

Generator set data sheet



Model: C825 D5
Frequency: 50 Hz
Fuel type: Diesel

Spec sheet:	SS12-CPGK
Sound Data Sheet	MSP-3098
Cooling System Data	MCP-2095

Fuel consumption	Standby				Prime			
	kVA (kW)				kVA (kW)			
Ratings	825 (660)				750 (600)			
Load	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full
US gph	14.0	23.7	33.1	43.7	13.0	22.0	30.5	39.6
L/hr	53.0	89.9	125.3	165.3	49.2	83.4	115.4	149.8

Engine	Standby rating	Prime rating
Engine manufacturer	Cummins	
Engine model	QSK23-G3	
Configuration	Cast iron, in-line 6 cylinder	
Aspiration	Turbocharged and after-cooled	
Gross engine power output, kWm	768	701
BMEP at set rated load, kPa	2350	2441
Bore, mm	170	
Stroke, mm	170	
Rated speed, rpm	1500	
Piston speed, m/s	8.6	
Compression ratio	16:1	
Lube oil capacity, L	103	
Overspeed limit, rpm	1800	
Regenerative power, kW	72	
Governor type	Electronic	
Starting voltage	24 Volts DC	

Fuel flow	
Maximum fuel flow, L/hr	684
Maximum fuel inlet restriction, mm Hg	203
Maximum fuel inlet temperature, °C	70

Air	Standby rating	Prime rating
Combustion air, m ³ /min	53.3	48.7
Maximum air cleaner restriction, kPa	6.2	

Exhaust

Exhaust gas flow at set rated load, m ³ /min	147.78	135.54
Exhaust gas temperature, °C	543	532
Maximum exhaust back pressure, kPa	10.2	

Standard set-mounted radiator cooling

Ambient design, °C (open genset at 12.7mm H ₂ O)	40	
Fan load, kW _m	24.9	
Coolant capacity (with radiator), L	136.5	
Cooling system air flow, m ³ /sec @ 12.7 mm H ₂ O	8.2	
Total heat rejection, Btu/min	12636	12252
Maximum cooling air flow static restriction mm H ₂ O	25.4	25.4

Standard set-mounted radiator cooling when IBC is selected

Ambient design, °C	40	
Fan load, kW _m	14.3	
Coolant capacity (with radiator), L	109.5	
Cooling system air flow, m ³ /sec @ 12.7 mm H ₂ O	11.6	
Total heat rejection, Btu/min	12636	12252
Maximum cooling air flow static restriction mm H ₂ O	25.4	25.4

Optional set-mounted radiator cooling (All config)

Ambient design, °C (open genset at 12.7mm H ₂ O)	50	
Fan load, kW _m	14.3	
Coolant capacity (with radiator), L	109.5	
Cooling system air flow, m ³ /sec @ 12.7 mm H ₂ O	11.6	
Total heat rejection, Btu/min	12636	12252
Maximum cooling air flow static restriction mm H ₂ O	25.4	25.4

Weights

	Open	Enclosed
Unit dry weight kgs	6091	9868
Unit wet weight kgs	6289	9984

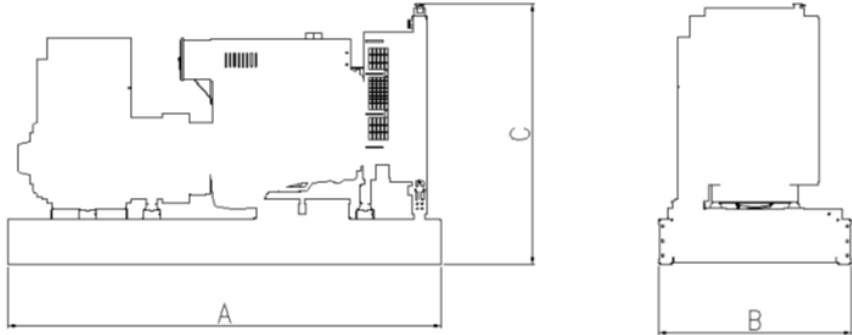
Dimensions

	Length	Width	Height
Standard open set dimensions mm	4340	1763	2095
Enclosed set standard dimensions mm	5708	2108	2467

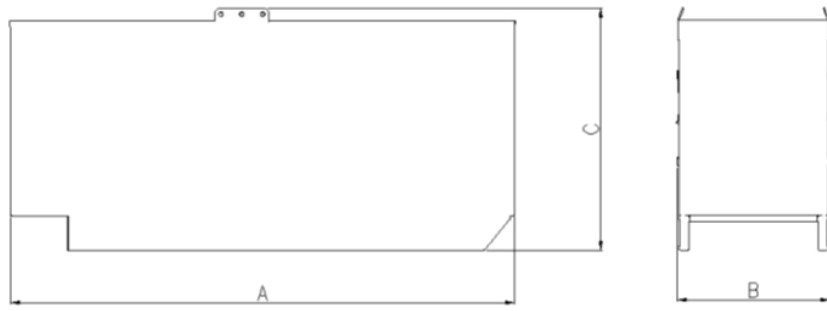
Note: Weights and dimensions represent a set with standard features. See outline drawing for weights of other configurations.

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	163	S/P	S6L1D-C4/D4	380-440 V

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

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