

Generator Set Data Sheet

Model: C2000 D6
Frequency: 60
Fuel Type: Diesel
Emissions Level: EPA Nonroad

Exhaust Emission Data Sheet:	EDS-169
EPA Tier 1 Exhaust Emission Compliance Sheet:	EPA1CS-1006
Measured Sound Performance Data Sheet:	MSP-174
Measured Cooling Performance Data Sheet:	MCP-109
Prototype Test Summary Data Sheet:	PTS-155
Standard Set-Mounted Radiator Cooling Outline:	500-3947
Optional Set-Mounted Radiator Cooling Outline:	500-3948
Optional Heat Exchanger Cooling Outline:	500-3946
Optional Remote Radiator Cooling Outline:	500-3945

Fuel Consumption	Standby kW (kVA)				Prime kW (kVA)				Continuous kW (kVA)
	2000 (2500)				1825 (2281)				1600 (2000)
Ratings	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full	Full
US gph	43	71	103	135	41	67	94	122	108
L/hr	163	272	385	510	154	252	356	462	408

Engine	Standby Rating	Prime Rating	Continuous Rating
Engine Manufacturer	Cummins		
Engine Model	QSK60-G6		
Configuration	Cast Iron, 60°V 16 cylinder		
Aspiration	Turbocharged and Low Temperature Aftercooled		
Gross Engine Power Output, kWm (bhp)	2179 (2922)	1975 (2647)	1739 (2332)
BMEP at Set Rated Load, kPa (psi)	2420 (351)	2185 (317)	1924 (279)
Bore, mm (in.)	159 (6.25)		
Stroke, mm (in.)	190 (7.48)		
Rated Speed, rpm	1800		
Piston Speed, m/s (ft/min)	11.4 (2243)		
Compression Ratio	14.5:1		
Lube Oil Capacity, L (qt)	280 (296)	397 (420)	397 (420)
Overspeed Limit, rpm	2100 ±50		
Regenerative Power, kW	207		
Fuel Flow			
Maximum Fuel Flow, L/hr (US gph)	1893 (500)		
Maximum Fuel Inlet Restriction, kPa (in. Hg)	8.4 (2.5)		
Maximum Fuel Inlet Temperature, °C (°F)	71 (160)		
Air			
Combustion Air, m³/min (scfm)	173 (6150)	160 (5690)	148 (5275)
Maximum Air Cleaner Restriction, kPa (in. H₂O)	6.2 (25)		
Alternator Cooling Air, m³/min (cfm)	289 (10200)		
Exhaust			
Exhaust Gas Flow at Set Rated Load, m³/min (cfm)	439 (15500)	398 (14070)	348 (12305)
Exhaust Gas Temperature, °C (°F)	477 (890)	460 (860)	446 (835)
Maximum Exhaust Back Pressure, kPa (in. H₂O)	6.7 (27)		

Standard Set-Mounted Radiator Cooling	Standby Rating	Prime Rating	Continuous Rating
Ambient Design, °C (°F)	40 (104)		
Fan Load, KW _m (HP)	50 (67)		
Coolant Capacity (with Radiator), L (US Gal.)	454 (120)		
Cooling System Air Flow, m³/min (scfm)	1996 (70500)		
Total Heat Rejection, MJ/min (BTU/min)	94.1 (89164)	83.2 (78882)	73.9 (70030)
Maximum Cooling Air Flow Static Restriction, kPa (in. H ₂ O)	0.12 (0.5)		
Maximum Fuel Return Line Restriction, kPa (in. Hg)	23.7 (7)		
Optional Set-Mounted Radiator Cooling			
Ambient Design, °C (°F)	50 (122)		
Fan Load, kW _m (HP)	57.4 (77)		
Coolant Capacity (with radiator), L (US Gal.)	492 (130)		
Cooling System Air Flow, m³/min (scfm)	2294 (81000)		
Total Heat Rejection, MJ/min (BTU/min)	94.1 (89164)	83.2 (78882)	73.9 (70030)
Maximum Cooling Air Flow Static Restriction, kPa (in. H ₂ O)	0.12 (0.5)		
Maximum Fuel Return Line Restriction, kPa (in. Hg)	23.7 (7)		
Optional Heat Exchanger Cooling			
Set Coolant Capacity, L (US Gal.)	454 (120)		
Heat Rejected, Jacket Water Circuit, MJ/min (BTU/min)	37.1 (35150)	33.1 (31410)	28.7 (27260)
Heat Rejected, After-cooler Circuit, MJ/min (BTU/min)	37.3 (35380)	32.3 (30600)	28.1 (26620)
Heat Rejected, Fuel Circuit, MJ/min (BTU/min)	2.1 (2000)		
Total Heat Radiated to Room, MJ/min (BTU/min)	17.5 (16634)	15.7 (14872)	13.9 (13150)
Maximum Raw Water Pressure, Jacket Water Circuit, kPa (psi)	1034 (150)		
Maximum Raw Water Pressure, Aftercooler Circuit, kPa (psi)	1034 (150)		
Maximum Raw Water Pressure, Fuel Circuit, kPa (psi)	1034 (150)		
Maximum Raw Water Flow, Jacket Water Circuit, L/min (US Gal/min)	1363 (360)		
Maximum Raw Water Flow, Aftercooler Circuit, L/min (US Gal/min)	1363 (360)		
Maximum Raw Water Flow, Fuel Circuit, L/min (US Gal/min)	144 (38)		
Minimum Raw Water Flow @ 27°C (80°F) Inlet Temp, Jacket Water Circuit, L/min (US Gal/min)	288 (76)		
Minimum Raw Water Flow @ 27°C (80°F) Inlet Temp, After-Cooler Circuit, L/min (US Gal/min)	416 (110)		
Minimum Raw Water Flow @ 27°C (80°F) Inlet Temp, Fuel Circuit, L/min (US Gal/min)	38 (10)		
Raw Water Delta P @ Min Flow, Jacket Water Circuit, kPa (psi)	2.4 (0.35)		
Raw Water Delta P @ Min Flow, After-cooler Circuit, kPa (psi)	4.1 (0.6)		
Raw Water Delta P @ Min Flow, Fuel Circuit, kPa (psi)	4.8 (0.7)		
Maximum Jacket Water Outlet Temp, °C (°F)	104 (220)	100 (212)	100 (212)
Maximum After-Cooler Inlet Temp, °C (°F)	66 (150)	66 (150)	66 (150)
Maximum After-Cooler Inlet Temp @ 11°C (77°F) Ambient, °C (°F)	49 (120)		
Maximum Fuel Return Line Restriction, kPa (in. Hg)	23.7 (7)		

Optional Remote Radiator Cooling¹	Standby Rating	Prime Rating	Continuous Rating
Set Coolant Capacity, L (US Gal.)	193 (51)		
Max Flow Rate @ Max Friction Head, Jacket Water Circuit, L/min (US Gal/min)	1817 (480)		
Max Flow Rate @ Max Friction Head, Aftercooler Circuit, L/min (US Gal/min)	503 (133)		
Heat Rejected, Jacket Water Circuit, MJ/min (BTU/min)	37.1 (35150)	33.1 (31410)	28.7 (27260)
Heat Rejected, Aftercooler Circuit, MJ/min (BTU/min)	37.3 (35380)	32.3 (30600)	28.1 (26620)
Heat Rejected, Fuel Circuit, MJ/min (BTU/min))	2.1 (2000)		
Total Heat Radiated to Room, MJ/min (BTU/min)	17.5 (16634)	15.7 (14872)	13.9 (13150)
Maximum Friction Head, Jacket Water Circuit, kPa (psi)	69 (10)		
Maximum Friction Head, Aftercooler Circuit, kPa (psi)	48 (7)		
Maximum Static Head, Jacket Water Circuit , m (ft)	18 (60)		
Maximum Static Head, Aftercooler Circuit , m (ft)	18 (60)		
Maximum Jacket Water Outlet Temp, °C (°F)	104 (220)	100 (212)	100 (212)
Maximum After-Cooler Inlet Temp @ 25°C (77°F) Ambient, °C (°F)	49 (120)		
Maximum After-Cooler Inlet Temp, °C (°F)	66 (150)		
Maximum Fuel Flow, L/hr (US gph)	1893 (500)		
Maximum Fuel Return Line Restriction, kPa (in. Hg)	30.5 (9)		

Weights²	
Unit Dry Weight kgs (lbs.)	14649 (32296)
Unit Wet Weight kgs (lbs.)	15152 (33405)

Notes:

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

Derating Factors	
Standby	Engine power available up to 1067 m (3500 ft) at ambient temperatures up to 40°C (104°F), and up to 168 m (550 ft) at 50°C (122°F). Above these elevations, derate at 4.3% per 305 m (1000 ft). Above 50°C (122°F) and 2800 m (9200 ft), derate an additional 4.3% per 305 m (1000 ft) and 12% per 10°C (18°F).
Prime	Engine power available up to 1067 m (3500 ft) at ambient temperatures up to 40°C (104°F), and up to 168 m (550 ft) at 50°C (122°F). Above these elevations, derate at 4.3% per 305 m (1000 ft). Above 50°C (122°F) and 2800 m (9200 ft), derate an additional 4.3% per 305 m (1000 ft) and 12% per 10°C (18°F).
Continuous	Engine power available up to 730 m (2400 ft) at ambient temperatures up to 40°C (104°F). Derate 2% at 0 m (0 ft) for 50°C (122°F) ambient temperature. Above these elevations, derate at 3.3% per 305 m (1000 ft). Above 50°C (122°F) and 2925 m (9600 ft), derate an additional 4.3% per 305 m (1000 ft) and 12% per 10°C (18°F).

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.

Alternator Data

Voltage	Connection ¹	Temp Rise Degrees C	Duty ²	Single Phase Factor ³		Max Surge kVA ⁴	Alternator Data Sheet	Feature Code
380	Wye, 3 Phase	150/125/105	S/P/C	N/A	7327	13	ADS-515	B595
380	Wye, 3 Phase	125/105/80	S/P/C	N/A	7327	13	ADS-515	B598
380	Wye, 3 Phase	105/80	S/P	N/A	7327	13	ADS-515	B599
380	Wye, 3 Phase	105	C	N/A	7695	312	ADS-335	B662
380	Wye, 3 Phase	80	S	N/A	7963	13	ADS-515	B660
440	Wye, 3 Phase	125/105/80	S/P/C	N/A	7361	312	ADS-334	B663
440	Wye, 3 Phase	105	S	N/A	7284	12	ADS-515	B665
440	Wye, 3 Phase	105	C	N/A	6716	312	ADS-333	B666
480	Wye, 3 Phase	125/105/80	S/P/C	N/A	7361	312	ADS-334	B462
480	Wye, 3 Phase	105/80	S/P	N/A	7695	312	ADS-335	B463
480	Wye, 3 Phase	125/105	P/C	N/A	6716	312	ADS-333	B464
480	Wye, 3 Phase	80	S	N/A	7284	12	ADS-515	B601
600	Wye, 3 Phase	125/105/80	S/P/C	N/A	7361	07	ADS-334	B465
600	Wye, 3 Phase	105/80	S/P	N/A	7695	07	ADS-335	B301
600	Wye, 3 Phase	125/105	P/C	N/A	6716	07	ADS-333	B466
600	Wye, 3 Phase	80	S	N/A	7265	07	ADS-515	B604
4160	Wye, 3 Phase	125/105/80	S/P/C	N/A	6307	51	ADS-518	B467
4160	Wye, 3 Phase	105/80	S/P	N/A	6307	51	ADS-518	B313
4160	Wye, 3 Phase	80	S	N/A	6307	51	ADS-518	B605
4160	Wye, 3 Phase	105	C	N/A	7926	51	ADS-324	B502
12470-13800	Wye, 3 Phase	125/105/80	S/P/C	N/A	6062	91	ADS-521	B448
12470	Wye, 3 Phase	105/80	S/P	N/A	6038	87	ADS-521	B567
13200-13800	Wye, 3 Phase	105/80	S/P	N/A	6062	91	ADS-521	B612
12470	Wye, 3 Phase	80	S	N/A	6685	87	ADS-522	B607
13200-13800	Wye, 3 Phase	80	S	N/A	8012	91	ADS-523	B628
13800	Wye, 3 Phase	80	S	N/A	6833	91	ADS-522	B610

Notes:

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

See your distributor for more information.



Cummins Power Generation
 1400 73rd Avenue N.E.
 Minneapolis, MN 55432 USA
 Telephone: +1 (763) 574-5000
 Fax: +1 (763) 574-5298
 E-mail: pgamail@cummins.com
 Web: www.cumminspowergeneration.com

Cummins Power Generation
 Manston Park, Columbus Avenue
 Manston, Ramsgate
 Kent CT12 5BF, UK
 Telephone: +44 (0) 1843 255000
 Fax: +44 (0) 1843 255902
 E-Mail: cpug.uk@cummins.com
 Web: www.cumminspower.com

Cummins Power Generation
 8 Tanjong Penjuru
 Singapore 609019
 Telephone: +65 265-0155
 Telefax: +65 264-0664 or 265-6909
 E-Mail: mktg@sing.cummins.com

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Important: Back feed to a utility system can cause electrocution and/or property damage. Do not connect to any building's electrical system except through an approved device or after building main switch is open.