



**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
FACILITIES DEVELOPMENT DIVISION**

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

OFFICE USE ONLY

APPLICATION #: OSP-0647

HCAI Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: Starline Holdings LLC

Manufacturer's Technical Representative: Madhav Mishra

Mailing Address: 168 Georgetown Rd, Canonsburg, PA 15317

Telephone: (724) 597-7800

Email: madhav.mishra@legrand.com

Product Information

Product Name: Electrical Busways

Product Type: NA

Product Model Number: See attached sheet for product model numbers.

General Description: Electrical busway system (Feeds, Straights, Elbows, Tees and Plug in devices).
Aluminum housing and copper busbars with current capacities from 100 to 600 amperes.

Busway Segment Lengths Limited to 7'-6" maximum.

Suspended supports required in both orthogonal directions at 5'-0" o.c. maximum, 2'-0" maximum from changes in direction, and at ends.

Busses longer than 1'-0" require a minimum of one set of orthogonal direction supports per buss.
See UUT Sheets for supports and attachments.

Mounting Description: Rigid suspended, see above for minimum support requirements.

Tested Seismic Enhancements: None

Applicant Information

Applicant Company Name: Starline Holdings LLC

Contact Person: Madhav Mishra

Mailing Address: 168 Georgetown Rd, Canonsburg, PA 15317

Telephone: (724) 597-7800

Email: madhav.mishra@legrand.com

Title: Mechanical Engineer





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

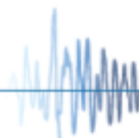
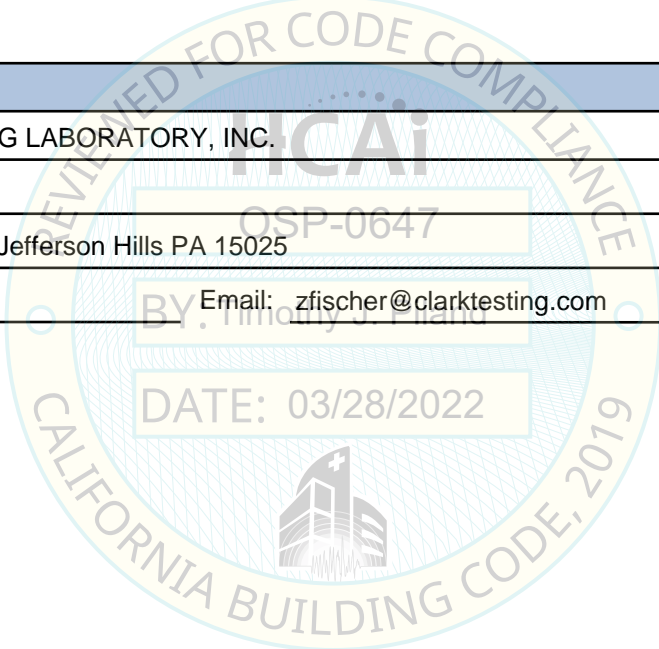
Company Name: WAYPOINT ENGINEERING, INC.
Name: Jacob Christensen California License Number: S5426
Mailing Address: 601 Main Street, Suite 400, Vancouver, WA 98660
Telephone: (360) 360-6611 Email: Jacob@waypointwa.com

Certification Method

GR-63-Core ICC-ES AC156 IEEE 344 IEEE 693 NEBS 3
 Other (Please Specify): _____

Testing Laboratory

Company Name: CLARK TESTING LABORATORY, INC.
Contact Person: Zack Fischer
Mailing Address: 1801 Route 51, Jefferson Hills PA 15025
Telephone: (412) 387-1001 Email: zfischer@clarktesting.com





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Seismic Parameters

Design Basis of Equipment or Components (F_p/W_p) = 3.60

SDS (Design spectral response acceleration at short period, g) = 2.0

a_p (Amplification factor) = 2.5

R_p (Response modification factor) = 2.5

Ω_0 (System overstrength factor) = 2.0

I_p (Importance factor) = 1.5

z/h (Height ratio factor) = 1

Natural frequencies (Hz) = See attachment

Overall dimensions and weight = See attachment

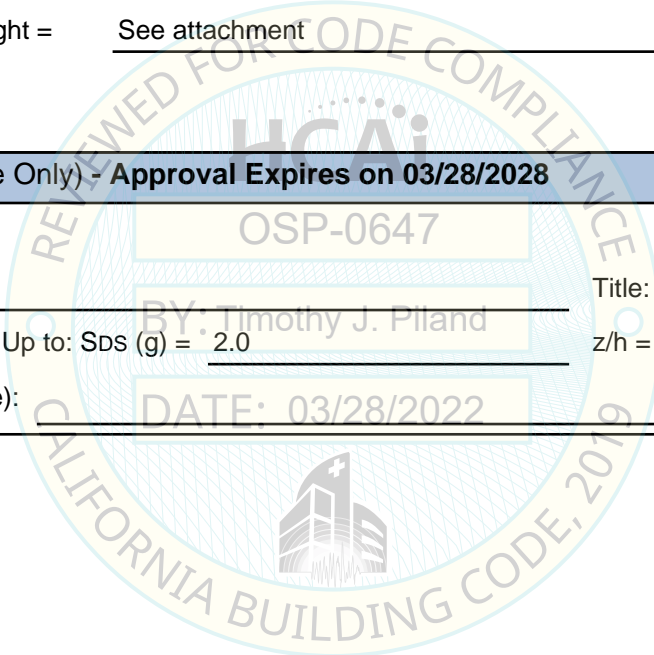
HCAI Approval (For Office Use Only) - Approval Expires on 03/28/2028

Date: 3/28/2022

Name: Timothy Piland Title: Senior Structural Engineer

Special Seismic Certification Valid Up to: SDS (g) = 2.0 z/h = 1

Condition of Approval (if applicable): DATE: 03/28/2022



STARLINE BUSWAY PRODUCT DECODER - BUSWAY

Polarization: S = Standard

Neutral Ground/Busbar:

4 = 3 Phase plus Neutral

N = 3 Phase plus 200% Neutral

G = 3 Phase plus Neutral plus
Internal Ground Conductor

F = 3 Phase plus 200% Neutral
plus Internal Ground Conductor

Material: C = Copper

Compatibility: T5 = T5 System

K5 = T5 System (Limiting Strip)

Product Frame: Rated Amperage

Product Type: S = Straight

System: U = US

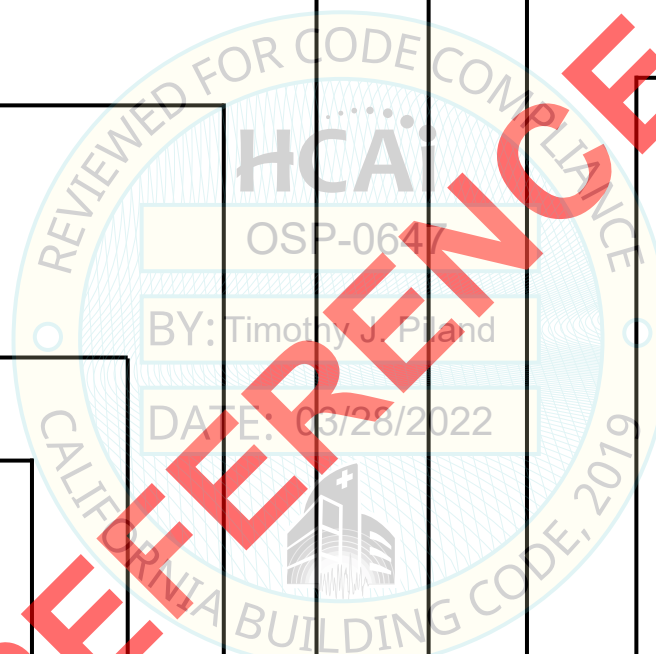
Straight Length: XXYY = (XX = feet, YY = inches)

Busway Access: C = Continuous

Paint Color: See Product Catalog

Tape Marking: See Product Catalog

U S 400 T5 C 4 S - 0200 C - STD 0



FOR REFERENCE ONLY

STARLINE BUSWAY PRODUCT CERTIFICATION TABLE - BUSWAY



Unit and Ampacity Rating (A)	Height	Width	Weight	Busbar Material	Part No	Test Identification
100 Amp Busway	4.19 in	2.38 in	2.6 lb/ft	Copper	US100T3C4S-xxxxx-xxxx	Interpolated
100 Amp Busway	4.19 in	2.38 in	3.0 lb/ft	Copper	US100T3CGS-xxxxx-xxxx	Interpolated
100 Amp Busway	4.19 in	2.38 in	3.3 lb/ft	Copper	US100T3CNS-xxxxx-xxxx	Interpolated
100 Amp Busway	4.19 in	2.38 in	3.4 lb/ft	Copper	US100T3CFS-xxxxx-xxxx	Interpolated
160 Amp Busway	4.19 in	2.38 in	2.6 lb/ft	Copper	MS160T3C4S-xxxxx-xxxx	Interpolated
160 Amp Busway	4.19 in	2.38 in	3.0 lb/ft	Copper	MS160T3CGS-xxxxx-xxxx	Interpolated
160 Amp Busway	4.19 in	2.38 in	3.3 lb/ft	Copper	MS160T3CNS-xxxxx-xxxx	Interpolated
160 Amp Busway	4.19 in	2.38 in	3.4 lb/ft	Copper	MS160T3CFS-xxxxx-xxxx	Interpolated
225 Amp Busway	4.19 in	2.38 in	3.3 lb/ft	Copper	US225T3C4S-xxxxx-xxxx	Interpolated
225 Amp Busway	4.19 in	2.38 in	3.3 lb/ft	Copper	MS225T3C4S-xxxxx-xxxx	Interpolated
250 Amp Busway	5.05 in	4.36 in	4.1 lb/ft	Copper	US250x5C4S-xxxxx-xxxx	Interpolated
250 Amp Busway	5.05 in	4.36 in	4.6 lb/ft	Copper	US250x5CGS-xxxxx-xxxx	Interpolated
250 Amp Busway	5.05 in	4.36 in	4.7 lb/ft	Copper	US250x5CNS-xxxxx-xxxx	Interpolated
250 Amp Busway	5.05 in	4.36 in	5.1 lb/ft	Copper	US250x5CFS-xxxxx-xxxx	Interpolated
250 Amp Busway	5.05 in	4.36 in	4.1 lb/ft	Copper	GS250x5C4S-xxxxx-xxxx	Interpolated
250 Amp Busway	5.05 in	4.36 in	4.6 lb/ft	Copper	GS250x5CGS-xxxxx-xxxx	Interpolated
250 Amp Busway	5.05 in	4.36 in	4.7 lb/ft	Copper	GS250x5CNS-xxxxx-xxxx	Interpolated
250 Amp Busway	5.05 in	4.36 in	5.1 lb/ft	Copper	GS250x5CFS-xxxxx-xxxx	Interpolated
250 Amp Busway	5.05 in	4.36 in	4.1 lb/ft	Copper	MS250x5C4S-xxxxx-xxxx	Interpolated
250 Amp Busway	5.05 in	4.36 in	4.6 lb/ft	Copper	MS250x5CMS-xxxxx-xxxx	Interpolated
250 Amp Busway	5.05 in	4.36 in	4.7 lb/ft	Copper	MS250x5CNS-xxxxx-xxxx	Interpolated
250 Amp Busway	5.05 in	4.36 in	5.1 lb/ft	Copper	MS250x5CFS-xxxxx-xxxx	Interpolated
400 Amp Busway	5.05 in	5.80 in	9.5 lb/ft	Copper	US400x5C4S-xxxxx-xxxx	Interpolated
400 Amp Busway	5.05 in	5.80 in	10.0 lb/ft	Copper	US400x5CGS-xxxxx-xxxx	Interpolated

Busway segment lengths are limited to 7'-6" maximum.

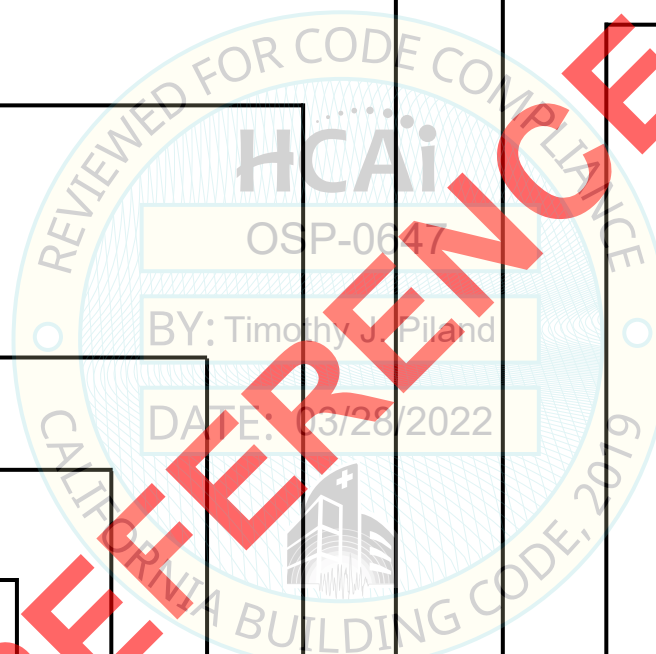
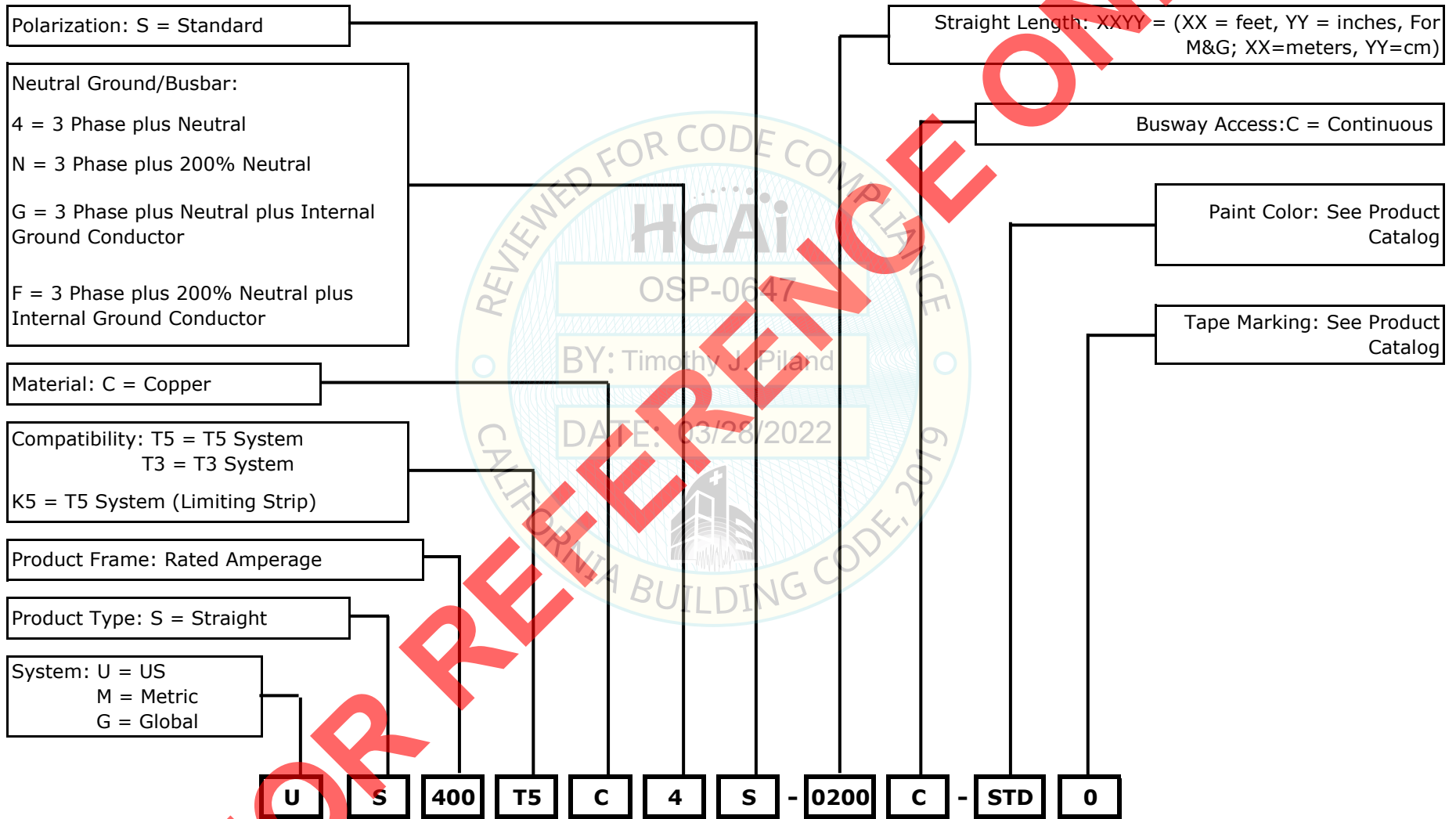
STARLINE BUSWAY PRODUCT CERTIFICATION TABLE - BUSWAY



Unit and Ampacity Rating (A)	Height	Width	Weight	Busbar Material	Part No	Test Identification
400 Amp Busway	5.05 in	5.80 in	11.0 lb/ft	Copper	US400x5CNS-xxxxx-xxxx	Interpolated
400 Amp Busway	5.05 in	5.80 in	12.0 lb/ft	Copper	US400x5CFS-xxxxx-xxxx	Interpolated
400 Amp Busway	5.05 in	5.80 in	12.0 lb/ft	Copper	US400T5CFS-0706C-STD0	UUT-1A
400 Amp Busway	5.05 in	5.80 in	12.0 lb/ft	Copper	US400T5CFS-0100C-STD0	UUT-1A
400 Amp Busway	5.05 in	5.80 in	12.0 lb/ft	Copper	US400T5CFS-0300C-STD0	UUT-1A
400 Amp Busway	5.05 in	5.80 in	12.0 lb/ft	Copper	US400T5CFS-0309C-STD0	UUT-1A
400 Amp Busway	5.05 in	5.80 in	12.0 lb/ft	Copper	US400T5CFS-0500C-STD0	UUT-1A
400 Amp Busway	5.05 in	5.80 in	12.0 lb/ft	Copper	US400T5CFS-0600C-STD0	UUT-1A
400 Amp Busway	5.05 in	5.80 in	9.5 lb/ft	Copper	GS400x5C4S-xxxxx-xxxx	Interpolated
400 Amp Busway	5.05 in	5.80 in	10.0 lb/ft	Copper	GS400x5CGS-xxxxx-xxxx	Interpolated
400 Amp Busway	5.05 in	5.80 in	11.0 lb/ft	Copper	GS400x5CNS-xxxxx-xxxx	Interpolated
400 Amp Busway	5.05 in	5.80 in	12.0 lb/ft	Copper	GS400x5CFS-xxxxx-xxxx	Interpolated
400 Amp Busway	5.05 in	5.80 in	9.5 lb/ft	Copper	MS400x5C4S-xxxxx-xxxx	Interpolated
400 Amp Busway	5.05 in	5.80 in	10.0 lb/ft	Copper	MS400x5CGS-xxxxx-xxxx	Interpolated
400 Amp Busway	5.05 in	5.80 in	11.0 lb/ft	Copper	MS400x5CNS-xxxxx-xxxx	Interpolated
400 Amp Busway	5.05 in	5.80 in	12.0 lb/ft	Copper	MS400x5CFS-xxxxx-xxxx	Interpolated
600 Amp Busway	5.05 in	5.80 in	11.5 lb/ft	Copper	US600x5C4S-xxxxx-xxxx	Interpolated
600 Amp Busway	5.05 in	5.80 in	12.0 lb/ft	Copper	US600x5CGS-xxxxx-xxxx	Interpolated
600 Amp Busway	5.05 in	5.80 in	12.0 lb/ft	Copper	US600x5CGS-0706C-SxD0	UUT-7
600 Amp Busway	5.05 in	5.80 in	12.0 lb/ft	Copper	US400T5CFS-0100C-STD0	UUT-7
600 Amp Busway	5.05 in	5.80 in	12.0 lb/ft	Copper	US400T5CFS-0300C-STD0	UUT-7
600 Amp Busway	5.05 in	5.80 in	12.0 lb/ft	Copper	US400T5CFS-0309C-STD0	UUT-7
600 Amp Busway	5.05 in	5.80 in	12.0 lb/ft	Copper	US400T5CFS-0500C-STD0	UUT-7
600 Amp Busway	5.05 in	5.80 in	12.0 lb/ft	Copper	US400T5CFS-0600C-STD0	UUT-7

Busway segment lengths are limited to 7'-6" maximum."

STARLINE BUSWAY PRODUCT DECODER - STRAIGHT BUSWAY



FOR REFERENCE ONLY

STARLINE BUSWAY PRODUCT CERTIFICATION TABLE - FEEDS



Unit and Ampacity Rating (A)	Height (Max)	Width (Max)	Weight (Max)	Busbar Material	Part No	Test Identification
100 Amp Feeder	16.0 in	12.0 in	26.0 lb	Copper	UF100T3C4x-xxxx-xxxx-xxxx-xxxxx	Interpolated
100 Amp Feeder	16.0 in	12.0 in	26.0 lb	Copper	UF100T3CGx-xxxx-xxxx-xxxx-xxxxx	Interpolated
100 Amp Feeder	16.0 in	12.0 in	26.0 lb	Copper	UF100T3CNx-xxxx-xxxx-xxxx-xxxxx	Interpolated
100 Amp Feeder	16.0 in	12.0 in	26.0 lb	Copper	UF100T3CFx-xxxx-xxxx-xxxx-xxxxx	Interpolated
160 Amp Feeder	16.0 in	12.0 in	26.0 lb	Copper	MF160T3C4x-xxxx-xxxx-xxxx-xxxxx	Interpolated
160 Amp Feeder	16.0 in	12.0 in	26.0 lb	Copper	MF160T3CGx-xxxx-xxxx-xxxx-xxxxx	Interpolated
160 Amp Feeder	16.0 in	12.0 in	26.0 lb	Copper	MF160T3CNx-xxxx-xxxx-xxxx-xxxxx	Interpolated
160 Amp Feeder	16.0 in	12.0 in	26.0 lb	Copper	MF160T3CFx-xxxx-xxxx-xxxx-xxxxx	Interpolated
225 Amp Feeder	16.0 in	12.0 in	26.0 lb	Copper	UF225T3C4x-xxxx-xxxx-xxxx-xxxxx	Interpolated
225 Amp Feeder	16.0 in	12.0 in	26.0 lb	Copper	MF225T3C4x-xxxx-xxxx-xxxx-xxxxx	Interpolated
250 Amp Feeder	20.0 in	20.0 in	52.0 lb	Copper	UF250x5C4x-xxxx-xxxx-xxxx-xxxxx	Interpolated
250 Amp Feeder	20.0 in	20.0 in	52.0 lb	Copper	UF250x5CGx-xxxx-xxxx-xxxx-xxxxx	Interpolated
250 Amp Feeder	20.0 in	20.0 in	52.0 lb	Copper	UF250x5CNx-xxxx-xxxx-xxxx-xxxxx	Interpolated
250 Amp Feeder	20.0 in	20.0 in	52.0 lb	Copper	UF250x5CFx-xxxx-xxxx-xxxx-xxxxx	Interpolated
250 Amp Feeder	20.0 in	20.0 in	52.0 lb	Copper	GF250x5C4x-xxxx-xxxx-xxxx-xxxxx	Interpolated
250 Amp Feeder	20.0 in	20.0 in	52.0 lb	Copper	GF250x5CGx-xxxx-xxxx-xxxx-xxxxx	Interpolated
250 Amp Feeder	20.0 in	20.0 in	52.0 lb	Copper	GF250x5CNx-xxxx-xxxx-xxxx-xxxxx	Interpolated
250 Amp Feeder	20.0 in	20.0 in	52.0 lb	Copper	GF250x5CFx-xxxx-xxxx-xxxx-xxxxx	Interpolated
250 Amp Feeder	20.0 in	20.0 in	52.0 lb	Copper	MF250x5C4x-xxxx-xxxx-xxxx-xxxxx	Interpolated

The allowable length of end feed stub is limited to 1'-0"

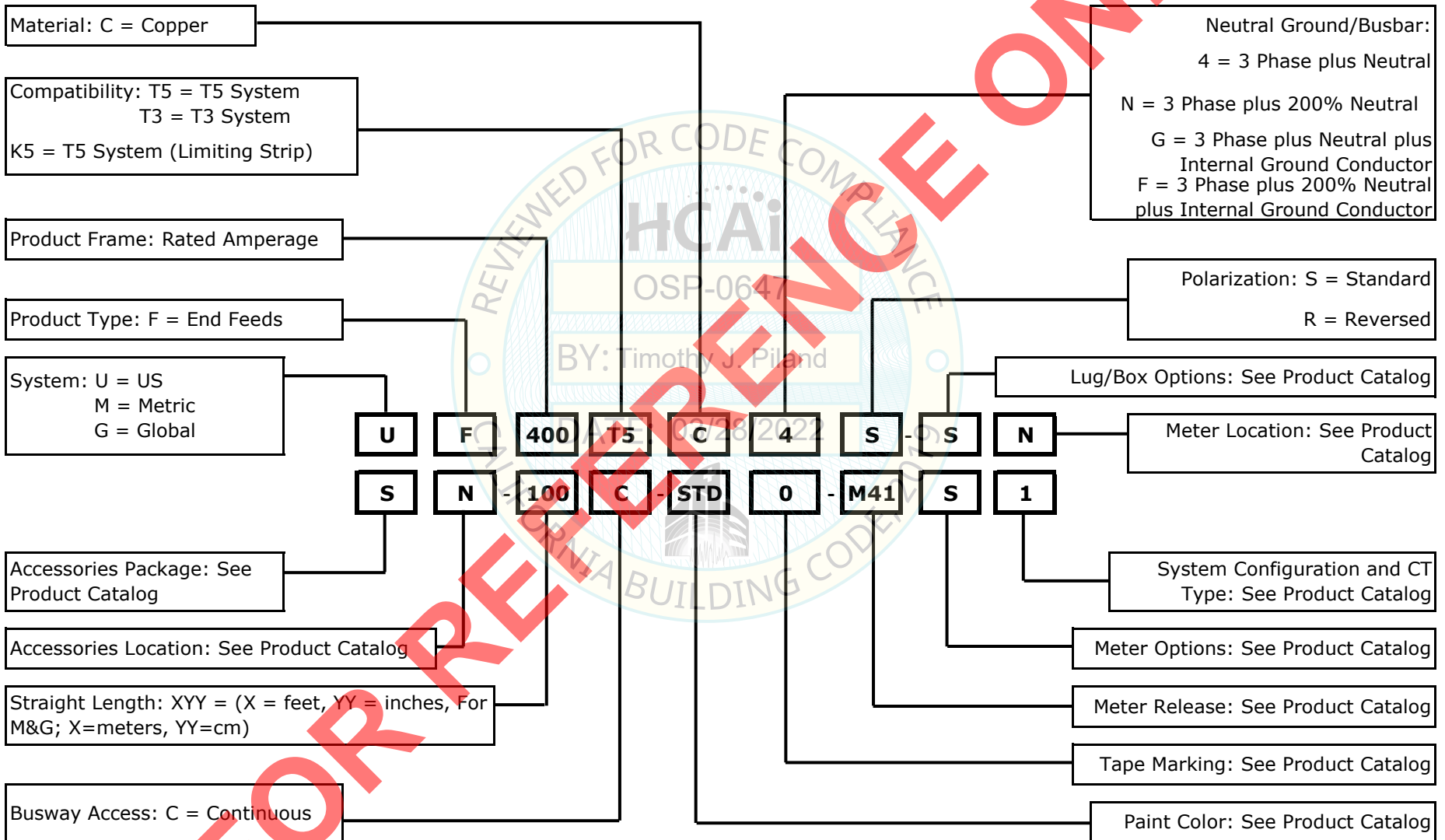
STARLINE BUSWAY PRODUCT CERTIFICATION TABLE - FEEDS



Unit and Ampacity Rating (A)	Height (Max)	Width (Max)	Weight (Max)	Busbar Material	Part No	Test Identification
250 Amp Feeder	20.0 in	20.0 in	52.0 lb	Copper	MF250x5CGx-xxxx-xxxx-xxxx-xxxxx	Interpolated
250 Amp Feeder	20.0 in	20.0 in	52.0 lb	Copper	MF250x5CNx-xxxx-xxxx-xxxx-xxxxx	Interpolated
250 Amp Feeder	20.0 in	20.0 in	52.0 lb	Copper	MF250x5CFx-xxxx-xxxx-xxxx-xxxxx	Interpolated
400 Amp Feeder	20.0 in	20.0 in	52.0 lb	Copper	UF400x5C4x-xxxx-xxxx-xxxx-xxxxx	Interpolated
400 Amp Feeder	20.0 in	20.0 in	52.0 lb	Copper	UF400x5CGx-xxxx-xxxx-xxxx-xxxxx	Interpolated
400 Amp Feeder	20.0 in	20.0 in	52.0 lb	Copper	UF400x5CNx-xxxx-xxxx-xxxx-xxxxx	Interpolated
400 Amp Feeder	20.0 in	20.0 in	52.0 lb	Copper	UF400x5CFx-xxxx-xxxx-xxxx-xxxxx	Interpolated
400 Amp Feeder	17.0 in	12.0 in	33.5 lb	Copper	UF400T5CFS-SRCL-0100C-STD0-M41D3	UUT-1A
400 Amp Feeder	20.0 in	20.0 in	52.0 lb	Copper	GF400x5C4x-xxxx-xxxx-xxxx-xxxxx	Interpolated
400 Amp Feeder	20.0 in	20.0 in	52.0 lb	Copper	GF400x5CGx-xxxx-xxxx-xxxx-xxxxx	Interpolated
400 Amp Feeder	20.0 in	20.0 in	52.0 lb	Copper	GF400x5CNx-xxxx-xxxx-xxxx-xxxxx	Interpolated
400 Amp Feeder	20.0 in	20.0 in	52.0 lb	Copper	GF400x5CFx-xxxx-xxxx-xxxx-xxxxx	Interpolated
400 Amp Feeder	20.0 in	20.0 in	52.0 lb	Copper	MF400x5C4x-xxxx-xxxx-xxxx-xxxxx	Interpolated
400 Amp Feeder	20.0 in	20.0 in	52.0 lb	Copper	MF400x5CGx-xxxx-xxxx-xxxx-xxxxx	Interpolated
400 Amp Feeder	20.0 in	20.0 in	52.0 lb	Copper	MF400x5CNx-xxxx-xxxx-xxxx-xxxxx	Interpolated
400 Amp Feeder	20.0 in	20.0 in	52.0 lb	Copper	MF400x5CFx-xxxx-xxxx-xxxx-xxxxx	Interpolated
600 Amp Feeder	20.0 in	20.0 in	52.0 lb	Copper	UF600x5C4S-xxxx-xxxx-xxxx-xxxxx	Interpolated
600 Amp Feeder	20.0 in	20.0 in	52.0 lb	Copper	UF600x5CGS-xxxx-xxxx-xxxx-xxxxx	Interpolated
600 Amp Feeder	20.0 in	20.0 in	52.0 lb	Copper	UF600T5CGS-BLFN-0100C-STD0-M41D3	UUT-7

The allowable length of end feed stub is limited to 1'-0"

STARLINE BUSWAY PRODUCT DECODER - FEEDS



STARLINE BUSWAY PRODUCT CERTIFICATION TABLE - ELBOW



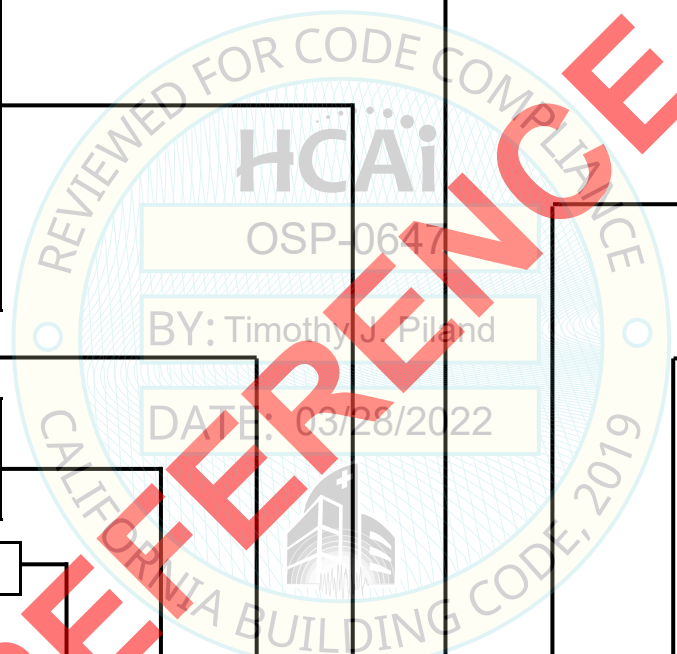
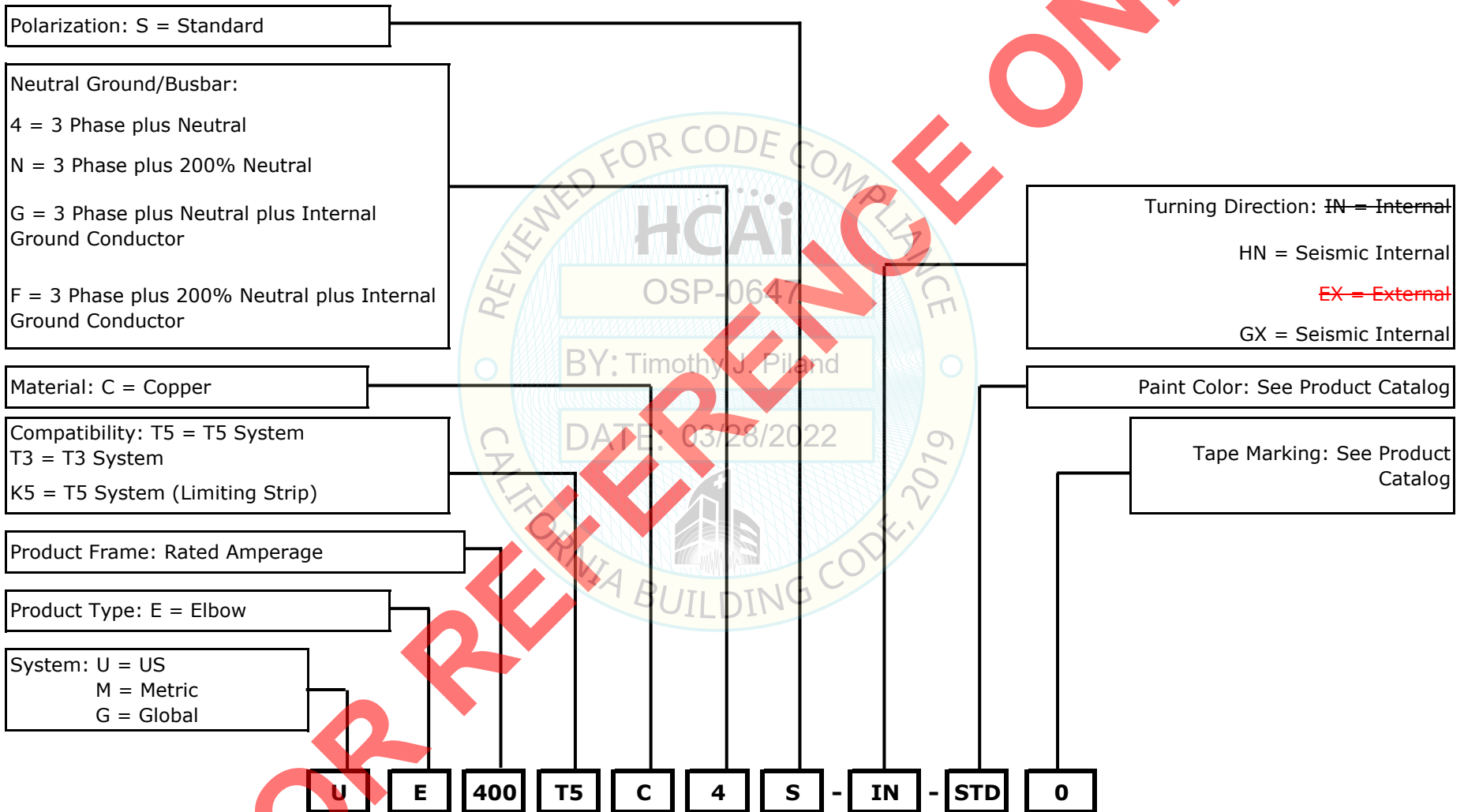
Unit and Ampacity Rating (A)	Length (Max)	Width (Max)	Weight (Max)	Busbar Material	Part No	Test Identification
100 Amp Elbow	12.0 in	12.0 in	6.0 lb	Copper	UE100T3C4S-xx-xxxx	Interpolated
100 Amp Elbow	12.0 in	12.0 in	6.0 lb	Copper	UE100T3CGS-xx-xxxx	Interpolated
100 Amp Elbow	12.0 in	12.0 in	6.0 lb	Copper	UE100T3CNS-xx-xxxx	Interpolated
100 Amp Elbow	12.0 in	12.0 in	6.0 lb	Copper	UE100T3CFS-xx-xxxx	Interpolated
160 Amp Elbow	12.0 in	12.0 in	6.0 lb	Copper	ME100T3C4S-xx-xxxx	Interpolated
160 Amp Elbow	12.0 in	12.0 in	6.0 lb	Copper	ME100T3CGS-xx-xxxx	Interpolated
160 Amp Elbow	12.0 in	12.0 in	6.0 lb	Copper	ME100T3CNS-xx-xxxx	Interpolated
160 Amp Elbow	12.0 in	12.0 in	6.0 lb	Copper	ME100T3CFS-xx-xxxx	Interpolated
225 Amp Elbow	12.0 in	12.0 in	6.0 lb	Copper	UE225T3C4S-xx-xxxx	Interpolated
225 Amp Elbow	12.0 in	12.0 in	6.0 lb	Copper	ME225T3C4S-xx-xxxx	Interpolated
250 Amp Elbow	18.0 in	18.0 in	32.0 lb	Copper	UE250x5C4S-xx-xxxx	Interpolated
250 Amp Elbow	18.0 in	18.0 in	32.0 lb	Copper	UE250x5CGS-xx-xxxx	Interpolated
250 Amp Elbow	18.0 in	18.0 in	32.0 lb	Copper	UE250x5CNS-xx-xxxx	Interpolated
250 Amp Elbow	18.0 in	18.0 in	32.0 lb	Copper	UE250x5CFS-xx-xxxx	Interpolated
250 Amp Elbow	18.0 in	18.0 in	32.0 lb	Copper	GE250x5C4S-xx-xxxx	Interpolated
250 Amp Elbow	18.0 in	18.0 in	32.0 lb	Copper	GE250x5CGS-xx-xxxx	Interpolated
250 Amp Elbow	18.0 in	18.0 in	32.0 lb	Copper	GE250x5CNS-xx-xxxx	Interpolated
250 Amp Elbow	18.0 in	18.0 in	32.0 lb	Copper	GE250x5CFS-xx-xxxx	Interpolated
250 Amp Elbow	18.0 in	18.0 in	32.0 lb	Copper	ME250x5C4S-xx-xxxx	Interpolated
250 Amp Elbow	18.0 in	18.0 in	32.0 lb	Copper	ME250x5CGS-xx-xxxx	Interpolated
250 Amp Elbow	18.0 in	18.0 in	32.0 lb	Copper	ME250x5CNS-xx-xxxx	Interpolated

STARLINE BUSWAY PRODUCT CERTIFICATION TABLE - ELBOW



Unit and Ampacity Rating (A)	Length (Max)	Width (Max)	Weight (Max)	Busbar Material	Part No	Test Identification
250 Amp Elbow	18.0 in	18.0 in	32.0 lb	Copper	ME250x5CFS-xx-xxxx	Interpolated
400 Amp Elbow	18.0 in	18.0 in	32.0 lb	Copper	UE400x5C4S-xx-xxxx	Interpolated
400 Amp Elbow	18.0 in	18.0 in	32.0 lb	Copper	UE400x5CGS-xx-xxxx	Interpolated
400 Amp Elbow	18.0 in	18.0 in	32.0 lb	Copper	UE400x5CNS-xx-xxxx	Interpolated
400 Amp Elbow	18.0 in	18.0 in	32.0 lb	Copper	UE400x5CFS-xx-xxxx	Interpolated
400 Amp Elbow	18.0 in	18.0 in	28.0 lb	Copper	UE400T5CFS-HN-STD0	UUT-1A
400 Amp Elbow	18.0 in	18.0 in	32.0 lb	Copper	GE400x5C4S-xx-xxxx	Interpolated
400 Amp Elbow	18.0 in	18.0 in	32.0 lb	Copper	GE400x5CGS-xx-xxxx	Interpolated
400 Amp Elbow	18.0 in	18.0 in	32.0 lb	Copper	GE400x5CNS-xx-xxxx	Interpolated
400 Amp Elbow	18.0 in	18.0 in	32.0 lb	Copper	GE400x5CFS-xx-xxxx	Interpolated
400 Amp Elbow	18.0 in	18.0 in	32.0 lb	Copper	ME400x5C4S-xx-xxxx	Interpolated
400 Amp Elbow	18.0 in	18.0 in	32.0 lb	Copper	ME400x5CGS-xx-xxxx	Interpolated
400 Amp Elbow	18.0 in	18.0 in	32.0 lb	Copper	ME400x5CNS-xx-xxxx	Interpolated
400 Amp Elbow	18.0 in	18.0 in	32.0 lb	Copper	ME400x5CFS-xx-xxxx	Interpolated
600 Amp Elbow	18.0 in	18.0 in	32.0 lb	Copper	UE600x5C4S-xx-xxxx	Interpolated
600 Amp Elbow	18.0 in	18.0 in	32.0 lb	Copper	UE600x5CGS-xx-xxxx	Interpolated
600 Amp Elbow	18.0 in	18.0 in	32.0 lb	Copper	UE600T5CGS-HN-STD0	UUT-7

STARLINE BUSWAY PRODUCT DECODER - ELBOWS



FOR REFERENCE ONLY

STARLINE BUSWAY PRODUCT CERTIFICATION TABLE - TEE



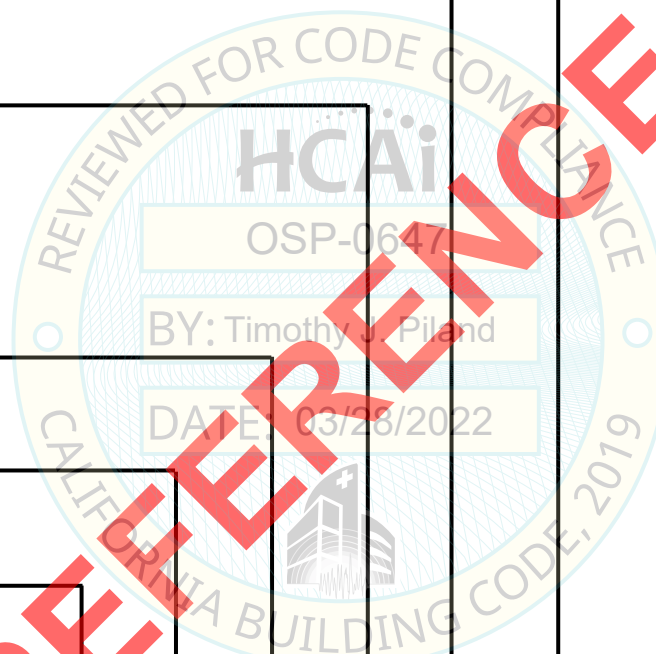
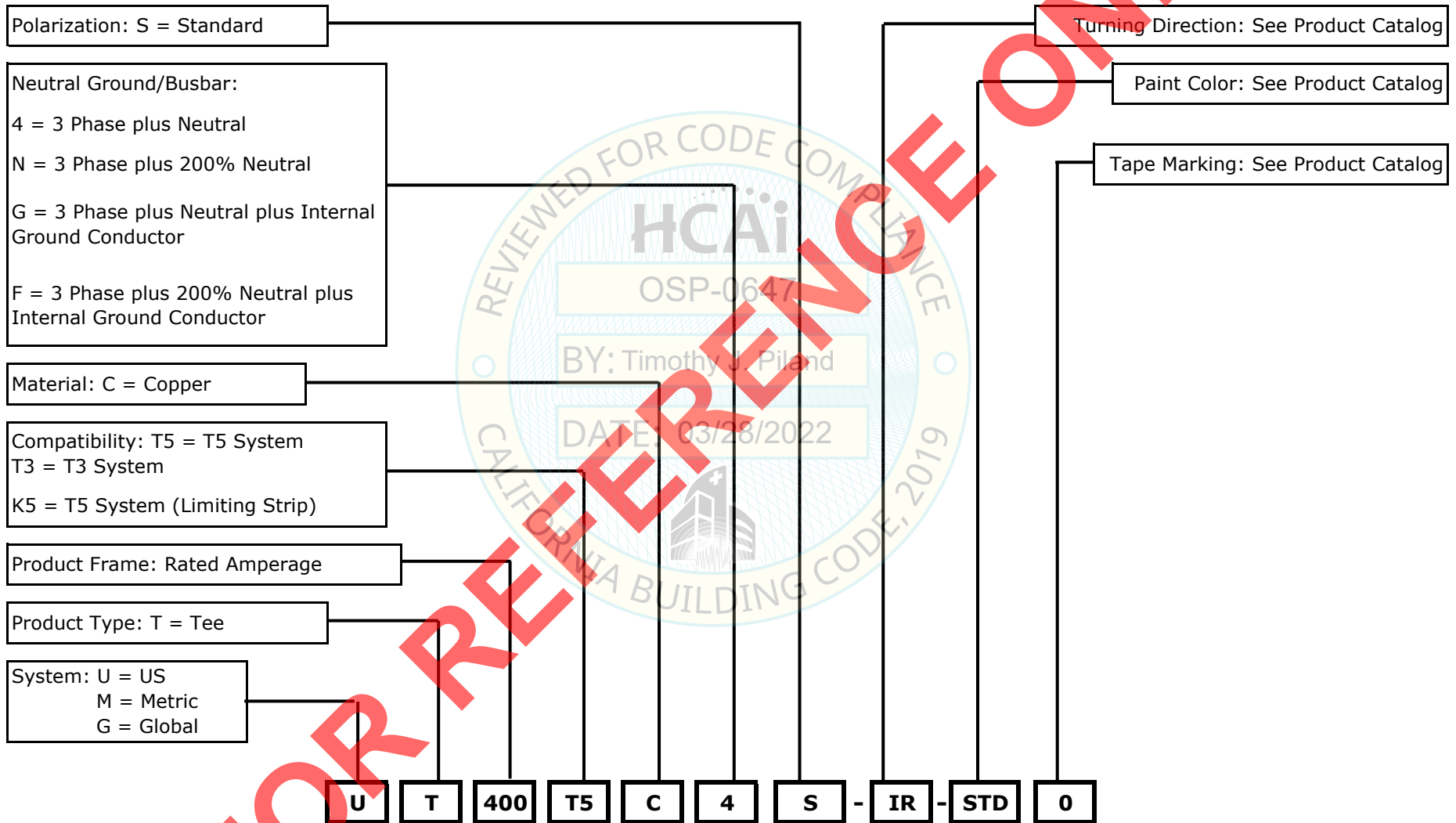
Unit and Ampacity Rating (A)	Length (Max)	Width (Max)	Weight (Max)	Busbar Material	Part No	Test Identification
100 Amp Tee	24.0 in	12.0 in	9.5 lb	Copper	UT100T3C4S-xx-xxxx	Interpolated
100 Amp Tee	24.0 in	12.0 in	9.5 lb	Copper	UT100T3CGS-xx-xxxx	Interpolated
100 Amp Tee	24.0 in	12.0 in	9.5 lb	Copper	UT100T3CNS-xx-xxxx	Interpolated
100 Amp Tee	24.0 in	12.0 in	9.5 lb	Copper	UT100T3CFS-xx-xxxx	Interpolated
160 Amp Tee	24.0 in	12.0 in	9.5 lb	Copper	MT100T3C4S-xx-xxxx	Interpolated
160 Amp Tee	24.0 in	12.0 in	9.5 lb	Copper	MT100T3CGS-xx-xxxx	Interpolated
160 Amp Tee	24.0 in	12.0 in	9.5 lb	Copper	MT100T3CNS-xx-xxxx	Interpolated
160 Amp Tee	24.0 in	12.0 in	9.5 lb	Copper	MT100T3CFS-xx-xxxx	Interpolated
225 Amp Tee	24.0 in	12.0 in	9.5 lb	Copper	UT225T3C4S-xx-xxxx	Interpolated
225 Amp Tee	24.0 in	12.0 in	9.5 lb	Copper	MT225T3C4S-xx-xxxx	Interpolated
250 Amp Tee	30.0 in	18.0 in	47.5 lb	Copper	UT250x5C4S-xx-xxxx	Interpolated
250 Amp Tee	30.0 in	18.0 in	47.5 lb	Copper	UT250x5CGS-xx-xxxx	Interpolated
250 Amp Tee	30.0 in	18.0 in	47.5 lb	Copper	UT250x5CNS-xx-xxxx	Interpolated
250 Amp Tee	30.0 in	18.0 in	47.5 lb	Copper	UT250x5CFS-xx-xxxx	Interpolated
250 Amp Tee	30.0 in	18.0 in	47.5 lb	Copper	GT250x5C4S-xx-xxxx	Interpolated
250 Amp Tee	30.0 in	18.0 in	47.5 lb	Copper	GT250x5CGS-xx-xxxx	Interpolated
250 Amp Tee	30.0 in	18.0 in	47.5 lb	Copper	GT250x5CNS-xx-xxxx	Interpolated
250 Amp Tee	30.0 in	18.0 in	47.5 lb	Copper	GT250x5CFS-xx-xxxx	Interpolated
250 Amp Tee	30.0 in	18.0 in	47.5 lb	Copper	MT250x5C4S-xx-xxxx	Interpolated
250 Amp Tee	30.0 in	18.0 in	47.5 lb	Copper	MT250x5CGS-xx-xxxx	Interpolated

STARLINE BUSWAY PRODUCT CERTIFICATION TABLE - TEE



Unit and Ampacity Rating (A)	Length (Max)	Width (Max)	Weight (Max)	Busbar Material	Part No	Test Identification
250 Amp Tee	30.0 in	18.0 in	47.5 lb	Copper	MT250x5CNS-xx-xxxx	Interpolated
250 Amp Tee	30.0 in	18.0 in	47.5 lb	Copper	MT250x5CFS-xx-xxxx	Interpolated
400 Amp Tee	30.0 in	18.0 in	47.5 lb	Copper	UT400x5C4S-xx-xxxx	Interpolated
400 Amp Tee	30.0 in	18.0 in	47.5 lb	Copper	UT400x5CGS-xx-xxxx	Interpolated
400 Amp Tee	30.0 in	18.0 in	47.5 lb	Copper	UT400x5CNS-xx-xxxx	Interpolated
400 Amp Tee	30.0 in	18.0 in	47.5 lb	Copper	UT400x5CFS-xx-xxxx	Interpolated
400 Amp Tee	30.0 in	18.0 in	42.0 lb	Copper	UT400T5CFS-I6-STD0	UUT-1A
400 Amp Tee	30.0 in	18.0 in	47.5 lb	Copper	GT400x5C4S-xx-xxxx	Interpolated
400 Amp Tee	30.0 in	18.0 in	47.5 lb	Copper	GT400x5CGS-xx-xxxx	Interpolated
400 Amp Tee	30.0 in	18.0 in	47.5 lb	Copper	GT400x5CNS-xx-xxxx	Interpolated
400 Amp Tee	30.0 in	18.0 in	47.5 lb	Copper	GT400x5CFS-xx-xxxx	Interpolated
400 Amp Tee	30.0 in	18.0 in	47.5 lb	Copper	MT400x5C4S-xx-xxxx	Interpolated
400 Amp Tee	30.0 in	18.0 in	47.5 lb	Copper	MT400x5CGS-xx-xxxx	Interpolated
400 Amp Tee	30.0 in	18.0 in	47.5 lb	Copper	MT400x5CNS-xx-xxxx	Interpolated
400 Amp Tee	30.0 in	18.0 in	47.5 lb	Copper	MT400x5CFS-xx-xxxx	Interpolated
600 Amp Tee	30.0 in	18.0 in	47.5 lb	Copper	UT600x5C4S-xx-xxxx	Interpolated
600 Amp Tee	30.0 in	18.0 in	47.5 lb	Copper	UT600x5CGS-xx-xxxx	Interpolated
600 Amp Tee	30.0 in	18.0 in	47.5 lb	Copper	UT600T5CGS-HN-STD0	UUT-7

STARLINE BUSWAY PRODUCT DECODER - TEES



FOR REFERENCE ONLY

STARLINE BUSWAY PRODUCT CERTIFICATION TABLE - END CAPS



Part No.	Height	Width	Weight	Test Status
SEC400T5	5.0 in	5.7 in	0.4 lb	UUT 1A
SECT3	3.9 in	2.5 in	0.2 lb	Interpolated
SEC250T5	5.0 in	4.3 in	0.4 lb	Interpolated
SEC600T5	5.0 in	5.7 in	0.4 lb	UUT 7

STARLINE BUSWAY PRODUCT CERTIFICATION TABLE - JOINTS PACK



Unit	Part No.	Test Status
Joint Pack	SJK400T5F-1	UUT 1A
Joint Pack	xJKxxxTx-x	Interpolate
Joint Pack	xJKxxxT5x-x	Interpolate
Joint Pack	SJK600T5G-2	UUT 7

ACCESSORIES: CONNECTION HARDWARE

Joint Kit

For the connection of adjacent busway sections. One kit is required at each joint. Each kit is comprised of a housing coupler pair and bus connector set.

Bus Connector: copper blades secured to an insulating mounting plate. This makes the electrical connection between sections.

Housing Couplers: consists of two 12-screw couplers-one for the top and one for the bottom. These make the mechanical connection between busway sections.

**Installation tool is required (see below)*

***Available in all standard and RAL colors*

Part Numbers
(for 250 amp systems):
SJK250T5-1
SJK250T5G-1
SJK250T5N-1
SJK250T5F-1

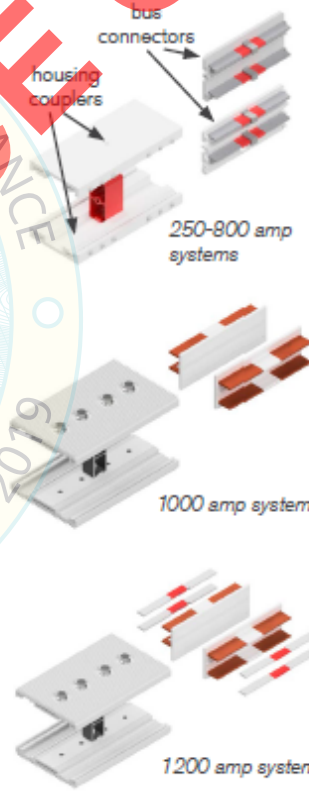
(for 400 amp systems)
SJK400T5-1
SJK400T5G-1
SJK400T5N-1
SJK400T5F-1

(for 600 amp systems)
SJK600T5-2
SJK600T5G-2

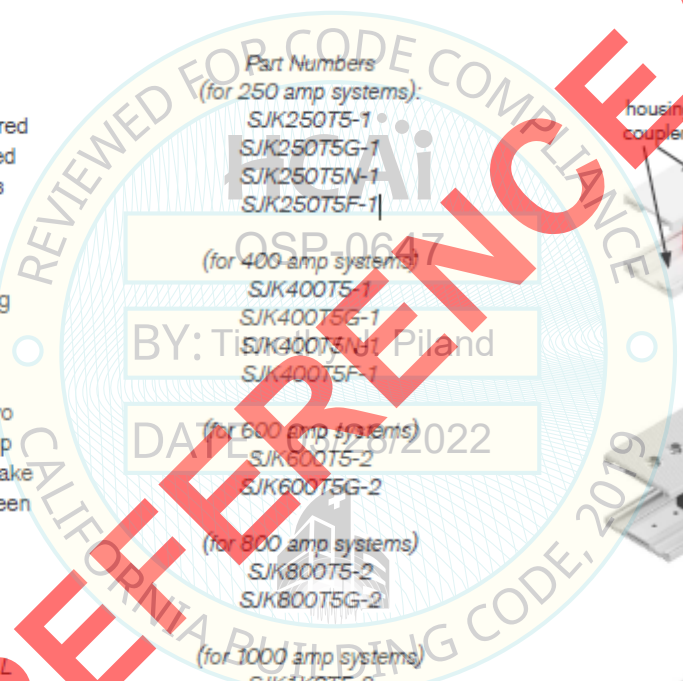
(for 800 amp systems)
SJK800T5-2
SJK800T5G-2

(for 1000 amp systems)
SJK1K0T5-2
SJK1K0T5G-2

(for 1200 amp systems)
SJK1K2T5-2
SJK1K2T5G-2



FOR REVIEW ONLY

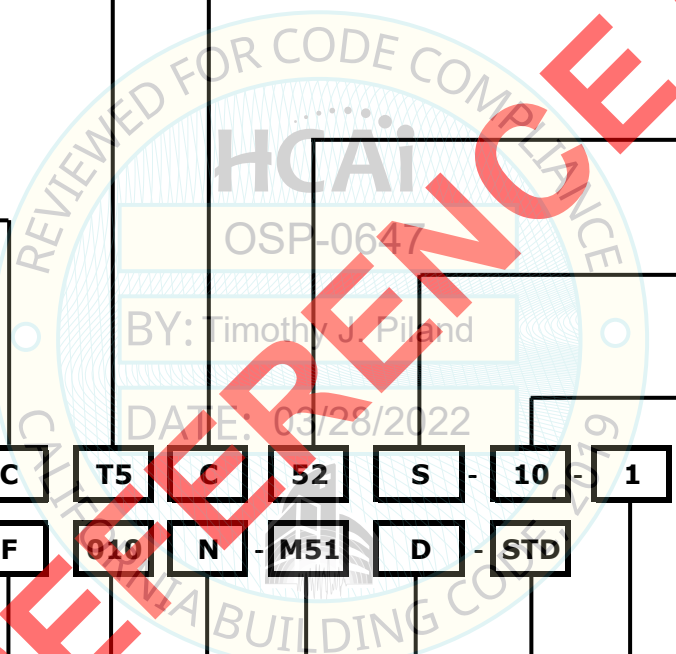
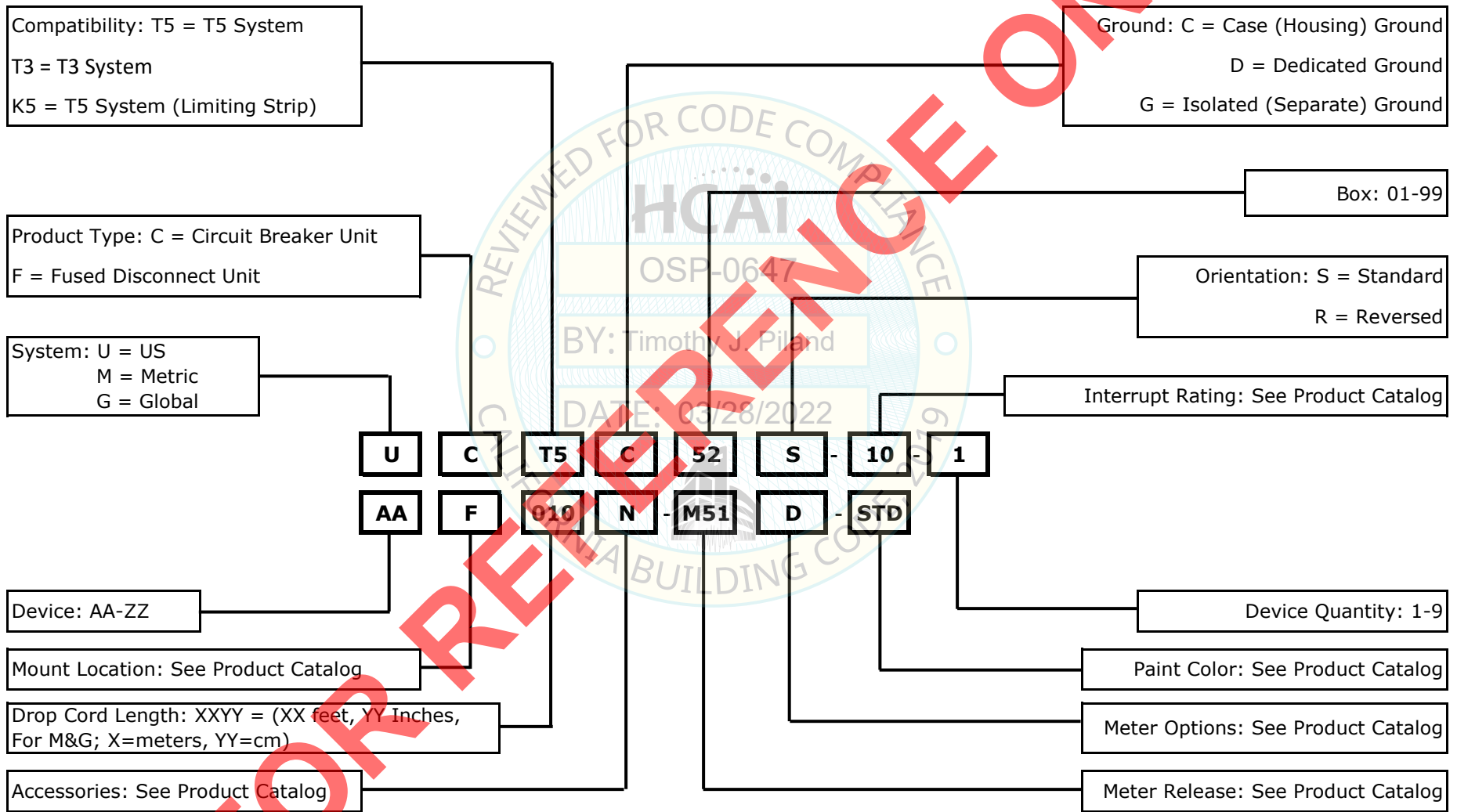


STARLINE BUSWAY PRODUCT CERTIFICATION TABLE - PLUG-IN BOX



Unit	Length (Max)	Width (Max)	Weight (Max)	Tested Part No	New Generation Part No.	Test Identification
Plug-In Box	8.0 in	8.1 in	6.0 lb	OB400T5E92-M43P3	UMT5C92S-065-M43P3-STD	UUT1A- Box1
Plug-In Box	6.0 in	6.5 in	4.0 lb	CBDCT5E12-X-L620R	UCT5C12S-10-1BHB050S-STD	UUT1A- Box3
Plug-In Box	10.0 in	10.0 in	12.0 lb	CBMT5HE36-(2)L2230-4	UCT5C36S-22-2ACFS-STD	UUT1A- Box4
Plug-In Box	6.0 in	8.1 in	10.0 lb	CBMDCT5E91-X-(2)520Q-4	UCT5C91S-10-2FGB050S-STD	UUT1A- Box5
Plug-In Box	10.0 in	10.6 in	18.0 lb	CMDCT5GHE53-x-4100C9W-4	UCT5G53S-50-1GIB050S-STD	UUT1A- Box7
Plug-In Box	18.0 in	10.6 in	26.0 lb	CBMDCT5GHE57-X-(8)L520C-4	UCT5G574S-22-8BEB050S-STD	UUT1A- Box8
Plug-In Box	18.0 in	10.6 in	38.0 lb	CBMDCT5GE57-X-(2)L2130C-(2)CS8364C-4DG-G01	UCT5G57S-2CT-2CQB050S-STD	UUT1A- Box9
Plug-In Box	18.0 in	13.3 in	12.0 lb	CBMT5GE25-(2)520D-(2)CS8369-4DG	UCT5D25S-2DL-2DKBS-STD	UUT1A- Box10
Plug-In Box	18.0 in	10.6 in	38.0 lb	N/A	UCTxCxxx-xx-xxxxxxxxxx-xxxx-xxx	Interpolate
Plug-In Box	18.0 in	10.6 in	38.0 lb	N/A	UCTxGxxx-xx-xxxxxxxxxx-xxxx-xxx	Interpolate
Plug-In Box	18.0 in	10.6 in	38.0 lb	N/A	UCTxDxxx-xx-xxxxxxxxxx-xxxx-xxx	Interpolate
Plug-In Box	8.0 in	9.0 in	8.0 lb	CBT5E28-563R9W	UCT5G28S-25-1HFBS-STD	UUT1A- Box19
Plug-In Box	10.0 in	10.0 in	12.0 lb	CBT5E36-460R9W	UCT5G36S-25-1ANBS-STD	UUT1A- Box20
Plug-In Box	6.0 in	6.5 in	8.0 lb	CBMDCT5GHE12-X-(2)520Q-4DG	UCT5G12S-22-2FGB030S-STD	UUT7-Box 7A
Plug-In Box	8.0 in	9.0 in	10.0 lb	CBT5E28-560R9S-4	UCT5C28S-10-1HGFS-STD	UUT7-Box 1A
Plug-In Box	10.0 in	8.1 in	10.0 lb	CBMDCT5GE93-3-(2)530C6S-4DG-FS-MS	UCT5D93S-10-2CCB030S-STD	UUT7- Box 8A
Plug-In Box	12.0 in	10.6 in	6.0 lb	CBMDCT5GHE54-3-(2)530C6S-4DG-FS-MS	UCT5D54S-10-2CCB030S-STD	UUT7-Box 6A/6B
Plug-In Box	10.0 in	8.1 in	8.0 lb	CBMT5E93-(2)L630-4	UCT5C93S-10-2ADFS-STD	UUT7-Box 5A/5B
Plug-In Box	10.0 in	8.1 in	22.0 lb	CBT5HE93-CS8369-4	UCT5C93S-22-2AKFS-STD	UUT7-Box 4B
Plug-In Box	12.0 in	10.6 in	8.0 lb	CBMT5E54-(3)L2130-4	UCT5C54S-10-3ACFS-STD	UUT7-Box 2A/2B
Plug-In Box	12.0 in	10.6 in	16.0 lb	CBT5HE54-560R6S-4	UCT5C54S-22-1BYFS-STD	UUT7-Box 3A/3B

STARLINE BUSWAY PRODUCT DECODER - CIRCUIT BREAKER/FUSE DISCONNECT (PLUG IN BOX)




UUT-1A	Unit Under Test (UUT) Summary Sheet	WAYPOINT ENGINEERING
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Manufacturer:	Universal Electric Corporation
Product:	Busway - 600V 400A
Product Line:	Starline
Product Mounting Description:	600V, 400-amp busway horizontally mounted to test fixture. UUT was ceiling suspended from the shake table interface frame using transverse and longitudinal bracing at each vertical support. Transverse bracing consists of [1/2-13 ASTM A36 threaded rod, Starline suspension hanger UBRHT5-3, ASTM A36 1/8" thick angle iron with symmetrical 1" legs at 90-degree and Manson clamps SRC-1], spaced at maximum of 5'-0" center to center. Mason clamp SRC-1 was spaced 8" center to center to stiffen thread rod with angle iron. Longitudinal bracing consists of (2) Eaton Tolco mechanical fast clap 985-S, 986-1/2, and solid bracing B22 spaced maximum of 5'-0" center to center mounted at 90 degrees. The UUT was supported with a minimum of one support per bus longer than 12". The system was tested with minimum support distance from the corner of 3" and maximum support distance from the end of the run with 2'-0".
Test Lab:	Clark Dynamic
Report No.:	JID 17-01101
Report Date:	11/23/2017
Test Run No.:	6
UUT Designation:	UUT-1A

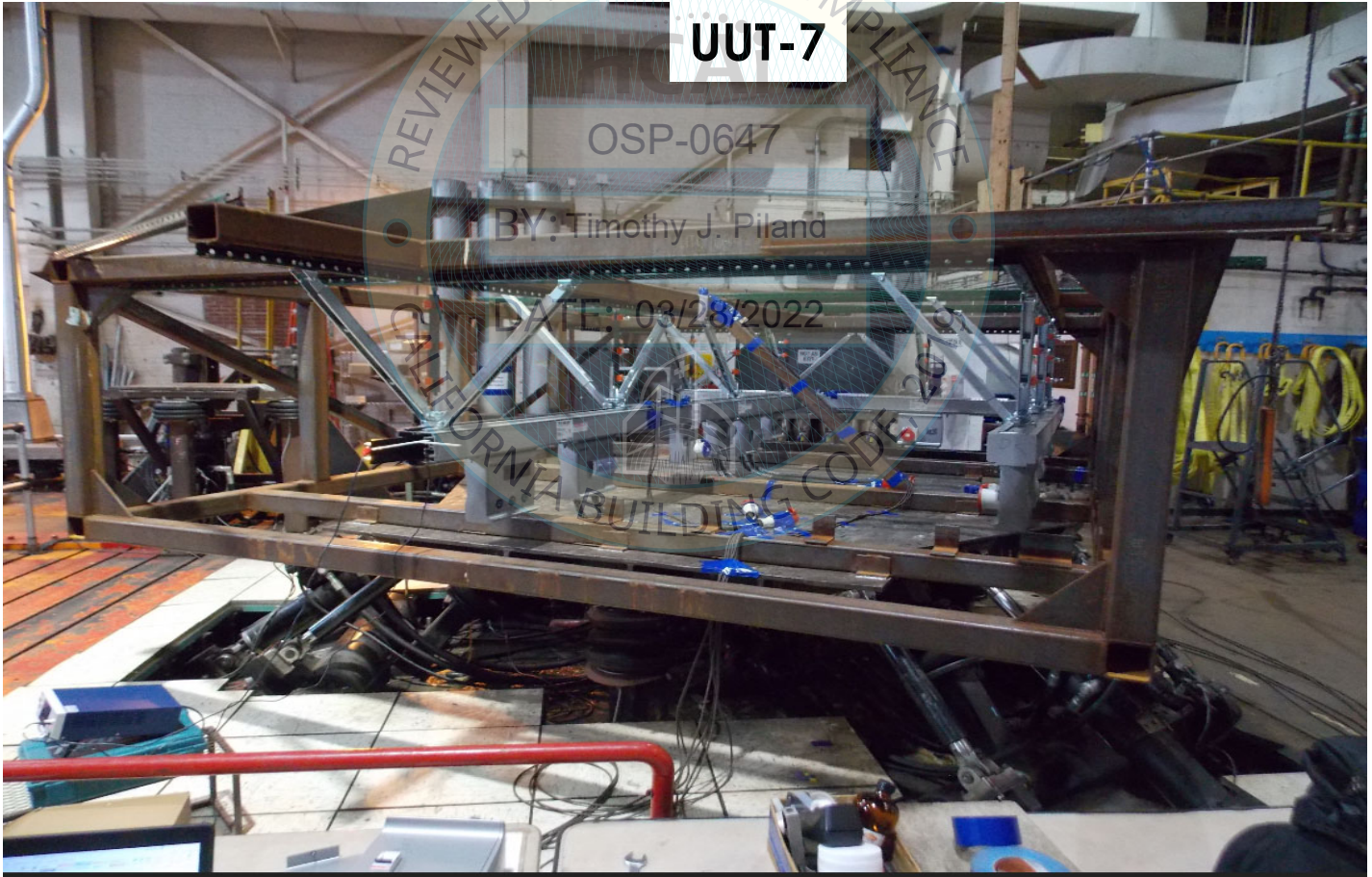
UUT Photograph



Components								
Part No.			Manufacturer			Component		
UMT5C92S-065-M43P3-STD			UNIVERSAL ELECTRIC			400A Plug Box - Box 1		
UCT5C12S-10-1BHB050S-STD			UNIVERSAL ELECTRIC			400A Plug Box - Box 3		
UCT5C36S-22-2ACFS-STD			UNIVERSAL ELECTRIC			400A Plug Box - Box 4		
UCT5C91S-10-2FGB050S-STD			UNIVERSAL ELECTRIC			400A Plug Box - Box 5		
UCT5G53S-50-1GIB050S-STD			UNIVERSAL ELECTRIC			400A Plug Box - Box 7		
UCT5G574S-22-8BEB050S-STD			UNIVERSAL ELECTRIC			400A Plug Box - Box 8		
UCT5G57S-2CT-2CQB050S-STD			UNIVERSAL ELECTRIC			400A Plug Box - Box 9		
UCT5D25S-2DL-2DKBS-STD			UNIVERSAL ELECTRIC			400A Plug Box - Box 10		
UCT5G28S-25-1HFBS-STD			UNIVERSAL ELECTRIC			400A Plug Box - Box 19		
UCT5G36S-25-1ANBS-STD			UNIVERSAL ELECTRIC			400A Plug Box - Box 20		
UE400T5CFS-IN-STD0			UNIVERSAL ELECTRIC			Busway Elbow		
UT400T5CFS-I6-STD0			UNIVERSAL ELECTRIC			Busway Tee		
UF400T5CFS-SRCL-0100C-STD0-M41D3			UNIVERSAL ELECTRIC			Busway End Feed		
US400T5CFS-0706C-STD0			UNIVERSAL ELECTRIC			Busway Straight Section		
US400T5CFS-0100C-STD0			UNIVERSAL ELECTRIC			Busway Straight Section		
US400T5CFS-0300C-STD0			UNIVERSAL ELECTRIC			Busway Straight Section		
US400T5CFS-0309C-STD0			UNIVERSAL ELECTRIC			Busway Straight Section		
US400T5CFS-0500C-STD0			UNIVERSAL ELECTRIC			Busway Straight Section		
US400T5CFS-0600C-STD0			UNIVERSAL ELECTRIC			Busway Straight Section		
SEC400T5			UNIVERSAL ELECTRIC			Busway End Cap		
SJK400T5F-1			UNIVERSAL ELECTRIC			Joints Pack		
Shake Table Test Parameters								
Building Code	Test Criteria	SDS (g)	IP	z/h	HORIZONTAL (g)		VERTICAL (g)	
					AFLX-H	ARIG-H	AFLX-V	ARIG-V
CBC 2019	ICC-ES AC 156	2.0	1.50	1.00	3.2	2.4		
		2.5	1.50	0.00			1.67	0.67
UUT Properties								
Weight (lb)	Dimensions (inches)			Resonant Frequency (Hz)				
	Duct Height	Duct Width		Front-Back	Side-Side	Vert		
630	5.05	5.80		N/A	N/A	N/A		
Test Run Results								
The UUT-1A assembly maintained structural integrity and functionality after the AC 156 test.								

UUT-7	Unit Under Test (UUT)	
Manufacturer:	Universal Electric Corporation	
Product:	Busway - 600V 600A	
Product Line:	Starline	
Product Mounting Description:	600V, 600-amp busway horizontally mounted to test fixture. UUT was ceiling suspended from the shake table interface frame using transverse and longitudinal bracing at each vertical support. Transverse bracing consists of [1/2-13 ASTM A36 threaded rod, Starline suspension hanger UBRHT5-3, ASTM A36 1/8" thick angle iron with symmetrical 1" legs at 90-degree and Manson clamps SRC-1], spaced at maximum of 5'-0" center to center. Mason clamp SRC-1 was spaced 8" center to center to stiffen thread rod with angle iron. Longitudinal bracing consists of (2) Eaton Tolco mechanical fast clap 985-S, 986-1/2, and solid bracing B22 spaced maximum of 5'-0" center to center mounted at 90 degrees. The UUT was supported with a minimum of one support per bus longer than 12". The system was tested with minimum support distance from the corner of 3" and maximum support distance from the end of the run with 2'-0"	
Test Lab:	Clark Dynamic Testing Laboratory	
Report No.:	JID 19-00406 Rev. 1	
Report Date:	11/1/2019	
Test Run No.:	1	
UUT Designation:	UUT-7	

UUT Photograph



Components								
Part No.	Manufacturer				Component			
UCT5G12S-22-2FGB030S-STD	UNIVERSAL ELECTRIC				400A Plug Box - Box 7A			
UCT5C28S-10-1HGFS-STD	UNIVERSAL ELECTRIC				400A Plug Box - Box 1A			
UCT5D93S-10-2CCB030S-STD	UNIVERSAL ELECTRIC				400A Plug Box - Box 8A			
UCT5D54S-10-2CCB030S-STD	UNIVERSAL ELECTRIC				400A Plug Box - Box 6A/6B			
UCT5C93S-10-2ADFS-STD	UNIVERSAL ELECTRIC				400A Plug Box - Box 5A/5B			
UCT5C93S-22-2AKFS-STD	UNIVERSAL ELECTRIC				400A Plug Box - Box 4B			
UCT5C54S-10-3ACFS-STD	UNIVERSAL ELECTRIC				400A Plug Box - Box 2A/2B			
UCT5C54S-22-1BYFS-STD	UNIVERSAL ELECTRIC				400A Plug Box - Box 3A/3B			
US600T5CFS-0100C-STD0	UNIVERSAL ELECTRIC				Busway Straight Section			
US600T5CFS-0300C-STD0	UNIVERSAL ELECTRIC				Busway Straight Section			
US600T5CFS-0309C-STD0	UNIVERSAL ELECTRIC				Busway Straight Section			
US600T5CFS-0500C-STD0	UNIVERSAL ELECTRIC				Busway Straight Section			
US600T5CFS-0600C-STD0	UNIVERSAL ELECTRIC				Busway Straight Section			
UE600T5CGS-HN-STD0	UNIVERSAL ELECTRIC				Busway Elbow			
UT600T5CGS-HN-STD0	UNIVERSAL ELECTRIC				Busway Tee			
UF600T5CGS-BLFN-0100C-STD0-M41D3	UNIVERSAL ELECTRIC				Busway End Feed			
US600x5CGS-0706C-STD0	UNIVERSAL ELECTRIC				Busway Straight Section			
SEC600T5	UNIVERSAL ELECTRIC				Busway End Cap			
SJK600T5G-2	UNIVERSAL ELECTRIC				Joints Pack			
Shake Table Test Parameters								
Building Code	Test Criteria	SDS (g)	Ip	z/h	HORIZONTAL (g)		VERTICAL (g)	
					AFLX-H	ARIG-H	AFLX-V	ARIG-V
CBC 2019	ICC-ES AC 156	2.0	1.50	1.00	3.2	2.4		
		3.0	1.50	0.00			2	0.8
UUT Properties								
Weight (lb)	Dimensions (inches)		Resonant Frequency (Hz)					
	Duct Height	Duct Width	Front-Back		Side-Side		Vert	
622	5.05	5.80	N/A		N/A		N/A	
Test Run Results								
The UUT-7 assembly maintained structural integrity and functionality after the AC 156 test.								