



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

**APPLICATION FOR OSHPD SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)**

OFFICE USE ONLY

APPLICATION #: OSP – 0498 – 10

OSHPD Special Seismic Certification Preapproval (OSP)

Type: ☒ New ☐ Renewal

Manufacturer Information

Manufacturer: Kohler Power Systems

Manufacturer's Technical Representative: Andy Miller

Mailing Address: N7650 CTH LS, Kohler, WI 53044

Telephone: (920) 457-4441 ext. 33060 Email: Andy.miller@kohler.com

Product Information

Product Name: Kohler Battery Chargers

Product Type: Battery Chargers

Product Model Number: GM87448

(List all unique product identification numbers and/or part numbers)

General Description: Units are Single Phase 90-265VAC Input Battery Chargers with an Output of 12/24VDC and 10 A

Mounting Description: Unit mounted with and without supports, rigid wall mounted, flexible wall mounted, rigid floor
Mounted with supports, flexible floor mounted with supports.

Applicant Information

Applicant Company Name: The VMC Group

Contact Person: Mr. John Giuliano

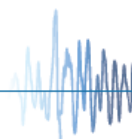
Mailing Address: 113 Main Street, Bloomingdale, NJ 07403

Telephone: (973) 838-1780 Email: john.giuliano@thvmcgroup.com

I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2016.

Signature of Applicant:  Date: 4/21/17

Title: President Company Name: The VMC Group





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

STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY
OSH-FD-759 (REV 12/16/15)

Page 2 of 3

California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)

Company Name: The VMC Group

Name: Mr. Ken Tarlow California License Number: SE2851

Mailing Address: 113 Main Street, Bloomingdale, NJ 07403

Telephone: (973) 838-1780 Email: Ken.Tarlow@thevmcgroup.com

Supports and Attachments Preapproval

- ☐ Supports and attachments are preapproved under OPM-
(Separate application for OSHPD Preapproval of Manufacturer's Certification (OPM) of Supports and attachments is required)
- ☒ Supports and attachments are not preapproved

Certification Method

- ☒ Testing in accordance with: ☒ ICC-ES AC156
- ☐ Other (Please Specify): _____

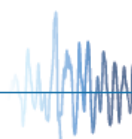
Testing Laboratory

Company Name: Dynamic Certification Laboratories, LLC

Contact Name: Kelly Laplace, Quality Manager

Mailing Address: 1315 Greg Street, Suite 109, Sparks, NV 89431

Telephone: (775) 358-5085 Email: Kelly@shaketest.com





OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT FACILITIES DEVELOPMENT DIVISION

Seismic Parameters

Design in accordance with ASCE 7-10 Chapter 13: ☒ Yes ☐ No

Design Basis of Equipment or Components (F_p/W_p) = 1.50 @ $S_{DS} = 2.0g$; 0.625 @ $S_{DS} = 2.5g$

S_{DS} (Design spectral response acceleration at short period, g) = 2.0 @ $z/h = 1.0$; 2.5 @ $z/h = 0.0$

a_p (In-structure equipment or component amplification factor) = 2.5

R_p (Equipment or component response modification factor) = 6.0

Ω_0 (System overstrength factor) = 2.0

I_p (Importance factor) = 1.5

z/h (Height factor ratio) = 1.0

Equipment or Component Natural Frequencies (Hz) = See Attachments

Overall dimensions and weight (or range thereof) = See Attachments

Equipment or Components @ grade designed in accordance with ASCE 7-10 Chapter 15: ☐ Yes ☒ No

Design Basis of Equipment or Components (V/W) = _____

S_{DS} (Design spectral response acceleration at short period, g) = _____

S_{D1} (Design spectral response acceleration at 1 second period, g) = _____

R (Response modification coefficient) = _____

Ω_0 (System overstrength factor) = _____

C_d (Deflection amplification factor) = _____

I_p (Importance factor) = 1.5

Height to Center of Gravity above base = _____

Equipment or Component Natural Frequencies (Hz) = _____

Overall dimensions and weight (or range thereof) = _____

Tank(s) designed in accordance with ASME BPVC, 2015: ☐ Yes ☒ No

List of Attachments Supporting Special Seismic Certification

☒ Test Report(s) ☒ Drawings ☐ Calculations ☐ Manufacturer's Catalog

☐ Other(s) (Please Specify): _____

OSHDP Approval (For Office Use Only) – Approval Expires on December 31, 2022

Signature: Ali Sumer Date: June 6, 2017

Print Name: Ali Sumer Title: DSE

Special Seismic Certification Valid Up to : S_{DS} (g) = See Above z/h = See Above

Condition of Approval (if applicable): _____

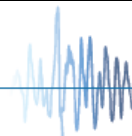


Table 1 - Certified Product Matrix

Model	Input Voltage	Output Voltage	Output Current	Outer Dimensions (in.)			Weight (lbs)	z/h = 0.0 Sds (g)	z/h = 1.0 Sds (g)	UUT
				Height	Width	Depth				
GM87448	90-265 Vac	12 or 24 Vdc	10 Amps	2.90	9.97	5.99	8	2.5	2.0	1A & 1B, 2A & 2B, 3A & 3B, 4, 5, 6A, 6B



UNIT UNDER TEST (UUT) SUMMARY SHEET

UUT-01A-R

VMA-50682-01

Model Line	Model Number	Manufacturer
Battery Charger	GM87448	Kohler

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

AC Input: 100-260VAC, 50/60 Hz, 3.7 Amps RMS
DC Output: 10 Amps, 12/24VDC

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
8	10	6	2.8	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.33	0.53
		2.50	0.00	1.50	2.50	1.00	1.67	0.67

Test Mounting Details

Kohler Jbox 1 was attached to the shake table using eight (8) M6 8.8 bolts. The UUT was attached to the Kohler Jbox 1 using four (4) M6 8.8 bolts.



UUT-01A-R

All units were filled with contents and maintained structural integrity and functionality



UNIT UNDER TEST (UUT) SUMMARY SHEET

UUT-01A-F

VMA-50682-01

Model Line	Model Number	Manufacturer
Battery Charger	GM87448	Kohler

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

AC Input: 100-260VAC, 50/60 Hz, 3.7 Amps RMS
DC Output: 10 Amps, 12/24VDC

UUT Properties

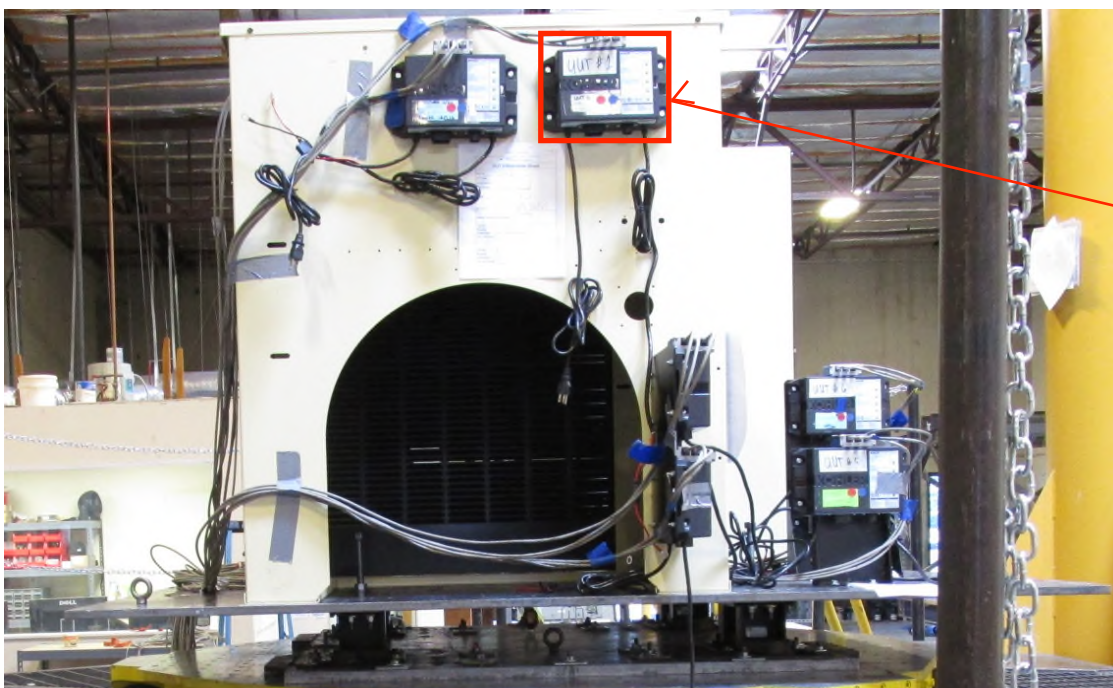
Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
8	10	6	2.8	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.33	0.53
		2.50	0.00	1.50	2.50	1.00	1.67	0.67

Test Mounting Details

Kohler Jbox 1 was attached to the shake table using eight (8) M6 8.8 bolts. The UUT was attached to the Kohler Jbox 1 using four (4) M6 8.8 bolts. A base plate was used to apply external isolation to all the UUTs.



UUT-01A-F

All units were filled with contents and maintained structural integrity and functionality



UNIT UNDER TEST (UUT) SUMMARY SHEET

UUT-01B-R

VMA-50682-01

Model Line	Model Number	Manufacturer
Battery Charger	GM87448	Kohler

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

AC Input: 100-260VAC, 50/60 Hz, 3.7 Amps RMS
DC Output: 10 Amps, 12/24VDC

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
8	10	6	2.8	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.33	0.53
		2.50	0.00	1.50	2.50	1.00	1.67	0.67

Kohler Jbox 1 was attached to the shake table using eight (8) M6 8.8 bolts. The UUT was attached to the Kohler Jbox 1 using four (4) M6 8.8 bolts.



UUT-01B-R

All units were filled with contents and maintained structural integrity and functionality



UNIT UNDER TEST (UUT) SUMMARY SHEET

UUT-01B-F

VMA-50682-01

Model Line	Model Number	Manufacturer
Battery Charger	GM87448	Kohler

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

AC Input: 100-260VAC, 50/60 Hz, 3.7 Amps RMS
DC Output: 10 Amps, 12/24VDC

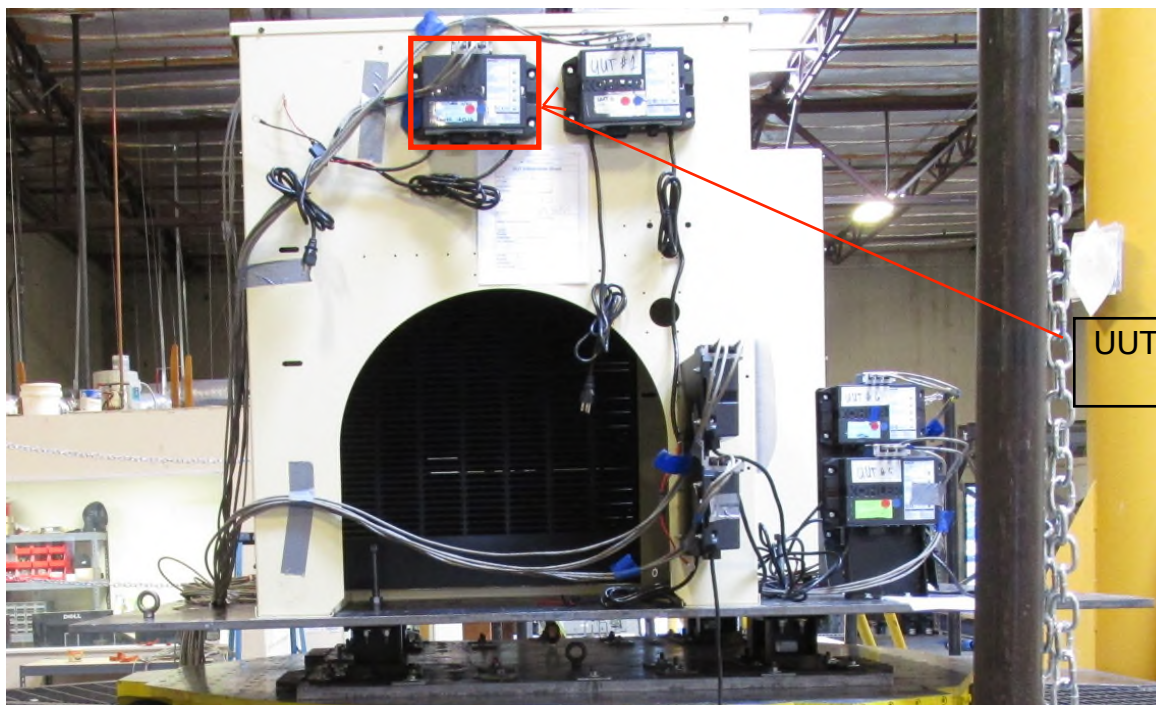
UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
8	10	6	2.8	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.33	0.53
		2.50	0.00	1.50	2.50	1.00	1.67	0.67

Kohler Jbox 1 was attached to the shake table using eight (8) M6 8.8 bolts. The UUT was attached to the Kohler Jbox 1 using four (4) M6 8.8 bolts. A base plate was used to apply external isolation to all the UUTs.



All units were filled with contents and maintained structural integrity and functionality



UNIT UNDER TEST (UUT) SUMMARY SHEET

UUT-02A-R

VMA-50682-01

Model Line	Model Number	Manufacturer
Battery Charger	GM87448	Kohler

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

AC Input: 100-260VAC, 50/60 Hz, 3.7 Amps RMS
DC Output: 10 Amps, 12/24VDC

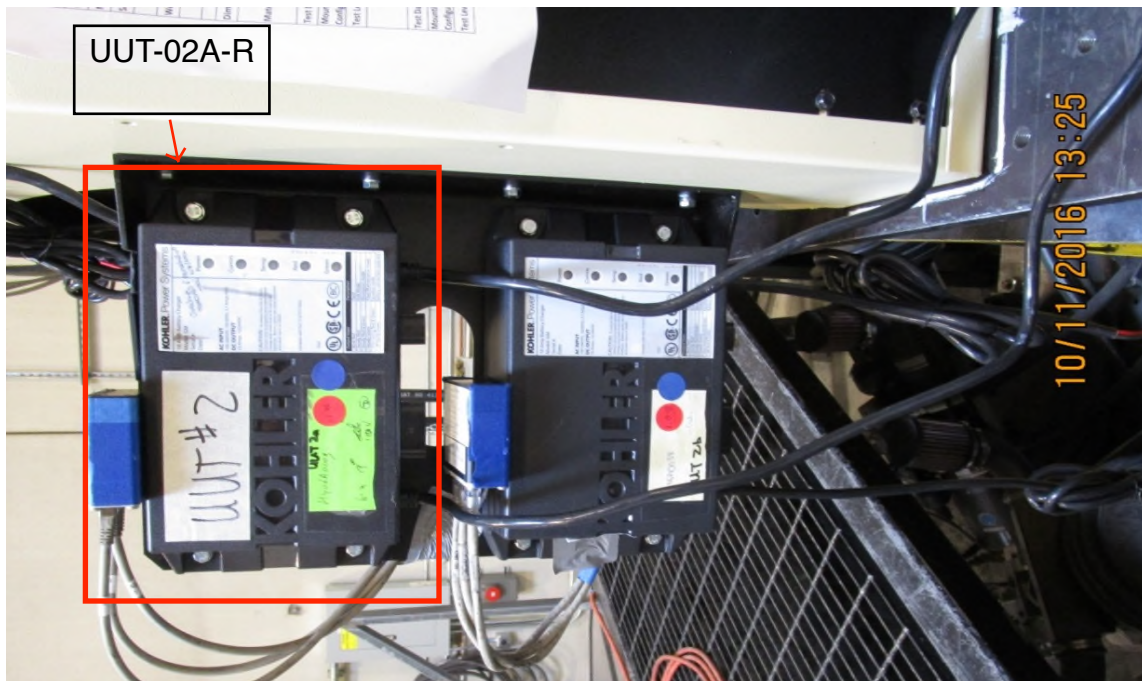
UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
8	10	6	2.8	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.33	0.53
		2.50	0.00	1.50	2.50	1.00	1.67	0.67

Kohler Jbox 1 was attached to the shake table using eight (8) M6 8.8 bolts. The UUT was attached to a GM95037 support bracket using four (4) M6 8.8 bolts. Support bracket was attached to Kohler Jbox 1 using four (4) M6 8.8 bolts.



All units were filled with contents and maintained structural integrity and functionality



UNIT UNDER TEST (UUT) SUMMARY SHEET

UUT-02A-F

VMA-50682-01

Model Line	Model Number	Manufacturer
Battery Charger	GM87448	Kohler

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

AC Input: 100-260VAC, 50/60 Hz, 3.7 Amps RMS
DC Output: 10 Amps, 12/24VDC

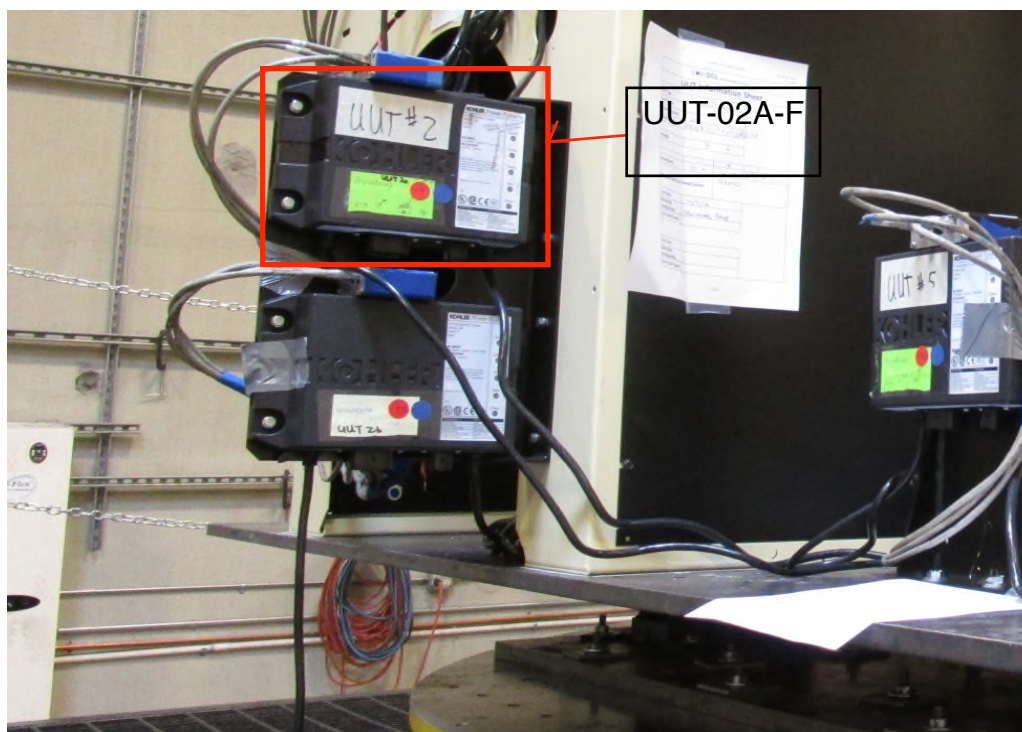
UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
8	10	6	2.8	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.33	0.53
		2.50	0.00	1.50	2.50	1.00	1.67	0.67

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UNIT UNDER TEST (UUT) SUMMARY SHEET

UUT-02B-R

VMA-50682-01

Model Line	Model Number	Manufacturer
Battery Charger	GM87448	Kohler

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

AC Input: 100-260VAC, 50/60 Hz, 3.7 Amps RMS
DC Output: 10 Amps, 12/24VDC

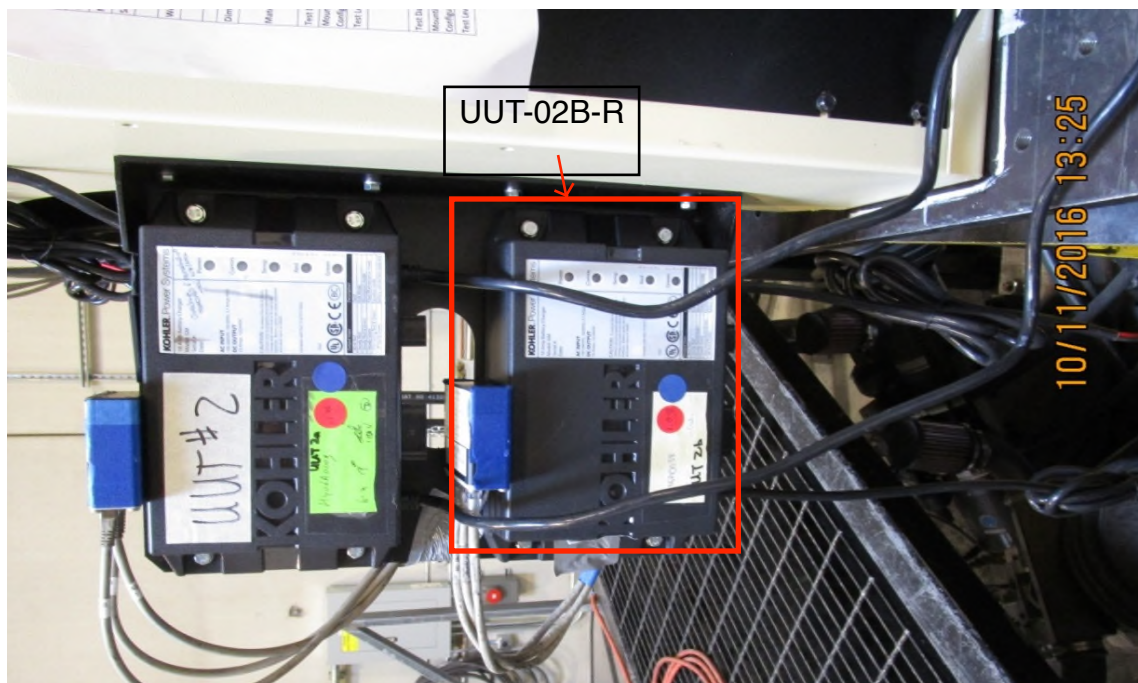
UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
8	10	6	2.8	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.33	0.53
		2.50	0.00	1.50	2.50	1.00	1.67	0.67

Kohler Jbox 1 was attached to the shake table using eight (8) M6 8.8 bolts. The UUT was attached to a GM95037 support bracket using four (4) M6 8.8 bolts. Support bracket was attached to Kohler Jbox 1 using four (4) M6 8.8 bolts.



All units were filled with contents and maintained structural integrity and functionality



UNIT UNDER TEST (UUT) SUMMARY SHEET

UUT-02B-F

VMA-50682-01

Model Line	Model Number	Manufacturer
Battery Charger	GM87448	Kohler

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

AC Input: 100-260VAC, 50/60 Hz, 3.7 Amps RMS
DC Output: 10 Amps, 12/24VDC

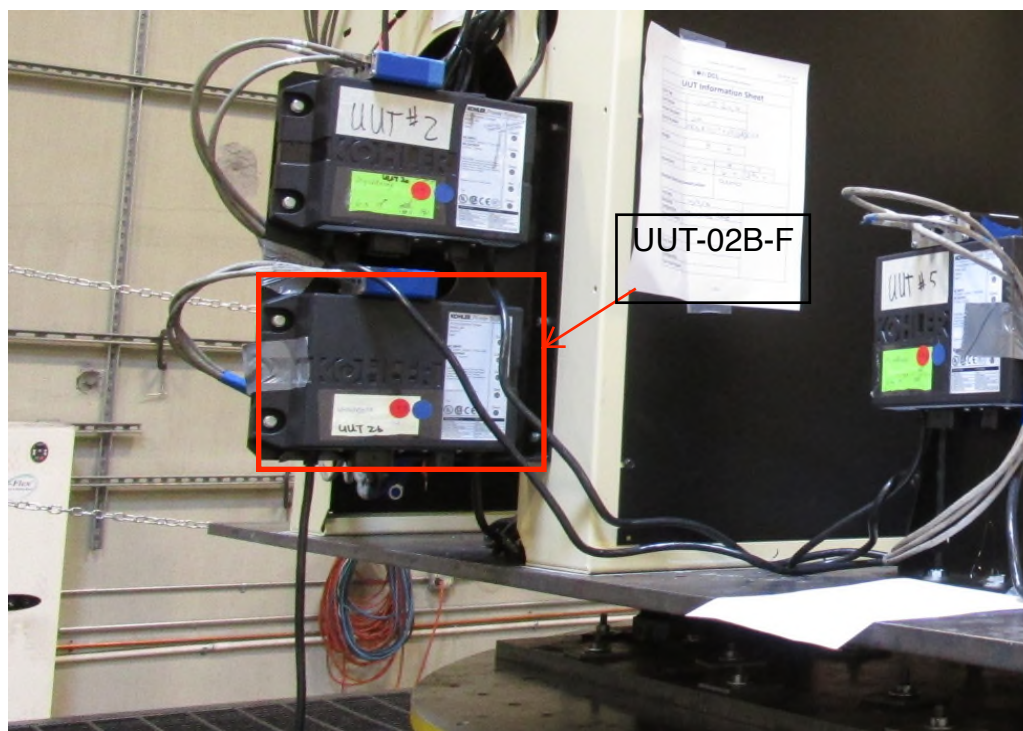
UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
8	10	6	2.8	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.33	0.53
		2.50	0.00	1.50	2.50	1.00	1.67	0.67

Kohler Jbox 1 was attached to the shake table using eight (8) M6 8.8 bolts. The UUT was attached to a GM95037 support bracket using four (4) M6 8.8 bolts. Support bracket was attached to Kohler Jbox 1 using four (4) M6 8.8 bolts.



All units were filled with contents and maintained structural integrity and functionality



UNIT UNDER TEST (UUT) SUMMARY SHEET

UUT-03A-R

VMA-50682-01

Model Line	Model Number	Manufacturer
Battery Charger	GM87448	Kohler

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

AC Input: 100-260VAC, 50/60 Hz, 3.7 Amps RMS
DC Output: 10 Amps, 12/24VDC

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
8	10	6	2.8	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.33	0.53
		2.50	0.00	1.50	2.50	1.00	1.67	0.67

Kohler Jbox 2 was attached to the shake table using eight (8) M6 8.8 bolts. The UUT was attached to a GM95037 support bracket using four (4) M6 8.8 bolts. Support bracket was attached to Kohler Jbox 2 using four (4) M6 8.8 bolts.



All units were filled with contents and maintained structural integrity and functionality



UNIT UNDER TEST (UUT) SUMMARY SHEET

UUT-03A-F

VMA-50682-01

Model Line	Model Number	Manufacturer
Battery Charger	GM87448	Kohler

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

AC Input: 100-260VAC, 50/60 Hz, 3.7 Amps RMS
DC Output: 10 Amps, 12/24VDC

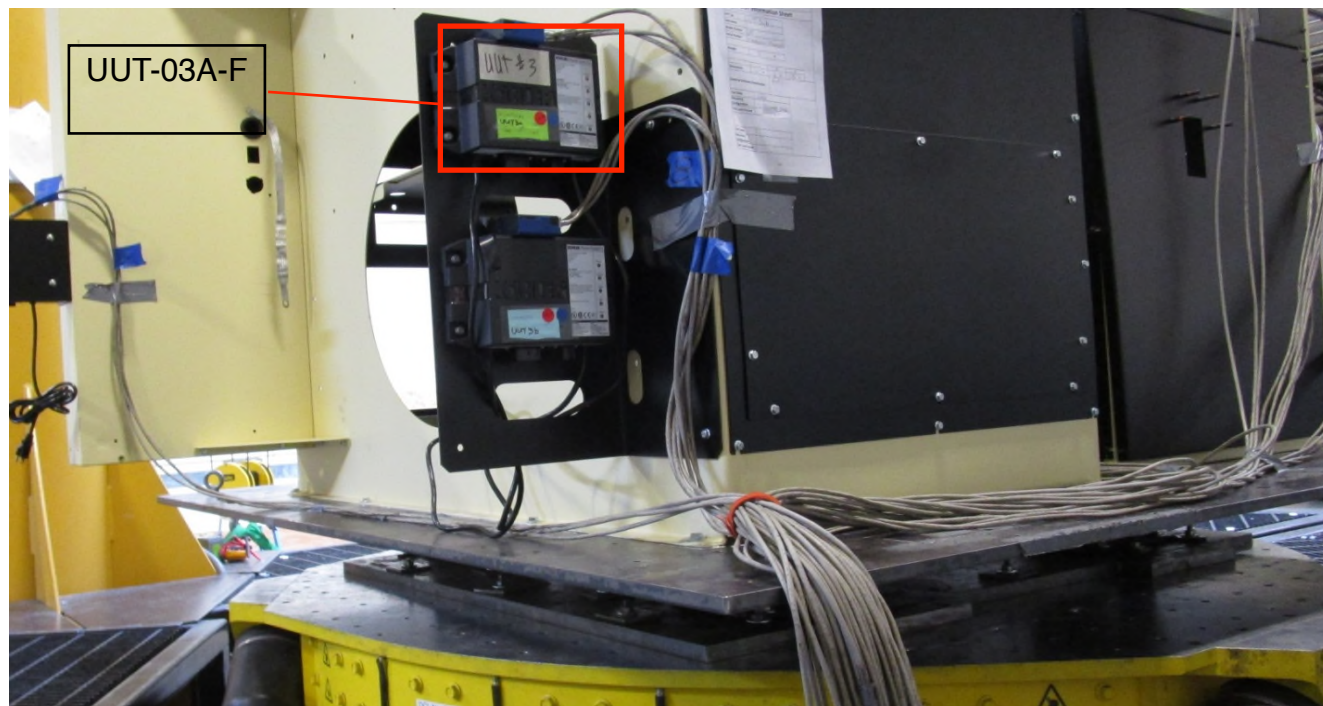
UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
8	10	6	2.8	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.33	0.53
		2.50	0.00	1.50	2.50	1.00	1.67	0.67

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UNIT UNDER TEST (UUT) SUMMARY SHEET

UUT-03B-R

VMA-50682-01

Model Line	Model Number	Manufacturer
Battery Charger	GM87448	Kohler

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

AC Input: 100-260VAC, 50/60 Hz, 3.7 Amps RMS
DC Output: 10 Amps, 12/24VDC

UUT Properties

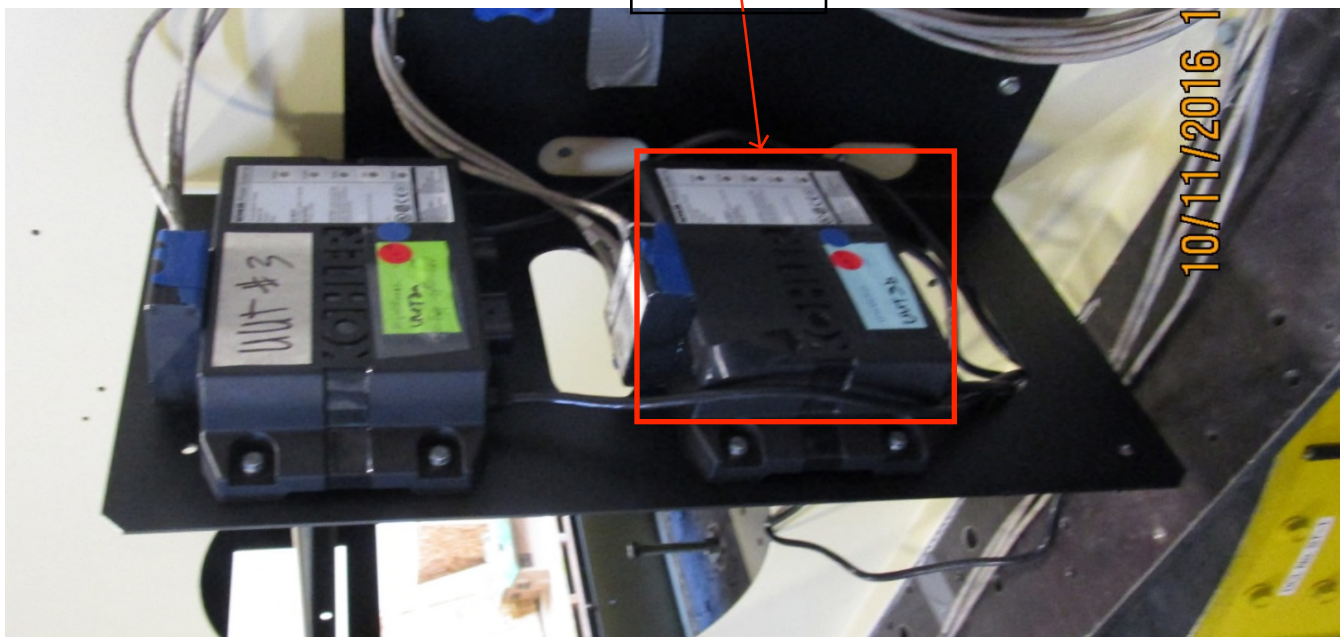
Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
8	10	6	2.8	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.33	0.53
		2.50	0.00	1.50	2.50	1.00	1.67	0.67

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UUT-03B-R



All units were filled with contents and maintained structural integrity and functionality



UNIT UNDER TEST (UUT) SUMMARY SHEET

UUT-03B-F

VMA-50682-01

Model Line	Model Number	Manufacturer
Battery Charger	GM87448	Kohler

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

AC Input: 100-260VAC, 50/60 Hz, 3.7 Amps RMS
DC Output: 10 Amps, 12/24VDC

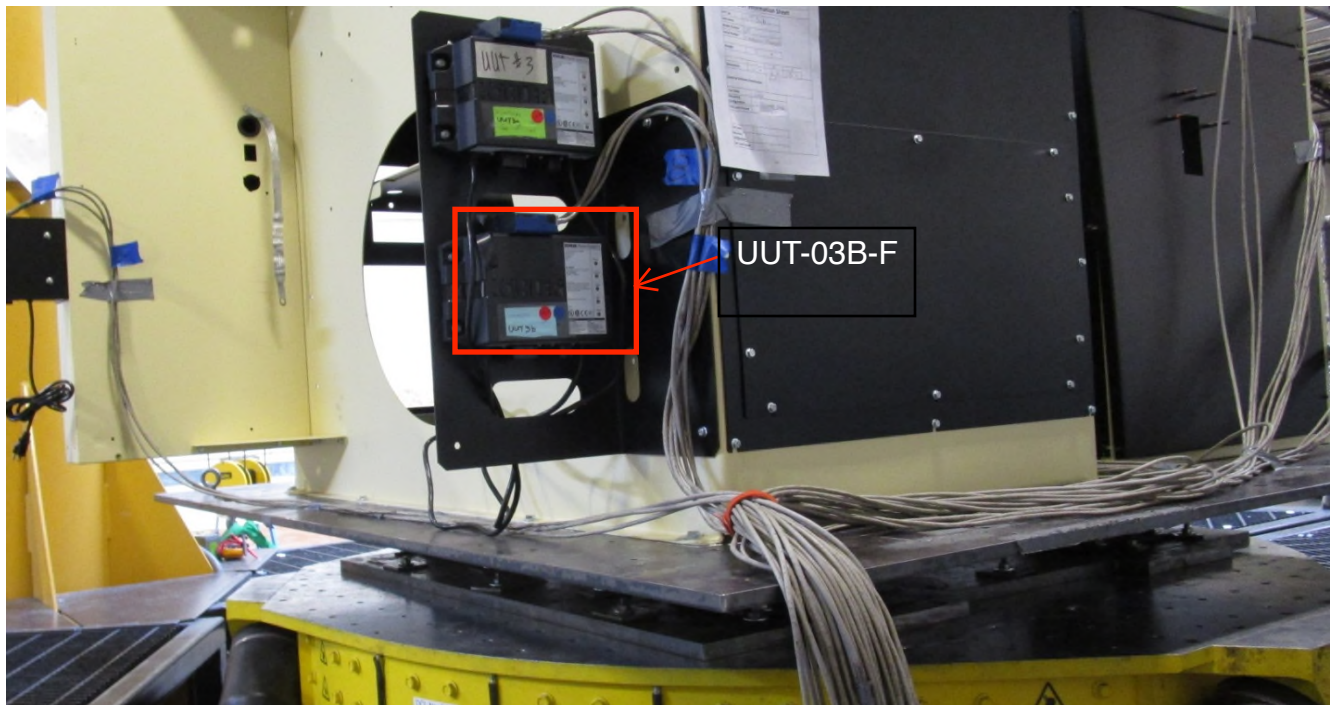
UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
8	10	6	2.8	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.33	0.53
		2.50	0.00	1.50	2.50	1.00	1.67	0.67

Kohler Jbox 2 was attached to the shake table using eight (8) M6 8.8 bolts. The UUT was attached to a GM95037 support bracket using four (4) M6 8.8 bolts. Support bracket was attached to Kohler Jbox 2 using four (4) M6 8.8 bolts.



All units were filled with contents and maintained structural integrity and functionality



UNIT UNDER TEST (UUT) SUMMARY SHEET

UUT-04-R

VMA-50682-01

Model Line	Model Number	Manufacturer
Battery Charger	GM87448	Kohler

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

AC Input: 100-260VAC, 50/60 Hz, 3.7 Amps RMS
DC Output: 10 Amps, 12/24VDC

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
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UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
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		2.50	0.00	1.50	2.50	1.00	1.67	0.67

Kohler Jbox 2 was attached to the shake table using eight (8) M6 8.8 bolts. The UUT was attached to a GM95037 support bracket using four (4) M6 8.8 bolts. Support bracket was attached to the Kohler Jbox 2 using two (2) M6 8.8 bolts.



All units were filled with contents and maintained structural integrity and functionality



UNIT UNDER TEST (UUT) SUMMARY SHEET

UUT-04-F

VMA-50682-01

Model Line	Model Number	Manufacturer
Battery Charger	GM87448	Kohler

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

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Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.33	0.53
		2.50	0.00	1.50	2.50	1.00	1.67	0.67

Kohler Jbox 2 was attached to the shake table using eight (8) M6 8.8 bolts. The UUT was attached to a GM95037 support bracket using four (4) M6 8.8 bolts. Support bracket was attached to the Kohler Jbox 2 using two (2) M6 8.8 bolts.



All units were filled with contents and maintained structural integrity and functionality



UNIT UNDER TEST (UUT) SUMMARY SHEET

UUT-05-R

VMA-50682-01

Model Line	Model Number	Manufacturer
Battery Charger	GM87448	Kohler

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

AC Input: 100-260VAC, 50/60 Hz, 3.7 Amps RMS
DC Output: 10 Amps, 12/24VDC

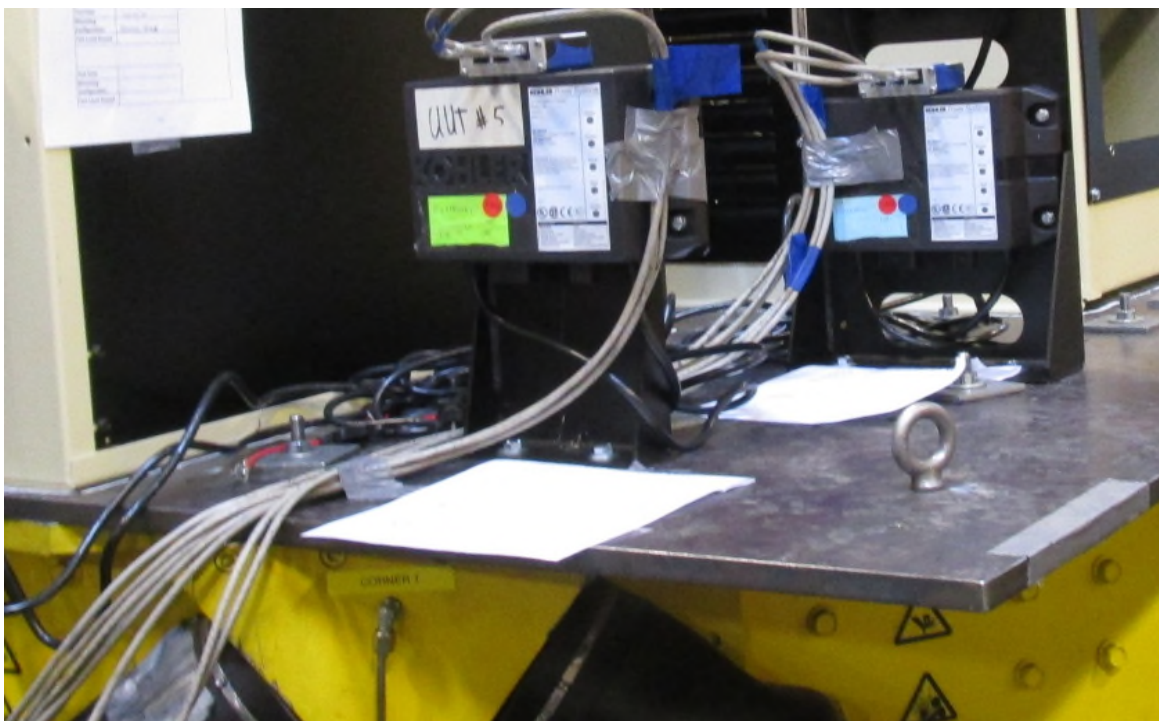
UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
8	10	6	2.8	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.33	0.53
		2.50	0.00	1.50	2.50	1.00	1.67	0.67

The stand for UUT was attached to the table using two (2) M6 8.8 bolts. The UUT was bolted to the stand using four (4) M6 8.8 bolts.



All units were filled with contents and maintained structural integrity and functionality



UNIT UNDER TEST (UUT) SUMMARY SHEET

UUT-05-F

VMA-50682-01

Model Line	Model Number	Manufacturer
Battery Charger	GM87448	Kohler

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

AC Input: 100-260VAC, 50/60 Hz, 3.7 Amps RMS
DC Output: 10 Amps, 12/24VDC

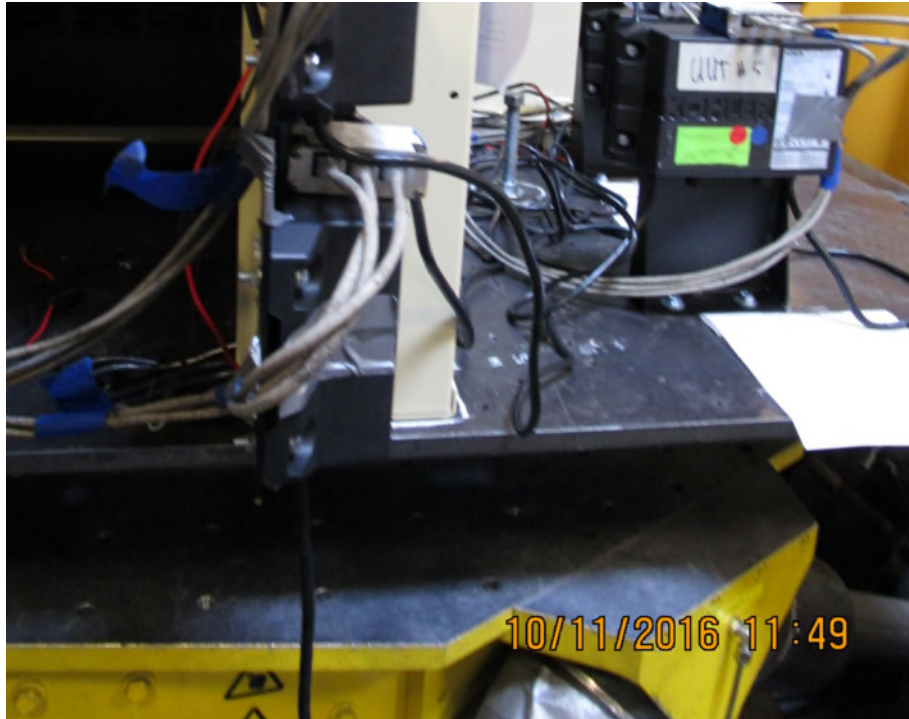
UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
8	10	6	2.8	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.33	0.53
		2.50	0.00	1.50	2.50	1.00	1.67	0.67

The stand for UUT was attached to the table using two (2) M6 8.8 bolts. The UUT was bolted to the stand using four (4) M6 8.8 bolts. A base plate was used to apply external isolation to all the UUTs.



All units were filled with contents and maintained structural integrity and functionality



UNIT UNDER TEST (UUT) SUMMARY SHEET

UUT-06A-R

VMA-50682-01

Model Line	Model Number	Manufacturer
Battery Charger	GM87448	Kohler

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

AC Input: 100-260VAC, 50/60 Hz, 3.7 Amps RMS
DC Output: 10 Amps, 12/24VDC

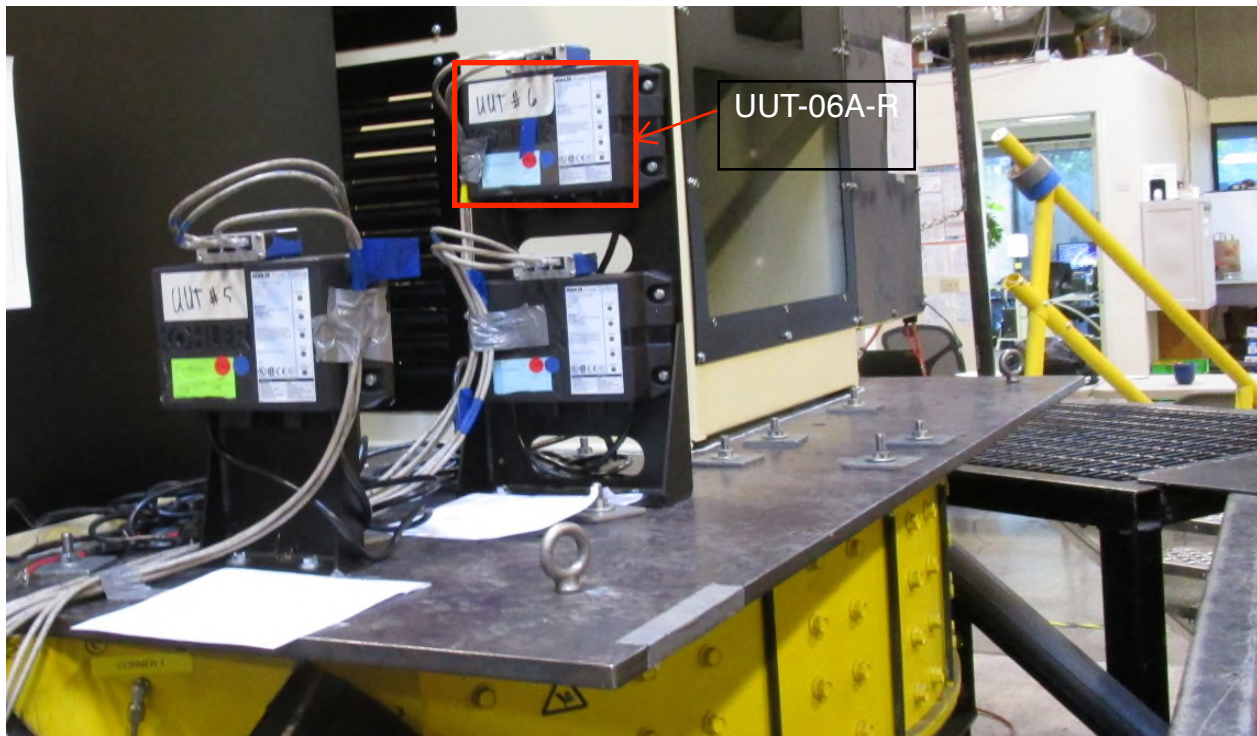
UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
8	10	6	2.8	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.33	0.53
		2.50	0.00	1.50	2.50	1.00	1.67	0.67

The stand for UUT was attached to the table using two (2) M6 8.8 bolts. The UUT was bolted to the stand using four (4) M6 8.8 bolts.



All units were filled with contents and maintained structural integrity and functionality



UNIT UNDER TEST (UUT) SUMMARY SHEET

UUT-06A-F

VMA-50682-01

Model Line	Model Number	Manufacturer
Battery Charger	GM87448	Kohler

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

AC Input: 100-260VAC, 50/60 Hz, 3.7 Amps RMS
DC Output: 10 Amps, 12/24VDC

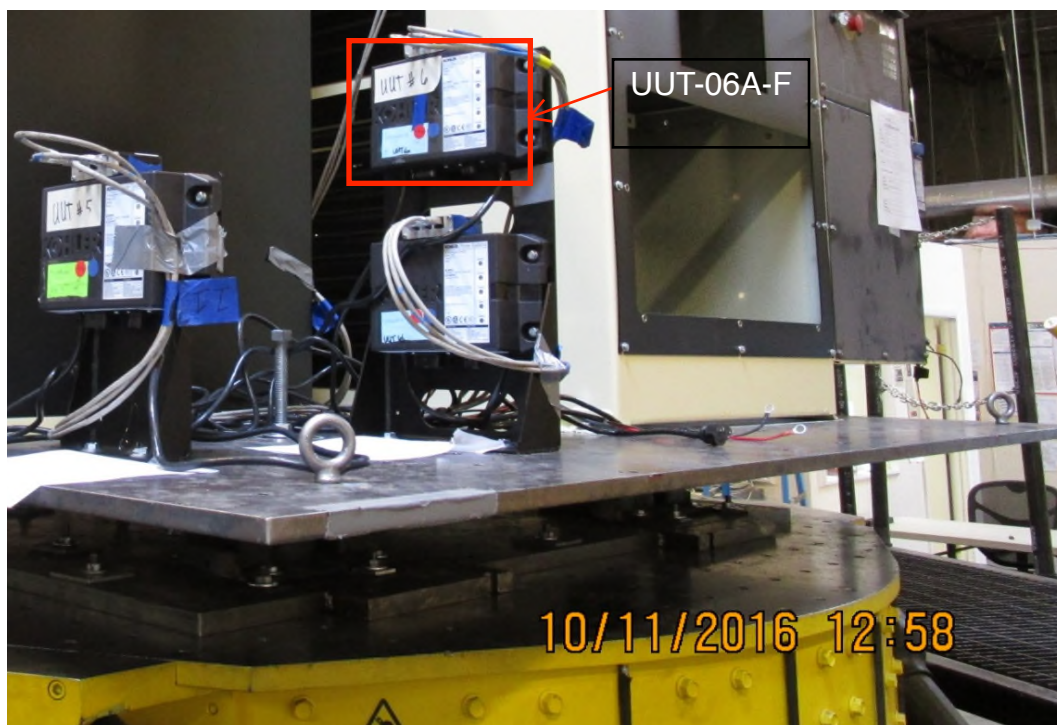
UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
8	10	6	2.8	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.33	0.53
		2.50	0.00	1.50	2.50	1.00	1.67	0.67

The stand for UUT was attached to the table using two (2) M6 8.8 bolts. The UUT was bolted to the stand using four (4) M6 8.8 bolts. A base plate was used to apply external isolation to all the UUTs.



All units were filled with contents and maintained structural integrity and functionality



UNIT UNDER TEST (UUT) SUMMARY SHEET

UUT-06B-R

VMA-50682-01

Model Line	Model Number	Manufacturer
Battery Charger	GM87448	Kohler

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

AC Input: 100-260VAC, 50/60 Hz, 3.7 Amps RMS
DC Output: 10 Amps, 12/24VDC

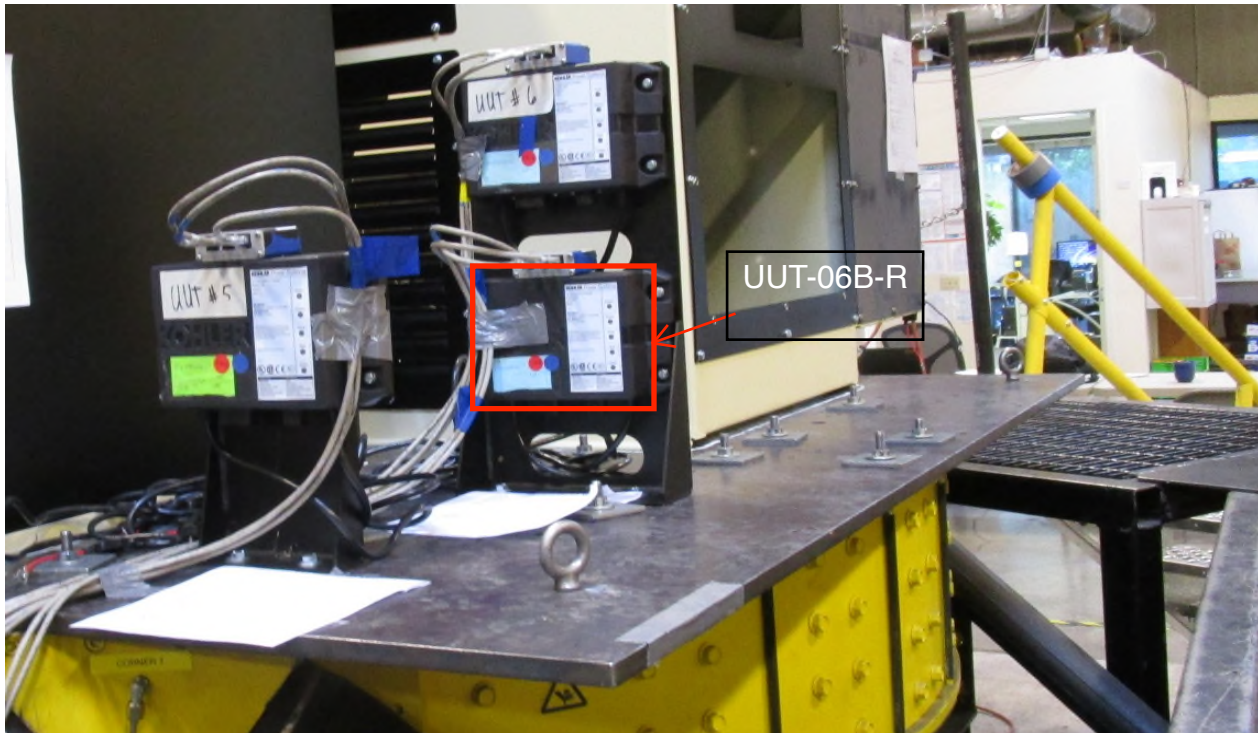
UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
8	10	6	2.8	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.33	0.53
		2.50	0.00	1.50	2.50	1.00	1.67	0.67

The stand for UUT was attached to the table using two (2) M6 8.8 bolts. The UUT was bolted to the stand using four (4) M6 8.8 bolts.



All units were filled with contents and maintained structural integrity and functionality



UNIT UNDER TEST (UUT) SUMMARY SHEET

UUT-06B-F

VMA-50682-01

Model Line	Model Number	Manufacturer
Battery Charger	GM87448	Kohler

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

AC Input: 100-260VAC, 50/60 Hz, 3.7 Amps RMS
DC Output: 10 Amps, 12/24VDC

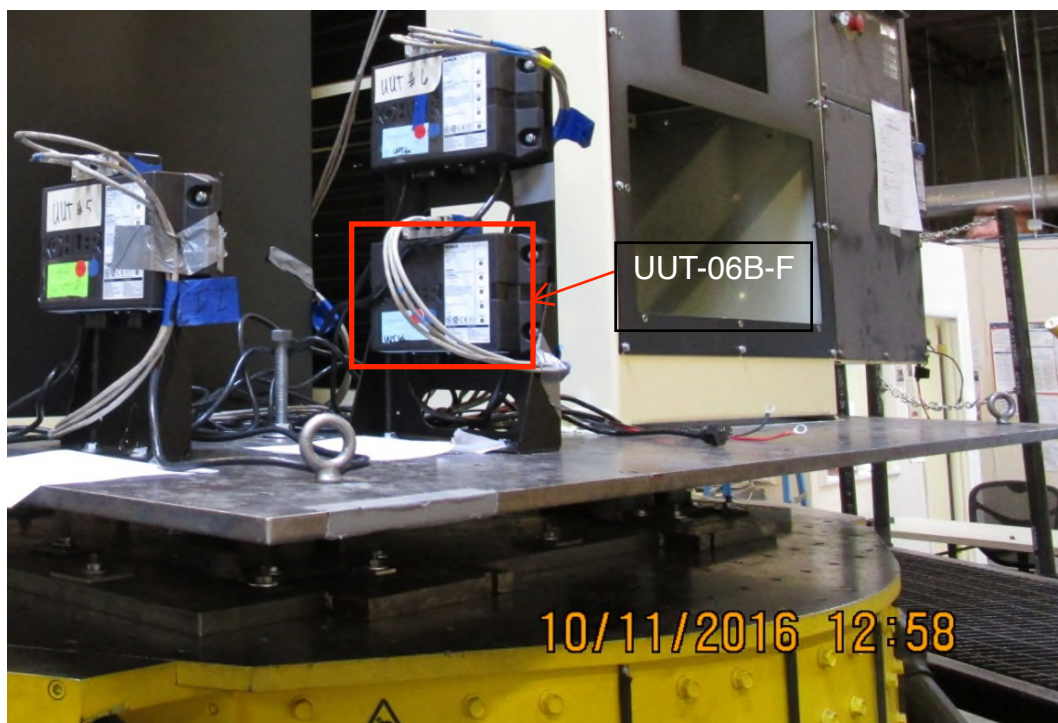
UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
8	10	6	2.8	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS} (g)	z/h	I _P	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2016	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.33	0.53
		2.50	0.00	1.50	2.50	1.00	1.67	0.67

The stand for UUT was attached to the table using two (2) M6 8.8 bolts. The UUT was bolted to the stand using four (4) M6 8.8 bolts. A base plate was used to apply external isolation to all the UUTs.



All units were filled with contents and maintained structural integrity and functionality