

# Cat® 3512B

## Diesel Generator Sets



Image shown may not reflect actual configuration

Bore – mm (in)	170 (6.69)
Stroke – mm (in)	215 (8.46)
Displacement – L (in³)	58.56 (3573.55)
Compression Ratio	15.5:1
Aspiration	TA
Fuel System	EUI
Governor Type	ADEM™ A3

Standby 50 Hz kVA (ekW)	Mission Critical 50 Hz kVA (ekW)	Prime 50 Hz kVA (ekW)	Emissions Performance
1750 (1400)	1750 (1400)	1600 (1280)	Optimized for Low Fuel Consumption or Low Emissions

### Standard Features

#### Cat® Diesel Engine

- Designed and optimized for low emissions or low fuel consumption
- Reliable performance proven in thousands of applications worldwide

#### Generator Set Package

- Accepts 100% block load in one step and meets NFPA 110 loading requirements
- Conforms to ISO8528-5 G3 load acceptance requirements
- Reliability verified through torsional vibration, fuel consumption, oil consumption, transient performance, and endurance testing

#### Alternators

- Superior motor starting capability minimizes need for oversizing generator
- Designed to match performance and output characteristics of Cat diesel engines

#### Cooling System

- Cooling systems available to operate in ambient temperatures up to 50°C (122°F)
- Tested to ensure proper generator set cooling

#### EMCP 4 Control Panels

- User-friendly interface and navigation
- Scalable system to meet a wide range of installation requirements
- Expansion modules and site specific programming for specific customer requirements

#### Warranty

- 24 months/1000-hour warranty for standby and mission critical ratings
- 12 months/unlimited hour warranty for prime and continuous ratings
- Extended service protection is available to provide extended coverage options

#### Worldwide Product Support

- Cat dealers have over 1,800 dealer branch stores operating in 200 countries
- Your local Cat dealer provides extensive post-sale support, including maintenance and repair agreements

#### Financing

- Caterpillar offers an array of financial products to help you succeed through financial service excellence
- Options include loans, finance lease, operating lease, working capital, and revolving line of credit
- Contact your local Cat dealer for availability in your region

## Optional Equipment

Engine	Power Termination	Vibration Isolators
<b>Air Cleaner</b>	<b>Type</b>	
<input type="checkbox"/> Single element	<input type="checkbox"/> Bus bar	<input type="checkbox"/> Rubber
<input type="checkbox"/> Dual element	<input type="checkbox"/> Circuit breaker	<input type="checkbox"/> Spring
<b>Muffler</b>	<input type="checkbox"/> 2000A <input type="checkbox"/> 2500A	<input type="checkbox"/> Seismic rated
<input type="checkbox"/> Industrial grade (15 dB)	<input type="checkbox"/> 3200A <input type="checkbox"/> 4000A	
<input type="checkbox"/> Residential grade (20 dB)	<input type="checkbox"/> IEC	
<input type="checkbox"/> Critical grade (35 dB)	<input type="checkbox"/> 3-pole <input type="checkbox"/> 4-pole	
<b>Starting</b>	<input type="checkbox"/> Electrically operated	
<input type="checkbox"/> Standard batteries	<b>Trip Unit</b>	
<input type="checkbox"/> Oversized batteries	<input type="checkbox"/> LSI <input type="checkbox"/> LSI-G	
<input type="checkbox"/> Standard electric starter(s)	<input type="checkbox"/> LSIG-P	
<input type="checkbox"/> Dual electric starter(s)	<b>Control System</b>	
<input type="checkbox"/> Jacket water heater	<b>Controller</b>	
<b>Alternator</b>	<input type="checkbox"/> EMCP 4.2	
<b>Output voltage</b>	<input type="checkbox"/> EMCP 4.3	
<input type="checkbox"/> 380V	<input type="checkbox"/> EMCP 4.4	
<input type="checkbox"/> 400V	<b>Attachments</b>	
<input type="checkbox"/> 415V	<input type="checkbox"/> Local annunciator module	
<b>Temperature Rise (over 40°C ambient)</b>	<input type="checkbox"/> Remote annunciator module	
<input type="checkbox"/> 150°C	<input type="checkbox"/> Expansion I/O module	
<input type="checkbox"/> 125°C/130°C	<input type="checkbox"/> Remote monitoring software	
<input type="checkbox"/> 105°C	<b>Charging</b>	
<input type="checkbox"/> 80°C	<input type="checkbox"/> Battery charger – 10A	
<b>Winding type</b>	<input type="checkbox"/> Battery charger – 20A	
<input type="checkbox"/> Random wound		
<input type="checkbox"/> Form wound		
<b>Excitation</b>		
<input type="checkbox"/> Internal excitation (IE)		
<input type="checkbox"/> Permanent magnet (PM)		
<b>Attachments</b>		
<input type="checkbox"/> Anti-condensation heater		
<input type="checkbox"/> Stator and bearing temperature monitoring and protection		
		<b>Extended Service Options</b>
		<b>Terms</b>
		<input type="checkbox"/> 2 year (prime)
		<input type="checkbox"/> 3 year
		<input type="checkbox"/> 5 year
		<input type="checkbox"/> 10 year
		<b>Coverage</b>
		<input type="checkbox"/> Silver
		<input type="checkbox"/> Gold
		<input type="checkbox"/> Platinum
		<input type="checkbox"/> Platinum Plus
		<b>Ancillary Equipment</b>
		<input type="checkbox"/> Automatic transfer switch (ATS)
		<input type="checkbox"/> Uninterruptible power supply (UPS)
		<input type="checkbox"/> Paralleling switchgear
		<input type="checkbox"/> Paralleling controls
		<b>Certifications</b>
		<input type="checkbox"/> IBC seismic certification
		<input type="checkbox"/> EU Certification of Conformance (CE)
		<input type="checkbox"/> EEC Declaration of Conformity

**Note:** Some options may not be available on all models. Certifications may not be available with all model configurations. Consult factory for availability.

## Package Performance

### Low Fuel Consumption (30°C SCAC)

Performance	Standby	Mission Critical	Prime
Frequency	50 Hz	50 Hz	50 Hz
Gen set power rating with fan	1400 ekW	1400 ekW	1280 ekW
Gen set power rating with fan @ 0.8 power factor	1750 kVA	1750 kVA	1600 kVA
Emissions	Low Fuel	Low Fuel	Low Fuel
Performance number	DM8230-02	EM0581-01	DM8233-01
Fuel Consumption			
100% load with fan – L/hr (gal/hr)	355.2 (93.8)	355.2 (93.8)	323.8 (85.5)
75% load with fan – L/hr (gal/hr)	266.9 (70.5)	266.9 (70.5)	245.6 (64.9)
50% load with fan – L/hr (gal/hr)	185.9 (49.1)	185.9 (49.1)	172.3 (45.5)
25% load with fan – L/hr (gal/hr)	107.5 (28.4)	107.5 (28.4)	101.0 (26.7)
Cooling System			
Radiator air flow restriction (system) – kPa (in. water)	0.12 (0.48)	0.12 (0.48)	0.12 (0.48)
Radiator air flow – m³/min (cfm)	1543 (54490)	1543 (54490)	1543 (54490)
Engine coolant capacity – L (gal)	156.8 (41.4)	156.8 (41.4)	156.8 (41.4)
Radiator coolant capacity – L (gal)	149.0 (39.0)	149.0 (39.0)	149.0 (39.0)
Total coolant capacity – L (gal)	305.8 (80.4)	305.8 (80.4)	305.8 (80.4)
Inlet Air			
Combustion air inlet flow rate – m³/min (cfm)	120.0 (4237.2)	120.0 (4237.2)	112.6 (3975.9)
Exhaust System			
Exhaust stack gas temperature – °C (°F)	457.7 (855.9)	457.7 (855.9)	443.0 (829.4)
Exhaust gas flow rate – m³/min (cfm)	304.8 (10762.6)	304.8 (10762.6)	280.4 (9900.8)
Exhaust system backpressure (maximum allowable) – kPa (in. water)	6.7 (26.9)	6.7 (26.9)	6.7 (26.9)
Heat Rejection			
Heat rejection to jacket water – kW (Btu/min)	499 (28377)	499 (28377)	468 (26614)
Heat rejection to exhaust (total) – kW (Btu/min)	1331 (75691)	1331 (75691)	1205 (68524)
Heat rejection to aftercooler – kW (Btu/min)	335 (19051)	335 (19051)	291 (16548)
Heat rejection to atmosphere from engine – kW (Btu/min)	112 (6369)	112 (6369)	106 (6028)
Heat rejection from alternator – kW (Btu/min)	69 (3942)	69 (3942)	60 (3429)
Emissions (Nominal)			
NOx mg/Nm³ (g/hp-h)	2382.8 (4.87)	2382.8 (4.87)	2452.1 (4.98)
CO mg/Nm³ (g/hp-h)	320.6 (0.65)	320.6 (0.65)	299.2 (0.61)
HC mg/Nm³ (g/hp-h)	42.0 (0.09)	42.0 (0.09)	44.4 (0.09)
PM mg/Nm³ (g/hp-h)	44.1 (0.09)	44.1 (0.09)	48.9 (0.10)
Emissions (Potential Site Variation)			
NOx mg/Nm³ (g/hp-h)	2859.4 (5.84)	2859.4 (5.84)	2942.5 (5.98)
CO mg/Nm³ (g/hp-h)	577.1 (1.18)	577.1 (1.18)	538.5 (1.09)
HC mg/Nm³ (g/hp-h)	55.9 (0.11)	55.9 (0.11)	59.1 (0.12)
PM mg/Nm³ (g/hp-h)	61.7 (0.13)	61.7 (0.13)	68.5 (0.14)

## Package Performance

### Low Fuel Consumption (60°C SCAC)

Performance	Standby	Mission Critical	Prime
Frequency	50 Hz	50 Hz	50 Hz
Gen set power rating with fan	1400 ekW	1400 ekW	1280 ekW
Gen set power rating with fan @ 0.8 power factor	1750 kVA	1750 kVA	1600 kVA
Emissions	Low Fuel	Low Fuel	Low Fuel
Performance number	DM8231-01	EM0585-01	DM8234-01
<b>Fuel Consumption</b>			
100% load with fan – L/hr (gal/hr)	358.1 (94.6)	358.1 (94.6)	326.2 (86.2)
75% load with fan – L/hr (gal/hr)	268.9 (71.0)	268.9 (71.0)	247.5 (65.4)
50% load with fan – L/hr (gal/hr)	187.8 (49.6)	187.8 (49.6)	174.2 (46.0)
25% load with fan – L/hr (gal/hr)	108.8 (28.7)	108.8 (28.7)	102.3 (27.0)
<b>Cooling System</b>			
Radiator air flow restriction (system) – kPa (in. water)	0.12 (0.48)	0.12 (0.48)	0.12 (0.48)
Radiator air flow – m³/min (cfm)	1543 (54490)	1543 (54490)	1543 (54490)
Engine coolant capacity – L (gal)	156.8 (41.4)	156.8 (41.4)	156.8 (41.4)
Radiator coolant capacity – L (gal)	149.0 (39.0)	149.0 (39.0)	149.0 (39.0)
Total coolant capacity – L (gal)	305.8 (80.4)	305.8 (80.4)	305.8 (80.4)
<b>Inlet Air</b>			
Combustion air inlet flow rate – m³/min (cfm)	116.7 (4120.7)	116.7 (4120.7)	109.1 (3852.3)
<b>Exhaust System</b>			
Exhaust stack gas temperature – °C (°F)	467.9 (874.2)	467.9 (874.2)	454.9 (850.8)
Exhaust gas flow rate – m³/min (cfm)	300.9 (10624.8)	300.9 (10624.8)	276.0 (9745.4)
Exhaust system backpressure (maximum allowable) – kPa (in. water)	6.7 (26.9)	6.7 (26.9)	6.7 (26.9)
<b>Heat Rejection</b>			
Heat rejection to jacket water – kW (Btu/min)	568 (32301)	568 (32301)	531 (30197)
Heat rejection to exhaust (total) – kW (Btu/min)	1334 (75862)	1334 (75862)	1207 (68638)
Heat rejection to aftercooler – kW (Btu/min)	285 (16207)	285 (16207)	241 (13704)
Heat rejection to atmosphere from engine – kW (Btu/min)	121 (6881)	121 (6881)	114 (6483)
Heat rejection from alternator – kW (Btu/min)	69 (3942)	69 (3942)	60 (3429)
<b>Emissions (Nominal)</b>			
NOx mg/Nm³ (g/hp-h)	2699.0 (5.56)	2699.0 (5.56)	2780.7 (5.7)
CO mg/Nm³ (g/hp-h)	332.0 (0.68)	332.0 (0.68)	321.4 (0.7)
HC mg/Nm³ (g/hp-h)	42.5 (0.09)	42.5 (0.09)	44.7 (0.1)
PM mg/Nm³ (g/hp-h)	40.0 (0.08)	40.0 (0.08)	44.0 (0.1)
<b>Emissions (Potential Site Variation)</b>			
NOx mg/Nm³ (g/hp-h)	3238.8 (6.67)	3238.8 (6.67)	3243.8 (6.68)
CO mg/Nm³ (g/hp-h)	597.6 (1.23)	597.6 (1.23)	597.5 (1.23)
HC mg/Nm³ (g/hp-h)	56.5 (0.12)	56.5 (0.12)	56.7 (0.12)
PM mg/Nm³ (g/hp-h)	56.0 (0.12)	56.0 (0.12)	56.3 (0.12)

## Package Performance

### Low Fuel Consumption (90°C SCAC)

Performance	Standby	Mission Critical	Prime
Frequency	50 Hz	50 Hz	50 Hz
Gen set power rating with fan	1400 ekW	1400 ekW	1280 ekW
Gen set power rating with fan @ 0.8 power factor	1750 kVA	1750 kVA	1600 kVA
Emissions	Low Fuel	Low Fuel	Low Fuel
Performance number	DM8232-01	EM0586-01	DM8235-01
<b>Fuel Consumption</b>			
100% load with fan – L/hr (gal/hr)	362.7 (95.8)	362.7 (95.8)	326.2 (86.2)
75% load with fan – L/hr (gal/hr)	270.4 (71.4)	270.4 (71.4)	247.5 (65.4)
50% load with fan – L/hr (gal/hr)	188.8 (49.9)	188.8 (49.9)	174.2 (46.0)
25% load with fan – L/hr (gal/hr)	109.0 (28.8)	109.0 (28.8)	102.3 (27.0)
<b>Cooling System</b>			
Radiator air flow restriction (system) – kPa (in. water)	0.12 (0.48)	0.12 (0.48)	0.12 (0.48)
Radiator air flow – m³/min (cfm)	1543 (54490)	1543 (54490)	1543 (54490)
Engine coolant capacity – L (gal)	156.8 (41.4)	156.8 (41.4)	156.8 (41.4)
Radiator coolant capacity – L (gal)	149.0 (39.0)	149.0 (39.0)	149.0 (39.0)
Total coolant capacity – L (gal)	305.8 (80.4)	305.8 (80.4)	305.8 (80.4)
<b>Inlet Air</b>			
Combustion air inlet flow rate – m³/min (cfm)	113.8 (4018.3)	113.8 (4018.3)	109.1 (3852.3)
<b>Exhaust System</b>			
Exhaust stack gas temperature – °C (°F)	489.1 (912.4)	489.1 (912.4)	454.9 (850.8)
Exhaust gas flow rate – m³/min (cfm)	302.5 (10681.3)	302.5 (10681.3)	276.0 (9745.4)
Exhaust system backpressure (maximum allowable) – kPa (in. water)	6.7 (26.9)	6.7 (26.9)	6.7 (26.9)
<b>Heat Rejection</b>			
Heat rejection to jacket water – kW (Btu/min)	630 (35827)	630 (35827)	531 (30197)
Heat rejection to exhaust (total) – kW (Btu/min)	1368 (77796)	1368 (77796)	1207 (68638)
Heat rejection to aftercooler – kW (Btu/min)	227 (12909)	227 (12909)	241 (13704)
Heat rejection to atmosphere from engine – kW (Btu/min)	132 (7507)	132 (7507)	114 (6483)
Heat rejection from alternator – kW (Btu/min)	69 (3942)	69 (3942)	60 (3429)
<b>Emissions (Nominal)</b>			
NOx mg/Nm³ (g/hp-h)	2962.0 (6.17)	2962.0 (6.17)	3141.7 (6.48)
CO mg/Nm³ (g/hp-h)	325.1 (0.68)	325.1 (0.68)	332.7 (0.69)
HC mg/Nm³ (g/hp-h)	41.2 (0.09)	41.2 (0.09)	43.4 (0.09)
PM mg/Nm³ (g/hp-h)	33.9 (0.07)	33.9 (0.07)	37.2 (0.08)
<b>Emissions (Potential Site Variation)</b>			
NOx mg/Nm³ (g/hp-h)	3554.4 (7.40)	3554.4 (7.40)	3770.0 (7.78)
CO mg/Nm³ (g/hp-h)	585.2 (1.22)	585.2 (1.22)	598.8 (1.24)
HC mg/Nm³ (g/hp-h)	54.8 (0.11)	54.8 (0.11)	57.7 (0.12)
PM mg/Nm³ (g/hp-h)	47.5 (0.10)	47.5 (0.10)	52.1 (0.11)

## Package Performance

### Low Emissions (30°C SCAC)

Performance	Standby	Mission Critical	Prime
Frequency	50 Hz	50 Hz	50 Hz
Gen set power rating with fan	1400 ekW	1400 ekW	1280 ekW
Gen set power rating with fan @ 0.8 power factor	1750 kVA	1750 kVA	1600 kVA
Emissions	Low Emissions	Low Emissions	Low Emissions
Performance number	DM8239-01	EM0582-01	DM8242-01
Fuel Consumption			
100% load with fan – L/hr (gal/hr)	371.6 (98.2)	371.6 (98.2)	340.3 (89.9)
75% load with fan – L/hr (gal/hr)	280.4 (74.1)	280.4 (74.1)	257.2 (68.0)
50% load with fan – L/hr (gal/hr)	193.2 (51.0)	193.2 (51.0)	178.8 (47.2)
25% load with fan – L/hr (gal/hr)	109.6 (28.9)	109.6 (28.9)	102.7 (27.1)
Cooling System			
Radiator air flow restriction (system) – kPa (in. water)	0.12 (0.48)	0.12 (0.48)	0.12 (0.48)
Radiator air flow – m³/min (cfm)	1543 (54490)	1543 (54490)	1543 (54490)
Engine coolant capacity – L (gal)	156.8 (41.4)	156.8 (41.4)	156.8 (41.4)
Radiator coolant capacity – L (gal)	149.0 (39.0)	149.0 (39.0)	149.0 (39.0)
Total coolant capacity – L (gal)	305.8 (80.4)	305.8 (80.4)	305.8 (80.4)
Inlet Air			
Combustion air inlet flow rate – m³/min (cfm)	128.1 (4523.3)	128.1 (4523.3)	123.6 (4364.3)
Exhaust System			
Exhaust stack gas temperature – °C (°F)	444.0 (831.2)	444.0 (831.2)	421.0 (789.8)
Exhaust gas flow rate – m³/min (cfm)	323.0 (11405.2)	323.0 (11405.2)	300.7 (10617.6)
Exhaust system backpressure (maximum allowable) – kPa (in. water)	6.7 (26.9)	6.7 (26.9)	6.7 (26.9)
Heat Rejection			
Heat rejection to jacket water – kW (Btu/min)	514 (29230)	514 (29230)	484 (27524)
Heat rejection to exhaust (total) – kW (Btu/min)	1383 (78649)	1383 (78649)	1259 (71595)
Heat rejection to aftercooler – kW (Btu/min)	417 (23714)	417 (23714)	373 (21211)
Heat rejection to atmosphere from engine – kW (Btu/min)	121 (6881)	121 (6881)	115 (6540)
Heat rejection from alternator – kW (Btu/min)	69 (3942)	69 (3942)	60 (3429)
Emissions (Nominal)			
NOx mg/Nm³ (g/hp-h)	1709.3 (3.64)	1709.3 (3.64)	1593.4 (3.40)
CO mg/Nm³ (g/hp-h)	317.9 (0.68)	317.9 (0.68)	268.8 (0.57)
HC mg/Nm³ (g/hp-h)	72.5 (0.15)	72.5 (0.15)	73.8 (0.16)
PM mg/Nm³ (g/hp-h)	31.0 (0.07)	31.0 (0.07)	26.5 (0.06)
Emissions (Potential Site Variation)			
NOx mg/Nm³ (g/hp-h)	2051.1 (4.37)	2051.1 (4.37)	1912.1 (4.08)
CO mg/Nm³ (g/hp-h)	572.2 (1.22)	572.2 (1.22)	483.9 (1.03)
HC mg/Nm³ (g/hp-h)	96.4 (0.21)	96.4 (0.21)	98.2 (0.21)
PM mg/Nm³ (g/hp-h)	43.4 (0.09)	43.4 (0.09)	37.1 (0.08)

## Package Performance

### Low Emissions (60°C SCAC)

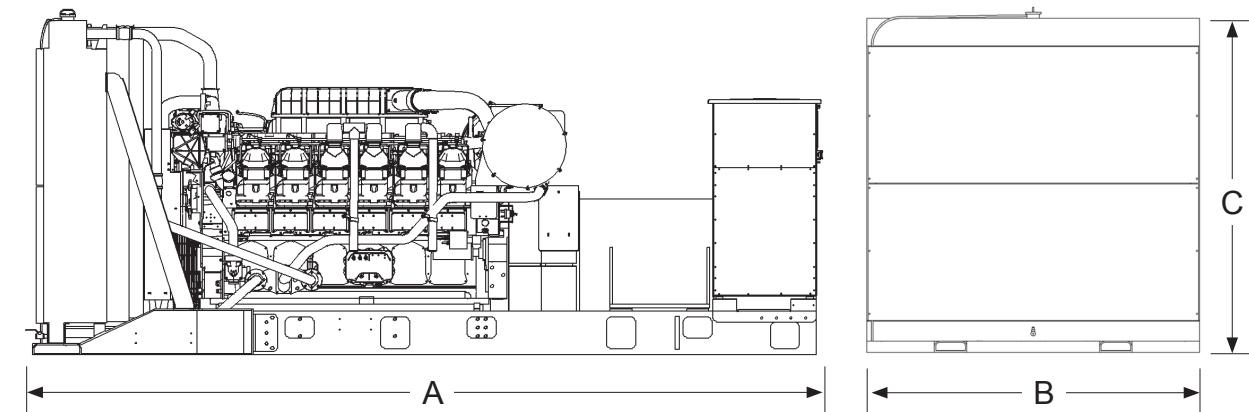
Performance	Standby	Mission Critical	Prime
Frequency	50 Hz	50 Hz	50 Hz
Gen set power rating with fan	1400 ekW	1400 ekW	1280 ekW
Gen set power rating with fan @ 0.8 power factor	1750 kVA	1750 kVA	1600 kVA
Emissions	Low Emissions	Low Emissions	Low Emissions
Performance number	DM8240-01	EM0583-01	DM8243-01
Fuel Consumption			
100% load with fan – L/hr (gal/hr)	375.4 (99.2)	375.4 (99.2)	340.3 (89.9)
75% load with fan – L/hr (gal/hr)	279.2 (73.8)	279.2 (73.8)	256.6 (67.8)
50% load with fan – L/hr (gal/hr)	193.8 (51.2)	193.8 (51.2)	179.6 (47.4)
25% load with fan – L/hr (gal/hr)	111.0 (29.3)	111.0 (29.3)	104.2 (27.5)
Cooling System			
Radiator air flow restriction (system) – kPa (in. water)	0.12 (0.48)	0.12 (0.48)	0.12 (0.48)
Radiator air flow – m³/min (cfm)	1543 (54490)	1543 (54490)	1543 (54490)
Engine coolant capacity – L (gal)	156.8 (41.4)	156.8 (41.4)	156.8 (41.4)
Radiator coolant capacity – L (gal)	149.0 (39.0)	149.0 (39.0)	149.0 (39.0)
Total coolant capacity – L (gal)	305.8 (80.4)	305.8 (80.4)	305.8 (80.4)
Inlet Air			
Combustion air inlet flow rate – m³/min (cfm)	125.7 (4438.5)	125.7 (4438.5)	119.1 (4205.4)
Exhaust System			
Exhaust stack gas temperature – °C (°F)	453.6 (848.5)	453.6 (848.5)	430.7 (807.3)
Exhaust gas flow rate – m³/min (cfm)	321.6 (11355.8)	321.6 (11355.8)	294.7 (10405.7)
Exhaust system backpressure (maximum allowable) – kPa (in. water)	6.7 (26.9)	6.7 (26.9)	6.7 (26.9)
Heat Rejection			
Heat rejection to jacket water – kW (Btu/min)	589 (33495)	589 (33495)	550 (31277)
Heat rejection to exhaust (total) – kW (Btu/min)	1413 (80355)	1413 (80355)	1268 (72107)
Heat rejection to aftercooler – kW (Btu/min)	360 (20472)	360 (20472)	314 (17855)
Heat rejection to atmosphere from engine – kW (Btu/min)	132 (7507)	132 (7507)	124 (7052)
Heat rejection from alternator – kW (Btu/min)	69 (3942)	69 (3942)	60 (3429)
Emissions (Nominal)			
NOx mg/Nm³ (g/hp-h)	1949.9 (4.20)	1949.9 (4.20)	1941.8 (4.13)
CO mg/Nm³ (g/hp-h)	391.3 (0.84)	391.3 (0.84)	298.6 (0.64)
HC mg/Nm³ (g/hp-h)	77.6 (0.17)	77.6 (0.17)	74.5 (0.16)
PM mg/Nm³ (g/hp-h)	33.1 (0.07)	33.1 (0.07)	20.8 (0.04)
Emissions (Potential Site Variation)			
NOx mg/Nm³ (g/hp-h)	2339.9 (5.04)	2339.9 (5.04)	2330.2 (4.96)
CO mg/Nm³ (g/hp-h)	704.3 (1.52)	704.3 (1.52)	537.5 (1.14)
HC mg/Nm³ (g/hp-h)	103.2 (0.22)	103.2 (0.22)	99.1 (0.21)
PM mg/Nm³ (g/hp-h)	46.3 (0.10)	46.3 (0.10)	29.1 (0.06)

## Package Performance

### Low Emissions (90°C SCAC)

Performance	Standby	Mission Critical	Prime
Frequency	50 Hz	50 Hz	50 Hz
Gen set power rating with fan	1400 ekW	1400 ekW	1280 ekW
Gen set power rating with fan @ 0.8 power factor	1750 kVA	1750 kVA	1600 kVA
Emissions	Low Emissions	Low Emissions	Low Emissions
Performance number	DM8241-01	EM0584-01	DM8244-01
<b>Fuel Consumption</b>			
100% load with fan – L/hr (gal/hr)	368.6 (97.4)	368.6 (97.4)	334.5 (88.4)
75% load with fan – L/hr (gal/hr)	275.0 (72.7)	275.0 (72.7)	252.7 (66.8)
50% load with fan – L/hr (gal/hr)	191.2 (50.5)	191.2 (50.5)	177.2 (46.8)
25% load with fan – L/hr (gal/hr)	110.0 (29.1)	110.0 (29.1)	103.3 (27.3)
<b>Cooling System</b>			
Radiator air flow restriction (system) – kPa (in. water)	0.12 (0.48)	0.12 (0.48)	0.12 (0.48)
Radiator air flow – m³/min (cfm)	1543 (54490)	1543 (54490)	1543 (54490)
Engine coolant capacity – L (gal)	156.8 (41.4)	156.8 (41.4)	156.8 (41.4)
Radiator coolant capacity – L (gal)	149.0 (39.0)	149.0 (39.0)	149.0 (39.0)
Total coolant capacity – L (gal)	305.8 (80.4)	305.8 (80.4)	305.8 (80.4)
<b>Inlet Air</b>			
Combustion air inlet flow rate – m³/min (cfm)	119.1 (4205.5)	119.1 (4205.5)	111.0 (3919.4)
<b>Exhaust System</b>			
Exhaust stack gas temperature – °C (°F)	457.8 (856.0)	457.8 (856.0)	444.6 (832.3)
Exhaust gas flow rate – m³/min (cfm)	307.3 (10850.8)	307.3 (10850.8)	280.9 (9918.4)
Exhaust system backpressure (maximum allowable) – kPa (in. water)	6.7 (26.9)	6.7 (26.9)	6.7 (26.9)
<b>Heat Rejection</b>			
Heat rejection to jacket water – kW (Btu/min)	642 (36509)	642 (36509)	598 (34007)
Heat rejection to exhaust (total) – kW (Btu/min)	1373 (78080)	1373 (78080)	1232 (70060)
Heat rejection to aftercooler – kW (Btu/min)	282 (16037)	282 (16037)	233 (13249)
Heat rejection to atmosphere from engine – kW (Btu/min)	141 (8018)	141 (8018)	133 (7564)
Heat rejection from alternator – kW (Btu/min)	69 (3942)	69 (3942)	60 (3429)
<b>Emissions (Nominal)</b>			
NOx mg/Nm³ (g/hp-h)	2604.8 (5.50)	2604.8 (5.50)	2661.2 (5.6)
CO mg/Nm³ (g/hp-h)	306.9 (0.65)	306.9 (0.65)	405.3 (0.8)
HC mg/Nm³ (g/hp-h)	66.1 (0.14)	66.1 (0.14)	63.8 (0.1)
PM mg/Nm³ (g/hp-h)	12.6 (0.03)	12.6 (0.03)	15.9 (0.0)
<b>Emissions (Potential Site Variation)</b>			
NOx mg/Nm³ (g/hp-h)	3125.8 (6.60)	3125.8 (6.60)	3193.5 (6.68)
CO mg/Nm³ (g/hp-h)	552.4 (1.17)	552.4 (1.17)	729.6 (1.53)
HC mg/Nm³ (g/hp-h)	87.9 (0.19)	87.9 (0.19)	84.9 (0.18)
PM mg/Nm³ (g/hp-h)	17.6 (0.04)	17.6 (0.04)	22.3 (0.05)

## Weights and Dimensions



Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
5469 (215.3)	2286 (90.0)	2367 (93.2)	12 090 (26,640)

*Note: For reference only. Do not use for installation design. Contact your local Cat dealer for precise weights and dimensions.*

## Ratings Definitions

### 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.

### Mission Critical

Output available with varying load for the duration of the interruption of the normal source power. Average power output is 85% of the mission critical power rating. Typical peak demand up to 100% of rated power for up to 5% of the operating time. Typical operation is 200 hours per year, with maximum expected usage of 500 hours per year.

### Prime

Output available with varying load for an unlimited time. Average power output is 70% of the prime power rating. Typical peak demand is 100% of prime rated kW with 10% overload capability for emergency use for a maximum of 1 hour in 12. Overload operation cannot exceed 25 hours per year.

### Applicable Codes and Standards

AS1359, CSA C22.2 No100-04, UL142, UL489, UL869, UL2200, NFPA37, NFPA70, NFPA99, NFPA110, IBC, IEC60034-1, ISO3046, ISO8528, NEMA MG1-22, NEMA MG1-33, 2014/35/EU, 2006/42/EC, 2014/30/EU.

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

### Data Center Applications

Tier III/Tier IV compliant per Uptime Institute requirements. ANSI/TIA-942 compliant for Rated-1 through Rated-4 data centers.

### Fuel Rates

Fuel rates are based on fuel oil of 35° API [16°C (60°F)] gravity having an LHV of 42,780 kJ/kg (18,390 Btu/lb) when used at 29°C (85°F) and weighing 838.9 g/liter (7.001 lbs/U.S. gal.)

[www.cat.com/electricpower](http://www.cat.com/electricpower)

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