

APPLICATION FOR OSHPD SPECIAL SEISMIC	0	OFFICE USE ONLY
CERTIFICATION PREAPPROVAL (OSP)	APPLICATION #:	OSP – 0015
OSHPD Special Seismic Certification Preapproval (OSP)		
Type: 🗌 New 🛛 Renewal		
Manufacturer Information		
Manufacturer: Eaton		
Manufacturer's Technical Representative: John Bordewick		
Mailing Address: 2900 Doc Bennett Road, Fayetteville, NC 28306		
Telephone: 910-438-0507	Bordewick@eaton.	com
Product Information	MD,	
Product Name: Enclosed Control	- PI	
Product Type: Enclosed Motor Control Assemblies SP-0015	- Cri	
Product Model Number: See Product Range Summary (List all unique product identification numbers and/or part numbers) State General Description: Low Voltage, unit mount enclosed control asse processes and commercial building systems per UL 508.4/2021	emblies for lighting,	machinery, industrial
Mounting Description: Rigid wall mounted	0	
Applicant Information	ODE.	
Applicant Information Applicant Company Name: Eaton		
Contact Person: Eddie Wilkie		
Mailing Address: 175 Vista Blvd, Arden, NC 28704		
Telephone: 828-651-0707 Email: eddiew	vilkie@eaton.com	
I hereby agree to reimburse the Office of Statewide Health F accordance with the California Administrative Code, 2016. Signature of Applicant:		velopment review fees in Date: <u>11/25/19</u>
Title:         Director of Engineering         Company Name:         Eaton		
"Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs" STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY OSH-FD-759 (REV 09/05/19)	MMM	<b>OSHPD</b> Page 1 of 3

# OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT FACILITIES DEVELOPMENT DIVISION

California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)											
Company Name: ISAT											
Name: <u>William V. Joerger</u> California License Number: <u>SE 4545</u>											
Mailing Address: 1020 Crews Road, Quite Q, Matthews, NC 28105											
Telephone: 510-714-0216 Email: wvjoerger@isatsb.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											
<ul> <li>Testing in accordance with:</li> <li>Other (Please Specify):</li> </ul>											
CSP-0015											
Testing Laboratory											
Company Name: NTS Laboratories DATE: 04/04/2021											
Contact Name: Tom Boonarkat											
Mailing Address: P.O. Box 77777, Huntsville, AL 35807											
Telephone: 256-716-4291 Email: Tom.Boonarkat@nts.com											

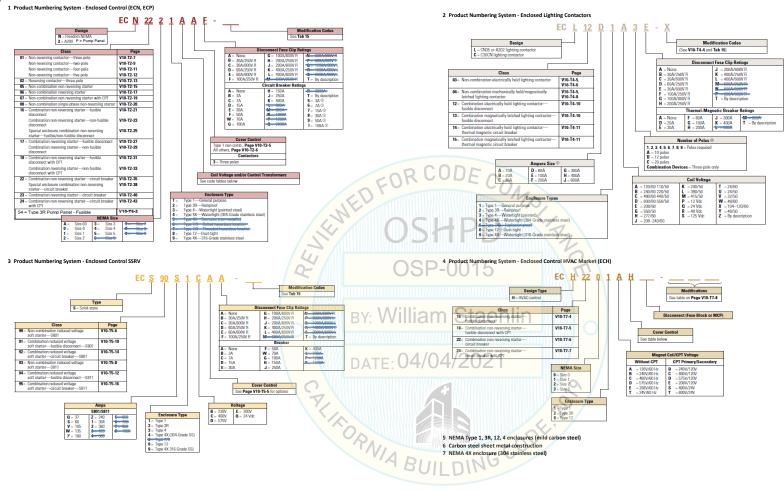
OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT FACILITIES DEVELOPMENT DIVISION

Seismic Parameters
Design in accordance with ASCE 7-10 Chapter 13: 🖂 Yes 🔲 No
Design Basis of Equipment or Components (Fp/Wp) = _2.24
$S_{DS}$ (Design spectral response acceleration at short period, g) = 2.98
a <sub>p</sub> (In-structure equipment or component amplification factor) = <u>2.5</u>
$R_{P}$ (Equipment or component response modification factor) = <u>6.0</u>
$\Omega_0$ (System overstrength factor) = 2.0
$I_p$ (Importance factor) = 1.5
z/h (Height factor ratio) = _1
Equipment or Component Natural Frequencies (Hz) = <u>N/A, wall mounted.</u>
Overall dimensions and weight (or range thereof) = See Product Range Summary
Equipment or Components @ grade designed in accordance with ASCE 7-10 Chapter 15:  Yes X No
Design Basis of Equipment or Components (V/W) =
S <sub>DS</sub> (Design spectral response acceleration at short period, g) =
S <sub>D1</sub> (Design spectral response acceleration at 1 second period, g) =
R (Response modification coefficient) =
Ω₀ (System overstrength factor) =
C₄ (Deflection amplification factor) =
I <sub>P</sub> (Importance factor) = 1.5 DATE: 04/04/2021
Height to Center of Gravit <mark>y above</mark> 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
<ul> <li>Test Report(s)</li> <li>Drawings</li> <li>Calculations</li> <li>Manufacturer's Catalog</li> <li>Other(s) (Please Specify):</li> </ul>
OSHPD Approval (For Office Use Only) – Approval Expires on December 31, 2025
Signature: Date: Date: April 4, 2021
Print Name: William Staehlin Title: Senior Structural Engineer
Special Seismic Certification Valid Up to: S <sub>DS</sub> (g) =298 z/h =
Condition of Approval (if applicable):
"Access to Safe. Quality Healthcare Environments that Meet California's Diverse and Dvnamic Needs"
STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY OSH-FD-759 (REV 09/05/19) Page 3 of 3



#### Enclosed Control Certified Product Range Summary (Manufactured by Eaton)

									M	aximum Dimens	ons				1	
Product	Disconnect Means	Model	Nema Size	Continuous Current Rating (Amperes - Max)	Disconnect Rating (Fuse Clips / Breaker Amps)	Primary Voltage AC (Max)	Motor Voltage AC (Max)	Motor Horsepower (Max)	Width (in.)	Depth (in.)	Height (in.)	Maximum Weight (Ibs.)	Notes	Comments	S <sub>DS</sub> (g)	UUT #
		ECN1801CAC	0	18	30	600	575	5	10.75	10.5	27.25	35	Nema 1 Enclosure, 6		2.98	24
	nect	ECN1801CAC-R63/B	0	18	30	600	575	5	10.75	10.5	27.25	35	Nema 1 Enclosure, 6		2.98	25
	liscon	ECN0101A3A	0	18	N/A	600	575	5	5.75	5	10.25	4.3	Nema 1 Enclosure, 6		2.98	38
	Fusible Dis	ECN180XXXX	0	18	30	600	575	5					1, 5, 6, 7			Interpolated
	disu	ECN181XXXX	1	27	30	600	575	10					1, 5, 6, 7	Covers Families: ECN01, ECN02, ECN05, ECN06, ECN07, ECN08, ECN16, ECN17, ECN54, ECL03,		Interpolated
		ECN182XXXX	2	45	60	600	575	25	29.5	15:25	62	224	1, 5, 6, 7	ECL12. Subset Components of this desgin.		Interpolated
	N	ECN183XXXX ECN184XXXX	3	90	100	600	575	50		くしし	UL		1, 5, 6, 7 1, 5, 6, 7			Interpolated Interpolated
	-usible / Non	ECN184XXXX ECN1841CAJ-R63/F	4	135	200	600	575	100	29.5	12.25	111135	145	Nema 1		2.98	27
	Ë	ECN185XXXX	5	270	400	600	575	200	28	15.25	62	224	Enclosure, 6 1, 5, 6, 7		2.50	Interpolated
ltrol		ECN1851CAL	5	270	400	600	575	200	28	15.25	62	224	Nema 1 Enclosure, 6		2.98	26
Enclosed Control		ECN2401CAC	0	18	7	600	575	5	10.75	10.5	27.25	34	Nema 1 Enclosure, 6	1	2.98	22
Enclo	to	ECN2401CAC-R63/B	0	18	7	600	575	5	10.75	10.5	27.25	34	Nema 1 Enclosure, 6	2	2.98	23
	Protector	ECN2401CAC-B10	0	18	7	600	575	5	10.75	10.5	27.25	5 35	Nema 1 Enclosure, 6	C.	2.98	37
	Ħ	ECN240XXXX	0	18	15	600	575	5				$\sim$	1, 4, 5, 6, 7			Interpolated
	Circ	ECN241XXXX	1	27	30	600	575	10	29.5	15.25	62	208	1, 4, 5, 6, 7			Interpolated
	tor	ECN242XXXX	2	45	50	600	575	25	29.5	13.25	02	208	1, 4, 5, 6, 7	Covers Families: ECN22, ECN23, ECN55, ECH22, ECH24, ECL14. Subset Components of this		Interpolated
	/ Motor	ECN243XXXX	3	90	100	600	575	50					1, 4, 5, 6, 7	desgin.		Interpolated
	Breaker /	ECN2431CAG	3	90	100	600	575	50	20.5		30.25	8	Nema 1 Enclosure, 6		2.98	36
	tBre	ECN244XXXX	4	135	150	600	575	100	29.5	<b>15.2</b> 5	6210	208	1, 5, 6, 7 Nema 1			Interpolated
	Circui	ECN2441CAH-R63/F	4	135	150	600	575	100	20.5	12	31	100	Enclosure, 6		2.98	29
		ECN245XXXX	5	270	400	600	575	200	29.5	15.25	62	208	1, 5, 6, 7			Interpolated
		ECN2451CAJ	5	270	250	600	575	200		14.25	62	208	Nema 1 Enclosure, 6		2.98	28
ŝ	) and nect)	ECC03C1A3A	N/A	30	N/A	600	N/A	N/A	7.75	6	13.25	10	Nema 1 Enclosure	ECC03XC and ECC04XC non-combination enclosed lighting contactor	2.98	30
acto	iker) conn	ECCXXCXXXX	N/A	30	N/A	600	N/A	N/A	28	14.25	62	182	2, 5, 6, 7	0		Interpolated
Cont	uit Break (No Disc	ECL15C1C3E-C1	N/A	30	30	600	N/A	N/A	10.75	10.5	27.25	37	Nema 1 Enclosure, 6		2.98	31
tine	Circui	ECL15CXXXX	N/A	30	30	600	N/A	N/A					2, 5, 6, 7			Interpolated
-igh	ation	ECL15DXXXX	N/A	60	60	600	N/A	N/A	28	14.25	62	182	2, 5, 6, 7	Covers Families: ECL04		Interpolated
ed	tior tior	ECL15EXXXX	N/A	100	100	600	N/A	N/A					2, 5, 6, 7	Covers Families: ECL04		Interpolated
Enclosed Lighting Contactors	Combina Non-Con	ECL15FXXXX ECL15F1C3H-C1	N/A N/A	200	200	600	N/A N/A	N/A N/A	28	14.25	62	182	2, 5, 6, 7 Nema 1 Enclosure, 6		2.98	Interpolated 32
	-LON	ECS95Q1CAF-C34C46/J3	N/A	37	50	600	575	30	15.5	2/12/1	23.25	G61	Nema 1 Enclosure, 6		2.98	33
	ect)	ECS95QXXXX	N/A	37	50	600	575	30		<b>UIL</b>	ייע		3, 5, 6, 7			Interpolated
SSRV		ECS95SXXXX	N/A	66	100	600	575	50					3, 5, 6, 7			Interpolated
SS I	reaker) Disconn	ECS95VXXXX	N/A	105	150	600	575	75	28	14.25	62	294	3, 5, 6, 7			Interpolated
ntro	o Di	ECS95WXXXX	N/A	135	150	600	575	100	1				3, 5, 6, 7			Interpolated
sed Control	(Circuit Br	ECS95YXXXX	N/A	180	250	600	575	150					3, 5, 6, 7 Nema 1	Covers Families: ECS93, ECS92, ECS90. Subset components of this design.		Interpolated
Enclose	ation (C mbinati	ECS95Y1CAJ-C34C46/J3 ECS95ZXXXX	N/A N/A	180 240	250 250	600	575	150 200	28	14.25	62	266	Enclosure, 6 3, 5, 6, 7		2.98	34 Interpolated
ü	Coml	ECS952XXXX ECS951XXXX	N/A N/A	304	400	600	575	250	28	14.25	62	294	3, 5, 6, 7			Interpolated
	20			360					+ *	-	-	-			$\vdash$	Interpolated
	Comt	ECS952XXXX	N/A		400	600	575	300					3, 5, 6, 7			





#### Enclosed Control Certified Major Components Summary

Component	Description (Rating)	Manufacturer	Model	Weight (lbs)	UUT #
Molded Case Circuit Breakers (MCCB)	Series G, MCP, EG Frame (7A)	Eaton	HMCPE007C0C	2.2	22, 23
and Circuit Protectors (MCP)	Series G, MCP, EG Frame (15A)	Eaton	HMCPE015E0C	2.2	Interpolate
	Series G, MCP, EG Frame (30A)	Eaton	HMCPE030H1C	2.2	Interpolate
	Series G, MCP, EG Frame (50A)	Eaton	HMCPE050K2C	2.2	Interpolate
	Series G, MCP, EG Frame (70A)	Eaton	HMCPE070M2C	2.2	Interpolat
	Series G, MCP, EG Frame (100A)	Eaton	HMCPE100R3C	2.2	36
	Series G, MCP, EG Frame (100A)	Eaton	HMCPE100T3C	2.2	36
Series C, MCP, X = blank (standard), X = S (SSOL Version)	Series C, MCP, F Frame (7A)	Eaton	HMCPX007C0C	6	Interpolat
	Series C, MCP, F Frame (7A)	Eaton	HMCP007C0C	6	37
Series C, MCP, X = blank (standard), X = S (SSOL Version)	Series C, MCP, F Frame (15A)	Eaton	HMCPX015E0C	6	Interpolat
Series C, MCP, X = blank (standard), X = S (SSOL Version)	Series C, MCP, F Frame (30A)	Eaton	HMCPX030H1C	6	Interpolat
Series C, MCP, X = blank (standard), X = S (SSOL Version)	Series C, MCP, F Frame (50A)	Eaton	HMCPX050K2C	6	Interpolat
Series C, MCP, X = blank (standard), X = S (SSOL Version)	Series C, MCP, F Frame (70A)	Eaton	HMCPX070M2C	6	Interpolat
Series C, MCP, X = blank (standard), X = S (SSOL Version)	Series C, MCP, F Frame (100A)	Eaton	HMCPX100R3C	6	Interpolat
Series C, MCP, X = blank (standard), X = S (SSOL Version)	Series C, MCP, F Frame (150A)	Eaton	HMCPX150T4C	6	Interpolat
Series C, MCP, X = blank (standard), X = S (SSOL Version)	Series C, MCP, F Frame (150A)	Eaton	HMCPX150U4C	6	Interpolat
Series C, J FRAME MCP, X = Overload Adjustment Range (A-W)	Carries C. MCD. J. Frame (2504)	Enter	UNCOVOENCE	12	Internalist
Y = blank (standard), Y = S (SSOL Version)	Series C, MCP, J Frame (250A)	Eaton	HMCPX250Y5C	12	Interpolat
Service C. F. F. RAME MCCR. XXX - Amount of Patient (020, 225)	Series C, MCCB, F Frame	Eaton	HFD3030	6	31
Series C, F FRAME MCCB, XXX = Amperage Rating (030 - 225)	Series C, MCCB, F Frame (30 - 225A) Series C, MCCB, J Frame	Eaton Eaton	HFD3XXX HJD3250F	6 12	Interpolat
Series C, J FRAME MCCB, XXX = Amperage Rating (070 - 250)	Series C, MCCB, J Frame Series C, MCCB, J Frame (70 - 250A)	Eaton	HJD3250F	12	Interpolat 32
Series C, K FRAME MCCB, XX = Amperage Rating (070 - 250) Series C, K FRAME MCP, X = Overload Adjustment Range (A-N)	Jenes C, Weed, J Flattle (70 * 230A)	Laton	1003444		32
Y = blank (standard), Y = S (SSOL Version)	Series C, MCP, K Frame (400A)	Faton	HMCPX400Y5C	13	Interpolat
	Series C, MCP, K Frame	Eaton	HMCP250W5C	13	28
Fusible Disconnect Switches	30A, 600V (Max) Fusible Disconnect Switch	Eaton	96-3692-15	3.55	24, 25
	60A, 600V (Max) Fusible Disconnect Switch	Eaton	96-3692-43	3.55	Interpolat
	100A, 600V (Max) Fusible Disconnect Switch	Eaton	96-3693-15	3.96	Interpolat
	200A, 600V (Max) Fusible Disconnect Switch	Eaton	96-3694-17	15.8	Interpolat
	400A, 600V (Max) Fusible Disconnect Switch	Eaton	96-3695-16	26.75	26
* Note: Non-Fusible Disconnect Swith is Subset of Fusible	30A, 600V (Max) Non-Fusible Disconnect Switch	Eaton	96-3692-57	2.3	* Note, 24
Switch Design	60A, 600V (Max) Non-Fusible Disconnect Switch	Eaton	96-3692	2.3	Interpolat
	100A, 600V (Max) Non-Fusible Disconnect Switch	Eaton	96-3693	2.41	Interpolat
	200A, 600V (Max) Non-Fusible Disconnect Switch	Eaton	96-3694-3	11.85	Interpolat
	400A, 600V (Max) Non-Fusible Disconnect Switch	Eaton	96-3695-2	18.75	* Note, 2
Motor Contactors	NEMA Size 0 Contactor	Eaton	CN15BN3AB	1.8	22, 23, 24, 2
	NEMA Size 1 Contactor	Eaton	CN15DN3AB	3.1	Interpolat
Note: CN35 Lighting Contactor is Same Contactor as CN15	NEMA Size 2 Contactor	Eaton	CN15GN3AB	3.1	Interpolat
	NEMA Size 3 Contactor	Eaton	CN15KN3A	8.5	Interpolat
	NEMA Size 4 Contactor	Eaton	CN15NN3A	20	27, 29
	NEMA Size 4 Contactor NEMA Size 5 Contactor		CN15NN3A CN15SN3A	20 23	27, 29 26, 28
Lighting Contactors	NEMA Size 4 Contactor NEMA Size 5 Contactor 30A ECC Lighting Contactor (Elec / Mech Held)	Eaton Eaton Eaton	CN15NN3A CN15SN3A C30CNE20A0	20 23 3.5	27, 29 26, 28 30
Lighting Contactors	NEMA Size 4 Contactor NEMA Size 5 Contactor 30A ECC Lighting Contactor (Elec / Mech Held) .30A ECL04, 15 Lighting Contactor.	Eaton Eaton Eaton Eaton	CN15NN3A CN15SN3A C30CNE20A0 A202K1CAM	20 23 3.5 1.5	27, 29 26, 28 30 31
Lighting Contactors	NEMA Size 4 Contactor NEMA Size 5 Contactor 30A ECC Lighting Contactor (Elec / Mech Held) 30A ECL04, 1 5 Lighting Contactor, 60A ECL04, 15 Lighting Contactor	Eaton Eaton Eaton Eaton Eaton	CN15NN3A CN15SN3A C30CNE20A0 A202K1CAM A202K2CAM	20 23 3.5 1.5 3.5	27, 29 26, 28 30 31 Interpolat
Lighting Contactors	NEMA Size 4 Contactor NEMA Size 5 Contactor 30A ECC Lighting Contactor (Elec / Mech Held) 30A ECC 104, 15 Lighting Contactor, 60A ECL04, 15 Lighting Contactor 100A ECL04, 15 Lighting Contactor	Eaton Eaton Eaton Eaton Eaton Eaton	CN15NN3A CN15SN3A C30CNE20A0 A202K1CAM A202K2CAM A202K3CAM	20 23 3.5 1.5 3.5 9	27, 29 26, 28 30 31 Interpolat Interpolat
OBY	NEMA Size 4 Contactor NEMA Size 5 Contactor 30A ECC Lighting Contactor (Bec / Mech Held) 30A ECL04, 15 Lighting Contactor (60A ECL04, 15 Lighting Contactor 100A ECL04, 15 Lighting Contactor 200A ECL04, 15 Lighting Contactor	Eaton Eaton Eaton Eaton Eaton Eaton Eaton	CN15NN3A CN15SN3A C30CNE20A0 A202K1CAM A202K3CAM A202K3CAM A202K4CAM	20 23 3.5 1.5 3.5 9 20	27, 29 26, 28 30 31 Interpolat 32
Reduced Voltage Soft Starters	NEMA Size 4 Contactor NEMA Size 5 Contactor 30A ECC Lighting Contactor (Elec / Mech Held) 30A ECL04, 1 SLighting Contactor, 60A ECL04, 1 SLighting Contactor 100A ECL04, 1 S Lighting Contactor 200A ECL04, 1 S Lighting Contactor 200A ECL04, 1 SLighting Contactor 200A ECL04, 1 SLighting Contactor 5811 RVSS (37A)	Eaton Eaton Eaton Eaton Eaton Eaton Eaton	CN15NN3A CN15SN3A C30CNE20A0 A202K1CAM A202K2CAM A202K3CAM A202K3CAM S811N37X3S	20 23 3.5 1.5 3.5 9 20 5.8	27, 29 26, 28 30 31 Interpolat 32 33
OBY	NEMA Size 4 Contactor NEMA Size 5 Contactor 30A ECC Lighting Contactor (Ee / Mech Held) 30A ECC Lighting Contactor 60A ECL04, 15 Lighting Contactor 100A ECL04, 15 Lighting Contactor 200A ECL04, 15 Lighting Contactor S811 RVSS (37A) S811 RVSS (66A)	Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton	CN15NN3A CN15SN3A C30CNE20A0 A202K1CAM A202K3CAM A202K3CAM A202K4CAM S811N37X35 S811N66X35	20 23 3.5 1.5 3.5 9 20 5.8 5.8	27, 29 26, 28 30 31 Interpolat 32 33 Interpolat
Reduced Voltage Soft Starters Standard Duty	NEMA Size 4 Contactor NEMA Size 5 Contactor 30A ECC Lighting Contactor (IEC / Mech Held) 30A ECL04, 15 Lighting Contactor (60A ECL04, 15 Lighting Contactor 100A ECL04, 15 Lighting Contactor 200A ECL04, 15 Lighting Contactor 8811 RVSS (37A) S811 RVSS (60A) (S811 RVSS (105A)	Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton	CN15NN3A CN15SN3A C30CNE20A0 A202K1CAM A202K2CAM A202K3CAM A202K4CAM S811N37X3S S811N66X3S S811R10X3S	20 23 3.5 1.5 3.5 9 20 5.8 5.8 5.8 10.5	27, 29 26, 28 30 31 Interpolat 32 33 Interpolat Interpolat
Reduced Voltage Soft Starters	NEMA Size 4 Contactor           NEMA Size 5 Contactor           30A ECC Lighting Contactor (Elec / Mech Held)           30A ECC 1 Lighting Contactor           60A ECO4, 15 Lighting Contactor           100A ECL04, 15 Lighting Contactor           20A ECC04, 15 Lighting Contactor           30A ECC04, 15 Lighting Contactor           20A ECL04, 15 Lighting Contactor           S01 RVS5 (66A)           S811 RVS5 (66A)           S811 RVS5 (135A)	Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton	CN15NN3A CN15SN3A C30CNE20A0 A202K1CAM A202K2CAM A202K3CAM S811N37X35 S811N6X35 S811R10X35	20 23 3.5 1.5 9 20 5.8 5.8 10.5 10.5	27, 29 26, 28 30 11 Interpolat 32 33 Interpolat Interpolat Interpolat
Reduced Voltage Soft Starters Standard Duty	NEMA Size 4 Contactor           NEMA Size 5 Contactor           30A ECC Lighting Contactor [lec / Mech Held)           30A ECC Lighting Contactor           60A ECL04, 15 Lighting Contactor           100A ECC04, 15 Lighting Contactor           200A ECL04, 15 Lighting Contactor           200A ECL04, 15 Lighting Contactor           S811, RVS5 (37A)           S811, RVS5 (66A)           S811, RVS5 (105A)           S811, RVS5 (135A)           S811, RVS5 (135A)	Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton	CN15NN3A CN15SN3A C30CNE20A0 A202K1CAM A202K2CAM A202K3CAM A202K4CAM S811N37X35 S811N66X35 S811R66X35 S811R10X35 S811112K35	20 23 3.5 1.5 3.5 9 20 5.8 5.8 10.5 10.5 10.5 48	27, 29 26, 28 30 31 Interpolat interpolat 32 33 Interpolat Interpolat
Reduced Voltage Soft Starters Standard Duty	NEMA Size 4 Contactor NEMA Size 4 Contactor 300 ECC Lighting Contactor (IEC / Mech Held) 300 ECC Lighting Contactor, 600 ECL04, 15 Lighting Contactor 1000 ECL04, 15 Lighting Contactor 2000 ECL04, 15 Lighting Contactor 811 RVS5 (37A) 9811 RVS5 (105A) 9811 RVS5 (105A) 9811 RVS5 (105A) 9811 RVS5 (105A) 9811 RVS5 (100A) 9811 RVS5 (120A)	Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton	CN15NN3A CN15NN3A C30CNE20A0 A202K1CAM A202K2CAM A202K3CAM A202K3CAM A202K4CAM S811N6K33 S811N6K33 S811R10X35 S811R13X35 S811R13X35 S811T12X35	20 23 3.5 1.5 3.5 9 20 5.8 5.8 5.8 10.5 10.5 48 48	27, 29 26, 28 30 interpolat interpolat interpolat interpolat interpolat interpolat
Reduced Voltage Soft Starters Standard Duty	NEMA Size 4 Contactor           NEMA Size 5 Contactor           30A ECC Lighting Contactor (Elec / Mech Held)           .30A ECL04, 15 Lighting Contactor           100A ECL04, 15 Lighting Contactor           100A ECL04, 15 Lighting Contactor           200A ECL04, 15 Lighting Contactor           301A ECL04, 15 Lighting Contactor           303 Statis           304 ECL04, 15 Lighting Contactor           305           306 Statis           307           3081 RVS5 (66A)           S811 RVS5 (136A)           S811 RVS5 (200A)           S811 RVS5 (300A)           S811 RVS5 (300A)	Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton	CN15NN3A CN15SN3A C30CNE20A0 A202K1CAM A202K2CAM A202K4CAM A202K4CAM S811N37X3S S811N66X3S S811N66X3S S811N13X3S S811T13X3S S811T13X3S S811T13X3S S811T13XX3S	20 23 3.5 1.5 3.5 9 20 5.8 5.8 5.8 10.5 10.5 48 48 48	27, 29 26, 28 30 31 Interpolat 32 33 Interpolat Interpolat Interpolat Interpolat Interpolat
Reduced Voltage Soft Starters Standard Duty X = N (No Options), X = P (Pump Control Software)	NEMA Size 4 Contactor           WEMA Size 5 Contactor           30A ECC Lighting Contactor [lec / Mech Held]           30A ECC Lighting Contactor           160A ECL04, 15 Lighting Contactor           100A ECC04, 15 Lighting Contactor           200A ECC14, 15 Lighting Contactor           200A ECC04, 15 Lighting Contactor           200A ECL04, 15 Lighting Contactor           S811 RVS5 (37A)           S811 RVS5 (66A)           S811 RVS5 (105A)           S811 RVS5 (135A)           S811 RVS5 (135A)           S811 RVS5 (136A)           S811 RVS5 (36A)           S811 RVS5 (36A)           S811 RVS5 (36A)	Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton	CN15NN3A CN15SN3A C30CNE2DAD A202K1CAM A202K2CAM A202K4CAM A202K4CAM S811N37X35 S811N66X35 S811R13X35 S811R13X35 S811T18X35 S811T18X35 S811T18X35 S811T30X35	20 23 3.5 1.5 9 20 5.8 5.8 10.5 10.5 10.5 48 48 48 48 103	27, 29 26, 28 30 31 Interpolat 1nterpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat 35
Reduced Voltage Soft Starters Standard Duty X = N (No Options), X = P (Pump Control Software) Overload Protection Relays	NEMA Size 4 Contactor           NEMA Size 5 Contactor           30A ECC Lighting Contactor (Elec / Mech Held)           30A ECC 1.5 Lighting Contactor           100A ECL04, 15 Lighting Contactor           100A ECL04, 15 Lighting Contactor           200A ECL04, 15 Lighting Contactor           200A ECL04, 15 Lighting Contactor           30A ECL04, 15 Lighting Contactor           30A ECL04, 15 Lighting Contactor           30A ECL04, 15 Lighting Contactor           S811 RVS5 (37A)           S811 RVS5 (136A)           S811 RVS5 (136A)           S811 RVS5 (30A)           S811 RVS5 (30A)           S811 RVS5 (30A)           S811 RVS5 (36A)           B1-RVS5 (36A)           S811 RVS5 (36A)           S811 RVS5 (36A)           S811 RVS5 (36A)           S812 RVS5 (36A)	Eaton Eaton	CN15NN3A CN15SN3A C30CNE20A0 A202K1CAM A202K2CAM A202K2CAM A202K4CAM S811N37X35 S811R10X35 S811R10X35 S811R10X35 S811T18X35 S811T18X35 S811T30X35 S811X35 S811X35 S811T30X35 S811X35 S811X35 S811X35 S811X35 S81X	20 23 3.5 1.5 3.5 9 20 5.8 10.5 10.5 10.5 48 48 48 48 48 0.8	27, 29 26, 28 30 31 Interpolat 32 33 Interpolat Interpolat Interpolat Interpolat S 2, 24
Reduced Voltage Soft Starters Standard Duty X = N (No Options), X = P (Pump Control Software)	NEMA Size 4 Contactor           NEMA Size 5 Contactor           30A ECC Lighting Contactor [Eec / Mech Held)           .30A ECL04, 15 Lighting Contactor           100A ECL04, 15 Lighting Contactor           200A ECL04, 15 Lighting Contactor           200A ECL04, 15 Lighting Contactor           301A ECL04, 15 Lighting Contactor           303 Statis           304 Statis           305 Statis           306 Statis           300 A ECL04, 15 Lighting Contactor           303 Statis           304 Statis           305 Statis           306 Statis           308 Statis           309 Statis           300 Statis	Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton	CN1SNN3A           CN1SN3A           C30CNE20A0           A202k1CAM           A202k2CAM           A202k3CAM           A202k4CAM           S811N37X3S           S811N66X3S           S811N16X3S           S811N18X3S           S811118X3S           S811113X3S           S8111724X3S           S8111730X3S           S8111730X3S           S8111730X3S           S8111730X3S           S8111730X3S           S8111730X3S	20 23 3.5 9 20 5.8 10.5 10.5 48 48 48 48 103 0.8 1.4	27, 29 26, 28 30 31 Interpolat 32 33 Interpolat Interpolat Interpolat Interpolat Interpolat 22, 24 Interpolat
Reduced Voltage Soft Starters Standard Duty X = N (No Options), X = P (Pump Control Software) Overload Protection Relays	NEMA Size 4 Contactor           NEMA Size 5 Contactor           30A ECC Lighting Contactor           160A FCL04, 15 Lighting Contactor           100A ECC4, 15 Lighting Contactor           100A ECC4, 15 Lighting Contactor           200A ECC4, 15 Lighting Contactor           S811 RVS5 (180A)           S811 RVS5 (180A)           S811 RVS5 (180A)           S811 RVS5 (180A)           S811 RVS5 (240A)           S811 RVS5 (350A)           S811 RVS5 (360A)           Bi-Metallic Overload (75A)           Bi-Metallic Overload (75A)	Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton Eaton	CN15NN3A CN15SN3A C30CNE2DAD A202K1CAM A202K2CAM A202K3CAM A202K4CAM S811N37X35 S811N66X35 S811N66X35 S811N66X35 S811128X35 S811128X35 S811128X35 S811128X35 S811128X35 S811128X35 S811128X35 S811128X35 S811130X35 S811130X35 S811130X35 S811130X35 S811130X35 S811130X35 S811130X35 S811130X35 S811130X35 S811130X35 S81103C3 S811128X3 S811128X3 S811128X3 S811128X3 S811128X3 S811128X3 S811128X3 S81103C3 S8103C3 S8105C3 S8105C3 S8105C3 S8105C3 S8105C3 S8105C3 S810C3 S8105C3 S8105C3 S8105C3 S8105C3 S810	20 23 3.5 1.5 3.5 9 20 5.8 5.8 10.5 10.5 10.5 48 48 48 48 48 103 0.8 1.4 4	27, 29 26, 28 30 31 Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat
Reduced Voltage Soft Starters Standard Duty X = N (No Options), X = P (Pump Control Software) Overload Protection Relays Bi-Metallic	NEMA Size 4 Contactor           NEMA Size 5 Contactor           30A ECC Lighting Contactor (Elec / Mech Held)           30A ECC 1 Lighting Contactor           100A ECL04, 15 Lighting Contactor           100A ECL04, 15 Lighting Contactor           20A ECC04, 15 Lighting Contactor           30A ECC04, 15 Lighting Contactor           30A ECC04, 15 Lighting Contactor           30A ECC04, 15 Lighting Contactor           S811 RVS5 (176A)           S811 RVS5 (136A)           S811 RVS5 (136A)           S811 RVS5 (30A)           Bi-Metallic Overload (32A)           Bi-Metallic Overload (15A)           Bi-Metallic Overload (15A)	Eaton Eaton	CN15NN3A CN15SN3A C30CNE20A0 A202K1CAM A202K2CAM A202K2CAM A202K4CAM S811N37X35 S811N66X33 S811N65X35 S811N12X35 S811173X35 S811173X35 S811173X35 S811173X35 S811173X35 S811173X35 S811173X35 S811173X35 S8117	20 23 3.5 1.5 9 20 5.8 10.5 10.5 10.5 48 48 48 48 48 103 0.8 1.4 4 4	27, 29 26, 28 30 31 Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat
Reduced Voltage Soft Starters Standard Duty X = N (No Options), X = P (Pump Control Software) Overload Protection Relays Bi-Metallic Overload Protection Relays	NEMA Size 4 Contactor           NEMA Size 5 Contactor           30A ECC Lighting Contactor [Ee / Mech Held)           .30A ECC Lighting Contactor           .60A ECL04, 15 Lighting Contactor           .10A ECL04, 15 Lighting Contactor           .20A ECL04, 16 Lighting Contactor           .20A ECL04, 1	Eaton Eaton	CN15NN3A CN15SN3A C30CNE20A0 A202K1CAM A202K2CAM A202K2CAM A202K4CAM S811N37X35 S811N66X35 S811N66X35 S811N18X35 S811T18X35 S811T18X35 S811T18X35 S811T18X35 S811T30X5 S811T30X5 S811T30X5 S811T30X5 S811T30X5 S811T30X5 S811T30X5 S810	20 23 3.5 1.5 3.5 9 20 5.8 10.5 10.5 48 48 48 48 48 103 0.8 1.4 4 4 9 9 9 20 9 20 5.8 5.8 5.8 5.8 5.8 5.8 5.8 5.8 5.8 5.8	27, 29 26, 28 30 31 Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat 22, 24 Interpolat 1nterpolat 26, 28 23, 25
Reduced Voltage Soft Starters Standard Duty X = N (No Options), X = P (Pump Control Software) Overload Protection Relays Bi-Metallic	NEMA Size 4 Contactor           NEMA Size 5 Contactor           30A ECC Lighting Contactor (Elec / Mech Held)           30A ECC 1.5 Lighting Contactor           100A ECC 4.1 S Lighting Contactor           100A ECC 4.1 S Lighting Contactor           200A ECC 4.1 S Lighting Contactor           30A ECC 4.1 S Lighting Contact	Eaton Eaton	CN15NN3A CN15SN3A C30CNE20A0 A202K1CAM A202K2CAM A202K2CAM A202K4CAM S811N37X35 S811N6K33 S811N10X35 S811N10X35 S8111X3X35 S811X35 S811X35 S811X	20 23 3.5 1.5 3.5 9 20 5.8 10.5 10.5 10.5 48 48 48 48 103 0.8 1.4 4 4 4 0.9 0.9	27, 29 26, 28 30 31 Interpolat
Reduced Voltage Soft Starters Standard Duty X = N (No Options), X = P (Pump Control Software) Overload Protection Relays Bi-Metallic Overload Protection Relays	NEMA Size 4 Contactor           NEMA Size 5 Contactor           30A ECC Lighting Contactor (Eec / Mech Held)           30A ECC Lighting Contactor           100A ECL04, 15 Lighting Contactor           100A ECL04, 15 Lighting Contactor           200A ECL04, 15 Lighting Contactor           200A ECL04, 15 Lighting Contactor           30A EL04           S811 RVS5 (30A)           S811 RVS5 (30A)           S811 RVS5 (30A)           Bi-Metallic Overload (15A)           Bi-Metallic Overload (15A)           Bi-Metallic Overload (15A)           CA40 Solid State Overload (15A)           CA40 Solid State Overload (15A)	Eaton Eaton	CN15NN3A CN15SN3A C30CNE20A0 A202K1CAM A202K2CAM A202K2CAM A202K2CAM S811N37X33 S811N66X35 S811R13X35 S811R13X35 S811R13X35 S811T13X35 S811T13X35 S811T13X35 S811T3X35	20 23 3.5 9 20 5.8 10.5 10.5 10.5 48 48 48 48 48 103 0.8 1.4 4 4 0.9 0.9 0.9	27, 29 26, 28 30 31 Interpolat
Reduced Voltage Soft Starters Standard Duty X = N (No Options), X = P (Pump Control Software) Overload Protection Relays Bi-Metallic Overload Protection Relays	NEMA Size 4 Contactor           NEMA Size 5 Contactor           30A ECC Lighting Contactor [Ee / Mech Held)           .30A ECC Lighting Contactor           .60A ECL04, 15 Lighting Contactor           .60A ECL04, 15 Lighting Contactor           .200A ECCL04, 15 Lighting Contactor           .200A ECL04, 15 Lighting Contactor           .201A EL14, 17 Contactor           .201A EL14, 17 Contactor           .201A EL1	Eaton Eaton	CN15NN3A CN15SN3A C30CNE20A0 A202K1CAM A202K2CAM A202K2CAM A202K4CAM S811N37X35 S811N37X35 S811N37X35 S811N37X35 S811N3X35 S811T18X35 S811T18X35 S811T18X35 S811T18X35 S811T18X35 S811T30X35 S811T30X35 S811T30X35 S811T30X35 C306GN38 C306GN38 C306GN38 C306GN38 C306GN38 C306GN38 C44001A0055F0 C440A1A025F0	20 23 3.5 9 20 5.8 10.5 10.5 48 48 48 48 103 0.8 1.4 4 4 0.9 0.9 0.9 0.9	27, 29 26, 28 30 31 Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat
Reduced Voltage Soft Starters Standard Duty X = N (No Options), X = P (Pump Control Software) Overload Protection Relays Bi-Metallic Overload Protection Relays	NEMA Size 4 Contactor           NEMA Size 5 Contactor           30A ECC Lighting Contactor (Elec / Mech Held)           30A ECC 1 Lighting Contactor           100A ECL04, 15 Lighting Contactor           100A ECL04, 15 Lighting Contactor           20A ECC04, 15 Lighting Contactor           30A ECC04, 15 Lighting Contactor           S811 RVS5 (37A)           S811 RVS5 (135A)           S811 RVS5 (135A)           S811 RVS5 (304A)           S811 RVS5 (304A)           S811 RVS5 (304A)           S811 RVS5 (304A)           Bi-Metallic Overload (75A)           Bi-Metallic Overload (75A)           Bi-Metallic Overload (15A)           C440 Solid State Overload (42A)	Eaton Eaton	CN15NN3A CN15SN3A C30CNE20A0 A202K1CAM A202K2CAM A202K2CAM A202K2CAM S811N37X35 S811N66X35 S811N13X35 S811N13X35 S811173X35 S811173X35 S811173X35 S811173X35 S811173X35 S811173X35 S811173X35 S811173X35 S811173X35 S811173X35 S811173X35 S811173X35 S811173X35 S811173X35 S811173X35 S811173X35 S8173X35 S81	20 23 3.5 1.5 3.5 9 20 5.8 5.8 10.5 10.5 48 48 48 48 48 48 103 0.8 1.4 4 4 4 9 9 9 0.9 0.9 0.9 0.9	27, 29 26, 28 30 31 Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat 22, 24 Interpolat 26, 28 23, 25 Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat
Reduced Voltage Soft Starters Standard Duty X = N (No Options), X = P (Pump Control Software) Overload Protection Relays Bi-Metallic Overload Protection Relays	NEMA Size 4 Contactor           NEMA Size 5 Contactor           30A ECC Lighting Contactor (Elec / Mech Held)           .30A ECL04, 15 Lighting Contactor           .10A ECL04, 15 Lighting Contactor           .10A ECL04, 15 Lighting Contactor           .10A ECL04, 15 Lighting Contactor           .20A	Eaton Eaton	CN15NN3A CN15SN3A C30CNE20A0 A202K1CAM A202K2CAM A202K2CAM A202K4CAM S811N37X3S S811N66X3S S811N66X3S S811N13X3S S811N13X3S S811T13X3S S811T13X3S S811T13X3S S811T13X3S S811T13X3S S811T3X	20 23 3.5 9 20 5.8 10.5 10.5 48 48 48 48 48 103 0.8 1.4 4 4 4 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9	27, 29 26, 28 30 31 Interpolat
Reduced Voltage Soft Starters Standard Duty X = N (No Options), X = P (Pump Control Software) Overload Protection Relays Bi-Metallic Overload Protection Relays	NEMA Size 4 Contactor           NEMA Size 5 Contactor           30A ECC Lighting Contactor (Elec / Mech Held)           30A ECC 15 Lighting Contactor           100A ECL04, 15 Lighting Contactor           100A ECL04, 15 Lighting Contactor           200A ECC04, 15 Lighting Contactor           200A ECC04, 15 Lighting Contactor           30A ECC04, 15 Lighting Contactor           30A ECC04, 15 Lighting Contactor           S811 RVS5 (37A)           S811 RVS5 (135A)           S811 RVS5 (135A)           S811 RVS5 (36A)           S811 RVS5 (36A)           S811 RVS5 (36A)           S811 RVS5 (36A)           Bi-Metallic Overload (32A)           Bi-Metallic Overload (15A)           C440 Solid State Overload (15A)           C440 Solid State Overload (15A)           C440 Solid State Overload (200A)           C440 Solid State Overlo	Eaton Eaton	CN15NN3A CN15SN3A C30CNE20A0 A202K1CAM A202K2CAM A202K2CAM A202K4CAM S811N37X35 S811N6X35 S811N6X35 S811N10X35 S8111N3X35 S8111N3X35 S8111N3X35 S8111N3X35 S8111X3X35 S8111X3X35 S8111X3X35 S8111X3X35 S8111X3X35 S8111X3X35 S8111X3X35 S8111X3X35 S8111X3X35 S8111X3X35 S8111X3X35 S811X35 S81X35 S811X	$\begin{array}{c} 20\\ 23\\ 3.5\\ 1.5\\ 9\\ 9\\ 20\\ 5.8\\ 10.5\\ 10.5\\ 10.5\\ 48\\ 48\\ 48\\ 103\\ 0.8\\ 1.4\\ 4\\ 4\\ 4\\ 0.9\\ 0.9\\ 0.9\\ 0.9\\ 0.9\\ 0.9\\ 0.9\\ 0.9$	27, 29 26, 28 30 31 interpolat interpolat interpolat interpolat interpolat interpolat interpolat 22, 24 interpolat
Reduced Voltage Soft Starters Standard Duty X = N (No Options), X = P (Pump Control Software) Overload Protection Relays Bi-Metallic Overload Protection Relays Solid State (C440)	NEMA Size 4 Contactor           NEMA Size 5 Contactor           30A ECC Lighting Contactor [Ee/ Mech Held]           30A ECC Lighting Contactor           100A ECCA, 15 Lighting Contactor           100A ECCA, 15 Lighting Contactor           20A ECCA, 15 Lighting Contactor           20A ECCA, 15 Lighting Contactor           30A ECCA, 15 Lighting Contactor           30A ECCA, 15 Lighting Contactor           30A ECCA, 15 Lighting Contactor           S811 RVSS (136A)           S811 RVSS (136A)           S811 RVSS (136A)           S811 RVSS (206A)           S811 RVSS (304A)           S811 RVSS (304A)           S811 RVSS (306A)           Bi-Metallic Overload (12A)           Bi-Metallic Overload (12A)           Bi-Metallic Overload (12A)           Bi-Metallic Overload (15A)           C440 Solid State Overload (15A)      <	Eaton Eaton	CN15NN3A CN15SN3A C30CNE20A0 A202K1CAM A202K2CAM A202K2CAM A202K4CAM S811N37X35 S811N66X33 S811N66X33 S811N6X35 S811N12X35 S811173X35 S811712X35 S811712X35 S811712X35 S811712X35 S811712X35 S811712X35 S811712X35 S811730X35 S811740X3	20 23 3.5 1.5 9 20 5.8 10.5 10.5 48 48 48 48 48 48 48 48 48 48 48 48 48	27, 29 26, 28 30 31 Interpolat
Reduced Voltage Soft Starters Standard Duty X = N (No Options), X = P (Pump Control Software) Overload Protection Relays Bi-Metallic Overload Protection Relays	NEMA Size 4 Contactor           NEMA Size 5 Contactor           30A ECC Lighting Contactor [Ee / Mech Held]           .30A ECC Lighting Contactor           .60A ECL04, 15 Lighting Contactor           .10A ECL04, 15 Lighting Contactor           .20A ECL04, 15 Lighting Contactor           .501 RVS5 (36A)           .5811 RVS5 (66A)           .5811 RVS5 (20A)           .5811 RVS5 (30A)           .5	Eaton Eaton	CN15NN3A CN15SN3A C30CNE20A0 A202K1CAM A202K2CAM A202K2CAM A202K4CAM A202K4CAM S811N37X3S S811N66X3S S811N66X3S S811N13X3S S811N13X3S S811174X3S S811174X3S S811174X3S S811174X3S S811174X3S S811174X3S S811174X3S C306GN3B	20 23 3.5 9 20 5.8 10.5 10.5 48 48 48 48 48 48 103 0.8 1.4 4 4 4 4 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9	27, 29 26, 28 30 31 Interpolat
Reduced Voltage Soft Starters Standard Duty X = N (No Options), X = P (Pump Control Software) Overload Protection Relays Bi-Metallic Overload Protection Relays Solid State (C440)	NEMA Size 4 Contactor           NEMA Size 5 Contactor           30A ECC Lighting Contactor (Elec / Mech Held)           30A ECC 1, Sighting Contactor           100A ECL04, 15 Lighting Contactor           100A ECL04, 15 Lighting Contactor           200A ECC04, 15 Lighting Contactor           30A ECC04, 15 Lighting Contactor           200A ECC04, 15 Lighting Contactor           30A ECC04, 16 Lighting Contactor           30A ECC04, 20 Lighting Contact	Eaton Eaton	CN15NN3A CN15SN3A C30CNE20A0 A202K1CAM A202K2CAM A202K2CAM A202K2CAM S811N37X35 S811N66X35 S811N40X35 S811N12X35 S811112X35 S811112X35 S811112X35 S8112X35 S812	20 23 3.5 1.5 3.5 9 20 5.8 10.5 10.5 10.5 48 48 48 48 48 48 48 48 48 48 0.8 1.4 4 4 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 4.5 3.85 2.8 3.85 2.8 4.4	27, 29 26, 28 30 31 Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat Interpolat 22, 24 Interpolat
Reduced Voltage Soft Starters Standard Duty X = N (No Options), X = P (Pump Control Software) Overload Protection Relays Bi-Metallic Overload Protection Relays Solid State (C440)	NEMA Size 4 Contactor           NEMA Size 5 Contactor           30A ECC Lighting Contactor [Ee / Mech Held)           30A ECC Lighting Contactor           100A ECL04, 15 Lighting Contactor           100A ECL04, 15 Lighting Contactor           200A ECL04, 15 Lighting Contactor           200A ECL04, 15 Lighting Contactor           30A ECL04, 16 Lighting Contactor <td>Eaton Eaton</td> <td>CN15NN3A CN15SN3A C30CNE20A0 A202K1CAM A202K2CAM A202K2CAM A202K2CAM A202K2CAM S811N37X33 S811N66X35 S811N6X35 S811N13X35 S811N13X35 S811N13X35 S811T13X35 S811T13X35 S811T13X35 S811T13X35 S811T13X35 S811T3X</td> <td><math display="block">\begin{array}{c} 20\\ 23\\ 3.5\\ 1.5\\ 9\\ 9\\ 20\\ 5.8\\ 10.5\\ 10.5\\ 10.5\\ 48\\ 48\\ 48\\ 103\\ 0.8\\ 1.4\\ 4\\ 4\\ 0.9\\ 0.9\\ 0.9\\ 0.9\\ 0.9\\ 0.9\\ 0.9\\ 0.9</math></td> <td>27, 29 26, 28 30 31 Interpolat</td>	Eaton Eaton	CN15NN3A CN15SN3A C30CNE20A0 A202K1CAM A202K2CAM A202K2CAM A202K2CAM A202K2CAM S811N37X33 S811N66X35 S811N6X35 S811N13X35 S811N13X35 S811N13X35 S811T13X35 S811T13X35 S811T13X35 S811T13X35 S811T13X35 S811T3X	$\begin{array}{c} 20\\ 23\\ 3.5\\ 1.5\\ 9\\ 9\\ 20\\ 5.8\\ 10.5\\ 10.5\\ 10.5\\ 48\\ 48\\ 48\\ 103\\ 0.8\\ 1.4\\ 4\\ 4\\ 0.9\\ 0.9\\ 0.9\\ 0.9\\ 0.9\\ 0.9\\ 0.9\\ 0.9$	27, 29 26, 28 30 31 Interpolat
Reduced Voltage Soft Starters Standard Duty X = N (No Options), X = P (Pump Control Software) Overload Protection Relays Bi-Metallic Overload Protection Relays Solid State (C440)	NEMA Size 4 Contactor           NEMA Size 5 Contactor           30A ECC Lighting Contactor (Elec / Mech Held)           30A ECC 1, Sighting Contactor           100A ECL04, 15 Lighting Contactor           100A ECL04, 15 Lighting Contactor           200A ECC04, 15 Lighting Contactor           30A ECC04, 15 Lighting Contactor           200A ECC04, 15 Lighting Contactor           30A ECC04, 16 Lighting Contactor           30A ECC04, 20 Lighting Contact	Eaton Eaton	CN15NN3A CN15SN3A C30CNE20A0 A202K1CAM A202K2CAM A202K2CAM A202K2CAM S811N37X35 S811N66X35 S811N40X35 S811N12X35 S811112X35 S811112X35 S811112X35 S8112X35 S812	20 23 3.5 1.5 3.5 9 20 5.8 10.5 10.5 10.5 48 48 48 48 48 48 48 48 48 48 0.8 1.4 4 4 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9 4.5 3.85 2.8 3.85 2.8 4.4	27, 29 26, 28 30 31 Interpolat 10 and a second second 32 33 Interpolat Interpolat 10 anterpolat 10 anterpolat



#### Enclosed Control Certified Enclosure Range (Manufactured by Eaton)

BOX         L160/3012 DIMENSIONIS         NEMA Type Ratings         Test In UL           WIDTH         HEIGHT         DEPTH          Test In UL           1         5.75         10.25         5         1         38*           2         7.75         13.25         6         1         30*           3         12.65         13.85         6.4         1         Interpolat           4         11.66         25.99         8.03         1         Interpolat           5         9.84         11.07         6.7         1,3R,4,4X,12         Interpolat           5         9.84         11.07         10.4         1,3R,4,4X,12         Interpolat           6         12.01         12.15         6.7         1,3R,4,4X,12         Interpolat	
2         7.75         13.25         6         1         30*           3         12.65         13.85         6.4         1         Interpolat           4         11.66         25.99         8.03         1         Interpolat           5         9.84         11.07         6.7         1,3R,4,4X,12         Interpolat           5A         9.84         11.07         10.4         1,3R,4,4X,12         Interpolat	
3         12.65         13.85         6.4         1         Interpola           4         11.66         25.99         8.03         1         Interpola           5         9.84         11.07         6.7         1,3R,4,4X,12         Interpola           5A         9.84         11.07         10.4         1,3R,4,4X,12         Interpola	3*
4         11.66         25.99         8.03         1         Interpola           5         9.84         11.07         6.7         1, 3R, 4, 4X, 12         Interpola           5A         9.84         11.07         10.4         1, 3R, 4, 4X, 12         Interpola	)*
5         9.84         11.07         6.7         1, 3R, 4, 4X, 12         Interpola           5A         9.84         11.07         10.4         1, 3R, 4, 4X, 12         Interpola	olated
5A 9.84 11.07 10.4 1, 3R, 4, 4X, 12 Interpola	olated
	olated
6 12.01 12.15 6.7 1.3R.4.4X.12 Interpolat	olated
6A 12.01 12.15 10.4 1, 3R, 4, 4X, 12 Interpolat	
7 16.26 12.15 6.7 1, 3R, 4, 4X, 12 Interpolat	
7A 16.26 12.15 10.4 1, 3R, 4, 4X, 12 Interpolat	
8 14.25 25.5 8.47 1, 3R, 4, 4X, 12 Interpola	
9 25.5 25.5 8.41 1, 3R, 4, 4X, 12 Interpola	
10 20 44.25 10.48 1, 3R, 4, 4X, 12 Interpolat	
A 10.75 27.25 10.5 1 22*, 23*, 24*, 2 37*	
A1 10.5 27.06 6.66 1, 3R, 4, 4X, 12 Interpolat	olated
B 15.5 23.06 6.66 1, 3R, 4, 4X, 12 Interpolat	olated
B1 15.5 23.92 8.44 1, 3R, 4, 4X, 12 Interpolat	
C 20.5 27.87 8.44 1, 3R, 4, 4X, 12 Interpola	
C 20.5 31 12 1 29*	<b>n</b> *
C 20.5 30.25 12 1 36*	
D 29.5 35 8.75 1 Interpolat	
D 29.5 35 12.25 1 27*	
G 13.5 23.06 6.57 1, 3R, 4, 4X, 12 Interpolat	
G1 17 42 8.75 1, 3R, 4, 4X, 12 Interpolat	
H 19 25.06 6.57 1, 3R, 4, 4X, 12 Interpolat	olated
H1 28 50 8.75 1, 3R, 4, 4X, 12 Interpolat	olated
P1 8.5 31.93 6.66 3R Interpolat	olated
P3 18.5 37 8.47 3R Interpolat	olated
P4 19 36.15 8.05 3R Interpolat	olated
P5 21 46.15 8.75 3R Interpolat	olated
P7 28 60.58 8.75 3R Interpolat	olated
E 28 60 10.68 1, 3R, 4, 4X, 12 Interpola	
E 28 62 15.25 1 26*	
E 28 62 14.25 1 28*, 32*,	5*



#### **Enclosed Control** Resonance Frequency Summary

Report	UUT	Front to Back (Hz)	Side to Side (Hz)	Vertical (Hz)
70282R12	22	N/A*	N/A*	N/A*
70282R12	23	N/A*	N/A*	N/A*
70282R12	24	N/A*	N/A*	N/A*
70282R12	25	N/A*	N/A*	N/A*
70282R12	26	N/A*	N/A*	N/A*
70282R12	27	N/A* R C	ODEN/A*	N/A*
70282R12	28	N/A*	N/A*	N/A*
70282R12	29	N/A*	N/A*	N/A*
70282R12	30	N/A*	N/A*	N/A*
70282R12	31	N/A*	N/A*	N/A*
70282R12	32 🤇	N/A* OSF	-001 <b>N</b> /A*	N/A*
70282R12	33	N/A*	N/A*	N/A*
70282R12	34	<sub>B</sub> ,12,///illiar	n Stadtin 🛛	43
70282R12	35 🔵	12	14	<mark>4</mark> 7
70282R12	36	N/A* 01/0	1/20 N/A*	N/A*
70282R12	37	N/A*: 04/0	4/20 N/A*	N/A*
70282R12	38	N/A*	N/A*	N/A*
* - UUT rigi	dly mounte	d to wall fixture.	LDING CODE	20

### UUT 22 (Unit Under Test) Summary Sheet

Manufacturer: Eaton Corporation

Product Line: Enclosed Control

Model Number: ECN2401CAC Product Construction Summary:

Froduct construction summary.

Enclosure is constructed of mild carbon carbon steel, NEMA 1 rating.

Options/Component Summary: Box A (Enclosure), HMCPE007C0C (7A Breaker), C0050E2AFB (50VA CPT) CN15BN3AB (Size 0 Contactor), C306DN3B (Bi-metallic OL)

	UUT Properties (As Tested)											
		Dimensions (inches)				Lowest Natural Frequency (Hz)						
Weigh	t (lbs.)	Depth	Width	Height	Front-Back		Side	Side-Side				
3	4	10.5	10.75	27.25	N,	N/A N/A		N/A				
	Seismic Test Parameters											
Building Code	Test Criteria	C.G Height (in.)	S <sub>DS</sub> (g)	z/h		Aflx-H	Arig-H	Aflx-V	Arig-V			
CBC 2019	ICC-ES AC156	N/A	2.98	1	1.5	4.77	3.58	2.00	0.80			

UUT maintained structural integrity and functionality as observed in post test inspection and operation checks.



UUT 22 was mounted to a rigid wall frame using (3) 1/4-20 bolts. The steel frame was welded to the shake table.

### UUT 23 (Unit Under Test) Summary Sheet

Manufacturer: Eaton Corporation

Product Line: Enclosed Control

Model Number: ECN2401CAC-R63/B

Product Construction Summary:

Enclosure is constructed of mild carbon carbon steel, NEMA 1 rating.

Options/Component Summary: Box A (Enclosure), HMCPE007C0C (7A Breaker), C0050E2AFB (50VA CPT) CN15BN3AB (Size 0 Contactor), C440A1A005SF0 (1-5A SSOL)

	UUT Properties (As Tested)											
		Dim	ensions (inc	hes)	Lowest Natural Frequency (Hz)							
Weigh	t (lbs.)	Depth	Width	Height	Front-Back		Side	Side-Side				
3	4	10.5	10.75	27.25	N,	N/A N/A		N/A				
	Seismic Test Parameters											
Building Code	Test Criteria	C.G Height (in.)	S <sub>DS</sub> (g)	z/h		Aflx-H	Arig-H	Aflx-V	Arig-V			
CBC 2019	ICC-ES AC156	N/A	2.98	1	1.5	4.77	3.58	2.00	0.80			

UUT maintained structural integrity and functionality as observed in post test inspection and operation checks.



UUT 23 was mounted to a rigid frame using (3) 1/4-20 bolts. The steel frame was welded to the shake table.

### UUT 24 (Unit Under Test) Summary Sheet

Manufacturer: Eaton Corporation

Product Line: Enclosed Control

Model Number: ECN1801CAC Product Construction Summary:

Enclosure is constructed of mild carbon carbon steel, NEMA 1 rating.

Options/Component Summary: Box A (Enclosure), 96-3692-15 (30A 600V Fusible DS)

C0050E2AFB (50VA CPT), CN15BN3AB (Size 0 Contactor), C306DN3B (Bi-metallic OL)

	UUT Properties (As Tested)											
		Dim	ensions (inc	hes)	Lowest Natural Frequency (Hz)							
Weigh	t (lbs.)	Depth	Width	Height	Front-Back		Side	Side-Side				
3	5	10.5	10.75	27.25	N,	N/A N/A I		N/A				
	Seismic Test Parameters											
Building Code	Test Criteria	C.G Height (in.)	S <sub>DS</sub> (g)	z/h		Aflx-H	Arig-H	Aflx-V	Arig-V			
CBC 2019	ICC-ES AC156	N/A	2.98	1	1.5	4.77	3.58	2.00	0.80			
			7 4									

UUT maintained structural integrity and functionality as observed in post test inspection and operation checks.



UUT 24 was mounted to a rigid frame using (3) 1/4-20 bolts. The steel frame was welded to the shake table.

### UUT 25 (Unit Under Test) Summary Sheet

Manufacturer: Eaton Corporation

Product Line: Enclosed Control

Model Number: ECN1801CAC-R63/B

Product Construction Summary:

Enclosure is constructed of mild carbon carbon steel, NEMA 1 rating.

Options/Component Summary: Box A (Enclosure), 96-3692-15 (30A 600V Fusible DS)

C0050E2AFB (50VA CPT), CN15BN3AB (Size 0 Contactor), C440A1A005SF0 (1-5A SSOL)

	UUT Properties (As Tested)											
		Dim	ensions (inc	hes)	Lowest Natural Frequency (Hz)							
Weigh	t (lbs.)	Depth	Width	Height	Front-Back		Side	Side-Side				
3	5	10.5	10.75	27.25	N,	N/A N/A		N/A				
	Seismic Test Parameters											
Building Code	Test Criteria	C.G Height (in.)	S <sub>DS</sub> (g)	z/h		Aflx-H	Arig-H	Aflx-V	Arig-V			
CBC 2019	ICC-ES AC156	N/A	2.98	1	1.5	4.77	3.58	2.00	0.80			

UUT maintained structural integrity and functionality as observed in post test inspection and operation checks.



UUT 25 was mounted to a rigid frame using (3) 1/4-20 bolts. The steel frame was welded to the shake table.

### UUT 26 (Unit Under Test) Summary Sheet

Manufacturer: Eaton Corporation

Product Line: Enclosed Control

Model Number: ECN1851CAL Product Construction Summary:

Enclosure is constructed of mild carbon carbon steel, NEMA 1 rating.

Options/Component Summary: Box E (Enclosure), 96-3695-16 (400A 600V Fusible DS)

C0300E2AFB (300VA CPT), CN15SN3A (Size 5 Contactor), C306DN3B (Bi-metallic OL)

	UUT Properties (As Tested)												
Weight (lbs.)		Dim	ensions (inc	hes)	Lowest Natural Frequency (Hz)								
weigh	t (IDS.)	Depth	Width	Height	Front-Back		Side-Side		Vertical				
22	24	15.25	28	62	N,	N/A N/A N		N/A					
	Seismic Test Parameters												
Building Code	Test Criteria	C.G Height (in.)	S <sub>DS</sub> (g)	z/h		Aflx-H	Arig-H	Aflx-V	Arig-V				
CBC 2019	ICC-ES AC156	N/A	2.98	1	1.5	4.77	3.58	2.00	0.80				

UUT maintained structural integrity and functionality as observed in post test inspection and operation checks.



UUT 26 was mounted to a rigid frame using (4) 3/8-16 bolts. The steel frame was welded to the shake table.

### UUT 27 (Unit Under Test) Summary Sheet

Manufacturer: Eaton Corporation

Product Line: Enclosed Control

Model Number: ECN1841CAJ-R63/F Product Construction Summary:

Enclosure is constructed of mild carbon carbon steel, NEMA 1 rating.

Options/Component Summary: Box D (Enclosure), 96-3694-17 (200A 600V Fusible DS)

C0200E2AFB (200VA CPT), CN15NN3A (Size 4 Contactor), C440C1A140SPX (28-140A SSOL)

	UUT Properties (As Tested)										
Weigh	t (lbc )	Dim	ensions (inc	hes)		Lowest N	atural Frequ	uency (Hz)			
weigh	t (ibs.)	Depth	Width	Height	Front-Back		Side-Side		Vertical		
14	15	12.25	29.5	35	N/A		N/A		N/A		
Seismic Test Parameters											
Building Code	Test Criteria	C.G Height (in.)	S <sub>DS</sub> (g)	z/h		Aflx-H	Arig-H	Aflx-V	Arig-V		
CBC 2019	ICC-ES AC156	N/A	2.98	1	1.5	4.77	3.58	2.00	0.80		

UUT maintained structural integrity and functionality as observed in post test inspection and operation checks.



UUT 27 was mounted to a rigid frame using (3) 1/4" bolts. The steel frame was welded to the shake table.

# UUT 28 (Unit Under Test) Summary Sheet

Manufacturer: Eaton Corporation

Product Line: Enclosed Control

Model Number: ECN2451CAJ Product Construction Summary:

Enclosure is constructed of mild carbon carbon steel, NEMA 1 rating.

Options/Component Summary: Box E (Enclosure), HMCP250W5C (250A Breaker)

C0300E2AFB (300VA CPT), CN15SN3A95 (Size 5 Contactor), C306DN3B (Bi-metallic OL)

	UUT Properties ( As Tested)											
Weigh	t (lbc )	Dim	ensions (inc	hes)	Lowest Natural Frequency (Hz)							
weign	t (ibs.)	Depth	Width	Height	Front-Back Sid			-Side	Vertical			
20	)8	14.25	28	62	N	/A	N,	/A	N/A			
Seismic Test Parameters												
Building Code	Test Criteria	C.G Height (in.)	S <sub>DS</sub> (g)	z/h		Aflx-H	Arig-H	Aflx-V	Arig-V			
CBC 2019	ICC-ES AC156	N/A	2.98	1	1.5	4.77	3.58	2.00	0.80			

UUT maintained structural integrity and functionality as observed in post test inspection and operation checks.



UUT 28 was mounted to a rigid frame using (4) 3/8-16 bolts. The steel frame was welded to the shake table.

### UUT 29 (Unit Under Test) Summary Sheet

Manufacturer: Eaton Corporation

Product Line: Enclosed Control

Model Number: ECN2441CAH-R63/F

Product Construction Summary:

Enclosure is constructed of mild carbon carbon steel, NEMA 1 rating.

Options/Component Summary: Box C (Enclosure), HMCP150U4C (150A Breaker),

C0200E2AFB (200VA CPT), CN15NN3A (Size 4 Contactor), C440C1A140SPX (28-140A SSOL)

(lbs.) )	Dime Depth 12	ensions (inc Width	hes) Height	Front		atural Frequ	iency (Hz)					
		Width	Height	Front			Lowest Natural Frequency (Hz)					
)	10			Front-Back		Side-Side		Vertical				
	12	20.5	31	N/A		N/A		N/A				
Seismic Test Parameters												
Test Criteria	C.G Height (in.)	S <sub>DS</sub> (g)	z/h		Aflx-H	Arig-H	Aflx-V	Arig-V				
ICC-ES AC156	N/A	2.98	1	1.5	4.77	3.58	2.00	0.80				
I	riteria CC-ES	Test riteria Height (in.) CC-ES N/A	Test riteria C.G Height (in.) CC-ES N/A 2.98	Test riteria C.G Height (in.) CC-ES N/A CC-ES N/A CC-ES C.G S <sub>DS</sub> (g) Z/h CC-ES N/A C.G S <sub>DS</sub> (g) Z/h CCC CCC CCCC CCCC CCCC CCCCC CCCCC CCCCCC	Test riteria C.G Height (in.) CC-ES N/A C.G S <sub>DS</sub> (g) z/h Ip RCDDE 1 1,5	Test riteriaC.G Height (in.)Sps(g)z/hIpAflx-HCC-ESN/A2.9811.54.77	Test riteriaC.G Height (in.)S_{DS}(g)z/hIpAflx-HArig-HCC-ESN/A2.9811.54.773.58	Test riteriaC.G Height (in.)S_{DS}(g)z/hIpAflx-HArig-HAflx-VCC-ESN/A2.9811.54.773.582.00				

UUT maintained structural integrity and functionality as observed in post test inspection and operation checks.



UUT 29 was mounted to a rigid frame using (3) 1/4-20 bolts. The steel frame was welded to the shake table.

### UUT 30 (Unit Under Test) Summary Sheet

Manufacturer: Eaton Corporation

Product Line: Enclosed Control

Model Number: ECC03C1A3A Product Construction Summary:

Enclosure is constructed of mild carbon carbon steel, NEMA 1 rating.

Options/Component Summary: Box 2 (Enclosure), C30CNE20A0 (30A Lighting Contactor)

	UUT Properties (As Tested)												
		Dim	ensions (inc	ches)		Lowest N	atural Frequ	iency (Hz)					
Weigh	t (lbs.)	Depth	Width	Height	Front-Back		Side-Side		Vertical				
1	0	6	7.75	13.25	N,	/A	N/A		N/A				
Seismic Test Parameters													
Building Code	Test Criteria	C.G Height (in.)	S <sub>DS</sub> (g)	z/h		Aflx-H	Arig-H	Aflx-V	Arig-V				
CBC 2019	ICC-ES AC156	N/A	2.98	1	1.5	4.77	3.58	2.00	0.80				

UUT maintained structural integrity and functionality as observed in post test inspection and operation checks.



UUT 30 was mounted to a rigid frame using (3) #10 bolts. The steel frame was welded to the shake table.

### UUT 31 (Unit Under Test) Summary Sheet

Manufacturer: Eaton Corporation

Product Line: Enclosed Control Model Number: ECL15C1C3E-C1

Product Construction Summary:

Enclosure is constructed of mild carbon carbon steel, NEMA 1 rating.

Options/Component Summary: Box A (Enclosure), HFD3030 (30A Breaker), C0100E2AFB (100VA CPT), A202K1CAM (30A Lighting Contactor)

	UUT Properties (As Tested)													
Woigh	t (lbc )	Dim	ensions (inc	ches)		Lowest N	atural Frequ	iency (Hz)						
Weigh	t (IDS.)	Depth	Width	Height	Front-Back		Side-Side		Vertical					
3	7	10.5	10.75	27.25	N,	/A	N/A		N/A					
Seismic Test Parameters														
Building Code	Test Criteria	C.G Height (in.)	S <sub>DS</sub> (g)	z/h		Aflx-H	Arig-H	Aflx-V	Arig-V					
CBC 2019	ICC-ES AC156	N/A	2.98	1	1.5	4.77	3.58	2.00	0.80					

UUT maintained structural integrity and functionality as observed in post test inspection and operation checks.



UUT 31 was mounted to a rigid frame using (3) 1/4" bolts. The steel frame was welded to the shake table.

### UUT 32 (Unit Under Test) Summary Sheet

Manufacturer: Eaton Corporation

Product Line: Enclosed Control Model Number: ECL15F1C3H-C1

Product Construction Summary:

Enclosure is constructed of mild carbon carbon steel, NEMA 1 rating.

Options/Component Summary: Box E (Enclosure), HJD3250F (250A Breaker), C0200E2AFB (200VA CPT), A202K4CAM (400A Lighting Contactor)

	UUT Properties (As Tested)												
Moigh	t (lbc)	Dim	ensions (inc	ches)	Lowest Natural Frequency (Hz)								
Weigh	t (IDS.)	Depth	Width	Height	Front-Back		Side-Side		Vertical				
18	32	14.25	28	62	N/A		N/A		N/A				
Seismic Test Parameters													
Building Code	Test Criteria	C.G Height (in.)	S <sub>DS</sub> (g)	z/h		Aflx-H	Arig-H	Aflx-V	Arig-V				
CBC 2019	ICC-ES AC156	N/A	2.98	1	1.5	4.77	3.58	2.00	0.80				
	AC156			ACL	100								

UUT maintained structural integrity and functionality as observed in post test inspection and operation checks.



UUT 32 was mounted to a rigid frame using (4) 3/8" bolts. The steel frame was welded to the shake table.

### UUT 33 (Unit Under Test) Summary Sheet

Manufacturer: Eaton Corporation

Product Line: Enclosed Control Model Number: ECS95Q1CAF-C34C46/J3

Product Construction Summary:

Enclosure is constructed of mild carbon carbon steel, NEMA 1 rating.

Options/Component Summary: S811N37N3B (37A, RVSS), HMCPE050K2C (50A Breaker),

C0250E2AFB (250VA CPT), CN15GN3AB (Size 2 Contactor), C306GN3B (Bi-metallic OL)

	UUT Properties (As Tested)										
Weigh	+ (lbc )	Dim	ensions (inc	hes)		Lowest N	atural Frequ	iency (Hz)			
weign	t (IDS.)	Depth	Width	Height	Front-Back		Side-Side		Vertical		
6	1	12	15.5	23.25	N/A		N/A		N/A		
Seismic Test Parameters											
Building Code	Test Criteria	C.G Height (in.)	S <sub>DS</sub> (g)	z/h		Aflx-H	Arig-H	Aflx-V	Arig-V		
CBC 2019	ICC-ES AC156	N/A	2.98	1	1.5	4.77	3.58	2.00	0.80		

UUT maintained structural integrity and functionality as observed in post test inspection and operation checks.



UUT 33 was mounted to a rigid frame using (3) 1/4" bolts. The steel frame was welded to the shake table.

### UUT 34 (Unit Under Test) Summary Sheet

Manufacturer: Eaton Corporation

Product Line: Enclosed Control Model Number: ECS95Y1CAJ-C34C46/J3

Product Construction Summary:

Enclosure is constructed of mild carbon carbon steel, NEMA 1 rating.

Options/Component Summary: Box E (Enclosure), S811T18N3B (180A, RVSS), HMCP250W5C

(250A Breaker), C0250E2AFB (250VA CPT), CN15SN3A (Size 5 Contactor), C306DN3B (Bi-metallic OL)

	UUT Properties (As Tested)										
		Dim	ensions (inc	hes)	Lowest Natural Frequency (Hz)						
Weigh	t (lbs.)	Depth	Width	Height	Front-Back		Side-Side		Vertical		
26	266 14.25			62	12		14		43		
Seismic Test Parameters											
Building Code	Test Criteria	C.G Height (in.)	S <sub>DS</sub> (g)	z/h		Aflx-H	Arig-H	Aflx-V	Arig-V		
CBC 2019	ICC-ES AC156	N/A	2.98	1	1.5	4.77	3.58	2.00	0.80		

UUT maintained structural integrity and functionality as observed in post test inspection and operation checks.



UUT 34 was mounted to a rigid frame using (4) 3/8" bolts. The steel frame was welded to the shake table.

### UUT 35 (Unit Under Test) Summary Sheet

Manufacturer: Eaton Corporation

Product Line: Enclosed Control

Catalog/Model Number: ECS9521CAK-C34 Product Construction Summary:

Enclosure is constructed of 316 grade stainless steel, NEMA 4X rating.

Options/Component Summary: Box E (Enclosure), S811V36N3B (360A, RVSS),

HMCP400X5W (400A Breaker), C0250E2AFB (250VA CPT)

	UUT Properties (As Tested)											
		Dim	ensions (inc	hes)	Lowest Natural Frequency (Hz)							
Weigh	t (lbs.)	Depth	Width	Height	Front	-Back	Side-Side		Vertical			
29	294 14.25			62	12		14		47			
Seismic Test Parameters												
Building Code	Test Criteria	C.G Height (in.)	S <sub>DS</sub> (g)	z/h		Aflx-H	Arig-H	Aflx-V	Arig-V			
CBC 2019	ICC-ES AC156	N/A	2.98	1	1.5	4.77	3.58	2.00	0.80			

UUT maintained structural integrity and functionality as observed in post test inspection and operation checks.



UUT 35 was mounted to a rigid frame using (4) 3/8" bolts. The steel frame was welded to the shake table.

### UUT 36 (Unit Under Test) Summary Sheet

Manufacturer: Eaton Corporation

Product Line: Enclosed Control

Model Number: ECN2431CAG Product Construction Summary:

Enclosure is constructed of mild carbon carbon steel, NEMA 1 rating.

Options/Component Summary: Box C (Enclosure), HMCPE100R3C (100A Breaker), C0150E2AFB

(150VA CPT), CN15KN3A (Size 3 Contactor), C306KN3 (Bi-metallic OL)

	UUT Properties (As Tested)											
Weigh	+ (lbc )	Dim	ensions (inc	hes)	Lowest Natural Frequency (Hz)							
weign	t (ibs.)	Depth	Width	Height	Front-Back		Side-Side		Vertical			
8	3	12	20.5	30.25	N,	/A	N,	/A	N/A			
Seismic Test Parameters												
Building Code	Test Criteria	C.G Height (in.)	S <sub>DS</sub> (g)	z/h		Aflx-H	Arig-H	Aflx-V	Arig-V			
CBC 2019	ICC-ES AC156	N/A	2.98	1	1.5	4.77	3.58	2.00	0.80			

UUT maintained structural integrity and functionality as observed in post test inspection and operation checks.



UUT 36 was mounted to a rigid frame using (3) 1/4" bolts. The steel frame was welded to the shake table.

# UUT 37 (Unit Under Test) Summary Sheet

Manufacturer: Eaton Corporation

Product Line: Enclosed Control Model Number: ECN2401CAC-B10

Product Construction Summary:

Enclosure is constructed of mild carbon carbon steel, NEMA 1 rating.

Options/Component Summary: Box A (Enclosure), HMCP007C0C (7A Breaker), C0050E2AFB (50VA CPT) CN15BN3AB (Size 0 Contactor), C306DN3B (Bi-metallic OL)

		U	I IT Properti		1)								
	UUT Properties (As Tested)												
(lbc.)	Dim	ensions (inc	ns (inches) Lowest Natural Frequency (Hz)										
lus.)	Depth	Width	Height	Front	-Back	Side-Side		Vertical					
	10.5	10.75	27.25	N,	/Α	N,	/A	N/A					
Seismic Test Parameters													
Test Criteria	C.G Height (in.)	S <sub>DS</sub> (g)	z/h		Aflx-H	Arig-H	Aflx-V	Arig-V					
ICC-ES AC156	N/A	2.98	1	1.5	4.77	3.58	2.00	0.80					
(	Criteria ICC-ES	Ibs.) Depth 10.5 Test Criteria C.G Height (in.) ICC-ES N/A	Ibs.) Depth Width 10.5 10.75 Test C.G Test Height S <sub>DS</sub> (g) ICC-ES N/A 2.98	DepthWidthHeight10.510.7527.25Seismic TestTestC.GHeightS <sub>DS</sub> (g)z/hCriteria(in.)ICC-ESN/A2.981	Ibs.) Depth Width Height Front 10.5 10.75 27.25 N/ Seismic Test Parameters Test C.G Height (in.) S <sub>DS</sub> (g) z/h Ip ICC-ES N/A 2.98 1 1.5	DoepthWidthHeightFront-Back10.510.7527.25N/ASeismic Test ParametersC.G Height (in.)Sps(g)z/hIpAflx-HICC-ESN/A2.9811.5VA2.9811.5	Jos.)DepthWidthHeightFront-BackSide10.510.7527.25N/AN/ASeismic Test ParametersTest CriteriaC.G Height (in.)Sos(g)z/hIp Aflx-HAflx-HAflx-HArig-HICC-ESN/A2.9811.5	Jos.)DepthWidthHeightFront-BackSide-Side10.510.7527.25N/AN/ASeismic Test ParametersTest CriteriaC.G Height (in.)SolutionICC-ESN/A2.9811.5N/A2.9811.54.773.582.00					

UUT maintained structural integrity and functionality as observed in post test inspection and operation checks.



UUT 37 was mounted to a rigid frame using (3) 1/4" bolts. The steel frame was welded to the shake table.

### UUT 38 (Unit Under Test) Summary Sheet

Manufacturer: Eaton Corporation

Product Line: Enclosed Control

Model Number: ECN0101A3A Product Construction Summary:

Enclosure is constructed of mild carbon carbon steel, NEMA 1 rating.

Options/Component Summary: Box 1 (Enclosure), CN15BN3AB (Size 0 contactor)

	UUT Properties (As Tested)												
Woigh	+ (lbc )	Dim	ensions (inc	ches)		Lowest N	atural Frequ	iency (Hz)					
Weigh	t (IDS.)	Depth	Width	Height	Front-Back		Side-Side		Vertical				
4.	3	5	5.75	10.25	N/A		N/A		N/A				
Seismic Test Parameters													
Building Code	Test Criteria	C.G Height (in.)	S <sub>DS</sub> (g)	z/h		Aflx-H	Arig-H	Aflx-V	Arig-V				
CBC 2019	ICC-ES AC156	N/A	2.98	1	1.5	4.77	3.58	2.00	0.80				

UUT maintained structural integrity and functionality as observed in post test inspection and operation checks.



UUT 38 was mounted to a rigid frame using (3) #10 bolts. The steel frame was welded to the shake table.