

Generator Set Data Sheet



Model: C3750 D5
Frequency: 50 Hz
Fuel Type: Diesel
kVA Rating: 3750 Standby
 3350 Prime
 3000 Continuous
Emissions Level: Unregulated

Fuel Consumption	Standby				Prime				Continuous			
	kVA (kW)				kVA (kW)				kVA (kW)			
Ratings	3750 (3000) [†]				3350 (2680)				3000 (2400)			
Ratings without fan ¹	3848 (3078)				3448 (2758)				3098 (2478)			
Load	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full
US gph	54	98	144	192	49	88	128	170	45	80	115	155
L/hr	204	371	545	727	185	333	484	643	170	303	435	587

¹Ratings for reference with the optional remote radiator cooling configuration. See note 1 under "Alternator data" section.

[†]DCC available at standby power subject to Cummins' site-specific assessment. Please contact your Cummins Distributor.

Engine	Standby rating	Prime rating	Continuous rating
Engine model	QSK95-G4		
Configuration	Cast iron, vee, 16 cylinder		
Aspiration	Turbocharged and after-cooled		
Gross engine power output, kWm (bhp)	3265 (4377)	2903 (3892)	2613 (3503)
BMEP at set rated load, kPa (psi)	2737 (397)	2434 (353)	2193 (318)
Bore, mm (in)	190.0 (7.48)		
Stroke, mm (in)	210.1 (8.27)		
Rated speed, rpm	1500		
Piston speed, m/s (ft/min)	10.5 (2067)		
Compression ratio	15.5:1		
Lube oil capacity, L (qt)	647 (684)		
Overspeed limit, rpm	1725		
Regenerative power, kW	230		

Fuel Flow

Maximum fuel flow, L/hr (US gph)	1392.9 (368)
Maximum fuel inlet restriction with clean filter, kPa (in Hg)	30.48 (9)
Maximum fuel return line restriction kPa (in Hg)	34 (10)
Maximum fuel inlet temperature, °C (°F)	71.1 (160)
Maximum fuel outlet temperature, °C (°F)	92.2 (198)

Air

Combustion air, m ³ /min (scfm)	250 (8820)	236 (8331)	222 (7839)
Maximum air cleaner restriction with clean filter, mm H ₂ O (in H ₂ O)	457 (18)		
Alternator cooling air, m ³ /min (cfm)	240 (8476)		

Exhaust	Standby rating	Prime rating	Continuous rating
Exhaust flow at set rated load, m ³ /min (cfm)	589 (20767)	537 (18945)	501 (17678)
Exhaust temperature at set rated load, °C (°F)	419 (785)	398 (748)	392 (737)
Maximum back pressure, kPa (in H ₂ O)	7 (28)		

Set-Mounted Radiator Cooling	High Ambient	High Ambient Compact
Ambient design, °C (°F)	43 (109)	44 (111)
Fan load, kW _m (HP)	78 (105)	130 (175)
Coolant capacity (with radiator), L (US gal)	1120 (296)	1238 (327)
Cooling system air flow, m ³ /min (scfm)	3135 (110700)	2352 (83054)
Maximum cooling air flow static restriction, kPa (in H ₂ O)	0.12 (0.5)	0.12 (0.5)

Set-Mounted Radiator Cooling	Enhanced High Ambient
Ambient design, °C (°F)	52 (126)
Fan load, kW _m (HP)	78 (105)
Coolant capacity (with radiator), L (US gal)	1120 (296)
Cooling system air flow, m ³ /min (scfm)	3135 (110700)
Maximum cooling air flow static restriction, kPa (in H ₂ O)	0.12 (0.5)

Optional Remote Radiator Cooling			
Engine coolant capacity, L (US gal)	378.5 (100)		
Max flow rate at max friction head, jacket water circuit, L/min (US gal/min)	2419 (639)		
Max flow rate at max friction head, aftercooler circuit, L/min (US gal/min)	579 (153)		
Heat rejected, jacket water circuit, MJ/min (Btu/min)	84.6 (80111)	75.5 (71504)	69.2 (65561)
Heat rejected, aftercooler circuit, MJ/min (Btu/min)	20.7 (19583)	18.0 (16971)	15.5 (14665)
Heat rejected, fuel circuit, MJ/min (Btu/min)	0.33 (309)	0.33 (309)	0.33 (309)
Total heat radiated to room, MJ/min (Btu/min)	24.8 (23432)	22.1 (20888)	19.9 (18830)
Maximum friction head, jacket water circuit, kPa (psi)	59 (8.5)		
Maximum friction head, aftercooler circuit, kPa (psi)	59 (8.5)		
Maximum static head above engine crank centerline, jacket water circuit, m (ft)	18 (60)		
Maximum static head above engine crank centerline, aftercooler circuit, m (ft)	18 (60)		
Maximum jacket water outlet temp, °C (°F)	110 (230)	100 (212)	100 (212)
Maximum aftercooler inlet temp, °C (°F)	71.1 (160)	68 (155)	68 (155)
Maximum aftercooler inlet temp at 25 °C (77 °F) ambient, °C (°F)	46.1 (115)		

Note: For non-standard remote installations contact your local Cummins representative.

Weights	
Unit dry weight kgs (lbs)	28801 (63496)
Unit wet weight kgs (lbs)	30668 (67611)

Note: Weights represent a set with standard features and alternator frame S9. See outline drawing for weights of other configurations.



Derating Factors

Standby	<p>High Ambient Cooling System: Full genset power available up to 1090 m (3575 ft) at ambient temperatures up to 40 °C (104 °F). Above these conditions, derate at 4% per 305 m (1000 ft) and 10.2% per 10 °C (18 °F).</p> <p>High Ambient Compact Cooling System: Full genset power available up to 575 m (1886 ft) at ambient temperatures up to 40 °C (104 °F). Above these conditions, derate at 6.1% per 305 m (1000 ft) and 19.6% per 10 °C (18 °F).</p> <p>Enhanced High Ambient Cooling System: Full genset power available up to 1127 m (3698 ft) at ambient temperatures up to 40 °C (104 °F) and 750 m (2461 ft) at ambient temperatures up to 50 °C (122 °F). Above these conditions, derate at 4% per 305 m (1000 ft) and 9.7% per 10 °C (18 °F).</p>
Prime	<p>High Ambient Cooling System: Full genset power available up to 1642 m (5386 ft) at ambient temperatures up to 40 °C (104 °F). Above these conditions, derate at 4% per 305 m (1000 ft) and 13.8% per 10 °C (18 °F).</p> <p>Enhanced High Ambient Cooling System: Full genset power available up to 1765 m (5792 ft) at ambient temperatures up to 40 °C (104 °F) and 811 m (2661 ft) at ambient temperatures up to 50 °C (122 °F). Above these conditions, derate at 4% per 305 m (1000 ft) and 12.7% per 10 °C (18 °F).</p>
Continuous	<p>High Ambient Cooling System: Full genset power available up to 2021 m (6629 ft) at ambient temperatures up to 40 °C (104 °F). Above these conditions, derate at 5.9% per 305 m (1000 ft) and 19.2% per 10 °C (18 °F).</p> <p>Enhanced High Ambient Cooling System: Full genset power available up to 2124 m (6968 ft) at ambient temperatures up to 40 °C (104 °F) and 1296 m (4252 ft) at ambient temperatures up to 50 °C (122 °F). Above these conditions, derate at 5.9% per 305 m (1000 ft) and 18.6% per 10 °C (18 °F).</p>

Ratings Definitions

Emergency Standby Power (ESP):	Limited-Time Running Power (LTP):	Prime Power (PRP):	Base Load (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 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.	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 ISO 8528 and ISO 3046-1, obtained and corrected in accordance with ISO 15550). This rating is not applicable to all generator set models.

Alternator Data¹

Voltage	Connection	Temp rise °C	Duty ²	Ambient temp C	Max surge kVA	Winding No.	Alternator	Feature code
380	Wye, 3-phase	150/125/105	S/P/C	40	11145	12	ADS-532	B595-2
380-440	Wye, 3-phase	150/125	S/P	40	11146	12	ADS-532	B667-2
380	Wye, 3-phase	105	P	40	11145	12	ADS-532	B630-2
400	Wye, 3-phase	125	S	40	11146	12	ADS-532	BA63-2
400	Wye, 3-phase	105	P	40	11146	12	ADS-532	BA62-2
400-415	Wye, 3-phase	125	P	40	10132	12	ADS-531	B635-2
400	Wye, 3-phase	105	C	40	11146	12	ADS-532	BA61-2
415	Wye, 3-phase	125	S	40	11146	12	ADS-532	BA68-2
415	Wye, 3-phase	105	P	40	11146	12	ADS-532	BA66-2
415	Wye, 3-phase	105	C	40	11146	12	ADS-532	BA65-2
440	Wye, 3-phase	105	C	40	11025	12	ADS-532	BA71-2
440	Wye, 3-phase	105	P	40	11025	12	ADS-532	B658-2
690	Wye, 3-phase	125	S	40	11970	65	ADS-586	BA77-2
690	Wye, 3-phase	150	S	40	11970	65	ADS-586	BA78-2
690	Wye, 3-phase	105	P	40	11970	65	ADS-586	BA74-2
690	Wye, 3-phase	125	P	40	9960	65	ADS-531	BA76-2
690	Wye, 3-phase	80	C	40	11970	65	ADS-586	BA72-2
690	Wye, 3-phase	105	C	40	11970	65	ADS-586	BA73-2
3300	Wye, 3-phase	80	S	40	14880	8003	ADS-592	B620-2
3300	Wye, 3-phase	105	S	40	14043	851	ADS-653	BA80-2
3300	Wye, 3-phase	105	P	40	12276	851	ADS-652	B470-2
3300	Wye, 3-phase	125/80	S/C	40/50	14043	851	ADS-653	B470-2
3300	Wye, 3-phase	150	S	40	12276	851	ADS-652	BB78-2
3300	Wye, 3-phase	150	S	50	14043	851	ADS-653	BB78-2
3300	Wye, 3-phase	80	P	40	14043	851	ADS-653	BA79-2
3300	Wye, 3-phase	105	P	50	14043	851	ADS-653	B372-2
3300	Wye, 3-phase	125	P	40/50	12276	851	ADS-652	BB79-2
3300	Wye, 3-phase	105	C	40/50	12276	851	ADS-652	B471-2
6000	Wye, 3-phase	80	S	40	14170	8010	ADS-591	BA83-2
6000	Wye, 3-phase	105	S	40	12728	8008	ADS-589	BA86-2
6300/6600	Wye, 3-phase	80	S	40	14685	8009	ADS-590	B642-2
6300	Wye, 3-phase	105	S	40	13160	8007	ADS-588	B497-2
6300	Wye, 3-phase	125	S	40/50	14058	961	ADS-661	BA88-2
6300	Wye, 3-phase	80	P	40	13770	8008	ADS-589	B645-2
6300	Wye, 3-phase	105	P	40	12789	961	ADS-660	B498-2
6300	Wye, 3-phase	105	P	50	14058	961	ADS-661	B498-2
6300	Wye, 3-phase	80	C	40/50	14058	961	ADS-661	BA87-2
6300	Wye, 3-phase	105	C	40/50	12789	961	ADS-660	B482-2

Notes:

¹ Alternator data is configured for a set with ratings including engine cooling fan losses and standard features at 40 °C ambient temperature. For non-standard configurations, including remote radiator applications, check appropriate alternator data sheets or contact your local Cummins representative.

² Standby (S), Prime (P) and Continuous ratings (C).

³ Maximum rated starting kVA that results in a minimum of 90% of rated sustained voltage during starting.

Alternator Data¹ (continued)

Voltage	Connection	Temp rise °C	Duty ²	Ambient temp C	Max surge kVA	Winding No.	Alternator	Feature code
6600	Wye, 3-phase	105	S	40	14058	961	ADS-661	B679-2
6600	Wye, 3-phase	125	S	40	12789	961	ADS-660	BA91-2
6600	Wye, 3-phase	125	S	50	14058	961	ADS-661	BA91-2
6600	Wye, 3-phase	80	P	40	14175	8008	ADS-589	BA89-2
6600	Wye, 3-phase	105	P	40/50	12789	961	ADS-660	BA90-2
6600	Wye, 3-phase	80	C	40	12789	961	ADS-660	B828-2
6600	Wye, 3-phase	80	C	50	14058	961	ADS-661	B828-2
6600	Wye, 3-phase	105	C	40	11253	961	ADS-659	B793-2
6600	Wye, 3-phase	105	C	50	12789	961	ADS-660	B793-2
10k	Wye, 3-phase	80	S	40	14399	8024	ADS-591	BA93-2
10k	Wye, 3-phase	105	S	40	13500	8022	ADS-589	BA94-2
10k	Wye, 3-phase	80	P	40	13500	8022	ADS-589	BA92-2
10.5k	Wye, 3-phase	80	S	40	14240	8023	ADS-590	BA98-2
10.5k	Wye, 3-phase	105	S	40	12784	8021	ADS-588	BB01-2
10.5k	Wye, 3-phase	125	S	40	12784	8021	ADS-588	BB02-2
10.5k	Wye, 3-phase	80	P	40	13770	8022	ADS-589	BA97-2
10.5k	Wye, 3-phase	105	P	40	12294	983	ADS-660	BA99-2
10.5k	Wye, 3-phase	105	P	50	13398	983	ADS-661	BA99-2
10.5k	Wye, 3-phase	80	C	40	12784	8021	ADS-588	BA96-2
10.5k	Wye, 3-phase	105	C	40/50	12294	983	ADS-660	B475-2
11k	Wye, 3-phase	80	S	40	14685	8023	ADS-590	B624-2
11k	Wye, 3-phase	105	S	40	11656	8021	ADS-588	B477-2
11k	Wye, 3-phase	105	P	40	12294	983	ADS-660	B648-2
11k	Wye, 3-phase	105	P	50	13398	983	ADS-661	B648-2
11k	Wye, 3-phase	125/80	S/C	40/50	13398	983	ADS-661	B648-2
11k	Wye, 3-phase	80	P	40	13770	8022	ADS-589	B985-2
11k	Wye, 3-phase	105	C	40/50	12294	983	ADS-660	B478-2

Notes:

¹ Alternator data is configured for a set with ratings including engine cooling fan losses and standard features at 40 °C ambient temperature. For non-standard configurations, including remote radiator applications, check appropriate alternator data sheets or contact your local Cummins representative.

² Standby (S), Prime (P) and Continuous ratings (C).

³ Maximum rated starting kVA that results in a minimum of 90% of rated sustained voltage during starting.

For more information contact your local Cummins distributor
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