APPLICATION FOR OSHPD SPECIAL SEISMIC CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP-0514

OSHPD Special Seismic Certification Preapproval (OSP)

Type: ☐ New ☒ 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@kohler.com

Product Information

Product Name: Emergency and Standby Power Systems

Product Type: Automatic Transfer Switches

Product Model Number: See Attached Product Matrix

General Description: Cabinets are powder-coated carbon steel, NEMA 1 and NEMA 3R rating. Units contain controllers.

Mounting Description: Rigid, Floor/Wall Mounted

Tested Seismic Enhancements: None

Applicant Information

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@thevmcgroup.com

Title: President

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 ☒ ICC-ES AC156 ☐ IEEE 344 ☐ IEEE 693 ☐ NEBS 3

☐ Other (Please Specify):

Testing Laboratory

Company Name: DYNAMIC CERTIFICATION LABORATORY (DCL)

Contact Person: Kelly Laplace

Mailing Address: 1315 Greg St., Ste 109, Sparks NV 89431

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

Company Name: UNIVERSITY OF CALIFORNIA, BERKELEY (PEER)

Contact Person: Amarnath Kasalanati

Mailing Address: 1302 South 46th Street Building 420, Richmond CA 940841729

Telephone: (510) 642-6475 Email: Amarnath1@berkeley.edu

Company Name: WYLE LABORATIORIES

Contact Person: Don Smith

Mailing Address: 7800 Highway 20 West, Huntsville AL 35806

Telephone: (256) 837-4411 Email: don.smith@wyle.com

Seismic Parameters

Design Basis of Equipment or Components (F_p/W_p) = 1.500

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

a_p (Amplification factor) = 2.5 (Rigid Wall and Base)

R_p (Response modification factor) = 6.0 (Rigid Wall and Base)

Ω_0 (System overstrength factor) = 2.0

I_p (Importance factor) = 1.5

z/h (Height ratio factor) = 1

Natural frequencies (Hz) = See Attachment

Overall dimensions and weight = See Attachment

OSHPD Approval (For Office Use Only) - Approval Expires on 10/07/2027

Date: 10/4/2021

Name: Mohammad Karim Title: Supervisor, Health Facilities

Special Seismic Certification Valid Up to: S_{DS} (g) = 2.0 z/h = 1

Condition of Approval (if applicable):

Table 1 - Certified Products - KC and KS Model Automatic Transfer Switches

Standard Transition: **KCS, KSS** Closed Transition: **KCC** Programmed Transition: **KCP**

Model[4]	ATS MFR	Amps	Voltage	Switch Type	Encl. MFR	Encl. Const.	Max Dimensions - Type 1 [in]			Max Wt. Type 1 [lb]	Max Dimensions - Type 3R [in]			Max Wt. Type 3R [lb]	Mount	UUT
							Height	Width	Depth		Height	Width	Depth			
KCS / KSS	Kohler	30	480	2-Pole	Kohler	Carbon Steel Welded	31.1	18.0	12.4	62	-	-	-	-	Rigid Wall	**UUT 1**
		30-200	208-600	2-Pole			31.1	18.0	12.4	62	31.1	18.0	12.4(1)	67		Interpolated
				3-Pole			31.1	18.0	12.4	65	31.1	18.0	12.4(1)	65		
				4-Pole			31.1	18.0	12.4	68	31.1	18.0	12.4(1)	68		
KCS / KSS	Kohler	230 (208-480V)	208-480	2-Pole			48.1	22.0	14.3	115	48.1	22.0	14.3(1)	115		
				3-Pole			48.1	22.0	14.3	123	48.1	22.0	14.3(1)	123		
				4-Pole			48.1	22.0	14.3	131	48.1	22.0	14.3(1)	123		
		230	480	4-Pole			-	-	-	-	48.1	22.0	14.3(1)	123		**UUT 2**
KCS / KSS	Kohler	600	480	2-Pole	Kohler	Carbon Steel Welded	67.0	24.0	20.2	265	-	-	-	-	Rigid Base	**UUT 3**
		230 (600V)	600	2-Pole			67.0	24.0	20.2	395	67.0	24.0	20.2(1)	395		Interpolated
				3-Pole			67.0	24.0	20.2	403	67.0	24.0	20.2(1)	403		
				4-Pole			67.0	24.0	20.2	414	67.0	24.0	20.2(1)	414		
KCS / KSS	Kohler	260-600	208-600	2-Pole			67.0	24.0	20.2	395	67.0	24.0	20.2(1)	395		
				3-Pole			67.0	24.0	20.2	403	67.0	24.0	20.2(1)	403		
				4-Pole			67.0	24.0	20.2	414	67.0	24.0	20.2(1)	414		
KCP / KCC	Kohler	150-600	208-600	2-Pole			67.0	24.0	20.2	395	67.0	24.0	20.2(1)	395		
				3-Pole			67.0	24.0	20.2	403	67.0	24.0	20.2(1)	403		
				4-Pole			67.0	24.0	20.2	414	67.0	24.0	20.2(1)	414		
KCS / KCP / KCC / KSS	Kohler	800-1000	208-600	2-Pole			76.1	34.0	20.3	485	76.1	34.0	20.3(1)	485		
				3-Pole			76.1	34.0	20.3	510	76.1	34.0	20.3(1)	510		
				4-Pole			76.1	34.0	20.3	525	76.1	34.0	20.3(1)	525		
KCS		1000	480	4-Pole			-	-	-	-	76.1	34.0	20.3(1)	550		**UUT 4**
KCP	Kohler	1200	480	3-Pole	Kohler	Carbon Steel Assembled	90.0	37.9	27.1	770	-	-	-	-	Rigid Base	**UUT 5**
KCS / KCP / KCC / KSS	Kohler	1200	208-600	3-Pole			90.0	37.9	27.1	1,020	90.0	37.0	25.2(2)	1,020		Interpolated
				4-Pole			90.0	37.9	27.1	1,070	90.0	37.0	25.2(2)	1,070		
KCS / KCP / KCC	Kohler	1600-2000	208-600	3-Pole			90.0	37.9	48.0	1,175	90.0	37.0	50.4(2)	1,175		
				4-Pole			90.0	37.9	48.0	1,225	90.0	37.0	50.4(2)	1,225		
KCS / KCP / KCC	Kohler	1600-2000F	208-600	3-Pole			90.0	37.9	27.1	1,175	90.0	37.0	31.2(2)	1,175		
				4-Pole			90.0	37.9	27.1	1,225	90.0	37.0	31.2(2)	1,225		
KCS / KCP / KCC	Kohler	2600-3000	208-600	3-Pole			90.0	37.9	60.0	1,430	90.0	37.0	62.4(2)	1,430		
				4-Pole			90.0	37.9	60.0	1,475	90.0	37.0	62.4(2)	1,475		
KCP	Kohler	3000	480	4-Pole			90.0	37.9	60.0	1,475	-	-	-	-		**UUT 6**
KCS / KCP / KCC	Kohler /ASCO[3]	4000	208-600	3-Pole	ASCO	Carbon Steel Assembled	91.0	60.0	72.3	2,149	99.6	63.2	90.9	3,165	Rigid Base	Extrapolated
				4-Pole			91.0	60.0	72.3	2,328	99.6	63.2	90.9	3,357		
G7ADTBB34000R5DC	ASCO	4000	480	4-Pole			91.0	63.0	96.0	6,435	-	-	-	-		**UUT 10**
G7ASLBB34000N5XM	ASCO	4000	480	4-Pole			-	-	-	-	100.0	63.0	115.0	7,250		**UUT 9**

Notes for KC and KS Model

1. Nema 3R logic covers extend 2.1"
2. Vents extend 3"
3. Kohler 4000A ATSs utilize ASCO enclosures and mechanisms
4. KSS models are mechanically and structurally identical to KCS models as they use the same mechanisms and enclosures

Table 2 - Certified Products - KB Model Bypass Automatic Transfer Switches

Standard Transition: **KBS** Closed Transition: **KBC** Programmed Transition: **KBP**

Model[3]	ATS MFR	Amps	Voltage	Switch Type	Encl. MFR	Encl. Const.	Max Dimensions - Type 1 [in]			Max Wt. Type 1 [lb]	Max Dimensions - Type 3R [in]			Max Wt. Type 3R [lb]	Mount	UUT
							Height	Width	Depth		Height	Width	Depth			
KBS / KBP / KBC	Kohler	150-260	208-600	2-Pole	ASCO	Carbon Steel Assembled	85.1	34.0	28.0	950	95.2	49.1	36.6	1,560	Rigid Base	Extrapolated
				3-Pole			85.1	34.0	28.0	950	95.2	49.1	36.6	1,560		
				4-Pole			85.1	34.0	28.0	950	95.2	49.1	36.6	1,560		
KBS / KBP / KBC	Kohler	150-600	208-600	2-Pole			85.1	46.0	28.0	950	95.2	49.1	36.6	1,560		
				3-Pole			85.1	46.0	28.0	950	95.2	49.1	36.6	1,560		
				4-Pole			85.1	46.0	28.0	950	95.2	49.1	36.6	1,560		
J7ACTBB30600N5XM	ASCO	600	480	4-Pole			-	-	-	-	95.0	49.0	37.0	1,726		**UUT 7**
KBS / KBP / KBC	Kohler	800 F	208-600	3-Pole			91.0	38.0	32.0	1,400	N/A(1)	N/A(1)	N/A(1)	N/A(1)		Interpolated
				4-Pole			91.0	38.0	32.0	1,400	N/A(1)	N/A(1)	N/A(1)	N/A(1)		
KBS / KBP / KBC	Kohler	800-1200S	208-600	3-Pole			91.0	38.0	48.0	1,560	95.4	41.0	62.0	2,200		
				4-Pole			91.0	38.0	48.0	1,560	95.4	41.0	62.0	2,200		
KBS / KBP / KBC	Kohler	1600-2000	208-600	3-Pole			91.0	38.0	60.0	2,360	95.4	41.0	74.0	2,675		
				4-Pole			91.0	38.0	60.0	2,540	95.4	41.0	74.0	2,790		
KBS / KBP / KBC	Kohler	2600-3000	208-600	3-Pole			91.0	38.0	72.0	2,730	95.4	40.0	86.0	3,270		
				4-Pole			91.0	38.0	72.0	3,360	95.4	40.0	86.0	3,558		
KBS / KBP / KBC	Kohler	4000	208-600	3-Pole			91.0	60.0	96.0	4,650	99.6	63.0	114.9	6,350		
				4-Pole			91.0	60.0	96.0	5,148	99.6	63.0	114.9	6,500		
G7ADTBB34000R5DC	ASCO	4000	480	4-Pole			91.0	63.0	96.0	6,435	-	-	-	-		**UUT 10**
G7ASLBB34000N5XM	ASCO	4000	480	4-Pole			-	-	-	-	100.0	63.0	115.0	7,250		**UUT 9**

Notes for KB Model

1. N/A signifies that the product is not offered
2. Kohler ATSs use ASCO enclosures and Mechanisms

Table 3 - Certified Subcomponents: Enclosures (KC, KS, & KB Models)

Enclosure Options						Max Weight [lb]	Mount	UUT
Type	Amp Range	Construction	Material	Thickness	MFR			
NEMA 1	30	Welded	Carbon Steel	See Note 1	Kohler	95	Rigid Wall	UUT-1
	30-230					95		Interpolated
NEMA 3R	30-230					95		
	230					95		UUT-2
NEMA 1	260-600	Welded	Carbon Steel	12 gauge	Kohler	164	Rigid Base	Extrapolated
	600					164		UUT-3, UUT-7
	600-1000					327		Intepolated
	1200	Assembled				551		UUT-5
	1200-3000					876		Interpolated
	3000					876		UUT-6
	4000			Per NEC/UL	ASCO	1,260		UUT-10
NEMA 3R	260-1000	Welded		12 gauge	Kohler	164		Extrapolated
						327		
	1000					327		UUT-4
	1200-3000	Assembled				884		Interpolated
	4000			Per NEC/UL	ASCO	1,260		UUT-9

Note for Enclosures 1. Thickness varies from 16ga to 12ga based on amperage and NEC/UL code

Table 4 - Certified Subcomponents: Mechanism

Mechanism					Material	Max Weight [lb]	UUT	Mount
Amps	Volts	Poles	Transition Type	MFR				
30	208-600	2, 3, 4	standard	ASCO	Carbon Steel	23	**UUT-1**	Rigid Wall
70	208-600	2, 3, 4	standard	ASCO		23	Interpolated	
104	208-600	2, 3, 4	standard	ASCO		23		
150	208-600	2, 3, 4	standard, programmed, closed	ASCO		23		
200	208-600	2, 3, 4	standard	ASCO		23		
225	208-600	2, 3, 4	programmed	ASCO		23		
230	208-480	2, 3, 4	standard	ASCO		23	**UUT-2**	
230	600	2, 3, 4	standard	ASCO	Carbon Steel	80	Extrapolated	Rigid Base
260	208-600	2, 3, 4	standard, programmed, closed	ASCO		96		
400	208-600	2, 3, 4	standard, programmed, closed	ASCO		96		
600	208-600	2, 3, 4	standard, programmed, closed	ASCO		103	**UUT-3, UUT-7**	
800	208-600	2, 3, 4	standard, programmed, closed	ASCO		165	Interpolated	
1000	208-600	3, 4	standard, programmed, closed	ASCO		189	**UUT-4**	
1200	208-600	3, 4	standard, programmed, closed	ASCO		189	**UUT-5**	
1600	208-600	3, 4	standard, programmed, closed	ASCO		605	Interpolated	
2000	208-600	3, 4	standard, programmed, closed	ASCO		605		
2600	208-600	3, 4	standard, programmed	ASCO		997		
3000	208-600	3, 4	standard, programmed, closed	ASCO		997	**UUT-6**	
4000	208-600	3, 4	standard, programmed, closed	ASCO		2465	**UUT-9, UUT-10**	

Table 5 - Certified Subcomponents: Controllers

Controller			Material	Notes	Weight [lb]	UUT
Model	Transition Type	MFR				
MPAC 1200	Standard	Kohler	Plastic	Is a depopulated MPAC 1500 (no Ethernet board)	<10	Extrapolated
MPAC 1500	Standard			-	<10	UUT-1, UUT-2
MPAC 1200 w/ Daughter Board	Programmed & Closed	Kohler	Plastic	Is a depopulated MPAC1500 w/ DB (no Ethernet board)	<10	Extrapolated
MPAC 1500 w/ Daughter Board	Programmed & Closed			-	<10	UUT-3, UUT-4, UUT-5, UUT-6

Table 6 - Certified Subcomponents: Accessories

Kit	Description	Material	MFR	Weight [lb]	UUT
I/O Mounting Kit	Bracket and cover to mount the following 4 PCBs	Carbon Steel, Plastic, Copper	Kohler	2	UUT-1
External Battery Supply Module	PCB that provides connection of 12VDC to power the controller for extended time delays, frequent outages, and 3 source systems	Plastic, Copper	Kohler	0.5	UUT-1
Input/Output Module	PCB that provides 2 input/6 outputs	Plastic, Copper	Kohler	0.5	UUT-1
High-Power Input/Output Module	PCB that provides 2 input/3 high power outputs	Plastic, Copper	Kohler	0.75	UUT-1
Controller Disconnect Switch	Switch that interrupts the normal sensing wires from the controller for service	Carbon Steel, Plastic, Copper	Kohler/ABB	5	UUT-2
Ethernet Module	PCB that provides an Ethernet communications plug	Plastic, Copper	Kohler	0.1	UUT-1, UUT-2, UUT-3, UUT-4, UUT-5, UUT-6
Current Sensing Kit	Current Transformers and terminal block to allow the controller to display current	Plastic, Copper	WICC	varies by CT size	UUT-3, UUT-6
Line-to-Neutral Monitoring Kit	Wire leads that bring the neutral sensing signals back to the controller	Copper	Kohler	0.25	UUT-2
Padlockable User Interface Cover	Hinged sheet metal cover over the controller (optional on NEMA 1, standard on 3R)	Carbon Steel	Kohler	3	UUT-2, UUT-4
Supervised Transfer Control Switch	Switch that allows the user to initiate transfers (requires Alarm Module)	Plastic, Copper	Schneider	1	UUT-1
Digital Meter Kit	Module that displays higher power functions, threshold alarms, and outputs	Plastic, Copper	Schneider	15	UUT-3, UUT-6
Heater, Anti-Condensation	Strip heater and hygrostat control	Carbon Steel, Aluminum, Plastic	Tempco, Stego	5	UUT-5
Load Shed Kit	Forced transfer to off (programmed transition switches only)	Carbon Steel, Plastic, Copper	Schneider	25	UUT-6
Surge Protective Device (SPD)	Transient voltage surge suppression module	Carbon Steel, Plastic, Copper	ABB	8	UUT-5

UNIT UNDER TEST (UUT)
Summary Sheet

UUT-01

VMA-46550-01E

Model Line	Model Number	Manufacturer
KC	KCS (480V, 30A)	Kohler

Product Construction Summary

Standard Transition ATS with Carbon Steel Enclosure; 30A, 480V; NEMA 1 rating

Options / Subcomponent Summary

Enclosure: Kohler, Mechanism: ASCO; Controller: Kohler, Accessories: Kohler

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
67	12	18	31	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 2019	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.67	0.67

Test Mounting Details

UUT 1 was bolted directly to the shake table wall mount fixture using (4) 3/8" Grade 8 bolts.

UUT-01

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

UNIT UNDER TEST (UUT)
Summary Sheet

UUT-02

VMA-46550-01E

Model Line	Model Number	Manufacturer
KC	KCS (480V, 230A)	Kohler

Product Construction Summary

Standard Transition ATS with Carbon Steel Enclosure; 230A, 480V; NEMA 3R rating

Options / Subcomponent Summary

Enclosure: Kohler, Mechanism: ASCO; Controller: Kohler, Accessories: Kohler

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
123	14	22	48	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 2019	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.67	0.67

Test Mounting Details

UUT 2 was bolted directly to the shake table wall mount fixture using (4) 3/8" Grade 8 bolts.

UUT-02

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

UNIT UNDER TEST (UUT)
Summary Sheet

UUT-03

VMA-46550-01E

Model Line	Model Number	Manufacturer
KC	KCS (480V, 600A)	Kohler

Product Construction Summary

Standard Transition ATS with Carbon Steel Enclosure; 600A, 480V; NEMA 1 rating

Options / Subcomponent Summary

Enclosure: Kohler, Mechanism: ASCO; Controller: Kohler, Accessories: Kohler

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
265	20	24	67	5.8	7.8	14.0

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 2019	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.67	0.67

Test Mounting Details

UUT 3 was bolted directly to the shake table steel plate fixture using (4) 5/8" Grade 8 bolts.

UUT-03

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

UNIT UNDER TEST (UUT)
Summary Sheet

UUT-04

VMA-46550-01E

Model Line	Model Number	Manufacturer
KC	KCS (480V, 1000A)	Kohler

Product Construction Summary

Standard Transition ATS with Carbon Steel Enclosure; 1000A, 480V; NEMA 3R rating

Options / Subcomponent Summary

Enclosure: Kohler, Mechanism: ASCO; Controller: Kohler

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
550	20	34	76	10.5	7.8	23.5

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 2019	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.67	0.67

Test Mounting Details

UUT 4 was bolted directly to the shake table steel plate fixture using (4) 5/8" Grade 8 bolts.

UUT-04

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

UNIT UNDER TEST (UUT)
Summary Sheet

UUT-05

VMA-46550-01E

Model Line	Model Number	Manufacturer
KC	KCP (480V, 1200A)	Kohler

Product Construction Summary

Programmed Transition ATS with Carbon Steel Enclosure; 1200A, 480V; NEMA 1 rating

Options / Subcomponent Summary

Enclosure: Kohler, Mechanism: ASCO; Controller: Kohler

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
770	27	38	90	9.5	11.0	19.8

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 2019	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.67	0.67

Test Mounting Details

UUT 5 was bolted directly to the shake table steel plate fixture using (4) 3/4" Grade 8 bolts.

UUT-05

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

UNIT UNDER TEST (UUT)
Summary Sheet

UUT-06

VMA-46550-01E

Model Line	Model Number	Manufacturer
KC	KCP (480V, 3000A)	Kohler

Product Construction Summary

Programmed Transition ATS with Carbon Steel Enclosure; 3000A, 480V; NEMA 1 rating

Options / Subcomponent Summary

Enclosure: Kohler, Mechanism: ASCO; Controller: Kohler

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
1,475	60	38.0	90.0	9.5	12.0	21.0

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 2019	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.67	0.67

Test Mounting Details

UUT 6 was bolted directly to the shake table steel fixture using (4) 3/4" Grade 8 bolts.

UUT-06

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

UNIT UNDER TEST (UUT)
Summary Sheet

UUT-07

58168R10-2; UUT-2

Model Line	Model Number	Manufacturer
Transfer Switches	J7ACTBB30600N5XM	ASCO

Product Construction Summary

Carbon steel enclosure with powder-coated finish; 600A, 480V; NEMA 3R rating

Options / Subcomponent Summary

Enclosure: ASCO, Controller: ASCO

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
1,726	37	49	95	8.6	9.5	>33.3

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 2019	ICC-ES AC156	2.50	1.00	1.50	4.00	3.00	1.67	0.67

Test Mounting Details

UUT 7 was mounted directly to the test fixture using (8) 1/2" Grade 5 bolts.

UUT-07

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

UNIT UNDER TEST (UUT)
Summary Sheet

UUT-09

58791R11; UUT-1

Model Line	Model Number	Manufacturer
Transfer Switches	G7ASLBB34000N5XM	ASCO

Product Construction Summary

Carbon steel enclosure with powder-coated finish; 4000A, 480V; NEMA 3R rating

Options / Subcomponent Summary

Enclosure: ASCO, Mechanism: ASCO

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
7,250	114.8	63.0	99.6	7.5	4.2	>33.3

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 2019	ICC-ES AC156	2.46	1.00	1.50	3.94	2.95	2.46	0.98

Test Mounting Details

UUT 9 was bolted directly to the test fixture using (16) 1/2" Grade 5 bolts.

UUT-09

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

UNIT UNDER TEST (UUT)
Summary Sheet

UUT-10

57674R10-1; UUT-1

Model Line	Model Number	Manufacturer
Transfer Switches	G7ADTBB34000R50C	ASCO

Product Construction Summary

Carbon steel enclosure with powder-coated finish; 4000A, 480V; NEMA 1 rating

Options / Subcomponent Summary

Enclosure: ASCO, Controller: ASCO

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Length	Width	Height	F-B	S-S	V
6,435	96	63.0	91.0	9.8	6.1	24.0

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 2019	ICC-ES AC156	2.39	1.00	1.50	3.82	2.87	1.59	0.64

Test Mounting Details

UUT 10 was bolted directly to the test fixture using (17) 1/2" Grade 5 bolts.

UUT-10

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