke	140 mm x 152 mm	Exhaust gas flow (Prime)	1403 l/s - Standby
Compression Ratio	14,0 : 1	Exhaust gas back pressure max	76 mm Hg
Cubic capacity	15 liters	Air flow radiator	7.95 m³/s
Starting/Min °C	Unaided / 4°C	Intake air flow	526 l/s
Battery capacity	150 A/h (2x)	Minimum air opening to room	2,10 m²
Gross Engine output – Standby	391 kWm	Minimum discharge opening	1,39 m²
Gross Engine output – Prime	N/A	Radiated heat to ambient	59 kWm - Standby
Speed	1500 rpm	Tank incorporated in the base capacity	500 liters

STANDBY POWER

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,

PRIME POWER

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

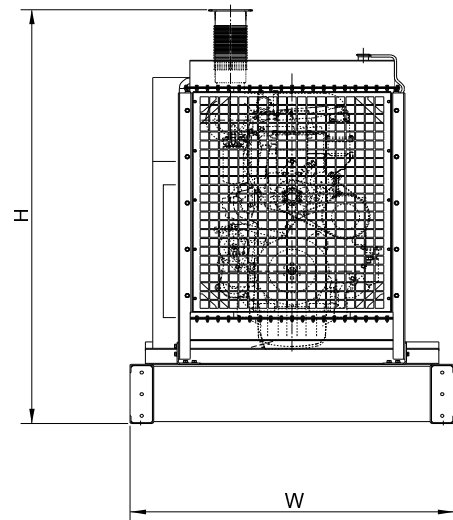
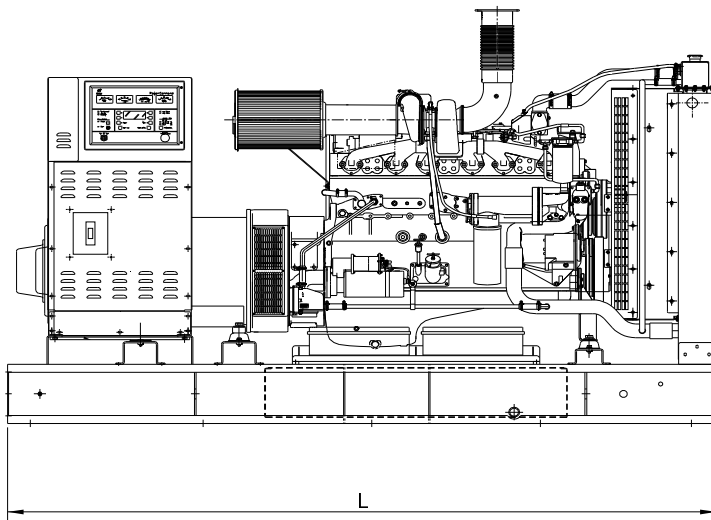
A 10% overload capability is available for a period of 1 hour within a 12-hour period of operation, in accordance with ISO 3046-1.

All ratings are based on the following reference conditions:

- Ambient temperature: 27°C

- Altitude above sea level: 150 meters

- Relative humidity: 60%



This outline drawing is for reference only. Do not use for installation design

Dimensions and Weights

Grupo Gerador	Length (mm) L	Width (mm) W	Height (mm) H	Set weight dry (kg)	Set weight wet ¹ (kg)
Open Set	3370	1500	2042	3585	4099
Carenagem - F187	5105	1550	2430	4777	5291

¹Set weight wet represent a set with oil, fuel and coolant liquid.



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the
Power
of One

See your distributor for more information.

