

Generator set data sheet



Model: C450D5
Frequency: 50Hz
Fuel type: Diesel

Spec sheet:	S-6337-EN(0422)
Noise data sheet	MSP-4021
Cooling data sheet:	MCP-2065
Prototype test summary data sheet	PTS-646
Alternator data sheet:	ADS-623

Fuel consumption	Standby				Prime			
	kVA(kW)				kVA(kW)			
Ratings	450(360)				410(328)			
Load	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full
US gph	6.3	11.8	17.6	24.2	5.8	10.8	15.8	21.6
L/h	24	45	67	92	22	41	60	82

Engine	Standby	Prime
Engine manufacturer	Cummins	
Engine model	QSG12-G4	
Configuration	Four-Cycle; Inline; 6 Cylinder	
Aspiration	Turbocharged and Charge Air Cooled	
Gross engine power output, kWm (bhp)	410(549)	372(498)
BMEP at set rated load, kPa (psi)	2772(402)	2517(365)
Bore, mm (in.)	132(5.2)	
Stroke, mm (in.)	144(5.67)	
Rated speed, rpm	1500	
Piston speed, m/s (ft/min)	7.2(1417.3)	
Compression ratio	17.0:1	
Lube oil capacity, L (US gal)	34.1(9)	
Overspeed limit, rpm	1725	
Regenerative power, kWm(HP)	36(48)	
Governor type	ECM	
Starting voltage	24 Volts DC	

Fuel flow	
Maximum fuel flow, L/hr (US gph)	182(48)
Maximum fuel inlet restriction, mmHg (in Hg))	152(6)
Maximum fuel inlet temperature, °C (°F)	71(160)

Air	Standby	Prime
Combustion air, CFM m ³ /min)	907(25.4)	829(23.2)
Maximum air cleaner restriction, kPa (in H ₂ O)	3.7-6.2(15-25)	

Exhaust

Exhaust flow at set rated load, CFM (m ³ /min)	2204(61.7)	2004(56.1)
Exhaust temperature, °C (°F)	524(974)	507(944)
Maximum back pressure, kPa (in H ₂ O)	10.2(1040)	

Cooling system

Ambient design, °C (°F)	50(122)	
Fan load, kWm (HP)	14(19)	
Coolant capacity (with radiator), L (US gal)	48(13)	
Cooling system air flow, m ³ /min (scfm)	429(15148)	
Total heat radiated to room, MJ/min (Btu/min)	3.6(3405)	
Total heat rejection*, MJ/min (Btu/min)	12.8(12153)	11.4(10800)
Maximum cooling air flow static restriction, mm H ₂ O	12.7	

*Total heat rejection includes jacket water circuit, aftercooler circuit and radiated heat to ambient

Weights*

	Open	Enclosure
Unit dry weight, kgs	3216	4490/4347**
Unit wet weight, kgs	3899	5220/5097**

* Weights represent Narrow skid open Genset and 2-point lifting & 4-point chassis lifting enclosed Genset . See outline drawing other configura

*4-point lifting enclosure Genset weight

Dimensions

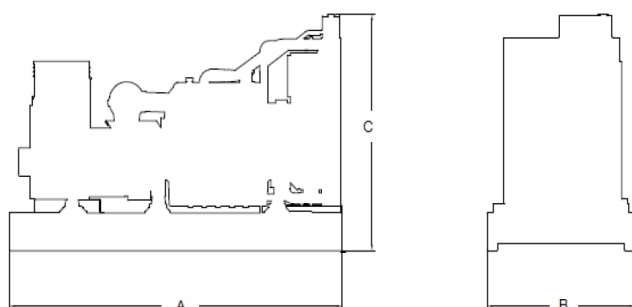
	Length(A)	Width(B)	Height(C)
Standard open set dimensions mm	3686	1100	2180
Standard open set dimensions mm	5092/5095**	1564/1500**	2375/2252**

* Dimension represent Narrow skid open Genset and 2-point lifting & 4-point chassis lifting enclosed Genset . See outline drawing for other con

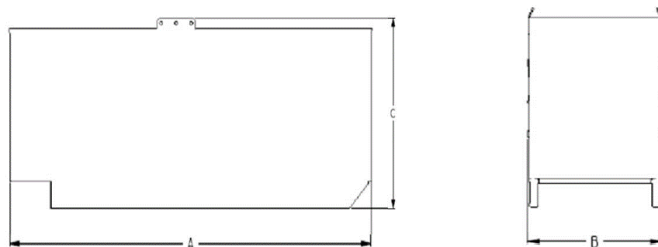
*4-point lifting enclosure Genset dimension

Genset outline

OPEN



Enclosure



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 °C	Duty*	Alternator	Voltage
Wye, 3Phase	150/125	S/P	S4G	190-220,380-440V

* Standby (S), Prime (P) and Continuous ratings (C).

Ratings definitions

Emergency Standby Power (ESP):	Prime Power (PRP):
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 3046-1, obtained and corrected in accordance with ISO 15550	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 ISO8528,ISO 3046-1 and corrected in accordance with ISO15550.

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

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

For more information contact your local Cummins distributor



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