

# Cat® D20

## Diesel Generator Sets



Standby : 60 Hz

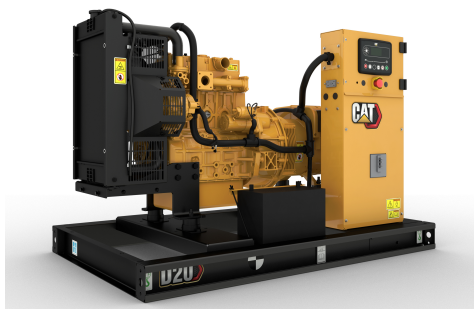


Image shown may not reflect actual configuration

Engine Model	Cat® C2.2 In-line 4, 4-cycle Diesel
Bore x Stroke	84 mm x 100 mm (3.3 in x 3.93 in)
Displacement	2.2 L (134 in³)
Compression Ratio	23.3:1
Aspiration	Naturally Aspirated
Fuel Injection System	Mechanical Cassette Type

Model	Standby	Emission Strategy
D20	20 ekW	EPA TIER 4I (EPA 40 CFR Part 1039 Interim Tier 4)

### Package Performance

Performance	Standby	
	3-Phase	1-Phase
Frequency, Hz	60	
Genset Power Rating, kVA	25	20
Genset power rating with fan, ekW	20	20
Performance Number	P3518A	
Fuel Consumption		
100% load with fan, L/hr (gal/hr)	6.9 (1.8)	
75% load with fan, L/hr (gal/hr)	5.3 (1.4)	
50% load with fan, L/hr (gal/hr)	3.5 (0.9)	
Cooling System¹		
Radiator air flow, m³/min (CFM)	44 (1554)	
Radiator air flow restriction (system), kPa (in. water)	0.12	
Engine coolant capacity, L (gal)	3.6 (0.95)	
Radiator coolant capacity, L (gal)	3.4 (0.90)	
Total coolant capacity, L (gal)	7 (1.85)	
Inlet Air		
Max. combustion air intake restriction, kPa (in. water)	6.4 (25.7)	
Combustion air inlet flow rate, m³/min (CFM)	1.74 (61.45)	
Exhaust System		
Exhaust stack gas temperature, °C (°F)	498 (928)	
Exhaust gas flow rate, m³/min (CFM)	4.76 (168.0)	
Exhaust system backpressure (maximum allowable), kPa (in. water)	10.2 (41.0)	
Heat Rejection		
Heat rejection to jacket water, kW (BTU/min)	22.2 (1262)	
Heat rejection from alternator, kW (BTU/min)	4.2 (238)	
Heat rejection to atmosphere from engine, kW (BTU/min)	4.6 (262)	
Heat rejection to exhaust (total), kW (BTU/min)	18.3 (1041)	

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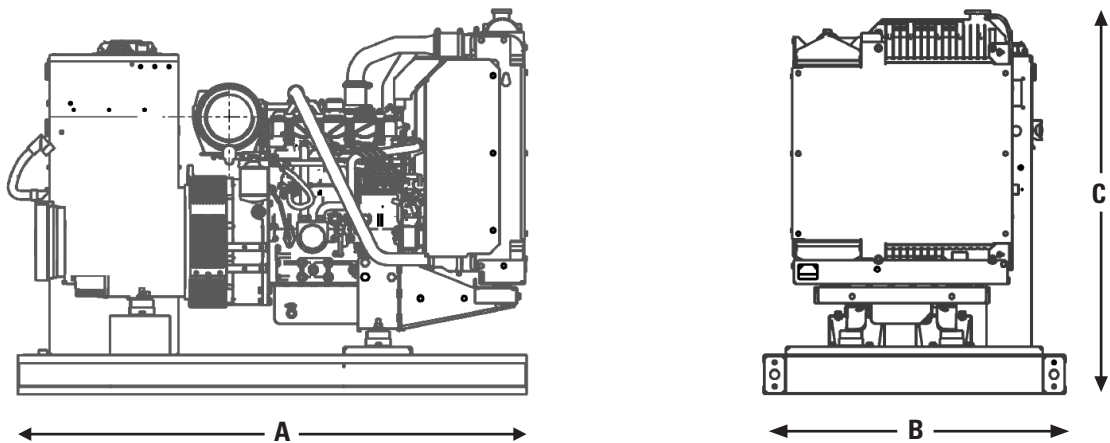
### Electric Power



Alternator <sup>3</sup>						
Duty Cycle		Standby				
Phase		3-Phase				1-Phase
Voltages, V		208/120	480/277	600/346	240/120	240/120V
Current, Amps		69	30	24	60	83
Frame: M1455L4	Temperature Rise, °C	125	125	125	125	
	Excitation	SE/AREP	SE/AREP	AREP	SE/AREP	
	Motor Starting Capability @ 30% Voltage Dip, skVA	12	55	53	16	
Frame: M1713L4	Temperature Rise, °C	105	105	105	105	105
	Excitation	SE	SE	AREP	SE	SE
	Motor Starting Capability @ 30% Voltage Dip, skVA	11	50	58	14	46
Frame: M1717L4	Temperature Rise, °C	105	105	105	105	
	Excitation	SE	SE	AREP	SE	
	Motor Starting Capability @ 30% Voltage Dip, skVA	53	67	76	53	
Frame: M1715L4	Temperature Rise, °C					105
	Excitation					SE
	Motor Starting Capability @ 30% Voltage Dip, skVA					53
Frame: M1736L4	Temperature Rise, °C					105
	Excitation					SE
	Motor Starting Capability @ 30% Voltage Dip, skVA					76



WEIGHTS & DIMENSIONS



Length "A" mm (in)	Width "B" mm (in)	Height "C" mm (in)	Dry Weight kg (lb)
1503 (59)	970 (38)	1038 (41)	482 (1062)

**Note:** General configuration not to be used for installation. See general dimension drawings for detail.

APPLICABLE CODES AND STANDARDS:

CSA C22.2 No 100-04, UL142, UL489, UL869, cUL/UL2200, NFPA 37, NFPA 70, NFPA 99,NFPA 110, IBC, IEC60034-1, ISO 3046, ISO 8528, NEMA MG 1-33.

Note: Codes may not be available in all model configurations. Please consult your local Cat Dealer representative for availability.

**STANDBY:** Output available with varying load for the duration of the interruption of the normal source power. Average power output is 70% of the standby power rating. Typical operation is 200 hours per year, with maximum expected usage of 500 hours per year.

**RATINGS:** Ratings are based on SAE J1349 standard conditions. These ratings also apply at ISO3046 standard conditions.

DEFINITIONS AND CONDITIONS

- <sup>1</sup> For ambient and altitude capabilities consult your Cat dealer. Air flow restriction (system) is added to existing restriction from factory.
- <sup>2</sup> Emissions data measurement procedures are consistent with those described in EPA CFR 40 Part 89, Subpart D & E and ISO8178-1 for measuring HC, CO, PM, NOx. Data shown is based on steady state operating conditions of 77° F, 28.42 in HG and number 2 diesel fuel with 35° API and LHV of 18,390 BTU/lb. The nominal emissions data shown is subject to instrumentation, measurement, facility and engine to engine variations. Emissions data is based on 100% load and thus cannot be used to compare to EPA regulations which use values based on a weighted cycle.
- <sup>3</sup> UL 2200 Listed packages may have oversized generators with a different temperature rise and motor starting characteristics. Generator temperature rise is based on a 40° C ambient per NEMA MG1-32.

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