

#### OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR OSHPD SPECIAL SEISMIC	OFFICE USE ONLY
CERTIFICATION PREAPPROVAL (OSP)	APPLICATION #: OSP-0667
OSHPD Special Seismic Certification Preapproval (OSP)	
Type: X New Renewal	
Manufacturer Information	
Manufacturer: Kohler	
Manufacturer's Technical Representative: Brady Eifrid	
Mailing Address: N 7650 Lakeshore Road, Sheboygan, WI 53083	
Telephone: (920) 457-4441 Ext 33060 Email: brady.eifrid@kol	hler.com
Product Information	Mp,
Product Name: Emergency and Standby Power Systems	F
Product Type: Generators	- Cr
Product Model Number: 80kW-500kW REOZJx Diesel Powered Electrical C	Generators
General Description: Application Diesel powered electrical Generators	ari
Mounting Description: Rigid, Floor Mounted	
Tested Seismic Enhancements: Seismic enhancements made to the tes anomalies during the tests shall be inco	t units and/or modifications required to address provide the production units.
Applicant Information	
Applicant Company Name: VMC Group	ODE
Contact Person: John Giuliano	
Mailing Address: Main Street, Bloomingdale, NJ 07403	
Telephone: (973) 838-1780 Email: john.giuliano@th	hevmcgroup.com
Title: President	

STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY

OSP-0667

OSHPD



#### OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT FACILITIES DEVELOPMENT DIVISION

California Licensed Structural Engineer	Respons	sible for the Engineering and Test Report(s)
Company Name: THE VMC GROUP		
Name: Kenneth Tarlow		California License Number: S2851
Mailing Address: 980 9th Street, 16th Floor, Sa	cramento,	, CA 95814
Telephone: (832) 627-2214	Email:	ken.tarlow@thevmcgroup.com
Certification Method		
GR-63-Core X ICC-ES AC15	6	□ IEEE 344 □ IEEE 693 □ NEBS 3
Other (Please Specify):		
	50	RCODECO
Testing Laboratory	ED	MD,
Company Name: UNIVERSITY OF CALIFORN	IA, BERKE	ELEY (PEER)
Contact Person: Amarnath Kasalanati		
Mailing Address: 1301 S. 46th Street, Berkeley	CA 94804	4 4
Telephone: (510) 642-6475	Email:	amarnath1@berkeley.edu
	DATE:	12/07/2020
9		A CONTRACTOR OF THE OFFICE OFF
	RNIA	BUILDING CODE: 200
	- A	BUILDING

"Access to Safe. Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"





# OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT FACILITIES DEVELOPMENT DIVISION

#### Seismic Parameters

Design Basis	s of Equipment or Components	(Fp/Wp) =	3.6		
Sds (D	Design spectral response accele	eration at sh	ort period, g) = $2.0$		
a <sub>P</sub> (An	nplification factor) =	2.5 (interna	al neoprene isolation)		
Rp (Re	esponse modification factor) =	2.5 (interna	al neoprene isolation)		
Ω0 (Sy	vstem overstrength factor) =	2.0			
lp (Imp	portance factor) =	1.5			
z/h (H	eight ratio factor) =	1			
Natura	al frequencies (Hz) =	See Attach	ed UUT Sheets		
Overa	II dimensions and weight =	See Attach	ed Certified Product T	ables	
		NEDF		1011	
OSHPD Ap	proval (For Office Use Only	) - Approv	al Expires on 12/31	/2025	
Date: 12	/7/2020		OSP-0667	m	
Name: Mo	hammad Aliaari			Title:	Senior Structural Engineer
Special Seis	mic Certification Valid Up to: St	ps(g) = 2.0	Iohammad Aliaal	z/h =	1

Condition of Approval (if applicable):



"Access to Safe. Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs"

OSHPD

	Max	-		Max	Dimensions	[ in ]	Max Wet			
Model	Rating	MFR	Configuration	Length	Width	Height	Weight [ lbs ]	S <sub>DS</sub>	z/h	UUT
80REOZJF	80		Open	142.0	72.0	86.6	11,508			
OUREUZJE	80		Enclosed	142.0	72.0	106.6	12,233			Extrapolated
100REOZJF	100		Open	142.0	72.0	86.6	11,508			
TOULCE	100		Enclosed	142.0	72.0	106.6	12,850			UUT-1
125REOZJG	125		Open	175.0	72.0 C	102.5	15,119			
1231120239	125		Enclosed	175.0	72.0	111.0	15,919			
150REOZJF	150		Open 🦯	175.0	72.0	102.5	15,119			
IJUNEUZJE	150		Enclosed	175.0	72.0	111.0	15,919			
180REOZJG	180		Open	214.0	72.0	111.0	17,336			
TOUREOZJO	100		Enclosed	214.0	P_72.067	122.4	18,636			
200REOZJF	200		Open	214.0	72.0	111.0	18,312			
ZUUREUZJF	200		En <mark>close</mark> d	214.0	72.0	122.4	19,162			Interpolated
	230		Open	By210.0pha	mn <b>51.2</b> Ali	aar110.4	15,847			
230REOZJE	230		Enclosed	210.0	52.7	121.0	<mark>16,297 1</mark> 6			
250REOZJE	250		Open	210.0	51.2	104.0	15,847			
ZOUREUZJE	250	Kohler	Enclosed	D/210.0 12	/07527020	121.0	16,397	2.0	1.0	
	075		Open	210.0	51.2	110.4	15,847			
275REOZJE	275		Enclosed	210.0	52.7	121.0	/ 16,697			
300REOZJ	300		Open	220.0	51.2	111.0	16,632			
JUREUZJ	300		Enclosed	220.0	51.2	116.0	18,000			UUT-2
350REOZJC	350		Open	247.3	102.0	118.0	35,074			
JOUREOZJC	350		Enclosed	271.3 8	102.0	137.0	37,279			Internelated
			Open	247.3	102.0	118.0	35,074			Interpolated
350REOZJD	350		Enclosed	271.3	102.0	137.0	37,279			
			Enclosed	271.3	56.0	129.0	22,250			UUT-3
	400		Open	286.0	102.0	118.0	38,991			
400REOZJC	400		Enclosed	286.0	102.0	137.0	41,196			
	400		Open	286.0	102.0	118.0	38,991			Interpolated
400REOZJD	400		Enclosed	286.0	102.0	137.0	41,196			
	500		Open	327.0	102.0	118.0	43,437			
500REOZJC	500		Enclosed	327.0	102.0	137.0	43,800			UUT-4

## Table 1 - Certified Open & Enclosed Generators On Tanks (External Rigid Mounting)

	Max			Max	Dimensions	[ in ]	Max			5/
Model	Rating [ kW ]	MFR	Configuration	Length	Width	Height	Weight [ lbs ]	S <sub>DS</sub>	z/h	UUT
80REOZJF	80		Open	91.9	34.0	47.9	2,480			
001120201			Enclosed	111.1	45.5	60.0	3,269	ļ		
100REOZJF	100		Open	91.9	34.0	47.9	2,720	1		
			Enclosed	111.1	45.5	60.0	3,510	1		
125REOZJG	125		Open	106.3	44.F C	60.1	2,702	1		
1201 (20200	.20		Enclosed	139.0	45.4	69.0	3,632	1		
150REOZJF	150		Open	116.1	44.1	60.1	3,090	1		
			Enclosed	139.0	45.4	69.0	4,101	1		
180REOZJG	180		Open	118.1	51.2	65.7	3,190	1		
1001120200			Enclosed	161.2	P-51-267	84.0	4,810	1		
200REOZJF	200		Open	118.1	51.2	65.8	4,240			
			En <mark>close</mark> d	161.2	51.2	84.0	5,090			
230REOZJE	230		Open	BY118/10ha	imn <b>5</b> 1,2 Ali	aari74.4	5,400			
			En <mark>close</mark> d	162.3	52.7	84.9	<mark></mark> 5,850			
250REOZJE	250	Kohler	Open	118.1	51.2	74.4	5,400	2.0	1.0	Interpolated
			Enclosed	DA162.3 12	1/0/52.7020	84.9	5,950			interpolated
275REOZJE	275		Open	118.1	51.2	74.4	5,400	1		
	2.0		Enclosed	162.3	52.7	84.9	6,250	1		
300REOZJ	300		Open	118.1	51.2	66.5	5,400	1		
			Enclosed	162.3	52.7	84.9	6,250	1		
350REOZJC	350		Open	142.9	56.1	75.6	8,600	1		
			Enclosed	218.3	58.9	93.0	11,500	1		
350REOZJD	350		Open	142.9	56.1	75.6	8,600	1		
			Enclosed	218.3	58.9	93.0	11,500	1		
400REOZJC	400		Open	142.9	56.1	75.6	8,600	1		
1001120200	100		Enclosed	218.3	58.9	93.0	11,500	1		
400REOZJD	400		Open	142.9	56.1	75.6	8,600	1		
			Enclosed	218.3	58.9	93.0	11,500	1		
500REOZJC	500		Open	142.9	56.1	75.6	8,600	1		
			Enclosed	218.3	58.9	93.0	11,500			

## Table 2 - Certified Open & Enclosed Generators Off Tanks (External Rigid Mounting)

Туре	kW Range	MFR	Туре	Silencer	Enclosure Part Number	Weight [ lb ]	Int. Silencer Part No.	Silencer Weight [ Ib ]	S <sub>DS</sub>	z/h	UUT
	80-100		Steel Weather	Yes	GM87407-KA2	700	GM59117	57			Extrapolated
	80- <u>100</u>		Steel Sound Level 2	Yes	GM87407-KA1	725	GM59117	57			UUT-1
	125		Steel Weather	Yes	GM87408-KA2	750	GM71385	66			
	125		Steel Sound Level 2	Yes	GM87408-KA1	800	GM71385	66			
	150		Steel Weather	Yes	GM87409-KA2	750	GM71385	66			
	150		Steel Sound Level 2	Yes	GM87409-KA1	800	GM71385	66		1.0	Interpolated
REOZJx	180-200	Kohler	Steel Weather	Yes	GM110486-KA2	1,090	GM70083	101	2.0		
NLO23A	180-200	Ronier	Steel Sound Level 2	Yes	GM110486-KA1	1,290	GM70083	101	2.0	1.0	
	230-300		Steel Weather	Yes	GM110487-KA2	800	GM75600	135			
	230- <u>300</u>		Steel Sound Level 2	Yes	GM110487-KA1	850	GM75600	135			UUT-2
	350 - 500		Steel Weather	Yes	GM109350-KA3	1,850	GM110935	140			Interpolated
	350 - 500		Steel Sound Level 1	Yes	GM109350-KA2	_ 1,900	GM110935	140			interpolated
	350 - <u><b>500</b></u>		Steel Sound Level 2	Yes	GM109350-KA1	2,200	GM109791, GM109792	165 (each)			UUT-4

#### **Table 3a - Certified Steel Enclosures**

Note: Enclosures Are Certified For Use With or Without Internal Silencers. Bold underlined number indicates UUT kW rating.

#### Table 3b - Certified Aluminum Enclosures

Туре	kW Range	MFR	Туре	Silencer	E: Enclosure Part Number	2Weight [ Ib ]	Int. Silencer Part No.	Silencer Weight [ Ib ]	S <sub>DS</sub>	z/h	UUT
	80-100		Aluminum Sound Level 2	/ Yes	GM87407-KA3	450 🗸	GM59117	57			
	125		Aluminum Sound Level 2	Yes	GM87408-KA3	500	GM71385	66			
	150		Aluminum Sound Level 2	Yes	GM87409-KA3	500	GM71385	66			Interpolated
REOZJx	180-200	Kohler	Aluminum Sound Level 2	Yes	GM110486-KA3	660	GM70083	101	2.0	1.0	Interpolated
REOZJA	230-300	NULLEI	Aluminum Sound Level 2	Yes	GM110487-KA3	525	GM75600	135	2.0	1.0	
	350 - 500		Aluminum Sound Level 1	Yes	GM110077-KA2	1,000	GM110935	140			
	<u><b>350</b></u> - 500		Aluminum Sounds Level 2	Yes	GM110077-KA1	1,300	GM109791, GM109792	165 (each)			UUT-3

Note: Enclosures Are Certified For Use With or Without Internal Silencers. All enclosures in the 350 – 500 kW range are the same. Bold underlined number indicates UUT kW rating.

## Table 4 - Certified Tanks

Туре	kW Range	MFR	Dry Weights of Tanks [ lb ]	Wet Weights of Tanks [ lb ]	Gallons	Part Number	S <sub>DS</sub>	z/h	UUT
			1,312	2,762	215	GM69240-1			Extranalated
	80- <u>100</u>		1,840	4,639	415	GM69240-2			Extrapolated
			3,536	9,040	816	GM69240-3			UUT-1
			1,612	3,743	316	GM70816-1			
	125-150		2,211	6,224	595	GM77834			
			4,573	12,417	1,163	GM70816-3			
			2,721	5,527 CUDE	416	GM71640-1			
	180-200		3,440	8,600	765	GM71640-2			Interpolated
			3,809	14,041	1,517	GM71640-3			
	230-275		2,738	6,481	555	GM74711-1			
	230-275		4,081	10,448	944	GM74929-1			
	300		2,738	6,481	- 555	GM74711-1			
	300		3,989	11,233000	1,074	GM74711-2			UUT-2
			2,864	5,589	404	GM85993-1			Interpolated
			3,411	8,632	Ali <b>774</b>	GM85993-3			interpolated
OZJx	350	Kohler	4,071	11,902	1,161	GM85993-5	2.0	1.0	UUT-3
UZJX	330	NUTILET	6,416	15,434	1,337	G <mark>M109</mark> 735-7	2.0	1.0	
			8,222	DAT21,6512/07/20	201,991	GM109735-10			
			8,958	26,765	2,640	GM109735-12			
			2,864	5,589	404	GM85993-1			
			3,411	8,632	774 🗸	GM85993-3			
	400		4,071	11,902	1,161	GM85993-5			
	400		6,702	17,130	1,546	GM109735-8			
			8,585	24,173	G2,311	GM109735-11			Interpolated
			9,758	30,431	3,065	GM109735-13			
			2,939	6,096	468	GM85993-2			
			3,594	9,624	894	GM85993-4			
			4,616	13,607	1,333	GM85993-6			
	500		5,855	17,746	1,763	GM85993-8			
	500		7,020	18,925	1,765	GM109735-9			
			8,958	26,765	2,640	GM109735-12			
			10,720	34,462	3,520	GM109735-14			UUT-4

Note: Bold underlined number indicates UUT kW rating.

_							
Туре	kW Range	Manufacturer	Model Number	Weight [ Ib ]	S <sub>DS</sub>	z/h	UUT
	80 - 125 / <u>100</u>		4045HF285	1,082			UUT-1
	150		6068HF285	1,340			
	180		6068HFG82	1,340			Interpolated
REOZJx	200	John Deere	6068HFG85	FG85 1,495 2.0 1	1.0	Interpolated	
REUZJX	230 - 275		6090HF484	1,986	2.0	1.0	
	300		6090HFG86	1,854			UUT-2
	<u><b>350</b></u> - 400 - 100		<u>6135HFG84</u> / 6135HF485 <u>2,941</u> /3,291		UUT-3		
	500		6135HFG75R COD	<u>E 2,941</u>			UUT-4

#### **Table 5 - Certified Engines**

# Note: Bold underlined numbers indicate UUT kW rating, engine model number and weight. Table 6 - Certified Block Heaters

Туре	kW Range	Manufacturer	Model Number	Weight [ lb ]	S <sub>DS</sub>	z/h	UUT
	80		TPS151GT8-001 P_0	67	m		
			TPS152GT8-002				Extrapolated
	100		TPS151GT8-001	1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 -			
	100		TPS152GT8-002amma	d Aliaa7i 🔤			UUT-1
	125		TPS151GT8-001				
	125		TPS151GT12-001				
	150		TPS151GT8-0012/07/2	2020			
	180		CB125108-005				
REOZJx	200	Kim Hotstart	CB125108-005		2.0	1.0	Interpolated
	230		CB125108-005, CB125808-005,	$\langle \rangle > \gamma$			
	230		CB125208-005				
	250		CB125808-005	60			
	275		CB125208-005	NG 6.9			
	300		CB125408-005				UUT-2
	350		CB125108-005				UUT-3
	400		CB125108-005				Interpolated
	500		CB125108-005				UUT-4

Туре	kW	Manufacturer	Model Number	Weight [ Ib ]	S <sub>DS</sub>	z/h	UUT
	80						Extrapolated
	100	Cummins					UUT-1
	125	Filtration	FHG14002-301-140-7	12			
	150	Tillauon					
	180						
	200						Interpolated
REOZJx	230				2.0	1.0	
	250		D120038-016-140COD	E 17.4			
	275	Donaldson	DFO	No No			
	300	Co, Inc	NEL				UUT-2
	350		A OCH	DN			UUT-3
	400		FRG180031-387-140	U 44			Interpolated
	500		4 00000	07	C		UUT-4

### Table 7 - Certified Air Filter Assemblies

Note: Each model from 80 to 180 kW range uses identical Cummins Filtration air filter, mounted with the same bracing and rigidity.

#### Table 8 - Certified Alternators

Туре	kW Range	Manufacturer	Model Number	d Aliaari Weight [ lb ]	S <sub>DS</sub>	z/h	UUT
	80		4PX, 4RX, 4TX	812			Extrapolated
	<u>100</u> - 125		4RX, 4TX, 4SX 2/07/2	2020			UUT-1
	150		<u>+IXX</u> , 41X, 43X	1,165			
	180		4SX		$\mathbf{N}$		
	200	Kohler	4UA, 4SX	$\sim \gamma$			Interpolated
REOZJx	230				2.0	1.0	Interpolated
NLO23X	250			2,360	2.0		
	275		AUAIA BUILD	NG			
	300		SULD				UUT-2
	350		<b>4M</b> , 5M				UUT-3
	400	Marathon	<u>4101</u> , 3101	2,960			Interpolated
	500		5M				UUT-4

Note: Bold underlined numbers indicate UUT kW rating and alternator model numbers.

#### **Table 9 - Certified Radiators**

Туре	kW Range	Manufacturer	Model Number	Weight [ lb ]	S <sub>DS</sub>	z/h	UUT
	80 - <b>100</b>		RS-6479	74			UUT-1
	125		RS-6889	86			Interpolated
	150		RS-5847	79			Interpolated
REOZJx	180	JB Radiator	RS-7306	137	2.0	1.0	Interpolated
	200		RS-5849	119			Interpolated
	230 - <u>300</u>		RS-6977	215			UUT-2
	<u> 350 - 500</u>		RS-8510	401			UUT-3, UUT-4
Note: Bold und	derlined numbers ir	ndicate UUT kW rati	ngs.	ECO			

#### **Table 10 - Certified Skids**

Туре	kW Range	Manufacturer	Material / Thickness	Weight [ lb ]	S <sub>DS</sub>	z/h	UUT
REOZJx	80 - 300	Kohler	Carbon Steel / 7 Ga.	286	2.0	1.0	UUT-1, UUT-2
REUZJX	350 - 500	Koniei	Carbon Steel / 0.25"	736	2.0	1.0	UUT-3, UUT-4

## Table 11 - Certified Controllers

Туре	kW Range	Manufacturer	Model Numberammad Weig	ht[lb] S <sub>DS</sub>	z/h	UUT
			DEC550	2.2		
			DEC3000	3.3		Extrapolated
REOZJx	80 - 500	Kohler	DEC6000 2/07/2020	4.1 2.0	1.0	
			APM402	3.3		<b>UUT-2, UUT-3</b>
			APM603	3.2		UUT-1, UUT-4

# Table 12 - Certified Miscellaneous Components

Туре	kW Range	Manufacturer	Model Number	Weight [ Ib ]	S <sub>DS</sub>	z/h	UUT
		TPI Corporations	GM107653 Space Heater	19			UUT-4
REOZJx	350-500	Vyron	GM110157 Motorized Intake	67	2.0	1.0	UUT-3, UUT-4
REUZJX	350-500	vyron	GM110158 Gravity Discharge Dampers	43	2.0	1.0	UUT-3, UUT-4
		CoolSys	GM110142 Venting Fan	28			UUT-4



UUT-1

#### Summary Sheet

DCL 31214-2001

Model Line			N	lodel Numb	er		N	/anufacture	
Emergency Power Ge	enerators			100REOZJF	-			Kohler	
	•			onstruction					
100 kW Diesel Genset,	Steel Sound	Level 2 Encl	losure, 816	gallons Fue	l Tank				
		c	Options / Si	ubcompone	ent Summary	1			
John Deere Engine, Koł	nler Alternato	r, JB Radiat	ors Radiato	r, Kohler AP	M603 Contro	oller			
			-01	R CODA					
			COFU		- COM				
		, P		UT Properti	es				
Wet Weight				ons [ in ]	D	P	Lowes	st Nat. Freq	. [ Hz ]
[ lbs ]	Len			dth	Hei		F-B	S-S	V
12,850	14			25P-06	þ <b>í</b> 106		5.5	3.5	10
			-	1	c Run Inform			-	-
Building Code	Test C	4444444	BYSD\$/0	han <b>z/m</b> ac	Aliaari	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>
CBC 2019	ICC-ES	AC156	2	1.00 Mounting D	1.5	3.2	2.4	1.34	0.54
		KOHLER	KOHLERPOAR			20°		••	
~	AL.		and top						



UUT-1

#### Summary Sheet

DCL 31214-2001

								51214-200
Model Line		Μ	odel Numb	er		N	lanufacture	)r
Emergency Power Ge	enerators		100REOZJF	:			Kohler	
		Product C	onstruction	Summary				
00 kW Diesel Genset,	Steel Sound Level	2 Enclosure, 816	gallons Fue	l Tank				
		Options / Su	Ibcompone	nt Summary	/			
lohn Deere Engine, Koł	nler Alternator, JB	Radiators Radiato	r, Kohler AP	M603 Contro	oller			
		FOR		CON				
		NEVU	JT Properti	es				
Wet Weight		Dimensi	ons [ in ]	$\mathbf{D}$	T,	Lowes	st Nat. Freq.	. [ Hz ]
[ lbs ]	Length	Wi	dth	Hei	ght	F-B	S-S	v
12,850	142 📿	9	25P-06	67 106	6.5	5.5	3.5	10
	l	JUT Highest Pas	sed Seismi	c Run Inforn	nation			
Building Code	Test C <mark>riteria</mark>	BYSDS/O	han <b>z/h</b> had	Aliæari	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>
CBC 2019	ICC-ES AC15	6 2	1.00	1.5	3.2	2.4	1.34	0.54
		DATE:	liscellaneo	JZU				
Notes: Height measurement of	106.5" includes the	e exhaust pipe hei	ght.		6102			
98.5" is the measured h	eight without exhau	ust pipe.		00				
nternal steel/neoprene i Manufacturer: Kohler	isolators undermne	eath engine (Qty. 2	2) and alteri	ICV /				
Engine Isolator Part No. Alternator Isolator Part N								
UUT-1 was mounted to t	tank using (4) M20	Class 8.8 bolt. 1/4	4" steel bacl	kina plate. (2	) washers a	nd nut.		
Off tank Genset to be in	• • • •			• • • •	,		nd nut.	



UUT-1

#### Summary Sheet

DCL 31214-2001

		Model Numb	er		N	lanufacture	PC
Emergency Power G	enerators	100REOZJI	=			Kohler	
	I	Product Construction	n Summary				
00 kW Diesel Genset,	Steel Sound Level 2 I	Enclosure, 816 gallons Fue	l Tank				
		Options / Subcompone	-				
John Deere Engine, Ko	nler Alternator, JB Ra	diators Radiator, Kohler AF	M603 Controlle	er			
		2000					
		FORCOD	COM				
		UUT Properti	es				
Wet Weight		Dimensions [ in ]		Z	Lowes	t Nat. Freq	[Hz]
[ lbs ]	Length	Width	Heigh	nt	F-B	S-S	V
12,850	142 😪	G25P-06	67 106.	5 1	5.5	3.5	10
	UU	T Highest Passed Seismi	c Run Informa	tion			
Building Code	Test C <mark>riteria</mark>	BySos/Iohanz/hac	Aliaari	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>
CBC 2019	ICC-ES AC156	2 1.00	1.5	3.2	2.4	1.34	0.54
Anomaly 2: Junction Bo Manufacturer Respons he alternator diameter	ox housing surroundin se: For the purposes of	ave stainless steel hinges g alternator slightly deform of protecting the alternator	ed.		on the front	nanel curva	
seismic events. This are Anomaly 3: Genset skie Manufactuer Respons o be measured. This di he exact alignment of s	box, the front panel has be may experience slig d cross member slight <b>e:</b> The purported yield d not pose any risk to skid mounting is not cr	ing the ability for the altern s a perforated area that ca ght yielding by design, and tly deformed. ling of skid cross member, the operation of the gener itical. Furthermore, the rad inge relative position of the	ator (on rubber n permissibly b did not pose a localized at the ator set. As the iator is connect	e contacte ny risk to t e isolator k e engine ar ted to the	to move inde ed by the alte he operation ocations was nd alternator forward engi	of the gene not significa are bolted to	the ridged treme trator set. ant enough ogether,



UUT-2

#### **Summary Sheet**

DCL 31214-2001

	Γ	Aodel Numb	er		Ν	lanufacture	r
enerators		300REOZJ				Kohler	
	Product (	Construction	Summary				
Steel Sound Level	2 Enclosure, 107	'4 gallons fue	l tank				
	Options / S	ubcompone	nt Summary	y			
iler Alternator, JB F	Radiators Radiato	r, Kohler AP	M402 Contro	oller			
	NEUU	IUT Properti	es				
	Dimens	ions [ in ]		T.	Lowes	st Nat. Freq	. [ Hz ]
Length	w	idth	Hei	ght	F-B	S-S	V
220 📿	G	36P-06	67 1 <sup>.</sup>	16	6.5	4	11
ι	JUT Highest Pas	sed Seismi	Run Inforn	nation			
Test C <mark>riteria</mark>	ByS <sub>DS</sub> /O	han <b>z/h</b> nad	Aliani	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>
ICC-ES AC15	and the second se	1.00	1.5	3.2	2.4	1.34	0.54
	Test	Mounting D	etails				
	KOHL					4 <sup>2</sup> 4-	
	Steel Sound Level Inter Alternator, JB I Length 220 Test Criteria ICC-ES AC15 Ed to fixture using (	Product C Steel Sound Level 2 Enclosure, 107 Options / S aler Alternator, JB Radiators Radiato U Dimens Length W 220 UUT Highest Pas Test Criteria ICC-ES AC156 2 Test contextor (14) Grade 8, 3/4	enerators 300REOZJ Product Construction Steel Sound Level 2 Enclosure, 1074 gallons fue Options / Subcompone Iler Alternator, JB Radiators Radiator, Kohler AP UUT Propertie Dimensions [ in ] Length Width 220 51 P-06 UUT Highest Passed Seismic Test Criteria Sps z/h ICC-ES AC156 2 1.00 Test Mounting D ed to fixture using (14) Grade 8, 3/4" Dia. bolts, p	Product Construction Summary         Steel Sound Level 2 Enclosure, 1074 gallons fuel tank         Options / Subcomponent Summary         Inter Alternator, JB Radiators Radiator, Kohler APM402 Control         UUT Properties         Dimensions [ in ]         Length       Width       Hei         220       51       -00       1         UUT Highest Passed Seismic Run Inform         Test Criteria       Sps/       z/h       Alternator, JB Radiators Radiator, Kohler APM402 Control         UUT Properties         Dimensions [ in ]         UUT Highest Passed Seismic Run Inform         Test Criteria       Sps/       z/h       Alternator, JP         UUT Highest Passed Seismic Run Inform       Test Mounting Details         Test Mounting Details         Test Mounting Details         ded to fixture using (14) Grade 8, 3/4" Dia. bolts, plate washer	enerators       300REOZJ         Product Construction Summary         Steel Sound Level 2 Enclosure, 1074 gallons fuel tank         Options / Subcomponent Summary         Inter Alternator, JB Radiators Radiator, Kohler APM402 Controller         UUT Properties         Dimensions [ in ]         Length       Width         Height         UUT Properties         Dimensions [ in ]         Length       Width         Height         UUT Highest Passed Seismic Run Information         Test Mounting Details         det to fixture using (14) Grade 8, 3/4" Dia. bolts, plate washer, circular washer	enerators       300REOZJ         Product Construction Summary         Steel Sound Level 2 Enclosure, 1074 gallons fuel tank         Options / Subcomponent Summary         Options / Subcomponent Summary         Ider Alternator, JB Radiators Radiator, Kohler APM402 Controller         UUT Properties         Dimensions [ in ]       Lowes         Length       Width       Height       F-B         220       51       0       116       6.5         UUT Highest Passed Seismic Run Information       Test Criteria       Sog       z/h       AFLX-H       ARIG-H         ICC-ES AC156       2       1.00       1.5       3.2       2.4         Test Mounting Details         ed to fixture using (14) Grade 8, 3/4" Dia. bolts, plate washer, circular washer and nut	Benerators       300REOZJ       Kohler         Product Construction Summary         Steel Sound Level 2 Enclosure, 1074 gallons fuel tank         Options / Subcomponent Summary         Ider Alternator, JB Radiators Radiator, Kohler APM402 Controller         UUT Properties         Lowest Nat. Freq.         UUT Properties       Lowest Nat. Freq.         UUT Highest Passed Seismic Run Information       F-B       S-S         Test Criteria       Sps.       a z/h       ArLS A. Jan         Test Mounting Details         Test Mounting Details



UUT-2

#### **Summary Sheet**

						DCL	31214-200 <sup>-</sup>
Model Line		Model Numb	er		r	Manufacture	)r
Emergency Power G	enerators	300REOZJ				Kohler	
		Product Construction	Summary				
300 kW Diesel Genset,	Steel Sound Level 2 E	nclosure, 1074 gallons fue	el tank				
		Options / Subcompone	nt Summary	/			
ohn Deere Engine, Kol	nler Alternator, JB Rad	liators Radiator, Kohler AP	-				
		FORCODE	COM				
		UUT Properti					
Wet Weight	4	Dimensions [ in ]		4	Lowe	st Nat. Freq	. [ Hz ]
[lbs]	Length	Width	Hei	ght	F-B	S-S	v
18,000	220	G6P-06	67 11		6.5	4	11
	TUU	Highest Passed Seismi	c Run Inforn	nation		1	<u> </u>
Building Code	Test C <mark>riteria</mark>	By <b>S</b> ₀\$/lohan <b>z/h</b> ad	Aliaeari	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>
CBC 2019	ICC-ES AC156	2 1.00	1.5	3.2	2.4	1.34	0.54
		UUT-2 Miscellaneou	us Notes			1	1
Manufacturer: Kohler Engine Isolator Part No. Alternator Isolator Part I	. 324391 No. 354622	engine (Qty. 2) and alter BUILD lass 8.8 bolt, 1/4" steel bac	NGCOD		and nut.		
		n (10) M20 Class 8.8 bolt, 7				and nut.	
All units	were filled with conten	ts and maintained structur	al integrity ar	nd functiona	lity after AC-	-156 test.	



## UNIT UNDER TEST (UUT) Summary Sheet

UUT-3

#### 01-5

Model Line	<u>,</u>	Model Nu	mber			Manufacture	er.
Emergency Power G	enerators	350REO2	ZJD			Kohler	
		Product Construct	-		•		
0 kW Diesel Genset,	Sound Level II Alumi	num Enclosure, 1161 ga	llons fuel tank				
n Deere Engine, Ma	arathon Alternator, JB	Options / Subcompo Radiators Radiator, Koh		-			
		0.0	75				
		FORCO	JE COM.				
		UUT Prope	erties				
Wet Weight		Dimensions [ in ]	PD	P	Lowe	st Nat. Freq	. [ Hz ]
[lbs]	Length	Width	~ ~ ~ ~	ight	F-B	S-S	v
22,250	271 😪	(56)P-0		8.5	9	6	17.5
		T Highest Passed Seis					
Building Code	Test Criteria	ByS <sub>D</sub> \$/ohanz/h		A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG</sub>
CBC 2019	ICC-ES AC156	2 1.00	1 5				
JT rigidly base mount t. Fixture rigidly base		Test Mountin 3) Grade 8, 3/4" Dia. bolt		3.2 carbon stee	2.4 I plate wash	1.34 er, circular w	0.54 vasher a



UUT-3

#### Summary Sheet

DCL 31214-2001

Model Line		1	Model Numb	er		N	Manufacture	ər
Emergency Power Ge	enerators		350REOZJE	)			Kohler	
	I	Product (	Construction	Summary		1		
350 kW Diesel Genset, S	Sound Level II Alum	ninum Enclosure	, 1161 gallor	ns fuel tank				
		•	ubcompone	-				
John Deere Engine, Mar	athon Alternator, JI	B Radiators Rad	liator, Kohler	APM402 Cor	ntroller			
		EO	RCODE	E CO.				
		, ED	JUT Properti	AN AS				
Wet Weight			ions [ in ]		4	Lowes	st Nat. Freq	. [ Hz ]
[lbs]	Length		lidth	Hei	ght	F-B	S-S	v
22,250	271		56P-06	67 128		9	6	17.5
	U	IUT Highest Pas	ssed Seismi	c Run Inform	nation			
Building Code	Test C <mark>riteri</mark> a	BYSDS	han <b>z/h</b> ad	Aliaeari	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>
CBC 2019	ICC-ES AC156	3 2	1.00	1.5	3.2	2.4	1.34	0.54
		DATE:	Miscellaneo	J20				
Notes: Same as UUT-4.	CT	Ż			2010			
Internal steel/neoprene i	solators undermne	ath engine (Qty.	2) and alter	nator (Qty. 2)	<u>}-`</u> /			
Manufacturer: Kohler Engine Isolator Part No.		VIA	BUILDI	NIGCU				
Alternator Isolator Part No.			BUILDI	NO				
UUT-3 was mounted to t	tank using (14) M24	1 Class 8.8 bolt.	1/4" steel ba	cking plate. (	2) washers	and nut.		
Off tank Genset to be ins							and nut.	
Bracing Uplift Kit installa	ed Same as UUT-	Δ						
Manufacturer: Kohler		т.						
Bracing Uplift Kit Part No	э.: GM111156							



UUT-3

#### Summary Sheet

DCL 31214-2001

		Model Numb	ber		N	lanufacture	er
Emergency Power G	enerators	350REOZJI	D			Kohler	
	I	Product Construction	n Summary				
50 kW Diesel Genset,	Sound Level II Alum	inum Enclosure, 1161 gallo	ns fuel tank				
		Options / Subcompone					
ohn Deere Engine, Ma	rathon Alternator, JE	B Radiators Radiator, Kohler	APM402 Co	ntroller			
		FORCOD	ECO				
		UUT Propert	ies				
Wet Weight		Dimensions [ in ]			Lowes	st Nat. Freq	[ Hz ]
[ lbs ]	Length	Width	Hei	ght	F-B	S-S	V
22,250	271	G6P-06	<b>N</b> -7	8.5	9	6	17.5
	U	JT Highest Passed Seismi	c Run Inforr	nation			
Building Code	Test C <mark>riteria</mark>	By <b>S</b> ₀\$/lohanz/had	Aliaari	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>
CBC 2019	ICC-ES AC156	2 1.00	1.5	3.2	2.4	1.34	0.54
mmary of anomalies	s, design changes	UUT-3 Miscellaneo	020	61			
efore shake testing, U	UT-3 Enclosure was	and manufacturer respons	<b>es:</b> t kit, this kit ir				
efore shake testing, U tended to improve the nomaly 1: Fan blades anufacturer Respons	UT-3 Enclosure was silencer connection hit the shroud and e se: The minimal dan	and manufacturer respons retrofitted with bracing uplif experienced minor damages nage sustained to the fan bla	t kit, this kit in	etrimental to	the performa	ance of the g	generator
efore shake testing, U tended to improve the nomaly 1: Fan blades anufacturer Respons	UT-3 Enclosure was silencer connection hit the shroud and e se: The minimal dan	and manufacturer respons	t kit, this kit in	etrimental to	the performa	ance of the g	generator
efore shake testing, U tended to improve the nomaly 1: Fan blades anufacturer Respons	UT-3 Enclosure was silencer connection hit the shroud and e se: The minimal dan	and manufacturer respons retrofitted with bracing uplif experienced minor damages nage sustained to the fan bla	t kit, this kit in	etrimental to	the performa	ance of the g	generator
efore shake testing, U tended to improve the nomaly 1: Fan blades anufacturer Respons	UT-3 Enclosure was silencer connection hit the shroud and e se: The minimal dan	and manufacturer respons retrofitted with bracing uplif experienced minor damages nage sustained to the fan bla	t kit, this kit in	etrimental to	the performa	ance of the g	generator
efore shake testing, U tended to improve the nomaly 1: Fan blades anufacturer Respons	UT-3 Enclosure was silencer connection hit the shroud and e se: The minimal dan	and manufacturer respons retrofitted with bracing uplif experienced minor damages nage sustained to the fan bla	t kit, this kit in	etrimental to	the performa	ance of the g	generator
efore shake testing, U tended to improve the nomaly 1: Fan blades anufacturer Respons	UT-3 Enclosure was silencer connection hit the shroud and e se: The minimal dan	and manufacturer respons retrofitted with bracing uplif experienced minor damages nage sustained to the fan bla	t kit, this kit in	etrimental to	the performa	ance of the g	generator
efore shake testing, U tended to improve the nomaly 1: Fan blades anufacturer Respons	UT-3 Enclosure was silencer connection hit the shroud and e se: The minimal dan	and manufacturer respons retrofitted with bracing uplif experienced minor damages nage sustained to the fan bla	t kit, this kit in	etrimental to	the performa	ance of the g	generator
efore shake testing, U tended to improve the nomaly 1: Fan blades anufacturer Respons	UT-3 Enclosure was silencer connection hit the shroud and e se: The minimal dan	and manufacturer respons retrofitted with bracing uplif experienced minor damages nage sustained to the fan bla	t kit, this kit in	etrimental to	the performa	ance of the g	generator
efore shake testing, U tended to improve the nomaly 1: Fan blades anufacturer Respons	UT-3 Enclosure was silencer connection hit the shroud and e se: The minimal dan	and manufacturer respons retrofitted with bracing uplif experienced minor damages nage sustained to the fan bla	t kit, this kit in	etrimental to	the performa	ance of the g	generator
efore shake testing, U tended to improve the nomaly 1: Fan blades anufacturer Respons	UT-3 Enclosure was silencer connection hit the shroud and e se: The minimal dan	and manufacturer respons retrofitted with bracing uplif experienced minor damages nage sustained to the fan bla	t kit, this kit in	etrimental to	the performa	ance of the g	generator
efore shake testing, U tended to improve the nomaly 1: Fan blades anufacturer Respons	UT-3 Enclosure was silencer connection hit the shroud and e se: The minimal dan	and manufacturer respons retrofitted with bracing uplif experienced minor damages nage sustained to the fan bla	t kit, this kit in	etrimental to	the performa	ance of the g	generator
efore shake testing, U tended to improve the nomaly 1: Fan blades anufacturer Respons	UT-3 Enclosure was silencer connection hit the shroud and e se: The minimal dan	and manufacturer respons retrofitted with bracing uplif experienced minor damages nage sustained to the fan bla	t kit, this kit in	etrimental to	the performa	ance of the g	generator



### **UNIT UNDER TEST (UUT) Summary Sheet**

UUT-4

Model Line Model Number						Manufacturer			
Emergency Power G	mergency Power Generators 500REOZJC					Kohler			
		Product C	Construction	Summary					
0 kW Diesel Genset,	Sound Level II Steel E								
		Options / S	ubcompone	ent Summary	/				
hn Deere Engine, Ma	rathon Alternator, JB	Radiators Rad	iator, Kohler	APM603 Cor	ntroller				
		- 01	RCODI						
		OFU		- COM					
			UT Properti	es					
Wet Weight		Dimensions [ in ]		D Y			st Nat. Freq.		
[ lbs ]	Length		idth	Height		F-B	S-S	V	
43,800	326.75		025P-06	Run Information		8.5	4.5	11.5	
Building Code	Test Criteria		1	1 1		۸	۸	۸	
CBC 2019	ICC-ES AC156	2	han <b>z/h</b> ac 1.00	Aliaeari 1.5	А <sub>FLX-Н</sub> 3.2	А <sub>RIG-Н</sub> 2.4	<b>Α<sub>FLX-V</sub></b> 1.34	<b>A<sub>RIG</sub></b> 0.54	
000 2013			Mounting D		3.2	2.4	1.54	0.54	
	*KOHLER	POA A			-23 			~ 6~	



UUT-4

#### **Summary Sheet**

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Model Line		Model Number				Manufacturer			
Emergency Power Ge	nerators		500REOZJC	Kohler					
	÷		Product Construction	I Summary					
500 kW Diesel Genset, S	Sound Level II Ste	el Encl	losure, 3520 gallons fue	l tank					
			Options / Subcompone	-	-				
John Deere Engine, Mar	athon Alternator,	JB Rad	liators Radiator, Kohler	APM603 Co	ntroller				
			ORCODE						
			DFUI	COM					
		1	UUT Propertie	es		1			
Wet Weight		X	Dimensions [ in ]		Height		st Nat. Freq		
[lbs]	Length	<u>.</u>	Width	<u> </u>			S-S	V	
43,800	326.7 <mark>5</mark> 2	<u>: /    </u>	(102)P-060		5.25	8.5	4.5	11.5	
		_	ighest Passed Seismic			-	<b>1</b>	I _	
Building Code	Test Criteri		BySp\$/lohanz/had	Aliaari	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>	
CBC 2019	ICC-ES AC1	56	2 1.00	1.5	3.2	2.4	1.34	0.54	
		<b>V</b> ////	UUT-4 Miscellaneou	15 140103					
Same as UUT-3. Internal steel/neoprene is Manufacturer: Kohler Engine Isolator Part No. Alternator Isolator Part N UUT-4 was mounted to ta	solators undermr GM86134 Io. GM84170		WIA BUILDI	NGCO		and nut			
Off tank Genset to be ins							and nut.		
Bracing Uplift Kit installa Manufacturer: Kohler Bracing Uplift Kit Part No		Г-З							



UUT-4

#### Summary Sheet

DCL 31214-2001

Model Line		Model Number					Manufacturer		
Emergency Power Ge		500REOZJC				Kohler			
	I	Produc	t Constructior	Summary					
00 kW Diesel Genset,	Sound Level II Ste								
,		, -							
		-	Subcompone	-					
ohn Deere Engine, Ma	rathon Alternator, J	JB Radiators R	adiator, Kohler	APM603 Co	ntroller				
		E	RCODE	ECO					
		FOF		Mo					
			UUT Properti	es		• • •			
Wet Weight			nsions [ in ]		Y1	Lowest Nat. Freq. [ Hz ]			
[ lbs ]	Length	7	Width	Height		F-B	S-S	V	
43,800	326.75		(102)P-06	þ 135		8.5	4.5	11.5	
Building Code	Test Criteria		assed Seismi	Aliani	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>	
CBC 2019	ICC-ES AC15	DI. PPV	1.00	1.5	3.2	2.4	1.34	<b>~</b> RIG-V 0.54	
000 2013	100-E0 A013		4 Miscellaneo		5.2	2.4	1.54	0.54	
ntended to improve the Anomaly 1: Fan blades Manufacturer Respons	hit the shroud and <b>se:</b> The minimal da	l experienced n mage sustaine	d to the fan bla	ides is not de					
set. The material type of	the fan blades wil	I not permit the	sustained edg	e fractures to	o propagate	and cause a	in entire blac	le failure.	