# Cat<sup>®</sup> 3516E Diesel Generator Sets





Bore – mm (in)	170 (6.69)	
Stroke – mm (in)	215 (8.46)	
Displacement – L (in <sup>3</sup> )	78.1 (4766)	
Compression Ratio	14.0:1	
Aspiration	ТА	
Fuel System	EUI	
Governor Type	ADEM™ A5	

Image shown may not reflect actual configuration

Prime-DCP 50 Hz kVA (ekW)	Emissions Performance
2750 (2200)	Optimized for Low Fuel Consumption

## Features

#### **Cat® Diesel Engine**

- Designed and optimized for low fuel consumption
- Reliable performance proven in thousands of applications worldwide
- Certified alternative fuels including Hydrotreated Vegetable Oil (HVO), Renewable Diesel (RD) and Hydrotreated Renewable Diesel (HRD) which meet EN 15940 or ASTM D975 can be used or blended with EN 590 diesel

#### **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

- 12 months/unlimited hour warranty for prime-DCP 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



# **Standard and Optional Equipment**

#### Engine

#### Air Cleaner

Single element
Dual element
Heavy duty

#### Muffler

Industrial grade (15 dB)
 Residential grade (25 dB)
 Critical grade (35 dB)

#### Starting

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

#### Alternator

#### Output voltage

 □ 380∨
 □ 6900∨

 □ 400∨
 □ 10000∨

 □ 415∨
 □ 10500∨

 □ 6300∨
 □ 11000∨

 □ 6600∨

## Temperature Rise

## (over 40°C ambient)

□ 150°C
 □ 125°C/130°C
 □ 105°C
 □ 80°C

#### Winding type

Random woundForm wound

#### Excitation

Internal excitation (IE)Permanent magnet (PM)

#### Attachments

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

#### **Power Termination**

#### Туре

#### 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**

RubberSpringSeismic rated

#### **Cat Connect**

#### Connectivity

Ethernet
Cellular

#### **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)
 Paralleling switchgear
 Paralleling controls

#### Certifications

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



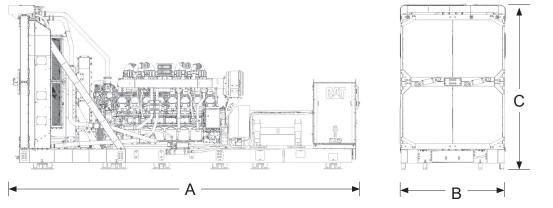
# Package Performance

Frequency         50 Hz           Gen set power rating with fan @         2200 ekW           Gen set power rating with fan @         2750 kVA           Emissions         Low Fuel           Performance number         EM5839-00           Fuel Consumption         100% load with fan - L/hr (gal/hr)         545.9         (144.2)           75% load with fan - L/hr (gal/hr)         292.2         (79.0)           25% load with fan - L/hr (gal/hr)         292.2         (79.0)           25% load with fan - L/hr (gal/hr)         253.4         (89487)           Engine coolant capacity - L (gal)         233.0         (61.6)           Radiator air flow restriction (system) - kPa (in. water)         253.4         (89487)           Engine coolant capacity - L (gal)         266.0         (69.0)           Total coolant capacity - L (gal)         266.0         (69.0)           Total coolant capacity - L (gal)         266.0         (69.0)           Total coolant capacity - L (gal)         266.0         (69.2.3)           Exhaust stack gas temperature - °C (°F)         494.6         (922.3)           Exhaust gas flow rate - m <sup>3</sup> /min (cfm)         469.4         (16576.4)           Exhaust gas flow rate - m <sup>3</sup> /min (cfm)         959         (54562)           Heat rejecti	Performance	Prim	ie-DCP
Gen set power rating with fan $2200 \text{ eWW}$ Gen set power rating with fan @ $2750 \text{ kVA}$ Sepower factor $2750 \text{ kVA}$ Emissions $Low \text{ Fuel}$ Performance numberEM5839-00Fuel Consumption $100\%$ load with fan - L/hr (gal/hr) $545.9$ 100% load with fan - L/hr (gal/hr) $2418.0$ 50% load with fan - L/hr (gal/hr) $299.2$ $(79.0)$ $25\%$ load with fan - L/hr (gal/hr) $299.2$ $(79.0)$ $25\%$ load with fan - L/hr (gal/hr) $299.2$ $(79.0)$ $25\%$ load with fan - L/hr (gal/hr) $299.2$ $(79.0)$ $25\%$ load with fan - L/hr (gal/hr) $293.2$ $(79.0)$ $25\%$ load with fan - L/hr (gal/hr) $293.2$ $(79.0)$ $25\%$ load with fan - L/hr (gal/hr) $293.2$ $(79.0)$ $2534$ $(89487)$ Radiator air flow restriction (system) - kPa (in. water) $0.12$ $(0.48)$ Radiator colant capacity - L (gal) $233.0$ $(61.6)$ Radiator colant capacity - L (gal) $266.0$ $(69.0)$ Total coolant capacity - L (gal) $499.0$ $(130.6)$ Inlet Air $U$ $U$ $U$ Combustion air inlet flow rate - m³/min (cfm) $176.8$ $(6243.8)$ Exhaust System $asterpessure$ (maximum allowable) - kPa (in. water) $499.0$ $(130.6)$ Exhaust system backpressure (maximum allowable) - kPa (in. water) $499.0$ $(130.6)$ Heat rejection to acket water - kW (Btu/min) $214.0$ $(121675)$ Heat rejection to acket water - kW (Btu/min) <td></td> <td></td> <td></td>			
Gen set power rating with fan @         27750 kVA           Emissions         Low Fuel           Performance number         EM5839-00           Fuel Consumption         545.9         (144.2)           75% load with fan – L/hr (gal/hr)         545.9         (144.2)           50% load with fan – L/hr (gal/hr)         299.2         (79.0)           25% load with fan – L/hr (gal/hr)         299.2         (79.0)           25% load with fan – L/hr (gal/hr)         178.6         (47.2)           Cooling System         0.12         (0.48)           Radiator air flow restriction (system) – kPa (in. water)         0.12         (0.48)           Radiator air flow restriction (system) – kPa (in. water)         233.0         (61.6)           Radiator coolant capacity – L (gal)         266.0         (69.0)           Total coolant capacity – L (gal)         266.0         (92.3)           Intet Air         Exhaust System         Exhaust System         Exhaust System           Exhaust gas flow rate – m³/min (cfm)         176.8         (6243.8)           Exhaust gas flow rate – m³/min (cfm)         469.4         (15676.4)           Exhaust system backpressure (maximum allowable) – kPa (in. water)         6.7         (27.0)           Heat rejection to jacket water – kW (Btu/min)		220	0 ekW
Emissions         Low Fuel           Performance number         EM5839-00           Fuel Consumption         100% load with fan – L/hr (gal/hr)         545.9         (144.2)           75% load with fan – L/hr (gal/hr)         299.2         (79.0)           25% load with fan – L/hr (gal/hr)         299.2         (79.0)           25% load with fan – L/hr (gal/hr)         178.6         (47.2)           Cooling System         Radiator air flow restriction (system) –         0.12         (0.48)           Radiator air flow - m³/min (cfm)         2534         (89487)           Engine coolant capacity – L (gal)         266.0         (69.0)           Total coolant capacity – L (gal)         266.0         (69.0)           Total coolant capacity – L (gal)         266.0         (692.3)           Exhaust System         Exhaust stack gas temperature – °C (°F)         494.6         (922.3)           Exhaust stack gas temperature – °C (°F)         494.6         (922.3)           Exhaust stack gas temperature – °C (°F)         494.6         (922.3)           Exhaust stack gas temperature – °C (°F)         494.6         (922.3)           Exhaust stack gas temperature – °C (°F)         494.6         (925.6)           Heat rejection to aftercooler – kW (Btu/min)         959         (54562) </td <td>Gen set power rating with fan @</td> <td>275</td> <td>0 kVA</td>	Gen set power rating with fan @	275	0 kVA
Fuel Consumption         545.9         (144.2)           100% load with fan – L/hr (gal/hr)         418.0         (110.4)           50% load with fan – L/hr (gal/hr)         299.2         (79.0)           25% load with fan – L/hr (gal/hr)         178.6         (47.2)           25% load with fan – L/hr (gal/hr)         178.6         (47.2)           Cooling System         0.12         (0.48)           Radiator air flow restriction (system) – kPa (in. water)         2534         (89487)           Engine coolant capacity – L (gal)         233.0         (61.6)           Radiator coolant capacity – L (gal)         266.0         (69.0)           Total coolant capacity – L (gal)         266.0         (69.0)           Total coolant capacity – L (gal)         499.0         (130.6)           Inlet Air              Combustion air inlet flow rate – m³/min (cfm)         176.8         (6243.8)           Exhaust System              Exhaust stack gas temperature – °C (°F)         494.6         (922.3)           Exhaust stack gas temperature – °C (°F)         494.6         (926.2)           Exhaust stack gas temperature – %C (°F)         494.6         (121.67)           Heat rejection to acket water – kW (B	· · ·	Lov	v Fuel
100% load with fan – L/hr (gal/hr)         545.9         (144.2)           75% load with fan – L/hr (gal/hr)         299.2         (79.0)           25% load with fan – L/hr (gal/hr)         178.6         (47.2)           Cooling System         178.6         (47.2)           Radiator air flow restriction (system) – kPa (in. water)         0.12         (0.48)           Radiator air flow restriction (system) – kPa (in. water)         2534         (89487)           Engine coolant capacity – L (gal)         233.0         (61.6)           Radiator coolant capacity – L (gal)         266.0         (69.0)           Total coolant capacity – L (gal)         499.0         (130.6)           Inlet Air         176.8         (6243.8)           Exhaust System         176.8         (6243.8)           Exhaust stack gas temperature – °C (°F)         494.6         (922.3)           Exhaust system backpressure (maximum allowable) – kPa (in. water)         6.7         (27.0)           Heat rejection to jacket water – kW (Btu/min)         959         (54562)           Heat rejection to aftercooler – kW (Btu/min)         959         (54562)           Heat rejection to atmosphere from engine – kW (Btu/min)         1154         (8752)           Heat rejection to atmosphere from engine – kW (Btu/min)         154	Performance number	EM5	839-00
To add with fan - L/hr (gal/hr)       418.0       (110.4)         50% load with fan - L/hr (gal/hr)       299.2       (79.0)         25% load with fan - L/hr (gal/hr)       178.6       (47.2)         Cooling System       0.12       (0.48)         Radiator air flow restriction (system) - kPa (in. water)       0.12       (0.48)         Radiator air flow restriction (system) - kPa (in. water)       2534       (89487)         Engine coolant capacity - L (gal)       233.0       (61.6)         Radiator coolant capacity - L (gal)       266.0       (69.0)         Total coolant capacity - L (gal)       499.0       (130.6)         Inlet Air            Combustion air inlet flow rate - m³/min (cfm)       176.8       (6243.8)         Exhaust System            Exhaust stack gas temperature - °C (°F)       494.6       (922.3)         Exhaust system backpressure (maximum allowable) - kPa (in. water)       6.7       (27.0)         Heat rejection to jacket water - kW (Btu/min)       959       (54562)         Heat rejection to aftercooler - kW (Btu/min)       2140       (121675)         Heat rejection to atmosphere from engine - kW (Btu/min)       92       (5232)         Emissions* (Nominal)       92 <td>Fuel Consumption</td> <td></td> <td></td>	Fuel Consumption		
No.         No.         No.           50% load with fan – L/hr (gal/hr)         299.2         (79.0)           25% load with fan – L/hr (gal/hr)         178.6         (47.2)           Cooling System         0.12         (0.48)           Radiator air flow restriction (system) – kPa (in. water)         2534         (89487)           Engine coolant capacity – L (gal)         233.0         (61.6)           Radiator coolant capacity – L (gal)         266.0         (69.0)           Total coolant capacity – L (gal)         499.0         (130.6)           Inlet Air           (27.0)           Combustion air inlet flow rate – m³/min (cfm)         176.8         (6243.8)           Exhaust System           (16576.4)           Exhaust stack gas temperature – °C (°F)         494.6         (922.3)           Exhaust system backpressure (maximum allowable) – kPa (in. water)         6.7         (27.0)           Heat Rejection              Heat rejection to jacket water – kW (Btu/min)         959         (54562)           Heat rejection to aftercooler – kW (Btu/min)         2140         (121675)           Heat rejection to atmosphere from engine – kW (Btu/min)         92         (5232)	100% load with fan – L/hr (gal/hr)	545.9	(144.2)
No.         178.6 $(47.2)$ Cooling System         0.12 $(0.48)$ Radiator air flow restriction (system) – kPa (in. water)         0.12 $(0.48)$ Radiator air flow restriction (system) – kPa (in. water)         2534 $(89487)$ Engine coolant capacity – L (gal)         233.0 $(61.6)$ Radiator coolant capacity – L (gal)         266.0 $(69.0)$ Total coolant capacity – L (gal)         499.0 $(130.6)$ Inlet Air	75% load with fan – L/hr (gal/hr)	418.0	(110.4)
Cooling System           Radiator air flow restriction (system) – kPa (in. water) $0.12$ (0.48)           Radiator air flow – m³/min (cfm)         2534 (89487)           Engine coolant capacity – L (gal)         233.0 (61.6)           Radiator coolant capacity – L (gal)         266.0 (69.0)           Total coolant capacity – L (gal)         499.0 (130.6)           Inlet Air         -           Combustion air inlet flow rate – m³/min (cfm)         176.8 (6243.8)           Exhaust System         -           Exhaust stack gas temperature – °C (°F)         494.6 (922.3)           Exhaust stack gas temperature – °C (°F)         494.6 (922.3)           Exhaust system backpressure (maximum allowable) – kPa (in. water)         6.7 (27.0)           Heat Rejection         -           Heat rejection to jacket water – kW (Btu/min)         959 (54562)           Heat rejection to aftercooler – kW (Btu/min)         113 (29156)           Heat rejection to aftercooler – kW (Btu/min)         92 (5232)           Emissions* (Nominal)         3767.2 (7.48)           CO mg/Nm³ (g/hp-h)         354.9 (0.67)           HC mg/Nm³ (g/hp-h)         8.1 (0.02)           PM mg/Nm³ (g/hp-h)         8.1 (0.02)           PM mg/Nm³ (g/hp-h)         8.1 (0.02)           PM mg/Nm³ (g/hp-h) </td <td>50% load with fan – L/hr (gal/hr)</td> <td>299.2</td> <td>(79.0)</td>	50% load with fan – L/hr (gal/hr)	299.2	(79.0)
Radiator air flow restriction (system) –         0.12         (0.48)           Radiator air flow – m³/min (cfm)         2534         (89487)           Engine coolant capacity – L (gal)         233.0         (61.6)           Radiator coolant capacity – L (gal)         266.0         (69.0)           Total coolant capacity – L (gal)         499.0         (130.6)           Inlet Air           (26.3)           Combustion air inlet flow rate – m³/min (cfm)         176.8         (6243.8)           Exhaust System          (27.0)         (27.0)           Exhaust stack gas temperature – °C (°F)         494.6         (922.3)           Exhaust system backpressure (maximum allowable) – kPa (in. water)         6.7         (27.0)           Heat Rejection          (121675)           Heat rejection to jacket water – kW (Btu/min)         959         (54562)           Heat rejection to atmosphere from engine – kW (Btu/min)         2140         (121675)           Heat rejection from alternator – kW (Btu/min)         92         (5232)           Heat rejection from alternator – kW (Btu/min)         92         (5232)           Heat rejection from alternator – kW (Btu/min)         92         (5232)           Heat rejection from alternator – kW (Btu/min)         92	25% load with fan – L/hr (gal/hr)	178.6	(47.2)
kPa (in. water)         0.12         (0.48)           Radiator air flow – m³/min (cfm)         2534         (89487)           Engine coolant capacity – L (gal)         233.0         (61.6)           Radiator coolant capacity – L (gal)         266.0         (69.0)           Total coolant capacity – L (gal)         266.0         (69.0)           Inlet Air         -         -         -           Combustion air inlet flow rate – m³/min (cfm)         176.8         (6243.8)           Exhaust System         -         -         -           Exhaust stack gas temperature – °C (°F)         494.6         (922.3)           Exhaust system backpressure (maximum allowable) – kPa (in. water)         6.7         (27.0)           Heat Rejection         -         -         (27.0)           Heat rejection to jacket water – kW (Btu/min)         959         (54562)           Heat rejection to aftercooler – kW (Btu/min)         2140         (121675)           Heat rejection to atmosphere from engine – kW (Btu/min)         154         (8752)           Heat rejection from alternator – kW (Btu/min)         92         (5232)           Emissions* (Nominal)         3767.2         (7.48)           CO mg/Nm³ (g/hp-h)         354.9         (0.67)           HC m	Cooling System	·	
Engine coolant capacity – L (gal)         233.0         (61.6)           Radiator coolant capacity – L (gal)         266.0         (69.0)           Total coolant capacity – L (gal)         499.0         (130.6)           Inlet Air           (6243.8)           Combustion air inlet flow rate – m³/min (cfm)         176.8         (6243.8)           Exhaust System          (922.3)           Exhaust gas flow rate – m³/min (cfm)         469.4         (16576.4)           Exhaust gas flow rate – m³/min (cfm)         469.4         (16576.4)           Exhaust system backpressure (maximum allowable) – kPa (in. water)         6.7         (27.0)           Heat Rejection           (121675)           Heat rejection to jacket water – kW (Btu/min)         959         (54562)           Heat rejection to atmosphere from engine – kW (Btu/min)         154         (8752)           Heat rejection from alternator – kW (Btu/min)         92         (5232)           Emissions* (Nominal)         3767.2         (7.48)           CO mg/Nm³ (g/hp-h)         3767.2         (7.48)           CO mg/Nm³ (g/hp-h)         8.1         (0.02)           Heat rejection from alternator – kW (Btu/min)         92.0         (5232)           Fmis		0.12	(0.48)
Radiator coolant capacity – L (gal)         266.0         (69.0)           Total coolant capacity – L (gal)         499.0         (130.6)           Inlet Air         Combustion air inlet flow rate – m³/min (cfm)         176.8         (6243.8)           Exhaust System         Exhaust System         (922.3)           Exhaust stack gas temperature – °C (°F)         494.6         (922.3)           Exhaust gas flow rate – m³/min (cfm)         469.4         (16576.4)           Exhaust system backpressure (maximum allowable) – kPa (in. water)         6.7         (27.0)           Heat Rejection         Heat rejection to jacket water – kW (Btu/min)         959         (54562)           Heat rejection to aftercooler – kW (Btu/min)         2140         (121675)           Heat rejection to aftercooler – kW (Btu/min)         413         (29156)           Heat rejection to atmosphere from engine – kW (Btu/min)         92         (5232)           Emissions* (Nominal)         92         (5232)           NOx mg/Nm³ (g/hp-h)         3767.2         (7.48)           CO mg/Nm³ (g/hp-h)         8.1         (0.02)           Emissions* (Potential Site Variation)         8.1         (0.02)           PM mg/Nm³ (g/hp-h)         8.1         (0.02)           Emissions* (Potential Site Variation)	Radiator air flow – m³/min (cfm)	2534	(89487)
Total coolant capacity – L (gal)         499.0         (130.6)           Inlet Air	Engine coolant capacity – L (gal)	233.0	(61.6)
Inlet Air         Inlet Air           Combustion air inlet flow rate – m³/min (cfm)         176.8         (6243.8)           Exhaust System         Exhaust stack gas temperature – °C (°F)         494.6         (922.3)           Exhaust gas flow rate – m³/min (cfm)         469.4         (16576.4)           Exhaust system backpressure (maximum allowable) – kPa (in. water)         6.7         (27.0)           Heat Rejection         959         (54562)           Heat rejection to jacket water – kW (Btu/min)         959         (54562)           Heat rejection to exhaust (total) – kW (Btu/min)         413         (29156)           Heat rejection to aftercooler – kW (Btu/min)         413         (29156)           Heat rejection to atmosphere from engine – kW (Btu/min)         154         (8752)           Heat rejection from alternator – kW (Btu/min)         92         (5232)           Emissions* (Nominal)         3767.2         (7.48)           CO mg/Nm³ (g/hp-h)         354.9         (0.67)           HC mg/Nm³ (g/hp-h)         8.1         (0.02)           Emissions* (Potential Site Variation)         4520.6         (8.98)           CO mg/Nm³ (g/hp-h)         4520.6         (8.98)           CO mg/Nm³ (g/hp-h)         8.1         (0.02)           Emissions* (Po	Radiator coolant capacity – L (gal)	266.0	(69.0)
Combustion air inlet flow rate – m³/min (cfm)176.8(6243.8)Exhaust System176.8(6243.8)Exhaust stack gas temperature – °C (°F)494.6(922.3)Exhaust gas flow rate – m³/min (cfm)469.4(16576.4)Exhaust system backpressure (maximum allowable) – kPa (in. water)6.7(27.0)Heat Rejection959(54562)Heat rejection to jacket water – kW (Btu/min)959(54562)Heat rejection to exhaust (total) – kW (Btu/min)2140(121675)Heat rejection to aftercooler – kW (Btu/min)413(29156)Heat rejection to atmosphere from engine – kW (Btu/min)154(8752)Heat rejection from alternator – kW (Btu/min)92(5232)Emissions* (Nominal)3767.2(7.48)CO mg/Nm³ (g/hp-h)18.5(0.05)PM mg/Nm³ (g/hp-h)18.5(0.02)Emissions* (Potential Site Variation)4520.6(8.98)CO mg/Nm³ (g/hp-h)638.9(1.20)HC mg/Nm³ (g/hp-h)24.6(0.06)	Total coolant capacity – L (gal)	499.0	(130.6)
Exhaust System           Exhaust stack gas temperature – °C (°F)         494.6 (922.3)           Exhaust gas flow rate – m³/min (cfm)         469.4 (16576.4)           Exhaust system backpressure (maximum allowable) – kPa (in. water)         6.7 (27.0)           Heat Rejection         959 (54562)           Heat rejection to jacket water – kW (Btu/min)         959 (54562)           Heat rejection to exhaust (total) – kW (Btu/min)         2140 (121675)           Heat rejection to aftercooler – kW (Btu/min)         413 (29156)           Heat rejection to atmosphere from engine – kW (Btu/min)         154 (8752)           Heat rejection from alternator – kW (Btu/min)         92 (5232)           Emissions* (Nominal)         3767.2 (7.48)           CO mg/Nm³ (g/hp-h)         354.9 (0.67)           HC mg/Nm³ (g/hp-h)         18.5 (0.05)           PM mg/Nm³ (g/hp-h)         8.1 (0.02)           Emissions* (Potential Site Variation)         4520.6 (8.98)           CO mg/Nm³ (g/hp-h)         638.9 (1.20)           HC mg/Nm³ (g/hp-h)         4520.6 (0.66)	Inlet Air		
Exhaust stack gas temperature – °C (°F)494.6(922.3)Exhaust gas flow rate – m³/min (cfm)469.4(16576.4)Exhaust system backpressure (maximum allowable) – kPa (in. water)6.7(27.0)Heat RejectionHeat rejection to jacket water – kW (Btu/min)959(54562)Heat rejection to exhaust (total) – kW (Btu/min)2140(121675)Heat rejection to aftercooler – kW (Btu/min)413(29156)Heat rejection to atmosphere from engine – kW (Btu/min)154(8752)Heat rejection from alternator – kW (Btu/min)92(5232)Emissions* (Nominal)3767.2(7.48)CO mg/Nm³ (g/hp-h)354.9(0.67)HC mg/Nm³ (g/hp-h)18.5(0.05)PM mg/Nm³ (g/hp-h)8.1(0.02)Emissions* (Potential Site Variation)4520.6(8.98)CO mg/Nm³ (g/hp-h)638.9(1.20)HC mg/Nm³ (g/hp-h)24.6(0.06)	Combustion air inlet flow rate – m³/min (cfm)	176.8	(6243.8)
Exhaust gas flow rate – m³/min (cfm)         469.4         (16576.4)           Exhaust system backpressure (maximum allowable) – kPa (in. water)         6.7         (27.0)           Heat Rejection         6.7         (27.0)           Heat rejection to jacket water – kW (Btu/min)         959         (54562)           Heat rejection to exhaust (total) – kW (Btu/min)         2140         (121675)           Heat rejection to aftercooler – kW (Btu/min)         413         (29156)           Heat rejection to aftercooler – kW (Btu/min)         413         (29156)           Heat rejection to atmosphere from engine – kW (Btu/min)         154         (8752)           Heat rejection from alternator – kW (Btu/min)         92         (5232)           Emissions* (Nominal)         3767.2         (7.48)           CO mg/Nm³ (g/hp-h)         354.9         (0.67)           HC mg/Nm³ (g/hp-h)         18.5         (0.02)           Emissions* (Potential Site Variation)         8.1         (0.02)           Emissions* (Potential Site Variation)         4520.6         (8.98)           CO mg/Nm³ (g/hp-h)         638.9         (1.20)           HC mg/Nm³ (g/hp-h)         24.6         (0.06)	Exhaust System		
Exhaust system backpressure (maximum allowable) – kPa (in. water)         6.7         (27.0)           Heat Rejection	Exhaust stack gas temperature – °C (°F)	494.6	(922.3)
(maximum allowable) – kPa (in. water)         6.7         (27.0)           Heat Rejection          (27.0)           Heat rejection to jacket water – kW (Btu/min)         959         (54562)           Heat rejection to exhaust (total) – kW (Btu/min)         2140         (121675)           Heat rejection to aftercooler – kW (Btu/min)         413         (29156)           Heat rejection to aftercooler – kW (Btu/min)         413         (29156)           Heat rejection to atmosphere from engine – kW (Btu/min)         154         (8752)           Heat rejection from alternator – kW (Btu/min)         92         (5232)           Emissions* (Nominal)         92         (5232)           NOx mg/Nm³ (g/hp-h)         3767.2         (7.48)           CO mg/Nm³ (g/hp-h)         18.5         (0.05)           PM mg/Nm³ (g/hp-h)         8.1         (0.02)           Emissions* (Potential Site Variation)         4520.6         (8.98)           CO mg/Nm³ (g/hp-h)         4520.6         (8.98)           CO mg/Nm³ (g/hp-h)         638.9         (1.20)           HC mg/Nm³ (g/hp-h)         24.6         (0.06)	Exhaust gas flow rate – m³/min (cfm)	469.4	(16576.4)
Heat rejection to jacket water – kW (Btu/min)         959         (54562)           Heat rejection to exhaust (total) – kW (Btu/min)         2140         (121675)           Heat rejection to aftercooler – kW (Btu/min)         413         (29156)           Heat rejection to aftercooler – kW (Btu/min)         413         (29156)           Heat rejection to atmosphere from engine – kW (Btu/min)         154         (8752)           Heat rejection from alternator – kW (Btu/min)         92         (5232)           Emissions* (Nominal)         92         (5232)           NOx mg/Nm³ (g/hp-h)         3767.2         (7.48)           CO mg/Nm³ (g/hp-h)         354.9         (0.67)           HC mg/Nm³ (g/hp-h)         18.5         (0.02)           Emissions* (Potential Site Variation)         8.1         (0.02)           Emissions* (php-h)         4520.6         (8.98)           CO mg/Nm³ (g/hp-h)         4520.6         (8.98)           CO mg/Nm³ (g/hp-h)         638.9         (1.20)           HC mg/Nm³ (g/hp-h)         24.6         (0.06)		6.7	(27.0)
Heat rejection to exhaust (total) – kW (Btu/min)       2140       (121675)         Heat rejection to aftercooler – kW (Btu/min)       413       (29156)         Heat rejection to aftercooler – kW (Btu/min)       413       (29156)         Heat rejection to atmosphere from engine – kW (Btu/min)       154       (8752)         Heat rejection from alternator – kW (Btu/min)       92       (5232)         Emissions* (Nominal)       92       (5232)         NOx mg/Nm³ (g/hp-h)       3767.2       (7.48)         CO mg/Nm³ (g/hp-h)       354.9       (0.67)         HC mg/Nm³ (g/hp-h)       18.5       (0.05)         PM mg/Nm³ (g/hp-h)       8.1       (0.02)         Emissions* (Potential Site Variation)       4520.6       (8.98)         CO mg/Nm³ (g/hp-h)       638.9       (1.20)         HC mg/Nm³ (g/hp-h)       24.6       (0.06)	Heat Rejection		
Heat rejection to aftercooler – kW (Btu/min)       413       (29156)         Heat rejection to atmosphere from engine – kW (Btu/min)       154       (8752)         Heat rejection from alternator – kW (Btu/min)       92       (5232)         Emissions* (Nominal)       92       (5232)         NOx mg/Nm³ (g/hp-h)       3767.2       (7.48)         CO mg/Nm³ (g/hp-h)       354.9       (0.67)         HC mg/Nm³ (g/hp-h)       18.5       (0.05)         PM mg/Nm³ (g/hp-h)       8.1       (0.02)         Emissions* (Potential Site Variation)       4520.6       (8.98)         CO mg/Nm³ (g/hp-h)       638.9       (1.20)         HC mg/Nm³ (g/hp-h)       24.6       (0.06)	Heat rejection to jacket water – kW (Btu/min)	959	(54562)
Heat rejection to atmosphere from engine – kW (Btu/min)         154         (8752)           Heat rejection from alternator – kW (Btu/min)         92         (5232)           Emissions* (Nominal)         92         (5232)           NOx mg/Nm³ (g/hp-h)         3767.2         (7.48)           CO mg/Nm³ (g/hp-h)         354.9         (0.67)           HC mg/Nm³ (g/hp-h)         18.5         (0.05)           PM mg/Nm³ (g/hp-h)         8.1         (0.02)           Emissions* (Potential Site Variation)         4520.6         (8.98)           CO mg/Nm³ (g/hp-h)         638.9         (1.20)           HC mg/Nm³ (g/hp-h)         24.6         (0.06)	Heat rejection to exhaust (total) – kW (Btu/min)	2140	(121675)
kW (Btu/min)         154         (6752)           Heat rejection from alternator – kW (Btu/min)         92         (5232)           Emissions* (Nominal)         5         (7.48)           NOx mg/Nm³ (g/hp-h)         3767.2         (7.48)           CO mg/Nm³ (g/hp-h)         354.9         (0.67)           HC mg/Nm³ (g/hp-h)         18.5         (0.05)           PM mg/Nm³ (g/hp-h)         8.1         (0.02)           Emissions* (Potential Site Variation)         NOx mg/Nm³ (g/hp-h)         4520.6           NOx mg/Nm³ (g/hp-h)         638.9         (1.20)           HC mg/Nm³ (g/hp-h)         24.6         (0.06)	Heat rejection to aftercooler – kW (Btu/min)	413	(29156)
Emissions* (Nominal)         3767.2         (7.48)           CO mg/Nm³ (g/hp-h)         354.9         (0.67)           HC mg/Nm³ (g/hp-h)         18.5         (0.05)           PM mg/Nm³ (g/hp-h)         8.1         (0.02)           Emissions* (Potential Site Variation)         NOx mg/Nm³ (g/hp-h)         4520.6         (8.98)           CO mg/Nm³ (g/hp-h)         638.9         (1.20)           HC mg/Nm³ (g/hp-h)         24.6         (0.06)	, , ,	154	(8752)
NOx mg/Nm³ (g/hp-h)         3767.2         (7.48)           CO mg/Nm³ (g/hp-h)         354.9         (0.67)           HC mg/Nm³ (g/hp-h)         18.5         (0.05)           PM mg/Nm³ (g/hp-h)         8.1         (0.02)           Emissions* (Potential Site Variation)             NOx mg/Nm³ (g/hp-h)         4520.6         (8.98)           CO mg/Nm³ (g/hp-h)         638.9         (1.20)           HC mg/Nm³ (g/hp-h)         24.6         (0.06)	Heat rejection from alternator – kW (Btu/min)	92	(5232)
CO mg/Nm³ (g/hp-h)         354.9         (0.67)           HC mg/Nm³ (g/hp-h)         18.5         (0.05)           PM mg/Nm³ (g/hp-h)         8.1         (0.02)           Emissions* (Potential Site Variation)         NOx mg/Nm³ (g/hp-h)         4520.6         (8.98)           CO mg/Nm³ (g/hp-h)         638.9         (1.20)           HC mg/Nm³ (g/hp-h)         24.6         (0.06)	Emissions* (Nominal)		
HC mg/Nm³ (g/hp-h)         18.5         (0.05)           PM mg/Nm³ (g/hp-h)         8.1         (0.02)           Emissions* (Potential Site Variation)         8.1         (0.02)           NOx mg/Nm³ (g/hp-h)         4520.6         (8.98)           CO mg/Nm³ (g/hp-h)         638.9         (1.20)           HC mg/Nm³ (g/hp-h)         24.6         (0.06)	NOx mg/Nm <sup>3</sup> (g/hp-h)	3767.2	(7.48)
PM mg/Nm³ (g/hp-h)         8.1         (0.02)           Emissions* (Potential Site Variation)         4520.6         (8.98)           NOx mg/Nm³ (g/hp-h)         638.9         (1.20)           HC mg/Nm³ (g/hp-h)         24.6         (0.06)	CO mg/Nm <sup>3</sup> (g/hp-h)	354.9	(0.67)
Emissions* (Potential Site Variation)           NOx mg/Nm³ (g/hp-h)         4520.6         (8.98)           CO mg/Nm³ (g/hp-h)         638.9         (1.20)           HC mg/Nm³ (g/hp-h)         24.6         (0.06)	HC mg/Nm <sup>3</sup> (g/hp-h)	18.5	(0.05)
NOx mg/Nm³ (g/hp-h)         4520.6         (8.98)           CO mg/Nm³ (g/hp-h)         638.9         (1.20)           HC mg/Nm³ (g/hp-h)         24.6         (0.06)	PM mg/Nm <sup>3</sup> (g/hp-h)	8.1	(0.02)
CO mg/Nm³ (g/hp-h)         638.9         (1.20)           HC mg/Nm³ (g/hp-h)         24.6         (0.06)	Emissions* (Potential Site Variation)		
HC mg/Nm <sup>3</sup> (g/hp-h) 24.6 (0.06)	NOx mg/Nm <sup>3</sup> (g/hp-h)	4520.6	(8.98)
	CO mg/Nm <sup>3</sup> (g/hp-h)	638.9	(1.20)
PM mg/Nm <sup>3</sup> (g/hp-h) 11.3 (0.03)	HC mg/Nm <sup>3</sup> (g/hp-h)	24.6	(0.06)
	PM mg/Nm <sup>3</sup> (g/hp-h)	11.3	(0.03)

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



## Weights and Dimensions



Dim "A"	Dim "B"	Dim "C"	Dry Weight
mm (in)	mm (in)	mm (in)	<sup>kg (lb)</sup>
7538 (296.8)	2216 (87.2)	3391 (133.5)	

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

## **Ratings Definitions**

#### Prime-DCP

For data center applications only. Prime-DCP power output available with varying load for unlimited time. Average power output is not to exceed 100% of prime-DCP rated ekW. Typical peak demand is 100% of the prime-DCP 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, GB/T 2820.

**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 Cat diesel generator set prime-DCP 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 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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