Generator set data sheet

Model: C500D5
Frequency: 50 Hz
Fuel type: Diesel

Spec sheet:	**EMERS-5888-EN**
Noise data sheet :	**MSP-TBD**
Cooling data sheet:	**MCP-TBD**
Prototype test summary data sheet:	**PTS-TBD**
Alternator data sheet:	**ADS-305，ADS-306**

Fuel consumption

	Standby				**Prime**			
	kVA (kW)				**kVA (kW)**			
Ratings	500 (400)				455 (364)			
Load	**1/4**	**1/2**	**3/4**	**Full**	**1/4**	**1/2**	**3/4**	**Full**
Gal (UK)/hr	7.7	12.2	17.3	22.8	7.3	11.4	15.8	20.8
L/hr	34.79	55.6	78.5	107.1	29.2	49	69.9	93.2

Engine

	Standby rating	**Prime rating**
Engine manufacturer	Cummins	
Engine model	QSZ13-G5	
Configuration	4 cycle; in-line 6 cylinder diesel	
Aspiration	Turbocharged and charge air-cooled	
Gross engine power output, kWm	470	411
BMEP at set rated load, kPa	2892	2529
Bore, mm	130	
Stroke, mm	163	
Rated speed, rpm	1500	
Piston speed, m/s	8.1	
Compression ratio	17.1	
Lube oil capacity, L	75.33	
Overspeed limit, rpm	1500 ±10%	
Regenerative power, kW	36	
Governor type	Electronic	
Starting voltage	24 Volts DC	

Fuel flow

Maximum fuel flow, L/hr	247
Maximum fuel inlet restriction, mm Hg	101
Maximum fuel inlet temperature, °C	71

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Air	Standby rating	Prime rating
Combustion air, m^3/min	35.5	33.9
Maximum air cleaner restriction, kPa	3.2 – 6.2	

Exhaust

Exhaust gas flow at set rated load, kg/min	29.5	27.8
Exhaust gas temperature, °C	523	485
Maximum exhaust back pressure, kPa	13	

Standard set-mounted radiator cooling

Ambient design, °C	50*	
Fan load, kWm	14.2	
Coolant capacity (with radiator), L	77.1	
Cooling system air flow, m^3/sec @ 12.7 mm H_2O	8.1	
Total heat rejection**, Btu/min	16700	13700
Maximum cooling air flow static restriction mm H_2O	25.4	

*Based on cooling air flow static restriction 12.7mmH_2O
**Total heat rejection includes jacket water circuit, aftercooler circuit, fuel circuit, heat radiated to room.

Weights*	Open	Enclosed
Unit dry weight kgs	3879	5015/4807**
Unit wet weight kgs	3977	5080/4872**

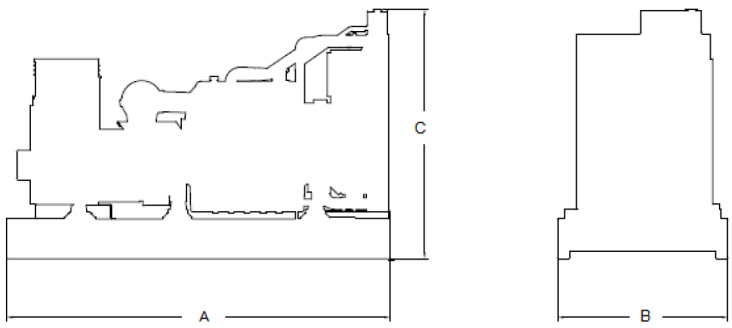
* Weights represent a set with standard features. See outline drawing for weights of other configurations.
**Weights for 4-point chassis lift.

Dimensions	Length	Width	Height
Standard open set dimensions mm	3376	1500	2191
Enclosed set standard dimensions mm	5095/5095**	1564/1564**	2441/2330**

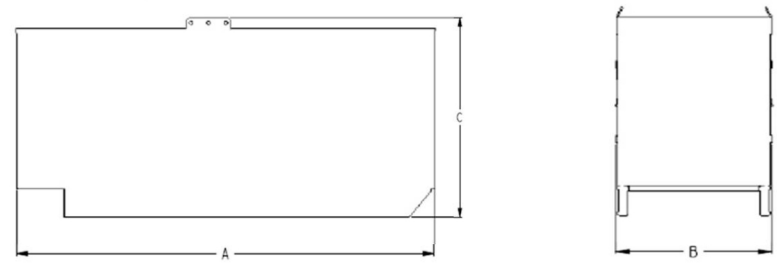
**Dimensions are for 4-point chassis lift.

Genset outline

Open set



Enclosed set



Outlines are for illustrative purposes only. Please refer to the genset outline drawing for an exact representation of this model.

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Alternator data

Connection	Temp rise ºC	Duty	Alternator	Voltage
Wye, 3-phase	163/125 C	S/P	HC5D	190-220V,380-440V
Wye, 3-phase	150 C	S	HC5D	190-220V,380-440V
Wye, 3-phase	105 C	P	HC5E	190-220V,380-440V

Ratings definitions

Emergency Standby Power (ESP):	Limited-Time Running Power (LTP):	Prime Power (PRP):	Base Load (Continuous) Power (COP):
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 in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.	Applicable for supplying power to a constant electrical load for limited hours. Limited-Time Running Power (LTP) is in accordance with ISO 8528.	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.	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.

Formulas for calculating full load currents:

Three phase output

$$\frac{\text{kW} \times 1000}{\text{Voltage} \times 1.73 \times 0.8}$$

Single phase output

$$\frac{\text{kW} \times \text{SinglePhaseFactor} \times 1000}{\text{Voltage}}$$

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