

Generator set data sheet



Model: C275 D5
Frequency: 50 Hz
Fuel type: Diesel

Spec sheet:	SS29-CPGK
Noise data sheet (open/enclosed):	ND50OS/MSP-2021
Airflow data sheet:	AF50-550

Fuel consumption	Standby				Prime			
	kVA (kW)				kVA (kW)			
Ratings	275 (220)				250 (200)			
Load	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full
gph	3.7	6.6	10.1	13.7	3.1	5.7	8.4	11.5
L/hr	16.7	30.0	45.8	62.5	14.2	25.8	38.3	52.5

Engine	Standby rating	Prime rating
Engine manufacturer	Tata Cummins Limited (JV)	
Engine model	QSL9-G5	
Configuration	4 cycle; in-line; 6 cylinder diesel	
Aspiration	Turbocharged and charge air-cooled	
Gross engine power output, kWm	310	268
BMEP at set rated load, kPa	2785	2413
Bore, mm	114	
Stroke, mm	145	
Rated speed, rpm	1500	
Piston speed, m/s	7.2	
Compression ratio	16.8:1	
Lube oil capacity, L	26.5	
Overspeed limit, rpm	1800 ± 50	
Regenerative power, kW	26	
Governor type	Electronic	
Starting voltage	24 Volts DC	

Fuel flow	
Maximum fuel flow, L/hr	165
Maximum fuel inlet restriction, mm Hg	152
Maximum fuel inlet temperature, °C	70

Air	Standby rating	Prime rating
Combustion air, m ³ /min	20.30	18.70
Maximum air cleaner restriction, kPa	6.2	

Exhaust		
Exhaust gas flow at set rated load, m ³ /min	53.0	44.9
Exhaust gas temperature, °C	560	500
Maximum exhaust back pressure, kPa	10.2	

Standard set-mounted radiator cooling		
Ambient design, °C	50	
Fan load, kW _m	10	
Coolant capacity (with radiator), L	40	
Cooling system air flow, m ³ /sec @ 12.7 mm H ₂ O	7.93	
Total heat rejection, Btu/min	11975	9935
Maximum cooling air flow static restriction, mm H ₂ O	19.1	

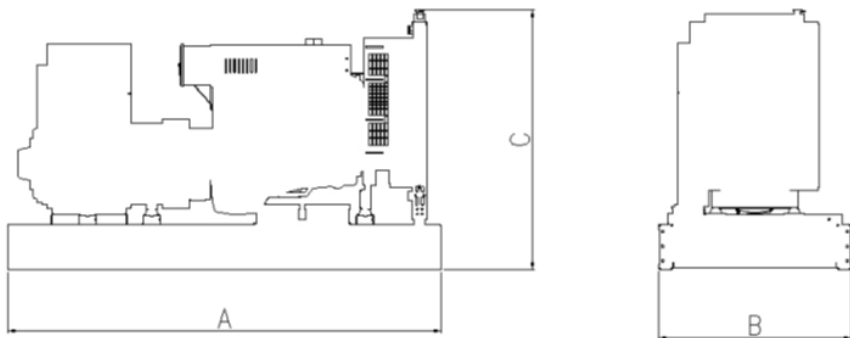
Weights*	Open	Enclosed
Unit dry weight, kgs	3215	4215
Unit wet weight, kgs	3357	4611

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

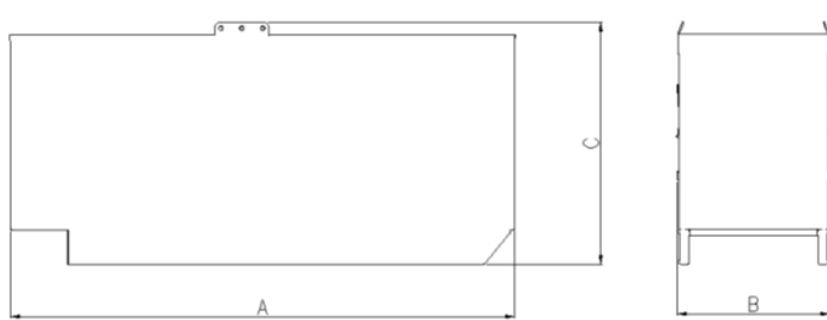
Dimensions	Length	Width	Height
Standard open set dimensions, mm	3086	1360	2017.8
Enclosed set standard dimensions, mm	4259	1424	2315

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	163/125	S/P	UCD274K	380-415 V
Wye, 3-phase	125/105	S/P	HC4D	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 and DIN 6271.	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 and DIN 6271.	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 and DIN 6271.

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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