

Generator set data sheet



Model: C500D5
Frequency: 50Hz
Fuel type: Diesel
kW rating: 400 Standby
 364 Prime

Emissions level: TIER 2

Exhaust emission data sheet:	
Sound performance data sheet:	
Cooling performance data sheet:	
Genset outline:	A057E143 / A057X601

Fuel consumption	Standby				Prime				Continuous			
	kW (kVA)				kW (kVA)				kW (kVA)			
Ratings	400 (494)				364 (449)							
Load	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full
US gph	10,6	15,9	23,8	32,5	8,0	14,5	20,8	27,2				
L/h	40	60	90	123	30,3	54,7	78,7	103				

Engine	Standby rating	Prime rating	Continuous rating
Engine manufacturer	Cummins Inc.		
Engine model	QSX15-G8		
Configuration	6-Cilindros		
Aspiration	Turbocharged		
Gross engine power output, kWm (bhp)	500 (670)	444 (595)	
BMEP at set rated load, kPa (psi)	2675 (388)	2371 (344)	
Bore, mm (in.)	137 (5,39)		
Stroke, mm (in.)	169 (6,65)		
Rated speed, rpm	1500		
Piston speed, m/s (ft/min)	8,4 (1663)		
Compression ratio	17:1		
Lube oil capacity, L (qt)	91 (24)		
Overspeed limit, rpm	2100 ±50		

Fuel flow

Maximum fuel flow, L/hr (US gph)	424 (112)
Maximum fuel inlet restriction, kPa (in Hg)	91 (24)
Maximum fuel inlet temperature, °C (°F)	71 (160)
Maximum fuel return line restriction, kPa (in Hg)	22,01 (6,5)

Air	Standby rating	Prime rating	Continuous rating
Combustion air, CFM (L/s)	1281,92 (605)	1144,2 (540)	
Maximum air cleaner restriction, kPa (in H2O)	6,23 (25)		
Alternator cooling air, m³/min (cfm)	2202 (49)		

Exhaust

Exhaust flow at set rated load, CFM (L/s)	2902,87 (1370)	2659,19 (1255)	
Exhaust temperature, °C (°F)	515 (960)	488 (910)	
Maximum back pressure, kPa (in H2O)	6,23 (25)		

Standard set-mounted radiator cooling

Ambient design, °C (°F)	49 (120)		
Fan load, kWm (HP)	17 (22,78)		
Coolant capacity (with radiator), L (US gal)	58 (15,32)		
Cooling system air flow, m³/min (scfm)	708 (24850,8)		
Total heat rejection, MJ/min (Btu/min)	10,02 (9500)	8,44 (8000)	
Maximum cooling air flow static restriction, kPa (in H2O)	0,12 (0,5)		

Weights

Unit Open dry weight, kgs	3758
Unit Open wet weight, kgs	3821
Unit Enclosed dry weight, kgs	5051
Unit enclosed wet weight, kgs	5114

Derating factors

Standby	Full rated power available up to 500 m (1640 ft) elevation at ambient temperature of 40 °C (104 °F). Above these conditions should be reduced by 2.25% every 300 m (984 ft), up to 1700 m (5577 ft), above these conditions consult your local Cummins distributor.
Prime	Full rated power available up to 500 m (1640 ft) elevation at ambient temperature of 40 °C (104 °F). Above these conditions should be reduced by 2.25% every 300 m (984 ft), up to 1700 m (5577 ft), above these conditions consult your local Cummins distributor.
Continuous	Full rated power available up to 500 m (1640 ft) elevation at ambient temperature of 40 °C (104 °F). Above these conditions should be reduced by 2.25% every 300 m (984 ft), up to 1700 m (5577 ft), above these conditions consult your local Cummins distributor.

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 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 power continuously to a constant electrical load for unlimited hours. Continuous Power (COP) is in accordance with ISO 8528, ISO 3046, AS 2789, DIN 6271 and BS 5514.

Alternator data

Voltage	Connection	Temp rise degrees C	Duty¹	Winding No.	Frame size
220	Wye, 3Phase	150	S/P/C	311	HC5D
380	Wye, 3Phase	150	S/P/C	311	HC5D
400	Wye, 3Phase	150	S/P/C	311	HC5D
440	Wye, 3Phase	150	S/P/C	311	HC5D

Notes:

¹ Standby (S), Prime (P) and Continuous ratings (C).

Formulas for calculating full load currents:

Three phase output

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

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**



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