Generator Set Data Sheet	Model: C2250 D5 Frequency: 50 Fuel Type: Diesel Emissions Level: Non Regulated

Exhaust Emission Data Sheet:	**EDS-294**
Measured Sound Performance Data Sheet:	**MSP-1006**
Measured Cooling Performance Data Sheet:	**MCP-114**
Prototype Test Summary Data Sheet:	**PTS-255**
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**				**Prime**				**Continuous**
	kW (kVA)				**kW** (kVA)				**kW** (kVA)
Ratings	1800 (2250)				1600 (2000)				1320 (1650)
Load	**1/4**	**1/2**	**3/4**	**Full**	**1/4**	**1/2**	**3/4**	**Full**	**Full**
US gph	31.7	58.1	85.9	115.3	30.1	52.7	76.9	103.9	84.4
L/hr	120	220	325	437	114	200	291	394	320

Engine	**Standby Rating**	**Prime Rating**	**Continuous Rating**
Engine Manufacturer	Cummins		
Engine Model	QSK60-G4		
Configuration	Cast Iron, 60°V 16 cylinder		
Aspiration	Turbocharged and Low Temperature Aftercooled		
Gross Engine Power Output, kWm (bhp)	1915 (2567)	1730 (2319)	1415 (1897)
BMEP at Set Rated Load, kPa (psi)	2544 (369)	2296 (333)	1880 (273)
Bore, mm (in.)	159 (6.25)		
Stroke, mm (in.)	190 (7.48)		
Rated Speed, rpm	1500		
Piston Speed, m/s (ft/min)	9.5 (1869)		
Compression Ratio	14.5:1		
Lube Oil Capacity, L (qt)	280 (296)	397 (420)	397 (420)
Overspeed Limit, rpm	1850 ±50		
Regenerative Power, kW	146		
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)	70 (160)		
Air			
Combustion Air, m^3/min (scfm)	144 (5090)	136 (4800)	118(4175)
Maximum Air Cleaner Restriction, kPa (in. H_2O)	6.2 (25)		
Alternator Cooling Air, m^3/min (cfm)	246 (8700)		
Exhaust			
Exhaust Gas Flow at Set Rated Load, m^3/min (cfm)	336 (11880)	311 (10990)	264(9330)
Exhaust Gas Temperature, °C (°F)	450 (835)	430 (805)	405(760)
Maximum Exhaust Back Pressure, kPa (in. H_2O)	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)	29.1 (39)		
Coolant Capacity (with Radiator), L (US Gal.)	454 (120)		
Cooling System Air Flow, m^3/min (scfm)	1586 (56000)		
Total Heat Rejection, MJ/min (BTU/min)	73.9 (70091)	66.6 (63151)	53.9 (51161)
Maximum Cooling Air Flow Static Restriction, kPa (in. H2O)	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, kWm (HP)	33.6 (45)		
Coolant Capacity (with radiator), L (US Gal.)	492 (130)		
Cooling System Air Flow, m^3/min (scfm)	1869 (66000)		
Total Heat Rejection, MJ/min (BTU/min)	73.9 (70091)	66.6 (63151)	53.9 (51161)
Maximum Cooling Air Flow Static Restriction, kPa (in. H2O)	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)	29.8 (28300)	26.8 (25460)	22.6(21450)
Heat Rejected, After-cooler Circuit, MJ/min (BTU/min)	27.1 (25730)	23.9 (22620)	17.2(16320)
Heat Rejected, Fuel Circuit, MJ/min (BTU/min)	2.1 (2000)		
Total Heat Radiated to Room, MJ/min (BTU/min)	14.8 (14060)	13.7 (13070)	12.0 (11391)
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)		
Maximum Fuel Return Line Restriction, kPa (in. Hg)	23.7 (7)		

Optional Remote Radiator Cooling[1]	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)	1438 (380)		
Max Flow Rate @ Max Friction Head, Aftercooler Circuit, L/min (US Gal/min)	413 (109)		
Heat Rejected, Jacket Water Circuit, MJ/min (BTU/min)	29.8 (28300)	26.8 (25460)	22.6(21450)
Heat Rejected, Aftercooler Circuit, MJ/min (BTU/min)	27.1 (25730)	23.9 (22620)	17.2(16320)
Heat Rejected, Fuel Circuit, MJ/min (BTU/min))	2.1 (2000)		
Total Heat Radiated to Room, MJ/min (BTU/min)	14.8 (14060)	13.7 (13070)	12.0 (11391)
Maximum Friction Head, Jacket Water Circuit, kPa (psi)	48 (7)		
Maximum Friction Head, Aftercooler Circuit, kPa (psi)	34 (5)		
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, °C (°F)	66 (150)		
Maximum Fuel Flow, L/hr (US gph)	1893 (500)		
Maximum Fuel Return Line Restriction, kPa (in. Hg)	30.5 (9)		

Weights[2]	
Unit Dry Weight kgs (lbs.)	14863 (32767)
Unit Wet Weight kgs (lbs.)	15366 (33876)

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 800 m (2625 ft) at ambient temperatures up to 40°C (104°F), and up to sea level at 50°C (122°F). Above these elevations, derate at 3.5% per 305 m (1000 ft and 16% per 10°C (18°F).
Prime	Engine power available up to 800 m (2625 ft) at ambient temperatures up to 40°C (104°F), and up to sea level at 50°C (122°F). Above these elevations, derate at 3.5% per 305 m (1000 ft and 16% per 10°C (18°F).
Continuous	Engine power available up to 1750 m (5741 ft) at ambient temperatures up to 40°C (104°F) and up to 580m (1903) at 50°C (122°F). Above these elevations, derate at 4.1% per 305 m (1000 ft). Above these ambients derate an additional 16% 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
380-440	Wye, 3 Phase	163/27	S	N/A		ADS-335	B613
380-440	Wye, 3 Phase	150/125	S/P	N/A		ADS-515	B667
380-440	Wye, 3 Phase	125/105	S/P	N/A		ADS-515	B668
380-440	Wye, 3 Phase	105/80	S/P	N/A		ADS-516	B361
380-440	Wye, 3 Phase	80	S	N/A		ADS-516	B633
400-440	Wye, 3 Phase	150/125	S/P	N/A		ADS-335	B672
380-440	Wye, 3 Phase	125	P	N/A		ADS-334	B670
400-440	Wye, 3 Phase	105	P	N/A		ADS-335	B673
380	Wye, 3 Phase	80	S	N/A		ADS-517	B674
380-440	Wye, 3 Phase	105	C	N/A		ADS-333	B551
380-440	Wye, 3 Phase	80	C	N/A		ADS-334	B703
3300	Wye, 3 Phase	150/125	S/P	N/A		ADS-518	B675
3300	Wye, 3 Phase	125/105	S/P	N/A		ADS-518	B676
3300	Wye, 3 Phase	105/80	S/P	N/A		ADS-518	B373
3300	Wye, 3 Phase	80	S	N/A		ADS-519	B620
3300	Wye, 3 Phase	80	C	N/A		ADS-518	B704
6300-6600	Wye, 3 Phase	125/105	S/P	N/A		ADS-521	B575
6300-6600	Wye, 3 Phase	105/80	S/P	N/A		ADS-522	B643
6600	Wye, 3 Phase	105	S	N/A		ADS-521	B679
6300-6600	Wye, 3 Phase	80	S	N/A		ADS-523	B642
6300-6600	Wye, 3 Phase	80	C	N/A		ADS-521	B593
11000	Wye, 3 Phase	125/105	S/P	N/A		ADS-521	B476
11000	Wye, 3 Phase	105/80	S/P	N/A		ADS-521	B699
11000	Wye, 3 Phase	80	S	N/A		ADS-523	B624
11000	Wye, 3 Phase	80	C	N/A		ADS-521	B594

Notes:

1. Limited single phase capability is available from some three phase rated configurations. To obtain single phase rating, multipy the three phase kW rating by the Single Phase Factor[3]. All single phase ratings are at unity power factor.
2. Standby (S), Prime (P) and (C) Continuous ratings.
3. Factor for the *Single Phase Output from Three Phase Alternator* formula listed below.
4. 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
$\frac{kWx1000}{Voltagex1.73x0.8}$	$\frac{kWxSinglePhaseFactorx1000}{Voltage}$

See your distributor for more information.

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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.