



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION

APPLICATION FOR OSHPD SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)

OFFICE USE ONLY

APPLICATION #: OSP – 0433-10

OSHPD Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: Yaskawa

Manufacturer's Technical Representative: John Cairo

Mailing Address: 2121 Norman Drive South, Waukegan, IL 60085

Telephone: (847) 887-7000 Email: john_cairo@yaskawa.com

Product Information

Product Name: Yaskawa 1000 Series Drives

Product Type: Variable Frequency Drives & Micro Drives

Product Model Number: A1000, and Z1000 VFDs & J1000, P1000, and V1000 Micro Drives

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

General Description: Variable Frequency Drives that can be constructed of plastic or carbon steel. Micro drives are constructed of plastics. Seismic enhancements made to the test units and modifications required to address anomalies observed during the tests shall be incorporated into the production units.

Mounting Description: Rigid base mounted to floor; Rigid and flexible wall mounted.

Applicant Information

Applicant Company Name: The VMC Group

Contact Person: John P. Giuliano PE

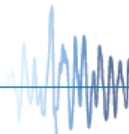
Mailing Address: 113 Main St, Bloomingdale, NJ 07403

Telephone: 973-838-1780 Email: john.giuliano@thevmcgroup.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: 9/27/16

Title: President Company Name: The VMC Group





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 St, 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): _____

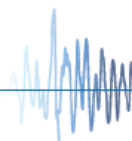
Testing Laboratory

Company Name: Dynamic Certification Laboratories

Contact Name: Kelly Laplace, Quality Manager, Project Engineer

Mailing Address: 1315 Greg Street, Suite 109

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) = 1.5 ($R_p=6.0$); 4.5 ($R_p=2.0$)

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

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

R_p (Equipment or component response modification factor) = 6.0 (rigid floor/wall mount); 2.0 (flexible wall mount)

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): _____

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

Signature:  Date: 11/3/16

Print Name: M. R. Karim Title: SHFR

Special Seismic Certification Valid Up to : S_{DS} (g) = 2.0 z/h = 1.0

Condition of Approval (if applicable): _____

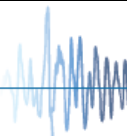


Table 1 - Certified Wall-Mounted Z1000 Series VFDs in NEMA Type 1 & 3R Enclosures (Cabinets)

Drive Type	Model Number Designation			Output Current Rating	Nominal HP	Rated Input Voltage	Cabinet Size	Cabinet NEMA Rating	Cabinet Material	Maximum Cabinet Dims			Max. Cabinet Weight [lbs] ²	Tested / Interpolated / Extrapolated	S ₀₅	z/h
	Drive Base Model	Power Options	Control Options							Height [in]	Width [in]	Depth [in]				
Configured	Z1C1B034	PXXXXXXX	TXXXXX	34.0	25	480V	C1W3	Type 1	Plastic	48.2	10.2	13.2	85	Extrapolated	2.0	1.0
Bypass	Z1B1B034	PMG	TD	34.0	25	480V	B1W3	Type 1	Plastic	48.2	10.2	13.2	90	UUT-07A / 07B	2.0	1.0
Configured	Z1C3D002	PXXXXXXX	TXXXXX	2.4	0.5	208V	C3W1	Type 3R	Carbon Steel	29.0	18.0	21.5	140	Interpolated	2.0	1.0
Configured	Z1C3D003	PXXXXXXX	TXXXXX	3.5	0.75	208V	C3W1	Type 3R	Carbon Steel	29.0	18.0	21.5	140	Interpolated	2.0	1.0
Configured	Z1C3D004	PXXXXXXX	TXXXXX	4.6	1	208V	C3W1	Type 3R	Carbon Steel	29.0	18.0	21.5	140	Interpolated	2.0	1.0
Configured	Z1C3D007	PXXXXXXX	TXXXXX	7.5	2	208V	C3W1	Type 3R	Carbon Steel	29.0	18.0	21.5	140	Interpolated	2.0	1.0
Configured	Z1C3D010	PXXXXXXX	TXXXXX	10.6	3	208V	C3W1	Type 3R	Carbon Steel	29.0	18.0	21.5	140	Interpolated	2.0	1.0
Configured	Z1C3D016	PXXXXXXX	TXXXXX	16.7	5	208V	C3W1	Type 3R	Carbon Steel	29.0	18.0	21.5	140	Interpolated	2.0	1.0
Configured	Z1C3B001	PXXXXXXX	TXXXXX	1.1 / 1.6	0.5 / 0.75	480V	C3W1	Type 3R	Carbon Steel	29.0	18.0	21.5	140	Interpolated	2.0	1.0
Configured	Z1C3B002	PXXXXXXX	TXXXXX	2.1	1	480V	C3W1	Type 3R	Carbon Steel	29.0	18.0	21.5	140	Interpolated	2.0	1.0
Configured	Z1C3B003	PXXXXXXX	TXXXXX	3.4	2	480V	C3W1	Type 3R	Carbon Steel	29.0	18.0	21.5	140	Interpolated	2.0	1.0
Configured	Z1C3B004	PXXXXXXX	TXXXXX	4.8	3	480V	C3W1	Type 3R	Carbon Steel	29.0	18.0	21.5	140	Interpolated	2.0	1.0
Configured	Z1C3B007	PXXXXXXX	TXXXXX	7.6	5	480V	C3W1	Type 3R	Carbon Steel	29.0	18.0	21.5	140	Interpolated	2.0	1.0
Configured	Z1C3B011	PXXXXXXX	TXXXXX	11.0	7.5	480V	C3W1	Type 3R	Carbon Steel	29.0	18.0	21.5	140	Interpolated	2.0	1.0
Bypass	Z1B3D002	PXXXXXX	TXXX	2.4	0.5	208V	B3W1	Type 3R	Carbon Steel	29.1	21.2	21.4	150	Interpolated	2.0	1.0
Bypass	Z1B3D003	PXXXXXX	TXXX	3.5	0.75	208V	B3W1	Type 3R	Carbon Steel	29.1	21.2	21.4	150	Interpolated	2.0	1.0
Bypass	Z1B3D004	PXXXXXX	TXXX	4.6	1	208V	B3W1	Type 3R	Carbon Steel	29.1	21.2	21.4	150	Interpolated	2.0	1.0
Bypass	Z1B3D007	PXXXXXX	TXXX	7.5	2	208V	B3W1	Type 3R	Carbon Steel	29.1	21.2	21.4	150	Interpolated	2.0	1.0
Bypass	Z1B3D010	PXXXXXX	TXXX	10.6	3	208V	B3W1	Type 3R	Carbon Steel	29.1	21.2	21.4	150	Interpolated	2.0	1.0
Bypass	Z1B3D016	PXXXXXX	TXXX	16.7	5	208V	B3W1	Type 3R	Carbon Steel	29.1	21.2	21.4	150	Interpolated	2.0	1.0
Bypass	Z1B3B001	PFR23	TDM	1.1 / 1.6	0.5 / 0.75	480V	B3W1	Type 3R	Carbon Steel	29.1	21.2	21.4	150	UUT 08A/08B	2.0	1.0
Bypass	Z1B3B002	PXXXXXX	TXXX	2.1	1	480V	B3W1	Type 3R	Carbon Steel	29.1	21.2	21.4	150	Interpolated	2.0	1.0
Bypass	Z1B3B003	PXXXXXX	TXXX	3.4	2	480V	B3W1	Type 3R	Carbon Steel	29.1	21.2	21.4	150	Interpolated	2.0	1.0
Bypass	Z1B3B004	PXXXXXX	TXXX	4.8	3	480V	B3W1	Type 3R	Carbon Steel	29.1	21.2	21.4	150	Interpolated	2.0	1.0
Bypass	Z1B3B007	PXXXXXX	TXXX	7.6	5	480V	B3W1	Type 3R	Carbon Steel	29.1	21.2	21.4	150	Interpolated	2.0	1.0
Bypass	Z1B3B011	PXXXXXX	TXXX	11.0	7.5	480V	B3W1	Type 3R	Carbon Steel	29.1	21.2	21.4	150	Interpolated	2.0	1.0
Configured	Z1C3D016	PXXXXXXX	TXXXXX	16.7	5	208V	C3W2	Type 3R	Carbon Steel	35.0	20.5	21.5	200	Interpolated	2.0	1.0
Configured	Z1C3D024	PXXXXXXX	TXXXXX	24.2	7.5	208V	C3W2	Type 3R	Carbon Steel	35.0	20.5	21.5	200	Interpolated	2.0	1.0
Configured	Z1C3D030	PXXXXXXX	TXXXXX	30.8	10	208V	C3W2	Type 3R	Carbon Steel	35.0	20.5	21.5	200	Interpolated	2.0	1.0
Configured	Z1C3B011	PXXXXXXX	TXXXXX	11.0	7.5	480V	C3W2	Type 3R	Carbon Steel	35.0	20.5	21.5	200	Interpolated	2.0	1.0
Configured	Z1C3B014	PXXXXXXX	TXXXXX	14.0	10	480V	C3W2	Type 3R	Carbon Steel	35.0	20.5	21.5	200	Interpolated	2.0	1.0
Configured	Z1C3B021	PXXXXXXX	TXXXXX	21.0	15	480V	C3W2	Type 3R	Carbon Steel	35.0	20.5	21.5	200	Interpolated	2.0	1.0
Configured	Z1C3B027	PXXXXXXX	TXXXXX	27.0	20	480V	C3W2	Type 3R	Carbon Steel	35.0	20.5	21.5	200	Interpolated	2.0	1.0
Bypass	Z1B3D016	PXXXXXX	TXXX	16.7	5	208V	B3W2	Type 3R	Carbon Steel	34.8	23.7	21.4	210	Interpolated	2.0	1.0
Bypass	Z1B3D024	PXXXXXX	TXXX	24.2	7.5	208V	B3W2	Type 3R	Carbon Steel	34.8	23.7	21.4	210	Interpolated	2.0	1.0
Bypass	Z1B3D030	PXXXXXX	TXXX	30.8	10	208V	B3W2	Type 3R	Carbon Steel	34.8	23.7	21.4	210	Interpolated	2.0	1.0
Bypass	Z1B3B011	PXXXXXX	TXXX	11.0	7.5	480V	B3W2	Type 3R	Carbon Steel	34.8	23.7	21.4	210	Interpolated	2.0	1.0
Bypass	Z1B3B014	PXXXXXX	TXXX	14.0	10	480V	B3W2	Type 3R	Carbon Steel	34.8	23.7	21.4	210	Interpolated	2.0	1.0
Bypass	Z1B3B021	PXXXXXX	TXXX	21.0	15	480V	B3W2	Type 3R	Carbon Steel	34.8	23.7	21.4	210	Interpolated	2.0	1.0
Bypass	Z1B3B027	PXXXXXX	TXXX	27.0	20	480V	B3W2	Type 3R	Carbon Steel	34.8	23.7	21.4	210	Interpolated	2.0	1.0
Configured	Z1C1B124	PXXXXXXX	TXXXXX	124.0	100	480V	C1W5	Type 1	Carbon Steel	42.8	25.8	16.1	240	Interpolated	2.0	1.0
Configured	Z1C3D030	PXXXXXXX	TXXXXX	30.8	10	208V	C3W3	Type 3R	Carbon Steel	40.0	25.5	21.5	260	Interpolated	2.0	1.0
Configured	Z1C3D046	PXXXXXXX	TXXXXX	46.2	15	208V	C3W3	Type 3R	Carbon Steel	40.0	25.5	21.5	260	Interpolated	2.0	1.0
Configured	Z1C3D059	PXXXXXXX	TXXXXX	59.4	20	208V	C3W3	Type 3R	Carbon Steel	40.0	25.5	21.5	260	Interpolated	2.0	1.0
Configured	Z1C3D074	PXXXXXXX	TXXXXX	74.8	25	208V	C3W3	Type 3R	Carbon Steel	40.0	25.5	21.5	260	Interpolated	2.0	1.0
Configured	Z1C3B027	PXXXXXXX	TXXXXX	27.0	20	480V	C3W3	Type 3R	Carbon Steel	40.0	25.5	21.5	260	Interpolated	2.0	1.0
Configured	Z1C3B034	PXXXXXXX	TXXXXX	34.0	25	480V	C3W3	Type 3R	Carbon Steel	40.0	25.5	21.5	260	Interpolated	2.0	1.0
Configured	Z1C3B040	PXXXXXXX	TXXXXX	40.0	30	480V	C3W3	Type 3R	Carbon Steel	40.0	25.5	21.5	260	Interpolated	2.0	1.0
Configured	Z1C3B052	PXXXXXXX	TXXXXX	52.0	40	480V	C3W3	Type 3R	Carbon Steel	40.0	25.5	21.5	260	Interpolated	2.0	1.0
Configured	Z1C3B52L	PXXXXXXX	TXXXXX	52.0	40	480V	C3W3	Type 3R	Carbon Steel	40.0	25.5	21.5	260	Interpolated	2.0	1.0
Bypass	Z1B3D030	PXXXXXX	TXXX	30.8	10	208V	B3W3	Type 3R	Carbon Steel	40.1	28.7	21.4	275	Interpolated	2.0	1.0
Bypass	Z1B3D046	PXXXXXX	TXXX	46.2	15	208V	B3W3	Type 3R	Carbon Steel	40.1	28.7	21.4	275	Interpolated	2.0	1.0
Bypass	Z1B3D059	PXXXXXX	TXXX	59.4	20	208V	B3W3	Type 3R	Carbon Steel	40.1	28.7	21.4	275	Interpolated	2.0	1.0
Bypass	Z1B3D074	PXXXXXX	TXXX	74.8	25	208V	B3W3	Type 3R	Carbon Steel	40.1	28.7	21.4	275	Interpolated	2.0	1.0
Bypass	Z1B3B027	PXXXXXX	TXXX	27.0	20	480V	B3W3	Type 3R	Carbon Steel	40.1	28.7	21.4	275	Interpolated	2.0	1.0
Bypass	Z1B3B034	PXXXXXX	TXXX	34.0	25	480V	B3W3	Type 3R	Carbon Steel	40.1	28.7	21.4	275	Interpolated	2.0	1.0

Table 1 - Certified Wall-Mounted Z1000 Series VFDs in NEMA Type 1 & 3R Enclosures (Cabinets) con't

Drive Type	Model Number Designation			Output Current Rating	Nominal HP	Rated Input Voltage	Cabinet Size	Cabinet NEMA Rating	Cabinet Material	Maximum Cabinet Dims			Max. Cabinet Weight [lbs] ²⁾	Tested / Interpolated / Extrapolated	S ₆₅	z/h
	Drive Base Model	Power Options	Control Options							Height [in]	Width [in]	Depth [in]				
Bypass	Z1B3B040	PXXXXXX	TXXX	40.0	30	480V	B3W3	Type 3R	Carbon Steel	40.1	28.7	21.4	275	Interpolated	2.0	1.0
Bypass	Z1B3B052	PXXXXXX	TXXX	52.0	40	480V	B3W3	Type 3R	Carbon Steel	40.1	28.7	21.4	275	Interpolated	2.0	1.0
Bypass	Z1B3B52L	PXXXXXX	TXXX	52.0	40	480V	B3W3	Type 3R	Carbon Steel	40.1	28.7	21.4	275	Interpolated	2.0	1.0
Bypass	Z1B1D114	PMB	TD	114.0	40	208V	B1W5	Type 1	Carbon Steel	42.8	25.8	16.1	280	UUT-01A / 01B	2.0	1.0
Bypass	Z1B1B124	PMB	TD	124.0	100	480V	B1W5	Type 1	Carbon Steel	42.8	25.8	16.1	280	UUT-02A / 02B	2.0	1.0
Configured	Z1C3B065	PXXXXXX	TXXXX	65.0	50	480V	C3W4	Type 3R	Carbon Steel	51.0	39.0	21.5	375	Interpolated	2.0	1.0
Bypass	Z1B1B180	PMG	TD	180.0	150	480V	B1W6	Type 1	Carbon Steel	49.1	28.4	19.0	380	UUT-05A / 05B	2.0	1.0
Configured	Z1C1B180	PXXXXXX	TXXXX	180.0	150	480V	C1W6	Type 1	Carbon Steel	49.1	28.4	19.0	385	Interpolated	2.0	1.0
Configured	Z1C3D074	PXXXXXX	TXXXX	74.8	25	208V	C3W4	Type 3R	Carbon Steel	51.0	39.0	21.5	395	Interpolated	2.0	1.0
Configured	Z1C3D088	PXXXXXX	TXXXX	88.0	30	208V	C3W4	Type 3R	Carbon Steel	51.0	39.0	21.5	395	Interpolated	2.0	1.0
Bypass	Z1B3B065	PXXXXXX	TXXX	65.0	50	480V	B3W4	Type 3R	Carbon Steel	51.1	39.0	21.4	410	Interpolated	2.0	1.0
Bypass	Z1B3D074	PXXXXXX	TXXX	74.8	25	208V	B3W4	Type 3R	Carbon Steel	51.1	39.0	21.4	420	Interpolated	2.0	1.0
Bypass	Z1B3D088	PXXXXXX	TXXX	88.0	30	208V	B3W4	Type 3R	Carbon Steel	51.1	39.0	21.4	420	Interpolated	2.0	1.0
Configured	Z1C3B077	PXXXXXX	TXXXX	77.0	60	480V	C3W4	Type 3R	Carbon Steel	51.0	39.0	21.5	435	Interpolated	2.0	1.0
Configured	Z1C1B240	PMG	TL	240.0	200	480V	C1W6	Type 1	Carbon Steel	49.1	28.4	19.0	450	UUT-06A / 06B	2.0	1.0
Configured	Z1C3D114	PXXXXXX	TXXXX	114.0	40	208V	C3W4	Type 3R	Carbon Steel	51.0	39.0	21.5	465	Interpolated	2.0	1.0
Configured	Z1C3B096	PXXXXXX	TXXXX	96.0	75	480V	C3W4	Type 3R	Carbon Steel	51.0	39.0	21.5	465	Interpolated	2.0	1.0
Bypass	Z1B3B077	PXXXXXX	TXXX	77.0	60	480V	B3W4	Type 3R	Carbon Steel	51.1	39.0	21.4	475	Interpolated	2.0	1.0
Bypass	Z1B3D114	PXXXXXX	TXXX	114.0	40	208V	B3W4	Type 3R	Carbon Steel	51.1	39.0	21.4	490	Interpolated	2.0	1.0
Bypass	Z1B3B096	PXXXXXX	TXXX	96.0	75	480V	B3W4	Type 3R	Carbon Steel	51.1	39.0	21.4	500	Interpolated	2.0	1.0
Configured	Z1C3B124	PXXXXXX	TXXXX	124.0	100	480V	C3W4	Type 3R	Carbon Steel	51.0	39.0	21.5	505	Interpolated	2.0	1.0
Bypass	Z1B3B124	PXXXXXX	TXXX	124.0	100	480V	B3W4	Type 3R	Carbon Steel	51.1	39.0	21.4	550	Interpolated	2.0	1.0
Bypass	Z1B3B124	PFK23	TDM	124.0	100	480V	B3W4	Type 3R	Carbon Steel	51.1	39.0	21.4	550	UUT 09A/09B	2.0	1.0

- Notes**
 1) Largest drive with plastic cover in a metal cabinet
 2) Max weights are for enclosures (cabinets) full of components
 3) Testing of bypass drive types is considered representative of configured drive types. The bypass drive is the same as the configured drive with an additional bypass contactor and related bypass wiring
 4) All wall-mounted systems are certified surface-mounted to structure or within an enclosure
 5) All drives are manufactured by Yaskawa.
 6) All wall-mounted VFDs are certified in a NEMA Type 1 or 3R enclosure

Table 2 - Certified Base-Mounted Z1000 Series VFDs in NEMA Type 1 & 3R Enclosures (Cabinets)

Drive Type	Model Number Designation			Output Current Rating	Nominal HP	Rated Input Voltage	Cabinet Size	Cabinet NEMA Rating	Cabinet Material	Maximum Cabinet Dims			Max. Cabinet Weight ⁽⁷⁾ [lbs]	Tested / Interpolated / Extrapolated	S _{DB}	z/h
	Drive Base Model	Power Options	Control Options							Height [in]	Width [in]	Depth [in]				
Configured	Z1C3B156	PXXXXXXX	TXXXXX	156.0	125	480V	C3F1	Type 3R	Carbon Steel	91.0	41.5	46.5	795	Extrapolated	2.0	1.0
Configured	Z1C3D114	PXXXXXXX	TXXXXX	114.0	40	208V	C3F1	Type 3R	Carbon Steel	91.0	41.5	46.5	800	Extrapolated	2.0	1.0
Configured	Z1C3D143	PXXXXXXX	TXXXXX	143.0	50	208V	C3F1	Type 3R	Carbon Steel	91.0	41.5	46.5	800	Extrapolated	2.0	1.0
Configured	Z1C3B096	PXXXXXXX	TXXXXX	96.0	75	480V	C3F1	Type 3R	Carbon Steel	91.0	41.5	46.5	800	Extrapolated	2.0	1.0
Configured	Z1C3B124	PXXXXXXX	TXXXXX	124.0	100	480V	C3F1	Type 3R	Carbon Steel	91.0	41.5	46.5	800	Extrapolated	2.0	1.0
Bypass	Z1B3D114	PXXXXXX	TXXX	114.0	40	208V	B3F1	Type 3R	Carbon Steel	91.1	41.3	50.7	850	Extrapolated	2.0	1.0
Bypass	Z1B3D143	PXXXXXX	TXXX	143.0	50	208V	B3F1	Type 3R	Carbon Steel	91.1	41.3	50.7	850	Extrapolated	2.0	1.0
Bypass	Z1B3B096	PFR234	TLM	96.0	75	480V	B3F1	Type 3R	Carbon Steel	91.1	41.3	50.7	850	UUT 10	2.0	1.0
Bypass	Z1B3B124	PXXXXXX	TXXX	124.0	100	480V	B3F1	Type 3R	Carbon Steel	91.1	41.3	50.7	850	Interpolated	2.0	1.0
Bypass	Z1B3B156	PXXXXXX	TXXX	156.0	125	480V	B3F1	Type 3R	Carbon Steel	91.1	41.3	50.7	850	Interpolated	2.0	1.0
Configured	Z1C3B180	PXXXXXXX	TXXXXX	180.0	150	480V	C3F1	Type 3R	Carbon Steel	91.0	41.5	46.5	895	Interpolated	2.0	1.0
Configured	Z1C3B240	PXXXXXXX	TXXXXX	240.0	200	480V	C3F1	Type 3R	Carbon Steel	91.0	41.5	46.5	895	Interpolated	2.0	1.0
Configured	Z1C3D169	PXXXXXXX	TXXXXX	169.0	60	208V	C3F1	Type 3R	Carbon Steel	91.0	41.5	46.5	910	Interpolated	2.0	1.0
Configured	Z1C3D211	PXXXXXXX	TXXXXX	211.0	75	208V	C3F1	Type 3R	Carbon Steel	91.0	41.5	46.5	910	Interpolated	2.0	1.0
Bypass	Z1B3D169	PXXXXXX	TXXX	169.0	60	208V	B3F1	Type 3R	Carbon Steel	91.1	41.3	50.7	945	Interpolated	2.0	1.0
Bypass	Z1B3D211	PXXXXXX	TXXX	211.0	75	208V	B3F1	Type 3R	Carbon Steel	91.1	41.3	50.7	945	Interpolated	2.0	1.0
Bypass	Z1B1D211	PMB	TD	211.0	75	208V	B1F1	Type 1	Carbon Steel	84.1	42.0	34.0	950	UUT 11	2.0	1.0
Bypass	Z1B3B240	PXXXXXX	TXXX	240.0	200	480V	B3F1	Type 3R	Carbon Steel	91.1	41.3	50.7	950	Interpolated	2.0	1.0
Bypass	Z1B3B180	PXXXXXX	TXXX	180.0	150	480V	B3F1	Type 3R	Carbon Steel	91.1	41.3	50.7	950	Interpolated	2.0	1.0
Configured	Z1C3B302	PXXXXXXX	TXXXXX	302.0	250	480V	C3F1	Type 3R	Carbon Steel	91.0	41.5	46.5	1100	Interpolated	2.0	1.0
Configured	Z1C1D343	PXXXX	TXX	343.0	125	208V	C1F1	Type 1	Carbon Steel	84.1	42.0	34.0	1150	Interpolated	2.0	1.0
Configured	Z1C1B302	PXXXX	TXX	302.0	250	480V	C1F1	Type 1	Carbon Steel	84.1	42.0	34.0	1150	Interpolated	2.0	1.0
Configured	Z1C3D273	PXXXXXXX	TXXXXX	273.0	100	208V	C3F1	Type 3R	Carbon Steel	91.0	41.5	46.5	1150	Interpolated	2.0	1.0
Configured	Z1C3D343	PXXXXXXX	TXXXXX	343.0	125	208V	C3F1	Type 3R	Carbon Steel	91.0	41.5	46.5	1200	Interpolated	2.0	1.0
Configured	Z1C3B361	PXXXXXXX	TXXXXX	361.0	300	480V	C3F1	Type 3R	Carbon Steel	91.0	41.5	46.5	1200	Interpolated	2.0	1.0
Bypass	Z1B3B302	PXXXXXX	TXXX	302.0	250	480V	B3F1	Type 3R	Carbon Steel	91.1	41.3	50.7	1200	Interpolated	2.0	1.0
Bypass	Z1B3D273	PXXXXXX	TXXX	273.0	100	208V	B3F1	Type 3R	Carbon Steel	91.1	41.3	50.7	1215	Interpolated	2.0	1.0
Bypass	Z1B1D273	PXXXX	TXX	273.0	100	208V	B1F1	Type 1	Carbon Steel	84.1	42.0	34.0	1250	Interpolated	2.0	1.0
Bypass	Z1B1B240	PXXXX	TXX	240.0	200	480V	B1F1	Type 1	Carbon Steel	84.1	42.0	34.0	1250	Interpolated	2.0	1.0
Configured	Z1C3D396	PXXXXXXX	TXXXXX	396.0	150	208V	C3F1	Type 3R	Carbon Steel	91.0	41.5	46.5	1250	Interpolated	2.0	1.0
Configured	Z1C3B414	PXXXXXXX	TXXXXX	414.0	350	480V	C3F1	Type 3R	Carbon Steel	91.0	41.5	46.5	1250	Interpolated	2.0	1.0
Configured	Z1C1D396	PXXXX	TXX	396.0	150	208V	C1F1	Type 1	Carbon Steel	84.1	42.0	34.0	1300	Interpolated	2.0	1.0
Configured	Z1C1B361	PXXXX	TXX	361.0	300	480V	C1F1	Type 1	Carbon Steel	84.1	42.0	34.0	1300	Interpolated	2.0	1.0
Bypass	Z1B3D343	PXXXXXX	TXXX	343.0	125	208V	B3F1	Type 3R	Carbon Steel	91.1	41.3	50.7	1300	Interpolated	2.0	1.0
Bypass	Z1B3B361	PXXXXXX	TXXX	361.0	300	480V	B3F1	Type 3R	Carbon Steel	91.1	41.3	50.7	1300	Interpolated	2.0	1.0
Bypass	Z1B3B414	PXXXXXX	TXXX	414.0	350	480V	B3F1	Type 3R	Carbon Steel	91.1	41.3	50.7	1315	Interpolated	2.0	1.0
Bypass	Z1B3D396	PXXXXXX	TXXX	396.0	150	208V	B3F1	Type 3R	Carbon Steel	91.1	41.3	50.7	1350	Interpolated	2.0	1.0
Configured	Z1C1B414	PXXXX	TXX	414.0	350	480V	C1F1	Type 1	Carbon Steel	84.1	42.0	34.0	1400	Interpolated	2.0	1.0
Configured	Z1C1B477	PXXXX	TXX	477.0	400	480V	C1F1T	Type 1	Carbon Steel	92.0	42.0	32.0	1500	Interpolated	2.0	1.0
Configured	Z1C1B590	PXXXX	TXX	590.0	500	480V	C1F1T	Type 1	Carbon Steel	92.0	42.0	32.0	1600	Interpolated	2.0	1.0
Bypass	Z1B1B302	PXXXX	TXX	302.0	250	480V	B1F1	Type 1	Carbon Steel	84.1	42.0	34.0	1600	Interpolated	2.0	1.0
Bypass	Z1B1D343	PXXXX	TXX	343.0	125	208V	B1F1	Type 1	Carbon Steel	84.1	42.0	34.0	1650	Interpolated	2.0	1.0
Bypass	Z1B1D396	PXXXX	TXX	396.0	150	208V	B1F1	Type 1	Carbon Steel	84.1	42.0	34.0	1700	Interpolated	2.0	1.0
Bypass	Z1B1B361	PXXXX	TXX	361.0	300	480V	B1F1	Type 1	Carbon Steel	84.1	42.0	34.0	1700	Interpolated	2.0	1.0
Configured	Z1C3B477	PXXXXXXX	TXXXXX	477.0	400	480V	C3F2	Type 3R	Carbon Steel	91.0	66.3	43.5	1700	Interpolated	2.0	1.0
Bypass	Z1B1B414	PXXXX	TXX	414.0	350	480V	B1F1	Type 1	Carbon Steel	84.1	42.0	34.0	1800	Interpolated	2.0	1.0
Bypass	Z1B3D273	PXXXXXX	TXXX	273.0	100	208V	B3F2	Type 3R	Carbon Steel	91.1	66.3	43.5	1800	Interpolated	2.0	1.0
Bypass	Z1B3D343	PXXXXXX	TXXX	343.0	125	208V	B3F2	Type 3R	Carbon Steel	91.0	66.3	43.5	1800	Interpolated	2.0	1.0
Bypass	Z1B3D396	PXXXXXX	TXXX	396.0	150	208V	B3F2	Type 3R	Carbon Steel	91.0	66.3	43.5	1800	Interpolated	2.0	1.0
Bypass	Z1B3B361	PXXXXXX	TXXX	361.0	300	480V	B3F2	Type 3R	Carbon Steel	91.1	66.3	43.5	1800	Interpolated	2.0	1.0
Bypass	Z1B3B414	PXXXXXX	TXXX	414.0	350	480V	B3F2	Type 3R	Carbon Steel	91.1	66.3	43.5	1800	Interpolated	2.0	1.0
Configured	Z1C3B590	PXXXXXXX	TXXXXX	590.0	500	480V	C3F2	Type 3R	Carbon Steel	91.0	66.3	43.5	1900	Interpolated	2.0	1.0
Bypass	Z1B3B477	PXXXXXX	TXXX	477.0	400	480V	B3F2	Type 3R	Carbon Steel	91.1	66.3	43.5	1900	Interpolated	2.0	1.0
Bypass	Z1B1B477	PXXXX	TXX	477.0	400	480V	B1F2	Type 1	Carbon Steel	84.1	69.7	30.5	2100	Interpolated	2.0	1.0
Bypass	Z1B3B590	PFKN23	TDM	590.0	500	480V	B3F2	Type 3R	Carbon Steel	91.1	66.3	43.5	2100	UUT 12	2.0	1.0
Bypass	Z1B1B590	PMBRN	TD	590.0	500	480V	B1F2	Type 1	Carbon Steel	84.1	69.7	30.5	2200	UUT 13	2.0	1.0

Notes
 7) Max weights are for enclosures (cabinets) full of components
 8) All drives are manufactured by Yaskawa

Table 3 - Certified Subcomponents: Enclosures

Drive Type	Frame Size	NEMA Rating	Height [in]	Width [in]	Depth [in]	Max Weight ⁽¹⁰⁾ [lbs]	Material	Mounting	MFR	Tested / Interpolated / Extrapolated
Configured	C1W1	1	41.6	6.8	12.9	65	Plastic	Wall	Yaskawa	Extrapolated
Bypass	B1W1	1	41.6	6.8	12.9	70	Plastic	Wall	Yaskawa	Extrapolated
Configured	C1W2	1	45.1	6.8	12.9	75	Plastic	Wall	Yaskawa	Extrapolated
Bypass	B1W2	1	45.1	6.8	12.9	80	Plastic	Wall	Yaskawa	Extrapolated
Configured	C1W3	1	48.2	10.2	13.2	85	Plastic	Wall	Yaskawa	Extrapolated
Bypass	B1W3	1	48.2	10.2	13.2	90	Plastic	Wall	Yaskawa	UUT-07A / 07B
Configured	C3W1	3R	29.0	18.0	21.5	140	Carbon Steel	Wall	Yaskawa	Interpolated
Bypass	B3W1	3R	29.1	21.2	21.4	150	Carbon Steel	Wall	Yaskawa	UUT 08A / 08B
Bypass	B1W4	1	52.8	12.7	14.2	160	Plastic	Wall	Yaskawa	Interpolated
Configured	C1W4	1	52.8	12.7	14.2	180	Plastic	Wall	Yaskawa	Interpolated
Configured	C3W2	3R	35.0	20.5	21.5	200	Carbon Steel	Wall	Yaskawa	Interpolated
Bypass	B3W2	3R	34.8	23.7	21.4	210	Carbon Steel	Wall	Yaskawa	Interpolated
Configured	C1W5	1	42.8	25.8	16.1	240.0	Carbon Steel	Wall	Yaskawa	Interpolated
Configured	C3W3	3R	40.0	25.5	21.5	260	Carbon Steel	Wall	Yaskawa	Interpolated
Bypass	B3W3	3R	40.1	28.7	21.4	275	Carbon Steel	Wall	Yaskawa	Interpolated
Bypass	B1W5	1	42.8	25.8	16.1	280	Carbon Steel	Wall	Yaskawa	UUT-01A / 01B / 02A / 02B
Bypass	B1W6	1	49.1	28.4	19.0	380	Carbon Steel	Wall	Yaskawa	UUT-05A / 05B
Configured	C1W6	1	49.1	28.4	19.0	450	Carbon Steel	Wall	Yaskawa	UUT-06A / 06B
Configured	C3W4	3R	51.0	39.0	21.5	505	Carbon Steel	Wall	Yaskawa	Interpolated
Bypass	B3W4	3R	51.1	39	21.4	550	Carbon Steel	Wall	Yaskawa	UUT-09A / 09B
Configured	C3F1	3R	91.0	41.5	46.5	1250	Carbon Steel	Floor	Yaskawa	Extrapolated
Bypass	B3F1	3R	91.1	41.3	50.7	1350	Carbon Steel	Floor	Yaskawa	UUT 10
Configured	C1F1	1	84.1	42.0	34.0	1400	Carbon Steel	Floor	Yaskawa	Interpolated
Configured	C1F1T	1	92.0	41.5	32.0	1600	Carbon Steel	Floor	Yaskawa	Interpolated
Bypass	B1F1	1	84.1	42	34	1800	Carbon Steel	Floor	Yaskawa	UUT 11
Configured	C3F2	3R	91.0	66.3	43.5	1900	Carbon Steel	Floor	Yaskawa	Interpolated
Bypass	B3F2	3R	91.1	66.3	43.5	2100	Carbon Steel	Floor	Yaskawa	UUT 12
Bypass	B1F2	1	84.1	69.7	30.5	2200	Carbon Steel	Floor	Yaskawa	UUT 13

Notes
 10) Max weights are for enclosures (cabinets) full of components

Table 4 - Certified J1000, P1000, & V1000 Series Standard Micro-Drives

Drive Model Number ⁽¹⁾	Input Voltage Rating	Phase	Normal Duty		Heavy Duty		Standard Drive Frame Size	Height [in]	Width [in]	Depth [in]	Max. Weight [lbs]	UUT / Int / Ext	S ₀₅	z/h
			Rated Output Current [Amps]	Nominal HP	Rated Output Current [Amps]	Nominal HP								
CIMR-JU2A0001***	200-240V	3	1.2	1/8 & 1/4	0.8	1/8	1	5.0	2.6	2.9	1.3	Extrapolated	2.0	1.0
CIMR-JU2A0002***	200-240V	3	1.9	1/4	1.6	1/4	1	5.0	2.6	2.9	1.3	Extrapolated	2.0	1.0
CIMR-JUBA0001***	200-240V	1	1.2	1/8 & 1/4	0.8	1/8	1	5.0	2.6	2.9	1.3	Extrapolated	2.0	1.0
CIMR-JUBA0002***	200-240V	1	1.9	1/4	1.6	1/4	1	5.0	2.6	2.9	1.3	Extrapolated	2.0	1.0
CIMR-VU2A0001***	200-240V	3	1.2	1/8 & 1/4	0.8	1/8	1	5.8	2.6	2.9	1.8	Extrapolated	2.0	1.0
CIMR-VU2A0002***	200-240V	3	1.9	1/4	1.6	1/4	1	5.8	2.6	2.9	1.8	Extrapolated	2.0	1.0
CIMR-VUBA0001***	200-240V	1	1.2	1/8 & 1/4	0.8	1/8	1	5.8	2.6	2.9	1.8	Extrapolated	2.0	1.0
CIMR-VUBA0002***	200-240V	1	1.9	1/4	1.6	1/4	1	5.8	2.6	2.9	1.8	Extrapolated	2.0	1.0
CIMR-JU2A0004***	200-240V	3	3.3	1/2 & 3/4	3.0	1/2	2	5.0	2.6	4.2	2.0	Extrapolated	2.0	1.0
CIMR-JU4A0001***	380-480V	3	1.2	1/2	1.2	1/2	5	5.0	4.2	3.1	2.2	Extrapolated	2.0	1.0
CIMR-JUBA0003***	200-240V	1	3.3	1/2 & 3/4	3.0	1/2	3	5.0	2.6	4.6	2.2	Extrapolated	2.0	1.0
CIMR-JU2A0006***	200-240V	3	6	1	5.0	3/4 & 1	4	5.0	2.6	5.0	2.4	Extrapolated	2.0	1.0
CIMR-VU2A0004***	200-240V	3	3.5	1/2 & 3/4	3	1/2	2	5.8	2.6	4.2	2.4	Extrapolated	2.0	1.0
CIMR-VUBA0003***	200-240V	1	3.3	1/2 & 3/4	3	1/2	3	5.8	2.6	4.6	2.6	Extrapolated	2.0	1.0
CIMR-VU4A0001***	380-480V	3	1.2	1/2	1.2	1/2	5	5.8	4.2	3.1	2.6	Extrapolated	2.0	1.0
CIMR-VU4A0002***	380-480V	3	2.1	3/4 & 1	1.8	3/4	6	5.0	4.2	3.9	2.7	Extrapolated	2.0	1.0
CIMR-VU2A0006***	200-240V	3	6	1	5	3/4 & 1	4	5.8	2.6	5.0	2.9	Extrapolated	2.0	1.0
CIMR-VU4A0002***	380-480V	3	2.1	3/4 & 1	1.8	3/4	6	5.8	4.2	3.9	3.1	Extrapolated	2.0	1.0
CIMR-JUBA0006***	200-240V	1	6	1	5.0	3/4 & 1	8	5.0	4.2	5.4	3.5	Extrapolated	2.0	1.0
CIMR-VU4A0004***	380-480V	3	4.1	2	3.4	1 & 2	8	5.8	4.2	5.4	3.5	Extrapolated	2.0	1.0
CIMR-JU2A0010***	200-240V	3	9.6	2 & 3	8.0	2	7	5.0	4.2	5.0	3.8	Extrapolated	2.0	1.0
CIMR-JU2A0012***	200-240V	3	12	3	11.0	3	8	5.0	4.2	5.4	3.8	Extrapolated	2.0	1.0
CIMR-JU4A0004***	380-480V	3	4.1	2	3.4	1 & 2	8	5.0	4.2	5.4	3.8	Extrapolated	2.0	1.0
CIMR-JU4A0005***	380-480V	3	5.4	3	4.8	3	9	5.0	4.2	6.0	3.8	Extrapolated	2.0	1.0
CIMR-JU4A0007***	380-480V	3	6.9	4	5.5	3	9	5.0	4.2	6.0	3.8	Extrapolated	2.0	1.0
CIMR-JU4A0009***	380-480V	3	8.8	5	7.2	4	9	5.0	4.2	6.0	3.8	Extrapolated	2.0	1.0
CIMR-JUBA0010***	200-240V	1	9.6	2 & 3	8.0	2	10	5.0	4.2	6.0	4.0	Extrapolated	2.0	1.0
CIMR-VU2A0010***	200-240V	3	9.6	2 & 3	8	2	7	5.8	4.2	5.0	4.2	Extrapolated	2.0	1.0
CIMR-VU2A0012***	200-240V	3	12	3	11	3	8	5.8	4.2	5.4	4.2	Extrapolated	2.0	1.0
CIMR-VUBA0006***	200-240V	1	6	1	5	3/4 & 1	8	5.8	4.2	5.4	4.2	Extrapolated	2.0	1.0
CIMR-VU4A0005***	380-480V	3	5.4	3	4.8	3	9	5.8	4.2	6.0	4.2	Extrapolated	2.0	1.0
CIMR-VU4A0007***	380-480V	3	6.9	4	5.5	3	9	5.8	4.2	6.0	4.2	Extrapolated	2.0	1.0
CIMR-VU4A0009***	380-480V	3	8.8	5	7.2	4	9	5.8	4.2	6.0	4.2	Extrapolated	2.0	1.0
CIMR-VUBA0010***	200-240V	1	9.6	2 & 3	8	2	10	5.8	4.2	6.0	4.4	Extrapolated	2.0	1.0
CIMR-JU2A0020***	200-240V	3	19.6	5	17.5	5	11	5.0	5.5	5.6	5.3	Extrapolated	2.0	1.0
CIMR-JU4A0011***	380-480V	3	11.1	7.5	9.2	5	11	5.0	5.5	5.6	5.3	UUT-15A, UUT-15B, UUT-18A, UUT-18B	2.0	1.0
CIMR-VU2A0020***	200-240V	3	19.6	5	17.5	5	11	6.0	5.5	5.6	5.7	Interpolated	2.0	1.0
CIMR-VUBA0012***	200-240V	1	12	3	11	3	12	6.0	5.5	6.4	5.7	Interpolated	2.0	1.0
CIMR-VU4A0011***	380-480V	3	11.1	7.5	9.2	5	11	6.0	5.5	5.6	5.7	Interpolated	2.0	1.0
CIMR-VUBA0018***	200-240V	1	17.5	5	17.5	5	13	6.0	6.6	7.0	6.6	UUT-16A, UUT-16B	2.0	1.0
CIMR-VU2A0030***	200-240V	3	30	7.5 & 10	25	7.5	14	10.0	5.5	5.5	8.4	Interpolated	2.0	1.0
CIMR-VU2A0040***	200-240V	3	40	10	33	10	14	10.0	7.0	5.5	8.4	Interpolated	2.0	1.0
CIMR-VU4A0018***	380-480V	3	17.5	10	14.8	7.5 & 10	14	10.0	5.5	5.5	8.4	Interpolated	2.0	1.0
CIMR-VU4A0023***	380-480V	3	23	15	18	10	14	10.0	5.5	5.5	8.4	Interpolated	2.0	1.0
CIMR-VU4A0031***	380-480V	3	31	20	24	15	15	11.4	7.0	5.6	11.4	Interpolated	2.0	1.0
CIMR-VU2A0056***	200-240V	3	56	15 & 20	47	15	16	11.4	8.6	6.4	12.1	Interpolated	2.0	1.0
CIMR-VU4A0038***	380-480V	3	38	25	31	20	16	11.4	7.0	6.4	12.1	Interpolated	2.0	1.0
CIMR-VU2A0069***	200-240V	3	69	25	60	20	17	14.0	4.2	7.3	20.2	UUT-17A, UUT-17B, UUT-17C, UUT-17D	2.0	1.0

Notes
 1) The only difference between the PW and VU series is software
 2) The drives are certified surface-mounted standalone to structure or within an enclosure
 3) The standard drive material is plastic

Table 5 - Certified Subcomponents: Z1000 Series VFDs

Standard Drive Model Series ⁽¹⁴⁾	Output Current Rating	Nominal HP	Rated Input Voltage	Standard Drive Frame Size	Standard Drive Material	Maximum Cabinet Dims			Max. Component Weight [lbs]	System Mounting		S _{OS}	z/h
						Height [in]	Width [in]	Depth [in]		Wall	Floor		
CIMR-ZU4A	0005	3	480V	1	Plastic	14.1	4.9	8.7	5	Extrapolated	N/A	2.0	1.0
CIMR-ZU4A	0008	5	480V	1	Plastic	14.1	4.9	8.7	8	Extrapolated	N/A	2.0	1.0
CIMR-ZU4A	0011	7.5	480V	1	Plastic	14.1	4.9	8.7	11	Extrapolated	N/A	2.0	1.0
CIMR-ZU2A	0011	3	208V	1	Plastic	14.1	4.9	8.7	12	Extrapolated	N/A	2.0	1.0
CIMR-ZU2A	0017	5	208V	1	Plastic	14.1	4.9	8.7	13	Extrapolated	N/A	2.0	1.0
CIMR-ZU4A	0014	10	480V	2	Plastic	14.1	4.9	9.3	16	Extrapolated	N/A	2.0	1.0
CIMR-ZU2A	0024	7.5	208V	2	Plastic	14.1	4.9	9.3	16	Extrapolated	N/A	2.0	1.0
CIMR-ZU4A	0021	15	480V	2	Plastic	14.1	4.9	9.3	17	Extrapolated	N/A	2.0	1.0
CIMR-ZU2A	0031	10	208V	2	Plastic	14.1	4.9	9.3	17	Extrapolated	N/A	2.0	1.0
CIMR-ZU4A	0027	20	480V	2	Plastic	14.1	4.9	9.3	19	Extrapolated	N/A	2.0	1.0
CIMR-ZU2A	0046	15	208V	3	Plastic	20.1	7.9	9.4	26	Extrapolated	N/A	2.0	1.0
CIMR-ZU2A	0059	20	208V	3	Plastic	20.1	7.9	9.4	29	Extrapolated	N/A	2.0	1.0
CIMR-ZU4A	0034	25	480V	3	Plastic	20.1	7.9	9.4	29	Internal to UUT-07A / 07B	N/A	2.0	1.0
CIMR-ZU4A	0040	30	480V	3	Plastic	20.1	7.9	9.4	29	Interpolated	N/A	2.0	1.0
CIMR-ZU4A	0052	40	480V	3	Plastic	20.1	7.9	9.4	29	Interpolated	N/A	2.0	1.0
CIMR-ZU2A	0075	25	208V	4	Plastic	21.3	10	10.5	59	Interpolated	N/A	2.0	1.0
CIMR-ZU4A	0052	40	480V	4	Plastic	21.3	10	10.5	59	Interpolated	N/A	2.0	1.0
CIMR-ZU2A	0088	30	208V	4	Plastic	21.3	10	10.5	62	Interpolated	N/A	2.0	1.0
CIMR-ZU2A	0114	40	208V	4	Plastic	21.3	10	10.5	64	Internal to UUT-01A / 01B	Extrapolated	2.0	1.0
CIMR-ZU4A	0065	50	480V	4	Plastic	21.3	10	10.5	64	Interpolated	N/A	2.0	1.0
CIMR-ZU4A	0077	60	480V	4	Plastic	21.3	10	10.5	68	Interpolated	N/A	2.0	1.0
CIMR-ZU4A	0096	75	480V	4	Plastic	21.3	10	10.5	70	UUT 14A / 14B	Internal to UUT 10	2.0	1.0
CIMR-ZU4A	0124	100	480V	5	Carbon Steel	27.6	10	11.5	101	Internal to UUT-02A / 02B / 09A / 09B	Interpolated	2.0	1.0
CIMR-ZU2A	0143	50	208V	6	Carbon Steel	30.5	13.4	15.9	143	Interpolated	Interpolated	2.0	1.0
CIMR-ZU2A	0169	60	208V	6	Carbon Steel	30.5	13.4	15.9	150	Interpolated	Interpolated	2.0	1.0
CIMR-ZU2A	0211	75	208V	6	Carbon Steel	30.5	13.4	15.9	154	Interpolated	Internal to UUT 11	2.0	1.0
CIMR-ZU2A	0273	100	208V	6	Carbon Steel	30.5	13.4	15.9	161	Interpolated	Interpolated	2.0	1.0
CIMR-ZU4A	0156	125	480V	6	Carbon Steel	30.5	13.4	15.9	161	Interpolated	Interpolated	2.0	1.0
CIMR-ZU4A	0180	150	480V	6	Carbon Steel	30.5	13.4	15.9	167	Internal to UUT-05A / 05B	Interpolated	2.0	1.0
CIMR-ZU4A	0240	200	480V	6	Carbon Steel	30.5	13.4	15.9	174	Internal to UUT-06A / 06B	Interpolated	2.0	1.0
CIMR-ZU2A	0343	125	208V	8	Carbon Steel	46	23.2	13.8	238	UUT-03A / 03B	Interpolated	2.0	1.0
CIMR-ZU2A	0396	150	208V	8	Carbon Steel	46	23.2	13.8	238	Interpolated	Interpolated	2.0	1.0
CIMR-ZU4A	0361	300	480V	8	Carbon Steel	46	23.2	13.8	257	Interpolated	Interpolated	2.0	1.0
CIMR-ZU4A	0302	250	480V	7	Carbon Steel	41.1	17.9	19	286	Interpolated	Interpolated	2.0	1.0
CIMR-ZU4A	0414	350	480V	9	Carbon Steel	48.3	24.1	14.6	292	Interpolated	Interpolated	2.0	1.0
CIMR-ZU4A	0480	400	480V	10	Carbon Steel	61.3	30.4	14.6	504	Interpolated	Interpolated	2.0	1.0
CIMR-ZU4A	0515	450	480V	10	Carbon Steel	61.3	30.4	14.6	504	Interpolated	Interpolated	2.0	1.0
CIMR-ZU4A	0590	500	480V	10	Carbon Steel	61.3	30.4	14.6	515	UUT-04A / 04B	Internal to UUT 12 and UUT 13	2.0	1.0

Notes
14) All drives are manufactured by Yaskawa.

Table 6 - Certified Subcomponents: Current Transformers

Manufacturer	Model Number	Rating [Amps]	Weight [lbs]	Wall-Mounted	Floor-Mounted
Dent Instruments	CT-HSC-020-U	20	0.2	UUT-05A/05B	N/A
Dent Instruments	CT-HSC-050-U	50	0.2	Interpolated	N/A
Dent Instruments	CT-HMC-0100-U	100	0.5	UUT-07A/07B	N/A
Dent Instruments	CT-HMC-0200-U	200	0.5	Interpolated	UUT-10
Dent Instruments	CT-SCM-0400-U	400	0.7	UUT-05A/05B	Interpolated
Dent Instruments	CT-SCM-0600-U	600	0.7	N/A	Interpolated
Dent Instruments	CT-SCL-1000-U	1000	1.6	N/A	UUT-12, UUT-13

Table 7 - Certified Subcomponents: Circuit Breakers

Manufacturer	Model Number	Rating [Amps]	Weight [lbs]	Wall-Mounted	Floor-Mounted
Schneider	HLL36015	15	4.8	Extrapolated	N/A
Schneider	HLL36020	20	4.8	Extrapolated	N/A
Schneider	HLL36025	25	4.8	Extrapolated	N/A
Schneider	HLL36035	35	4.8	Extrapolated	N/A
Schneider	HLL36040	40	4.8	Extrapolated	N/A
Schneider	HLL36050	50	4.8	Extrapolated	N/A
Schneider	HLL36060	60	4.8	Extrapolated	N/A
Schneider	HLL36070	70	4.8	UUT-07A/07B	N/A
Schneider	HLL36080	80	4.8	Interpolated	N/A
Schneider	HLL36100	100	4.8	Interpolated	N/A
Schneider	HLL36110	110	4.8	Interpolated	N/A
Schneider	HLL36125	125	4.8	Interpolated	N/A
Schneider	HLL36150	150	4.8	Interpolated	Extrapolated
Schneider	HLL36150M74	150	4.8	UUT-01A/01B	Extrapolated
Schneider	JLL36175	175	5.3	Interpolated	Extrapolated
Schneider	JLL36200LY	200	5.3	Interpolated	Extrapolated
Schneider	JLL36250M75	250	5.3	UUT-02A/02B, UUT 05A/05B	UUT-10
Schneider	JLM36250M75	250	5.3	Interpolated	Interpolated
Schneider	LJM36400U31X	400	13.2	Interpolated	Interpolated
Schneider	LLM36400U31X	400	13.2	Interpolated	Interpolated
Schneider	LJL36400U31X	400	13.2	Interpolated	Interpolated
Schneider	LLL36400U31X	400	13.2	Interpolated	Interpolated
Schneider	LLM36400U31X	400	13.2	UUT-06A/06B	Interpolated
Schneider	LLL36600U31X	600	13.7	N/A	Interpolated
Schneider	LLM36600U31X	600	13.7	N/A	Interpolated
Schneider	LJL36600U31X	600	13.7	N/A	Interpolated
Schneider	PLL34060M68	600	32.0	N/A	Interpolated
Schneider	PJL36080	800	32.0	N/A	Interpolated
Schneider	PLL34080CU31A	800	32.0	N/A	Interpolated
Schneider	PJL36080CU31A	800	32.0	N/A	Interpolated
Schneider	PLL34080M68	800	32.0	N/A	UUT-13

Table 8 - Certified Subcomponents: Contactors

Manufacturer	Model Number	Rating [Amps]	Weight [lbs]	Wall-Mounted	Floor-Mounted
Schneider	LC1D09	25	0.7	UUT-05A/05B	N/A
Schneider	LC1D12	25	0.7	Interpolated	N/A
Schneider	LC1D18	32	0.7	Interpolated	N/A
Schneider	LC1D25	40	0.8	Interpolated	N/A
Schneider	LC1D32	50	0.8	Interpolated	N/A
Schneider	LC1D40A	60	3.1	UUT-07A/07B	N/A
Schneider	LC1D50A	70	3.1	Interpolated	N/A
Schneider	LC1D65A	80	3.1	Interpolated	N/A
Schneider	LC1D80	110	3.5	Interpolated	N/A
Schneider	LC1D115	160	5.4	Interpolated	UUT-10
Schneider	LC1D150	160	5.4	UUT-01A/01B, UUT-02A/02B, UUT-05A / 05B	Interpolated
Schneider	LC1F185	185	10.2	Interpolated	Interpolated
Schneider	LC1F265	285	16.4	UUT-09A/09B	Interpolated
Schneider	LC1F330	370	18.9	N/A	Interpolated
Schneider	LC1F400	420	20.0	N/A	Interpolated
Schneider	LC1F500	700	25.0	N/A	Interpolated
Schneider	LC1F630	1000	41.0	N/A	UUT-12, UUT-13

Table 9 - Certified Subcomponents: Bypass Control Board

Manufacturer	Model Number	Weight [lbs]	Wall-Mounted	Floor-Mounted
Yaskawa	UTC00046X (where X denotes number 0 through 9)	0.7	UUT-01A/01B, UUT-02A / 02B, UUT-05A/05B, UUT-06A/06B, UUT-07A/07B, UUT-09A/09B	UUT-10, UUT-11, UUT-12, UUT-13

Table 10 - Certified Subcomponents: Bypass Power Supply

Manufacturer	Model Number	Rating [Watts]	Weight [lbs]	Wall-Mounted	Floor-Mounted
XP POWER	VCT40US05	40	3.0	UUT-01A/01B, UUT-02A/02B, UUT-05A/05B, UUT-09A/09B	UUT-10, UUT-11, UUT-12, UUT-13

Table 11 - Certified Subcomponents: Overload Relays

Manufacturer	Model Number	Weight [lbs]	Wall-Mounted	Floor-Mounted
Schneider	LRD04	0.27	Extrapolated	N/A
Schneider	LRD05	0.27	Extrapolated	N/A
Schneider	LRD06	0.27	UUT-06A / 06B	N/A
Schneider	LRD07	0.27	Interpolated	N/A
Schneider	LRD1508	0.42	Interpolated	N/A
Schneider	LRD1510	0.42	Interpolated	N/A
Schneider	LRD1512	0.42	Interpolated	N/A
Schneider	LRD1514	0.42	Interpolated	N/A
Schneider	LRD1516	0.42	Interpolated	N/A
Schneider	LRD1521	0.42	Interpolated	N/A
Schneider	LR9-F7575	5.1	Interpolated	N/A
Schneider	LRD1522	0.42	Interpolated	N/A
Schneider	LRD1532	0.8	Interpolated	N/A
Schneider	LRD340L	0.8	UUT-07A / 07B	N/A
Schneider	LRD365L	0.8	Interpolated	N/A
Schneider	LRD350L	0.8	Interpolated	N/A
Schneider	LR2D3563	1.2	Interpolated	N/A
Schneider	LR9-F5567	2.0	Interpolated	UUT-10
Schneider	LR9-F5569	2.0	UUT-01A/01B, UUT-02A/02B, UUT-09A/09B	Interpolated
Schneider	LR9-F5571	2.1	UUT-05A / 05B	Interpolated
Schneider	LR9-F7575	5.1	N/A	Interpolated
Schneider	LR9-F7579	5.1	N/A	Interpolated
Schneider	LR9-F7581	9.2	N/A	UUT-12

Table 12 - Certified Subcomponents: Control Transformers

Manufacturer	Model Number	Rating [VA]	Weight [lbs]	Wall-Mounted	Floor-Mounted
Schneider	TF100D1	100	3.9	UUT-06A/06B	N/A
Schneider	TF100D3	100	3.9	Interpolated	N/A
Schneider	TF150D1	150	5.4	UUT-02A/02B	N/A
Schneider	TF150D3	150	5.4	UUT-01A/01B	UUT-10
Schneider	TF300D1	300	8.9	UUT-05A/05B	Interpolated
Schneider	TF300D3	300	8.9	Interpolated	Interpolated
Schneider	TF500D1	500	11.8	Interpolated	Interpolated
Schneider	TF500D3	500	11.8	Interpolated	Interpolated
Schneider	TF750D1	750	17.2	UUT-09A/09B	Interpolated
Schneider	TF750D3	750	17.2	N/A	Interpolated
Schneider	TF1000D1	1000	19.6	N/A	Interpolated
Schneider	TF1000D3	1000	19.6	N/A	Interpolated
Schneider	TF1500D1	1500	37.7	N/A	UUT-12

Table 13 - Certified Subcomponents: Cabinet Cooling Fans

Manufacturer	Model Number	Rating [CFM]	Weight [lbs]	Wall-Mounted	Floor-Mounted
NMB	4715FS-12T-B50 (4" dia. fan)	80	1.2	UUT-01A/01B, UUT-02A/02B	UUT-10
NMB	5915PC-12T-B30-A00 (6" dia. fan)	200	1.8	UUT-05A/05B, UUT-06A/06B	UUT-10, UUT-11, UUT-12

Table 14 - Certified Subcomponents: Power Fuses

Manufacturer	Model Number	Rating [Amps]	Weight [lbs]	Wall-Mounted	Floor-Mounted
Bussmann	TCF1N	1	0.1	Extrapolated	N/A
Bussmann	LPJ-2SP	2	0.1	UUT-05A/05B	N/A
Bussmann	LPJ-2 1/2SP	2.5	0.1	Interpolated	N/A
Bussmann	LP-CC-3	3	0.02	UUT-08A/08B	N/A
Bussmann	TCF3	3	0.1	Interpolated	N/A
Bussmann	LPJ-3 1/2SP	3.5	0.1	Interpolated	N/A
Bussmann	LPJ-5SP	5	0.1	Interpolated	N/A
Bussmann	LP-CC-5	5	0.02	Interpolated	N/A
Bussmann	LP-CC-6	6	0.02	Interpolated	N/A
Bussmann	TCF6	6	0.1	Interpolated	N/A
Bussmann	LPJ-7SP	7	0.1	Interpolated	N/A
Bussmann	LP-CC-8	8	0.02	Interpolated	N/A
Bussmann	LPJ-10SP	10	0.1	Interpolated	N/A
Bussmann	LP-CC-10	10	0.02	Interpolated	N/A
Bussmann	TCF10	10	0.1	Interpolated	N/A
Bussmann	LPJ-12SP	12	0.1	Interpolated	N/A
Bussmann	LP-CC-12	12	0.02	Interpolated	N/A
Bussmann	LPJ-15SP	15	0.1	Interpolated	N/A
Bussmann	LP-CC-15	15	0.02	Interpolated	N/A
Bussmann	TCF15	15	0.1	Interpolated	N/A
Bussmann	TCF17.5	17.5	0.1	Interpolated	N/A
Bussmann	LPJ-20SP	20	0.1	Interpolated	N/A
Bussmann	TCF20	20	0.1	Interpolated	N/A
Bussmann	LPJ-25SP	25	0.1	Interpolated	N/A
Bussmann	LP-CC-25	25	0.02	Interpolated	N/A
Bussmann	TCF25	25	0.1	Interpolated	N/A
Bussmann	LPJ-30SP	30	0.1	Interpolated	N/A
Bussmann	TCF30	30	0.1	Interpolated	N/A
Bussmann	LPJ-35SP	35	0.2	Interpolated	N/A
Bussmann	TCF35	35	0.1	Interpolated	N/A
Bussmann	LPJ-40SP	40	0.2	Interpolated	N/A
Bussmann	FWH-40B	40	0.1	UUT-05A/05B	N/A

Table 14 - Certified Subcomponents: Power Fuses con't

Manufacturer	Model Number	Rating [Amps]	Weight [lbs]	Wall-Mounted	Floor-Mounted
Bussmann	TCF40	40	0.1	Interpolated	N/A
Bussmann	LPJ-45SP	45	0.2	Interpolated	N/A
Bussmann	TCF45	45	0.1	Interpolated	N/A
Bussmann	FWH-45B	45	0.1	Interpolated	N/A
Bussmann	LPJ-50SP	50	0.2	Interpolated	N/A
Bussmann	FWH-50B	50	0.1	Interpolated	N/A
Bussmann	TCF50	50	0.1	Interpolated	N/A
Bussmann	LPJ-60SP	60	0.2	Interpolated	N/A
Bussmann	FWH-60B	60	0.1	Interpolated	N/A
Bussmann	TCF60	60	0.1	Interpolated	N/A
Bussmann	LPJ-70SP	70	0.3	Interpolated	N/A
Bussmann	LPJ-80SP	80	0.3	Interpolated	N/A
Bussmann	FWH-80B	80	0.2	Interpolated	N/A
Bussmann	TCF80	80	0.1	Interpolated	N/A
Bussmann	LPJ-90SP	90	0.3	Interpolated	N/A
Bussmann	TCF90	90	0.1	Interpolated	N/A
Bussmann	TCF100	100	0.1	Interpolated	N/A
Bussmann	FWH-100B	100	0.2	Interpolated	N/A
Bussmann	LPJ-100SP	100	0.3	Interpolated	N/A
Bussmann	FWH-125B	125	0.3	Interpolated	N/A
Bussmann	LPJ-125SP	125	0.8	Interpolated	N/A
Bussmann	LPJ-150SP	150	0.8	Interpolated	Extrapolated
Bussmann	FWH-150B	150	0.3	Interpolated	Extrapolated
Bussmann	LPJ-175SP	175	0.8	UUT-01A/01B, UUT-02A/02B	Extrapolated
Bussmann	FWH-175B	175	0.3	Interpolated	Extrapolated
Bussmann	LPJ-200SP	200	0.8	Interpolated	Extrapolated
Bussmann	FWH-200B	200	0.3	Interpolated	Extrapolated
Bussmann	LPJ-225SP	225	1.7	Interpolated	Extrapolated
Bussmann	FWH-225A	225	0.6	Interpolated	Extrapolated
Bussmann	LPJ-250SP	250	1.7	Interpolated	Extrapolated
Bussmann	FWH-250A	250	0.6	UUT-01A/01B, UUT-02A/02B, UUT-09A/09B	UUT-10
Bussmann	FWH-275A	275	0.6	Interpolated	Interpolated
Bussmann	FWH-300A	300	0.6	Interpolated	Interpolated
Bussmann	LPJ-300SP	300	1.7	Interpolated	Interpolated
Bussmann	LPJ-350SP	350	1.7	Interpolated	Interpolated
Bussmann	FWH-350A	350	0.6	Interpolated	Interpolated
Bussmann	LPJ-400SP	400	1.7	Interpolated	Interpolated
Bussmann	FWH-400A	400	0.6	UUT-06A/06B	Interpolated
Bussmann	FWH-450A	450	1.0	UUT-09A/09B	Interpolated
Bussmann	LPJ-500SP	500	2.8	N/A	Interpolated
Bussmann	FWH-600A	600	1.0	N/A	Interpolated
Bussmann	LPJ-600SP	600	2.8	N/A	Interpolated
Bussmann	FWH-700A	700	2.1	N/A	Interpolated
Bussmann	FWH-800A	800	2.1	N/A	Interpolated
Bussmann	KRP-C-800SP	800	3.8	N/A	Interpolated
Bussmann	KRP-C-1000SP	1000	4.5	N/A	Interpolated
Bussmann	FWH-1000A	1000	4.6	N/A	UUT-12
Littelfuse	JTD2	2	0.1	UUT-09A/09B	N/A
Littelfuse	JTD2-1/2	2.5	0.1	Interpolated	N/A
Littelfuse	JTD3-1/2	3.5	0.1	Interpolated	N/A
Littelfuse	JTD5	5	0.1	Interpolated	N/A
Littelfuse	JTD7	7	0.1	Interpolated	N/A
Littelfuse	JTD10	10	0.1	Interpolated	N/A
Littelfuse	JTD12	12	0.1	Interpolated	N/A
Littelfuse	JTD15	15	0.1	Interpolated	N/A

Table 14 - Certified Subcomponents: Power Fuses con't

Manufacturer	Model Number	Rating [Amps]	Weight [lbs]	Wall-Mounted	Floor-Mounted
Littelfuse	JTD20	20	0.1	Interpolated	N/A
Littelfuse	JTD25	25	0.1	Interpolated	N/A
Littelfuse	JTD30	30	0.1	Interpolated	N/A
Littelfuse	JTD35	35	0.2	Interpolated	N/A
Littelfuse	JTD40	40	0.2	Interpolated	N/A
Littelfuse	JTD45	45	0.2	Interpolated	N/A
Littelfuse	JTD50	50	0.2	Interpolated	N/A
Littelfuse	JTD60	60	0.2	Interpolated	N/A
Littelfuse	JTD70	70	0.2	Interpolated	N/A
Littelfuse	JTD80	80	0.2	Interpolated	N/A
Littelfuse	JTD90	90	0.2	Interpolated	N/A
Littelfuse	JTD100	100	0.2	Interpolated	N/A
Littelfuse	JTD125	125	0.8	Interpolated	N/A
Littelfuse	JTD150	150	0.8	Interpolated	UUT-13
Littelfuse	JTD175	175	0.8	Interpolated	Interpolated
Littelfuse	JTD200	200	0.8	Interpolated	Interpolated
Littelfuse	JTD225	225	1.7	Interpolated	Interpolated
Littelfuse	JTD250	250	1.7	Interpolated	Interpolated
Littelfuse	JTD300	300	1.7	Interpolated	Interpolated
Littelfuse	JTD350	350	1.7	Interpolated	UUT-13
Littelfuse	JTD400	400	1.7	UUT-09A/09B	Interpolated
Littelfuse	JTD450	450	3.1	N/A	Interpolated
Littelfuse	JTD500	500	3.1	N/A	Interpolated
Littelfuse	JTD600	600	3.1	N/A	UUT-13
Mersen	AJT-350	350	0.5	UUT-09A/09B	UUT-13
Mersen	AJT-450	450	0.5	UUT-09A/09B	UUT-13

Table 15 - Certified Subcomponents: Reactors

Manufacturer	Model Number	Rating [Amps]	Weight [lbs]	Wall-Mounted	Floor-Mounted
MTE	RLW-02P103	2.1	1.6	Extrapolated	N/A
MTE	RLW-03P401	3.4	1.6	Extrapolated	N/A
MTE	RLW-03P403	3.4	1.6	Extrapolated	N/A
MTE	RLW-01P603	1.6	1.7	UUT-06A/06B	N/A
MTE	RLW-01P606	1.6	1.7	Interpolated	N/A
MTE	RLW-02P106	2.1	1.7	Interpolated	N/A
MTE	RLW-04P801	4.8	1.7	Interpolated	N/A
MTE	RLW-04P803	4.8	1.8	Interpolated	N/A
MTE	RLW-07P601	7.6	1.8	Interpolated	N/A
MTE	RLW-001101	11.0	2.7	Interpolated	N/A
MTE	RLW-03P406	3.4	2.8	Interpolated	N/A
MTE	RLW-07P603	7.6	2.8	Interpolated	N/A
MTE	RLW-04P806	4.8	4.0	Interpolated	N/A
MTE	RLW-07P606	7.6	4.2	Interpolated	N/A
MTE	RLW-001103	11.0	4.2	Interpolated	N/A
MTE	RLW-002101	21.0	4.2	Interpolated	N/A
MTE	RLW-001403	14.0	4.3	Interpolated	N/A
MTE	RLW-002801	28.0	5.1	Interpolated	N/A
MTE	RLW-001106	11.0	7.1	Interpolated	N/A
MTE	RLW-002103	21.0	7.2	Interpolated	N/A
MTE	RLW-001406	14.0	9.4	Interpolated	N/A
MTE	RLW-002803	28.0	9.5	Interpolated	N/A
MTE	RLW-003501	35.0	10.0	Interpolated	N/A
MTE	RLW-003503	35.0	13.0	Interpolated	N/A
MTE	RLW-002106	21.0	13.3	Interpolated	N/A
MTE	RLW-002806	28.0	14.3	Interpolated	N/A
MTE	RLW-004603	46.0	17.0	Interpolated	N/A
MTE	RLW-003505	35.0	18.0	Interpolated	N/A
MTE	RLW-005501	55.0	18.0	Interpolated	N/A
MTE	RLW-008301	83.0	19.0	Interpolated	N/A
MTE	RLW-006503	65.0	22.0	Interpolated	N/A
MTE	RLW-010401	104.0	22.0	Interpolated	N/A
MTE	RLW-004605	46.0	24.0	Interpolated	N/A
MTE	RLW-005505	55.0	26.0	Interpolated	N/A
MTE	RLW-006505	65.0	26.0	Interpolated	N/A
MTE	RLW-008303	83.0	26.0	Interpolated	N/A
MTE	RLW-013001	130.0	26.0	Interpolated	N/A
MTE	RLW-010403	104.0	28.0	Interpolated	UUT-10
MTE	RLW-016001	160.0	34.0	Interpolated	Interpolated
MTE	RLW-020001	200.0	34.0	Interpolated	Interpolated
MTE	RLW-008305	83.0	35.0	Interpolated	Interpolated
MTE	RLW-025001	250.0	35.0	Interpolated	Interpolated
MTE	RLW-013002	130.0	37.0	Interpolated	Interpolated
MTE	RLW-013003	130.0	37.0	Interpolated	Interpolated
MTE	RLW-010405	104.0	41.0	Interpolated	Interpolated
MTE	RLW-016003	160.0	49.0	Interpolated	Interpolated
MTE	RLW-020003	200.0	49.0	Interpolated	Interpolated
MTE	RLW-013005	130.0	52.0	Interpolated	Interpolated
MTE	RLW-016005	160.0	53.0	Interpolated	Interpolated
MTE	RLW-025003	250.0	55.0	UUT-06A/06B	Interpolated
MTE	RLW-020005	200.0	75.0	Interpolated	Interpolated
MTE	RLW-032203	322.0	76.0	Interpolated	Interpolated
MTE	RLW-041401	414.0	78.0	UUT-09A/09B	Interpolated
MTE	RLW-051501	515.0	81.0	N/A	Interpolated
MTE	RLW-025005	250.0	93.0	N/A	Interpolated
MTE	RLW-041403	414.0	98.0	N/A	Interpolated
MTE	RLW-032205	322.0	108.0	N/A	Interpolated
MTE	RLW-051503	515.0	118.0	N/A	Interpolated
MTE	RLW-041405	414.0	125.0	N/A	Interpolated
MTE	RLW-060003	600.0	144.0	N/A	Interpolated
MTE	RLW-075003	750.0	179.0	N/A	Interpolated
MTE	RLW-051505	515.0	193.0	N/A	Interpolated
MTE	RLW-060005	600.0	204.0	N/A	Interpolated
MTE	RLW-075005	750.0	245.0	N/A	UUT-12

Table 16 - Certified Subcomponents: Noise Filter

Manufacturer	Model Number	Weight [lbs]	Wall-Mounted	Floor-Mounted
MTE	M-1786	0.4	UUT-01A/01B, UUT-02A/02B, UUT-06A/06B	UUT-12, UUT-13

Table 17 - Certified Subcomponents: Lonworks

Manufacturer	Model Number	Weight [lbs]	Wall-Mounted	Floor-Mounted
YASKAWA	SI-W3	0.1	UUT-01A/01B, UUT-02A/02B, UUT-06A/06B	UUT-10

Table 18 - Certified Subcomponents: Ethernet / IP

Manufacturer	Model Number	Weight [lbs]	Wall-Mounted	Floor-Mounted
YASKAWA	SI-EN3	0.1	UUT-01A/01B, UUT-02A/02B, UUT-05A/05B	UUT-11, UUT-12

Table 19 - Certified Subcomponents: Terminal & Power Distribution Blocks

Manufacturer	Model Number	Rating [Amps]	Weight [lbs]	Wall-Mounted	Floor-Mounted
Cooper Bussman	NDN63-WH-UL	65	0.1	UUT-05A/05B	UUT-10
Cooper Bussman	NDN111-WH-UL	90	0.05	Interpolated	Interpolated
Cooper Bussman	14002-3	115	0.2	UUT-05A/05B	Interpolated
Cooper Bussman	PDB370-3	175	3.2	Interpolated	Interpolated
Cooper Bussman	16280-3	175	0.4	Interpolated	Interpolated
Cooper Bussman	1BS102	400	1.0	Interpolated	Interpolated
Cooper Bussman	1BS104	600	2.2	UUT-09A/09B	UUT-13
Marathon Special Projects	6H12-TSCU-F	70	0.1	UUT-08A/08B	N/A
Marathon Special Projects	EPBAD21	115	0.1	UUT-09A/09B	UUT-10
Marathon Special Projects	1421572	150	0.2	Interpolated	Interpolated
Marathon Special Projects	1323572	175	0.4	UUT-05A/05B	Interpolated
Marathon Special Projects	1333126	310	3.0	Interpolated	Interpolated
Marathon Special Projects	1333320	510	3.0	UUT-05A/05B	Interpolated
Marathon Special Projects	1453301	760	3.8	UUT-06A/06B	UUT-11
Mersen	MPDB63153	175	0.7	UUT-09A/09B	UUT-11
Mersen	MPDB67001	310	0.6	Interpolated	Interpolated
Mersen	MPDB67523	460	2.4	Interpolated	Interpolated
Mersen	MPDB69093	760	3.9	UUT-09A/09B	UUT-11
Phoenix	3044102	30	0.02	UUT-09A/09B	UUT-12

Table 20 - Certified Subcomponents: Disconnect Switches

Manufacturer	Model Number	Rating [Amps]	Weight [lbs]	Wall-Mounted	Floor-Mounted
Schneider	V0	20	0.4	UUT-09A/09B	N/A
Schneider	V3	45	1.1	UUT-07A/07B	N/A
Schneider	V4	63	1.1	Interpolated	N/A
Schneider	V5	100	2.0	Interpolated	N/A
Schneider	V6	115	2.0	Interpolated	N/A
Schneider	HLL36000S15	150	4.0	Interpolated	Extrapolated
Schneider	JLL36000S17	175	5.0	Interpolated	UUT-10
Schneider	JGL36000S17	175	5.0	UUT-01A/01B, UUT-02A / 02B	Interpolated
Schneider	JLM36000S25	250	5.0	Interpolated	Interpolated
Schneider	JLL36000S25	250	5.0	UUT-05A/05B	Interpolated
Schneider	JGF36000S25	250	5.0	Interpolated	Interpolated
Schneider	JGL36000S25	250	5.0	Interpolated	Interpolated
Schneider	DJF36000S40	400	14.0	Interpolated	Interpolated
Schneider	LLM36000S40X	400	14.0	Interpolated	Interpolated
Schneider	LLM36400U31X	400	14.0	UUT-06A/06B	Interpolated
Schneider	LLL36000S40X	400	14.0	N/A	Interpolated
Schneider	DJF36000S60	600	14.0	N/A	Interpolated
Schneider	LLM36000S60X	600	14.0	N/A	Interpolated
Schneider	LLL36000S60X	600	14.0	N/A	Interpolated
Schneider	PJL36000S80	800	32.0	N/A	Interpolated
Schneider	PLL34000S80	800	32.0	N/A	Interpolated
Schneider	PLL34000S10	1000	32.0	N/A	UUT-13

Table 21 - Certified Subcomponents: Space Heater

Manufacturer	Model Number	Rating [Watts]	Weight [lbs]	Wall-Mounted	Floor-Mounted
Hoffman	D-AH2001A	200	2.0	UUT-08A/08B	N/A
Hoffman	D-AH4001B	400	2.5	UUT-09A/09B	UUT-10
Hoffman	D-AH8001B	800	3.0	N/A	UUT-12

Table 22- Lightning Arrestor

Manufacturer	Model Number	Rating [Voltage]	Weight [lbs]	Wall-Mounted	Floor-Mounted
APT	S50A240V3D	240	1.6	Extrapolated	UUT-11
APT	S50A480V3D	480	1.6	UUT-09A/09B	UUT-10, UUT-12

Table 23 - Certified Subcomponents: Keypad Viewing Window

Manufacturer	Model Number	Weight [lbs]	Wall-Mounted	Floor-Mounted
Hoffman	AWDH1612N4	8.2	UUT-09A/09B	UUT-10, UUT-12

Table 24 - Certified Subcomponents: Speed Pot

Manufacturer	Model Number	Weight [lbs]	Wall-Mounted	Floor-Mounted
YASKAWA	URSN0008	0.4	UUT-09A/09B	UUT-10

Table 25 - Certified Subcomponents: Micro Drives Cards

Model	Type	MFR	Wall-Mounted
AI-V3/J	Analog Potentiometer	Yaskawa	UUT-18A/B
SI-232/J	Remote Interface RS232C	Yaskawa	UUT-15A/B
SI-232/JC	Remote Interface RS232C	Yaskawa	
SI-485/J	Remote Interface RS485/422	Yaskawa	
SI-EM3/V	Modbus TCP/IP	Yaskawa	UUT-16A/B
SI-EN3/V	EtherNet/IP	Yaskawa	
SI-EP3/V	Profinet	Yaskawa	UUT-17A/B/C/D
SI-ES3/V	EtherCat	Yaskawa	
SI-N3/V	DeviceNet w/ADR	Yaskawa	
SI-P3/V	Profibus DP	Yaskawa	
SI-T3/V	Mecatrolink II	Yaskawa	

Table 26 - Certified Subcomponents: Micro Drives Interface

Model	Description	MFR	Wall-Mounted
DI-100	120VAC Interface	Yaskawa	UUT-16A/B, UUT-17A/B/C/D

Table 27 - Certified Subcomponents: Micro Drives 24VDC Control Power Units

Power Unit Part Number	Bracket Kit Part Number	MFR	Wall-Mounted
PSV10S	EZZ020639A / <u>EZZ020639B</u>	Yaskawa	UUT-16A/B
PSV10M	EZZ020639B / <u>EZZ020639C</u>	Yaskawa	UUT-17A/B



UNIT UNDER TEST (UUT) Summary Sheet

UUT-01A

VMA-47676-01

Model Line	Model Number	Manufacturer
Z1000	Z1B1D114	Yaskawa

Product Construction Summary

Carbon Steel NEMA 1 Enclosure

Options / Subcomponent Summary

Bypass Drive-CIMR-ZU2A0114; Circuit Breaker-150A; Contactor-160A; Bypass Power Supply-40W; Overload Relay-LR9-F5569; Control Transformer-150VA; Cooling Fan-80 CFM; Power Fuses-175A & 250A; Disconnect Switch-175A; Insulated Gate Bipolar-Transistor-630V.200A; Diode-800V-200A

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
245	43.0	26.0	16.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.33	0.54

Test Mounting Details

UUT-01A was wall-mounted to the fixture using qty (4) 1/2"-13 Grade 5 bolts in the manufacturer provided holes. The wall fixture was rigidly mounted to the shake table using qty (12) 3" welds, 1/4" wide.



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-01B

VMA-47676-01

Model Line	Model Number	Manufacturer
Z1000	Z1B1D114	Yaskawa

Product Construction Summary

Carbon Steel NEMA 1 Enclosure

Options / Subcomponent Summary

Bypass Drive-CIMR-ZU2A0114; Circuit Breaker-150A; Contactor-160A; Bypass Power Supply-40W; Overload Relay-LR9-F5569; Control Transformer-150VA; Cooling Fan-80 CFM; Power Fuses-175A & 250A; Disconnect Switch-175A; Insulated Gate Bipolar-Transistor-630V.200A; Diode-800V-200A

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
245	43.0	26.0	16.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.33	0.54

Test Mounting Details

UUT-01B was wall-mounted to the fixture using qty (4) 1/2"-13 Grade 5 bolts in the manufacturer-provided holes. The wall fixture was mounted on qty (4) VMC-Manufactured AWMR-R-1 spring isolators using qty (3) 1/2"-13 Grade 5 bolts per isolator. Each isolator was attached to the fixture using qty (2) 4" welds, 1/4" wide.



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-02A

VMA-47676-01

Model Line	Model Number	Manufacturer
Z1000	Z1B1B124	Yaskawa

Product Construction Summary

Carbon Steel NEMA 1 Enclosure

Options / Subcomponent Summary

Bypass Drive-CIMR-ZU40124; Circuit Breaker-250A; Contactor-160A; Bypass Power Supply-40W; Overload Relay-LR9-F5569; Control Transformer-150VA; Cooling Fan-80 CFM; Power Fuses-175A & 250A; Disconnect Switch-175A; (3) Insulated Gate Bipolar Transistor-1200V,200A; Diode1600V, 200A

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
245	43.0	26.0	16.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	AFLX-H	ARIG-H	AFLX-V	ARIG-V
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.33	0.54

Test Mounting Details

UUT-02A was wall-mounted to the fixture using qty (4) 1/2"-13 Grade 5 bolts in the manufacturer-provided holes. The wall fixture was rigidly mounted to the shake table using qty (12) 3" welds, 1/4" wide.



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-02B

VMA-47676-01

Model Line	Model Number	Manufacturer
Z1000	Z1B1B124	Yaskawa

Product Construction Summary

Carbon Steel NEMA 1 Enclosure

Options / Subcomponent Summary

Bypass Drive-CIMR-ZU40124; Circuit Breaker-250A; Contactor-160A; Bypass Power Supply-40W; Overload Relay-LR9-F5569; Control Transformer-150VA; Cooling Fan-80 CFM; Power Fuses-175A & 250A; Disconnect Switch-175A; (3) Insulated Gate Bipolar Transistor-1200V,200A; Diode1600V, 200A

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
245	43.0	26.0	16.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.33	0.54

Test Mounting Details

UUT-02B was wall-mounted to the fixture using qty (4) 1/2"-13 Grade 5 bolts in the manufacturer-provided holes. The wall fixture was mounted on qty (4) VMC-Manufactured AWMR-R-1 spring isolators using qty (3) 1/2"-13 Grade 5 bolts per isolator. Each isolator was attached to the fixture using qty (2) 4" welds, 1/4" wide.



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-03A

VMA-47676-01

Model Line	Model Number	Manufacturer
A1000	CIMR-AU2A0360	Yaskawa

Product Construction Summary

Carbon Steel NEMA 1 Enclosure

Options / Subcomponent Summary

(6) Insolated Gate Bipolar Transistor-630V,400A; (6) Diode- 800 V 150 A; Contractor-532A

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
216	46.0	23.2	14.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.33	0.54

Test Mounting Details

UUT-03A was wall-mounted to the fixture using qty (4) 1/2"-13 Grade 5 bolts in the manufacturer-provided holes. The wall fixture was rigidly mounted to the shake table using qty (12) 3" welds, 1/4" wide.



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-03B

VMA-47676-01

Model Line	Model Number	Manufacturer
A1000	CIMR-AU2A0360	Yaskawa

Product Construction Summary

Carbon Steel NEMA 1 Enclosure

Options / Subcomponent Summary

(6) Insolated Gate Bipolar Transistor-630V,400A; (6) Diode- 800 V 150 A; Contractor-532A

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
216	46.0	23.2	14.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.33	0.54

Test Mounting Details

UUT-03B was wall-mounted to the fixture using qty (4) 1/2"-13 Grade 5 bolts in the manufacturer-provided holes. The wall fixture was mounted on qty (4) VMC-Manufactured AWMR-R-1 spring isolators using qty (3) 1/2"-13 Grade 5 bolts per isolator. Each isolator was attached to the fixture using qty (2) 4" welds, 1/4" wide.



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-04A

VMA-47676-01

Model Line	Model Number	Manufacturer
A1000	CIMR-ZU4A590	Yaskawa

Product Construction Summary

Carbon Steel NEMA 1 Enclosure

Options / Subcomponent Summary

(6) Insolated Gate Bipolar Transistor-630V,400A; (6) Diode- 800 V 150 A; Contractor-532A

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
486	61.3	31.0	15.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.33	0.54

Test Mounting Details

UUT-04A was wall-mounted to the fixture using qty (6) 1/2"-13 Grade 5 bolts in the manufacturer-provided holes. The wall fixture was rigidly mounted to the shake table using qty (12) 3" welds, 1/4" wide.



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-04B

VMA-47676-01

Model Line	Model Number	Manufacturer
A1000	CIMR-ZU4A590	Yaskawa

Product Construction Summary

Carbon Steel NEMA 1 Enclosure

Options / Subcomponent Summary

(6) Insolated Gate Bipolar Transistor-630V,400A; (6) Diode- 800 V 150 A; Contractor-532A

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
486	61.3	31.0	15.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.33	0.54

Test Mounting Details

UUT-04B was wall-mounted to the fixture using qty (6) 1/2"-13 Grade 5 bolts in the manufacturer-provided holes. The wall fixture was mounted on qty (4) VMC-Manufactured AWMR-R-1 spring isolators using qty (3) 1/2"-13 Grade 5 bolts per isolator. Each isolator was attached to the fixture using qty (2) 4" welds, 1/4" wide.



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-05A

VMA-47676-01

Model Line	Model Number	Manufacturer
Z1000	NB350784A (Custom Built for Test)	Yaskawa

Product Construction Summary

Carbon Steel NEMA 1 Enclosure

Options / Subcomponent Summary

Bypass Drive-CIMR-ZU4A0180; Current Transformers-20A & 400A; Circuit Breaker-250A; Contactors-25A & 160A; Bypass Control Board-UTC0046X; Bypass Power Supply-40W; Overload Relay-LR9-F5569; Control Transformer-300VA; Cooling Fans-200CFM; Power Fuses-2A & 40A; Ethernet /IP-SI-EN3; Terminal & Power Distribution Blocks-65A, 115A, 175A, and 510A; Disconnect Switch-250A

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
380	49.0	28.0	19.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{ps}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.33	0.54

Test Mounting Details

UUT-05A was wall-mounted to the fixture using qty (4) 1/2" Grade 8 bolts in the manufacturer-provided holes. The wall fixture was rigidly mounted to the base plates using qty (6) 1" Grade 8 bolts. The base plate was attached to the shake table using qty (9) high-strength rods with a minimum diameter of 1".



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-05B

VMA-47676-01

Model Line	Model Number	Manufacturer
Z1000	NB350784A (Custom Built for Test)	Yaskawa

Product Construction Summary

Carbon Steel NEMA 1 Enclosure

Options / Subcomponent Summary

Bypass Drive-CIMR-ZU4A0180; Current Transformers-20A & 400A; Circuit Breaker-250A; Contactors-25A & 160A; Bypass Control Board-UTC0046X; Bypass Power Supply-40W; Overload Relay-LR9-F5569; Control Transformer-300VA; Cooling Fans-200CFM; Power Fuses-2A & 40A; Ethernet /IP-SI-EN3; Terminal & Power Distribution Blocks-65A, 115A, 175A, and 510A; Disconnect Switch-250A

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
380	49.0	28.0	19.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{ps}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.33	0.54

Test Mounting Details

UUT-05B was wall-mounted to the fixture using qty (4) 1/2" Grade 8 bolts in the manufacturer-provided holes. The wall fixture was mounted on qty (6) VMC-Manufactured MSSH-1E spring isolators using each mount's 3/4" diameter adjusting bolt. Each isolator was attached to the base plate using qty (4) 3/4" Grade 8 bolts. The base plate was attached to the shake table using qty (9) high-strength rods with a minimum diameter of 1".



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-06A

VMA-47676-01

Model Line	Model Number	Manufacturer
Z1000	NB350784B (Custom Built for Test)	Yaskawa

Product Construction Summary

Carbon Steel NEMA 1 Enclosure

Options / Subcomponent Summary

Configured Drive-CIMR-ZU4A0240; Circuit Breaker-400A; Bypass Control Board-UTC0046X; Overload Realy-LRD06; Control Transformer-100A; Cooling Fans-200CFM; Power Fuse-400A; Reactors-1.6A & 250A; Noise Filter-M-1786; Lonworks-SI-W3; Ethernet / IP- SI-EN3; Terminal & Power Distribution Block-760A; Disconnect Switch-400A

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
420	49.0	28.0	19.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.33	0.54

Test Mounting Details

UUT-06A was wall-mounted to the fixture using qty (4) 1/2" Grade 8 bolts in the manufacturer-provided holes. The wall fixture was rigidly mounted to the base plates using qty (6) 1" Grade 8 bolts. The base plate was attached to the shake table using qty (9) high-strength rods with a minimum diameter of 1".



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-06B

VMA-47676-01

Model Line	Model Number	Manufacturer
Z1000	NB350784B (Custom Built for Test)	Yaskawa

Product Construction Summary

Carbon Steel NEMA 1 Enclosure

Options / Subcomponent Summary

Configured Drive-CIMR-ZU4A0240; Circuit Breaker-400A; Bypass Control Board-UTC0046X; Overload Realy-LRD06; Control Transformer-100A; Cooling Fans-200CFM; Power Fuse-400A; Reactors-1.6A & 250A; Noise Filter-M-1786; Lonworks-SI-W3; Ethernet / IP- SI-EN3; Terminal & Power Distribution Block-760A; Disconnect Switch-400A

UUT Properties

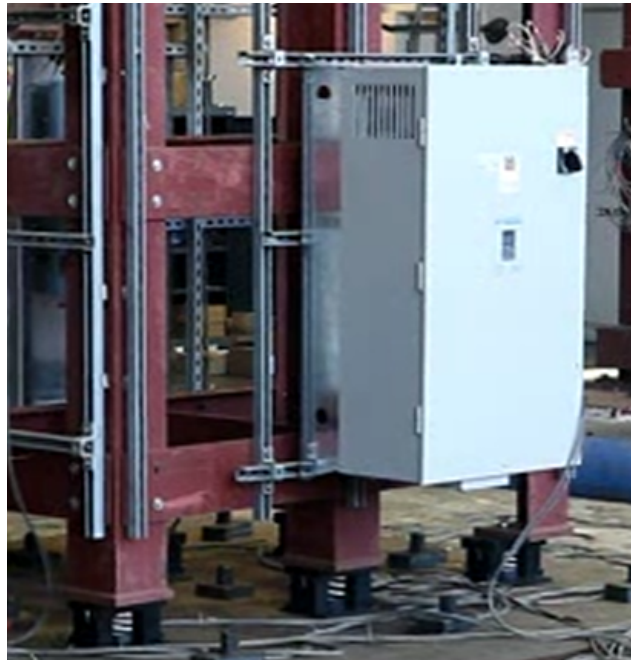
Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
420	49.0	28.0	19.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.33	0.54

Test Mounting Details

UUT-06B was wall-mounted to the fixture using qty (4) 1/2" Grade 8 bolts in the manufacturer-provided holes. The wall fixture was mounted on qty (6) VMC-Manufactured MSSH-1E spring isolators using each mount's 3/4" diameter adjusting bolt. Each isolator was attached to the base plate using qty (4) 3/4" Grade 8 bolts. The base plate was attached to the shake table using qty (9) high-strength rods with a minimum diameter of 1"



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-07A

VMA-47676-01

Model Line	Model Number	Manufacturer
Z1000	Z1B1B034	Yaskawa

Product Construction Summary

Carbon Steel NEMA 1 Enclosure

Options / Subcomponent Summary

Bypass Drive-CIMR-ZU4A0034; Current Transformer-100A; Circuit Breaker-70; Contactor-60A;
Bypass Control Board-UTC0046X; Overload Relay-LRD340L; Disconnect Switch-45A

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
70	48.0	10.0	13.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.33	0.54

Test Mounting Details

UUT-07A was wall-mounted to the fixture using qty (4) 3/4" Grade 8 bolts in the manufacturer-provided holes. The wall fixture was rigidly mounted to the base plates using qty (6) 1" Grade 8 bolts. The base plate was attached to the shake table using qty (9) high-strength rods with a minimum diameter of 1".



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-07B

VMA-47676-01

Model Line	Model Number	Manufacturer
Z1000	Z1B1B034	Yaskawa

Product Construction Summary

Carbon Steel NEMA 1 Enclosure

Options / Subcomponent Summary

Bypass Drive-CIMR-ZU4A0034; Current Transformer-100A; Circuit Breaker-70; Contactor-60A;
Bypass Control Board-UTC0046X; Overload Relay-LRD340L; Disconnect Switch-45A

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
70	48.0	10.0	13.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.33	0.54

Test Mounting Details

UUT-07B was wall-mounted to the fixture using qty (4) 3/4" Grade 8 bolts in the manufacturer-provided holes. The wall fixture was mounted on qty (6) VMC-Manufactured MSSH-1E spring isolators using each mount's 3/4" diameter adjusting bolt. Each isolator was attached to the base plate using qty (4) 3/4" Grade 8 bolts. The base plate was attached to the shake table using qty (9) high-strength rods with a minimum diameter of 1".



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-08A

VMA-47676-01

Model Line	Model Number	Manufacturer
Z1000	Z1B3B001	Yaskawa

Product Construction Summary

Carbon Steel Enclosure

Options / Subcomponent Summary

Power Fuses: LP-CC-3; Terminal & Power Distribution Blocks: 6H12-TSCU-F; Space Heater: D-AH2001A

UUT Properties

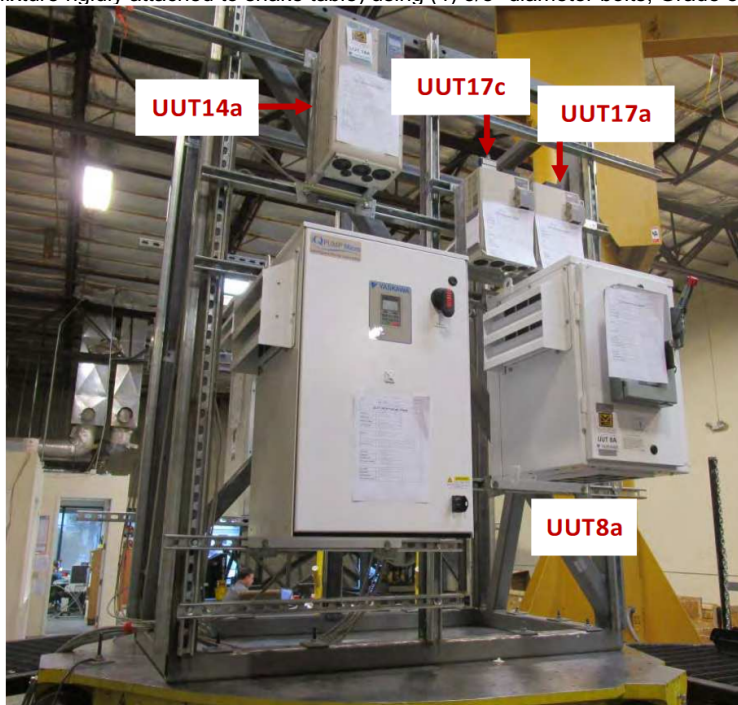
Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
142	29.1	21.2	21.4	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54

Test Mounting Details

Rigid wall mount (DCL fixture rigidly attached to shake table) using (4) 3/8" diameter bolts, Grade 8



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-08B

VMA-47676-01

Model Line	Model Number	Manufacturer
Z1000	Z1B3B001	Yaskawa

Product Construction Summary

Carbon Steel Enclosure

Options / Subcomponent Summary

Power Fuses: LP-CC-3; Terminal & Power Distribution Blocks: 6H12-TSCU-F; Space Heater: D-AH2001A

UUT Properties

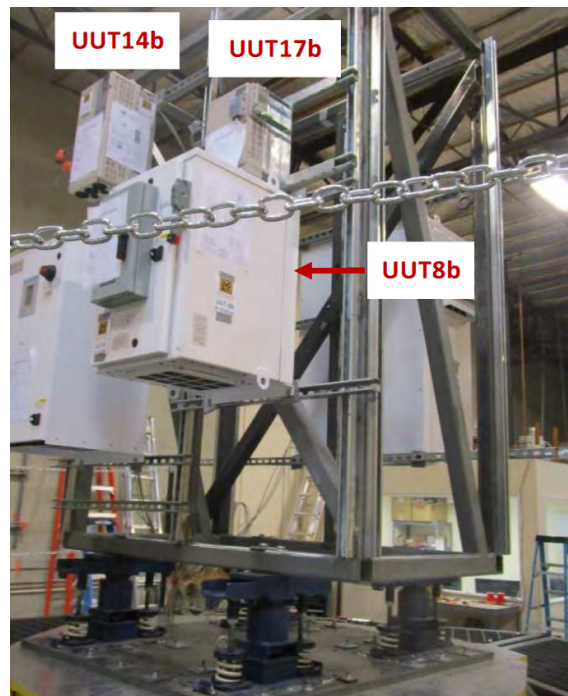
Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
142	29.1	21.2	21.4	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54

Test Mounting Details

Flexible wall mount (DCL fixture attached to (4) spring isolators) using (4) 3/8" diameter bolts, Grade 8



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-09A

VMA-47676-01

Model Line	Model Number	Manufacturer
Z1000	Z1B3B124	Yaskawa

Product Construction Summary

Carbon Steel Enclosure

Options / Subcomponent Summary

Bypass Drive-CIMR-ZU4A0124; Contactors: LC1F265; Bypass Control Board: UTC00046X; Bypass Power Supply: VCT40US05; Overload Relays: LR9-F5569; Control Transformers: TF1500D1; Power Fuses: FWH-450A, JTD2, JTD400, AJT-350, AJT-450; Reactors: RLW-041401; Terminal & Power Distribution Blocks: 1BS104, EPBAD21, MPDB63153, MPDB69093, 3044102; Disconnect Switches: V0; Space Heater: D-AH4001B; Lightning Arrestor: S50A480V3D; Keypad Viewing Window: AWDH1612N4; Speed Pot: URSN0008

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
520	51.1	39.0	21.4	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54

Test Mounting Details

Rigid wall mount (DCL fixture rigidly attached to shake table) using (4) 3/8" diameter bolts, Grade 8



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-09B

VMA-47676-01

Model Line	Model Number	Manufacturer
Z1000	Z1B3B124	Yaskawa

Product Construction Summary

Carbon Steel Enclosure

Options / Subcomponent Summary

Bypass Drive-CIMR-ZU4A0124; Contactors: LC1F265; Bypass Control Board: UTC00046X; Bypass Power Supply: VCT40US05; Overload Relays: LR9-F5569; Control Transformers: TF1500D1; Power Fuses: FWH-450A, JTD2, JTD400, AJT-350, AJT-450; Reactors: RLW-041401; Terminal & Power Distribution Blocks: 1BS104, EPBAD21, MPDB63153, MPDB69093, 3044102; Disconnect Switches: V0; Space Heater: D-AH4001B; Lightning Arrestor: S50A480V3D; Keypad Viewing Window: AWDH1612N4; Speed Pot: URSN0008

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
520	51.1	39.0	21.4	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _P	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54

Test Mounting Details

Flexible wall mount (DCL fixture attached to (4) spring isolators) using (4) 3/8" diameter bolts, Grade 8



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-10

VMA-47676-01

Model Line	Model Number	Manufacturer
Z1000	Z1B3B096	Yaskawa

Product Construction Summary

Carbon Steel Enclosure

Options / Subcomponent Summary

Bypass Drive-CIMR-ZU4A0096; Current Transformers: CT-HMC-0200-U; Circuit Breakers: JLL36250M75; Contactors: LC1D115; Bypass Control Board: UTC00046X; Bypass Power Supply: VCT40US05; Overload Relays: LR9-F5567; Control Transformers: TF150D3; Cabinet Cooling Fans: 4715FS-12T-B50; Power Fuses: FWH-250A, Reactors: RLW-010403; Lonworks: SI-W3; Terminal & Power Distribution Blocks: NDN63-WH-UL, EPBAD21; Disconnect Switches: JLL36000S17; Space heater: D-AH4001B; Lightning Arrestor: S50A480V3D; Keypad Viewing Window: AWDH1612N4; Speed Pot:

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
960	91.1	41.3	36.3	10	8	>33.3

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{Ds}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54

Test Mounting Details

Rigid base mount using (6) 1/2" diameter bolts, Grade 8, using mounting rails



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-11

VMA-47676-01

Model Line	Model Number	Manufacturer
Z1000	Z1B1D211	Yaskawa

Product Construction Summary

Carbon Steel Enclosure

Options / Subcomponent Summary

Bypass Drive-CIMR-ZU2A0211; Bypass Control Board: UTC00046X; Bypass Power Supply: VCT40US05; Cabinet Cooling Fans: 5915PC-12T-B30-A00; Ethernet/IP: SI-EN3; Terminal & Power Distribution Blocks: 1453301, MPDB63153, MPDB69093; Lightning Arrestor: S50A240V3D

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
780	84.1	42.0	34.0	9	6.5	>33.3

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _P	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54

Test Mounting Details

Rigid base mount using (4) 1/2" diameter bolts, Grade 8, using 8 gage galvanized interior corner brace



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-12

VMA-47676-01

Model Line	Model Number	Manufacturer
Z1000	Z1B3B590	Yaskawa

Product Construction Summary

Carbon Steel Enclosure

Options / Subcomponent Summary

Bypass Drive-CIMR-ZU2A0590; Current Transformers: CT-SCL-1000-U; Contactors: LC1F630; Bypass Control Board: UTC00046X; Bypass Power Supply: VCT40US05; Overload Relays: LR9-F7581; Control Transformers: TF1500D1; Cabinet Cooling Fans: 5915PC-12T-B30-A00; Power Fuses: FWH-1000A; Reactors: RLW-075005; Noise Filter: M-1786; Ethernet/IP: SI-EN3; Terminal & Power Distribution Blocks: 3044102; Space Heater: D-AH8001B; Lightning Arrestor: S50A480V3D; Keypad Viewing Window: AWDH1612N4

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
2,080	91.1	66.3	43.5	6	5	26.5

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _P	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54

Test Mounting Details

Rigid base mount using (6) 1/2" diameter bolts, Grade 8, using mounting rails



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-13

VMA-47676-01

Model Line	Model Number	Manufacturer
Z1000	Z1B3B590	Yaskawa

Product Construction Summary

Carbon Steel Enclosure

Options / Subcomponent Summary

Bypass Drive-CIMR-ZU2A0590; Current Transformers: CT-SCL-1000-U; Circuit Breakers: PLL34080M68; Contactors: LC1F630; Bypass Control Board: UTC00046X; Bypass Power Supply: VCT40US05; Power Fuses: JTD150, JTD350, JTD450, JTD600, AJT-350, AJT-350; Noise Filter: M-1786; Terminal & Power Distribution Blocks: 1BS104; Disconnect Switches: PLL34000S10;

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
1,800	84.1	69.7	30.5	7.3	4.3	>33.3

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _P	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54

Test Mounting Details

Rigid base mount, (4) 1/2" diameter bolts, Grade 8, using 8 gage galvanized interior corner brace



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-14A

VMA-47676-01

Model Line	Model Number	Manufacturer
CIMR	CIMR-ZU4A0096	Yaskawa

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

N/A

UUT Properties

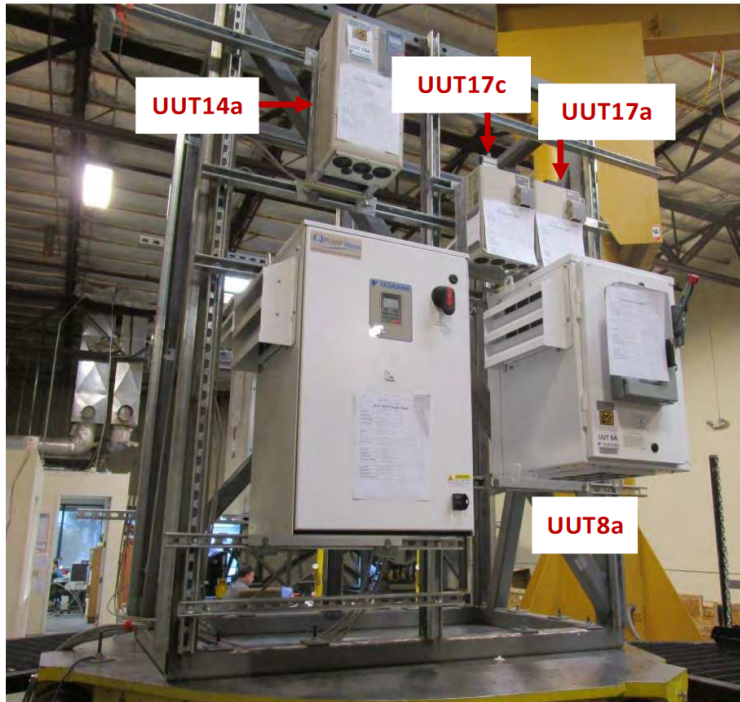
Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
71	21.3	10.0	10.5	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54

Test Mounting Details

Rigid wall mount (DCL fixture rigidly attached to shake table) using (4) 1/4" diameter bolts, Grade 5



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-14B

VMA-47676-01

Model Line	Model Number	Manufacturer
CIMR	CIMR-ZU4A0096	Yaskawa

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

N/A

UUT Properties

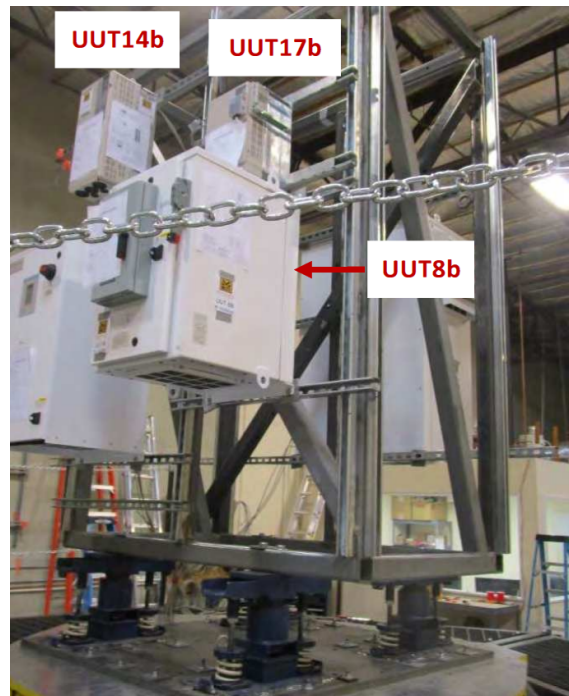
Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
71	21.3	10.0	10.5	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _P	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	1.0	1.5	3.20	2.40	1.34	0.54

Test Mounting Details

Flexible wall mount (DCL fixture attached to (4) spring isolators) using (4) 1/4" diameter bolts, Grade 5



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-15A

VMA-47676-01

Model Line	Model Number	Manufacturer
CIMR	CIMR-JU4A0011	Yaskawa

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

Cards: SI-232/J; InterfaceL: 120VAC

UUT Properties

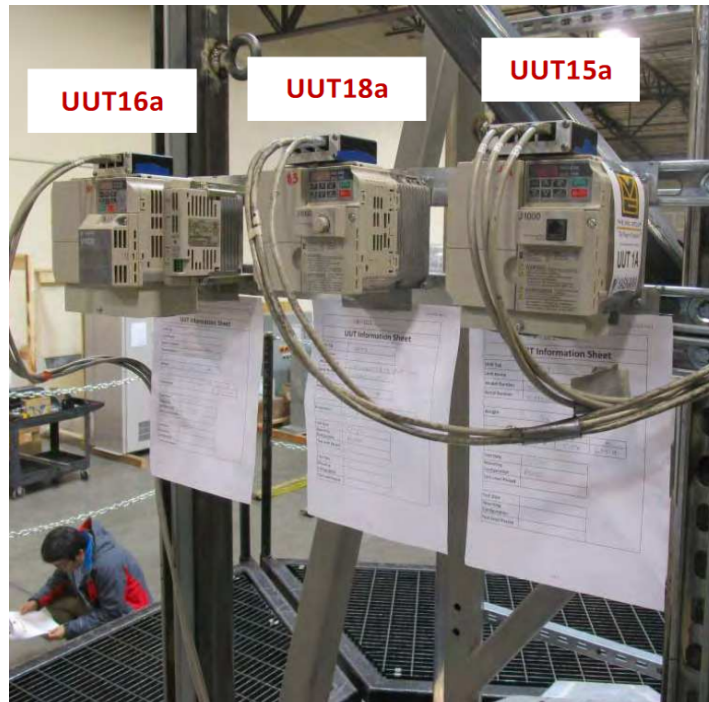
Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
5	5.0	5.5	5.6	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	0.0	1.5	3.20	2.40	1.34	0.54

Test Mounting Details

Rigid wall mount (DCL fixture rigidly attached to shake table) using (4) #8 sheet metal screws



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-15B

VMA-47676-01

Model Line	Model Number	Manufacturer
CIMR	CIMR-JU4A0011	Yaskawa

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

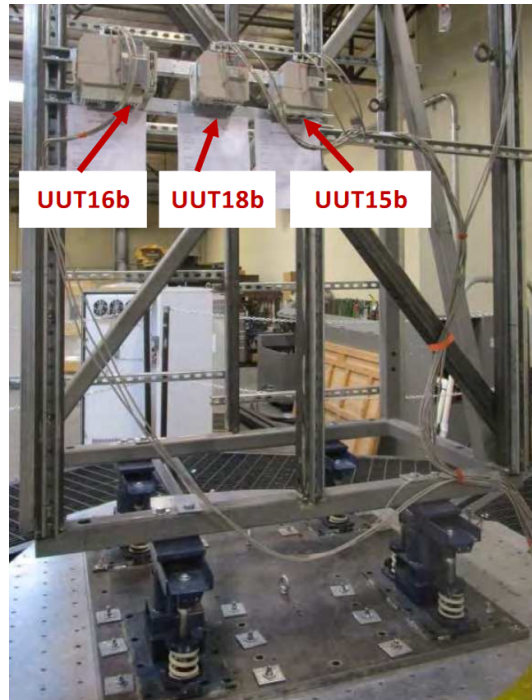
Cards: SI-232/J; InterfaceL: 120VAC

UUT Properties						
Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
5	5.0	5.5	5.6	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information								
Building Code	Test Criteria	S _{DS}	z/h	I _P	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	0.0	1.5	3.20	2.40	1.34	0.54

Test Mounting Details

Flexible wall mount (DCL fixture attached to (4) spring isolators) using (4) #8 sheet metal screws



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-16A

VMA-47676-01

Model Line	Model Number	Manufacturer
CIMR	CIMR-VUBA0018	Yaskawa

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

Cards: SI-EM3/V; Control Power Units: PSV10S

UUT Properties

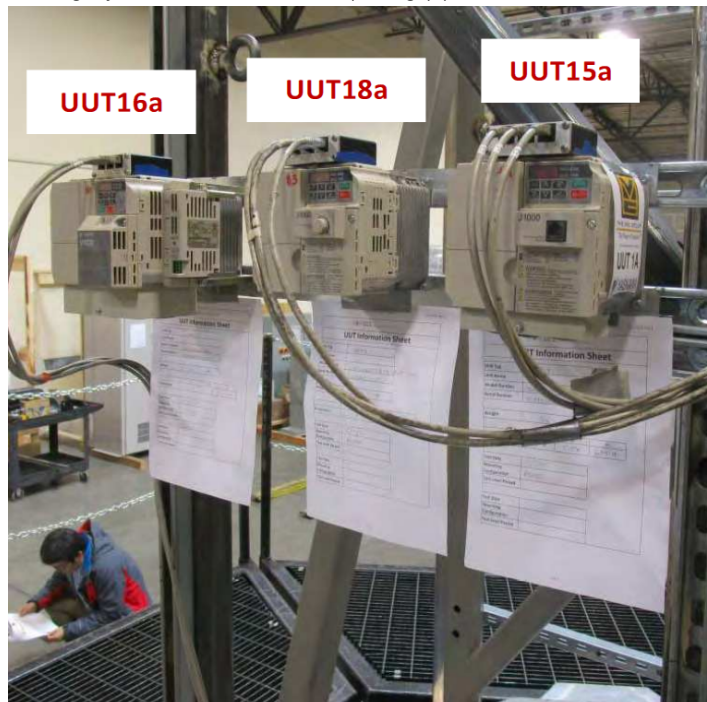
Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
8	6.0	6.6	7.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	0.0	1.5	3.20	2.40	1.34	0.54

Test Mounting Details

Rigid wall mount (DCL fixture rigidly attached to shake table) using (4) #8 sheet metal screws



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-16B

VMA-47676-01

Model Line	Model Number	Manufacturer
CIMR	CIMR-VUBA0018	Yaskawa

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

Cards: SI-EM3/V; Control Power Units: PSV10S

UUT Properties

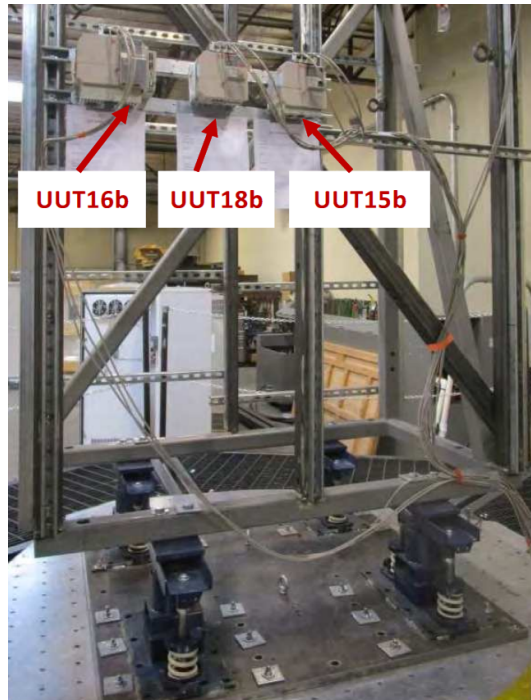
Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
8	6.0	6.6	7.0	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _P	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	0.0	1.5	3.20	2.40	1.34	0.54

Test Mounting Details

Flexible wall mount (DCL fixture attached to (4) spring isolators) using (4) #8 sheet metal screws



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-17A

VMA-47676-01

Model Line	Model Number	Manufacturer
CIMR	CIMR-VU2A0069	Yaskawa

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

Cards: SI-EP3/V; Interface: DI-100; 24VDC Control Power Units: PSV10M

UUT Properties

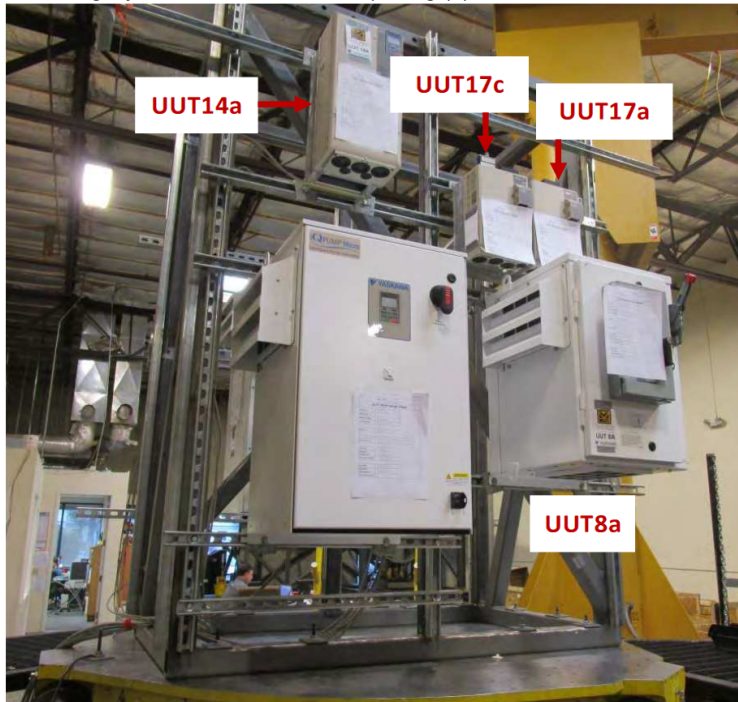
Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
19	14.0	10.0	7.3	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _P	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	0.0	1.5	3.20	2.40	1.34	0.54

Test Mounting Details

Rigid wall mount (DCL fixture rigidly attached to shake table) using (6) #14 sheet metal screws



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-17B

VMA-47676-01

Model Line	Model Number	Manufacturer
CIMR	CIMR-VU2A0069	Yaskawa

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

Cards: SI-EP3/V; Interface: DI-100; 24VDC Control Power Units: PSV10M

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
19	14.0	10.0	7.3	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _P	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	0.0	1.5	3.20	2.40	1.34	0.54

Test Mounting Details

Flexible wall mount (DCL fixture attached to (4) spring isolators) using (6) #14 sheet metal screws



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-17C

VMA-47676-01

Model Line	Model Number	Manufacturer
CIMR	CIMR-VU2A0069	Yaskawa

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

Cards: SI-EP3/V; Interface: DI-100; 24VDC Control Power Units: PSV10M

UUT Properties

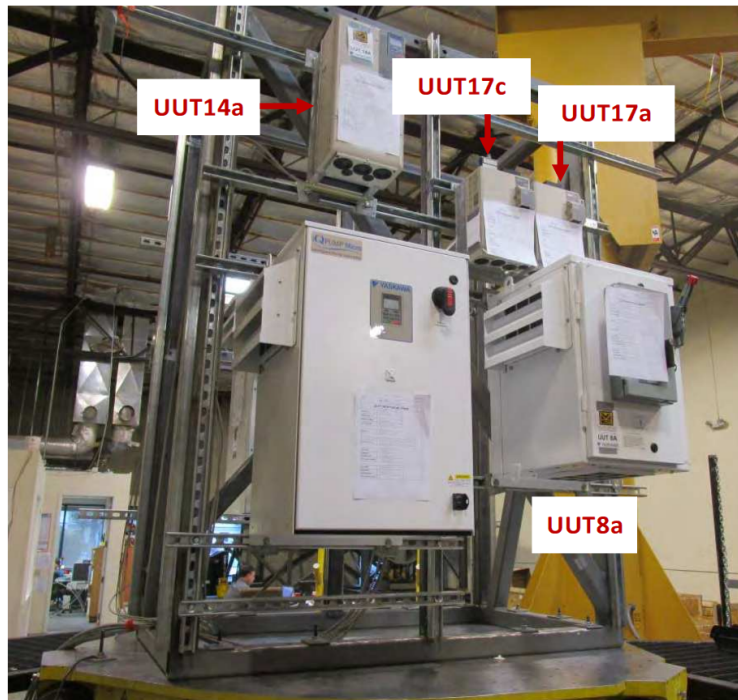
Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
19	14.0	8.6	7.3	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	0.0	1.5	3.20	2.40	1.34	0.54

Test Mounting Details

Rigid wall mount (DCL fixture rigidly attached to shake table) using (4) #14 sheet metal screws



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-17D

VMA-47676-01

Model Line	Model Number	Manufacturer
CIMR	CIMR-VU2A0069	Yaskawa

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

Cards: SI-EP3/V; Interface: DI-100; 24VDC Control Power Units: PSV10M

UUT Properties

Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
19	14.0	8.6	7.3	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{Ds}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	0.0	1.5	3.20	2.40	1.34	0.54

Test Mounting Details

Flexible wall mount (DCL fixture attached to (4) spring isolators) using (4) #14 sheet metal screws



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-18A

VMA-47676-01

Model Line	Model Number	Manufacturer
CIMR	CIMR-JU4A0011	Yaskawa

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

Cards: AI-V3/J

UUT Properties

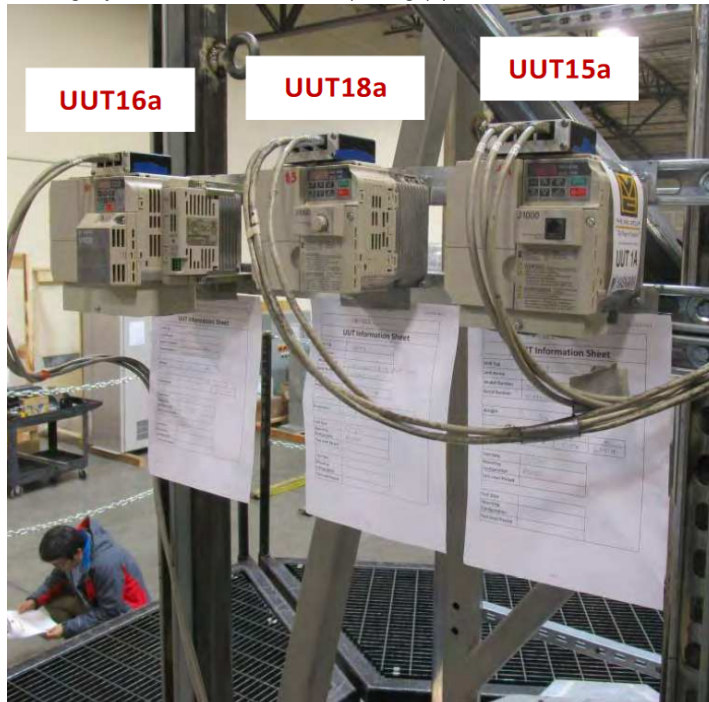
Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
5	5.0	5.5	5.6	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	0.0	1.5	3.20	2.40	1.34	0.54

Test Mounting Details

Rigid wall mount (DCL fixture rigidly attached to shake table) using (4) #8 sheet metal screws



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



UNIT UNDER TEST (UUT) Summary Sheet

UUT-18B

VMA-47676-01

Model Line	Model Number	Manufacturer
CIMR	CIMR-JU4A0011	Yaskawa

Product Construction Summary

Plastic housing

Options / Subcomponent Summary

Cards: AI-V3/J

UUT Properties

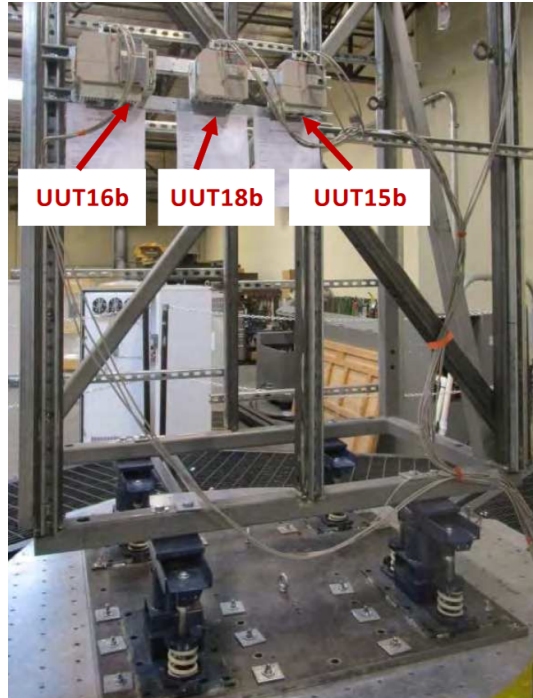
Weight [lbs]	Dimensions [in]			Lowest Nat. Freq. [Hz]		
	Height	Width	Depth	F-B	S-S	V
5	5.0	5.5	5.6	N/A	N/A	N/A

UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S _{DS}	z/h	I _P	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
CBC 2016	ICC-ES AC156	2.00	0.0	1.5	3.20	2.40	1.34	0.54

Test Mounting Details

Flexible wall mount (DCL fixture attached to (4) spring isolators) using (4) #8 sheet metal screws



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

Table 29 - Model Number Designations for Z1000 Drives

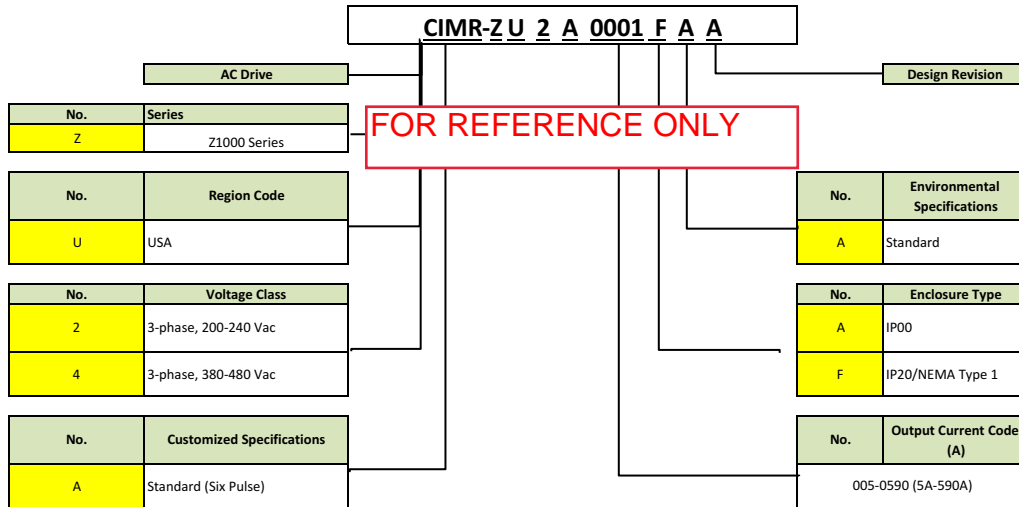


Table 30 - Model Number Designation for Z1000 Bypass, NEMA 1

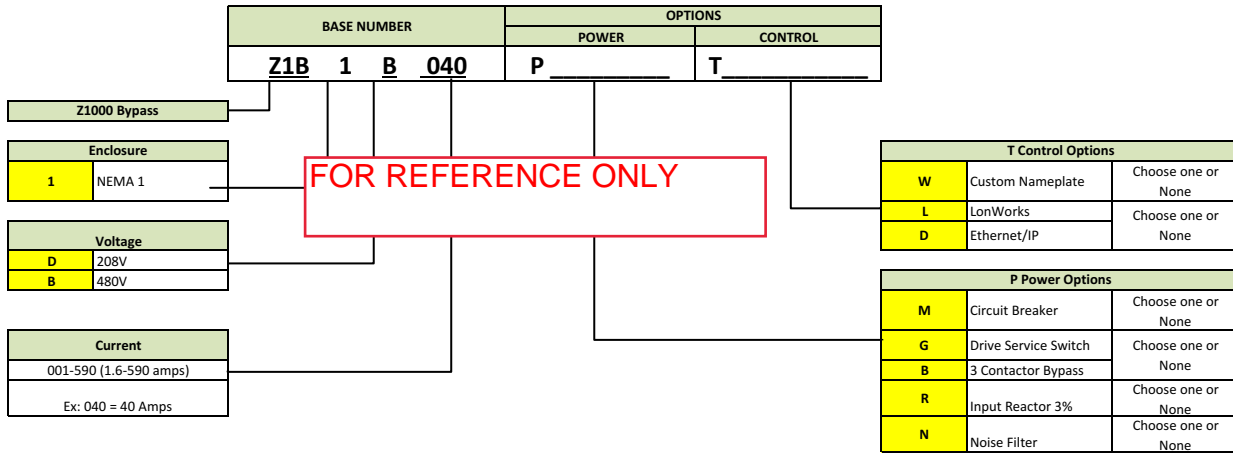


Table 31 - Model Number Designation for Z1000 Configured, NEMA 1

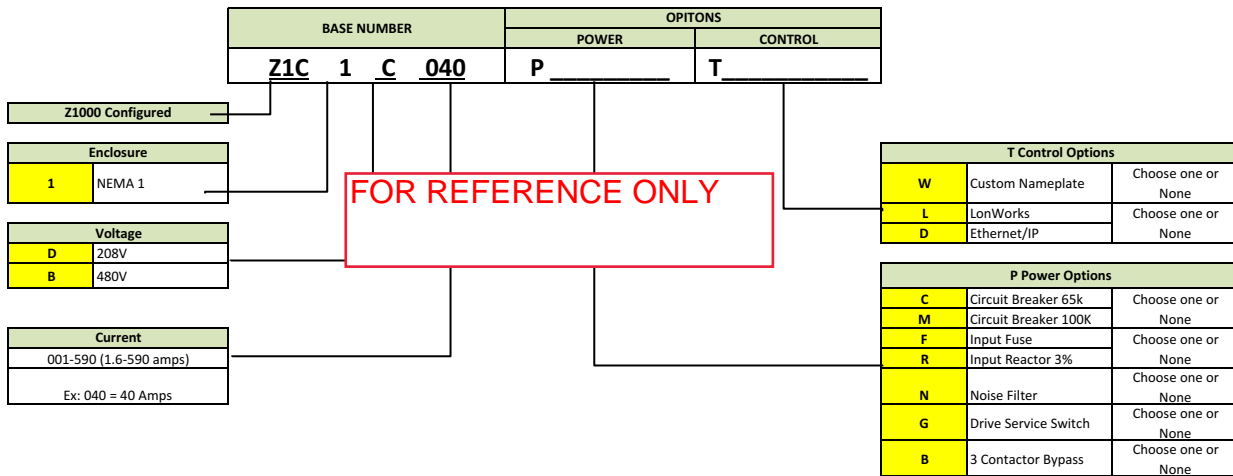


Table 32 - Model Number Designation for Z1000 Bypass, NEMA 3R

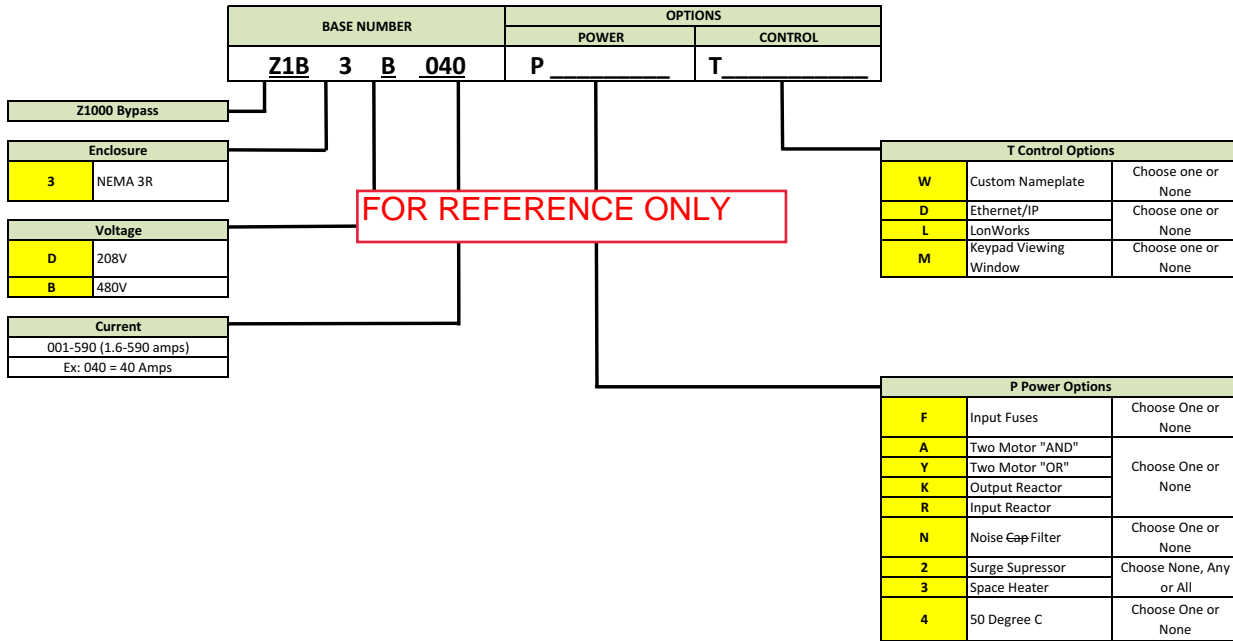
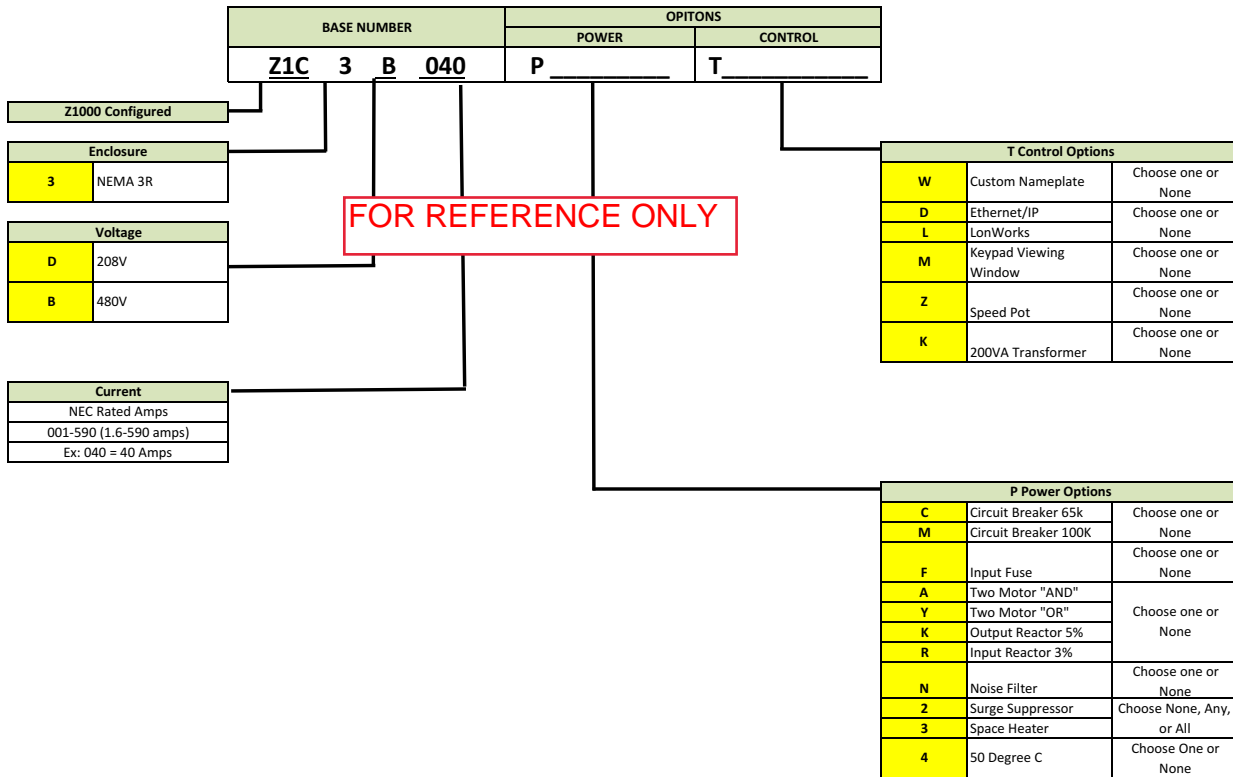


Table 33 - Model Number Designation for Z1000 Configured NEMA, 3R



Yaskawa J/V 1000 Series Drives OSHDP OSP



Table 34 - Model Number Designations for V/J1000 Drives

