



ATLANTIC GROUP

Mechanical & Electrical Contractors

Technical/Product Data Submission Sheet

Issuing Company: ATLANTIC GROUP Date of Issue: 14.03.24 Technical Submittal No: TSE-028 Revision No: 0 Issued By: Martin Paladino	Issued To: Torsion Construction Project: One Victoria, Manchester Project No: 00205 								
Title: Generator	No of pages inc cover: 4								
Confirmation Required By: 29.03.24	<table border="1"><tr><td>☐</td><td>Specified Item</td><td>☐</td><td>Equal or Approved</td></tr><tr><td>☒</td><td>Preferred Supplier</td><td>☐</td><td>VE Agreed</td></tr></table>	☐	Specified Item	☐	Equal or Approved	☒	Preferred Supplier	☐	VE Agreed
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Manufacturers: <ul style="list-style-type: none">Cummins - C170 D5 Contents List: <ul style="list-style-type: none">YC170RSC - Cummins model C170 D5 canopied diesel generator set with a standby power of 170 kVA. Including battery charger and engine water heater. (2No)Minimum eight hours running at 100% load. (2No)67DBA@7m (based on 75% load)Generators to be supplied with standard three pole breakerAnti Condensation Heater (2No)Langdon Fire Valve (Drop Weight) - (2No)250Amp Cable Link Box (2No)									

Generator set data sheet



Model: C170 D5
Frequency: 50 Hz
Fuel type: Diesel

Spec sheet:	SS28-CPGK
Noise data sheet (open/enclosed):	ND50-CS550
Airflow data sheet:	AF50-550
Derate data sheet (open/enclosed):	TBD
Transient data sheet:	TD50-550

Fuel consumption	Standby				Prime			
	kVA (kW)				kVA (kW)			
Ratings	170 (136)				155 (124)			
Load	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full
gph	4.0	6.1	8.3	10.5	3.2	5.3	8.1	9.5
L/hr	15.20	23.20	31.50	39.60	12.10	20.00	30.60	36.00

Engine	Standby rating	Prime rating
Engine manufacturer	TCL	
Engine model	6BTAA5.9-G7	
Configuration	4-cycle, in-line, 6-cylinder	
Aspiration	Turbocharged and charged air-cooled	
Gross engine power output, kWm	160	145
BMEP at set rated load, kPa	2178	1972
Bore, mm	102	
Stroke, mm	120	
Rated speed, rpm	1500	
Piston speed, m/s	6	
Compression ratio	16.5 :1	
Lube oil capacity, L	16.4	
Overspeed limit, rpm	1800	
Regenerative power, kW	N/A	
Governor type	Electronic	
Starting voltage	12 V	

Fuel flow	
Maximum fuel flow, L/hr	45
Maximum fuel inlet restriction, mm Hg	101/203 (clean/dirty filter)
Maximum fuel inlet temperature, °C	71

Air	Standby rating	Prime rating
Combustion air, m ³ /min	12.43	11.81
Maximum air cleaner restriction, kPa	4	

Exhaust

Exhaust gas flow at set rated load, m ³ /min	32.37	31.12
Exhaust gas temperature, °C	533	517
Maximum exhaust back pressure, kPa	10.25	

Standard set-mounted radiator cooling

Ambient design, °C	50	
Fan load, kWm	9.8	
Coolant capacity (with radiator), L	22.1	
Cooling system air flow, m ³ /sec @ 12.7 mm H ₂ O	3.77	
Total heat rejection, Btu/min	3128	2900
Maximum cooling air flow static restriction mm H ₂ O	12.7	

Weights*

	Open	Enclosed
Unit dry weight kgs	1635	2390
Unit wet weight kgs	1650	2400

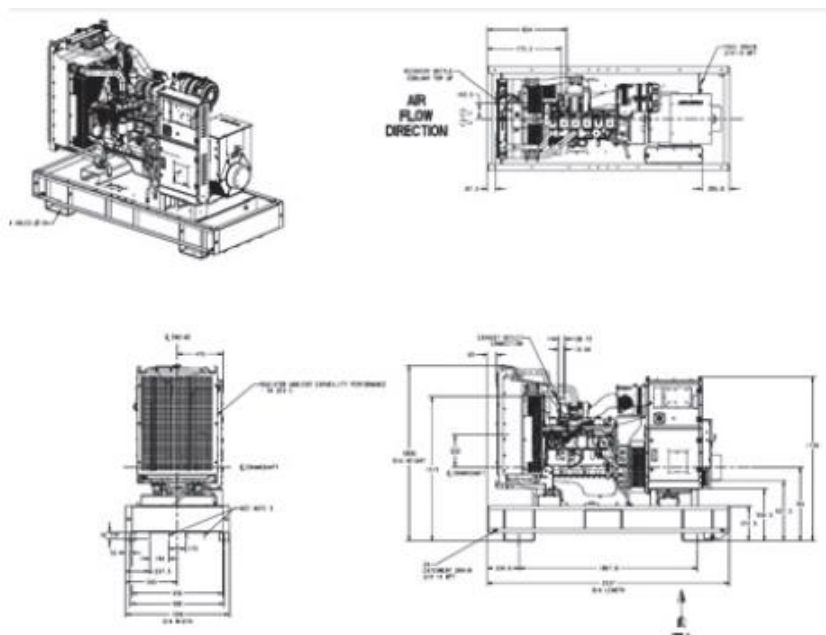
* Weights represent a set with standard features. See outline drawing for weights of other configurations.

Dimensions

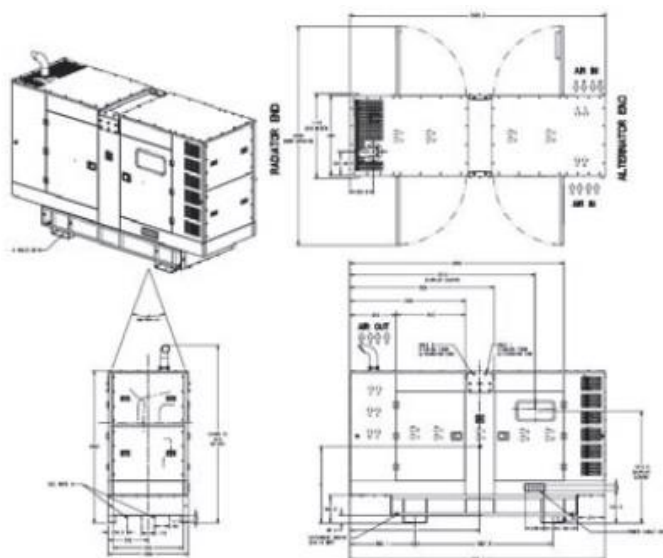
	Length	Width	Height
Standard open set dimensions mm	2537	1090	1846
Enclosed set standard dimensions mm	3460	1090	2387

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 ¹	Temp rise °C	Duty ²	Alternator	Voltage
Wye	163	ESP	UCI274F	190 - 208 & 380 - 416 V
Wye	150	ESP	UCI274G	190 - 208 & 380 - 416 V
Wye	125	PRP	UCI274F	190 - 208 & 380 - 416 V
Wye	105	PRP	UCI274G	190 - 208 & 380 - 416 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

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

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

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