

# Cat® 3512B

## Diesel Generator Sets



Image shown may not reflect actual configuration

Bore – mm (in)	170 (6.69)
Stroke – mm (in)	190 (7.48)
Displacement – L (in <sup>3</sup> )	51.8 (3161.03)
Compression Ratio	14.0:1
Aspiration	TA
Fuel System	EUI
Governor Type	ADEM™ A3

Standby 60 Hz ekW (kVA)	Mission Critical 60 Hz ekW (kVA)	Prime 60 Hz ekW (kVA)	Continuous 60 Hz ekW (kVA)	Emissions Performance
1400 (1750)	1400 (1750)	1275 (1593)	—	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 other NFPA 110 loading requirements
- Conforms to ISO 8528-5 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

#### Air Cleaner

- Single element
- Dual element

#### Muffler

- Industrial grade (15 dB)

#### Starting

- Standard batteries
- Oversized batteries
- Standard electric starter(s)
- Dual electric starter(s)
- Jacket water heater

### Alternator

#### Output voltage

- 380V
- 480V

#### Temperature Rise (over 40°C ambient)

- 150°C
- 125°C/130°C
- 105°C
- 80°C

#### Winding type

- Random wound
- Form wound

#### Excitation

- Internal excitation (IE)
- Permanent magnet (PM)

#### Attachments

- Anti-condensation heater
- Stator and bearing temperature monitoring and protection

### Power Termination

#### Type

- Bus bar
- Circuit breaker
- 2000A
- 2500A
- 3200A
- IEC
- 3-pole
- Electrically operated

#### Trip Unit

- LSI
- LSI-G
- LSIG-P

### Control System

#### Controller

- EMCP 4.2B
- EMCP 4.3
- EMCP 4.4

#### Attachments

- Local annunciator module
- Remote annunciator module
- Expansion I/O module
- Remote monitoring software

### Charging

- Battery charger – 10A
- Battery charger – 20A
- Battery charger – 35A

### Vibration Isolators

- Rubber
- Spring

### Cat Connect

#### Connectivity

- Ethernet
- Cellular
- Satellite

### Extended Service Options

#### Terms

- 2 year (prime)
- 3 year
- 5 year
- 10 year

#### Coverage

- Silver
- Gold
- Platinum
- Platinum Plus

### Ancillary Equipment

- Automatic transfer switch (ATS)
- Uninterruptible power supply (UPS)
- Paralleling switchgear
- Paralleling controls

**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	60 Hz		60 Hz		60 Hz	
Gen set power rating with fan	1400 ekW		1400 ekW		1275 ekW	
Gen set power rating with fan @ 0.8 power factor	1750 kVA		1750 kVA		1593 kVA	
Emissions	Low Fuel		Low Fuel		Low Fuel	
Performance number	EM2668-00		EM2671-00		DM8185-01	
<b>Fuel Consumption</b>						
100% load with fan – L/hr (gal/hr)	376.0	(99.3)	376.0	(99.3)	341.8	(90.3)
75% load with fan – L/hr (gal/hr)	280.5	(74.1)	280.5	(74.1)	255.0	(67.4)
50% load with fan – L/hr (gal/hr)	192.4	(50.8)	192.4	(50.8)	178.4	(47.1)
25% load with fan – L/hr (gal/hr)	118.4	(31.3)	118.4	(31.3)	111.5	(29.5)
<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 – m <sup>3</sup> /min (cfm)	1671	(59010)	1671	(59010)	1671	(59010)
Engine coolant capacity – L (gal)	156.8	(41.4)	156.8	(41.4)	156.8	(41.4)
Radiator coolant capacity – L (gal)	149	(39.4)	149	(39.4)	149	(39.4)
Total coolant capacity – L (gal)	305.8	(80.8)	305.8	(80.8)	305.8	(80.8)
<b>Inlet Air</b>						
Combustion air inlet flow rate – m <sup>3</sup> /min (cfm)	127.9	(4516.3)	127.9	(4516.3)	120.2	(4244.3)
<b>Exhaust System</b>						
Exhaust stack gas temperature – °C (°F)	429.3	(804.7)	429.3	(804.7)	416.2	(781.2)
Exhaust gas flow rate – m <sup>3</sup> /min (cfm)	315.9	(11154.9)	315.9	(11154.9)	291.3	(10285.9)
Exhaust system backpressure (maximum allowable) – kPa (in. water)	6.7	(27.0)	6.7	(27.0)	6.7	(27.0)
<b>Heat Rejection</b>						
Heat rejection to jacket water – kW (Btu/min)	571	(32473)	571	(32473)	532	(30254)
Heat rejection to exhaust (total) – kW (Btu/min)	1345	(76492)	1345	(76492)	1217	(69209)
Heat rejection to aftercooler – kW (Btu/min)	435	(24739)	435	(24739)	376	(21382)
Heat rejection to atmosphere from engine – kW (Btu/min)	124	(7052)	124	(7052)	116	(6597)
Heat rejection from alternator – kW (Btu/min)	72	(4100)	72	(4100)	64	(3657)
<b>Emissions (Nominal)</b>						
NOx mg/Nm <sup>3</sup> (g/hp-h)	2965.2	(6.32)	2965.2	(6.32)	2732.4	(5.81)
CO mg/Nm <sup>3</sup> (g/hp-h)	598.3	(1.27)	598.3	(1.27)	700.8	(1.49)
HC mg/Nm <sup>3</sup> (g/hp-h)	199.7	(0.43)	199.7	(0.43)	128.8	(0.27)
PM mg/Nm <sup>3</sup> (g/hp-h)	64.7	(0.14)	64.7	(0.14)	63.3	(0.13)
<b>Emissions (Potential Site Variation)</b>						
NOx mg/Nm <sup>3</sup> (g/hp-h)	3558.3	(7.58)	3558.3	(7.58)	3278.9	(6.97)
CO mg/Nm <sup>3</sup> (g/hp-h)	1076.9	(2.29)	1076.9	(2.29)	1261.4	(2.68)
HC mg/Nm <sup>3</sup> (g/hp-h)	265.6	(0.57)	265.6	(0.57)	171.3	(0.36)
PM mg/Nm <sup>3</sup> (g/hp-h)	90.6	(0.19)	90.6	(0.19)	88.6	(0.19)

## Package Performance

### Low Fuel Consumption (60°C SCAC)

Performance	Standby		Mission Critical		Prime	
Frequency	60 Hz		60 Hz		60 Hz	
Gen set power rating with fan	1400 ekW		1400 ekW		1275 ekW	
Gen set power rating with fan @ 0.8 power factor	1750 kVA		1750 kVA		1593 kVA	
Emissions	Low Fuel		Low Fuel		Low Fuel	
Performance number	EM2669-00		EM2672-00		DM8186-02	
<b>Fuel Consumption</b>						
100% load with fan – L/hr (gal/hr)	376.7	(99.5)	376.7	(99.5)	344.3	(91.0)
75% load with fan – L/hr (gal/hr)	281.7	(74.4)	281.7	(74.4)	256.1	(67.7)
50% load with fan – L/hr (gal/hr)	195.3	(51.6)	195.3	(51.6)	181.2	(47.9)
25% load with fan – L/hr (gal/hr)	119.2	(31.5)	119.2	(31.5)	112.2	(29.6)
<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 – m <sup>3</sup> /min (cfm)	1671	(59010)	1671	(59010)	1671	(59010)
Engine coolant capacity – L (gal)	156.8	(41.4)	156.8	(41.4)	156.8	(41.4)
Radiator coolant capacity – L (gal)	149	(39.4)	149	(39.4)	149	(39.4)
Total coolant capacity – L (gal)	305.8	(80.8)	305.8	(80.8)	305.8	(80.8)
<b>Inlet Air</b>						
Combustion air inlet flow rate – m <sup>3</sup> /min (cfm)	123.9	(4375.0)	123.9	(4375.0)	118.8	(4194.9)
<b>Exhaust System</b>						
Exhaust stack gas temperature – °C (°F)	455.1	(851.2)	455.1	(851.2)	436.2	(817.2)
Exhaust gas flow rate – m <sup>3</sup> /min (cfm)	317.7	(11218.4)	317.7	(11218.4)	296.4	(10466.0)
Exhaust system backpressure (maximum allowable) – kPa (in. water)	6.7	(27.0)	6.7	(27.0)	6.7	(27.0)
<b>Heat Rejection</b>						
Heat rejection to jacket water – kW (Btu/min)	599	(34065)	599	(34065)	559	(31789)
Heat rejection to exhaust (total) – kW (Btu/min)	1398	(79506)	1398	(79506)	1259	(71597)
Heat rejection to aftercooler – kW (Btu/min)	363	(20644)	363	(20644)	317	(18027)
Heat rejection to atmosphere from engine – kW (Btu/min)	134	(7621)	134	(7621)	124	(7052)
Heat rejection from alternator – kW (Btu/min)	72	(4100)	72	(4100)	64	(3657)
<b>Emissions (Nominal)</b>						
NOx mg/Nm <sup>3</sup> (g/hp-h)	3723.9	(7.94)	3723.9	(7.94)	3362.0	(7.19)
CO mg/Nm <sup>3</sup> (g/hp-h)	698.5	(1.94)	698.5	(1.94)	687.4	(1.47)
HC mg/Nm <sup>3</sup> (g/hp-h)	187.9	(1.49)	187.9	(1.49)	126.5	(0.27)
PM mg/Nm <sup>3</sup> (g/hp-h)	49.2	(0.40)	49.2	(0.40)	49.4	(0.11)
<b>Emissions (Potential Site Variation)</b>						
NOx mg/Nm <sup>3</sup> (g/hp-h)	4468.7	(9.53)	4468.7	(9.53)	4034.4	(8.63)
CO mg/Nm <sup>3</sup> (g/hp-h)	1257.3	(2.68)	1257.3	(2.68)	1237.3	(2.65)
HC mg/Nm <sup>3</sup> (g/hp-h)	249.9	(0.53)	249.9	(0.53)	168.2	(0.36)
PM mg/Nm <sup>3</sup> (g/hp-h)	68.9	(0.15)	68.9	(0.15)	69.2	(0.15)

## Package Performance

### Low Fuel Consumption (90°C SCAC)

Performance	Standby		Mission Critical		Prime	
Frequency	60 Hz		60 Hz		60 Hz	
Gen set power rating with fan	1400 ekW		1400 ekW		1275 ekW	
Gen set power rating with fan @ 0.8 power factor	1750 kVA		1750 kVA		1593 kVA	
Emissions	Low Fuel		Low Fuel		Low Fuel	
Performance number	EM2670-00		EM2673-00		DM8187-01	
<b>Fuel Consumption</b>						
100% load with fan – L/hr (gal/hr)	384.8	(101.7)	384.8	(101.7)	347.3	(91.7)
75% load with fan – L/hr (gal/hr)	281.5	(74.4)	281.5	(74.4)	256.9	(67.9)
50% load with fan – L/hr (gal/hr)	197.5	(52.2)	197.5	(52.2)	183.2	(48.4)
25% load with fan – L/hr (gal/hr)	120.9	(31.9)	120.9	(31.9)	113.9	(30.1)
<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 – m <sup>3</sup> /min (cfm)	1671	(59010)	1671	(59010)	1671	(59010)
Engine coolant capacity – L (gal)	156.8	(41.4)	156.8	(41.4)	156.8	(41.4)
Radiator coolant capacity – L (gal)	149	(39.4)	149	(39.4)	149	(39.4)
Total coolant capacity – L (gal)	305.8	(80.8)	305.8	(80.8)	305.8	(80.8)
<b>Inlet Air</b>						
Combustion air inlet flow rate – m <sup>3</sup> /min (cfm)	122.4	(4322.1)	122.4	(4322.1)	116.6	(4117.2)
<b>Exhaust System</b>						
Exhaust stack gas temperature – °C (°F)	485.0	(905.0)	485.0	(905.0)	459.9	(859.8)
Exhaust gas flow rate – m <sup>3</sup> /min (cfm)	327.2	(11554.0)	327.2	(11554.0)	300.7	(10617.8)
Exhaust system backpressure (maximum allowable) – kPa (in. water)	6.7	(27.0)	6.7	(27.0)	6.7	(27.0)
<b>Heat Rejection</b>						
Heat rejection to jacket water – kW (Btu/min)	635	(36113)	635	(36113)	591	(33609)
Heat rejection to exhaust (total) – kW (Btu/min)	1468	(83487)	1468	(83487)	1308	(74383)
Heat rejection to aftercooler – kW (Btu/min)	315	(17915)	315	(17915)	269	(15297)
Heat rejection to atmosphere from engine – kW (Btu/min)	147	(8360)	147	(8360)	136	(7734)
Heat rejection from alternator – kW (Btu/min)	72	(4100)	72	(4100)	64	(3657)
<b>Emissions (Nominal)</b>						
NOx mg/Nm <sup>3</sup> (g/hp-h)	4386.5	(9.55)	4386.5	(9.55)	4152.9	(8.97)
CO mg/Nm <sup>3</sup> (g/hp-h)	659.1	(1.44)	659.1	(1.44)	667.4	(1.44)
HC mg/Nm <sup>3</sup> (g/hp-h)	191.7	(0.42)	191.7	(0.42)	123.1	(0.27)
PM mg/Nm <sup>3</sup> (g/hp-h)	44.7	(0.10)	44.7	(0.10)	41.8	(0.09)
<b>Emissions (Potential Site Variation)</b>						
NOx mg/Nm <sup>3</sup> (g/hp-h)	5263.8	(11.47)	5263.8	(11.47)	4983.5	(10.77)
CO mg/Nm <sup>3</sup> (g/hp-h)	1186.4	(2.58)	1186.4	(2.58)	1201.3	(2.60)
HC mg/Nm <sup>3</sup> (g/hp-h)	255.0	(0.56)	255.0	(0.56)	163.7	(0.35)
PM mg/Nm <sup>3</sup> (g/hp-h)	62.6	(0.14)	62.6	(0.14)	58.5	(0.13)

## Package Performance

### Low Emissions (30°C SCAC)

Performance	Standby		Mission Critical		Prime	
Frequency	60 Hz		60 Hz		60 Hz	
Gen set power rating with fan	1400 ekW		1400 ekW		1275 ekW	
Gen set power rating with fan @ 0.8 power factor	1750 kVA		1750 kVA		1593 kVA	
Emissions	Low Emissions		Low Emissions		Low Emissions	
Performance number	EM2674-00		EM2677-00		DM8194-01	
<b>Fuel Consumption</b>						
100% load with fan – L/hr (gal/hr)	404.8	(106.9)	404.8	(106.9)	368.8	(97.4)
75% load with fan – L/hr (gal/hr)	300.3	(79.3)	300.3	(79.3)	271.5	(71.7)
50% load with fan – L/hr (gal/hr)	199.8	(52.8)	199.8	(52.8)	184.3	(48.7)
25% load with fan – L/hr (gal/hr)	121.1	(32.0)	121.1	(32.0)	113.9	(30.1)
<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 – m <sup>3</sup> /min (cfm)	1671	(59010)	1671	(59010)	1671	(59010)
Engine coolant capacity – L (gal)	156.8	(41.4)	156.8	(41.4)	156.8	(41.4)
Radiator coolant capacity – L (gal)	149	(39.4)	149	(39.4)	149	(39.4)
Total coolant capacity – L (gal)	305.8	(80.8)	305.8	(80.8)	305.8	(80.8)
<b>Inlet Air</b>						
Combustion air inlet flow rate – m <sup>3</sup> /min (cfm)	137.2	(4844.7)	137.2	(4844.7)	130.0	(4590.4)
<b>Exhaust System</b>						
Exhaust stack gas temperature – °C (°F)	461.7	(863.1)	461.7	(863.1)	446.3	(835.3)
Exhaust gas flow rate – m <sup>3</sup> /min (cfm)	354.7	(12525.0)	354.7	(12525.0)	328.5	(11599.4)
Exhaust system backpressure (maximum allowable) – kPa (in. water)	6.7	(27.0)	6.7	(27.0)	6.7	(27.0)
<b>Heat Rejection</b>						
Heat rejection to jacket water – kW (Btu/min)	602	(34236)	602	(34236)	561	(31903)
Heat rejection to exhaust (total) – kW (Btu/min)	1544	(87809)	1544	(87809)	1397	(79445)
Heat rejection to aftercooler – kW (Btu/min)	595	(33840)	595	(33840)	437	(24851)
Heat rejection to atmosphere from engine – kW (Btu/min)	138	(7848)	138	(7848)	126	(7165)
Heat rejection from alternator – kW (Btu/min)	72	(4100)	72	(4100)	64	(3657)
<b>Emissions (Nominal)</b>						
NOx mg/Nm <sup>3</sup> (g/hp-h)	2150.5	(4.93)	2150.5	(4.93)	1962.6	(4.50)
CO mg/Nm <sup>3</sup> (g/hp-h)	737.9	(1.69)	737.9	(1.69)	702.0	(1.61)
HC mg/Nm <sup>3</sup> (g/hp-h)	213.7	(0.49)	213.7	(0.49)	129.0	(0.30)
PM mg/Nm <sup>3</sup> (g/hp-h)	88.4	(0.20)	88.4	(0.20)	86.6	(0.20)
<b>Emissions (Potential Site Variation)</b>						
NOx mg/Nm <sup>3</sup> (g/hp-h)	2580.6	(5.92)	2580.6	(5.92)	2355.1	(5.40)
CO mg/Nm <sup>3</sup> (g/hp-h)	1328.3	(3.05)	1328.3	(3.05)	1263.6	(2.90)
HC mg/Nm <sup>3</sup> (g/hp-h)	284.2	(0.65)	284.2	(0.65)	171.6	(0.39)
PM mg/Nm <sup>3</sup> (g/hp-h)	123.8	(0.28)	123.8	(0.28)	121.2	(0.28)

## Package Performance

### Low Emissions (60°C SCAC)

Performance	Standby		Mission Critical		Prime	
Frequency	60 Hz		60 Hz		60 Hz	
Gen set power rating with fan	1400 ekW		1400 ekW		1275 ekW	
Gen set power rating with fan @ 0.8 power factor	1750 kVA		1750 kVA		1593 kVA	
Emissions	Low Emissions		Low Emissions		Low Emissions	
Performance number	EM2675-00		EM2678-00		DM8195-02	
<b>Fuel Consumption</b>						
100% load with fan – L/hr (gal/hr)	396.4	(104.7)	396.4	(104.7)	357.0	(94.3)
75% load with fan – L/hr (gal/hr)	296.0	(78.2)	296.0	(78.2)	270.2	(71.4)
50% load with fan – L/hr (gal/hr)	200.0	(52.8)	200.0	(52.8)	184.1	(48.6)
25% load with fan – L/hr (gal/hr)	120.1	(31.7)	120.1	(31.7)	112.8	(29.8)
<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 – m <sup>3</sup> /min (cfm)	1671	(59010)	1671	(59010)	1671	(59010)
Engine coolant capacity – L (gal)	156.8	(41.4)	156.8	(41.4)	156.8	(41.4)
Radiator coolant capacity – L (gal)	149	(39.4)	149	(39.4)	149	(39.4)
Total coolant capacity – L (gal)	305.8	(80.8)	305.8	(80.8)	305.8	(80.8)
<b>Inlet Air</b>						
Combustion air inlet flow rate – m <sup>3</sup> /min (cfm)	131.5	(4643.4)	131.5	(4643.4)	124.9	(4410.3)
<b>Exhaust System</b>						
Exhaust stack gas temperature – °C (°F)	469.2	(876.6)	469.2	(876.6)	441.1	(826.0)
Exhaust gas flow rate – m <sup>3</sup> /min (cfm)	343.8	(12140.2)	343.8	(12140.2)	313.5	(11069.8)
Exhaust system backpressure (maximum allowable) – kPa (in. water)	6.7	(27.0)	6.7	(27.0)	6.7	(27.0)
<b>Heat Rejection</b>						
Heat rejection to jacket water – kW (Btu/min)	618	(35146)	618	(35146)	578	(32870)
Heat rejection to exhaust (total) – kW (Btu/min)	1500	(85307)	1500	(85307)	1356	(77113)
Heat rejection to aftercooler – kW (Btu/min)	407	(23147)	407	(23147)	358	(20359)
Heat rejection to atmosphere from engine – kW (Btu/min)	145	(8246)	145	(8246)	133	(7563)
Heat rejection from alternator – kW (Btu/min)	72	(4100)	72	(4100)	64	(3657)
<b>Emissions (Nominal)</b>						
NOx mg/Nm <sup>3</sup> (g/hp-h)	2829.9	(6.36)	2829.9	(6.36)	2768.8	(6.16)
CO mg/Nm <sup>3</sup> (g/hp-h)	659.1	(1.48)	659.1	(1.48)	695.6	(1.55)
HC mg/Nm <sup>3</sup> (g/hp-h)	216.4	(0.49)	216.4	(0.49)	127.9	(0.28)
PM mg/Nm <sup>3</sup> (g/hp-h)	57.5	(0.13)	57.5	(0.13)	59.8	(0.13)
<b>Emissions (Potential Site Variation)</b>						
NOx mg/Nm <sup>3</sup> (g/hp-h)	3395.9	(7.63.)	3395.9	(7.63.)	3322.5	(7.39)
CO mg/Nm <sup>3</sup> (g/hp-h)	1186.4	(2.67)	1186.4	(2.67)	1252.1	(2.79)
HC mg/Nm <sup>3</sup> (g/hp-h)	287.8	(0.65)	287.8	(0.65)	170.1	(0.38)
PM mg/Nm <sup>3</sup> (g/hp-h)	80.5	(0.18)	80.5	(0.18)	83.7	(0.19)



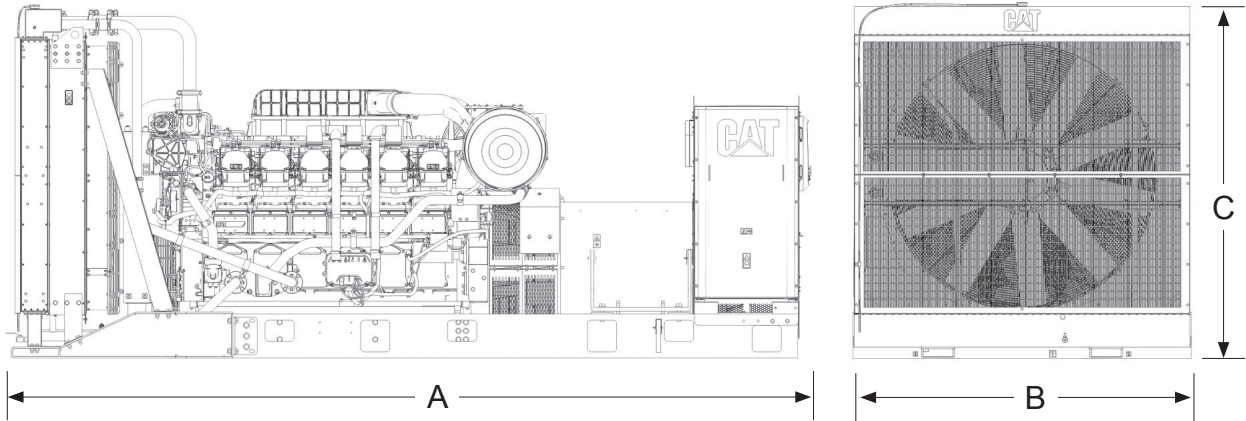
## Package Performance

### Low Emissions (90°C SCAC)

Performance	Standby		Mission Critical		Prime	
Frequency	60 Hz		60 Hz		60 Hz	
Gen set power rating with fan	1400 ekW		1400 ekW		1275 ekW	
Gen set power rating with fan @ 0.8 power factor	1750 kVA		1750 kVA		1593 kVA	
Emissions	Low Emissions		Low Emissions		Low Emissions	
Performance number	EM2676-00		EM2679-00		DM8196-01	
<b>Fuel Consumption</b>						
100% load with fan – L/hr (gal/hr)	384.8	(101.7)	384.8	(101.7)	346.3	(91.5)
75% load with fan – L/hr (gal/hr)	294.9	(77.9)	294.9	(77.9)	273.0	(72.1)
50% load with fan – L/hr (gal/hr)	211.4	(55.8)	211.4	(55.8)	196.0	(51.8)
25% load with fan – L/hr (gal/hr)	127.2	(33.6)	127.2	(33.6)	119.4	(31.5)
<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 – m <sup>3</sup> /min (cfm)	1671	(59010)	1671	(59010)	1671	(59010)
Engine coolant capacity – L (gal)	156.8	(41.4)	156.8	(41.4)	156.8	(41.4)
Radiator coolant capacity – L (gal)	149	(39.4)	149	(39.4)	149	(39.4)
Total coolant capacity – L (gal)	305.8	(80.8)	305.8	(80.8)	305.8	(80.8)
<b>Inlet Air</b>						
Combustion air inlet flow rate – m <sup>3</sup> /min (cfm)	122.4	(4322.1)	122.4	(4322.1)	116.4	(4110.1)
<b>Exhaust System</b>						
Exhaust stack gas temperature – °C (°F)	485.0	(905.0)	485.0	(905.0)	457.2	(855.0)
Exhaust gas flow rate – m <sup>3</sup> /min (cfm)	327.2	(11554.0)	327.2	(11554.0)	299.2	(10564.8)
Exhaust system backpressure (maximum allowable) – kPa (in. water)	6.7	(27.0)	6.7	(27.0)	6.7	(27.0)
<b>Heat Rejection</b>						
Heat rejection to jacket water – kW (Btu/min)	633	(35999)	633	(35999)	593	(33723)
Heat rejection to exhaust (total) – kW (Btu/min)	1456	(82804)	1456	(82804)	1314	(74725)
Heat rejection to aftercooler – kW (Btu/min)	314	(17858)	314	(17858)	271	(15411)
Heat rejection to atmosphere from engine – kW (Btu/min)	147	(8360)	147	(8360)	137	(7791)
Heat rejection from alternator – kW (Btu/min)	72	(4100)	72	(4100)	64	(3657)
<b>Emissions (Nominal)</b>						
NOx mg/Nm <sup>3</sup> (g/hp-h)	4386.6	(9.56)	4386.6	(9.56)	4290.6	(9.24)
CO mg/Nm <sup>3</sup> (g/hp-h)	659.1	(1.44)	659.1	(1.44)	668.9	(1.44)
HC mg/Nm <sup>3</sup> (g/hp-h)	190.1	(0.41)	190.1	(0.41)	123.3	(0.27)
PM mg/Nm <sup>3</sup> (g/hp-h)	44.7	(0.10)	44.7	(0.10)	42.0	(0.09)
<b>Emissions (Potential Site Variation)</b>						
NOx mg/Nm <sup>3</sup> (g/hp-h)	5264.0	(11.47)	5264.0	(11.47)	5148.8	(11.09)
CO mg/Nm <sup>3</sup> (g/hp-h)	1186.4	(2.58)	1186.4	(2.58)	1204.0	(2.59)
HC mg/Nm <sup>3</sup> (g/hp-h)	252.8	(0.55)	252.8	(0.55)	164.0	(0.35)
PM mg/Nm <sup>3</sup> (g/hp-h)	62.6	(0.14)	62.6	(0.14)	58.8	(0.13)



## Weights and Dimensions



Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
5279 (207.8)	2286 (90.0)	2409 (94.9)	11 021 (24,297)

**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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