



DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
OFFICE OF STATEWIDE HOSPITAL PLANNING AND DEVELOPMENT

APPLICATION FOR HCAI SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP-0012

HCAI Special Seismic Certification Preapproval (OSP)

Type: ☐ New ☒ Renewal

Manufacturer Information

Manufacturer: Eaton

Manufacturer's Technical Representative: Dallas Bostian

Mailing Address: 3990 Old Tasso Road NE, Cleveland, TN 37312

Telephone: (423) 478-0238 Email: dallasjbostian@eaton.com

Product Information

Product Name: HD and Shunt Trip Safety Switches

Product Model Number(s): See attachment

Product Category: Power Isolation and Correction Systems

Product Sub-Category: Power Isolation and Correction Systems

General Description: Low Voltage disconnects for use in power distribution systems.

Mounting Description: Wall Mounted Rigid -

Tested Seismic Enhancements: None

Applicant Information

Applicant Company Name: WE Gundy & Associates, Inc

Contact Person: Travis Soppe

Mailing Address: PO Box 9121, Boise, ID 83707

Telephone: (208) 342-5989 Email: tsoppe@wegai.com

Title: President



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

Company Name: W.E. GUNDY & ASSOCIATES INC.

Name: Travis Soppe

California License Number: S6115

Mailing Address: P.O. Box 9121, Boise, ID 83707

Telephone: (208) 342-5989

Email: tsoppe@wegai.com

Certification Method

☐ GR-63-Core

☒ ICC-ES AC156

☐ IEEE 344

☐ IEEE 693

☐ NEBS 3

☐ Other (Please Specify): _____

Testing Laboratory

Company Name: NATIONAL TECHNICAL SYSTEMS (NTS)

Contact Person: Tom Boonarkat

Mailing Address: 7800 Highway 20 West, Huntsville AL 35806

Telephone: (256) 837-4411

Email: Tom.Boonarkat@nts.com

BY: Mohammad Karim

DATE: 07/21/2025



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Seismic Parameters

Design Basis of Equipment or Components (F_p/W_p) =	<u>See Attachments</u>
SDS (Design spectral response acceleration at short period, g) =	<u>See Attachments</u>
a_p (Amplification factor) =	<u>2.5</u>
R_p (Response modification factor) =	<u>6.0</u>
Ω_0 (System overstrength factor) =	<u>2.0</u>
I_p (Importance factor) =	<u>1.5</u>
z/h (Height ratio factor) =	<u>1</u>
Natural frequencies (Hz) =	<u>See Attachment</u>
Overall dimensions and weight =	<u>See Attachment</u>

HCAI Approval (For Office Use Only) - Approval Expires on 07/23/2031

Date: <u>7/21/2025</u>	
Name: <u>Mohammad Karim</u>	Title: <u>Supervisor, Health Facilities</u>
Special Seismic Certification Valid Up to: SDS (g) = <u>See above</u>	z/h = <u>1</u>
Condition of Approval (if applicable): _____	

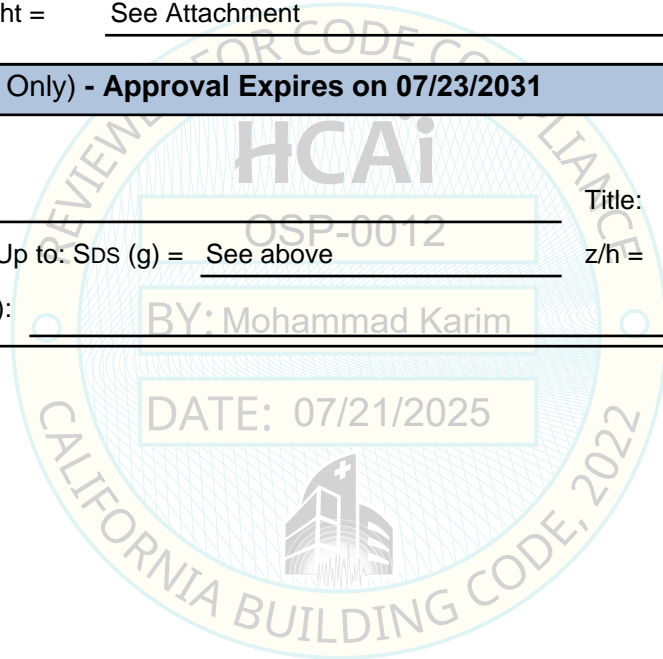



TABLE 1	EATON HD & SHUNT TRIP SAFETY SWITCHES SEISMIC CERTIFICATION PRODUCT LINE MATRIX					 W.E. GUNDY & ASSOCIATES, INC. STRUCTURAL & EARTHQUAKE ENGINEERING		
	Section Type ¹	Current (Amps)	NEMA Rating ²	Enclosure Dimensions (in) ²			Weight (lbs)	Representative UUT
Width				Depth	Height			
HEAVY DUTY SAFETY SWITCHES SEISMIC CERTIFICATION LIMIT: S _{DS} = 2.30 at z/h = 1.0 - F _p = 1.73								
DHxx1xxK	30	1 / 12 / 3R	8 - 13	5 - 6	14 - 20	16 - 20	extrapolated	
DTxx1xxK	30	1 / 12 / 3R	8 - 13	5 - 6	14 - 20	30 - 50	extrapolated	
DCxxxx1xxM	30	1 / 12 / 3R	8 - 13	5 - 6	14 - 20	16 - 20	extrapolated	
DHxx2xxK	60	1 / 12 / 3R	8 - 13	5 - 6	14 - 20	16 - 20	extrapolated	
DTxx2xxK	60	1 / 12 / 3R	8 - 13	5 - 6	14 - 20	30 - 50	extrapolated	
DCxxxx2xxM	60	1 / 12 / 3R	8 - 13	5 - 6	14 - 20	16 - 20	extrapolated	
DHxx3xxK	100	1 / 12 / 3R	11 - 16	5 - 6	22 - 40	23 - 50	extrapolated	
DTxx3xxK	100	1 / 12 / 3R	11 - 16	5 - 6	22 - 40	30 - 50	extrapolated	
DCxxxx3xxM	100	1 / 12 / 3R	11 - 16	5 - 6	22 - 40	23 - 50	extrapolated	
DHxxx4xxK	200	1 / 12 / 3R	16 - 24	6 - 7	24 - 56	38 - 100	extrapolated	
DTxx4xxK	200	1 / 12 / 3R	16 - 24	6 - 7	24 - 56	80 - 100	extrapolated	
DT364FRK	200	3R	20.8	6.1	51.8	92	UUT _x -15	
DHxx5xxK	400	1 / 12 / 3R	23 - 27	7 - 9	45 - 78	115 - 230	interpolated	
DTxx5xxK	400	1 / 12 / 3R	23 - 27	7 - 9	45 - 78	140 - 260	interpolated	
DHxx6xxK	600	1 / 12 / 3R	25 - 29	8 - 9	52 - 87	148 - 200	interpolated	
DTxx6xxK	600	1 / 12 / 3R	25 - 29	8 - 9	52 - 87	175 - 300	interpolated	
DHxx7xxK	800	1 / 12 / 3R	26 - 31	8 - 21	56 - 89	160 - 220	interpolated	
DTxx7xxK	800	1 / 12 / 3R	26 - 31	8 - 21	56 - 89	175 - 315	interpolated	
DHxx8xxK	1200	1 / 12 / 3R	41 - 44	12 - 21	71 - 81	350 - 400	interpolated	
DTxx8xxK	1200	1 / 12 / 3R	41 - 44	12 - 21	71 - 81	465 - 528	interpolated	
DT368NRK	1200	3R	44.0	20.5	81.0	528	UUT _x -16	
SHUNT TRIP SAFETY SWITCHES SEISMIC CERTIFICATION LIMIT: S _{DS} = 2.40 at z/h = 1.0 - F _p = 1.80								
STSxx1xDxx	30	1 / 12 / 3R	10 - 12	5 - 6	21 - 23	18 - 22	extrapolated	
STSxx2xDxx	60	1 / 12 / 3R	10 - 10	5 - 6	21 - 23	18 - 22	extrapolated	
STSxx3xDxx	100	1 / 12 / 3R	13 - 16	5 - 6	24 - 26	25 - 50	extrapolated	
STS363FD32	100	12	15.0	5.6	25.0	38	UUT _y -13	
STSxx4xDxx	200	1 / 12 / 3R	19 - 22	6 - 7	34 - 36	40 - 110	interpolated	
STSxx5xDxx	400	1 / 12 / 3R	26 - 28	6 - 7	56 - 58	110 - 230	interpolated	
STSxx6xDxx	600	1 / 12 / 3R	27 - 29	7 - 8	62 - 64	170 - 320	interpolated	
STSxx7xDxx	800	1 / 12 / 3R	28 - 30	7 - 8	70 - 72	170 - 320	interpolated	
STSxx8xDxx	1200	1 / 12 / 3R	46 - 48	12 - 13	72 - 74	390 - 420	interpolated	
STS368ND32	1200	12 / 3R	47.3	12.5	74.9	418	UUT _y -12	
General Notes: ¹ The part numbers listed uniquely identify the type of component, manufacturer, and material of construction for each sub-component with the tested units. ² NEMA 1 / 12 / 3R enclosures are constructed of carbon steel and identical in design with the 3R including a top rain shield / gasket material and the 12 including gasket material. Dimensions listed do not include the handle operator. ³ Subscript indicates the test report in which the units were qualified: x - 70282R12-1 / y - PR154605-TR-22								

Eaton Safety Switch and Shunt Trip Switch Product Numbering System

Heavy-Duty

DH 3 6 4 U D K W

Switch Type
DH = Heavy-duty
~~DS = Classified location with DS interior~~

Poles/Blades
1 = Single-pole
2 = Two-pole
3 = Three-pole
4 = Four-pole
6 = Six-pole

Ampere Rating
1 = 30 A
2 = 60 A
3 = 100 A
4 = 200 A
5 = 400 A
6 = 600 A
7 = 800 A
8 = 1200 A

Voltage
2 = 240 Vac
6 = 600 Vac

NEMA Enclosure Ratings
G = NEMA 1
R = NEMA 3R
D = NEMA 12 or 12/3R
~~P = NEMA 4~~
~~W = NEMA 4X (corrosion resistant) (304 Grade stainless steel)~~
~~C = NEMA 4X non-metallic (for Type DH)~~
~~X = NEMA 7/9 (for Type DS)~~

Options
W = Viewing window (4)(5)
V = Enhanced visible blade
~~X = Stainless steel mechanism~~
LW = Lower viewing window (5)
GCL = Mill duty rated

Series
K = Design all heavy-duty

Protection
F = Fusible without neutral
U = Non-fusible
N = Fusible with neutral

Double-Throw

DT 3 6 5 N D K W

Switch Type
DT = Double-throw

Poles/Blades
2 = Two-pole
3 = Three-pole
4 = Four-pole
6 = Six-pole

Ampere Rating
1 = 30 A
2 = 60 A
3 = 100 A
4 = 200 A
5 = 400 A
6 = 600 A
7 = 800 A
8 = 1200 A

Voltage
2 = 240 Vac
6 = 600 Vac

NEMA Enclosure Ratings
G = NEMA 1
R = NEMA 3R
D = NEMA 12 or 12/3R
~~P = NEMA 4~~
~~W = NEMA 4X (corrosion resistant) (304 Grade stainless steel)~~

Options
W = Viewing window (4)(5)
V = Enhanced visible blade
~~X = Stainless steel mechanism~~

Series
K = Design all heavy-duty
H = General-duty double-throw switch (compact design 30-100 A)

Protection
F = Fusible without neutral
U = Non-fusible
N = Fusible with neutral

Shunt Trip Safety Switch

STS 3 6 8 N W 3 2 - 1 B 00

Switch Series
STS = Shunt trip switch (UL)

Number of Poles
2 = Two-pole
3 = Three-pole
4 = Four-pole

Voltage
2 = 240 Vac max.
6 = 600 Vac max.

Ampere Rating
1 = 30 A
2 = 60 A
3 = 100 A
4 = 200 A
5 = 400 A
6 = 600 A
7 = 800 A
8 = 1200 A

Protection
F = Fusible without neutral
N = Fusible with neutral
U = Non-fusible

NEMA Type Enclosure Rating
D = NEMA 12/3R/1
~~P = NEMA 4 (painted steel)~~
~~W = NEMA 4X, stainless 304~~
~~X = NEMA 4X, stainless 316~~

Shunt Trip Coil Voltage
3 = 120 Vac
6 = 24 Vdc

CPT Voltage
0 = No CPT
1 = 480 Vac
2 = 208 Vac
3 = 240 Vac
4 = 600 Vac

Auxiliary Switch
BLANK = No auxiliary switches
1 = 1NO/1NC alarm switch only
2 = 1NO/1NC auxiliary contact only
3 = 2NO/2NC auxiliary contacts only
4 = 1NO/1NC auxiliary contact and 1NO/1NC alarm switch
5 = 2NO/2NC auxiliary contacts and 1NO/1NC alarm switch

Additional Options/Modifications
00 = No accessories
CL = Copper lugs
CP = Control pole
OJ = Factory-converted provisions for Class J fusing
ON = Factory-installed neutral for non-fused switch
OT = Factory-converted provisions for Class T fusing
OW = Viewing window over switch blades

Type of Protective Relay
0 = No relay
A = Arc energy reduction relay
B = Ground fault relay
C = Arc energy reduction relay/ground fault relay

UUT_x-15

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid wall mounted with (4) 1/2" grade 5 bolts



Manufacturer: Eaton **Test Location:** Wyle Lab, Huntsville AL

Product Line: Heavy Duty Safety Switches **Test Date:** June 2012

Component: DT364FRK **Report Number:** 70282R12-1

UUT Function: Opening and closing of electrical circuits

UUT Description: NEMA 3R carbon steel enclosure with 200A internal operating mechanism

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	*Depth	Height	FB	SS	V
92	20.75	11.25 / 6.1	51.75	NA	NA	NA

*The larger depth dimension as listed in the test report includes the handle, the smaller dimension is of the enclosure only.

SEISMIC TEST PARAMETERS

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 2022 / ICC-ES AC156	3.10	1.0	1.5	4.96	3.72	2.08	0.84

Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 test.

UUT_x-16

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid wall mounted with (4) 1/2" grade 5 bolts



Manufacturer: Eaton **Test Location:** Wyle Lab, Huntsville AL

Product Line: Heavy Duty Safety Switches **Test Date:** June 2012

Component: DT368NRK **Report Number:** 70282R12-1

UUT Function: Opening and closing of electrical circuits

UUT Description: NEMA 3R carbon steel enclosure with 1200A internal operating mechanism

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	*Depth	Height	FB	SS	V
528	44.0	25.5 / 20.5	81.0	NA	NA	NA

*The larger depth dimension as listed in the test report includes the handle, the smaller dimension is of the enclosure only.

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	SDS (g)	z / h	I _p	AFLX-H (g)	ARIG-H (g)	AFLX-V (g)	ARIG-V (g)
CBC 2022 / ICC-ES AC156	2.30	1.0	1.5	3.68	2.76	1.54	0.62

Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 test.

UUT_y-12

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid wall mounted with (6) 1/2" grade 5 bolts



Manufacturer: Eaton **Test Location:** Wyle Lab, Huntsville AL

Product Line: Shunt Trip Safety Switches **Test Date:** February 2022

Component: STS368ND32 **Report Number:** PR154605-TR-22

UUT Function: Opening and closing of electrical circuits

UUT Description: NEMA 12/3R carbon steel enclosure with 1200A internal operating mechanism

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	*Depth	Height	FB	SS	V
418	47.3	23.3 / 12.5	74.9	NA	NA	NA

*The larger depth dimension as listed in the test report includes the handle, the smaller dimension is of the enclosure only.

SEISMIC TEST PARAMETERS

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 2022 / ICC-ES AC156	2.40	1.0	1.5	3.84	2.88	1.61	0.65

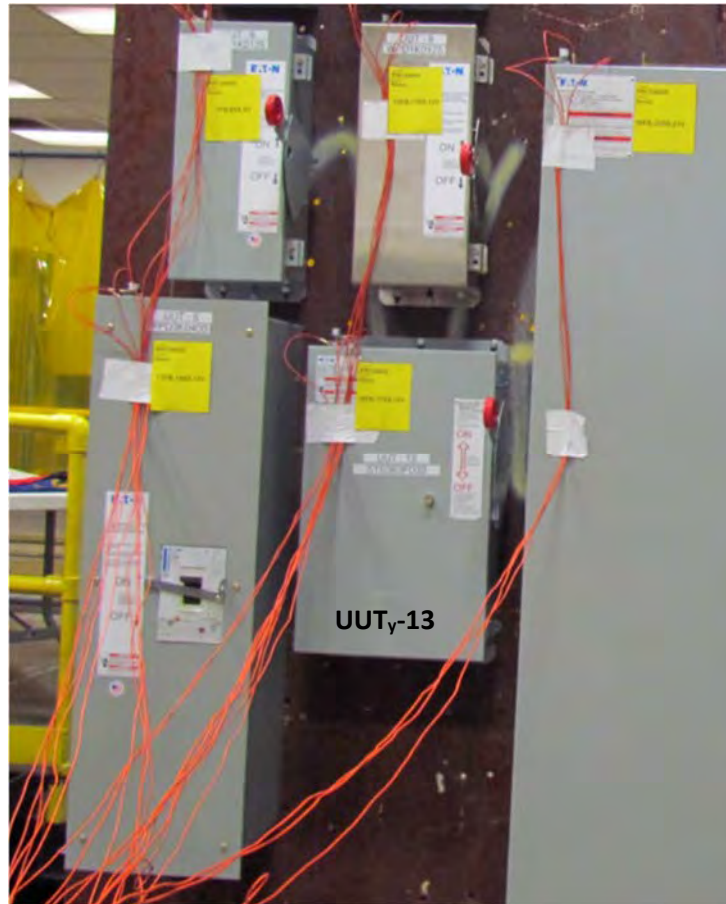
Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 test.

UUT_y-13

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid wall mounted with (6) 1/4" grade 5 bolts



Manufacturer: Eaton

Test Location: Wyle Lab, Huntsville AL

Product Line: Shunt Trip Safety Switches

Test Date: February 2022

Component: STS363FD32

Report Number: PR154605-TR-22

UUT Function: Opening and closing of electrical circuits

UUT Description: NEMA 12 carbon steel enclosure with 100A internal operating mechanism

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	*Depth	Height	FB	SS	V
38	15.0	11.5 / 5.6	25.0	NA	NA	NA

*The larger depth dimension as listed in the test report includes the handle, the smaller dimension is of the enclosure only.

SEISMIC TEST PARAMETERS

Building Code / Test Criteria	SDS (g)	z / h	I _p	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
CBC 2022 / ICC-ES AC156	2.40	1.0	1.5	3.84	2.88	1.61	0.65

Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 test.