



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

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

OFFICE USE ONLY

APPLICATION #: OSP – 0514 – 10

OSHPD Special Seismic Certification Preapproval (OSP)

Type: ☒ New ☐ Renewal

Manufacturer Information

Manufacturer: Kohler Power Systems

Manufacturer's Technical Representative: Andy Miller

Mailing Address: 444 Highland Drive, Kohler, WI 53044

Telephone: (920) 457-4441 Email: andrew.miller@kohler.com

Product Information

Product Name: Kohler Transfer Switches

Product Type: Standard, Closed, and Programmed Transition Automatic Transfer Switches

Product Model Number: See Attached Product Matrix

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

General Description: Cabinets are powder-coated carbon steel, NEMA1 and NEMA 3R rating. Units contain controllers, switches, and accessories. Seismic enhancements made to test units and modifications required to address the anomalies observed during the tests shall be incorporated into the production units.

Mounting Description: Rigid floor mount and Rigid wall mount as specified in attachments.

Applicant Information

Applicant Company Name: The VMC Group

Contact Person: John P. Giuliano, PE

Mailing Address: 113 Main Street, Bloomingdale, NJ 07403

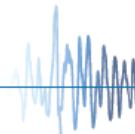
Telephone: (973) 838-1780 Email: john.giuliano@thvmcgroup.com

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: 4/13/17

Title: President Company Name: The VMC Group

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





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

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@thvmcgroup.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: Wyle Laboratories

Contact Name: Don Smith

Mailing Address: 7800 Highway 20 West, P.O. Box 077777, Huntsville, Alabama 35807-7777

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

Company Name: Dynamic Certification Laboratories

Contact Name: Kelly Laplace, Project Manager

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

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

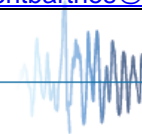
Company Name: PEER, UC Berkley

Contact Name: Clement Barthes

Mailing Address: 1302 South 46th Street Building 420, Richmond, CA 94084

Telephone: (510) 665-3409 Email: clementbarthes@berkley.edu

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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} (Design spectral response acceleration at short period, g) = 2.00

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

Equipment or Component Natural Frequencies (Hz) = See Attachment

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

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: _____

Date: January 8, 2018

Print Name: Timothy J. Piland

Title: SSE

Special Seismic Certification Valid Up to : S_{DS} (g) = 2.00

z/h = 1

Condition of Approval (if applicable): _____

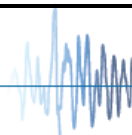


Table 1 - KC Series Automatic Transfer Switches

 Standard Transition: **KCS**

 Closed Transition: **KCC**

 Programmed Transition: **KCP**

Model	Manufacturer	Amps	Voltage	Switch Type	Construction	Max Dimensions - Type 1 [in]			Weight - Type 1 [lbs]	Max Dimensions - Type 3R [in]			Weight - Type 3R [lbs]	UUT	Installation		
						Height	Width	Depth		Height	Width	Depth					
KCS	Kohler	30	480	2-Pole	Carbon Steel Welded	31.1	18.0	12.4	62	31.1	18.0	12.4 ⁽¹⁾	67	UUT 1	Rigid Wall		
		30-200	208-600	2-Pole		31.1	18.0	12.4	62	31.1	18.0	12.4 ⁽¹⁾	62	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	Kohler	230 (208-480V)	208-480	2-Pole		48.1	22.0	14.3	115	48.1	22.0	14.3 ⁽¹⁾	115	Interpolated			
				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⁾	131				
		230	480	4-Pole		48.1	22.0	14.3	123	48.1	22.0	14.3 ⁽¹⁾	123	UUT 2			
KCS	Kohler	600	480	2-Pole	Carbon Steel Welded	67.0	24.0	20.2	265	67.0	24.0	20.2 ⁽¹⁾	265	UUT 3	Rigid Base		
		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	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	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	550	76.1	34.0	20.3 ⁽¹⁾	550	UUT 4			
KCP	Kohler	1200	480	3-Pole		Carbon Steel Assembled	90.0	37.9	27.1	770	90.0	37.0	25.2 ⁽²⁾	770		UUT 5	Rigid Base
KCS KCP KCC	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	1,620	90.0	37.0	62.4 ⁽²⁾	1,620				
				4-Pole	90.0		37.9	60.0	1,685	90.0	37.0	62.4 ⁽²⁾	1,685				
KCP	Kohler	3000	480	4-Pole	90.0		37.9	60.0	1,475	90.0	37.0	62.4 ⁽²⁾	1,475	UUT 6			
KCS KCP KCC	Kohler	4000	208-600	3-Pole	91.0		60.0	72.3	2,149	99.6	63.2	90.9	3,165	UUT 10			
				4-Pole	91.0		60.0	72.3	2,328	99.6	63.2	90.9	3,357				

Notes for KC Series

1) Nema 3R logic covers extend 2.1"

2) Vents extend 3"

Table 2 - KB Series Bypass Automatic Transfer Switches

 Standard Transition: **KBS**

 Closed Transition: **KBC**

 Programmed Transition: **KBP**

Model	Manufacturer	Amps	Voltage	Switch Type	Construction	Max Dimensions - Type 1 [in]			Weight - Type 1 [lbs]	Max Dimensions - Type 3R [in]			Weight - Type 3R [lbs]	UUT	Installation
						Height	Width	Depth		Height	Width	Depth			
KBS KBP KBC	Kohler	150-260	208-600	2-Pole	Carbon Steel Assembled	85.1	34.0	28.0	950	95.2	49.1	36.6	1,560	Extrapolated	Rigid Base
				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	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	UUT 9	
				4-Pole		91.0	60.0	96.0	5,148	99.6	63.0	114.9	6,500		

Notes for KB Series

1) N/A signifies that the product is not offered

Table 3 -Certified Subcomponents: Enclosures (KC & KB Series)

Enclosure Options						UUT	Installation
Type	Amp Range	Construction	Material	Thickness	MFR		
NEMA 1	30	Welded	Carbon Steel	See Note 1	Kohler	1	Rigid Wall
	30-230					Interpolated	
NEMA 3R	30-230						
	230					2	
NEMA 1	260-600	Welded		12 gauge	Kohler	Extrapolated	Rigid Base
	600					3, 7	
	600-1000					Interpolated	
	1200	Assembled				5	
	1200-3000					Interpolated	
	3000					6	
	4000					10	
	NEMA 3R					260-1000	
1000		4					
1200-3000		Assembled		Interpolated			
4000				per NEC/UL	ASCO	9	
				per NEC/UL	ASCO		

Notes for Enclosures

1) Thickness varies from 16ga to 12ga based on amperage and NEC/UL code

Table 4 - Certified Subcomponents: Mechanisms

Mechanism					Material	UUT	Installation
Amps	Volts	Poles	Transition Type	MFR			
30	208-600	2, 3, 4	standard	ASCO	Carbon Steel	1	Rigid Wall
70	208-600	2, 3, 4	standard	ASCO		Interpolated	
104	208-600	2, 3, 4	standard	ASCO			
150	208-600	2, 3, 4	standard, programmed, closed	ASCO			
200	208-600	2, 3, 4	standard	ASCO			
225	208-600	2, 3, 4	programmed	ASCO			
230	208-480	2, 3, 4	standard	ASCO		2	Rigid Base
230	600	2, 3, 4	standard	ASCO		Extrapolated	
260	208-600	2, 3, 4	standard, programmed, closed	ASCO			
400	208-600	2, 3, 4	standard, programmed, closed	ASCO			
600	208-600	2, 3, 4	standard, programmed, closed	ASCO		3, 7	
800	208-600	2, 3, 4	standard, programmed, closed	ASCO		Interpolated	
1000	208-600	3, 4	standard, programmed, closed	ASCO		4	
1200	208-600	3, 4	standard, programmed, closed	ASCO		5	
1600	208-600	3, 4	standard, programmed, closed	ASCO		Interpolated	
2000	208-600	3, 4	standard, programmed, closed	ASCO			
2600	208-600	3, 4	standard, programmed	ASCO			
3000	208-600	3, 4	standard, programmed, closed	ASCO		6	
4000	208-600	3, 4	standard, programmed, closed	ASCO		9, 10	

Table 5 - Certified Subcomponents: Controllers

Controller			Material	UUT	Installation
Model	Transition Type	MFR			
MPAC 1500	Standard	Kohler	Plastic	1,2	Rigid Wall
MPAC 1500 w/ Daughter Board	Programmed & Closed			3, 4, 5, 6	Rigid Base
MPAC 1200	Standard			Extrapolated	Rigid Wall Rigid Base
MPAC 1200 w/ Daughter Board	Programmed & Closed				

Same as 1500 Standard (except for no Ethernet board)
Same as 1500 Prog/Closed (except for no Ethernet board)

Table 6 - Certified Subcomponents: Accessories

Kit	Description	Material	Manufacturer	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	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 2016	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 2016	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 2016	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 2016	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 2016	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 2016	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-10

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 2016	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	G7ASLB34000N5XM	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	115	63.0	100.0	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 2016	ICC-ES AC156	2.00	1.00	1.50	3.20	2.40	1.33	0.53

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	G7ADTB34000R50C	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 2016	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.