

DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR HCAI SPECIAL SEISMIC	OFFICE USE ONLY
CERTIFICATION PREAPPROVAL (OSP)	APPLICATION #: OSP-0543
HCAI Special Seismic Certification Preapproval (OSP)	
Type: New X Renewal	
Manufacturer Information	
Manufacturer: Kohler Power Systems	
Manufacturer's Technical Representative: Brady Eifrid	
Mailing Address: N 7650 Lakeshore Road, Sheboygan, WI 53083	
Telephone: (920) 457-4441 Email: brady.eifrid@kohl	er.com
Product Information	10,
Product Name: Emergency and Standby Power Systems	1 the
Product Type: Generators	2
Product Model Number: 1250kW through 2000kW REOZMD	
General Description: Spring isolated base mounted diesel-powered gene	rator on and off fuel tanks with or without
Mounting Description: Rigid and Isolated Gensets on and off Fuel Tanks, F	Floor Mounted
Tested Seismic Enhancements: Seismic enhancements made to the test anomalies during the tests shall be incorp	units and/or modifications required to address porated into the production units.
Applicant Information	Str.
Applicant Company Name: The VMC Group	
Contact Person: John Giuliano	
Mailing Address: 113 Main Street, Bloomingdale, NJ 07403	
Telephone: (973) 838-1780 Email: john.giuliano@the	evmcgroup.com

Title: President



STATE OF CALIFORNIA - HEALTH AND HUMAN SERVICES AGENCY

HCA



DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION FACILITIES DEVELOPMENT DIVISION

California Licensed Structural Engineer Responsible 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, Sacramento, CA 95814
Telephone: (832) 627-2214 Email: ken.tarlow@thevmcgroup.com
Certification Method
GR-63-Core X ICC-ES AC156 IEEE 344 IEEE 693 NEBS 3
Other (Please Specify):
ORCODECO
Testing Laboratory
Company Name: U.S. ARMY ENGINEER RESEARCH AND DEVELOPMENT CENTER, CONSTRUCTION ENGINEERING RESEARCH LABORATORY (CERL)
Contact Person: James Wilcoski
Mailing Address: 2902 Newmark Dr., Champaign IL 61822-1076
Telephone: (217) 352-6511 O BY Email: james.wilcoski@usace.army.mil
Company Name: UNIVERSITY OF CALIFORNIA, BERKELEY (PEER)
Contact Person: Wesley Neighbour
Mailing Address: 1301 S. 46th Street, Building 420, Richmond CA 94804
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BUILDING



DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION FACILITIES DEVELOPMENT DIVISION

Seismic Parameters

Design Basis o	of Equipment or Components	(Fp/Wp) = 1.45		
SDS (De	sign spectral response accele	eration at short period, g) = 1.93		
a _p (Amp	lification factor) =	2.5		
Rp (Res	ponse modification factor) =	2.0		
Ω₀ (Syst	em overstrength factor) =	2.0		
Ip (Impoi	rtance factor) =	1.5		
z/h (Heig	ght ratio factor) =	0		
Natural f	requencies (Hz) =	See Attachment		
Overall o	dimensions and weight =	See Attachment		
		JED FORMA	-	
HCAI Approv	val (For Office Use Only)	Approval Expires on 12/06/2028	The	
Date: 12/6/	/2022	OSP-0543	G	
Name: Moha	ammad Karim		Title:	Supervisor, Health Facilities
Special Seismi	c Certification Valid <mark>Up to:</mark> St	os (g) = 1.93	z/h =	0
Condition of Ap	oproval (if applicable):	DATE: 12/06/2022	0	
		PRNIA BUILDING CODE	102	

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

HCA

Model	Max. Rating	Configuration	Max. Pac	kage Dimens	ions [in]	Max. Weight	UUT ¹
Widdei	[kW]	Configuration	Length	Width	Height	[lb]	001
1250REOZMD	1280	Open	250	88	98	26,500	Extrapolated
IZJUNEUZIVID		Enclosed	444	114	165	32,500	Interpolated
1600REOZMD	1600	Open	267	88	102	31,600	Interpolated
TOUCKEOZIVID		Enclosed	485	114	165	40,180	Interpolated
1750REOZMD	1780	Open	269	109	122	36,000	Interpolated
TISUREOZIND	1780	Enclosed	511	126	165	45,065	Interpolated
2000REOZMD	2000	Open	268	<u>109</u>	U 122	38,000	UUT-02
ZUUUREUZIMD	2000	Enclosed	511	124	165	47,065	Interpolated

Table 1A - Certified Gensets Off Tank

1. Interpolated and extrapolated units are based on units tested in both Table 1A & Table 1B

Table 1B - Certified Gensets On Tank

Model	Max. Rating	Configuration	Configuration Max. Package Dimensions			I G	UUT		
WOUEI	[kW]	configuration	Length	Width	Height	Tested Genset	Tested Tank ¹	Max. Weight ²	001
1250REOZMD	1280	Open	250 DV	· 88	1 <u>32</u>	N/A	N/A	98,123	Extrapolated
1250REUZIVID	1200	Enclosed	584	108	214	33,155	70,245	103,400	UUT-01
1600REOZMD	1600	Open	267	88	136	N/A	N/A	98,123	Interpolated
TOUTILOZIVID		Enclosed	589	TF11412/	06/20722	N/A	N/A	103,400	Interpolated
1750REOZMD	1780	Open	269	109	156	N/A	N/A	106,560	Interpolated
ITSUREUZIVID	1700	Enclosed	589	126	207	N/A	N/A	115,625	Interpolated
2000REOZMD	2000	Open	268	109	156	N/A	N/A	106,560	Interpolated
	2000	Enclosed	511	124	157 ³	46,730	15,600	116,975	UUT-03

1. Tested Tank Weight includes fuel weight assuming density of fuel is 7lbs/gal

2. Max. Weight assumes genset paired with largest tank

3. Measured height is for enclosure only, excluding skid and tank height. Max height dimension including skid and tank height is 207 inches

Model	Material	Description ¹	Part No. ²	Max. Weight ³ [lb]	Manufacturer	UUT	
		Weather enclosure, 40°C & 50°C Cooling Package	GM72613-TPG	2,550			
		Weather enclosure, 40°C & 50°C Cooling Package	GM72616-TPG	2,800			
		Weather enclosure, 40°C Cooling Package	GM72617-TPG	2,950			
		Weather enclosure, 40°C & 50°C Cooling Package	GM72637-TPG	3,120			
		Weather enclosure, 50°C Cooling Package	GM72618-TPG	3,275			
		Weather enclosure, 40°C & 50°C Cooling Package	GM72640-TPG	3,495			
		Weather enclosure, 40°C Cooling Package	GM72641-TPG	3,710			
		SL1 enclosure, 40°C & 50°C Cooling Package	GM72621-TPG	3,850			
	Aluminum	Weather enclosure, 50°C Cooling Package	GM72642-TPG	4,485		Extrapolated	
		SL1 enclosure, 40°C & 50°C Cooling Package	GM72624-TPG	4,700		Extrapolateu	
		SL1 enclosure, 40°C Cooling Package	GM72625-TPG	4,825			
REOZMD		SL2 enclosure, 40°C Cooling Package D_05/2	GM72633-TPG	4,825	Global Power Components		
REOZIVID		SL1 enclosure, 40°C & 50°C Cooling Package	GM72648-TPG	5,070			
		SL1 enclosure, 40°C & 50°C Cooling Package	GM72645-TPG	5,345			
		SL2 enclosure, 40°C & 50°C Cooling Package ad Ka	GM72632-TPG	5,400			
		SL2 enclosure, 40°C & 50°C Cooling Package	GM72653-TPG	5,490			
			SL1 enclosure, 50°C Cooling Package	GM72626-TPG	5,575		
		SL2 enclosure, 40°C & 50°C Cooling Package 6/202	GM72656-TPG	5,680			
		SL2 enclosure, 40°C & 50°C Cooling Package	GM72629-TPG	5,930		UUT-01	
		SL1 enclosure, 50°C Cooling Package	GM72650-TPG	5,960			
		SL2 enclosure, 40°C Cooling Package	GM72657-TPG	6,250		Interpolated	
		SL2 enclosure, 50°C Cooling Package	GM72634-TPG	6,375		merpolated	
		SL1 enclosure, 40°C Cooling Package	GM72649-TPG	6,510			
		SL2 enclosure, Internal Silencer, 50°C Cooling Package	GM72658-TPG	9,375		UUT-03	

Table 2 - Certified Subcomponents: Enclosure Matrix

1. SL1: Sound Level 1. SL2: Sound Level 2.

2. Enclosure kits exclude silencers except for UUT-03 enclosure (GM72658-TPG).

3. Only UUT-03 enclosure weight include internal silencer weight. All other enclosures weights exclude silencers weights.

Table 3 - Certified Subcomponents: Tank Matrix

Model	Range [kW]	Usable Capacity [gallons]	Material	Max. Weight ¹ [lb]	Manufacturer	UUT
		1,350		15,600		UUT -03
		1,600		17,740		
	1250 -	2,100		21,895	Global Power	Interpolated
		2,600		26,045		
REOZMD		3,130	Carbon Steel	30,625		
	2000	4,150		40,085	Components	
		5,150 LOR CODE C		46,175		
		6,160	M.	56,500		
		7,700		70,245		UUT -01

1. Max. Weight includes fuel weight assuming density of fuel is 7lb/gal

Table 4 - Certified Subcomponents: Engine Matrix

Model	Part Number	Material	Max. Weight [lb]	Manufacturer	UUT
	S12R-Y2PTAW-1	Carbon Steel	11,620	Mitsubishi	UUT-01
REOZMD	S16R-Y2PTAW-1		14,399		Interpolated
REUZIVID	S16R-Y2PTAW2-1 DATE: 12/06/202		14,729		Interpolated
	S16R-Y2PTAW2-1		14,729		UUT-02, UUT-03

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Table 5 - Certified Subcomponents: Alternator Matrix

Model	Part Number	Material	Max. Weight [lb]	Manufacturer	UUT
	7M4046B54:D55		5,950		
	7M4048		6,300		
	7M4366-3300/4160v		6,900		Extrapolated
	7M4050		7,230	Marathon	Extrapolated
	7M4368-3300/4160v		7,500		
REOZMD	7M4368-33/4160v	Carbon Steel	7,500		
REUZIVID	7M4052	Carbon Steel	7,800		UUT-01
	7M4370-3300/4160v		8,200		
	7M4054		8,600		Interpolated
	7M4374-3300-4160v		9,300		Interpolated
	7M4056		9,740		
	7M4058		9,740		UUT-02, UUT-03

Table 6 - Certified Subcomponents: Radiator Matrix

Model	Part Number	Max. Weight [lb]	Manufacturer	UUT
	YT427819 (40°C Package)	2,860		Extrapolated
	YT427820 (50°C Package)	2,950		UUT-01
REOZMD	YT427808 (40°C Package)	3,050	Young	
REOZIVID	YT427809 (50°C Package)	3,260	Touchstone	Interpolated
	YT427810 (50°C Package)	3,425		
	YT4277811 (50°C Package)	4,000		UUT-02, UUT-03

Table 7 - Certified Subcomponents: Fuel Cooler Matrix

Model	Part Number	HCAI	Max. Weight [lb]	Manufacturer	UUT
REOZMD	MOC8M	OSP-0543	70	Young Touchstone	UUT-01, UUT-02, UUT-03

Table 8 - Certified Subcomponents: Skid Matrix ad Karim

Model	Part Number	Material	Max. Weight [lb]	Manufacturer	UUT
	GM80614 DATE: 12/06/202	2 6	4,822		Extrapolated
	GM80615		4,822	Kohler	
REOZMD	GM80616	Carbon Steel	4,973		UUT-01
REOZIVID	GM80620		5,133	KUIIIEI	Interpolated
	GM80623		5,180		Interpolated
	GM79125		5,289		UUT-02, UUT-03

Table 9 - Certified Subcomponents: Controller Matrix

Model	Model/Part Number	Max. Weight [lb]	Manufacturer	UUT
REOZMD	DECISION MAKER 6000/ GM78092-2	<10	Kohler	UUT-01
REOZIVID	DECISION MAKER 550/ GM76122-2	<10	Koniel	UUT-02, UUT-03



UNIT UNDER TEST (UUT) Summary Sheet

UUT-1

Model Line		Model Number			Manufacturer			
REOZMD		1250 REOZMD			Kohler			
		Product Construction Summary						
osed diesel powered	d electrical generator se			Summary				
,	5							
		Options / Su	bcomponer	nt Summar	y			
osure, Fuel Tank, E	ngine, Alternator, Radia	tor, Controlle	r, Skid, Fuel	Cooler	-			
		OB	CODE	~				
		FUR		COA				
	N		IT Propertie	s				
Weight	4						st Nat. Freq	
[lbs]	Length			Height		F-B	S-S	V
103,400	584			<u> </u>	14	2.5	2.5	5.
Building Code	Test Criteria	lighest Pass	xxxxxxxxxxxx			•	Λ	•
	Test Criteria	1.93	am <mark>z/h</mark> ad 0.0	Kar ^{II} m 1.5	А _{FLX-н} 1.93	А_{RIG-Н} 0.77	Α _{FLX-V} 1.29	А _{RI} 0.5
CBC 2019	ICC-E <mark>S AC1</mark> 56	1.50	-	-	1.55	-	-	
		DATE:	Aounting De	022 Italis	0			
rigidly connected to	the shake table using (26) 3/4" Grad	e 8 bolts.		$\langle \rangle \langle \rangle$			
	KOHLER	VIABU		600				
	KOHLER	MARC			KOHLER			

All units were filled with contents and maintained structural integrity and functionality after AC-156 test.



UNIT UNDER TEST (UUT) Summary Sheet

UUT-2

(; Skid, Fu	20 Product Co 000 kW off tar Options / Su uel Cooler	bcompone CODE JT Properti ons [in] ith 9 P-054	1D n Summary ent Summar es He 3 1	y ight 22		Kohler Kohler St Nat. Freq S-S 3.4	
, Skid, Fu h UUT H eria	Product Co 000 kW off tar Options / Su uel Cooler UL Dimensio 10 Highest Pass	bcompone bcompone DT Properti ons [in] ith 9P-054 arz/had	ent Summary	y ight 22 mation	F-B	st Nat. Freq S-S	V
, Skid, Fu h UUT H eria	000 kW off tar Options / Su uel Cooler UL Dimension Ul Dimension Ighest Pass	bcompone CODE JT Properti Dns [in] Ith 9P-054 arz/had	ent Summar es He 3 1 c Run Infor	y ight 22 mation	F-B	S-S	V
, Skid, Fu h UUT H eria	Options / Su uel Cooler UL Dimensio Mic Ighest Pass	bcompone CODE JT Properti ons [in] Ith 9 P-054 an z/had	es He 3 1 c Run Infor	ight 22 mation	F-B	S-S	V
r, Skid, Fu h UUT H eria	UL Dimensio 10 Highest Pass	CODE JT Properti ons [in] Ith 9P-052 an Z/had	es He 3 1 c Run Infor	ight 22 mation	F-B	S-S	V
r, Skid, Fu h UUT H eria	UL Dimensio 10 Highest Pass	CODE JT Properti ons [in] Ith 9P-052 an Z/had	es He 3 1 c Run Infor	ight 22 mation	F-B	S-S	V
n UUT H eria	UL Dimensio Vic 10 Highest Pass	ons [in] Ith 9P-054 Sed Seismin an ^{z/h} ad	He 3 1 c Run Infor	22 mation	F-B	S-S	V
UUT H eria	Dimensio Wic 10 Highest Pass	ons [in] Ith 9P-054 Sed Seismin an ^{z/h} ad	He 3 1 c Run Infor	22 mation	F-B	S-S	V
UUT H eria	Dimensio Wic 10 Highest Pass	ons [in] Ith 9P-054 Sed Seismin an ^{z/h} ad	He 3 1 c Run Infor	22 mation	F-B	S-S	V
UUT H eria	Wic 10 Highest Pass	ith 9P-054 ed Seismid an ^{z/h} ad	1.3 1 c Run Infor Kar ^I m	22 mation	F-B	S-S	V
UUT H eria	lighest Pass	9 P-054 sed Seismic am ^{z/h} ad	1.3 1 c Run Infor Kar ^I m	22 mation			-
eria	Highest Pass	ed Seismi	c Run Infor Kar ^l ®m	mation	3.0	3.4	4.4
eria	BV S _{DSIOH}	aminad	Karim				
		аншач	панн	A _{FLX-H}			
0156	1.93	0.0	15		A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
			1.0	1.93	0.77	1.29	0.52
	DATE	lounting D	2022		-	-	-
	SH-1E spring hake table us						

All units were filled with contents and maintained structural integrity and functionality after AC-156 test.



UNIT UNDER TEST (UUT) Summary Sheet

UUT-3

Test Report: PEER-STI/2011-15; UUT-3 Model Line Model Number Manufacturer REOZMD 2000 REOZMD Kohler **Product Construction Summary** Enclosed diesel powered electrical generator set 2000 kW on tank **Options / Subcomponent Summary** Enclosure, Fuel Tank, Engine, Alternator, Radiator, Controller, Skid, Fuel Cooler, Internal Silencer **UUT** Properties Dimensions [in] Lowest Nat. Freq. [Hz] Weight [lbs] Width Height Length F-B S-S V 62,330 511 4.3 124 P 157 7.7 6.8 **UUT Highest Passed Seismic Run Information Building Code** Test Criteria z/h A_{FLX-H} A_{RIG-V} S_{DS/} Ip. A_{RIG-H} A_{FLX-V} 0.0 1.5 1.93 0.77 1.29 1.93 0.52 CBC 2019 ICC-ES AC156 **Test Mounting Details** UUT-3 was internally isolated using (12) VMC Group M2SSH-1E spring isolators. The skid was attached to the isolators using (1) 3/4" Grade 8 bolt per isolator. The isolators were connected to the tank using (4) 3/4" diameter Grade 8 bolts per isolator. The tank was rigidly connected to the shake table using (26) 3/4" Grade 8 bolts.

All units were filled with contents and maintained structural integrity and functionality after AC-156 test.