



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

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

OFFICE USE ONLY

APPLICATION #: **OSP – 0459 – 10**

OSHPD Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: Siemens Industry, Inc.

Manufacturer's Technical Representative: Fernando Orpano

Mailing Address: 1000 Deerfield Parkway, Buffalo Grove, IL 60089 USA

Telephone: 847 – 941 - 6176 Email: fernando.orpano@siemens.com

Product Information

Product Name: Variable Frequency Drives and Bypass Product Line

Product Type: Variable Frequency Drives and Bypasses

Product Model Number: See Attached
(List all unique product identification numbers and/or part numbers)

General Description: Variable Frequency Drives and Bypass units are used to control electrical motors for commercial application.

Mounting Description: Rigid Wall Mounted

Applicant Information

Applicant Company Name: W.E. Gundy & Associates, Inc.

Contact Person: Travis Soppe, SE

Mailing Address: 250 Bobwhite Ct, Suite 100, Boise, ID 83706

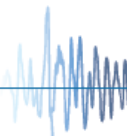
Telephone: (208) 342-5989 Ext. 115 Email: tsoppe@wegai.com

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: 2/29/2016

Title: Vice President Company Name: W.E. Gundy and Associates, Inc.

"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: W.E. Gundy & Associates

Name: Travis Soppe, SE California License Number: 6115

Mailing Address: 250 Bobwhite Ct, Suite 100, Boise, ID 83706

Telephone: (208) 342-5898 Ext. 115 Email: tsoppe@wegai.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): _____

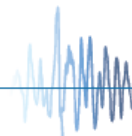
Testing Laboratory

Company Name: Clark Dynamic Testing Laboratory

Contact Name: Russell Matich

Mailing Address: 1801 Route 51 South, Jefferson Hills, PA 15025

Telephone: (412) 387-1004 Email: rmatich@clarktesting.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) = 1.88

S_{DS} (Design spectral response acceleration at short period, g) = 2.5

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 Attached

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

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): Certified System Matrix, UUT Summary Sheets, Subcomponent Certification Letter

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

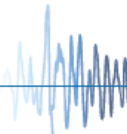
Signature:  Date: May 6, 2016

Print Name: Timothy J. Piland Title: SSE

Special Seismic Certification Valid Up to : S_{DS} (g) = 2.50 z/h = 1

Condition of Approval (if applicable): _____

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



SIEMENS VARIABLE FREQUENCY DRIVER CERTIFIED PRODUCT LINE MATRIX



| Siemens ID/Catalog Number | Frame Size | Volt/HP | Width (in) | Depth (in) | Height (in) | Service Weight (lbs) | Representative UUT |
|---------------------------|------------|---------|------------|------------|-------------|----------------------|--------------------|
| BT300-001X2 | FR4 | 230/1 | 5.04" | 7.48" | 13.2" | 13.2 | Extrapolated |
| BT300-001X4 | FR4 | 460/1 | 5.04" | 7.48" | 13.2" | 13.2 | Extrapolated |
| BT300-00152 | FR4 | 230/1.5 | 5.04" | 7.48" | 13.2" | 13.2 | Extrapolated |
| BT300-00154 | FR4 | 460/1.5 | 5.04" | 7.48" | 13.2" | 13.2 | Extrapolated |
| BT300-002X2 | FR4 | 230/2 | 5.04" | 7.48" | 13.2" | 13.2 | Extrapolated |
| BT300-002X4 | FR4 | 460/2 | 5.04" | 7.48" | 13.2" | 13.2 | Extrapolated |
| BT300-003X2 | FR4 | 230/3 | 5.04" | 7.48" | 13.2" | 13.2 | Extrapolated |
| BT300-003X4 | FR4 | 460/3 | 5.04" | 7.48" | 13.2" | 13.2 | Extrapolated |
| BT300-004X2 | FR4 | 230/4 | 5.04" | 7.48" | 13.2" | 13.2 | UUT-3a / b* |
| BT300-004X4 | FR4 | 460/4 | 5.04" | 7.48" | 13.2" | 13.2 | Interpolated |
| BT300-005X2 | FR5 | 230/5 | 5.67" | 8.43" | 16.5" | 22.0 | Interpolated |
| BT300-005X4 | FR4 | 460/5 | 5.04" | 7.48" | 13.2" | 13.2 | Interpolated |
| BT300-00752 | FR5 | 230/7.5 | 5.67" | 8.43" | 16.5" | 22.0 | Interpolated |
| BT300-00754 | FR4 | 460/7.5 | 5.04" | 7.48" | 13.2" | 13.2 | Interpolated |
| BT300-010X2 | FR5 | 230/10 | 5.67" | 8.43" | 16.5" | 22.0 | UUT-5a / b / c* |
| BT300-010X4 | FR5 | 460/10 | 5.67" | 8.43" | 16.5" | 22.0 | UUT-1 |
| BT300-015X2 | FR6 | 230/15 | 7.68" | 9.02" | 21.9" | 44.1 | Interpolated |
| BT300-015X4 | FR5 | 460/15 | 5.67" | 8.43" | 16.5" | 22.0 | Interpolated |
| BT300-020X2 | FR6 | 230/20 | 7.68" | 9.02" | 21.9" | 44.1 | Interpolated |
| BT300-020X4 | FR5 | 460/20 | 5.67" | 8.43" | 16.5" | 22.0 | Interpolated |
| BT300-025X2 | FR7 | 230/25 | 9.33" | 10.20" | 26.0" | 82.7 | Interpolated |
| BT300-025X4 | FR6 | 460/25 | 7.68" | 9.02" | 21.9" | 44.1 | Interpolated |
| BT300-030X2 | FR7 | 230/30 | 9.33" | 10.20" | 26.0" | 82.7 | Interpolated |
| BT300-030X4 | FR6 | 460/30 | 7.68" | 9.02" | 21.9" | 44.1 | Interpolated |
| BT300-040X2 | FR7 | 230/40 | 9.33" | 10.20" | 26.0" | 82.7 | UUT-2 |
| BT300-040X4 | FR6 | 460/40 | 7.68" | 9.02" | 21.9" | 44.1 | Interpolated |
| BT300-050X4 | FR7 | 460/50 | 9.33" | 10.20" | 26.0" | 82.7 | Interpolated |
| BT300-060X4 | FR7 | 460/60 | 9.33" | 10.20" | 26.0" | 82.7 | Interpolated |
| BT300-075X4 | FR7 | 460/75 | 9.33" | 10.20" | 26.0" | 82.7 | UUT-4a / b / c* |

* Indicates the drive is a subcomponent of the bypass product matrix and was used in each a / b / c test configuration.

Volt = Unit Voltage

HP = Horsepower

Drive enclosures are available in both UL Type 1 and Type 12. See UUT summary sheets for enclosure details.

Note: The 230 Volt configuration was tested, however there is no difference in components for the entire range of 208-240 volts.

The same is true for tested 460kV configuration and range of 380-480 volts.

SIEMENS VARIABLE FREQUENCY BYPASS CERTIFIED PRODUCT LINE MATRIX



| Siemens ID/Catalog Number | Frame Size | Volt/HP | Width (in) | Depth (in) | Height (in) | Service Weight (lbs) | UUT |
|---------------------------|------------|---------|------------|------------|-------------|----------------------|----------------|
| BTE/C-001X2 | FR4 | 230/1 | 6.76" | 9.85" | 35.48" | 50.0 | Extrapolated |
| BTE/C-001X4 | FR4 | 460/1 | 6.76" | 9.85" | 35.48" | 50.0 | Extrapolated |
| BTE/C-00152 | FR4 | 230/1.5 | 6.76" | 9.85" | 35.48" | 50.0 | Extrapolated |
| BTE/C-00154 | FR4 | 460/1.5 | 6.76" | 9.85" | 35.48" | 50.0 | Extrapolated |
| BTE/C-002X2 | FR4 | 230/2 | 6.76" | 9.85" | 35.48" | 50.0 | Extrapolated |
| BTE/C-002X4 | FR4 | 460/2 | 6.76" | 9.85" | 35.48" | 50.0 | Extrapolated |
| BTE/C-003X2 | FR4 | 230/3 | 6.76" | 9.85" | 35.48" | 50.0 | Extrapolated |
| BTE/C-003X4 | FR4 | 460/3 | 6.76" | 9.85" | 35.48" | 50.0 | Extrapolated |
| BTE/C-004X2 | FR4 | 230/4 | 6.76" | 9.85" | 35.48" | 50.0 | UUT-3a / b |
| BTE/C-004X4 | FR4 | 460/4 | 6.76" | 9.85" | 35.48" | 50.0 | Interpolated |
| BTE/C-005X2 | FR5 | 230/5 | 6.76" | 11.01" | 44.10" | 69.0 | Interpolated |
| BTE/C-005X4 | FR4 | 460/5 | 6.76" | 9.85" | 35.48" | 50.0 | Interpolated |
| BTE/C-00752 | FR5 | 230/7.5 | 6.76" | 11.01" | 44.10" | 69.0 | Interpolated |
| BTE/C-00754 | FR4 | 460/7.5 | 6.76" | 9.85" | 35.48" | 50.0 | Interpolated |
| BTE/C-010X2 | FR5 | 230/10 | 6.76" | 11.01" | 44.10" | 69.0 | UUT-5a / b / c |
| BTE/C-010X4 | FR5 | 460/10 | 6.76" | 11.01" | 44.10" | 69.0 | Interpolated |
| BTE/C-015X2 | FR6 | 230/15 | 8.76" | 11.57" | 54.75" | 112.0 | Interpolated |
| BTE/C-015X4 | FR5 | 460/15 | 6.76" | 11.01" | 44.10" | 69.0 | Interpolated |
| BTE/C-020X2 | FR6 | 230/20 | 8.76" | 11.57" | 54.75" | 112.0 | Interpolated |
| BTE/C-020X4 | FR5 | 460/20 | 6.76" | 11.01" | 44.10" | 69.0 | Interpolated |
| BTE/C-025X2 | FR7 | 230/25 | 14.16" | 12.70" | 58.50" | 187.0 | Interpolated |
| BTE/C-025X4 | FR6 | 460/25 | 8.76" | 11.57" | 54.75" | 112.0 | Interpolated |
| BTE/C-030X2 | FR7 | 230/30 | 14.16" | 12.70" | 58.50" | 187.0 | Interpolated |
| BTE/C-030X4 | FR6 | 460/30 | 8.76" | 11.57" | 54.75" | 112.0 | Interpolated |
| BTE/C-040X2 | FR7 | 230/40 | 14.16" | 12.70" | 58.50" | 187.0 | Interpolated |
| BTE/C-040X4 | FR6 | 460/40 | 8.76" | 11.57" | 54.75" | 112.0 | Interpolated |
| BTE/C-050X4 | FR7 | 460/50 | 14.16" | 12.70" | 58.50" | 187.0 | Interpolated |
| BTE/C-060X4 | FR7 | 460/60 | 14.16" | 12.70" | 58.50" | 187.0 | Interpolated |
| BTE/C-075X4 | FR7 | 460/75 | 14.16" | 12.70" | 58.50" | 187.0 | UUT-4a / b / c |

Volt = Unit Voltage

HP = Horsepower

Bypass enclosures are only available in UL Type 1.

Note: The 230 Volt configuration was tested, however there is no difference in components for the entire range of 208-240 volts. The same is true for tested 460kV configuration and range of 380-480 volts.

SIEMENS VARIABLE FREQUENCY DRIVER & BYPASS CERTIFIED SUBCOMPONENT MATRIX



| Identification Number | Manufacturer | Description | Representative UUT |
|---|--------------|---------------------------------------|--------------------|
| Power Supply | | | |
| PS3X-C24AFC | IDEK | 24VDC supply | UUT-4a / b / c |
| Main Switch + Operator Mechanism | | | |
| OT80F3 | ABB | Disconnect switch, 80A | UUT-3a |
| CFS364JN | Siemens | Disconnect switch, 200A | UUT-4c |
| Service Switch | | | |
| LBT3040 | Siemens | Disconnect switch, Rotary 3-pole 40A | UUT-3a |
| LBT3060 | Siemens | Disconnect switch, Rotary 3-pole 60A | Interpolated |
| LBT3080 | Siemens | Disconnect switch, Rotary 3-pole 80A | Interpolated |
| LBT3100 | Siemens | Disconnect switch, Rotary 3-pole 100A | UUT-3b |
| Circuit Breaker + Operator Mechanism | | | |
| HEG3B015L | Siemens | MCCB, 15A, 600V, 3 pole | UUT-5a |
| ED43B015L | Siemens | MCCB, 15A, 480V, 3 pole | UUT-3b |
| HEG3B020L | Siemens | MCCB, 20A, 600V, 3 pole | Interpolated |
| ED43B020L | Siemens | MCCB, 20A, 480V, 3 pole | Interpolated |
| HEG3B030L | Siemens | MCCB, 30A, 600V, 3 pole | Interpolated |
| ED43B030L | Siemens | MCCB, 30A, 480V, 3 pole | Interpolated |
| HEG3B050L | Siemens | MCCB, 50A, 600V, 3 pole | Interpolated |
| ED43B050L | Siemens | MCCB, 50A, 480V, 3 pole | Interpolated |
| HEG3B060L | Siemens | MCCB, 60A, 600V, 3 pole | Interpolated |
| ED43B060L | Siemens | MCCB, 60A, 480V, 3 pole | Interpolated |
| HEG3B070L | Siemens | MCCB, 70A, 600V, 3 pole | Interpolated |
| ED43B070L | Siemens | MCCB, 70A, 480V, 3 pole | Interpolated |
| HEG3B080L | Siemens | MCCB, 80A, 600V, 3 pole | Interpolated |
| ED43B080L | Siemens | MCCB, 80A, 480V, 3 pole | Interpolated |
| HEG3B090L | Siemens | MCCB, 90A, 600V, 3 pole | Interpolated |
| ED43B090L | Siemens | MCCB, 90A, 480V, 3 pole | Interpolated |
| HEG3B100L | Siemens | MCCB, 100A, 600V, 3 pole | Interpolated |
| ED43B100L | Siemens | MCCB, 100A, 480V, 3 pole | Interpolated |
| HEG3B110L | Siemens | MCCB, 110A, 600V, 3 pole | UUT-5b |
| ED43B110L | Siemens | MCCB, 110A, 480V, 3 pole | UUT-5c |
| LFK3B125L | Siemens | MCCB, 125A 3-Pole, 600V | Interpolated |
| LFK3B150L | Siemens | MCCB, 150A 3-Pole, 600V | UUT-4a |
| LFK3B200L | Siemens | MCCB, 200A 3-Pole, 600V | Interpolated |
| LFK3B250L | Siemens | MCCB, 250A 3-Pole, 600V | UUT-4b |
| | | | |

SIEMENS VARIABLE FREQUENCY DRIVER & BYPASS CERTIFIED SUBCOMPONENT MATRIX



| Identification Number | Manufacturer | Description | Representative UUT |
|-----------------------|--------------|-----------------------------------|------------------------|
| Contactor | | | |
| 3RT1015-1AK62 | Siemens | 120VAC, 60Hz, Size S00 | UUT-3a / b |
| 3RT2015-1AK62 | Siemens | 120VAC, 60Hz, Size S00 | UUT-5a |
| 3RT1016-1AK62 | Siemens | 120VAC, 60Hz, Size S00 | Interpolated |
| 3RT2016-1AK62 | Siemens | 120VAC, 60Hz, Size S00 | Interpolated |
| 3RT1017-1AK62 | Siemens | 120VAC, 60Hz, Size S00 | UUT-3a / b |
| 3RT2017-1AK62 | Siemens | 120VAC, 60Hz, Size S00 | Interpolated |
| 3RT2018-1AK62 | Siemens | 120VAC, 60Hz, Size S00 | Interpolated |
| 3RT1023-1AK60 | Siemens | 120VAC, 60Hz, Size S0 | Interpolated |
| 3RT2023-1AK62 | Siemens | 120VAC, 60Hz, Size S0 | Interpolated |
| 3RT1024-1AK60 | Siemens | 120VAC, 60Hz, Size S0 | Interpolated |
| 3RT2024-1AK62 | Siemens | 120VAC, 60Hz, Size S0 | Interpolated |
| 3RT1025-1AK60 | Siemens | 120VAC, 60Hz, Size S0 | Interpolated |
| 3RT2025-1AK62 | Siemens | 120VAC, 60Hz, Size S0 | Interpolated |
| 3RT1026-1AK60 | Siemens | 120VAC, 60Hz, Size S0 | Interpolated |
| 3RT2026-1AK62 | Siemens | 120VAC, 60Hz, Size S0 | Interpolated |
| 3RT2027-1AK62 | Siemens | 120VAC, 60Hz, Size S0 | UUT-5b |
| 3RT2028-1AK62 | Siemens | 120VAC, 60Hz, Size S0 | Interpolated |
| 3RT1033-1AK60 | Siemens | 120VAC, 60Hz, Size S2 | UUT-5a / b / c |
| 3RT1034-1AK60 | Siemens | 120VAC, 60Hz, Size S2 | UUT-5a / b / c |
| 3RT1035-1AK60 | Siemens | 120VAC, 60Hz, Size S2 | Interpolated |
| 3RT1036-1AK60 | Siemens | 120VAC, 60Hz, Size S2 | Interpolated |
| 3RT1044-1AK60 | Siemens | 120VAC, 60Hz, Size S3 | Interpolated |
| 3RT1045-1AK60 | Siemens | 120VAC, 60Hz, Size S3 | UUT-4a / b / c |
| 3RT1046-1AK60 | Siemens | 120VAC, 60Hz, Size S3 | Interpolated |
| 3RT1054-6AF36 | Siemens | 120VAC, 60Hz, Size S6 | UUT-4a / b / c |
| 3RT1055-6AF36 | Siemens | 120VAC, 60Hz, Size S6 | Extrapolated |
| 3RT1056-6AF36 | Siemens | 120VAC, 60Hz, Size S6 | Extrapolated |
| Transformers | | | |
| MT0050A | Siemens | Transformer, Control, 50VA | UUT-3a / b, 5a / b / c |
| MT0100A | Siemens | Transformer, Control, 100VA | UUT-4a / b / c |
| | | | |
| Control Board | | | |
| 70CVB01840 | Vacon | Conventional Bypass Control Board | UUT-3a / b, 5a / b / c |
| 70CVB01851 | Vacon | Electronic Bypass Control Board | UUT-4a / b / c |
| | | | |

SIEMENS VARIABLE FREQUENCY DRIVER & BYPASS CERTIFIED SUBCOMPONENT MATRIX



| Identification Number | Manufacturer | Description | Representative UUT |
|-----------------------|--------------|--|------------------------|
| LON Card | | | |
| VB00263 | Vacon | Option board | UUT-3a / b, 4a / b / c |
| Overload Relay | | | |
| 3RU1116-1DB0 | Siemens | 2.2-3.2A, 690V, 1NO+1NC, Size S00 Class 10 | Extrapolated |
| 3RU1116-1EB0 | Siemens | 2.8-4A, 690V, 1NO+1NC, Size S2 Class 10 | Extrapolated |
| 3RU1116-1FB0 | Siemens | 3.5-5A, 690V, 1NO+1NC, Size S2 Class 10 | Extrapolated |
| 3RU1116-1GB0 | Siemens | 4.5-6.3A, 690V, 1NO+1NC, Size S00 Class 10 | Extrapolated |
| 3RU1116-1HB0 | Siemens | 5.5-8A, 690V, 1NO+1NC, Size S00 Class 10 | Extrapolated |
| 3RU1116-1JB0 | Siemens | 7-10A, 690V, 1NO+1NC, Size S2 Class 10 | Extrapolated |
| 3RU1116-1KB0 | Siemens | 9-12A, 690V, 1NO+1NC, Size S00 Class 10 | UUT-3a / b |
| 3RU1126-4AB0 | Siemens | 11-16A, 690V, 1NO+1NC, Size S0 Class 10 | Interpolated |
| 3RU1126-4CB0 | Siemens | 17-22A, 690V, 1NO+1NC, Size S0 Class 10 | Interpolated |
| 3RU1126-4DB0 | Siemens | 20-25A, 690V, 1NO+1NC, Size S0 Class 10 | Interpolated |
| 3RU1136-4EB0 | Siemens | 22-32A, 460V, 1NO+1NC, Size S2 Class 10 | Interpolated |
| 3RU1136-4FB0 | Siemens | 28-40A, 690V, 1NO+1NC, Size S2 Class 10 | UUT-5a / b / c |
| 3RU1136-4HB0 | Siemens | 40-50A, 690V, 1NO+1NC, Size S2 Class 10 | Interpolated |
| 3RU1146-4KB0 | Siemens | 57-75A, 1000V, 1NO+1NC, Size S3 Class 10 | Interpolated |
| 3RU1146-4MB0 | Siemens | 80-100A, 1000V, 1NO+1NC, Size S3 Class 10 | Interpolated |
| 3RB2056-1FC2 | Siemens | 50-200A, 600V, 1NO+1NC, Size S6 Class 10 | UUT-4a / b / c |
| 3RB2066-1GC2 | Siemens | 55-250A, 600V, 1NO+1NC, Size S10/12 Class 10 | Extrapolated |

Notes:

UUT-1

**SECTION UNDER TEST
SUMMARY SHEET**



Mounting Details: Wall mounted with (4) 1/4"-20 Grade 5 bolts.



Manufacturer: Siemens

Product Line: Variable Frequency Drive

Identification Number: BT300-010X4

UUT Function: Drives are used to control motors for commercial applications.

UUT Description: The unit is comprised of UL Type 1 carbon steel enclosed drive.

UUT Component Description: Subcomponents are uniquely identified by the listed Siemens Identification number.

UUT PROPERTIES

| Weight (lb) | Dimensions (inches) | | | Natural Frequency (Hz) | | |
|-------------|---------------------|-----------------|------------------|------------------------|-----|-----|
| | Enclosure Width | Enclosure Depth | Enclosure Height | FB | SS | V |
| 22 | 5.7" | 8.4" | 16.5" | N/A | N/A | N/A |

SEISMIC TEST PARAMETERS

| Test Criteria | S _{DS} | z / h | I _p | A _{FLX-H} | A _{RIG-H} | A _{FLX-V} | A _{RIG-V} |
|-------------------|-----------------|-------|----------------|--------------------|--------------------|--------------------|--------------------|
| ICC-ES AC156 2012 | 2.50 | 1.0 | 1.5 | 4.00 | 3.00 | 1.67 | 0.67 |

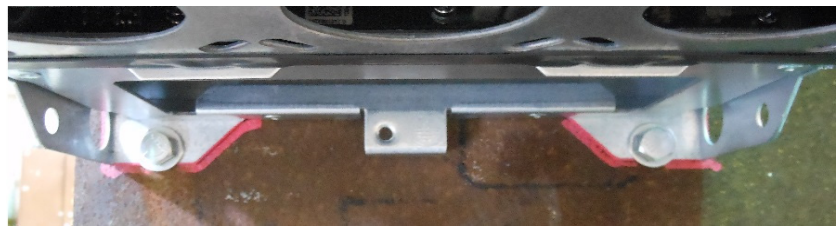
Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 Test.

UUT-2

**SECTION UNDER TEST
SUMMARY SHEET**



Mounting Details: Wall mounted with (4) 5/16"-18 Grade 5 bolts.



Manufacturer: Siemens

Product Line: Variable Frequency Drive

Identification Number: BT300-040X2

UUT Function: Drives are used to control motors for commercial applications.

UUT Description: The unit is comprised of UL Type 12 carbon steel enclosed drive.

UUT Component Description: Subcomponents are uniquely identified by the listed Siemens Identification number.

UUT PROPERTIES

| Weight (lb) | Dimensions (inches) | | | Natural Frequency (Hz) | | |
|-------------|---------------------|-----------------|------------------|------------------------|-----|-----|
| | Enclosure Width | Enclosure Depth | Enclosure Height | FB | SS | V |
| 83 | 9.3" | 10.2" | 26.0" | N/A | N/A | N/A |

SEISMIC TEST PARAMETERS

| Test Criteria | S _{DS} | z / h | I _p | A _{FLX-H} | A _{RIG-H} | A _{FLX-V} | A _{RIG-V} |
|-------------------|-----------------|-------|----------------|--------------------|--------------------|--------------------|--------------------|
| ICC-ES AC156 2012 | 2.50 | 1.0 | 1.5 | 4.00 | 3.00 | 1.67 | 0.67 |

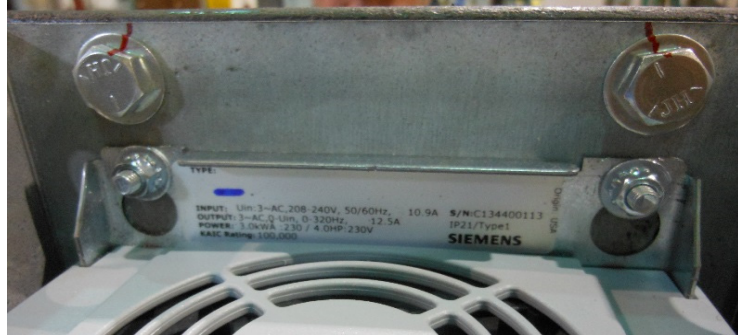
Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 Test.

UUT-3a

**SECTION UNDER TEST
SUMMARY SHEET**



Mounting Details: Wall mounted with (4) 5/16"-18 Grade 5 bolts.



Manufacturer: Siemens

Product Line: Variable Frequency Bypass

Identification Number: BTC-004X2

UUT Function: Drives and bypasses are used to control motors for commercial applications.

UUT Description: The unit is comprised of UL Type 1 carbon steel enclosed drive and bypass.

UUT Component Description: Steel enclosure housing a main switch (0T80F3), service switch (LBT3040), contactor (3RT1015-1AK62, 3RT1017-1AK62), transformer (MT0050A), control board (70CVB01840), LON Card (VB00263), overload relay (3RU1116-1kB0), and driver (BT300-004X2)

UUT PROPERTIES

| Weight (lb) | Dimensions (inches) | | | Natural Frequency (Hz) | | |
|-------------|---------------------|-----------------|------------------|------------------------|-----|-----|
| | Enclosure Width | Enclosure Depth | Enclosure Height | FB | SS | V |
| 50 | 6.8" | 9.9" | 35.5" | N/A | N/A | N/A |

SEISMIC TEST PARAMETERS

| Test Criteria | S _{DS} | z / h | I _p | A _{FLX-H} | A _{RIG-H} | A _{FLX-V} | A _{RIG-V} |
|-------------------|-----------------|-------|----------------|--------------------|--------------------|--------------------|--------------------|
| ICC-ES AC156 2012 | 2.50 | 1.0 | 1.5 | 4.00 | 3.00 | 1.67 | 0.67 |

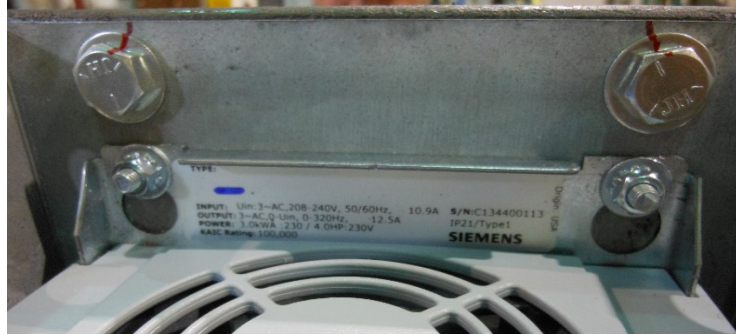
Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 Test.

UUT-3b

**SECTION UNDER TEST
SUMMARY SHEET**



Mounting Details: Wall mounted with (4) 5/16"-18 Grade 5 bolts.



Manufacturer: Siemens

Product Line: Variable Frequency Bypass

Identification Number: BTC-004X2

UUT Function: Drives and bypasses are used to control motors for commercial applications.

UUT Description: The unit is comprised of UL Type 1 carbon steel enclosed drive and bypass.

UUT Component Description: Steel enclosure housing a circuit breaker (ED43B015L), service switch (LBT3100), contactor (3RT1015-1AK62, 3RT1017-1AK62), transformer (MT0050A), control board (70CVB01840), LON Card (VB00263), overload relay (3RU1116-1kB0), and driver (BT300-004X2)

UUT PROPERTIES

| Weight (lb) | Dimensions (inches) | | | Natural Frequency (Hz) | | |
|-------------|---------------------|-----------------|------------------|------------------------|-----|-----|
| | Enclosure Width | Enclosure Depth | Enclosure Height | FB | SS | V |
| 50 | 6.8" | 9.9" | 35.5" | N/A | N/A | N/A |

SEISMIC TEST PARAMETERS

| Test Criteria | S _{DS} | z / h | I _p | A _{FLX-H} | A _{RIG-H} | A _{FLX-V} | A _{RIG-V} |
|-------------------|-----------------|-------|----------------|--------------------|--------------------|--------------------|--------------------|
| ICC-ES AC156 2012 | 2.50 | 1.0 | 1.5 | 4.00 | 3.00 | 1.67 | 0.67 |

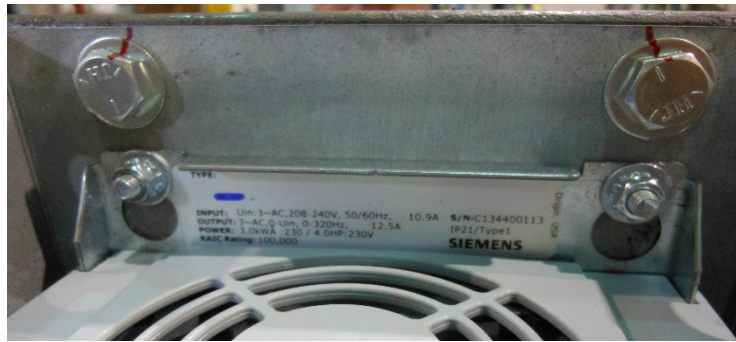
Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 Test.

UUT-4a

**SECTION UNDER TEST
SUMMARY SHEET**



Mounting Details: Wall mounted with (4) 3/8"-16 Grade 5 bolts.



Manufacturer: Siemens

Product Line: Variable Frequency Bypass

Identification Number: BTE-075X4

UUT Function: Drives and bypasses are used to control motors for commercial applications.

UUT Description: The unit is comprised of carbon steel enclosed UL Type 12 drive and UL Type 1 bypass.

UUT Component Description: Steel enclosure housing a power supply (PS3X-C24AFC), circuit breaker (LFK3B150L), contactor (3RT1045-1AK60, 3RT1054-6AK60), transformer (MT0100A), control board (70CVB01851), LON Card (VB00263), overload relay 3RB2056-1GC2), and driver (BT300-075X4)

UUT PROPERTIES

| Weight (lb) | Dimensions (inches) | | | Natural Frequency (Hz) | | |
|-------------|---------------------|-----------------|------------------|------------------------|-----|-----|
| | Enclosure Width | Enclosure Depth | Enclosure Height | FB | SS | V |
| 187 | 14.2" | 12.7" | 58.5" | N/A | N/A | N/A |

SEISMIC TEST PARAMETERS

| Test Criteria | S _{DS} | z / h | I _p | A _{FLX-H} | A _{RIG-H} | A _{FLX-V} | A _{RIG-V} |
|-------------------|-----------------|-------|----------------|--------------------|--------------------|--------------------|--------------------|
| ICC-ES AC156 2012 | 2.50 | 1.0 | 1.5 | 4.00 | 3.00 | 1.67 | 0.67 |

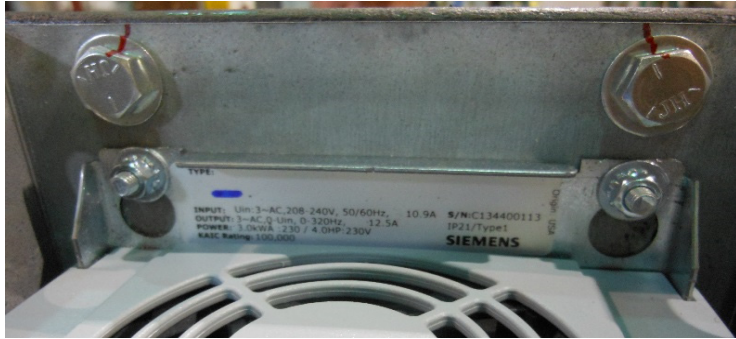
Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 Test.

UUT-4b

**SECTION UNDER TEST
SUMMARY SHEET**



Mounting Details: Wall mounted with (4) 3/8"-16 Grade 5 bolts.



Manufacturer: Siemens

Product Line: Variable Frequency Bypass

Identification Number: BTE-075X4

UUT Function: Drives and bypasses are used to control motors for commercial applications.

UUT Description: The unit is comprised of carbon steel enclosed UL Type 12 drive and UL Type 1 bypass.

UUT Component Description: Steel enclosure housing a power supply (PS3X-C24AFC), circuit breaker (LFK3B250L), contactor (3RT1045-1AK60, 3RT1054-6AK60), transformer (MT0100A), control board (70CVB01851), LON Card (VB00263), overload relay 3RB2056-1GC2), and driver (BT300-075X4)

UUT PROPERTIES

| Weight (lb) | Dimensions (inches) | | | Natural Frequency (Hz) | | |
|-------------|---------------------|-----------------|------------------|------------------------|-----|-----|
| | Enclosure Width | Enclosure Depth | Enclosure Height | FB | SS | V |
| 187 | 14.2" | 12.7" | 58.5" | N/A | N/A | N/A |

SEISMIC TEST PARAMETERS

| Test Criteria | S _{DS} | z / h | I _p | A _{FLX-H} | A _{RIG-H} | A _{FLX-V} | A _{RIG-V} |
|-------------------|-----------------|-------|----------------|--------------------|--------------------|--------------------|--------------------|
| ICC-ES AC156 2012 | 2.50 | 1.0 | 1.5 | 4.00 | 3.00 | 1.67 | 0.67 |

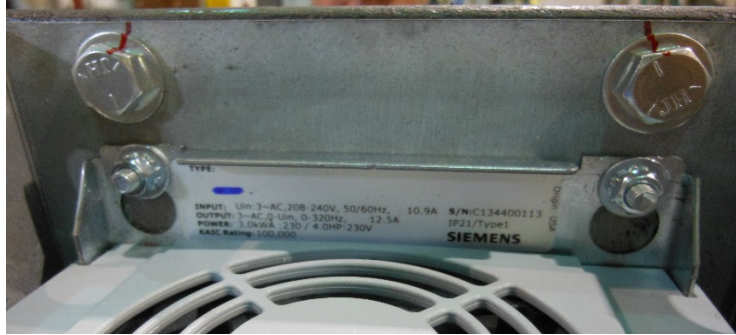
Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 Test.

UUT-4c

**SECTION UNDER TEST
SUMMARY SHEET**



Mounting Details: Wall mounted with (4) 3/8"-16 Grade 5 bolts.



Manufacturer: Siemens

Product Line: Variable Frequency Bypass

Identification Number: BTE-075X4

UUT Function: Drives and bypasses are used to control motors for commercial applications.

UUT Description: The unit is comprised of carbon steel enclosed UL Type 12 drive and UL Type 1 bypass.

UUT Component Description: Steel enclosure housing a power supply (PS3X-C24AFC), main switch (CFS364JN), contactor (3RT1045-1AK60, 3RT1054-6AK60), transformer (MT0100A), control board (70CVB01851), LON Card (VB00263), overload relay 3RB2056-1GC2), and driver (BT300-075X4)

UUT PROPERTIES

| Weight (lb) | Dimensions (inches) | | | Natural Frequency (Hz) | | |
|-------------|---------------------|-----------------|------------------|------------------------|-----|-----|
| | Enclosure Width | Enclosure Depth | Enclosure Height | FB | SS | V |
| 187 | 14.2" | 12.7" | 58.5" | N/A | N/A | N/A |

SEISMIC TEST PARAMETERS

| Test Criteria | S _{DS} | z / h | I _p | A _{FLX-H} | A _{RIG-H} | A _{FLX-V} | A _{RIG-V} |
|-------------------|-----------------|-------|----------------|--------------------|--------------------|--------------------|--------------------|
| ICC-ES AC156 2012 | 2.50 | 1.0 | 1.5 | 4.00 | 3.00 | 1.67 | 0.67 |

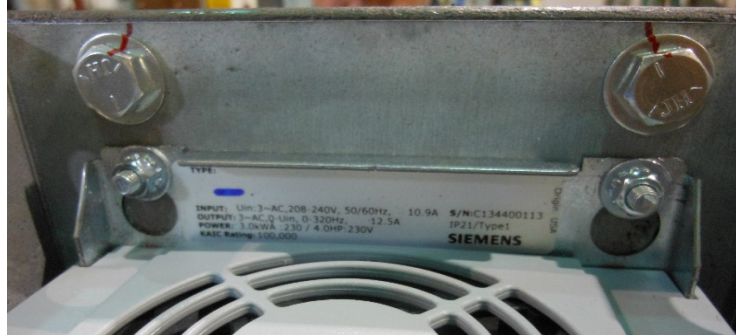
Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 Test.

UUT-5a

**SECTION UNDER TEST
SUMMARY SHEET**



Mounting Details: Wall mounted with (4) 5/16"-18 Grade 5 bolts.



Manufacturer: Siemens

Product Line: Variable Frequency Bypass

Identification Number: BTC-010X2

UUT Function: Drives and bypasses are used to control motors for commercial applications.

UUT Description: The unit is comprised of UL Type 1 carbon steel enclosed drive and bypass.

UUT Component Description: Steel enclosure housing a circuit breaker (HEG3B015L), contactor (3RT2015-1AK62, 3RT1033-1AK60, 3RT1034-1AK60), transformer (MT0050A), control board (70CVB01840), overload relay 3RU1136-4FB0), and drive (BT300-010X2)

UUT PROPERTIES

| Weight (lb) | Dimensions (inches) | | | Natural Frequency (Hz) | | |
|-------------|---------------------|-----------------|------------------|------------------------|-----|-----|
| | Enclosure Width | Enclosure Depth | Enclosure Height | FB | SS | V |
| 69 | 6.8" | 11.0" | 44.1" | N/A | N/A | N/A |

SEISMIC TEST PARAMETERS

| Test Criteria | S _{DS} | z / h | I _p | A _{FLX-H} | A _{RIG-H} | A _{FLX-V} | A _{RIG-V} |
|-------------------|-----------------|-------|----------------|--------------------|--------------------|--------------------|--------------------|
| ICC-ES AC156 2012 | 2.50 | 1.0 | 1.5 | 4.00 | 3.00 | 1.67 | 0.67 |

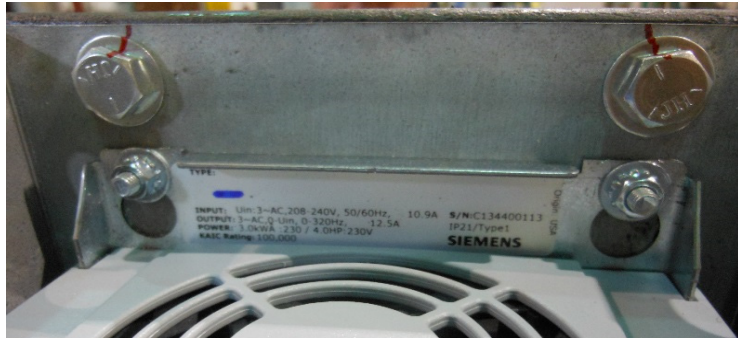
Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 Test.

UUT-5b

**SECTION UNDER TEST
SUMMARY SHEET**



Mounting Details: Wall mounted with (4) 5/16"-18 Grade 5 bolts.



Manufacturer: Siemens

Product Line: Variable Frequency Bypass

Identification Number: BTC-010X2

UUT Function: Drives and bypasses are used to control motors for commercial applications.

UUT Description: The unit is comprised of UL Type 1 carbon steel enclosed drive and bypass.

UUT Component Description: Steel enclosure housing a circuit breaker (HEG3B015L), contactor (3RT207-1AK62, 3RT1033-1AK60, 3RT1034-1AK60), transformer (MT0050A), control board (70CVB01840), overload relay 3RU1136-4FB0), and drive (BT300-010X2)

UUT PROPERTIES

| Weight (lb) | Dimensions (inches) | | | Natural Frequency (Hz) | | |
|-------------|---------------------|-----------------|------------------|------------------------|-----|-----|
| | Enclosure Width | Enclosure Depth | Enclosure Height | FB | SS | V |
| 69 | 6.8" | 11.0" | 44.1" | N/A | N/A | N/A |

SEISMIC TEST PARAMETERS

| Test Criteria | S _{DS} | z / h | I _p | A _{FLX-H} | A _{RIG-H} | A _{FLX-V} | A _{RIG-V} |
|-------------------|-----------------|-------|----------------|--------------------|--------------------|--------------------|--------------------|
| ICC-ES AC156 2012 | 2.50 | 1.0 | 1.5 | 4.00 | 3.00 | 1.67 | 0.67 |

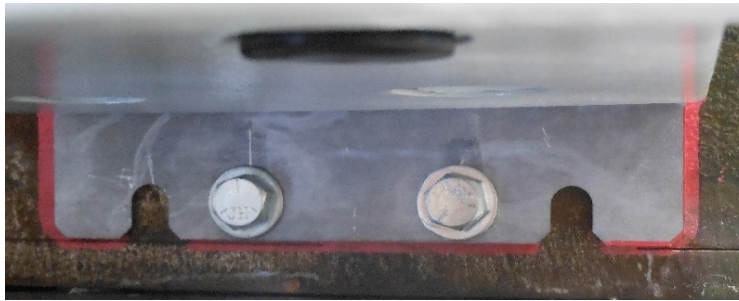
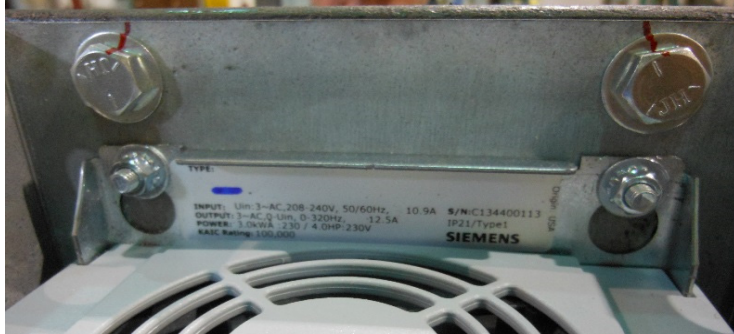
Note: The unit was full of contents during testing and remained functional before and after the ICC-ES AC156 test. The unit maintained structural integrity during and after the ICC-ES AC156 Test.

UUT-5c

**SECTION UNDER TEST
SUMMARY SHEET**



Mounting Details: Wall mounted with (4) 5/16"-18 Grade 5 bolts.



Manufacturer: Siemens

Product Line: Variable Frequency Bypass

Identification Number: BTC-010X2

UUT Function: Drives and bypasses are used to control motors for commercial applications.

UUT Description: The unit is comprised of UL Type 1 carbon steel enclosed drive and bypass.

UUT Component Description: Steel enclosure housing a circuit breaker (ED43B110L), contactor (3RT1033-1AK60, 3RT1034-1AK60), transformer (MT0050A), control board (70CVB01840), overload relay 3RU1136-4FB0), and drive (BT300-010X2)

UUT PROPERTIES

| Weight (lb) | Dimensions (inches) | | | Natural Frequency (Hz) | | |
|-------------|---------------------|-----------------|------------------|------------------------|-----|-----|
| | Enclosure Width | Enclosure Depth | Enclosure Height | FB | SS | V |
| 69 | 6.8" | 11.0" | 44.1" | N/A | N/A | N/A |

SEISMIC TEST PARAMETERS

| Test Criteria | S _{DS} | z / h | I _p | A _{FLX-H} | A _{RIG-H} | A _{FLX-V} | A _{RIG-V} |
|-------------------|-----------------|-------|----------------|--------------------|--------------------|--------------------|--------------------|
| ICC-ES AC156 2012 | 2.50 | 1.0 | 1.5 | 4.00 | 3.00 | 1.67 | 0.67 |

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.