



ELECTRIC POWER RATINGS GUIDE

2024

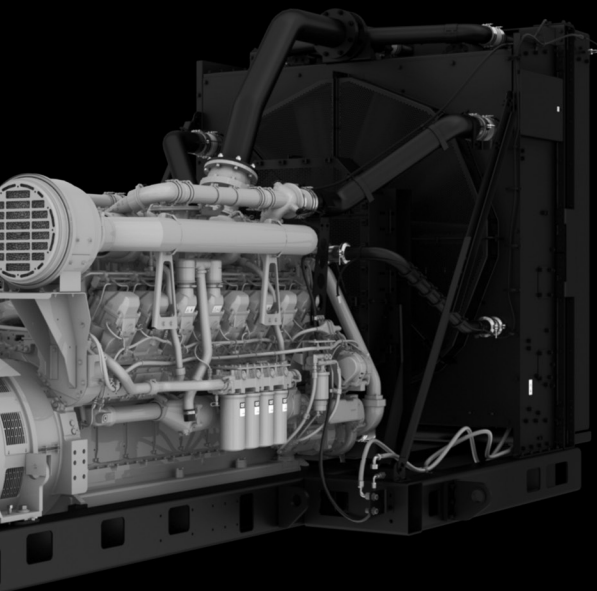


Twentieth Edition



3516E 3000 kVA 50 Hz

DIESEL GENERATOR SETS



DIESEL

50 Hz, 6.8 – 200 kVA RATINGS

kVA		Generator Set Model	Engine	Configuration
Standby	Prime			
Single Phase Output* 1500 rpm				
7.5	6.8	DE7.5E3S	C1.1	R96/EU Stage IIIA Equivalent
11	10	DE11E3S	C1.5	R96/EU Stage IIIA Equivalent
12	11	DE12E0S	C1.5	Low BSFC
14	13	DE14E3S	C2.2	R96/EU Stage IIIA Equivalent
16.5	15	DE16E3S	C2.2	R96/EU Stage IIIA Equivalent
26	24	DE26E0S	C3.3	Low BSFC
26	24	DE26E3S	C3.3	R96/EU Stage IIIA Equivalent
40	36	DE40E0S	C3.3	Low BSFC
40	36	DE40E2S	C3.3	R96/EU Stage II Equivalent
50	45	DE50E0S	C3.3	Low BSFC
55	50	DE55E3S	C4.4	R96/EU Stage IIIA
90	82	DE90E2S	C4.4	R96/EU Stage II Equivalent
90	82	DE90E3S	C4.4	R96/EU Stage IIIA
Three Phase Output** 1500 rpm				
9.5	8.5	DE9.5E3	C1.1	R96/EU Stage IIIA Equivalent
13.5	12.5	DE13.5E3	C1.5	R96/EU Stage IIIA Equivalent
16	14.5	DE16E0	C1.5	Low BSFC
18	16.5	DE18E3	C2.2	R96/EU Stage IIIA Equivalent
22	20	DE22E3	C2.2	R96/EU Stage IIIA Equivalent
33	30	DE33E0	C3.3	Low BSFC
33	30	DE33E3	C3.3	R96/EU Stage IIIA Equivalent
49	45	DE56AE0	C3.3	Low BSFC
50	45	DE50E0	C3.3	Low BSFC
50	45	DE50E2	C3.3	EU Stage II Equivalent
55	50	DE55E0	C3.3	Low BSFC
55	50	DE55E2	C4.4	EU Stage II Equivalent
65	60	DE65E0	C3.3	Low BSFC
65	60	DE65E3	C4.4	R96/EU Stage IIIA
88	80	DE88E0	C4.4	Low BSFC
65	60	DE75AE0	C3.3	Low BSFC
88	80	DE100AE0	C4.4	Low BSFC
88	80	DE88E3	C4.4	R96/EU Stage IIIA
110	100	DE125AE0	C4.4	Low BSFC
110	100	DE110E2	C4.4	EU Stage II Equivalent
110	100	DE110E3	C4.4	R96/EU Stage IIIA
149	135	DE169AE0	C7.1	Low BSFC
150	135	DE150E0	C7.1	Low BSFC
165	150	DE165E0	C7.1	Low BSFC
165	150	DE165E3	C7.1	R96/EU Stage IIIA Equivalent
175	160	DE175E3	C7.1	R96/EU Stage IIIA Equivalent
200	180	DE200E0	C7.1	Low BSFC

*All ratings at 1.0 pf. **All ratings at 0.8 pf.

50 Hz, 180 – 850 kVA RATINGS

kVA		Generator Set Model	Engine	Configuration
Standby	Prime			
1500 rpm				
200	180	DE218AE0	C7.1	Low BSFC
200	180	DE200E3	C7.1	R96/EU Stage IIIA Equivalent
220	200	DE220E0	C7.1	Low BSFC
250	230	DE250E0	C9	Low BSFC
275	250	DE275E0	C9	Low BSFC
275	250	DE275E3	C9	R96/EU Stage IIIA Equivalent
300	275	DE300E0	C9	Low BSFC
300	275	DE300E3	C9	R96/EU Stage IIIA Equivalent
330	300	DE330E0	C9	Low BSFC
—	350	DE350C3	C13	China Non-Road Stage III
—	400	DE400C3	C13	China Non-Road Stage III
400	350	DE400E0	C13	Low BSFC
450	400	DE450E0	C13	Low BSFC
450	400	DE450E3	C13	R96/EU Stage IIIA Equivalent
450	400	—	C15	Low BSFC
—	450	DE450C3	C15	China Non-Road Stage III
—	500	DE500C3	C15	China Non-Road Stage III
500	455	DE500E0	C15	Low BSFC
550	500	DE550E0	C15	Low BSFC
550	500	DE550E3	C15	R96/EU Stage IIIA Equivalent
605	550	DE605E0	C18	Low BSFC
—	600	DE600C3	C18	China Non-Road Stage III
660	600	DE660E0	C18	Low BSFC
700	635	—	C18	Low BSFC
715	650	DE715E0	C18	Low BSFC
780	706	DE780E0	C18	Low BSFC
850	770	DE850E0	C18	Low BSFC

50 Hz, 680 – 1250 kVA RATINGS

kVA					Generator Set Model	Configuration
Standby	Mission Critical	Prime	Prime-DCP	Contin.		
1500 rpm						
750	—	680	—	—	3412C	Low BSFC
800	—	725	—	—	3412C	Low BSFC
900	—	810	—	—	3412C	Low BSFC
1100	1100	1000	—	910	C32	Low BSFC, EPA Tier 2
1250	1250	1100	—	—	C32	Low BSFC
1250	1250	1150	1150	1000	3512	Low BSFC

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50 Hz, 1206 – 7150 kVA RATINGS

kVA					Generator Set Model	Configuration
Standby	Mission Critical	Prime	Prime-DCP	Contin.		
1500 rpm						
1400	1400	1275	—	—	C32	Low BSFC
1400	1400	1275	1275	1206	3512	Low BSFC
1500	1500	1375	—	—	C32	Low BSFC
1500	1500	1360	1360	—	3512B	Low BSFC, Low Emissions
1600	1600	1500	1500	1320	3512B	Low BSFC, Low Emissions
1625	1625	1500	1500	1320	3512B	Low BSFC, Low Emissions
1750	1750	1600	1600	—	3512B	Low BSFC, Low Emissions
1875	1875	1700	1700	1500	3512B	Low BSFC, Low Emissions
2000	2000	1825	1825	1600	3516	Low BSFC
2250	2250	2045	2045	—	3516C	< 2000 mg NO _x , EPA Tier 2
2250	2250	2000	2000	1750	3516B	Low BSFC, Low Emissions
—	—	2000	—	1750	3516B DGB™	Low BSFC
—	—	2275	—	2000	3516B DGB	Low BSFC
2500	2500	2275	2275	2000	3516B	Low BSFC, Low Emissions
2500	2500	2275	2275	—	3516C	< 2000 mg NO _x , EPA Tier 2
2750	2750	2500	2500	—	3516C	< 2000 mg NO _x , EPA Tier 2 Low BSFC, Low Emissions
3000	3000	2725	2725	—	3516E	< 2000 mg NO _x , EPA Tier 2
3000	3000	2725	2725	2500	C175-16	Low BSFC
3000	3000	—	—	—	C175-16	Low Emissions
3000	3000	2750	2750	—	3516E	Low BSFC
3125	3125	2800	2800	—	3516C	EPA Tier 2
3250	3250	2950	2950	—	3516E	< 2000 mg NO _x , EPA Tier 2
3500	3500	3175	3175	—	3516E	EPA Tier 2
3900	3900	3500	3500	3150	C175-20	Low BSFC
3900	3900	—	—	—	C175-20	Low Emissions
4000*	4000*	3600*	3600*	3250*	C175-20	Low BSFC
4000*	4000*	—	—	—	C175-20	Low Emissions
1000 rpm						
2688	—	2425	—	2200	3606	Low BSFC
—	—	2425	—	2200	C280-6	IMO/EPA Tier 2
3575	—	3250	—	2938	3608	Low BSFC
—	—	3250	—	2938	C280-8	IMO/EPA Tier 2
5375	—	4850	—	4400	3612	Low BSFC
—	—	4850	—	4400	C280-12	IMO/EPA Tier 2
7150	—	6500	—	5875	3616	Low BSFC
—	—	6500	—	5875	C280-16	IMO/EPA Tier 2
750 rpm						
1963	—	1963	—	—	3606	Low BSFC
2600	—	2600	—	—	3608	Low BSFC
3925	—	3925	—	—	3612	Low BSFC
5200	—	5200	—	—	3616	Low BSFC

*Rating does not include package mounted radiator.

50 Hz, 33 – 1500 kVA RATINGS — Cat® GC GLOBAL

kVA		Generator Set Model	Engine	Configuration
Standby	Prime			
1500 rpm				
33	—	DE33 GC	C3.3	Low BSFC
50	—	DE50 GC	C3.3	Low BSFC
55	—	DE55 GC	C3.3	Low BSFC
65	—	DE65 GC	C3.3	Low BSFC
88	—	DE88 GC	C4.4	Low BSFC
110	—	DE110 GC	C4.4	Low BSFC
150	—	DE150 GC	C7.1	Low BSFC
165	—	DE165 GC	C7.1	Low BSFC
200	—	DE200 GC	C7.1	Low BSFC
217	—	DE220 GC	C7.1	Low BSFC
400	—	DE400 GC	C9.3B	Low BSFC
450	—	DE450 GC	C13	Low BSFC
500	—	DE500 GC	C13	Low BSFC
550	—	DE550 GC	C13	Low BSFC
605	—	DE605 GC	C15	Low BSFC
660	—	DE660 GC	C15	Low BSFC
715	—	DE715 GC	C15	Low BSFC
1100	—	DE1100 GC	C32	Low BSFC
1250	—	DE1250 GC	C32	Low BSFC
1400	—	DE1400 GC	C32	Low BSFC
1500	—	DE1500 GC	C32	Low BSFC

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60 Hz, 8 – 600 kW RATINGS

kW		Generator Set Model	Engine	Configuration
Standby	Prime			
Single Phase Output* 1800 rpm				
8.8	8	DE7.5E3S	C1.1	R96/EU Stage IIIA Equivalent
13	12	DE11E3S	C1.5	R96/EU Stage IIIA Equivalent
17	15.5	DE14E3S	C2.2	R96/EU Stage IIIA Equivalent
19.4	17.6	DE16E3S	C2.2	R96/EU Stage IIIA Equivalent
45	40	DE40E0S	C3.3	Low BSFC
60	55	DE50E0S	C3.3	Low BSFC
99.5	90	DE90E2S	C4.4	EU Stage II Equivalent
Three Phase Output** 1800 rpm				
8.8	8	DE9.5E3	C1.1	R96/EU Stage IIIA Equivalent
13.2	12	DE13.5E3	C1.5	R96/EU Stage IIIA Equivalent
17.6	16	DE18E3	C2.2	R96/EU Stage IIIA Equivalent
20	18	DE22E3	C2.2	R96/EU Stage IIIA Equivalent
30	27	DE33E0	C3.3	Low BSFC
45	40	DE56AE0	C3.3	Low BSFC
45	40	DE50E0	C3.3	Low BSFC
50	45	DE55E0	C3.3	Low BSFC
60	55	DE75AE0	C3.3	Low BSFC
60	55	DE65E0	C3.3	Low BSFC
80	72	DE100AE0	C4.4	Low BSFC
80	72	DE88E0	C4.4	Low BSFC
100	90	DE125AE0	C4.4	Low BSFC
100	90.4	DE110E2	C4.4	EU Stage II Equivalent
132	120	DE150E0	C7.1	Low BSFC
135	120	DE169AE0	C7.1	Low BSFC
150	135	DE165E0	C7.1	Low BSFC
174	157	DE218AE0	C7.1	Low BSFC
175	160	DE200E0	C7.1	Low BSFC
200	180	DE200SE0	C9	Low BSFC
250	225	DE250SE0	C9	Low BSFC
275	250	DE275SE0	C9	Low BSFC
300	270	DE300SE0	C9	Low BSFC
350	320	DE350SE0	C13	Low BSFC
400	350	DE400SE0	C13	Low BSFC
450	410	DE450SE0	C15	Low BSFC
500	455	DE500SE0	C15	Low BSFC
550	500	DE550SE0	C18	Low BSFC
600	545	DE600SE0	C18	Low BSFC

*All ratings at 1.0 pf. **All ratings at 0.8 pf.

60 Hz, 600 – 750 kW RATINGS

kW		Generator Set Model	Engine	Configuration
Standby	Prime			
1800 rpm				
650	600	DE650SE0	C18	Low BSFC
716	650	DE715SE0	C18	Low BSFC
750	680	DE750SE0	C18	Low BSFC

60 Hz, 20 – 400 kW RATINGS EPA Stationary Emergency – North America.

kW		Generator Set Model	Engine	Configuration
Standby	Prime			
Single Phase Output* 1800 rpm				
20	—	D20	C2.2	ESE
25	—	D25	C2.2	ESE
30	—	D30	C2.2	ESE
40	36	D40S	C4.4	ESE
50	45	D50S	C4.4	ESE
60	55	D60S	C4.4	ESE
80	72	D80S	C4.4	ESE
100	90	D100S	C4.4	ESE
Three Phase Output** 1800 rpm				
20	—	D20	C2.2	ESE
25	—	D25	C2.2	ESE
30	—	D30	C2.2	ESE
40	36	D40	C4.4	ESE
50	45	D50	C4.4	ESE
60	55	D60	C4.4	ESE
80	72	D80	C4.4	ESE
100	90	D100	C4.4	ESE
125	114	D125	C7.1	ESE
150	136	D150	C7.1	ESE
175	158	D175	C7.1	ESE
200	—	D200	C7.1	ESE
200	180	200	C9	ESE
250	225	250	C9	ESE
300	275	300	C9	ESE
350	320	350	C13	ESE
400	365	400	C13	ESE
350	320	350	C15	ESE
400	365	400	C15	ESE

*All ratings at 1.0 pf. **All ratings at 0.8 pf. ESE = "EPA Stationary Emergency".

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60 Hz, 410 – 750 ekW RATINGS EPA Stationary Emergency – North America.

ekW		Generator Set Model	Engine	Configuration
Standby	Prime			
1800 rpm				
450	410	450	C15	ESE
500	455	500	C15	ESE
500	455	500	C18	EPA Tier 4 Final
550	500	550	C18	ESE
600	545	600	C18	ESE
650	600	650	C18	ESE
700	635	700	C18	ESE
750	680	750	C18	ESE

ESE = "EPA Stationary Emergency".

60 Hz, 635 – 2750 ekW RATINGS

ekW					Generator Set Model	Configuration
Standby	Mission Critical	Prime	Prime-DCP	Contin.		
1800 rpm						
700	—	635	—	—	3412C	Low BSFC
750	—	680	—	—	C27	ESE, Low BSFC
750	—	680	—	—	3412C	Low BSFC
800	800	725	—	—	C27	ESE, Low BSFC
800	—	725	—	—	3412C	Low BSFC
1000	1000	910	—	830	C32	ESE, Low BSFC
1100	1100	1000	1000	890	3512	Low BSFC
1100	1100	1000	—	—	C32	ESE, Low BSFC
1250	1250	1136	—	—	C32	ESE, Low BSFC
1250	1250	1135	1135	1010	3512	Low BSFC
1400	1400	1275	1275	—	3512B	Low BSFC, Low Emissions
1500	1500	1360	1360	1230	3512B	Low BSFC, Low Emissions
1500	1500	1360	1360	1230	3512C	ESE
1750	1750	1600	1600	—	3512C	ESE
1750	1750	1600	1600	1450	3516	Low BSFC
2000	2000	1825	1825	1640	3516B	Low BSFC, Low Emissions
—	—	1825	—	1640	3516B DGB	Low BSFC
2000	2000	1825	1825	1650	3516C	ESE
2000	2000	1825	1825	—	3516C	EPA Tier 4 Final
2250	2250	—	—	—	3516B	Low BSFC
2250	2250	2045	2045	—	3516C	ESE
2500	2500	2250	2250	2050	3516C	ESE
2500	2500	2250	2250	—	3516C	EPA Tier 4 Final
2750	2750	2500	2500	—	3516E	ESE

ESE = "EPA Stationary Emergency".

60 Hz, 2725 – 4000 ekW RATINGS

ekW					Generator Set Model	Configuration
Standby	Mission Critical	Prime	Prime-DCP	Contin.		
1800 rpm						
3000	3000	2725	2725	—	3516E	ESE
3000	3000	2725	2725	2500	C175-16	EPA Tier 4 Final, ESE, Low BSFC
3250	3250	3000	3000	—	C175-16	ESE
3500	3500	3180	3180	—	C175-20	ESE
3900	3900	3500	3500	3150	C175-20	ESE, Low BSFC
4000*	4000*	3600*	3600*	3250*	C175-20	ESE, Low BSFC

ESE = "EPA Stationary Emergency".

*Rating does not include package mounted radiator.

60 Hz, 1525 – 5320 ekW RATINGS

ekW			Generator Set Model	Configuration
Standby	Prime	Continuous		
900 rpm				
2000	1820	1650	3606	Low BSFC
—	1820	1650	C280-6	IMO/EPA Tier 2
2660	2420	2200	3608	Low BSFC
—	2420	2200	C280-8	IMO/EPA Tier 2, EPA Tier 4 Final*
4000	3640	3300	3612	Low BSFC
—	3640	3300	C280-12	IMO/EPA Tier 2, EPA Tier 4 Final*
5320	4840	4400	3616	Low BSFC
—	4840	4400	C280-16	IMO/EPA Tier 2, EPA Tier 4 Final*
720 rpm				
—	1525	—	3606	Low BSFC
—	2020	—	3608	Low BSFC
—	3050	—	3612	Low BSFC
—	4040	—	3616	Low BSFC

*Tier 4 Final is met using AVERAGE, BANKING, and TRADING PROGRAM.

60 Hz, 30 – 100 ekW RATINGS — Cat GC GLOBAL

ekW		Generator Set Model	Engine	Configuration
Standby	Prime			
1800 rpm				
30	—	DE33 GC	C3.3	Low BSFC
45	—	DE50 GC	C3.3	Low BSFC
50	—	DE55 GC	C3.3	Low BSFC
60	—	DE65 GC	C3.3	Low BSFC
80	—	DE88 GC	C4.4	Low BSFC
100	—	DE110 GC	C4.4	Low BSFC

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60 Hz, 132 – 1250 kW RATINGS — Cat GC GLOBAL

kW		Generator Set Model	Engine	Configuration
Standby	Prime			
1800 rpm				
132	—	DE150 GC	C7.1	Low BSFC
150	—	DE165 GC	C7.1	Low BSFC
175	—	DE200 GC	C7.1	Low BSFC
350	—	DE350S GC	C9.3	Low BSFC
400	—	DE400S GC	C9.3	Low BSFC
450	—	DE450S GC	C13	Low BSFC
500	—	DE500S GC	C13	Low BSFC
550	—	DE550S GC	C15	Low BSFC
600	—	DE600S GC	C15	Low BSFC
800	—	DE800S GC	C27	Low BSFC
1000	—	DE1000S GC	C32	Low BSFC
1250	—	DE1250S GC	C32	Low BSFC

60 Hz, 40 – 400 kW RATINGS — Cat GC NORTH AMERICA

kW		Generator Set Model	Engine	Configuration
Standby	Prime			
Single Phase Output* 1800 rpm				
40	—	D40 GC	C4.4	ESE
50	—	D50 GC	C4.4	ESE
60	—	D60 GC	C4.4	ESE
80	—	D80 GC	C4.4	ESE
100	—	D100 GC	C4.4	ESE
Three Phase Output** 1800 rpm				
40	—	D40 GC	C4.4	ESE
50	—	D50 GC	C4.4	ESE
60	—	D60 GC	C4.4	ESE
80	—	D80 GC	C4.4	ESE
100	—	D100 GC	C4.4	ESE
125	—	D125 GC	C7.1	ESE
150	—	D150 GC	C7.1	ESE
175	—	D175 GC	C7.1	ESE
200	—	D200 GC	C7.1	ESE
250	—	D250 GC	C9	ESE
300	—	D300 GC	C9	ESE
350	—	D350 GC	C13	ESE
400	—	D400 GC	C13	ESE

*All ratings at 1.0 pf. **All ratings at 0.8 pf. ESE = "EPA Stationary Emergency".

60 Hz, 450 – 1250 kW RATINGS — Cat GC NORTH AMERICA

kW		Generator Set Model	Engine	Configuration
Standby	Prime			
1800 rpm				
450	—	D450 GC	C15	ESE
500	—	D500 GC	C15	ESE
550	—	D550 GC	C18	ESE
600	—	D600 GC	C18	ESE
800	—	D800 GC	C27	ESE
1000	—	D1000 GC	C32	ESE
1250	—	D1250 GC	C32	ESE

ESE = "EPA Stationary Emergency".

50 Hz, 20 – 1893 kVA RATINGS — RENTAL POWER

kVA			Generator Set Model	Configuration
Standby	Prime	Continuous		
1500 rpm				
22	20	—	XQP20	EU Stage V
33	30	—	XQP30	Low BSFC
65	60	—	XQP60	R96/EU Stage IIIA Equivalent
110	100	—	XQP100	Low BSFC
125	114	—	XQP115	EU Stage V
165	150	—	XQP150	Low BSFC
220	200	—	XQP200	EU Stage V
330	300	—	XQP300	Low BSFC
340	310	—	XQP310	EU Stage V
550	500	—	XQP500	Low BSFC
605	550	—	XQP550	EU Stage V
1210	1100	—	XQP1100	Low BSFC
—	—	1438	XQC1200	Low BSFC / Low Emissions
—	—	1893	XQC1600	Low BSFC / Low Emissions

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60 Hz, 28 – 1705 kW RATINGS — RENTAL POWER

kW			Generator Set Model	Configuration
Standby	Prime	Continuous		
1800 rpm				
31	28	—	XQP30	Low BSFC
60	54	—	XQP60	R96/EU Stage IIIA Equivalent
103	94	—	XQP100	Low BSFC
137	125	—	XQP115	EU Stage V
149	135	—	XQP150	Low BSFC
198	180	—	XQP200	EU Stage V
302	275	—	XQP300	Low BSFC
297	270	—	XQP310	EU Stage V
460	420	—	XQP500	Low BSFC
512	470	—	XQP550	EU Stage V
1067	970	—	XQP1100	Low BSFC
—	—	1260	XQC1200	Low BSFC, Low Emissions
—	—	1705	XQC1600	Low BSFC, Low Emissions

60 Hz, 35 – 2500 kVA RATINGS — RENTAL POWER

kVA			Generator Set Model	Configuration
Standby	Prime	Continuous		
1800 rpm				
38	35	—	XQ35	EPA Tier 4 Final
—	60	—	XQ60	EPA Tier 4 Final
138	125	—	XQ125	EPA Tier 4 Final
250	228	—	XQ230	EPA Tier 4 Final
360	330	—	XQ330	EPA Tier 4 Final
469	425	—	XQ425	EPA Tier 4 Final
625	568	—	XQ570	EPA Tier 4 Final
1250	1136	—	XQ1140	EPA Tier 4 Final
2500	2280	—	XQ2280	EPA Tier 4 Final

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.

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.

Continuous: Output available with non-varying load for an unlimited time. Average power output is 70-100% of the continuous rated ekW. Typical peak demand is 100% of continuous rated ekW for 100% of the operating hours.