Progress Generator Services

Generator set data sheet

Model: C20 D5R
Fuel type: Diesel
Document No.: EMERD-6049-EN

Fuel consumption 50 Hz

	Standby				Prime			
	kVA (kW)				kVA (kW)			
Ratings	22 (17)				20 (16)			
Load	**1/4**	**1/2**	**3/4**	**Full**	**1/4**	**1/2**	**3/4**	**Full**
L/hr	2.7	3.5	4.5	5.9	2.6	3.4	4.3	5.2

Engine (EU stage IIIA)

	Standby rating	Prime rating
Gross engine power output 50 Hz, kWm	22	18.8
BMEP at set rated load 50 Hz, kPa	531	454
Engine manufacturer	Kubota	
Engine model	V2403-M-E3BG	
Configuration	4 cycle; in-line; 4 cylinder	
Aspiration	Natural	
Bore, mm	87	
Stroke, mm115	102.4	
Rated speed 50 Hz, rpm	1500	
Piston speed 50 Hz, m/s	5.12	
Compression ratio	23:2	
Lube oil capacity, L	9.5	
High idle speed 50 Hz, rpm	1720	
Overspeed limit 50 Hz, rpm	2120	
Regenerative power 50 Hz, kW	N/A	
Governor type	Electronic governor	

Fuel flow

Maximum fuel flow, L/hr	6.1
Maximum fuel inlet restriction (clean/dirty filter), mm Hg	N/A
Maximum fuel inlet temperature, °C	N/A

Air

Combustion air 50 Hz, m^3/min	1.58
Maximum air cleaner restriction (clean/dirty filter), kPa	1.9/4.9

Exhaust

Exhaust gas flow at set rated load 50 Hz, m^3/min	TBD	TBD
Exhaust gas temperature 50 Hz, ºC	TBD	TBD
Maximum exhaust back pressure, kPa	7.06	

Standard set-mounted radiator cooling	Standby rating	Prime rating
Ambient design, °C	40	
Fan load, kWm 1500 rpm	0.5	
Coolant capacity (with radiator), L	5.6	
Cooling system air flow, m^3/sec 1500 rpm	0.4	
Total heat rejection, Btu/min 1500 rpm	1451	
Max cooling air restriction, kPa	TBD	

Weights*

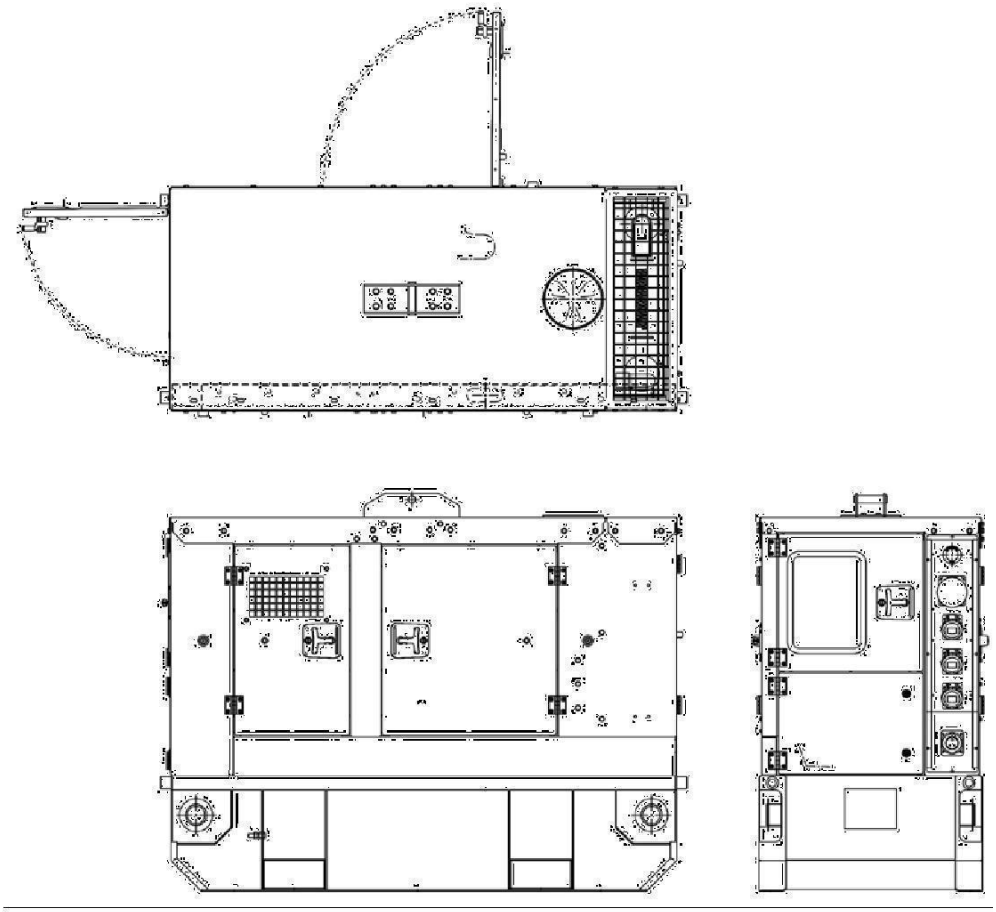
Unit dry weight kgs	857
Unit wet weight kgs	1036

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

Dimensions	Length	Width	Height
Enclosed set standard dimensions, m	1.7	0.78	1.25

Genset outline

Enclosed set



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
P144D	Series Star, 3Ph	163/27 / 125/40	Standby/Prime	380, 400, 415

Noise data 50Hz

Enclosed set sound power level, LwA	93 dB
Enclosed set sound pressure level, dB(A) @ 75% PRP, 1m	77
Enclosed set sound pressure level, dB(A) @ 75% PRP, 7m	66

Control options

- Cummins PowerCommand® 1.1 control system
- DSEGenset® DSE7310 auto start control module
- ComAp InteliLite® MRS 16 manual and remote controller

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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