

## Generator set data sheet

**Model:** C2000D6E  
**Frequency:** 60 Hz  
**Fuel type:** Diesel  
**kW rating:** 2000 Standby  
 1825 Prime  
 1825 Data Center Continuous  
**Emissions level:** EPA NSPS Stationary Emergency Tier 2

Exhaust emission data sheet:	EDS-3135 / EDS-3136
Exhaust emission compliance sheet:	EPA-2100 / EPA-2101
Sound performance data sheet:	MSP-4178
Cooling performance data sheet:	MCP-2257 / MCP-2258
Prototype test summary data sheet:	PTS-785 / PTS-786
Standard set-mounted radiator cooling outline:	A060C089
Optional set-mounted radiator cooling outline:	A060C089

Fuel consumption	Standby				Prime				Data Center Continuous			
	kW (kVA)				kW (kVA)				kW (kVA)			
Ratings	2000 (2500)				1825 (2281)				1825 (2281)			
Load	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full
US gph	41.5	75	108	139.8	38	68	97	128.0	38	68	97	128.0
L/hr	157.0	283.9	408.8	529.1	143.8	257.4	367.1	484.5	143.8	257.3	367.1	484.5

Engine	Standby rating	Prime rating	Data Center Continuous rating
Engine manufacturer	Cummins Inc.		
Engine model	QSK50 - G24 / G25		
Configuration	Four Cycle; Vee; 16 Cylinder		
Aspiration	Turbocharged and Charge Air Cooled		
Gross engine power output, kWm (bhp)	2204 (2956)	1975 (2648)	1975 (2648)
Brake Mean Effective Pressure (BMEP) at set rated load, kPa (psi)	2951 (428)	2641 (383)	2641 (383)
Bore, mm (in.)	159 (6.26)		
Stroke, mm (in.)	159 (6.26)		
Rated speed, rpm	1800		
Piston speed, m/s (ft/min)	19.1 (3756)		
Compression ratio	14.2:1		
Lube oil capacity, L (gal)	121 (32.0)		
Overspeed limit, rpm	2070		
Regenerative power, kW (KVA)	166 (208)		

## Fuel flow

Maximum supply fuel flow, L/hr (US gph)	959 (253)
Maximum fuel inlet restriction, kPa (in Hg)	40 (11.8)
Maximum fuel inlet temperature, °C (°F)	70 (158)

Air	Standby rating	Prime rating	Data Center Continuous rating
Combustion air, m <sup>3</sup> /min (cfm)	159.7 (5639)	156.3 (5521)	156.3 (5521)
Maximum air cleaner restriction, kPa (in H <sub>2</sub> O)	3.7 (15)		
Alternator cooling air, m <sup>3</sup> /min (cfm)	222 (7850)		

## Exhaust

Exhaust flow at set rated load, m <sup>3</sup> /min (cfm)	436 (15388)	415 (14654)	415 (14654)
Exhaust temperature, °C (°F)	535 (996)	512 (954)	512 (954)
Maximum back pressure, kPa (in Hg)	6.7 (2.0)		

## Standard set-mounted radiator cooling

Engine model	QSK50 - G24		
Ambient design, °C (°F)	40 (104)		
Fan load, kWm (HP)	89.5 (120)		
Coolant capacity (with radiator), L (US gal)	140 (37)		
Cooling system air flow, m <sup>3</sup> /min (scfm)	2073 (73209)		
Total heat rejection, MJ/min (Btu/min)	88 (83282)	80 (76207)	80 (76207)
Maximum cooling air flow static restriction, kPa (in H <sub>2</sub> O)	0.12 (0.5)		
Maximum fuel return line restriction kPa (in Hg)	34.9 (10.3)		

## Optional set-mounted radiator cooling (Preliminary information, subject to change)

Engine model	QSK50 - G25		
Ambient design, °C (°F)	50 (122)		
Fan load, kWm (HP)	105.9 (142)		
Coolant capacity (with radiator), L (US gal)	140 (37)		
Cooling system air flow, m <sup>3</sup> /min (scfm)	2420 (85483)		
Total heat rejection, MJ/min (Btu/min)	88 (83282)	80 (76207)	80 (76207)
Maximum cooling air flow static restriction, kPa (in H <sub>2</sub> O)	0.12 (0.5)		
Maximum fuel return line restriction, kPa (in Hg)	34.9 (10.3)		

## Weights

Unit dry weight kgs (lbs.)	14135 (31169)
Unit wet weight kgs (lbs.)	14512 (32001)

### Notes:

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

## Derating Factors

<b>Standby</b>	<p><u>Standard cooling system:</u> Full engine power available up to 400 m (1312 ft) at ambient temperature up to 40°C (104°F). From 400 m (1312 ft) to 2000 m (6562 ft) derates at 4.9% per 305 m (1000 ft). Above these elevations, derate at 5.7% per 305 m (1000 ft). For temperature above 40°C engine derates at 6.8% per 10°C (18°F).</p> <p><u>Enhanced cooling system:</u> Full engine power available at Sea level at ambient temperature up to 50°C (122°F). From 0 m (0 ft) to 2000 m (6562 ft) derates at 3.9% per 305 m (1000 ft). Above these elevations, derate at 4.9% per 305 m (1000 ft). For temperature above 50°C engine derates at 6% per 10°C (18°F).</p>
<b>Prime</b>	<p><u>Standard cooling system:</u> Full engine power available up to 800 m (2625 ft) at ambient temperature up to 40°C (104°F). From 800 m (2625 ft) to 2000 m (6562 ft) derates at 3.9% per 305 m (1000 ft). Above these elevations, derate at 6.2% per 305 m (1000 ft). For temperature above 40°C engine derates at 9.3% per 10°C (18°F).</p> <p><u>Enhanced cooling system:</u> Full engine power is available up to 200 m (656 ft) altitude at ambient temperature 50°C (122 °F). From 200 m (656 ft) to 2000 m (6562 ft) derates at 2.6% per 305 m (1000 ft). Above these elevations, derate at 4.6% per 305 m (1000 ft). For temperature above 50°C engine derates at 5.5% per 10°C (18°F).</p>
<b>Data Center Continuous</b>	<p><u>Standard cooling system:</u> Full engine power available up to 800 m (2625 ft) at ambient temperature up to 40°C (104°F). From 800 m (2625 ft) to 2000 m (6562 ft) derates at 3.9% per 305 m (1000 ft). Above these elevations, derate at 6.2% per 305 m (1000 ft). For temperature above 40°C engine derates at 9.3% per 10°C (18°F).</p> <p><u>Enhanced cooling system:</u> Full engine power is available up to 200 m (656 ft) altitude at ambient temperature 50°C (122 °F). From 200 m (656 ft) to 2000 m (6562 ft) derates at 2.6% per 305m (1000 ft). Above these elevations, derate at 4.6% per 305 m (1000 ft). For temperature above 50°C engine derates at 5.5% per 10°C (18°F).</p>

## Ratings definitions

<b>Emergency Standby Power (ESP):</b>	<b>Prime Power (PRP):</b>
Applicable for supplying power to varying electrical loads 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, 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 varying electrical loads for unlimited hours. Prime Power (PRP) is in accordance with ISO 8528. Ten percent overload capability is available in accordance with ISO 3046, Data shown above represents gross engine performance and capabilities as per ISO 3046-1, obtained and corrected in accordance with ISO 15550

## Formulas for calculating full load currents:

Three phase output	Single phase output
$\frac{\text{kW} \times 1000}{\text{Voltage} \times 1.73 \times 0.8}$	$\frac{\text{kW} \times \text{SinglePhaseFactor} \times 1000}{\text{Voltage}}$

**Warning:** 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.

For more information contact your local Cummins distributor or visit [power.cummins.com](http://power.cummins.com)



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