Generator set data sheet



Model: C500 D5

Frequency: 50 Fuel type: Diesel

Spec sheet:	EMERS-5888-EN
Noise data sheet (open/enclosed):	ND50-OS550/ND50-CS550
Airflow data sheet:	AF50-550
Derate data sheet (open/enclosed):	DD50-OS550/DD50-CS550
Transient data sheet:	TD50-550

Standby			Prime					
Fuel consumption	kVA (kV	V)			kVA (kV	V)		
Ratings	500 (400)			455 (364	l)		
Load	1/4	1/2	3/4	Full	1/4	1/2	3/4	Full
Gal (UK)/hr	7.7	12.2	17.3	22.8	7.3	11.4	15.8	20.8
L/hr	34.79	55.6	78.5	103.6	32.9	51.6	71.9	94.3

Engine	Standby Rating	Prime Rating		
Engine manufacturer	Cummins	1		
Engine model	QSZ13-G5	QSZ13-G5		
Configuration	4 cycle; in-line 6 cylinder	diesel		
Aspiration	Turbocharged and charge	e air cooled		
Gross engine power output, kWm	469	410		
BMEP at set rated load, kPa	2892	2529		
Bore, mm	130	130		
Stroke, mm	163	163		
Rated speed, rpm	1500	1500		
Piston speed, m/s	8.1	8.1		
Compression ratio	17:1	17:1		
Lube oil capacity, L	64	64		
Overspeed limit, rpm	1500 ±10%	1500 ±10%		
Regenerative power, kW	36			
Governor type	Electronic			
Starting voltage	24 Volts DC			

Fuel flow

Maximum fuel flow, L/hr	247
Maximum fuel inlet restriction, mm Hg	202
Maximum fuel inlet temperature, °C	71

Air	Standby Rating	Prime Rating
Combustion air, m³/min	35.5	33.9
Maximum air cleaner restriction, kPa	3.2 – 6.2	_

Exhaust

Exhaust gas flow at set rated load, m³/min	33.9	31.38
Exhaust gas temperature, °C	523	485
Maximum exhaust back pressure, kPa	13	_

Standard set-mounted radiator cooling

Ambient design, °C	50	
Fan load, kW _m	18.5	
Coolant capacity (with radiator), L	62	
Cooling system air flow, m³/sec @ 12.7 mmH₂O	8.1	
Total heat rejection, Btu/min	16700	13700
Maximum cooling air flow static restriction mm H ₂ O	25.4	

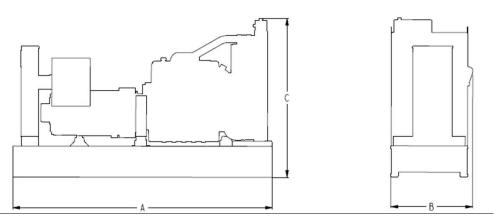
Weights*	Open	Enclosed
Unit dry weight kgs	3988	5177
Unit wet weight kgs	4053	5281

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

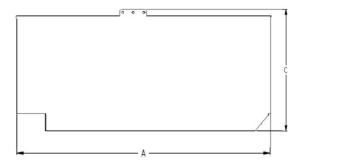
Dimensions	Length	Width	Height
Standard open set dimensions mm	3686	1160	2266
Enclosed set standard dimensions mm	5093	1564	2446

Genset outline

Open set



Enclosed set





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

Alternator data

Connection ¹	Temp rise °C	Duty ²	Alternator	Voltage	
Wye, 3-phase	163/125 C	S/P	HC5C	380-440V	
Wye, 3-phase	125/105 C	S/P	HC5E	380-440V	

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

Single phase output

kW x 1000 Voltage x 1.73 x 0.8 kW x SinglePhaseFactor x 1000 Voltage

See your distributor for more information.

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