Model: DQKC
Frequency: 60
Fuel type: Diesel

Generator set data sheet
2000 kW standby

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Exhaust emission data sheet:	**EDS-169**
Emission compliance sheet:	**EPA-1006**
Sound performance data sheet:	**MSP-174**
Cooling performance data sheet:	**MCP-109**
Prototype test summary data sheet:	**PTS-155**
Standard set-mounted radiator cooling outline:	**0500-3947**
Optional set-mounted radiator cooling outline:	**0500-3948**
Optional heat exchanger cooling outline:	**0500-3946**
Optional remote radiator cooling outline:	**0500-3945**

Fuel consumption

	Standby				Prime				Continuous
	kW (kVA)				**kW (kVA)**				**kW (kVA)**
Ratings	2000 (2500)				1825 (2281)				1600 (2000)
Load	**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 Inc.		
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)

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Air	Standby rating	Prime rating	Continuous rating
Combustion air, m^3/min (scfm)	173 (6150)	160 (5690)	148 (5275)
Maximum air cleaner restriction, kPa (in H_2O)	6.2 (25)		
Alternator cooling air, m^3/min (cfm)	289 (10200)		

Exhaust			
Exhaust gas flow at set rated load, m^3/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 H_2O)	6.7 (27)		

Standard set-mounted radiator cooling			
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, m^3/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_2O)	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, m^3/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_2O)	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, 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 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, aftercooler 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, aftercooler 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 aftercooler inlet temp, °C (°F)	66 (150)		
Maximum aftercooler inlet temp @ 25 °C (77 °F) ambient, °C (°F)	49 (120)		
Maximum fuel return line restriction, kPa (in Hg)	23.7 (7)		

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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)	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 aftercooler inlet temp @ 25 °C (77 °F) ambient, °C (°F)	49 (120)		
Maximum aftercooler 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)	14649 (32296)
Unit wet weight kgs (lbs)	15152 (33405)

Notes:

[1] For non-standard remote installations contact your local Cummins Power Generation representative.

[2] 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

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

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Voltage	Connection[1]	Temp rise degrees C	Duty[2]	Single phase factor[3]	Max surge kVA[4]	Winding No.	Alternator data sheet	Feature Code
380	Wye, 3-phase	150/125/105	S/P/C		7327	13	ADS-515	B595
380	Wye, 3-phase	125/105/80	S/P/C		7327	13	ADS-515	B598
380	Wye, 3-phase	105/80	S/P		7327	13	ADS-515	B599
380	Wye, 3-phase	105	C		7695	312	ADS-335	B662
380	Wye, 3-phase	80	S		7963	13	ADS-515	B660
440	Wye, 3-phase	125/105/80	S/P/C		7361	312	ADS-334	B663
440	Wye, 3-phase	105	S		7284	12	ADS-515	B665
440	Wye, 3-phase	105	C		6716	312	ADS-333	B666
480	Wye, 3-phase	125/105/80	S/P/C		7361	312	ADS-334	B462
480	Wye, 3-phase	105/80	S/P		7695	312	ADS-335	B463
480	Wye, 3-phase	125/105	P/C		6716	312	ADS-333	B464
480	Wye, 3-phase	80	S		7284	12	ADS-515	B601
480	Wye, 3-phase	105	S		9720	19	ADS-517	B796
600	Wye, 3-phase	125/105/80	S/P/C		7361	07	ADS-334	B465
600	Wye, 3-phase	105/80	S/P		7695	07	ADS-335	B301
600	Wye, 3-phase	125/105	P/C		6716	07	ADS-333	B466
600	Wye, 3-phase	80	S		7265	07	ADS-515	B604
4160	Wye, 3-phase	125/105/80	S/P/C		6307	51	ADS-518	B467
4160	Wye, 3-phase	105/80	S/P		6307	51	ADS-518	B313
4160	Wye, 3-phase	80	S		6307	51	ADS-518	B605
4160	Wye, 3-phase	105	C		7926	51	ADS-324	B502
4160	Wye, 3-phase	105	S		8752	59	ADS-520	B795
12470-13800	Wye, 3-phase	125/105/80	S/P/C		6062	91	ADS-521	B488
12470	Wye, 3-phase	105/80	S/P		6038	87	ADS-521	B567
13200-13800	Wye, 3-phase	105/80	S/P		6062	91	ADS-521	B612
12470	Wye, 3-phase	80	S		6685	87	ADS-522	B607
13200-13800	Wye, 3-phase	80	S		8012	91	ADS-523	B628
13800	Wye, 3-phase	80	S		6833	91	ADS-522	B610
13800	Wye, 3-phase	105	S		8001	99	ADA-523	B797

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 Continuous ratings (C).

[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

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

Single phase output

$$\frac{kW \times SinglePhaseFactor \times 1000}{Voltage}$$

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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.

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