



## Optional Equipment

### Engine

#### Air Cleaner

- Single element
- Dual element

#### Muffler

- Industrial grade (15 dB)

#### Starting

- Standard batteries
- Oversized batteries
- Standard electric starter(s)
- Heavy duty electric starter(s)
- Air starter(s)
- Jacket water heater

### Alternator

#### Output voltage

- 380V  6600V
- 400V  6900V
- 415V  10000V
- 3300V  10500V
- 6300V  11000V

#### 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
- 1600A  2000A
- 2500A  3000A
- 3200A  4000A
- 5000A
- UL  IEC
- 3-pole  4-pole
- Manually operated
- Electrically operated

#### Trip Unit

- LSI  LSI-G
- LSI-G-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
- Seismic rated

### 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

### Certifications

- EU Declaration of Conformity
- EU Declaration of Incorporation
- Eurasian Conformity (EAC)

**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

Performance	Standby	Mission Critical	Standby	Mission Critical
Engine Speed	1808 rpm	1808 rpm	1808 rpm	1808 rpm
Frequency	50 Hz	50 Hz	50 Hz	50 Hz
Gen set power rating with fan	2500 ekW	2500 ekW	2400 ekW	2400 ekW
Gen set power rating with fan @ 0.8 power factor	3125 kVA	3125 kVA	3000 kVA	3000 kVA
Emissions	Tier 2 (EPA ESE)	Tier 2 (EPA ESE)	Tier 2 (EPA ESE)	Tier 2 (EPA ESE)
Performance number	EM2194-04	EM2202-01	EM2125-02	EM2201-01
<b>Fuel Consumption</b>				
100% load with fan – L/hr (gal/hr)	660.1 (174.4)	660.1 (174.4)	639.8 (169.0)	639.8 (169.0)
75% load with fan – L/hr (gal/hr)	514.2 (135.8)	514.2 (135.8)	500.0 (132.1)	500.0 (132.1)
50% load with fan – L/hr (gal/hr)	375.8 (99.3)	375.8 (99.3)	365.4 (96.5)	365.4 (96.5)
25% load with fan – L/hr (gal/hr)	223.1 (58.9)	223.1 (58.9)	216.6 (57.2)	216.6 (57.2)
<b>Cooling System</b>				
Radiator air flow restriction (system) – kPa (in. water)	0.12 (0.48)	0.12 (0.48)	0.12 (0.48)	0.12 (0.48)
Radiator air flow – m <sup>3</sup> /min (cfm)	2672 (94360)	2672 (94360)	2672 (94360)	2672 (94360)
Engine coolant capacity – L (gal)	233.2 (61.6)	233.2 (61.6)	233.2 (61.6)	233.2 (61.6)
Radiator coolant capacity – L (gal)	201.5 (53.2)	201.5 (53.2)	201.5 (53.2)	201.5 (53.2)
Total coolant capacity – L (gal)	434.7 (114.8)	434.7 (114.8)	434.7 (114.8)	434.7 (114.8)
<b>Inlet Air</b>				
Combustion air inlet flow rate – m <sup>3</sup> /min (cfm)	204.8 (7230.3)	204.8 (7230.3)	201.5 (7114.8)	201.5 (7114.8)
<b>Exhaust System</b>				
Exhaust stack gas temperature – °C (°F)	491.8 (917.2)	491.8 (917.2)	484.9 (904.8)	484.9 (904.8)
Exhaust gas flow rate – m <sup>3</sup> /min (cfm)	556.9 (19663.4)	556.9 (19663.4)	542.0 (19137.8)	542.0 (19137.8)
Exhaust system backpressure (maximum allowable) – kPa (in. water)	6.7 (27.0)	6.7 (27.0)	6.7 (27.0)	6.7 (27.0)
<b>Heat Rejection</b>				
Heat rejection to jacket water – kW (Btu/min)	829 (47131)	829 (47131)	813 (46258)	813 (46258)
Heat rejection to exhaust (total) – kW (Btu/min)	2515 (143045)	2515 (143045)	2431 (138231)	2431 (138231)
Heat rejection to aftercooler – kW (Btu/min)	791 (44998)	791 (44998)	761 (43277)	761 (43277)
Heat rejection to atmosphere from engine – kW (Btu/min)	161 (9180)	161 (9180)	158 (8973)	158 (8973)
Heat rejection from alternator – kW (Btu/min)	121 (6881)	121 (6881)	107 (6085)	107 (6085)
<b>Emissions* (Nominal) - Full Load</b>				
NOx mg/Nm <sup>3</sup> (g/hp-h)	2354.5 (5.33)	2354.5 (5.33)	2318.0 (5.22)	2318.0 (5.22)
CO mg/Nm <sup>3</sup> (g/hp-h)	198.8 (0.43)	198.8 (0.43)	178.8 (0.39)	178.8 (0.39)
HC mg/Nm <sup>3</sup> (g/hp-h)	42.0 (0.10)	42.0 (0.10)	42.4 (0.11)	42.4 (0.11)
PM mg/Nm <sup>3</sup> (g/hp-h)	14.3 (0.04)	14.3 (0.04)	13.0 (0.03)	13.0 (0.03)
<b>Emissions* (Potential Site Variation) - Full Load</b>				
NOx mg/Nm <sup>3</sup> (g/hp-h)	2825.4 (6.40)	2825.4 (6.40)	2781.6 (6.27)	2781.6 (6.27)
CO mg/Nm <sup>3</sup> (g/hp-h)	357.8 (0.77)	357.8 (0.77)	321.8 (0.70)	321.8 (0.70)
HC mg/Nm <sup>3</sup> (g/hp-h)	55.9 (0.14)	55.9 (0.14)	56.3 (0.14)	56.3 (0.14)
PM mg/Nm <sup>3</sup> (g/hp-h)	20.1 (0.05)	20.1 (0.05)	18.2 (0.05)	18.2 (0.05)

\*mg/Nm<sup>3</sup> levels are corrected to 5% O<sub>2</sub>. Contact your local Cat dealer for further information.

## Package Performance

<b>Performance</b>	<b>Standby</b>		<b>Mission Critical</b>		<b>Standby</b>		<b>Mission Critical</b>	
Engine Speed	1808 rpm		1808 rpm		1808 rpm		1808 rpm	
Frequency	50 Hz		50 Hz		50 Hz		50 Hz	
Gen set power rating with fan	2200 ekW		2200 ekW		2200 ekW		2200 ekW	
Gen set power rating with fan @ 0.8 power factor	2750 kVA		2750 kVA		2750 kVA		2750 kVA	
Emissions	< 2000 mg NOx		< 2000 mg NOx		Tier 2 (EPA ESE)		Tier 2 (EPA ESE)	
Performance number	EM2128-03		EM2393-05		EM2124-01		EM2198-01	
<b>Fuel Consumption</b>								
100% load with fan – L/hr (gal/hr)	617.9	(163.2)	617.9	(163.2)	590.2	(155.9)	590.2	(155.9)
75% load with fan – L/hr (gal/hr)	460.2	(121.6)	460.2	(121.6)	464.1	(122.6)	464.1	(122.6)
50% load with fan – L/hr (gal/hr)	332.7	(87.9)	332.7	(87.9)	339.5	(89.7)	339.5	(89.7)
25% load with fan – L/hr (gal/hr)	199.7	(52.8)	199.7	(52.8)	203.6	(53.8)	203.6	(53.8)
<b>Cooling System</b>								
Radiator air flow restriction (system) – kPa (in. water)	0.12	(0.48)	0.12	(0.48)	0.12	(0.48)	0.12	(0.48)
Radiator air flow – m <sup>3</sup> /min (cfm)	2672	(94360)	2672	(94360)	2672	(94360)	2672	(94360)
Engine coolant capacity – L (gal)	233.2	(61.6)	233.2	(61.6)	233.2	(61.6)	233.2	(61.6)
Radiator coolant capacity – L (gal)	201.5	(53.2)	201.5	(53.2)	201.5	(53.2)	201.5	(53.2)
Total coolant capacity – L (gal)	434.7	(114.8)	434.7	(114.8)	434.7	(114.8)	434.7	(114.8)
<b>Inlet Air</b>								
Combustion air inlet flow rate – m <sup>3</sup> /min (cfm)	201.7	(7121.0)	201.7	(7121.0)	192.6	(6801.6)	192.6	(6801.6)
<b>Exhaust System</b>								
Exhaust stack gas temperature – °C (°F)	498.0	(928.4)	498.0	(928.4)	470.6	(879.2)	470.6	(879.2)
Exhaust gas flow rate – m <sup>3</sup> /min (cfm)	487.1	(17198.9)	487.1	(17198.9)	505.9	(17864.9)	505.9	(17864.9)
Exhaust system backpressure (maximum allowable) – kPa (in. water)	6.7	(27.0)	6.7	(27.0)	6.7	(27.0)	6.7	(27.0)
<b>Heat Rejection</b>								
Heat rejection to jacket water – kW (Btu/min)	750	(42688)	750	(42688)	774	(44033)	774	(44033)
Heat rejection to exhaust (total) – kW (Btu/min)	2501	(142239)	2501	(142239)	2232	(126923)	2232	(126923)
Heat rejection to aftercooler – kW (Btu/min)	721	(40977)	721	(40977)	685	(38982)	685	(38982)
Heat rejection to atmosphere from engine – kW (Btu/min)	161	(9166)	161	(9166)	150	(8518)	150	(8518)
Heat rejection from alternator – kW (Btu/min)	107	(6085)	107	(6085)	107	(6085)	107	(6085)
<b>Emissions* (Nominal) - Full Load</b>								
NOx mg/Nm <sup>3</sup> (g/hp-h)	1656.6	(3.72)	1656.6	(3.72)	2198.9	(4.93)	2198.9	(4.93)
CO mg/Nm <sup>3</sup> (g/hp-h)	309.5	(0.71)	309.5	(0.71)	139.4	(0.30)	139.4	(0.30)
HC mg/Nm <sup>3</sup> (g/hp-h)	34.9	(0.09)	34.9	(0.09)	44.6	(0.11)	44.6	(0.11)
PM mg/Nm <sup>3</sup> (g/hp-h)	30.4	(0.08)	30.4	(0.08)	10.8	(0.03)	10.8	(0.03)
<b>Emissions* (Potential Site Variation) - Full Load</b>								
NOx mg/Nm <sup>3</sup> (g/hp-h)	1954.7	(4.39)	1954.7	(4.39)	2638.6	(5.92)	2638.6	(5.92)
CO mg/Nm <sup>3</sup> (g/hp-h)	577.1	(1.27)	577.1	(1.27)	250.9	(0.54)	250.9	(0.54)
HC mg/Nm <sup>3</sup> (g/hp-h)	46.4	(0.12)	46.4	(0.12)	59.4	(0.15)	59.4	(0.15)
PM mg/Nm <sup>3</sup> (g/hp-h)	42.6	(0.12)	42.6	(0.12)	15.1	(0.04)	15.1	(0.04)

\*mg/Nm<sup>3</sup> levels are corrected to 5% O<sub>2</sub>. Contact your local Cat dealer for further information.

## Package Performance

Performance	Standby		Mission Critical		Standby		Mission Critical	
Engine Speed	1808 rpm		1808 rpm		1808 rpm		1808 rpm	
Frequency	50 Hz		50 Hz		50 Hz		50 Hz	
Gen set power rating with fan	2000 ekW		2000 ekW		2000 ekW		2000 ekW	
Gen set power rating with fan @ 0.8 power factor	2500 kVA		2500 kVA		2500 kVA		2500 kVA	
Emissions	< 2000 mg NOx		< 2000 mg NOx		Tier 2 (EPA ESE)		Tier 2 (EPA ESE)	
Performance number	EM2127-03		EM2391-04		EM2123-01		EM2196-01	
<b>Fuel Consumption</b>								
100% load with fan – L/hr (gal/hr)	564.1	(149.0)	564.1	(149.0)	542.3	(143.3)	542.3	(143.3)
75% load with fan – L/hr (gal/hr)	429.2	(113.4)	429.2	(113.4)	428.1	(113.1)	428.1	(113.1)
50% load with fan – L/hr (gal/hr)	308.7	(81.5)	308.7	(81.5)	311.5	(82.3)	311.5	(82.3)
25% load with fan – L/hr (gal/hr)	181.5	(48.0)	181.5	(48.0)	186.4	(49.2)	186.4	(49.2)
<b>Cooling System</b>								
Radiator air flow restriction (system) – kPa (in. water)	0.12	(0.48)	0.12	(0.48)	0.12	(0.48)	0.12	(0.48)
Radiator air flow – m <sup>3</sup> /min (cfm)	2672	(94360)	2672	(94360)	2672	(94360)	2672	(94360)
Engine coolant capacity – L (gal)	233.2	(61.6)	233.2	(61.6)	233.2	(61.6)	233.2	(61.6)
Radiator coolant capacity – L (gal)	201.5	(53.2)	201.5	(53.2)	201.5	(53.2)	201.5	(53.2)
Total coolant capacity – L (gal)	434.7	(114.8)	434.7	(114.8)	434.7	(114.8)	434.7	(114.8)
<b>Inlet Air</b>								
Combustion air inlet flow rate – m <sup>3</sup> /min (cfm)	189.3	(6683.8)	189.3	(6683.8)	182.3	(6435.5)	182.3	(6435.5)
<b>Exhaust System</b>								
Exhaust stack gas temperature – °C (°F)	497.9	(928.2)	497.9	(928.2)	462.7	(864.8)	462.7	(864.8)
Exhaust gas flow rate – m <sup>3</sup> /min (cfm)	451.3	(15937.3)	451.3	(15937.3)	471.7	(16654.4)	471.7	(16654.4)
Exhaust system backpressure (maximum allowable) – kPa (in. water)	6.7	(27.0)	6.7	(27.0)	6.7	(27.0)	6.7	(27.0)
<b>Heat Rejection</b>								
Heat rejection to jacket water – kW (Btu/min)	693	(39436)	693	(39436)	733	(41670)	733	(41670)
Heat rejection to exhaust (total) – kW (Btu/min)	2311	(131449)	2311	(131449)	2068	(117612)	2068	(117612)
Heat rejection to aftercooler – kW (Btu/min)	624	(35475)	624	(35475)	607	(34523)	607	(34523)
Heat rejection to atmosphere from engine – kW (Btu/min)	155	(8801)	155	(8801)	144	(8185)	144	(8185)
Heat rejection from alternator – kW (Btu/min)	107	(6085)	107	(6085)	107	(6085)	107	(6085)
<b>Emissions* (Nominal) - Full Load</b>								
NOx mg/Nm <sup>3</sup> (g/hp-h)	1567.7	(3.56)	1567.7	(3.56)	2006.6	(4.57)	2006.6	(4.57)
CO mg/Nm <sup>3</sup> (g/hp-h)	245.3	(0.56)	245.3	(0.56)	123.2	(0.27)	123.2	(0.27)
HC mg/Nm <sup>3</sup> (g/hp-h)	37.7	(0.10)	37.7	(0.10)	50.2	(0.12)	50.2	(0.12)
PM mg/Nm <sup>3</sup> (g/hp-h)	25.0	(0.07)	25.0	(0.07)	11.1	(0.03)	11.1	(0.03)
<b>Emissions* (Potential Site Variation) - Full Load</b>								
NOx mg/Nm <sup>3</sup> (g/hp-h)	1881.3	(4.27)	1881.3	(4.27)	2408.0	(5.48)	2408.0	(5.48)
CO mg/Nm <sup>3</sup> (g/hp-h)	441.5	(1.01)	441.5	(1.01)	221.8	(0.49)	221.8	(0.49)
HC mg/Nm <sup>3</sup> (g/hp-h)	50.1	(0.13)	50.1	(0.13)	66.7	(0.17)	66.7	(0.17)
PM mg/Nm <sup>3</sup> (g/hp-h)	35.0	(0.10)	35.0	(0.10)	15.5	(0.04)	15.5	(0.04)

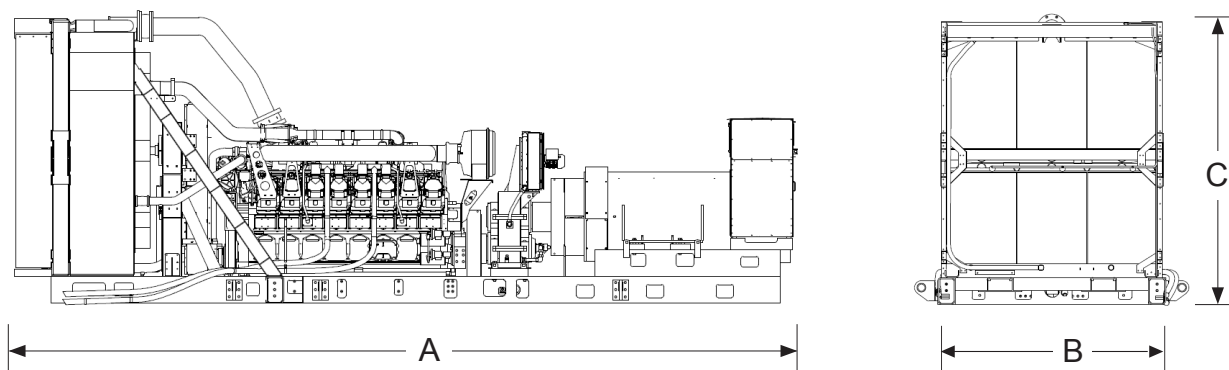
\*mg/Nm<sup>3</sup> levels are corrected to 5% O<sub>2</sub>. Contact your local Cat dealer for further information.

## Package Performance

Performance	Standby		Mission Critical		Standby		Mission Critical	
Engine Speed	1808 rpm		1808 rpm		1808 rpm		1808 rpm	
Frequency	50 Hz		50 Hz		50 Hz		50 Hz	
Gen set power rating with fan	1800 ekW		1800 ekW		1800 ekW		1800 ekW	
Gen set power rating with fan @ 0.8 power factor	2250 kVA		2250 kVA		2250 kVA		2250 kVA	
Emissions	< 2000 mg NOx		< 2000 mg NOx		Tier 2 (EPA ESE)		Tier 2 (EPA ESE)	
Performance number	EM2126-04		EM2389-04		EM2122-01		EM2195-00	
<b>Fuel Consumption</b>								
100% load with fan – L/hr (gal/hr)	528.8	(139.7)	528.8	(139.7)	494.5	(130.6)	494.5	(130.6)
75% load with fan – L/hr (gal/hr)	395.7	(104.5)	395.7	(104.5)	394.6	(104.2)	394.6	(104.2)
50% load with fan – L/hr (gal/hr)	281.9	(74.5)	281.9	(74.5)	286.3	(75.6)	286.3	(75.6)
25% load with fan – L/hr (gal/hr)	168.5	(44.5)	168.5	(44.5)	172.1	(45.5)	172.1	(45.5)
<b>Cooling System</b>								
Radiator air flow restriction (system) – kPa (in. water)	0.12	(0.48)	0.12	(0.48)	0.12	(0.48)	0.12	(0.48)
Radiator air flow – m <sup>3</sup> /min (cfm)	2672	(94360)	2672	(94360)	2672	(94360)	2672	(94360)
Engine coolant capacity – L (gal)	233.2	(61.6)	233.2	(61.6)	233.2	(61.6)	233.2	(61.6)
Radiator coolant capacity – L (gal)	201.5	(53.2)	201.5	(53.2)	201.5	(53.2)	201.5	(53.2)
Total coolant capacity – L (gal)	434.7	(114.8)	434.7	(114.8)	434.7	(114.8)	434.7	(114.8)
<b>Inlet Air</b>								
Combustion air inlet flow rate – m <sup>3</sup> /min (cfm)	183.2	(6469.0)	183.2	(6469.0)	170.8	(6031.8)	170.8	(6031.8)
<b>Exhaust System</b>								
Exhaust stack gas temperature – °C (°F)	491.9	(917.4)	491.9	(917.4)	457.8	(856.0)	457.8	(856.0)
Exhaust gas flow rate – m <sup>3</sup> /min (cfm)	431.2	(15226.4)	431.2	(15226.4)	439.1	(15505.2)	439.1	(15505.2)
Exhaust system backpressure (maximum allowable) – kPa (in. water)	6.7	(27.0)	6.7	(27.0)	6.7	(27.0)	6.7	(27.0)
<b>Heat Rejection</b>								
Heat rejection to jacket water – kW (Btu/min)	677	(38519)	677	(38519)	690	(39245)	690	(39245)
Heat rejection to exhaust (total) – kW (Btu/min)	2240	(127393)	2240	(127393)	1908	(108479)	1908	(108479)
Heat rejection to aftercooler – kW (Btu/min)	557	(31675)	557	(31675)	530	(30124)	530	(30124)
Heat rejection to atmosphere from engine – kW (Btu/min)	153	(8677)	153	(8677)	139	(7926)	139	(7926)
Heat rejection from alternator – kW (Btu/min)	107	(6085)	107	(6085)	107	(6085)	107	(6085)
<b>Emissions* (Nominal) - Full Load</b>								
NOx mg/Nm <sup>3</sup> (g/hp-h)	1333.7	(3.11)	1333.7	(3.11)	1778.8	(4.15)	1778.8	(4.15)
CO mg/Nm <sup>3</sup> (g/hp-h)	293.7	(0.69)	293.7	(0.69)	118.3	(0.26)	118.3	(0.26)
HC mg/Nm <sup>3</sup> (g/hp-h)	36.1	(0.10)	36.1	(0.10)	57.4	(0.14)	57.4	(0.14)
PM mg/Nm <sup>3</sup> (g/hp-h)	34.6	(0.10)	34.6	(0.10)	12.3	(0.03)	12.3	(0.03)
<b>Emissions* (Potential Site Variation) - Full Load</b>								
NOx mg/Nm <sup>3</sup> (g/hp-h)	1600.4	(3.74)	1600.4	(3.74)	2134.6	(4.98)	2134.6	(4.98)
CO mg/Nm <sup>3</sup> (g/hp-h)	528.6	(1.24)	528.6	(1.24)	212.9	(0.48)	212.9	(0.48)
HC mg/Nm <sup>3</sup> (g/hp-h)	48.0	(0.13)	48.0	(0.13)	76.3	(0.19)	76.3	(0.19)
PM mg/Nm <sup>3</sup> (g/hp-h)	44.2	(0.12)	44.2	(0.12)	17.3	(0.05)	17.3	(0.05)

\*mg/Nm<sup>3</sup> levels are corrected to 5% O<sub>2</sub>. Contact your local Cat dealer for further information.

## Weights and Dimensions



Standby Rating kVA	Dim "A" mm (in)	Dim "B" mm (in)	Dim "C" mm (in)	Dry Weight kg (lb)
3000 / 3125	8973 (353.3)	2640 (104.0)	3342 (131.6)	21 600 (47,620)
2250 / 2500 / 2750	8833 (347.7)	2640 (104.0)	3342 (131.6)	20 900 (46,077)

**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.

### Applicable Codes and Standards

AS 1359, CSA C22.2 No. 100-04, UL 142, UL 489, UL 869, UL 2200, NFPA 37, NFPA 70, NFPA 99, NFPA 110, IBC, IEC 60034-1, ISO 3046, ISO 8528, 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

- ISO 8528-1 Data Center Power (DCP) compliant per DCP application of Cat diesel generator set prime power rating.
- 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 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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