



4.0 Registered Design Professional Preparing the Report

Tobolski Watkins Engineering Inc.

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5.0 California Licensed Structural Engineer Review and Acceptance of the Report

Tobolski Watkins Engineering Inc.

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Derrick A. Watkins, S.E.

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6.0 Anchorage Pre-Approval

Anchorage is pre-approved under OPA- (Separate application for anchorage pre-approval is required)

Anchorage is not Pre-approved

7.0 Certification Method

Testing in accordance with: ICC-ES AC-156 Other (Please Specify):

- Analysis
Experience data
Combination of Testing, Analysis, and/or Experience Data (Please Specify):

8.0 Testing Laboratory (if applicable)

Clark Testing

Company Name

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UUT - 1

**UNIT UNDER TEST (UUT)
Summary Sheet**

TWEI Project No.: 2011-0138-CO-002

Manufacturer: Siemens Industry, Inc.

Model Line: TC Series Modular Controllers

Model Number: PX Series 34" Enclosure

Product Construction Summary:
Painted carbon steel enclosure. NEMA 1 rated.

Options/Subcomponent Summary:
Refer to Tables 1-3 for complete listing of internal components.

UUT Properties

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
100	5.8	22.0	34.0	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 2010	ICC-ES AC 156	2.5g	1.0	1.5	4.0g	3.0g	1.67g	0.67g

Test Mounting Details:



UUT-1

Unit mounted to wall mount fixture using four (4) 3/4" diameter bolts.

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UUT - 2

**UNIT UNDER TEST (UUT)
Summary Sheet**

TWEI Project No.: 2011-0138-CO-002

Manufacturer: Siemens Industry, Inc.

Model Line: TNM Series Controllers

Model Number: PX Series 34" Enclosure

Product Construction Summary:

Painted carbon steel enclosure. NEMA 1 rated.

Options/Subcomponent Summary:

Refer to Tables 1-3 for complete listing of internal components.

UUT Properties

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
100	5.8	22.0	34.0	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 2010	ICC-ES AC 156	2.5g	1.0	1.5	4.0g	3.0g	1.67g	0.67g

Test Mounting Details:



UUT-2

Unit mounted to wall mount fixture using four (4) 3/4" diameter bolts.

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UUT - 3

**UNIT UNDER TEST (UUT)
Summary Sheet**

TWEI Project No.: 2011-0138-CO-002

Manufacturer: Siemens Industry, Inc.

Model Line: TC Series Compact Controllers

Model Number: PX Series 19" Enclosure

Product Construction Summary:

Painted carbon steel enclosure. NEMA 1 rated.

Options/Subcomponent Summary:

Refer to Tables 1-3 for complete listing of internal components.

UUT Properties

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
50	5.8	22.0	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 2010	ICC-ES AC 156	2.5g	1.0	1.5	4.0g	3.0g	1.67g	0.67g

Test Mounting Details:



UUT-3

Unit mounted to wall mount fixture using four (4) ¼" diameter bolts.

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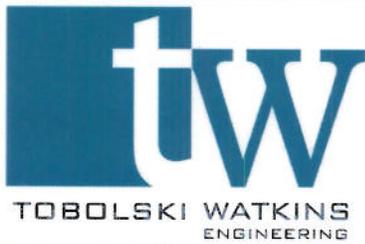


Table 1

**Special Seismic Certification
Certified Product Matrix**

TWEI Project No.: 2011-0177-CO-001

Manufacturer: Siemens Industry, Inc.

Model Line: PX Series Enclosures

Certified Product Construction Summary:

Painted 16 GA steel NEMA Type 1 enclosure & backplane. Hinged doors with key lock, wire tie bars and mounting studs for optional PX Series Service Boxes on 19" and 34" enclosures. Pull-box type door, non-locking and wire tie bars on 18" enclosures.

Certified Options Summary:

PX Series Service Boxes 24Vac output at 192VA, input 115Vac with Duplex Outlets or 230Vac mounted in 19" or 34" enclosures.
 PX Series Service Boxes 24Vac output at 384VA, input 115Vac with Duplex Outlets or 230Vac mounted in 34" enclosures.
 Internal mounting of outlet box in 18" enclosures on DIN rail or mounted directly to perforated backplane using screws provided.
 Internal mounting of DIN standard TH 35-7.5-1mm components on DIN rails or mounted directly to perforated backplane using screws provided, refer to Tables 3, 4, 5 and 6.
 Internal mounting of Network Devices on enclosure or backplane or External mounting, refer to Table 2.

Certified Mounting Summary:

Enclosures are non-isolated wall mounted.

Building Code: CBC 2010

Seismic Certification Limits: $S_{DS} = 2.50g$ $z/h = 1.0$ $I_p = 1.5$

Model Line	Model	Dimension (in)			Weight (lb)	Notes	UUT
		Depth	Width	Height			
PX Series	PXA-ENC-18	6.0	14.0	18.0	50*	* Weight listed is a maximum dependent on internal component selection	
	PXA-ENC-19	5.8	22.0	19.0	50*		3
	PXA-ENC-34	5.8	22.0	34.0	100*		1,2
PX Series Service Boxes	PXA-SB115V192VA					* Weight and Dimension included in installed enclosure	3
	PXA-SB230V192VA						
	PXA-SB115V384VA						1,2
	PXA-SB230V384VA						

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Table 2

**Special Seismic Certification
Certified Product Matrix**

TWEI Project No.: 2011-0177-CO-001

Manufacturer: Siemens Industry, Inc.

Model Line: TC Series Controllers

Certified Product Construction Summary:

TC and TX-I/O plastic housing complies with DIN 43880.
PPM plenum rated plastic housing and galvanized steel electrical junction box.

Certified Options Summary:

All series part numbers for models shown may be used.

Certified Mounting Summary:

Internal components mounted on DIN rails or directly to perforated backplane using screws provided with enclosure.

Building Code: IBC 2009/CBC 2010 **Seismic Certification Limits:** $S_{DS} = 2.50g$ $z/h = 1.0$ $I_p = 1.5$

Model Line	Model	Dimension (in)			Weight (lb)	Notes	UUT
		Depth	Width	Height			
TC Modular Series Controllers	TC1100					TC Modular Controller with TX-I/O Modules up to 500 points enabled	1
	TC1000					TC Modular Controller 0 point Requires License to enable TX-I/O Bus	1
	PXX					TC Modular Expansion Devices	1
TC Compact Series Controllers	TC16					TC Compact Controller with 16 points	
	TC24					TC Compact Controller with 24 points	3
	TC36					TC Compact Controller with 36 points	3
	PXA8					Hand Off Auto (HOA) 8 Switch	
	PXA16					Hand Off Auto (HOA) 16 Switch	3
PX Accessories	PXA-HMI					Remote Kit and Cables	3
	PXM10 Tiny					Operator Display Panel	3
TX-I/O™ Product Range	TXM1					TX-I/O Input/Output Modules	1,3
	TXB1					TX-I/O Bus Interface Modules	1
	TXS1					TX-I/O Power Supply and Bus Connection Modules	1,3
	TXA1					TX-I/O Accessories: Bus Exp. Module, Address Keys & Labels	1,3

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Table 3

**Special Seismic Certification
Certified Product Matrix**

TWEI Project No.: 2011-0177-CO-001

Manufacturer: Tridium, Inc.

Model Line: TNM Series Controllers

Certified Product Construction Summary:
 TC and TX-I/O plastic housing complies with DIN 43880.
 PPM plenum rated plastic housing and galvanized steel electrical junction box.

Certified Options Summary:
 All series part numbers for models shown may be used.

Certified Mounting Summary:
 Internal components mounted on DIN rails or directly to perforated backplane using screws provided with enclosure.

Building Code: IBC 2009/CBC 2010 **Seismic Certification Limits:** $S_{Ds} = 2.50g$ $z/h = 1.0$ $I_p = 1.5$

Model Line	Model	Dimension (in)			Weight (lb)	Notes	UUT
		Depth	Width	Height			
TALON® Network Managers	TNM-2					Base Controller up to 66 point	
	TNM-6					Base Controller up to 66 point	2
	TNM-7					Base Controller up to Remote 256 point	2
IO Modules	IO-16					Input Output Module 16 points	2
	IO-34					Input Output Module 34 points	2
	T-IO-16-485					RS-485 Remote Input Output Module 16 points	2
Communication Option Cards	NPB-LON					Internal Single Port LON	2
	NPB-2X-485					Internal Dual Port RS-485	2
	NPB-232					Internal Single Port RS-232	
	NPB-MDM					Internal Single Port Modem	
Power Supplies	NPB-PWR					DIN-mountable, 24V isolated power module	2
	NPB-PWR-UN					DIN-mountable, Universal 90–263 Vac input, 15Vdc output, 30W power supply	2
	WPM-US					US Wall Power Module	

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