CATERPILLAR®

Gen Set Package Performance Data [24Z07842] June 16,2026

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Help

Performance Number:TM8907 **Change Level:** 08

Sales Model: 3512 DITA **Combustion:** DI **Aspr:** TA

Engine Power:
965 W/F EKW 980 W/O F EKW 1,381 HP **Speed:** 1,500 RPM **After Cooler:** JWAC

Manifold Type: DRY **Governor Type:** WDWRD **After Cooler Temp(F):** 180

Turbo Quantity: **Engine App:** GP **Turbo Arrangement:**

Hertz: 50 **Application Type:** PACKAGE-DIE **Engine Rating:** PGS **Strategy:**

Rating Type: CONTINUOUS **Certification:**

General Performance Data

GEN W/F EKW	PERCENT LOAD	ENGINE POWER BHP	ENGINE BMEP PSI	FUEL BSFC LB/BHP-HR	FUEL RATE GPH	INTAKE MFLD TEMP DEG F	INTAKE MFLD P IN-HG	INTAKE AIR FLOW CFM	EXH MFLD TEMP DEG F	EXH STACK TEMP DEG F	EXH GAS FLOW CFM
965	100	1375	229.74	0.34	66.39	190.76	56.98	3,100.63	1,115.96	835.16	7,783.36
868.5	90	1237	206.83	0.34	60.5	187.52	46.94	2,821.64	1,083.02	843.98	7,126.51
772	80	1101	184.06	0.35	54.26	184.28	39	2,560.32	1,050.26	835.88	6,430.81
723.8	75	1034	172.74	0.35	51.17	181.22	35.27	2,429.65	1,032.8	831.56	6,084.72
675.5	70	966	161.57	0.35	48.05	177.8	31.63	2,302.52	1,013.18	826.16	5,738.64
579	60	832	139.09	0.35	41.84	170.78	24.9	2,051.78	967.82	810.14	5,050
482.5	50	698	116.61	0.36	35.69	163.94	18.86	1,808.11	914.36	787.28	4,364.9
386	40	567	94.71	0.37	29.72	158.9	13.56	1,613.88	843.08	741.74	3,750.42
289.5	30	434	72.52	0.38	23.75	154.94	8.91	1,444.37	754.88	678.38	3,174.79
241.3	25	366	61.21	0.4	20.74	153.32	6.87	1,370.21	704.48	639.86	2,902.87
193	20	298	49.89	0.42	17.81	152.24	5.09	1,306.64	648.86	596.3	2,648.6
96.5	10	160	26.69	0.53	12.07	151.16	2.25	1,207.76	522.68	493.52	2,193.04

Engine Heat Rejection Data

GEN W/F EKW	PERCENT LOAD	REJ TO JW BTU/MN	REJ TO ATMOS BTU/MN	REJ TO EXHAUST BTU/MN	EXH RCOV TO 350F BTU/MN	FROM OIL CLR BTU/MN	FROM AFT CLR BTU/MN	WORK ENERGY BTU/MN	LHV ENERGY BTU/MN	HHV ENERGY BTU/MN
965	100	33,098.3	6,426.3	54,538.2	28,036.8	7,620.6	7,961.8	58,291.6	142,459.0	151,785.7
868.5	90	29,856.7	6,198.8	49,306.2	25,989.5	6,881.3	6,142.0	52,490.9	129,833.9	138,307.5
772	80	26,672.0	6,028.2	44,244.8	23,202.9	6,198.8	4,549.6	46,690.2	116,469.5	124,090.1
723.8	75	25,079.6	5,914.5	41,742.5	21,838.0	5,857.6	3,810.3	43,846.7	109,815.7	116,981.3
675.5	70	23,487.3	5,800.7	39,297.1	20,416.3	5,459.5	3,127.8	40,946.3	103,105.1	109,815.7
579	60	20,416.3	5,630.1	34,349.4	17,515.9	4,777.1	1,990.4	35,259.3	89,797.5	95,655.1
482.5	50	17,402.2	5,402.6	29,515.5	14,615.6	4,094.6	1,023.7	29,572.3	76,603.7	81,608.3
386	40	14,445.0	5,232.0	24,909.0	11,601.5	3,412.2	284.4	24,056.0	63,808.0	67,959.5
289.5	30	11,544.6	5,004.5	20,245.7	8,644.2	2,786.6	-341.2	18,369.0	50,955.4	54,310.7
241.3	25	10,122.8	4,890.8	17,914.0	7,165.6	2,445.4	-568.7	15,525.5	44,529.1	47,429.5
193	20	8,644.2	4,833.9	15,639.2	5,743.9	2,104.2	-739.3	12,625.1	38,216.6	40,718.8
96.5	10	5,743.9	4,606.5	11,089.6	3,014.1	1,421.8	-966.8	6,767.5	25,932.7	27,638.8

EXHAUST Sound Data: 4.92 FEET

GEN W/F EKW	PERCENT LOAD	OVERALL SOUND DB(A)	OBCF 63HZ DB	OBCF 125HZ DB	OBCF 250HZ DB	OBCF 500HZ DB	OBCF 1000HZ DB	OBCF 2000HZ DB	OBCF 4000HZ DB	OBCF 8000HZ DB
965	100	113	107	118	113	106	104	106	106	103
868.5	90	112	106	117	112	105	103	105	105	102
772	80	111	106	116	111	104	102	104	105	101

723.8	75	110	105	115	111	103	102	104	104	101
675.5	70	110	105	115	111	103	102	103	104	101
579	60	109	104	114	110	102	101	102	103	100
482.5	50	108	103	113	109	101	100	101	102	99
386	40	107	102	112	108	100	99	100	101	98
289.5	30	106	100	111	106	99	97	99	99	96
241.3	25	105	100	110	106	98	97	98	99	96
193	20	104	99	109	105	97	96	97	98	95
96.5	10	103	97	108	103	96	94	96	96	93

EXHAUST Sound Data: 22.97 FEET

GEN W/F EKW	PERCENT LOAD	OVERALL SOUND DB(A)	OBCF 63HZ DB	OBCF 125HZ DB	OBCF 250HZ DB	OBCF 500HZ DB	OBCF 1000HZ DB	OBCF 2000HZ DB	OBCF 4000HZ DB	OBCF 8000HZ DB
965	100	99	96	107	101	92	91	92	93	88
868.5	90	98	95	106	100	91	90	91	92	87
772	80	98	94	105	99	90	90	91	91	87
723.8	75	97	94	105	99	90	89	90	91	86
675.5	70	97	93	104	98	89	89	90	90	86
579	60	96	92	103	97	88	88	89	89	85
482.5	50	95	91	102	96	87	87	88	88	84
386	40	94	90	101	95	86	86	87	87	83
289.5	30	92	89	100	94	85	84	86	86	81
241.3	25	92	88	99	93	84	84	85	85	81
193	20	91	88	98	92	83	83	84	85	80
96.5	10	89	86	97	91	82	81	82	83	78

EXHAUST Sound Data: 49.21 FEET

GEN W/F EKW	PERCENT LOAD	OVERALL SOUND DB(A)	OBCF 63HZ DB	OBCF 125HZ DB	OBCF 250HZ DB	OBCF 500HZ DB	OBCF 1000HZ DB	OBCF 2000HZ DB	OBCF 4000HZ DB	OBCF 8000HZ DB
965	100	93	89	100	94	85	85	86	86	82
868.5	90	92	88	99	93	84	84	85	85	81
772	80	91	88	98	92	83	83	84	85	80
723.8	75	90	87	98	92	83	82	84	84	79
675.5	70	90	87	98	92	83	82	83	84	79
579	60	89	86	97	91	82	81	82	83	78
482.5	50	88	85	96	90	81	80	81	82	77
386	40	87	84	95	89	80	79	80	81	76
289.5	30	86	83	93	87	78	78	79	80	75
241.3	25	85	82	93	87	78	77	78	79	74
193	20	84	81	92	86	77	76	77	78	73
96.5	10	83	79	90	84	75	75	76	76	72

MECHANICAL Sound Data: 3.28 FEET

GEN W/F EKW	PERCENT LOAD	OVERALL SOUND DB(A)	OBCF 63HZ DB	OBCF 125HZ DB	OBCF 250HZ DB	OBCF 500HZ DB	OBCF 1000HZ DB	OBCF 2000HZ DB	OBCF 4000HZ DB	OBCF 8000HZ DB
965	100	104	121	112	103	96	97	98	96	99
868.5	90	104	121	112	103	96	97	98	96	99
772	80	104	121	112	103	96	97	98	96	99
723.8	75	104	121	112	103	96	97	98	96	99
675.5	70	104	121	112	103	96	97	98	96	99
579	60	104	121	112	103	96	97	98	96	99
482.5	50	104	121	112	103	96	97	98	96	99
386	40	104	121	112	103	96	97	98	96	99
289.5	30	104	121	112	103	96	97	98	96	99
241.3	25	104	121	112	103	96	97	98	96	99
193	20	104	121	112	103	96	97	98	96	99
96.5	10	103	121	111	103	95	95	96	94	97

MECHANICAL Sound Data: 22.97 FEET

GEN W/F EKW	PERCENT LOAD	OVERALL SOUND DB(A)	OBCF 63HZ DB	OBCF 125HZ DB	OBCF 250HZ DB	OBCF 500HZ DB	OBCF 1000HZ DB	OBCF 2000HZ DB	OBCF 4000HZ DB	OBCJ 8000HZ DB
965	100	92	108	99	91	84	85	86	84	87
868.5	90	92	108	99	91	84	85	86	84	87
772	80	92	108	99	91	84	85	86	84	87
723.8	75	92	108	99	91	84	85	86	84	87
675.5	70	92	108	99	91	84	85	86	84	87
579	60	92	108	99	91	84	85	86	84	87
482.5	50	92	108	99	91	84	85	86	84	87
386	40	92	108	99	91	84	85	86	84	87
289.5	30	92	108	99	91	84	85	86	84	87
241.3	25	92	108	99	91	84	85	86	84	87
193	20	92	108	99	91	84	85	86	84	87
96.5	10	91	108	99	90	83	83	84	82	85

MECHANICAL Sound Data: 49.21 FEET

GEN W/F EKW	PERCENT LOAD	OVERALL SOUND DB(A)	OBCF 63HZ DB	OBCF 125HZ DB	OBCF 250HZ DB	OBCF 500HZ DB	OBCF 1000HZ DB	OBCF 2000HZ DB	OBCF 4000HZ DB	OBCF 8000HZ DB
965	100	86	102	92	84	78	79	80	78	81
868.5	90	86	102	92	84	78	79	80	78	81
772	80	86	102	92	84	78	79	80	78	81
723.8	75	86	102	92	84	78	79	80	78	81
675.5	70	86	102	92	84	78	79	80	78	81
579	60	86	102	92	84	78	79	80	78	81
482.5	50	86	102	92	84	78	79	80	78	81
386	40	86	102	92	84	78	79	80	78	81
289.5	30	86	102	92	84	78	79	80	78	81
241.3	25	86	102	92	84	78	79	80	78	81
193	20	86	102	92	84	78	79	80	78	81
96.5	10	85	102	92	84	77	77	78	76	79

EMISSIONS DATA

Certification:

To properly apply this data you must refer to performance parameter DM1176 for additional information...

REFERENCE EXHAUST STACK DIAMETER	10 IN
WET EXHAUST MASS	--
WET EXHAUST FLOW (-- STACK TEMP)	--
WET EXHAUST FLOW RATE (32 DEG F AND 29.98 IN HG)	--
DRY EXHAUST FLOW RATE (32 DEG F AND 29.98 IN HG)	--
FUEL FLOW RATE	--

Altitude Capability Data(Corrected Power Altitude Capability)

Ambient Operating Temp. Altitude	50 F	68 F	86 F	104 F	122 F	NORMAL
0FT	1,381.25hp	1,381.25hp	1,381.25hp	1,381.25hp	1,381.25hp	1,381.25hp
984.25FT	1,381.25hp	1,381.25hp	1,381.25hp	1,381.25hp	1,381.25hp	1,381.25hp
1,640.42FT	1,381.25hp	1,381.25hp	1,381.25hp	1,381.25hp	1,381.25hp	1,381.25hp
3,280.84FT	1,381.25hp	1,381.25hp	1,381.25hp	1,354.43hp	1,311.52hp	1,381.25hp
4,921.26FT	1,381.25hp	1,361.14hp	1,315.54hp	1,273.97hp	1,235.08hp	1,358.45hp
6,561.68FT	1,324.93hp	1,279.33hp	1,237.76hp	1,197.53hp	1,159.98hp	1,291.4hp
8,202.1FT	1,244.47hp	1,201.55hp	1,162.66hp	1,125.12hp	1,090.25hp	1,227.03hp
9,842.52FT	1,168.03hp	1,129.14hp	1,091.59hp	1,056.72hp	1,023.2hp	1,164.01hp

10,498.69FT	1,138.53hp	1,099.64hp	1,063.43hp	1,029.9hp	997.72hp	1,141.21hp

The powers listed above and all the Powers displayed are Corrected Powers

Identification Reference and Notes

Engine Arrangement:	2W8405	**Lube Oil Press @ Rated Spd(PSI):**	55.8
Effective Serial No:	24Z07690	**Piston Speed @ Rated Eng SPD(FT/Min):**	1,870.1
Primary Engine Test Spec:	0T9419	**Max Operating Altitude(FT):**	4,363.5
Performance Parm Ref:	TM5739	**PEEC Elect Control Module Ref**	
Performance Data Ref:	TM8907	**PEEC Personality Cont Mod Ref**	
Aux Coolant Pump Perf Ref:			
Cooling System Perf Ref:	TD3097	**Turbocharger Model**	TV9211-1.47
Certification Ref:		**Fuel Injector**	1111775
Certification Year:		**Timing-Static (DEG):**	--
Compression Ratio:	13	**Timing-Static Advance (DEG):**	--
Combustion System:	DI	**Timing-Static (MM):**	--
Aftercooler Temperature (F):	180	**Unit Injector Timing (MM):**	87.2
Crankcase Blowby Rate(CFH):	688.6	**Torque Rise (percent)**	--
Fuel Rate (Rated RPM) No Load(Gal/HR):	5.6	**Peak Torque Speed RPM**	--
Lube Oil Press @ Low Idle Spd(PSI):	20.0	**Peak Torque (LB.FT):**	--

Reference Number: 24Z07842

DRIVE RATIO 0.372
FAN- 8 BLADES, 1829 mm (72.1 IN) DIA, 14.5 BKW (19.5 BHP)
MECHANICAL SOUND DATA REPRESENTS WITH FAN

Parameters Reference: TM5739

GEN SET - PACKAGED - DIESEL

TOLERANCES:
AMBIENT AIR CONDITIONS AND FUEL USED WILL AFFECT THESE VALUES. EACH OF THE VALUES MAY VARY IN ACCORDANCE WITH THE FOLLOWING TOLERANCES.

Power	+/- 3%
Exhaust Stack Temperature	+/- 8%
Generator Power	+/- 5%
Inlet Airflow	+/- 5%
Intake Manifold Pressure-gage	+/- 10%
Exhaust Flow	+/- 6%
Specific Fuel Consumption	+/- 3%
Fuel Rate	+/- 5%
Heat Rejection	+/- 5%
Heat Rejection - Exhaust Only	+/- 10%

T4i Tolerance Exceptions
C15: Power Tolerance +4% , -0%
C27: Power Tolerance +0% , -4%

CONDITIONS:
ENGINE PERFORMANCE IS CORRECTED TO INLET AIR STANDARD CONDITIONS OF 99 KPA (29.31 IN HG) AND 25 DEG C (77 DEG F).

THESE VALUES CORRESPOND TO THE STANDARD ATMOSPHERIC PRESSURE AND TEMPERATURE IN ACCORDANCE WITH SAE J1349. ALSO INCLUDED IS A CORRECTION TO STANDARD FUEL GRAVITY OF 35 DEGREES API HAVING A LOWER HEATING VALUE OF 42,780 KJ/KG (18,390 BTU/LB) WHEN USED AT 29 DEG C (84.2 DEG F) WHERE THE DENSITY IS 838.9 G/L (7.002 LB/GAL).

THE CORRECTED PERFORMANCE VALUES SHOWN FOR CATERPILLAR ENGINES WILL

APPROXIMATE THE VALUES OBTAINED WHEN THE OBSERVED PERFORMANCE DATA IS CORRECTED TO SAE J1349, ISO 3046-2 & 8665 & 2288 & 9249 & 1585, EEC 80/1269 AND DIN70020 STANDARD REFERENCE CONDITIONS.

ENGINES ARE EQUIPPED WITH STANDARD ACCESSORIES; LUBE OIL, FUEL PUMP AND JACKET WATER PUMP. THE POWER REQUIRED TO DRIVE AUXILIARIES MUST BE DEDUCTED FROM THE GROSS OUTPUT TO ARRIVE AT THE NET POWER AVAILABLE FOR THE EXTERNAL (FLYWHEEL) LOAD. TYPICAL AUXILIARIES INCLUDE COOLING FANS, AIR COMPRESSORS, AND CHARGING ALTERNATORS.

RATINGS MUST BE REDUCED TO COMPENSATE FOR ALTITUDE AND/OR AMBIENT TEMPERATURE CONDITIONS ACCORDING TO THE APPLICABLE DATA SHOWN ON THE PERFORMANCE DATA SET.

ALTITUDE:
ALTITUDE CAPABILITY - THE RECOMMENDED REDUCED POWER VALUES FOR SUSTAINED ENGINE OPERATION AT SPECIFIC ALTITUDE LEVELS AND AMBIENT TEMPERATURES.

COLUMN "N" DATA - THE FLYWHEEL POWER OUTPUT AT NORMAL AMBIENT TEMPERATURE.

AMBIENT TEMPERATURE - TO BE MEASURED AT THE AIR CLEANER AIR INLET DURING NORMAL ENGINE OPERATION.

NORMAL TEMPERATURE - THE NORMAL TEMPERATURE AT VARIOUS SPECIFIC ALTITUDE LEVELS IS FOUND ON TM2001.

THE GENERATOR POWER CURVE TABULAR DATA REPRESENTS THE NET ELECTRICAL POWER OUTPUT OF THE GENERATOR.

GENERATOR SET RATINGS

EMERGENCY STANDBY POWER (ESP)

OUTPUT AVAILABLE WITH VARYING LOAD FOR THE DURATION OF AN EMERGENCY OUTAGE. AVERAGE POWER OUTPUT IS 70% OF THE ESP RATING. TYPICAL OPERATION IS 50 HOURS PER YEAR, WITH MAXIMUM EXPECTED USAGE OF 200 HOURS PER YEAR.

STANDBY POWER RATING

OUTPUT AVAILABLE WITH VARYING LOAD FOR THE DURATION OF AN EMERGENCY OUTAGE. 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.

PRIME POWER RATING

OUTPUT AVAILABLE WITH VARYING LOAD FOR AN UNLIMITED TIME. AVERAGE POWER OUTPUT IS 70% OF THE PRIME POWER RATING. TYPICAL PEAK DEMAND IS 100% OF PRIME RATED 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 POWER RATING

OUTPUT AVAILABLE WITH NON-VARYING LOAD FOR AN UNLIMITED TIME. AVERAGE POWER OUTPUT IS 70-100% OF THE CONTINUOUS POWER RATING. TYPICAL PEAK DEMAND IS 100% OF CONTINUOUS RATED EKW FOR 100% OF OPERATING HOURS.

SOUND DEFINITIONS:

Sound Power : DM8702
Sound Pressure : TM7080

Date Released : 03/14/12