

Generator set data sheet



Model: C28D5I
Frequency: 50 Hz
Fuel type: Diesel

Spec sheet:	S-6677
Noise data sheet (enclosed):	MSP-4158
Cooling data sheet:	MCP-2224

Fuel consumption	Standby				Prime			
	kVA (kW)				kVA (kW)			
Ratings	27.5 (22)				25 (20)			
Load	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full
gph	0.7	1.0	1.4	1.7	0.7	1.0	1.3	1.6
L/hr	2.8	3.8	5.2	6.5	2.7	3.6	4.8	6.0

Engine	Standby rating	Prime rating
Engine manufacturer	Cummins Inc.	
Engine model	X2.5-G2	
Configuration	4 cycle, in-line, 3 cylinder diesel	
Aspiration	Naturally aspirated	
Gross engine power output, kWm	27	24.37
BMEP at set rated load, kPa	863.9	779.8
Bore, mm	91.4	
Stroke, mm	127	
Rated speed, rpm	1500	
Piston speed, m/s	6.35	
Compression ratio	18.5:1	
Lube oil capacity, L	7.3	
Overspeed limit, rpm	1725	
Governor type	Mechanical - Std	
Starting voltage	12 Volts DC	

Fuel flow

Maximum fuel flow, L/hr	40
Maximum fuel inlet restriction, mm Hg	73.66
Maximum fuel inlet temperature, (°C)	60

Air	Standby rating	Prime rating
Combustion air, m ³ /min	2.30	2.30
Maximum air cleaner restriction, kPa	4	

Exhaust

Exhaust gas flow at set rated load, m ³ /min		
Exhaust gas temperature, °C	660	660
Maximum exhaust back pressure, kPa	3.38	

Standard set-mounted radiator cooling

Ambient design, °C	51	
Fan load, kW _m	0.95	
Coolant capacity (with radiator), L	15	
Cooling system air flow, m ³ /sec @ 12.7mm H ₂ O	NA	
Cooling system air flow, m ³ /sec @ enclosed	0.48	
Total heat rejection, BTU/min	882	
Maximum cooling air flow static restriction, mm H ₂ O		

Weights*

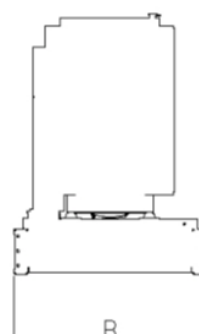
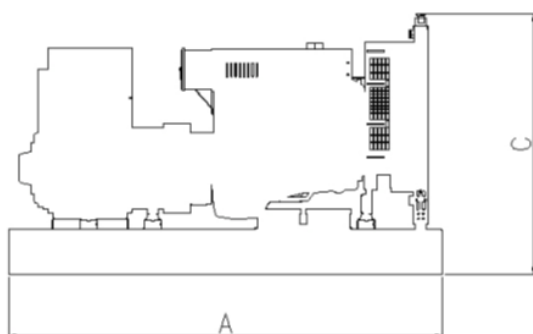
	Open	Enclosed
Unit dry weight, kgs	647	882
Unit wet weight, kgs	665	900

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

Dimensions

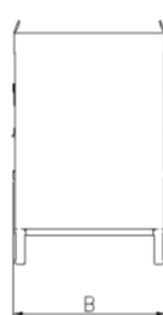
	Length (A)	Width (B)	Height (C)
Standard open set dimensions in mm	1805	930	1097
Enclosed set standard dimensions in mm	1954	970	1194

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
3 phase	163/125	S/P	S0L2-M1	200V, 400V and 416V
3 phase	163/125	S/P	S0L2-P1	190V and 380V
3 phase	125/105	S/P	S0L2-P1	380-416V
1 phase	125/105	S/P	S1L2-K1	230V

Ratings definitions

Emergency Standby Power (ESP):	Limited-Time running Power (LTP):	Prime Power (PRP):	Base load (Continuous) Power (COP):
Applicable for supplying power continuously to varying electrical loads for the duration of power interruption of a reliable utility source. Emergency Standby Power (ESP) is in accordance with ISO 8528 and ISO 3046-1, obtained and corrected in accordance with ISO 15550).	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 3046-1.	Applicable for supplying power continuously to a constant load up to the full output rating for unlimited hours. No sustained overload capability is available for this rating. Consult authorized distributor for rating. (Equivalent to Continuous Power in accordance with ISO 8528 and ISO 3046-1, obtained and corrected in accordance with ISO 15550). This rating is not applicable to all generator set models.

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

$$\frac{\text{kW} \times \text{Single Phase Factor} \times 1000}{\text{Voltage}}$$

For more information contact your local Cummins distributor or visit power.cummins.com

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