Generator set data sheet

Model:	**C3000 D5e**
Frequency:	**50 Hz**
Fuel type:	**Diesel**
Emissions level:	**Tier 2**

Spec sheet:	**EMERS-5867-EN**
Sound data sheet:	**MSP-4124**
Cooling data sheet (EPA Tier 2):	**MCP-2180**
EPA Tier 2 emission compliance statement:	**EPA-2064**
PTS sheet:	**PTS-755**

Fuel consumption

	Standby				**Prime***			
	kW (kVA)				**kW (kVA)**			
Ratings	**2400 (3000)**				**2200 (2750)**			
Load	**1/4**	**1/2**	**3/4**	**Full**	**1/4**	**1/2**	**3/4**	**Full**
US gph	47.9	92.2	127	163.5	44.3	80.2	113.8	145.5
L/hr	181	349	481	619	168	304	431	551

†DCC available at standby power subject to Cummins' site-specific assessment. Please contact your Cummins Distributor.
*Radiator option is not available with Prime rating

Engine

	Standby rating	**Prime rating**
Engine manufacturer	Cummins	
Engine model	QSK78-G23	
Configuration	Cast iron, 60º V18 cylinder	
Aspiration	Turbocharged and low temperature after-cooled	
Gross engine power output, kWm (bhp)	2614 (3504)	2304 (3088)
BMEP at set rated load, kPa (psi)	2696 (391)	2386 (346)
Bore, mm (in)	170 (6.69)	
Stroke, mm (in)	190 (7.48)	
Rated speed, rpm	1500	
Piston speed, m/s	11.4	
Compression ratio	15.5:1	
Lube oil capacity, L (qt)	466 (492)	
Overspeed limit, rpm	1850 ±50	
Regenerative power, kW	266	
Governor type	Electronic	
Starting voltage	24V Volts DC	

Fuel flow

Maximum fuel flow, L/hr (US gph)	2233 (590)
Maximum fuel inlet restriction, in Hg (kPa)	16.9 (30)
Maximum fuel inlet temperature, °C (°F)	71 (160)

Air	Standby rating	Prime rating	
Combustion air, m^3/min (scfm)	201 (7090)	188 (6628)	
Maximum air cleaner restriction, kPa (in H2O)	Dirty filter element 25 (6.2)		Clean filter element 15 (3.7)
Alternator cooling air, scfm (M^3/min)	5890 (167)		

Exhaust

Exhaust gas flow at set rated load, m^3/min (scfm)	480 (16947)	446 (15731)
Exhaust gas temperature, °C (°F)	457.8 (856)	445.6 (834)
Maximum exhaust back pressure, kPa (in H2O)	6.8 (27.3)	

High Ambient/Enhanced High Ambient Cooling System (ship loose)

Ambient design, °C (°F)	50 (122)	Refer to MCP
Fan load, kWm (HP)		85 (114)
Coolant capacity (with radiator), L (US gal)		736 (194.5)
Cooling system air flow, m^3/sec @ 12.7 mm H2O (scfm)		39.1 (82848)
Total heat rejection, MJ/min (Btu/min)	105.5 (99975)	93.9 (89068)
Maximum cooling air flow static restriction, kPa (in H2O)		0.12 (0.5)

Remote Radiator Cooling at 25C, 110M

Set coolant capacity, L (US gal)		167 (44)
Max flow rate at max friction head, jacket water circuit, L/min (US gal/min)		1892.7 (500)
Max flow rate at max friction head, aftercooler circuit, L/min (US gal/min)		825.2 (218)
Heat rejected, jacket water circuit, MJ/min (Btu/min)	49.8 (47239)	45.5 (43100)
Heat rejected, aftercooler circuit, MJ/min (Btu/min)	39.9 (37830)	34.2 (32434)
Heat rejected, fuel circuit, MJ/min (Btu/min)		2.6 (2500)
Total heat radiated to room, MJ/min (Btu/min)	13.1 (12406)	11.6 (11034)
Maximum friction head, jacket water circuit, kPa (psi)		48.3 (7)
Maximum friction head, aftercooler circuit, kPa (psi)		34.5 (5)
Maximum static head, jacket water circuit, m (ft)		18.3 (60)
Maximum static head, aftercooler circuit, m (ft)		18.3 (60)
Maximum jacket water outlet temp, °C (°F)	110 (230)	104.4 (220)
Maximum aftercooler inlet temp at 25 °C (77 °F) ambient		49 (120)
Maximum aftercooler inlet temp, °C (°F)		71 (160)
Maximum fuel flow, L/hr (US gph)		2233.1 (590)
Maximum fuel return line restriction, kPa (in Hg)		34 (10)

Weights[2]	Remote Cooled	With set-mounted radiator
Unit dry weight kgs (lbs)	20,706 (45,648)	25,406 (56,010)
Unit wet weight kgs (lbs)	21,296 (46,949)	26,436 (58,280)

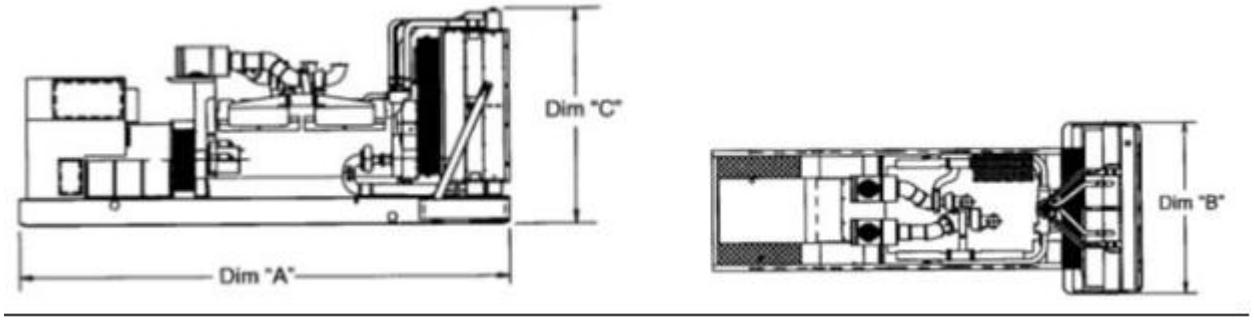
[1] For non-standard remote installations contact your local Cummins representative.
[2] Weights represent a set with standard features. See outline drawing for weights of other configurations.

Dimensions	Length (A)	Width (B)	Height (C)
Remote Cooled (mm) (in)	5775 (227)	2305 (91)	2659 (105)
With set-mounted radiator (mm) (in)	7521 (296)	2494 (98)	3493 (138)

[3] Height excludes antivibration spring mounts.

Genset outline

Open set



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

Alternator data

C3000D5E	Connection	Temp rise °C	Duty	Alternator	Voltage
EMERD-5845-EN	Wye, 3-phase	150	ESP	S9L1D-D	380-440
	Wye, 3-phase	80-125	ESP	S9H1D-F, G, H	6300-6600
	Wye, 3-phase	80-125	ESP	S9H1D-F, G, H	10500-11000
	Wye, 3-phase	125	PRP	S9L1D-E	380 & 440
	Wye, 3-phase	125	PRP	S9L1D-D	400 & 415
	Wye, 3-phase	80-105	PRP	S9H1D-F, G	6300-6600
	Wye, 3-phase	80-105	PRP	S9H1D-F, G	10500-11000

Notes:
1. Standby (ESP), Prime (PRP)

Ratings definitions

Emergency Standby Power (ESP):	Limited-Time Running Power (LTP):	Prime Power (PRP):
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 data shown above represents gross engine performance and capabilities as per ISO 3046-1, obtained and corrected in accordance with ISO 15550	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 3046-1, obtained and corrected in accordance with ISO 15550.

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

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

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

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EMERD-5845-EN-1 PDA056G340 (1/26)