

Generator Set Data Sheet	Model: C38 D5 Frequency: 50 Fuel Type: Diesel
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Document Number	DS12-cpgk-RevA
Spec Sheet:	SS2-CPGK
Noise Data Sheet (Open / Enclosed):	ND50-OS550 / ND50-CS550
Airflow Data Sheet:	AF50-550
Derate Data Sheet (Open / Enclosed):	DD50-OS550 / DD50-CS550
Transient Data Sheet:	TD50-550

Fuel Consumption	Standby				Prime			
	kW (kVA)				kW (kVA)			
Ratings	30.4 (38)				28 (35)			
Load	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full
US gph	0.5	1.0	1.5	2.1	0.6	1.0	1.4	1.8
L/hr	3	5	7	9	3	5	6	8

Engine	Standby Rating	Prime Rating
Engine Manufacturer	Cummins	
Engine Model	4B3.3G1	
Configuration	4 Cycle; In-line; 4 Cylinder Diesel	
Aspiration	Naturally Aspirated	
Gross Engine Power Output, kWm	36	32
BMEP at Set Rated Load, kPa	876	787
Bore, mm	95	
Stroke, mm	115	
Rated Speed, rpm	1500	
Piston Speed, m/s	5.8	
Compression Ratio	18.2:1	
Lube Oil Capacity, L	7	
Overspeed Limit, rpm	1800 ±50	
Regenerative Power, kW	3	
Governor Type	Mechanical	
Starting Voltage	12 Volts DC	
Fuel Flow		
Maximum Fuel Flow, L/hr	12.5	
Maximum Fuel Inlet Restriction, mm Hg	73	
Maximum Fuel Inlet Temperature (°C)	60	
Air		
Combustion Air, m³/min	2.1	2.1
Maximum Air Cleaner Restriction, kPa	6.2	
Exhaust		
Exhaust Gas Flow at Set Rated Load, m³/min	5.7	5.4
Exhaust Gas Temperature, °C	498	448
Maximum Exhaust Back Pressure, kPa	10.2	

Standard Set-Mounted Radiator Cooling	Standby Rating	Prime Rating
Ambient Design, °C	50	
Fan Load, KW _m	0.7	
Coolant Capacity (with Radiator), L	9.1	
Cooling System Air Flow, m3/min @ 12.7mmH2O	0.92	
Total Heat Rejection, BTU/min	1230	1180
Maximum Cooling Air Flow Static Restriction mmH2O	12.7	

Open Set Derating Factors Kw (kVA).

Note: Standard open genset options running at 400V, 150m above sea level. For enclosed product derates, please refer to datasheet - DD50-CS550.

	27°C	40°C	45°C	50°C	55°C
Standby	30.4 (38)	30.4 (38)	30.3 (37.9)	29.3 (36.6)	28 (35)
Prime	27.5 (34.4)	27.5 (34.4)	27.4 (34.3)	26.7 (33.4)	24 (30)

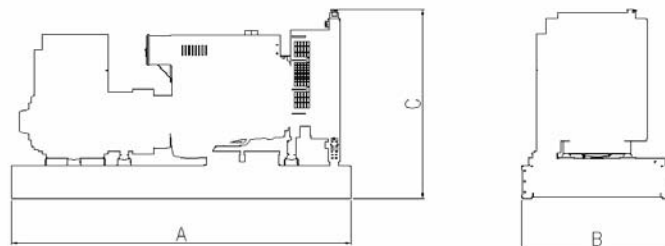
Weights*	Open	Enclosed
Unit Dry Weight kgs	640	964
Unit Wet Weight kgs	827	1151

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

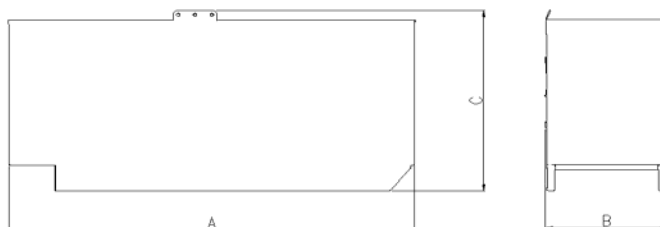
Dimensions			
	Length	Width	Height
Standard open set dimensions	1753	930	1256
Enclosed set standard dimensions	2244	969	1575

Outline

Open Set



Enclosed Set



*Note: Outlines are for illustrative purposes only. Please refer to the genset outline drawing for exact representation of this model.

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Alternator Data					
Feature Code	Connection ¹	Temp Rise Degrees C	Duty ²	Alternator	Voltage
B729	Wye, 3 Phase	150/125C	S/P	BC164H	380-440V

Notes:

Ratings Definitions		
Standby:	Prime (Unlimited Running Time):	Base Load (Continuous):
Applicable for supplying emergency power for the duration of normal power interruption. No sustained overload capability is available for this rating. This rating is applicable to installations served by a reliable normal utility source. This rating is only applicable to variable loads with an average load factor of 80 percent of the standby rating for a maximum of 200 hours of operation per year and a maximum of 25 hours per year at 100% of its standby rating. The standby rating is only applicable to emergency and standby applications where the generator set serves as the back up to the normal utility source. No sustained utility parallel operation is permitted with this rating. (Equivalent to Fuel Stop Power in accordance with ISO3046, AS2789, DIN6271 and BS5514). Nominally Rated.	Applicable for supplying power in lieu of commercially purchased power. Prime power is the maximum power available at a variable load for an unlimited number of hours. A 10% overload capability is available for limited time. (Equivalent to Prime Power in accordance with ISO8528 and Overload Power in accordance with ISO3046, AS2789, DIN6271, and BS5514). This rating is not applicable to all generator set models.	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 ISO8528, ISO3046, AS2789, DIN6271, and BS5514). This rating is not applicable to all generator set models.

- Limited single phase capability is available from some three phase rated configurations. To obtain single phase rating, multiply the three phase kW rating by the Single Phase Factor³. All single phase ratings are at unity power factor.
- Standby (S), Prime (P) and (C) Continuous ratings.
- Factor for the *Single Phase Output from Three Phase Alternator* formula listed below
- Maximum rated starting kVA that results in a minimum of 90% of rated sustained voltage during starting.

Formulas for calculating full load currents:

Three Phase Output	Single Phase Output
$\frac{kW \times 1000}{\text{Voltage} \times 1.73 \times 0.8}$	$\frac{kW \times \text{SingleP haseFactor} \times 1000}{\text{Voltage}}$

See your distributor for more information.

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