# Cat® 3512B

### **Diesel Generator Sets**





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		

Image shown may not reflect actual configuration

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

### **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
- Meets 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

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# **Standard and Optional Equipment**

-				
Engine	Power Termination	Vibration Isolators		
Air Cleaner  ☐ Single element ☐ Dual element	<i>Type</i> □ Bus bar □ Circuit breaker	☐ Rubber ☐ Spring		
☐ Heavy duty	□ 2000A	Cat Connect		
Muffler ☐ Industrial grade (15 dB) Starting	<ul><li>□ 2500A</li><li>□ 3200A</li><li>□ IEC</li><li>□ 3-pole</li></ul>	Connectivity ☐ Ethernet ☐ Cellular		
☐ Standard batteries	☐ Electrically operated	<b>Extended Service Options</b>		
<ul><li>□ Oversized batteries</li><li>□ Standard electric starter(s)</li><li>□ Dual electric starter(s)</li><li>□ Jacket water heater</li></ul>	<i>Trip Unit</i> □ LSI □ LSI-G □ LSIG-P	Terms ☐ 2 year (prime) ☐ 3 year		
Alternator	Control System	□ 5 year □ 10 year		
Output voltage  □ 380V □ 400V □ 415V  Temperature Rise	Controller □ EMCP 4.2B □ EMCP 4.3 □ EMCP 4.4  Attachments	Coverage  □ Silver □ Gold □ Platinum □ Platinum Plus		
(over 40°C ambient)	<ul><li>□ Local annunciator module</li><li>□ Remote annunciator module</li></ul>	Ancillary Equipment		
□ 150°C □ 125°C/130°C □ 105°C	<ul><li>☐ Expansion I/O module</li><li>☐ Remote monitoring software</li></ul>	☐ Automatic transfer switch (ATS)		
□ 80°C	Charging	<ul><li>□ Paralleling switchgear</li><li>□ Paralleling controls</li></ul>		
Winding type ☐ Random wound ☐ Form wound	☐ Battery charger – 10A ☐ Battery charger – 20A	Certifications		
Excitation  ☐ Internal excitation (IE) ☐ Permanent magnet (PM)  Attachments ☐ Anti-condensation heater	□ Battery charger – 35A	<ul> <li>□ EU &amp; GB Declaration of Conformit</li> <li>□ EU &amp; GB Declaration of Incorpora</li> <li>□ Eurasian Conformity (EAC)</li> <li>□ Telecommunication Lab of China</li> </ul>		

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

☐ Stator and bearing temperature monitoring and protection

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Low Fuel Consumption (30°C SCAC)

Performance	Sta	Standby		Mission Critical		Prime	
Frequency	50	0 Hz	50	) Hz	50	Hz	
Gen set power rating with fan	140	0 ekW	140	1400 ekW		0 ekW	
Gen set power rating with fan @ 0.8 power factor	175	60 kVA	175	0 kVA	1600 kVA		
Emissions	Lov	v Fuel	Lov	v Fuel	Low	Fuel	
Performance number	EM2	739-00	EM2	742-00	DM82	233-01	
Fuel Consumption							
100% load with fan – L/hr (gal/hr)	343.9	(90.9)	343.9	(90.9)	313.4	(82.8)	
75% load with fan – L/hr (gal/hr)	258.4	(68.3)	258.4	(68.3)	237.8	(62.8)	
50% load with fan – L/hr (gal/hr)	180.0	(47.5)	180.0	(47.5)	166.8	(44.1)	
25% load with fan – L/hr (gal/hr)	104.1	(27.5)	104.1	(27.5)	97.8	(25.8)	
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)	1283	(45308)	1283	(45308)	1283	(45308)	
Engine coolant capacity – L (gal)	156.8	(41.4)	156.8	(41.4)	156.8	(41.4)	
Radiator coolant capacity – L (gal)	146.0	(38.6)	146.0	(38.6)	146.0	(38.6)	
Total coolant capacity – L (gal)	302.8	(80.0)	302.8	(80.0)	302.8	(80.0)	
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)	

 $<sup>^{\</sup>star}mg/Nm^{3}$  levels are corrected to 5%  $O_{2}.$  Contact your local Cat dealer for further information.

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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	0 ekW	140	0 ekW	1280	ekW
Gen set power rating with fan @ 0.8 power factor	175	0 kVA	175	0 kVA	1600 kVA	
Emissions	Low	/ Fuel	Lov	v Fuel	Low	Fuel
Performance number	EM2	740-00	EM2	743-00	DM82	234-01
Fuel Consumption						
100% load with fan – L/hr (gal/hr)	346.7	(91.6)	346.7	(91.6)	315.9	(83.5)
75% load with fan – L/hr (gal/hr)	260.3	(68.8)	260.3	(68.8)	239.6	(63.3)
50% load with fan – L/hr (gal/hr)	181.8	(48.1)	181.8	(48.1)	168.6	(44.5)
25% load with fan – L/hr (gal/hr)	105.4	(27.9)	105.4	(27.9)	99.0	(26.2)
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)	1283	(45308)	1283	(45308)	1283	(45308)
Engine coolant capacity – L (gal)	156.8	(41.4)	156.8	(41.4)	156.8	(41.4)
Radiator coolant capacity – L (gal)	146.0	(38.6)	146.0	(38.6)	146.0	(38.6)
Total coolant capacity – L (gal)	302.8	(80.0)	302.8	(80.0)	302.8	(80.0)
Inlet Air						
Combustion air inlet flow rate – m³/min (cfm)	116.7	(4120.7)	116.7	(4120.7)	109.1	(3852.3)
Exhaust System						
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)
Heat Rejection						
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)
Emissions* (Nominal)						
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)
Emissions* (Potential Site Variation)						
NOx mg/Nm³ (g/hp-h)	3238.8	(6.67)	3238.8	(6.67)	3243.8	(6.68)
	3230.0	()				, ,
CO mg/Nm³ (g/hp-h)	597.6	(1.23)	597.6	(1.23)	597.5	(1.23)
CO mg/Nm³ (g/hp-h) HC mg/Nm³ (g/hp-h)		<u> </u>			597.5 56.7	<u> </u>

 $<sup>^{\</sup>star}mg/Nm^{3}$  levels are corrected to 5%  $O_{2}.$  Contact your local Cat dealer for further information.

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Low Fuel Consumption (90°C SCAC)

Performance	Sta	Standby		Mission Critical		Prime	
Frequency	50	) Hz	50 Hz		50	Hz	
Gen set power rating with fan	140	0 ekW	140	0 ekW	1280 ekW		
Gen set power rating with fan @ 0.8 power factor	175	0 kVA	175	0 kVA	1600	) kVA	
Emissions	Lov	v Fuel	Lov	v Fuel	Low	Fuel	
Performance number	EM2	741-00	EM2	744-00	DM82	235-01	
Fuel Consumption							
100% load with fan – L/hr (gal/hr)	351.2	(92.8)	351.2	(92.8)	319.0	(84.3)	
75% load with fan – L/hr (gal/hr)	261.8	(69.2)	261.8	(69.2)	240.9	(63.7)	
50% load with fan – L/hr (gal/hr)	182.8	(48.3)	182.8	(48.3)	169.4	(44.7)	
25% load with fan – L/hr (gal/hr)	105.6	(27.9)	105.6	(27.9)	99.2	(26.2)	
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)	1283	(45308)	1283	(45308)	1283	(45308)	
Engine coolant capacity – L (gal)	156.8	(41.4)	156.8	(41.4)	156.8	(41.4)	
Radiator coolant capacity – L (gal)	146.0	(38.6)	146.0	(38.6)	146.0	(38.6)	
Total coolant capacity – L (gal)	302.8	(80.0)	302.8	(80.0)	302.8	(80.0)	
Inlet Air							
Combustion air inlet flow rate – m³/min (cfm)	113.8	(4018.3)	113.8	(4018.3)	105.0	(3707.5)	
Exhaust System							
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)	
Heat Rejection							
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)	
Emissions* (Nominal)							
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)	
Emissions* (Potential Site Variation)							
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)	

 $<sup>^{\</sup>star}mg/Nm^{3}$  levels are corrected to 5%  $O_{2}.$  Contact your local Cat dealer for further information.

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Low Emissions (30°C SCAC)

Performance	Sta	Standby		Mission Critical		Prime	
Frequency	50	) Hz	50	) Hz	50 Hz		
Gen set power rating with fan	140	0 ekW	140	0 ekW	1280 ekW		
Gen set power rating with fan @ 0.8 power factor	175	0 kVA	175	0 kVA	160	0 kVA	
Emissions	Low E	missions	Low E	missions	Low E	missions	
Performance number	EM2	751-00	EM2	754-00	DM8	242-02	
Fuel Consumption							
100% load with fan – L/hr (gal/hr)	359.8	(95.1)	359.8	(95.1)	329.4	(87.0)	
75% load with fan – L/hr (gal/hr)	271.5	(71.7)	271.5	(71.7)	249.1	(65.8)	
50% load with fan – L/hr (gal/hr)	187.0	(49.4)	187.0	(49.4)	173.1	(45.7)	
25% load with fan – L/hr (gal/hr)	106.1	(28.0)	106.1	(28.0)	99.4	(26.3)	
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)	1283	(45308)	1283	(45308)	1283	(45308)	
Engine coolant capacity – L (gal)	156.8	(41.4)	156.8	(41.4)	156.8	(41.4)	
Radiator coolant capacity – L (gal)	146.0	(38.6)	146.0	(38.6)	146.0	(38.6)	
Total coolant capacity – L (gal)	302.8	(80.0)	302.8	(80.0)	302.8	(80.0)	
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	(71596)	
Heat rejection to aftercooler - kW (Btu/min)	417	(23714)	417	(23714)	373	(21210)	
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)	

 $<sup>^{\</sup>star}mg/Nm^{3}$  levels are corrected to 5%  $O_{2}.$  Contact your local Cat dealer for further information.

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Low Emissions (60°C SCAC)

Performance	Sta	andby	Mission Critical		Prime	
Frequency	50	50 Hz		50 Hz		) Hz
Gen set power rating with fan	140	1400 ekW 1400 ekW		1280 ekW		
Gen set power rating with fan @ 0.8 power factor	175	0 kVA	175	0 kVA	1600 kVA	
Emissions	Low E	missions	Low E	missions	Low E	missions
Performance number	EM2	752-00	EM2	755-00	DM8	243-01
Fuel Consumption						
100% load with fan – L/hr (gal/hr)	363.4	(96.0)	363.4	(96.0)	327.8	(86.6)
75% load with fan – L/hr (gal/hr)	270.3	(71.4)	270.3	(71.4)	247.2	(65.3)
50% load with fan – L/hr (gal/hr)	187.6	(49.5)	187.6	(49.5)	173.0	(45.7)
25% load with fan – L/hr (gal/hr)	107.4	(28.3)	107.4	(28.3)	100.3	(26.5)
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)	1283	(45308)	1283	(45308)	1283	(45308)
Engine coolant capacity – L (gal)	156.8	(41.4)	156.8	(41.4)	156.8	(41.4)
Radiator coolant capacity – L (gal)	146.0	(38.6)	146.0	(38.6)	146.0	(38.6)
Total coolant capacity – L (gal)	302.8	(80.0)	302.8	(80.0)	302.8	(80.0)
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)
3 (3 1 )						
HC mg/Nm³ (g/hp-h)	103.2	(0.22)	103.2	(0.22)	99.1	(0.21)

 $<sup>^*</sup>mg/Nm^3$  levels are corrected to 5%  $O_2$ . Contact your local Cat dealer for further information.

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Low Emissions (90°C SCAC)

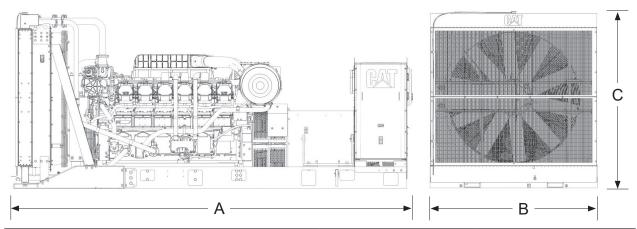
Performance	Standby		Mission Critical		Prime	
Frequency	50	) Hz	50 Hz		50 Hz	
Gen set power rating with fan	1400	1400 ekW 1400 ekW		0 ekW	1280 ekW	
Gen set power rating with fan @ 0.8 power factor	1750	0 kVA	175	0 kVA	1600	) kVA
Emissions	Low E	missions	Low E	missions	Low Er	missions
Performance number	EM2	753-00	EM2	756-00	DM82	244-01
Fuel Consumption						
100% load with fan – L/hr (gal/hr)	356.9	(94.3)	356.9	(94.3)	323.9	(85.5)
75% load with fan – L/hr (gal/hr)	266.2	(70.3)	266.2	(70.3)	244.6	(64.6)
50% load with fan – L/hr (gal/hr)	185.1	(48.9)	185.1	(48.9)	171.6	(45.3)
25% load with fan – L/hr (gal/hr)	106.5	(28.2)	106.5	(28.2)	100.0	(26.4)
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)	1283	(45308)	1283	(45308)	1283	(45308)
Engine coolant capacity – L (gal)	156.8	(41.4)	156.8	(41.4)	156.8	(41.4)
Radiator coolant capacity – L (gal)	146.0	(38.6)	146.0	(38.6)	146.0	(38.6)
Total coolant capacity – L (gal)	302.8	(80.0)	302.8	(80.0)	302.8	(80.0)
Inlet Air						
Combustion air inlet flow rate – m³/min (cfm)	119.1	(4205.5)	119.1	(4205.5)	111.0	(3919.4)
Exhaust System						
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)
Heat Rejection						
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)
Emissions* (Nominal)						
NOx mg/Nm³ (g/hp-h)	2604.8	(5.50)	2604.8	(5.50)	2661.2	(5.57)
CO mg/Nm³ (g/hp-h)	306.9	(0.65)	306.9	(0.65)	405.3	(0.85)
HC mg/Nm³ (g/hp-h)	66.1	(0.14)	66.1	(0.14)	63.8	(0.13)
PM mg/Nm³ (g/hp-h)	12.6	(0.03)	12.6	(0.03)	15.9	(0.03)
Emissions* (Potential Site Variation)						
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)
110 (11 0 / 11 1)	87.9	(0.10)	87.9	(0.10)	84.9	(0.10)
HC mg/Nm³ (g/hp-h)	67.9	(0.19)	67.9	(0.19)	04.9	(0.18)

 $<sup>^*\</sup>mbox{mg/Nm}^3$  levels are corrected to 5% O2. Contact your local Cat dealer for further information.

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### Weights and Dimensions



Dim "A"	Dim "B"	Dim "C"	Dry Weight
mm (in)	mm (in)	mm (in)	kg (lb)
5515 (217.1)	2286 (90.0)	2411 (94.9)	

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 rated ekW. 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 rated ekW. Typical peak demand up to 100% of rated ekW 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 rated ekW. Typical peak demand is 100% of prime rated ekW 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**

AS 1359, IBC, IEC 60034-1, ISO 3046, ISO 8528, NEMA MG1-22, NEMA MG1-33, 2014/35/EU, 2006/42/EC, 2014/30/EU and facilitates compliance to NFPA 37, NFPA 70, NFPA 99, NFPA 110.

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

#### **Data Center Applications**

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

#### **Fuel Rates**

Fuel consumption reported in accordance with ISO 3046-1, 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 15°C (59°F) and weighing 850 g/liter (7.0936 lbs/U.S. gal.) All fuel consumption values refer to rated engine power.

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Materials and specifications are subject to change without notice. The International System of Units (SI) is used in this publication.