

» Generator set data sheet

Model: C3000 D5
Frequency: 50
Fuel Type: Diesel

Spec sheet:	SS18-CPGK
Noise data sheet (Open/enclosed):	ND50-OSHHP/ND50-CSHHP
Airflow data sheet:	AF50-HHP
Derate data sheet (Open/enclosed):	DD50-OSHHP/DD50-CSHHP
Transient data sheet:	TD50-HHP

Fuel consumption	Standby				Data Center Continuous			
	kVA (kW)				kVA (kW)			
Ratings	3000 (2400)				2750 (2200)			
Load	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full
gph	39.3	68.3	97.8	128.7	35.6	63.5	90.5	118.9
L/hr	178.73	310.90	445.07	585.80	162.07	289.10	411.70	541.10

Engine	Standby rating	Data Center Continuous
Engine manufacturer	Cummins	
Engine model	QSK78 - G9	
Configuration	Cast Iron, 60° V18 cylinder	
Aspiration	Turbo Charged and Low Temperature After-cooled	
Gross engine power output, kWm	2539	2304
BMEP at set rated load, kPa	2617	2375
Bore, mm	170	
Stroke, mm	190	
Rated speed, rpm	1500	
Piston speed, m/s	9.5	
Compression ratio	15.5:1	
Lube oil capacity, L	413	
Overspeed limit, rpm	1850 ±50	
Regenerative power, kW	189	
Governor type	Electronic	
Starting voltage	24 Volts DC	

Fuel flow	
Maximum fuel flow, L/hr	2225
Maximum fuel inlet restriction, mm Hg	127
Maximum fuel inlet temperature (°C)	70

Air	Standby rating	Data Center Continuous
Combustion air, m ³ /min	193.00	186.00
Maximum air cleaner restriction, kPa	6.22	

Exhaust		
Exhaust gas flow at set rated load, m ³ /min	432	415
Exhaust gas temperature, °C	427	422
Maximum exhaust back pressure, kPa	6.8	

Standard set-mounted radiator cooling		
Ambient design, °C	RTF	
Fan load, KW _m	RTF	
Coolant capacity (with radiator), L	RTF	
Cooling system air flow, m ³ /sec @ 12.7mmH ₂ O	RTF	
Total heat rejection, BTU/min	RTF	RTF
Maximum cooling air flow static restriction mmH ₂ O	RTF	

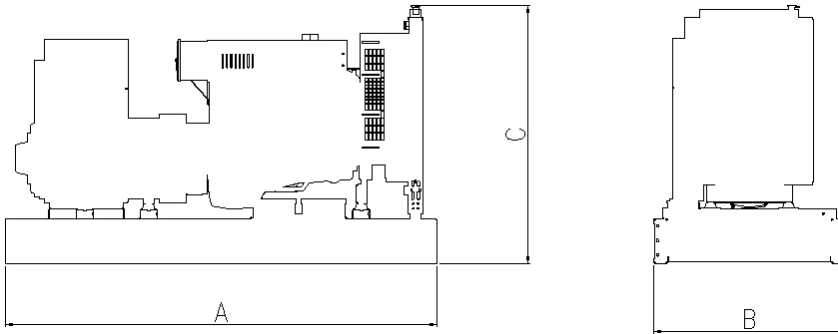
Weights*	Open	Enclosed
Unit dry weight kgs	19996	--
Unit wet weight kgs	20616	--

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

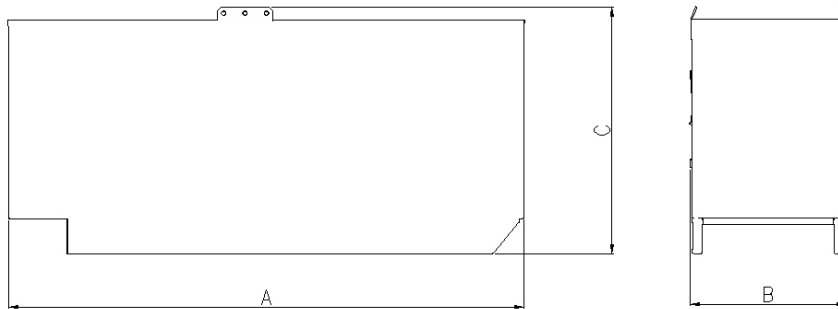
Dimensions	Length	Width	Height
Standard open set dimensions	5668	2313	2300
Enclosed set standard dimensions	--	--	--

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, 3 Phase	80-150C	S/P/C	LVS1804S,T,W,X	380-440V
Wye, 3 Phase	80-150C	S/P/C	MVS1804R,S,T,W	3300V
Wye, 3 Phase	80-125C	S/P/C	HVS1804S,T,W,X	6600V
Wye, 3 Phase	80-125C	S/P/C	HVS1804S,T,W,X	11000V

Ratings definitions

Emergency Standby Power (ESP)	Limited-Time running Power (LTP):	Prime Power (PRP)	Data Center 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 back-up power for data center applications evaluated at specific site conditions. This rating is based on load profiles and performance requirements consistent with the data center industry. This rating is site specific and changes in application type or location would require further consideration.

Formulas for calculating full load currents:

Three phase output

$$\frac{kW \times 1000}{\text{Voltage} \times 1.73 \times 0.8}$$

Single phase output

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