



## Generator set data sheet

<b>Model</b>	<b>C500N6B</b>
<b>Frequency</b>	<b>60 Hz</b>
<b>Fuel type</b>	<b>Natural gas</b>
<b>kW (kVa) rating</b>	<b>500 (625) standby</b>
<b>Emissions</b>	<b>EPA-certified for stationary emergency and non-emergency applications</b>

<b>Exhaust emission data sheet</b>	EDS-3069
<b>Sound performance data sheet</b>	MSP-4061
<b>Cooling performance data sheet</b>	MCP-2109
<b>Prototype test summary data sheet</b>	PTS-692
<b>Standard set-mounted radiator cooling outline</b>	C500N6B-01

<b>Fuel consumption</b>		<b>1/4 load</b>	<b>1/2 load</b>	<b>3/4 load</b>	<b>full load</b>
Fuel consumption for cfh and m <sup>3</sup> /hr is based on 905 Btu/ft <sup>3</sup> .					
<b>cfh</b>		2452	3839	5413	6994
<b>m<sup>3</sup>/hr</b>		70	109	153	198
<b>MMBtu/hr</b>		2.22	3.47	4.90	6.33

### Fuel supply

Fuel supply pressure is measured at the factory-supplied fuel shut-off (FSO) valve.  
Fuel inlet pressure must not exceed 25 in. WC under any operating condition.

<b>Minimum operating pressure, in. H<sub>2</sub>O (kPa)</b>	10 (2)
<b>Maximum operating pressure, in. H<sub>2</sub>O (kPa)</b>	20 (5)

<b>Engine</b>	<b>Standby</b>	<b>Prime</b>	<b>Continuous</b>
<b>Engine manufacturer</b>	Cummins		
<b>Engine model</b>	GTA 28E		
<b>Configuration</b>	V12		
<b>Aspiration</b>	Turbocharged and coolant-air aftercooled		
<b>Gross engine power output, bhp (kWm)</b>	770 (574)		
<b>BMEP at set rated load, psi (kPa)</b>	198 (1365)		
<b>Bore, in. (mm)</b>	5.6 (141)		
<b>Stroke, in. (mm)</b>	6 (152)		
<b>Rated speed, rpm</b>	1800		

<b>Engine (cont'd.)</b>	<b>Standby</b>	<b>Prime</b>	<b>Continuous</b>
Piston speed, ft./min (m/s)	1800 (9.1)		
Compression ratio	8.5:1		
Lube oil capacity, qt. (L)	72 (68)		
Overspeed limit, rpm	2200		
Regenerative power, kW	75		

#### **Air**

Combustion air, cfm (m <sup>3</sup> /min)	1119 (31.7)		
Max air cleaner restriction (dirty filter), in. H <sub>2</sub> O (kPa)	15 (3.7)		
Alternator cooling air, cfm (m <sup>3</sup> /min)	2776 (78.61)		

#### **Exhaust**

Exhaust flow at set rated load, cfm (m <sup>3</sup> /min)	3506 (105.2)		
Exhaust temp, °F (°C)	1156 (624)		
Max allowable system back pressure, in. H <sub>2</sub> O (kPa)	47.7 (11.9)		
Catalyst back pressure, in. H <sub>2</sub> O (kPa)	20.4 (5.08)		

#### **Cooling**

Ambient design, °F (°C)	104 (40)		
Fan load, HP (kWm)	55 (41.0)		
Coolant capacity (with radiator), gal (L)	65 (246)		
Cooling system air flow, acfm (m <sup>3</sup> /min)	56,400 (1597)		
Heat rejected, jacket water circuit, Btu/min (MJ/min)	33,577 (35.42)		
Heat rejected, after-cooler circuit, Btu/min (MJ/min)	3506 (3.7)		
Total heat radiated to room, Btu/min (MJ/min)	37,083 (39.12)		
Max cooling air flow static restriction, in. H <sub>2</sub> O (kPa)	0.5 (0.12)		

#### **Weight**

Weight represents a set with standard features. See outline drawing for weights of other configurations.

Unit wet weight lbs. (kgs)	7620 (3456)
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#### **Full-load amperage (FLA) at rated voltage**

Three-phase FLA based on 0.8 power factor (PF).

120/240 (1 Ph)	120/208	127/220	139/240	220/380	240/416	254/440	277/480	347/600
N/A	1735	1640	1504	950	867	820	752	601

#### **Derates**

Engine power available up to 3000 ft. (914 m) and ambient temperatures up to 104 °F (40 °C). Above these conditions, derate at 4% per 1000 ft. (305 m) and 1% per 18 °F (10 °C) to a maximum of 10,000 ft.

## Ratings definitions

### Emergency standby power (ESP):

Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. Emergency Standby Power (ESP) is in accordance with ISO 8528. Fuel Stop power is in accordance with ISO 3046, AS 2789, DIN 6271, and BS 5514.

### Prime power (PRP):

Applicable for supplying power to varying electrical load for unlimited hours. Prime Power (PRP) is in accordance with ISO 8528. Ten percent overload capability is available in accordance with ISO 3046, AS 2789, DIN 6271, and BS 5514.

### Base load (continuous) power (COP):

Applicable for supplying power continuously to a constant electrical load for unlimited hours. Continuous Power (COP) is in accordance with ISO 8528, ISO 3046, AS 2789, DIN 6271, and BS 5514.

### Demand Response Power Rating - Spark Ignited Gas (DRP):

Applicable for supplying electrical power in parallel with commercially available power in variable and non-variable load applications. This fuel rating is intended for use in situations where power outages are contracted, such as in utility power curtailment. Engine operation is limited to a total of 500 hours per year. Engines may be operated in parallel to the public utility for up to 500 hours per year, with an average load factor no greater than 80% of rated Demand Response Power. Engines with Standby Power ratings available can be run in Emergency Standby applications up to the Standby Power rating for up to 50 hours per year. The customer should be aware, however, that the life of any engine will be reduced by constant high load operation.

## ISO 9001:2015

This product has been manufactured under the controls established by an approved management system that conforms with ISO 9001:2015.

**Warning:** Backfeed to a utility system can cause electrocution and/or property damage. Do not connect GenSets to any building electrical system except through an approved device or after the building main disconnect is open. Neutral connection must be bonded in accordance with National Electrical Code.

Specifications are subject to change without notice.

## Power You Can Rely On

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