

Generator set data sheet



Model: C550D5
Frequency: 50 Hz
Fuel type: Diesel

Spec sheet:	EMERS-5888-EN
Noise data sheet:	MSP-4046
Cooling data sheet:	MCP-2092
Prototype test summary data sheet:	PTS-679
Alternator data sheet:	ADS-636, ADS-637

Fuel consumption	Standby				Prime			
	kVA (kW)				kVA (kW)			
Ratings	550 (440)				500 (400)			
Load	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full
Gal (UK)/hr	6.2	11.7	17.0	22.7	6.3	10.9	15.4	20.5
L/hr	30.7	53.3	77.1	103.4	28.6	49.4	70.2	93.1

Engine	Standby rating	Prime rating
Engine manufacturer	Cummins	
Engine model	QSZ13-G10	
Configuration	4 cycle; in-line 6 cylinder diesel	
Aspiration	Turbocharged and charge air-cooled	
Gross engine power output, kWm	509	463
BMEP at set rated load, kPa	3130	2850
Bore, mm	130	
Stroke, mm	163	
Rated speed, rpm	1500	
Piston speed, m/s	8.15	
Compression ratio	17: 1	
Lube oil capacity, L	75.3	
Overspeed limit, rpm	1500 ±10%	
Regenerative power, kW	32	
Governor type	Electronic	
Starting voltage	24 Volts DC	

Fuel flow	
Maximum fuel flow, L/hr	247
Maximum fuel inlet restriction, mm Hg	203
Maximum fuel inlet temperature, °C	71

Air	Standby rating	Prime rating
Combustion air, m ³ /min	30.72	29.82
Maximum air cleaner restriction, kPa	3.7 – 6.2	

Exhaust

Exhaust gas flow at set rated load, m ³ /min	82.02	73.02
Exhaust gas temperature, °C	547	520
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 ₂ O	10.3	
Total heat rejection**, Btu/min	19476	17585
Maximum cooling air flow static restriction mm H ₂ O	25.4	

*Based on cooling air flow static restriction 12.7mmH₂O

**Total heat rejection includes jacket water circuit, aftercooler circuit, fuel circuit, heat radiated to room.

Weights*

	Open	Enclosed
Unit dry weight kgs	4120	5439/5049**
Unit wet weight kgs	4239	5558/5168**

*Weights represent a set with standard features. See outline drawing for weights of other configurations.

**Weights are for 4-point chassis lift.

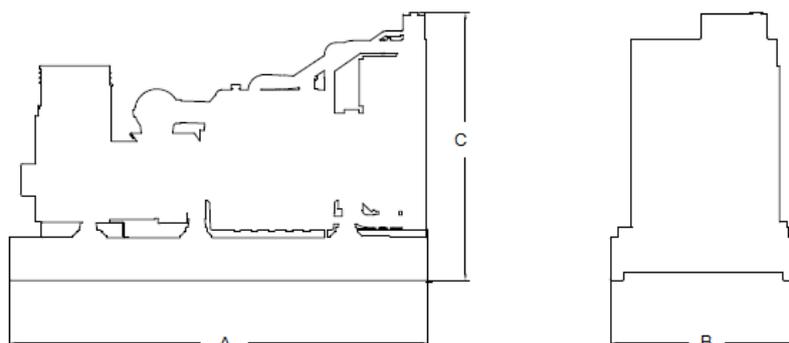
Dimensions

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

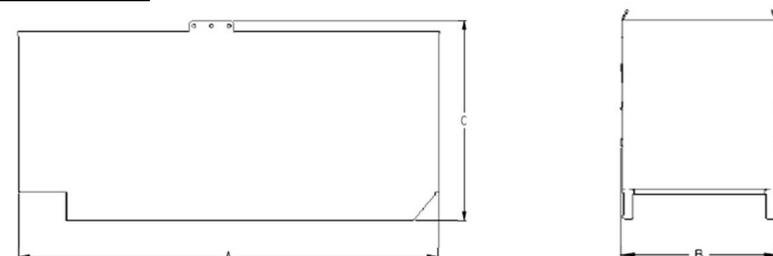
*Dimensions are for 4-point chassis lift.

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.

Alternator data

Connection	Temp rise °C	Duty	Alternator	Voltage
Wye, 3-phase	150/125C	S/P	S5D	400V
Wye, 3-phase	125/105C	S/P	S5E	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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