Progress Generator Services

Generator set data sheet

Model: C250 D2R
Fuel type: Diesel
Document No.: DS207-CPGK-RevC

Fuel consumption 50 Hz

	Standby				Prime			
	kVA (kW)				kVA (kW)			
Ratings	275 (220)				250 (200)			
Load	**1/4**	**1/2**	**3/4**	**Full**	**1/4**	**1/2**	**3/4**	**Full**
L/hr	22	39	55	71	21	36	50	65

Fuel consumption 60 Hz

	Standby				Prime			
	kW (kVA)				kW (kVA)			
Ratings	250 (313)				225 (281)			
Load	**1/4**	**1/2**	**3/4**	**Full**	**1/4**	**1/2**	**3/4**	**Full**
L/hr	26	45	63	82	25	41	58	75

Engine (EU stage IIIA)

	Standby rating	Prime rating
Gross engine power output 50 Hz/60 Hz, kWm	257 / 297	227 / 262
BMEP at set rated load 50 Hz/60 Hz, kPa	2330 / 2241	2048 / 1979
Engine manufacturer	Cummins	
Engine model	QSL9-G3	
Configuration	4 cycle; in-line; 6 cylinder	
Aspiration	Turbo-charged and charge air cooled	
Bore, mm	114	
Stroke, mm	145	
Rated speed 50 Hz/60 Hz, rpm	1500 / 1800	
Piston speed 50 Hz/60 Hz, m/s	7.2 / 8.7	
Compression ratio	17.8:1	
Lube oil capacity, L	26.5	
Overspeed limit 50 Hz/60 Hz, rpm	1800	
Regenerative power 50 Hz/60 Hz, kW	26 / 35	
Governor type	Elec.	

Fuel flow

Maximum fuel flow, L/hr	83
Maximum fuel inlet restriction (clean/dirty filter), mm Hg	152/254
Maximum fuel inlet temperature, °C	70

Air

Combustion air 50 Hz/60 Hz, m^3/min	18.9 / 22.2	18.6 / 21.9
Maximum air cleaner restriction (clean/dirty filter), kPa	3.7/6.2	

Exhaust

Exhaust gas flow at set rated load 50 Hz/60 Hz, m^3/min	51 / 61.2	47.7 / 57.9
Exhaust gas temperature 50 Hz/60 Hz, ºC	585 / 595	535 / 560
Maximum exhaust back pressure, kPa	10.2	

Standard set-mounted radiator cooling	Standby rating	Prime rating
Ambient design, °C	50	
Fan load, kWm 1500 rpm/1800 rpm	9	
Coolant capacity (with radiator), L	26	
Cooling system air flow, m^3/min 1500 rpm/1800 rpm	2.85 / 3.34	
Total heat rejection, Btu/min 1500 rpm/1800 rpm	9035 / 10540	8460 / 9740
Max cooling air restriction, kPa	0.249	

Weights*

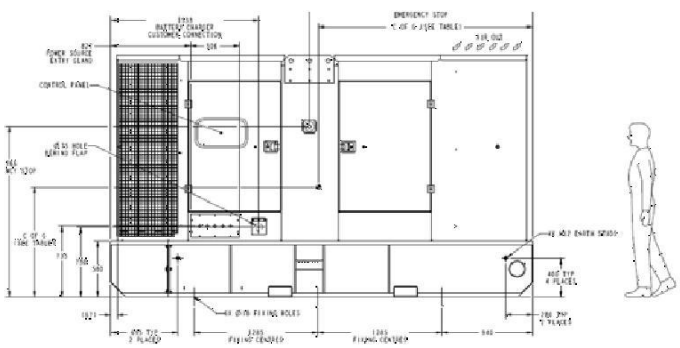
Unit dry weight kgs	4369
Unit wet weight kgs	4421

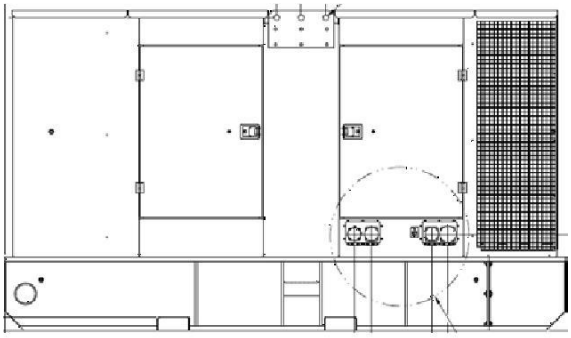
* Weights represent a set with standard features. See outline drawing for weights of other configurations.

Dimensions	Length	Width	Height
Enclosed set standard dimensions, m	4.3	1.4	2.5

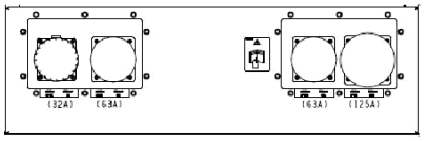
Genset outline

Enclosed set

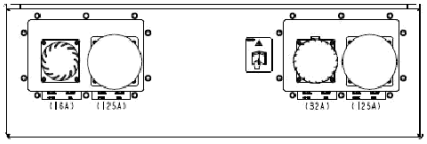




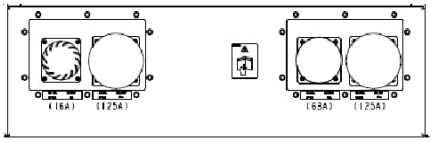
Power Receptacle Socket on set: 125A, 63A, 32A, 16A 3 Phase sockets combination



RECEPTACLES (OPTION 1)
50/60 Hz 380-415V 3P N E



RECEPTACLES (OPTION 2)
50/60 Hz 380-415V 3P N E



RECEPTACLES (OPTION 3)
50/60 Hz 380-415V 3P N E

Outlines are for illustrative purposes only. Please refer to the genset outline drawing for an exact representation of this model.

Alternator data

Alternator	Connection	Temp rise °C	Duty	Voltage 50 Hz, L-L	Voltage 60 Hz, L-L
UC274K/HC4D	Series Star, 3Ph	163/27 / 125/40	Standby/Prime	380, 400, 415, 440	416, 440, 460, 480
	Parallel Star, 3Ph	163/27 / 125/40	Standby/Prime	190, 200, 208, 220	208, 220, 230, 240
	Series Delta, 3Ph	163/27 / 125/40	Standby/Prime	220, 230, 240, 254	240, 254, 266, 277

Transient performance class

Meets ISO 8528-5: 2005-Class G3

Details of voltage and frequency performance data available upon request

Noise data 50Hz

Enclosed set sound power level, LwA	97 dB
Enclosed set sound pressure level, dB(A) @ 75% prime, 7m	69 dB(A)

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.

Formulas for calculating full load currents:

Three phase output

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

Single phase output

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

See your distributor for more information.

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