



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

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

OFFICE USE ONLY

APPLICATION #: **OSP – 0331 – 10**

OSHPD Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: GE Zenith Controls

Manufacturer's Technical Representative: Kok-Han Lew

Mailing Address: 830 West 40th Street, Chicago, IL 60609

Telephone: (773) 299-6769 Email: Kok-Han.Lew@ge.com

Product Information

Product Name: GE Zenith Controls ZTG, ZTS, ZT3, ZBG, ZBS, AND ZBT3 Automatic Transfer Switches

Product Type: Automatic Transfer Switch

Product Model Number: ZTG, ZTS, ZT3, ZBG, ZBS, AND ZBT3 - See Attachment for full identification numbers
(List all unique product identification numbers and/or part numbers)

General Description: Standalone (ZT) and Bypass Transfer Switches that provide manual / automatic power switching
from a primary power source to backup power sources. Covers ampere ratings from 801-3000 and voltage from 120-600.

Mounting Description: Rigid floor mounted

Applicant Information

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

Contact Person: Travis Soppe PE

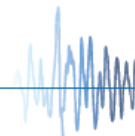
Mailing Address: 250 Bobwhite Ct, Suite 100, Boise, ID 83706

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

I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2013.

Signature of Applicant:  Date: 4/03/2013

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



"Equitable Healthcare Accessibility for California"



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

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

Company Name: Harrison Engineering

Name: Nathan Harrison, SE California License Number: S5171

Mailing Address: 1300 N. Ten Mile, Meridian, ID 83642

Telephone: (208) 888-7107 Email: nathan@harrisoneng.com

Supports and Attachments Preapproval

- Supports and attachments are preapproved under OPM- _____
(Separate application for OSHPD Preapproval of Manufacturer's Certification (OPM) of Supports and attachments is required)
- Supports and attachments are not preapproved

Certification Method

- Testing in accordance with: ICC-ES AC156
- Other (Please Specify): _____
- _____
- _____

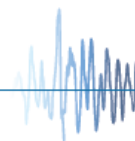
Testing Laboratory

Company Name: Clark Dynamic Test Laboratory

Contact Name: J.R. Antenucci, Test Manager

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

Telephone: 412-387-1004 Email: jrantenucci@clarktesting.com





OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT FACILITIES DEVELOPMENT DIVISION

Seismic Parameters

Design in accordance with ASCE 7-10 Chapter 13: Yes No

Design Basis of Equipment or Components (F_p/W_p) = 1.13 @ $z/h = 0.0$ & 1.60 @ $z/h = 1.0$

S_{DS} (Design spectral response acceleration at short period, g) = 2.50 @ $z/h = 0.0$ & 2.13 @ $z/h = 1.0$

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

R_p (Equipment or component response modification factor) = 6.0

Ω_0 (System overstrength factor) = 2.5

I_p (Importance factor) = 1.5

z/h (Height factor ratio) = Varies 0 and 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, 2010: Yes No

List of Attachments Supporting Special Seismic Certification

Test Report(s) Drawings Calculations Manufacturer's Catalog

Other(s) (Please Specify): SE Certification Letter

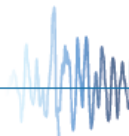
OSHPD Approval (For Office Use Only) – Approval Expires on December 31, 2019

Signature:  Date: July 23, 2013

Print Name: Timothy J. Piland Title: SSE

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

Condition of Approval (if applicable): _____



**GE ZENITH CONTROLS ZTG, ZTS, ZT3, ZBG, ZBS, and ZB3
AUTOMATIC TRANSFER SWITCH CERTIFIED PRODUCT LINE MATRIX**



ID Number	Frame Size	Pole	Ampere Rating	Voltage	NEMA Rating	Enclosure Width	Enclosure Depth	Enclosure Height	Service Weight (lbs)	Representative UUT
ZTG, ZTS, ZT3 - 3P - 1	40LA	3	801 - 3000	120 - 600	1	36.5"	23.5"	90.0"	867-972	UUT-1
ZTG, ZTS, ZT3 - 4P - 1	40LA	4	801 - 3000	120 - 600	1	36.5"	23.5"	90.0"	923-1062	interpolated
ZTG, ZTS, ZT3 - 3P - 1	40LA	3	801 - 3000	120 - 600	1	36.5"	32.5"	90.0"	950-1055	interpolated
ZTG, ZTS, ZT3 - 4P - 1	40LA	4	801 - 3000	120 - 600	1	36.5"	32.5"	90.0"	1007-1145	interpolated
ZTG, ZTS, ZT3 - 3P - 1	40LA	3	801 - 3000	120 - 600	1	36.5"	38.5"	90.0"	1033-1138	interpolated
ZTG, ZTS, ZT3 - 4P - 1	40LA	4	801 - 3000	120 - 600	1	36.5"	38.5"	90.0"	1090-1228	interpolated
ZTG, ZTS, ZT3 - 3P - 1	40LA	3	801 - 3000	120 - 600	1	36.5"	53.5"	90.0"	1157-1262	interpolated
ZTG, ZTS, ZT3 - 4P - 1	40LA	4	801 - 3000	120 - 600	1	36.5"	53.5"	90.0"	1231-1352	interpolated
ZTG, ZTS, ZT3 - 3P - 3R, 4, 12	40LA	3	801 - 3000	120 - 600	3R, 4, 12	38.8"	41.5"	90.0"	1273-1339	interpolated
ZTG, ZTS, ZT3 - 4P - 3R, 4, 12	40LA	4	801 - 3000	120 - 600	3R, 4, 12	38.8"	41.5"	90.0"	1330-1429	UUT-2
ZBG, ZBS, ZB3 - 3P - 1	40LB	3	801 - 3000	120 - 600	1	45.5"	50.0"	90.0"	2280-2506	UUT-3
ZBG, ZBS, ZB3 - 4P - 1	40LB	4	801 - 3000	120 - 600	1	45.5"	50.0"	90.0"	2486-2749	interpolated
ZBG, ZBS, ZB3 - 3P - 1	40LB	3	801 - 3000	120 - 600	1	45.5"	60.0"	90.0"	2416-2643	interpolated
ZBG, ZBS, ZB3 - 4P - 1	40LB	4	801 - 3000	120 - 600	1	45.5"	60.0"	90.0"	2623-2885	interpolated
ZBG, ZBS, ZB3 - 3P - 3R, 4, 12	40LB	3	801 - 3000	120 - 600	3R, 4, 12	45.5"	63.0"	90.0"	2756-2869	interpolated
ZBG, ZBS, ZB3 - 4P - 3R, 4, 12	40LB	4	801 - 3000	120 - 600	3R, 4, 12	45.5"	63.0"	90.0"	2960-3112	UUT-4

Notes:

- 1) All Transferswitches are delay, closed, and open switches.
- 2) Enclosures of constructed of bolted and welded carbon steel.
- 3) The ZTG, ZTS, and ZT3 Non-Bypass transfer switches are of identical construction.
- 4) The ZBG, ZBS, and ZB3 Bypass transfer switches are of identical construction.

**GE ZENITH CONTROLS ZTG, ZTS, ZT3, ZBG, ZBS, and ZB3
AUTOMATIC TRANSFER SWITCH CERTIFIED SUBCOMPONENT MATRIX**



Component ID Number	Description	Manufacturer	Width	Depth	Height	Weight (lbs)	Representative UUT
Carbon Steel Enclosures ¹⁾							
F-3000MP	NEMA1 bolted carbon steel	Genesis Inc.	36.5"	23.5"	90.0"	na	UUT-1
F-3000MP+26h-1946	NEMA1 bolted carbon steel	Genesis Inc.	36.5"	32.5"	90.0"	na	interpolated
F-3000MP+26h-1947	NEMA1 bolted carbon steel	Genesis Inc.	36.5"	38.5"	90.0"	na	interpolated
F-3000MP+26h-1980	NEMA1 bolted carbon steel	Genesis Inc.	36.5"	53.5"	90.0"	na	interpolated
F-3001MP	NEMA3R,4,12 welded carbon steel	Genesis Inc.	38.8"	41.5"	90.0"	na	UUT-2
F-3003MP	NEMA1 bolted carbon steel	Genesis Inc.	45.5"	50.0"	90.0"	na	UUT-3
F-3003MP+26h-1948	NEMA1 bolted carbon steel	Genesis Inc.	45.5"	60.0"	90.0"	na	interpolated
F-3004MP	NEMA3R,4,12 welded carbon steel	Genesis Inc.	45.5"	60.0"	90.0"	na	UUT-4
Electrical Panel / Controller Components							
50P-1160/61	MX150 and MX250 Controller	Sienna	11.0"	4.0"	14.0"	12.0	UUT-1, UUT-3
MX250: 26P-3176	Electrical Panel	Precision	31.0"	1.0"	18.0"	1.0	UUT-1, UUT-3
MX350 HMI	Controller	GE	6.0"	1.0"	7.0"	2.0	UUT-2, UUT-4
MX350 CPU	Controller	GE	4.0"	5.0"	12.0"	3.0	UUT-2, UUT-4
50P-3041	MX350 Input Module	Sienna	3.5"	5.2"	2.5"	1.0	UUT-2, UUT-4
50P-3042	MX350 Output Module	Sienna	3.5"	5.2"	2.5"	1.0	UUT-2, UUT-4
MX350: 26P-3177	Electrical Panel	Precision	31.0"	1.0"	18.0"	1.0	UUT-2, UUT-4
CPS Box Components ²⁾							
50P-1224	CPS Box, 120V	Sienna	5.0"	3.0"	10.0"	7.0	UUT-1, UUT-3
50P-1225	CPS Box, 208-220V	Sienna	5.0"	3.0"	10.0"	7.0	interpolated / extrapolated
50P-1226	CPS Box, 230-240V	Sienna	5.0"	3.0"	10.0"	7.0	interpolated / extrapolated
50P-1227	CPS Box, 277V	Sienna	5.0"	3.0"	10.0"	7.0	interpolated / extrapolated
50P-1228	CPS Box, 380-400V	Sienna	5.0"	3.0"	10.0"	7.0	interpolated / extrapolated
50P-1229	CPS Box, 416-440V	Sienna	5.0"	3.0"	10.0"	7.0	interpolated / extrapolated
50P-1230A	CPS Box, 480V	Sienna	5.0"	3.0"	10.0"	7.0	interpolated / extrapolated
50P-1261RPL	CPS Box, 575-600V	Sienna	5.0"	3.0"	10.0"	7.0	interpolated / extrapolated

07/23/2013

**GE ZENITH CONTROLS ZTG, ZTS, ZT3, ZBG, ZBS, and ZB3
AUTOMATIC TRANSFER SWITCH CERTIFIED SUBCOMPONENT MATRIX**



Component ID Number	Description	Manufacturer	Width	Depth	Height	Weight (lbs)	Representative UUT
Transformer Components							
9T58K0070	Transformers, 0.5KVA, 230-575V	GE	5.0"	5.0"	7.0"	20.0	UUT-3, UUT-4
9T58K0090	Transformers, 0.5KVA, 208-380V	GE	5.0"	5.0"	7.0"	20.0	UUT-2
9T58K3717	Transformers, 0.5KVA	GE	5.0"	5.0"	7.0"	20.0	interpolated
9T58K3718	Transformers, 0.75KVA	GE	5.0"	5.0"	7.0"	20.0	UUT-1
9T58K2913	Transformers, 0.5KVA, 120-240V	GE	5.0"	5.0"	7.0"	20.0	interpolated
9T58K2930	Transformers, 0.5kVA, 240-480V	GE	5.0"	5.0"	7.0"	20.0	UUT-4
Power Panel Assembly							
23c-4001	3-Pole Power Panel Standalone	GE Zenith	28.9"	14.6"	28.6"	450.0	UUT-1
23c-4002	4-Pole Power Panel Standalone	GE Zenith	28.9"	14.6"	28.6"	450.0	UUT-2
26p-4007	3-Pole Power Panel Bypass	GE Zenith	38.3"	39.2"	55.5"	1400.0	UUT-3
26p-4007	4-Pole Power Panel Bypass	GE Zenith	38.3"	39.2"	55.5"	1400.0	UUT-4

Notes:

- The size, construction material and coating of NEMA Type 3R, 4, and 12 enclosures are identical.
- The tested and interpolated CPS Box Components are of identical construction with the exception of voltage ratings.

**GE ZENITH CONTROLS ZTG, ZTS, ZT3, ZBG, ZBS, and ZB3
ATS CERTIFIED PRODUCT NUMBERING SYSTEM**



	Brand	ATS/BYPASS	Model	Transition	Serv. Equip	Amperage			Poles	Dash	voltage	# of Wires, Hx	Enclosure	Application	Control panel	Power Panel Code	reserved for OPTION coding		
	1	2	3	4	5	6	7	8	9	-	11	12	13	14	15	16	17	18	19
Product Numbering System -	↓	↓	↓	↓	↓	↓	↓	↓	↓	-	X	X	↓	X	↓	X	X	X	X
1 Brand	Zenith	Z																	
2 ATS/Bypass	ATS	T																	
	Bypass	B																	
3 Model	ZTG		G																
	ZTS		S																
	ZT30		3																
4 Transition Type	Standard Transition			S															
	Delayed Transition			D															
	Closed Transition			C															
5 Type	Standard				T														
6, 7, 8 Amperage	1000					1	0	0											
	1200					1	2	0											
	1600					1	6	0											
	2000					2	0	0											
	2600					2	6	0											
	3000					3	0	0											
9 Poles	3-Pole									E									
	4-Pole									F									
13 Enclosure	NEMA 1															1			
	NEMA 3R															R			
	NEMA 4															4			
	NEMA 12															2			
15 Controller	MX150																		1
	MX250																		2
	MX350																		3

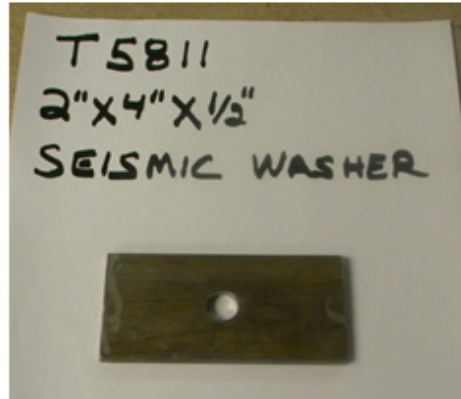
FOR REFERENCE ONLY

UUT-1

**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Rigid floor mount with 6 - 1/2" diameter anchor bolts and 2x4x0.25" plate washers



Use seismic washer at all six anchor bolt locations



Manufacturer: GE Zenith Controls

Product Line: ZTG, ZTS, ZT3, ZBG, ZBS, and ZB3 Automatic Transfer Switches

Identification Number: ZT3 - 3P - 1

UUT Function: Manual/Automatic power switching from utility power to emergency power

UUT Description: Standalone Non-Bypass 3 Pole Automatic Transfer Switch and Controls housed in NEMA1 steel enclosure.

UUT Component Description: F-3000MP NEMA1 carbon steel enclosure, 23c-4001 3-Pole Power Panel, 50P-1160/61 MX250 Controller, MX250: 26P-3176 Electrical Panel, 50P-1224 CPS Box, and two 9T58k3718 Transformers.

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
917	36.5	23.5	90	6.8	9.0	> 33

SEISMIC TEST PARAMETERS (TESTED 12-20-2012)

Test Criteria	S _{DS}	z / h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
ICC-ES AC156 2012	2.13	1.0	1.5	3.40	2.55	1.68	0.68

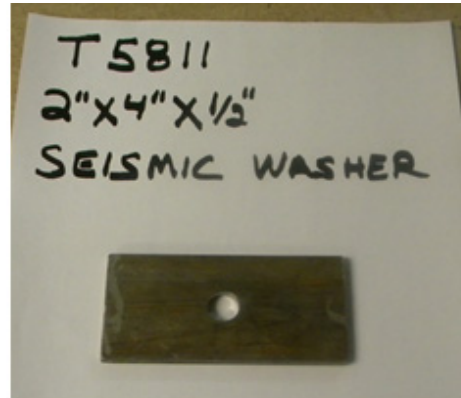
Note: The transfer switch maintained structural integrity and functionality after the ICC-ES AC156 Test.

UUT-2

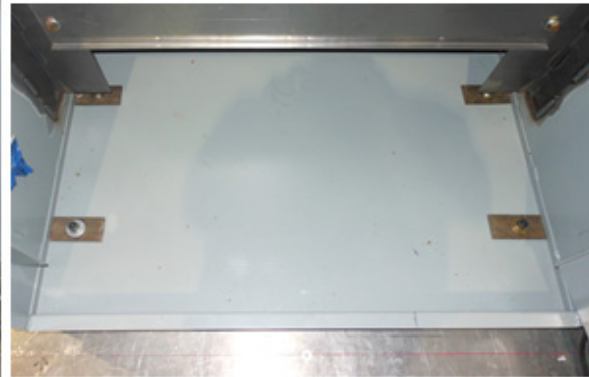
**UNIT UNDER TEST (UUT)
SUMMARY SHEET**



Mounting Details: Rigid floor mount with 6 - 1/2" diameter anchor bolts and 2x4x0.25" plate washers.



Use seismic washer at all six anchor bolt locations



Manufacturer: GE Zenith Controls

Product Line: ZTG, ZTS, ZT3, ZBG, ZBS, and ZB3 Automatic Transfer Switches

Identification Number: ZT3 - 4P - 3R, 4, 12

UUT Function: Manual/Automatic power switching from utility power to emergency power

UUT Description: Standalone Non-Bypass 4 Pole Automatic Transfer Switch and Controls housed in NEMA3R, 4, 12 steel enclosure.

UUT Component Description: F-3001MP NEMA3R, 4, 12 carbon steel enclosure, 23c-4002 4-Pole Power Panel, MX350 HMI/CPU Controller, MX350: 26P-3177 Electrical Panel, MX350: 50P-3041 and 50P-3042 Input/Output Module, and two 9T58k0090 Transformers.

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
1,295	38.8	41.5	90	19.7	14.7	> 33

SEISMIC TEST PARAMETERS (TESTED 12-20-2012)

Test Criteria	S _{DS}	z / h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
ICC-ES AC156 2012	2.13	1.0	1.5	3.40	2.55	1.68	0.68

Note: The transfer switch maintained structural integrity and functionality after the ICC-ES AC156 Test.

UUT-3

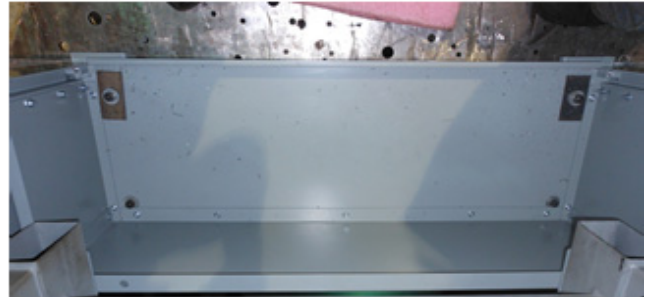
UNIT UNDER TEST (UUT) SUMMARY SHEET



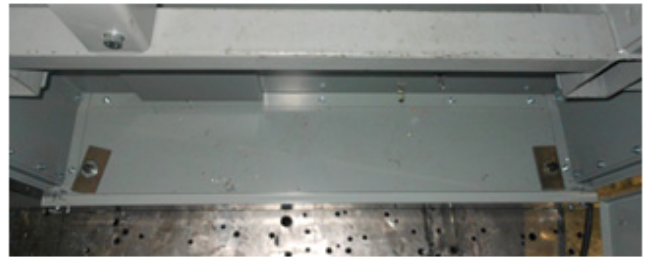
Mounting Details: Rigid floor mount with 6 - 1/2" diameter anchor bolts and 2x4x0.25" plate washers.



Use seismic washer at front and back anchor locations



BACK



FRONT

Manufacturer: GE Zenith Controls

Product Line: ZTG, ZTS, ZT3, ZBG, ZBS, and ZB3 Automatic Transfer Switches

Identification Number: ZB3 - 3P - 1

UUT Function: Manual/Automatic power switching from utility power to emergency power

UUT Description: Bypass 3-Pole Automatic Transfer Switch and Controls housed in NEMA1 steel enclosure.

UUT Component Description: F-3003MP NEMA1 carbon steel enclosure, 26p-4007 3-Pole Bypass Power Panel, 50P-1160/61 MX250 Controller, MX250: 26P-3176 Electrical Panel, 50P-1224 CPS Box, and two 9T58K0070 Transformers.

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
2,350	45.5	50	90	23.2	19.0	> 33

SEISMIC TEST PARAMETERS (TESTED 12-20-2012)

Test Criteria	S _{DS}	z/h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
ICC-ES AC156 2012	2.13	1.0	1.5	3.40	2.55	1.68	0.68

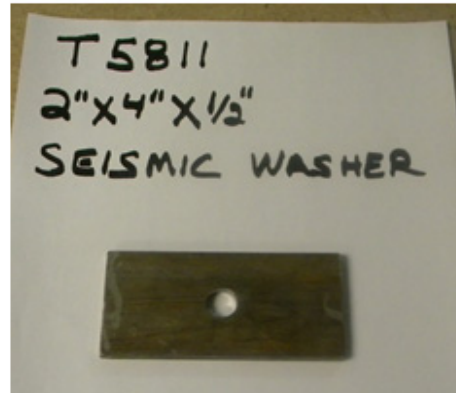
Note: The transfer switch maintained structural integrity and functionality after the ICC-ES AC156 Test.

UUT-4

UNIT UNDER TEST (UUT) SUMMARY SHEET



Mounting Details: Rigid floor mount with 6 - 1/2" diameter anchor bolts and 2x4x0.25" plate washers.



Use seismic washer at all six anchor bolt locations



Manufacturer: GE Zenith Controls

Product Line: ZTG, ZTS, ZT3, ZBG, ZBS, and ZB3 Automatic Transfer Switches

Identification Number: ZB3 - 4P - 3R, 4, 12

UUT Function: Manual/Automatic power switching from utility power to emergency power

UUT Description: Bypass 4-Pole Automatic Transfer Switch and Controls housed in NEMA3R, 4, 12 steel enclosure.

UUT Component Description: F-3004MP NEMA3R, 4, 12 carbon steel enclosure, 26p-4007 4-Pole Bypass Power Panel, MX350 HMI/CPU Controller, MX350: 26P-3177 Electrical Panel, MX350: 50P-3041 and 50P-3042 Input/Output Module, 9T58k0070 Transformer, and 9T58k2930 Transformer.

UUT PROPERTIES

Weight (lb)	Dimensions (inches)			Natural Frequency (Hz)		
	Width	Depth	Height	FB	SS	V
2,895	45.5	63	90	14.43	8.08	11.7

SEISMIC TEST PARAMETERS (TESTED 12-20-2012)

Test Criteria	S _{DS}	z / h	I _p	A _{FLX-H}	A _{RIG-H}	A _{FLX-V}	A _{RIG-V}
ICC-ES AC156 2012	2.13	1.0	1.5	3.40	2.55	1.68	0.68

Note: The transfer switch maintained structural integrity and functionality after the ICC-ES AC156 Test.