

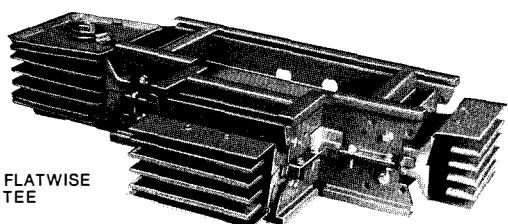
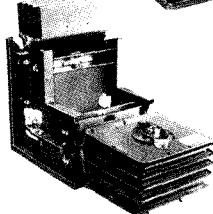
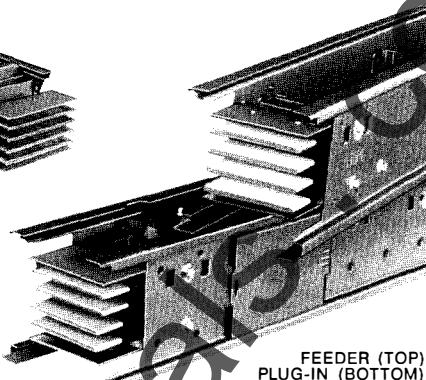
800A.- 5000A.  
**I-LINE® II Busway**  
FEEDER AND PLUG-IN BUSWAY & FITTINGS

CONTENTS

Description	Class	Pages
Selection .....	5615 .....	3
Application Data .....	5615 .....	4-8
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**SQUARE D COMPANY**

FLATWISE  
TEEEDGEWISE  
ELBOWFLATWISE  
ELBOWFEEDER (TOP)  
PLUG-IN (BOTTOM)

**Type:** Low Impedance, totally enclosed, sandwich type plug-in and feeder busway.

**UL Listing:** File Number E22182.

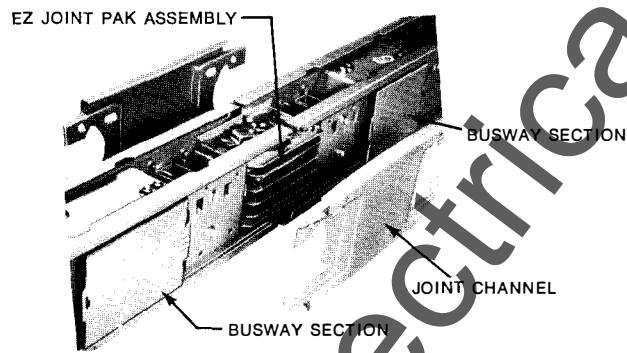
**Systems:** 3Ø, 3 Wire; 3Ø, 4 Wire full neutral; 2 pole DC; 3 pole DC; 1 Ø, 2 Wire; 1 Ø, 3 Wire.

**Ratings:** I-LINE II Busway is fully rated in all mounting positions. 600 volts maximum.

Aluminum Conductors — 800 amperes through 4000 amperes.

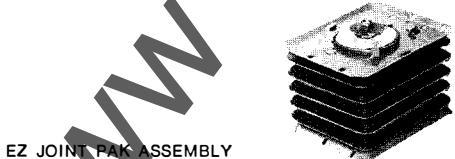
Copper Conductors — 800 amperes through 5000 amperes.

**Joint Design:** One bolt type with VISI-TITE torque indicating joint bolt. All ratings use Grade 5, high strength bolts (insulated so they are at ground potential) and 3" Belleville washers which exert more than 4000 pounds of bolted force over the entire joint contact area. Molded glass fiber interphase barriers provide proper electrical clearance at the joint.



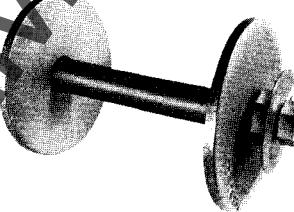
I-LINE II PLUG-IN BUS JOINT (FLATWISE)

**E-Z JOINT PAK Assembly:** Field removable "bolt end" joint connector/insulator package (shipped preassembled to busway) which may be removed and reinstalled on opposite end of busway length if desired. Entire assembly is held together by the VISI-TITE joint bolt. This makes reinstallation easier than other designs which may consist of many loose parts.



EZ JOINT PAK ASSEMBLY

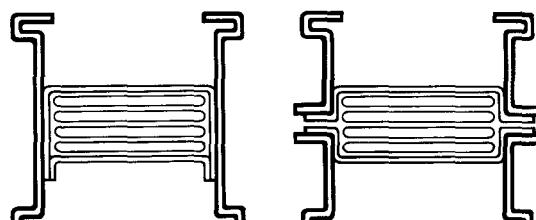
**VISI-TITE Bolt:** All I-LINE II Busway uses the VISI-TITE torque indicating joint bolt. The bolt has two heads connected by a thin neck. It is designed so that, by using only a long handled wrench, the outer head twists off when proper torque is reached. A red warning disc remains in place as long as the outer head is intact. This serves as a visual reminder of untorqued joint bolts.



VISI-TITE BOLT WITH BELLEVILLE WASHERS

**Tie Channels:** Universal tie channel fits all I-LINE II Busway joints. Tie channels are included with lengths and fittings. (Outdoor construction only includes gasket on tie channels).

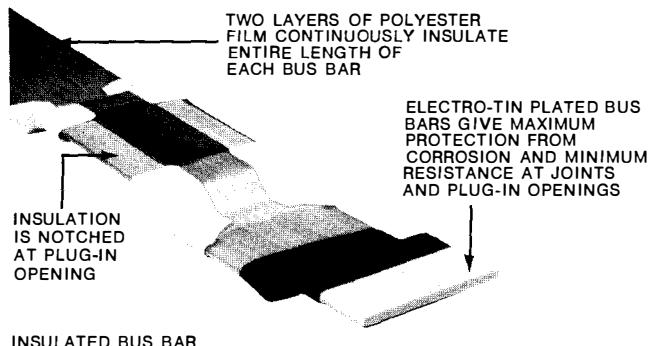
**Housing:** Feeder type "sandwich" construction on all busway ratings allows feeder busway electrical characteristics even when plug-in flexibility is selected. Housing side channels are roll-formed steel for structural rigidity. Aluminum top and bottom construction gives low reactance, high heat dissipation and low iron losses.

INDOOR FEEDER  
CROSS-SECTIONOUTDOOR FEEDER  
CROSS-SECTION

**Finish:** ANSI 49 grey baked epoxy paint applied by the cationic electro-deposition process assures a tough, durable and uniform paint finish which will last for years.

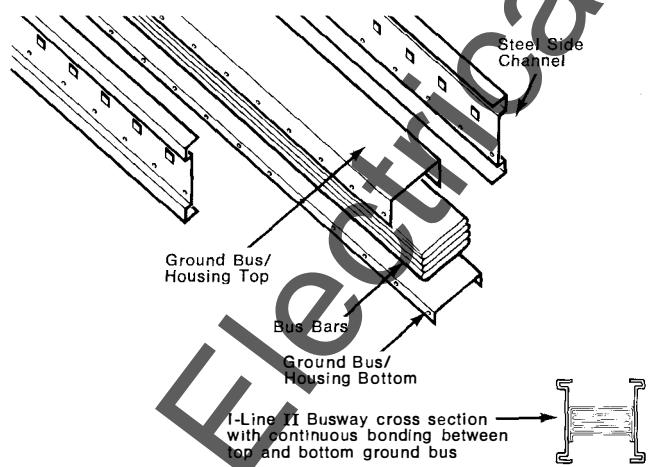


**Insulation:** All bus bars are fully insulated with class B (130 C) material throughout. Bus bar insulation consists of two 7.5 mil thick layers of polyester film around each bar. In addition, at the joint and plug-in opening area, molded phenolic glass fiber and polypropylene are added to provide continuous insulation integrity.



**Plating:** Both copper and aluminum bus bars are electro-tin plated. On aluminum bus, the electro-tin plating is applied over an Alstan 70\* process preparation.

**Ground Bus:** 50% continuous current capacity Integral Ground Bus (IGB) is included as standard on all I-LINE II Busway. IGB consists of two pieces of  $\frac{1}{16}$ " aluminum ground bus carefully designed to completely encircle the phase bus bars. This provides an effective ground current path even under high level ground current conditions. Phase-to-Ground short circuit current ratings for IGB are the same as the busway phase-to-phase short circuit ratings. Ground connection between adjacent busway lengths is an integral part of the E-Z JOINT PAK assembly. (No extra parts need to be field installed).



IGB—HOW IT WORKS

**Internal Fire Barriers:** Continuous air spaces inside the busway housing are closed off with special barriers to help prevent the spread of smoke and gases occurring in a

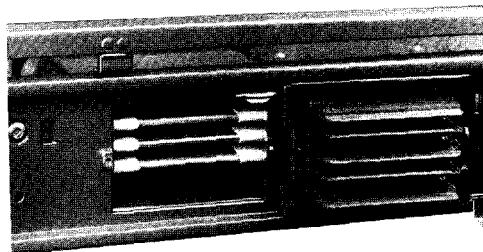
building fire. This standard integral fire barrier allows busway to extend through walls or floors without creating open space for a "chimney effect" fire path.

**Plug-in Openings:** All plug-in busway straight lengths contain plug-in access openings spaced at 2'-0" intervals along both sides of the length. These openings are equipped with a hinged door which covers the opening when not in use. This opening may be used by releasing the door spring catch with a screwdriver or similar tool and swinging the door out of the way. Units rated up to 600 amperes are equipped with jaws which plug directly into these access openings. In addition, the entire door and base assembly may be swung back (requires removal of 2 screws) thus allowing units rated 700 amperes through 1,600 amperes



PLUG-IN OPENING WITH DOOR OPEN

to be attached. (High ampere tap off feature not available on 800 ampere copper busway). All units of this type use the VISI-TITE bolt and connector assembly to provide proper contact pressure.



PLUG-IN OPENING WITH BASE ASSEMBLY SWUNG AWAY

**Plug-in Units:** I-LINE Plug-in units cover a broad range of fusible, circuit breaker and special purpose applications with ratings from 15 amperes through 1,600 amperes. The same time-proven plug-in units fit both I-LINE II Busway and original I-LINE Busway.



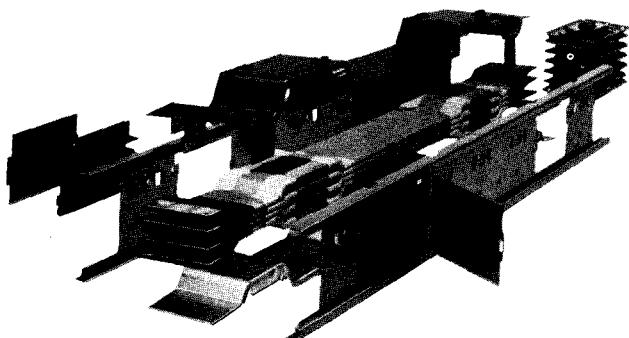
INSTALLING PLUG-IN UNIT

\*M & T Chemical Company Registered Trademark

**Short Circuit Bracing:**

**Feeder** — Bracing is supplied by a lapped spiral wrap of fiberglass tape saturated with epoxy resin. The tape completely encompasses the assembly of insulated bus bars.

**Plug-in** — Formed steel housing sides and steel surge clamps provide bracing under high short circuit conditions. Also, molded insulators support the bus bars in the area of the plug-in openings. Optional high short circuit construction uses premium grade molded polyester glass plug-in opening insulators. Added housing bracing gives even higher short circuit ratings.



PLUG-IN BUSWAY CONSTRUCTION

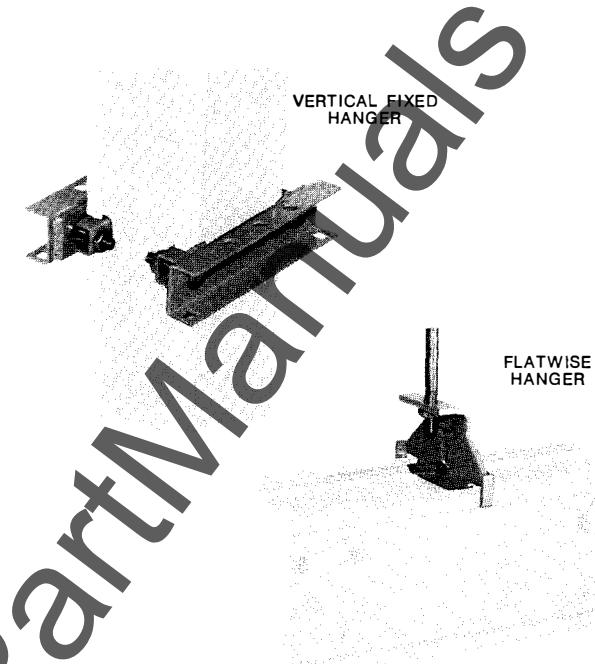
**SHORT CIRCUIT RATING (RMS, SYMMETRICAL)**

Ampere Rating	Short Circuit Rating—Amperes			
	AF2, AFW2	AP2	APH2*	
ALUMINUM BUSWAY	800	85,000	75,000	
	1000	100,000	85,000	
	1200	100,000	95,000	
	1350	100,000	100,000	
	1600	100,000	100,000	
	2000	150,000	150,000	
	2500	150,000	150,000	
	3000	150,000	150,000	
	4000	200,000	—	
		150,000		
COPPER BUSWAY	Ampere Rating	Short Circuit Rating—Amperes		
		CF2, CFW2	CP2	CPH2*
	800	85,000	50,000	75,000
	1000	85,000	50,000	75,000
	1200	100,000	50,000	85,000
	1350	100,000	50,000	85,000
	1600	100,000	50,000	85,000
	2000	100,000	50,000	100,000
	2500	150,000	125,000	150,000
	3000	150,000	125,000	150,000
	4000	200,000	150,000	—
		200,000	150,000	

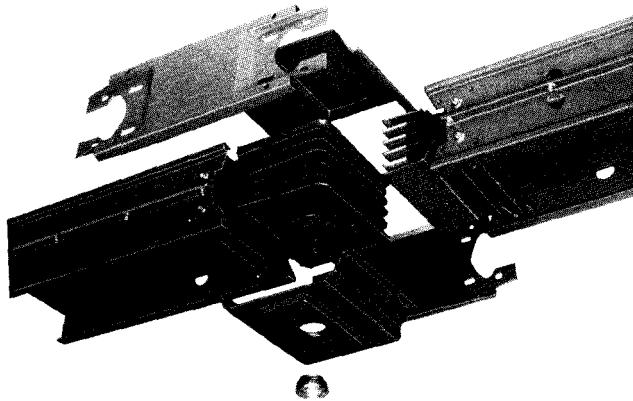
\*Optional

**Compatibility with 'Original' I-LINE Busway:** Existing runs of original I-LINE Busway may be extended by means of a 1'-0" adapter length of I-LINE II Busway. The same plug-in units fit both types of busway.

**Hangers:** Hangers are available for mounting in the flatwise, edgewise or vertical position. All I-LINE II Busway is UL listed for 10'-0" horizontal hanger spacing or 16'-0" vertical hanger spacing. Hangers for mounting plug-in busway in the normal, flatwise position (plug-in units on both sides) do not block the plug-in openings. Hangers fit both feeder and plug-in busway.



**Outdoor Construction:** Feeder busway is available in outdoor as well as indoor construction. The outdoor design incorporates gasketed covers for joint parts, vapor barriers and other features which make it possible to install outdoor busway in an exposed location. Outdoor busway can be connected to indoor feeder or plug-in busway with the standard joint. Plug-in busway is available only in indoor construction.



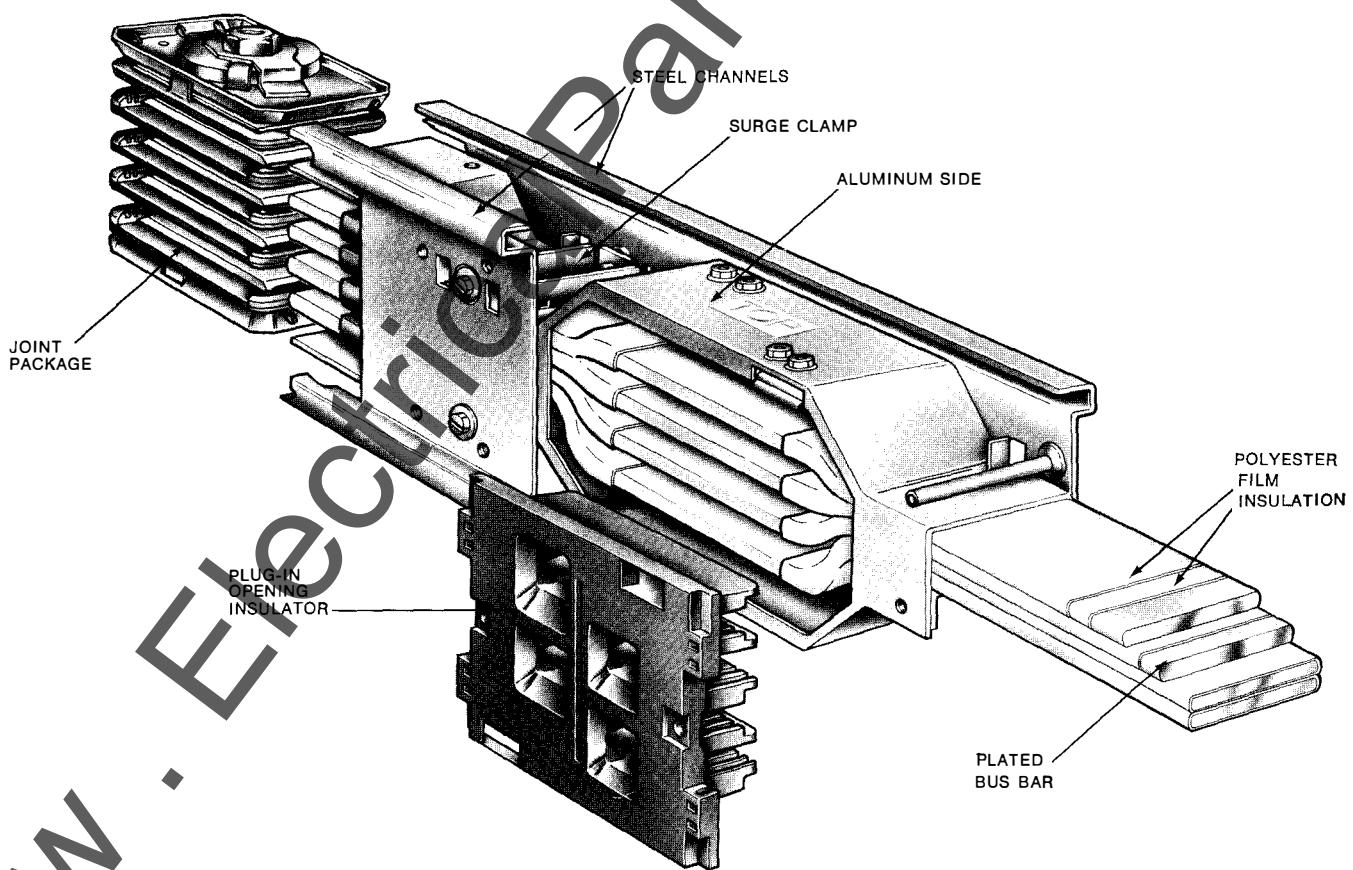
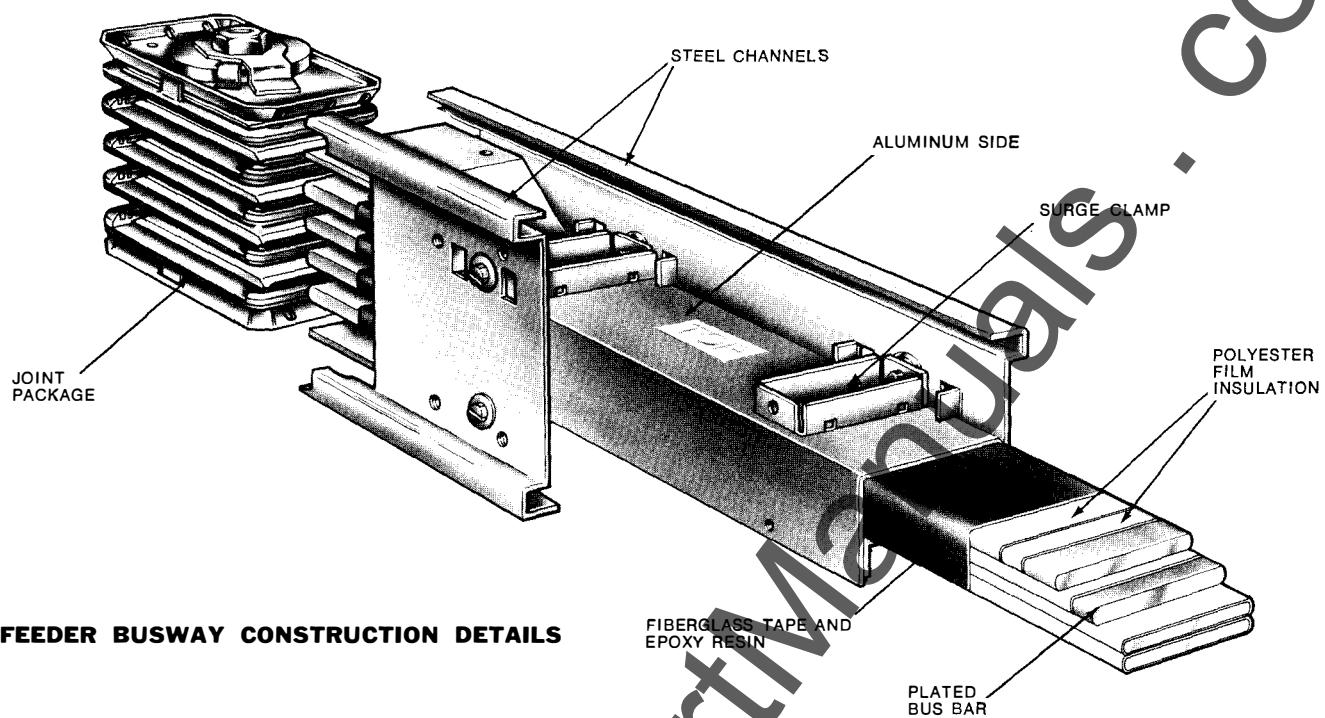
2000 AMPERE OUTDOOR JOINT



AUGUST, 1986

**I-LINE® II BUSWAY**  
APPLICATION DATA

CLASS  
**5615**



**PLUG-IN BUSWAY CONSTRUCTION DETAILS**



**j. Voltage Drop**

The voltage drop (Input Voltage minus Output Voltage) specified shall be based on the busway operating at full rated current and at stabilized operating temperature in a 30°C ambient temperature.

The three-phase, line-to-line feeder busway voltage drop shall not exceed 2.4 volts per hundred feet at 40% power factor concentrated load which condition may exist during motor starting, thus causing voltage dips.

The line-to-line voltage drop shall not exceed 3.3 volts per hundred feet at the load power factor which produces maximum voltage drop in the busway.

**k. Underwriters' Laboratories Listing**

All straight lengths, fittings and plug-in units shall be UL listed and this listing shall include mounting of the busway in any position (i.e., horizontal flatwise, edge-wise, and vertical) without derating. All busway shall be Square D I-LINE II busway.



**I-LINE® II BUSWAY**  
**VOLTAGE DROP DATA**
**CLASS  
5615**
**60Hz IMPEDANCE VALUES**  
**LINE-TO-NEUTRAL IN MILLIOHMS PER 100 FEET**

Ampere Rating	Aluminum Busway		Copper Busway	
	R	X <sub>60</sub>	R	X <sub>60</sub>
800	2.21	.88	1.47	1.04
1000	1.66	.69	1.22	.88
1200	1.35	.60	.95	.69
1350	1.12	.48	.83	.63
1600	.92	.38	.70	.54
2000	.76	.32	.58	.44
2500	.58	.23	.42	.32
3000	.46	.18	.38	.30
4000	.37	.17	.28	.20
5000	...	...	.22	.17

**50Hz IMPEDANCE VALUES**  
**LINE-TO-NEUTRAL IN MICROOHMS PER METER**

Ampere Rating	Aluminum Busway		Copper Busway	
	R	X <sub>50</sub>	R	X <sub>50</sub>
800	72.5	24.0	48.2	28.5
1000	54.5	19.0	40.0	24.0
1200	44.3	16.4	31.2	19.0
1350	36.7	13.1	27.2	17.4
1600	30.2	10.5	23.0	14.8
2000	24.9	8.9	19.0	12.1
2500	19.0	6.2	13.8	8.9
3000	15.1	4.9	12.5	8.2
4000	12.1	4.6	9.2	5.6
5000	...	...	7.2	4.6

**Sample #1**

1000 Ampere Aluminum Busway at 50% power factor — 60Hz

**Voltage Drop**

$$= \sqrt{3} I (R \cos \emptyset + X \sin \emptyset)$$

$$= \sqrt{3} \times 1000 (.00166 \times .50 + .00069 \times .866)$$

$$= 2.47 \text{ volts / 100 ft. — Concentrated Load}$$

**Sample #2**

1000 Ampere Copper Busway at 50% power factor — 60Hz

**Voltage Drop**

$$= \sqrt{3} I (R \cos \emptyset + X \sin \emptyset)$$

$$= \sqrt{3} \times 1000 (.00122 \times .50 + .00088 \times .866)$$

$$= 2.37 \text{ volts / 100 ft. — Concentrated Load}$$

$$= \frac{2.37}{2} = 1.19 \text{ volts / 100 ft. — Distributed Load}$$

**Sample #3**

1000 Ampere Aluminum Busway at 50% power factor — 50Hz

**Voltage Drop**

$$= \sqrt{3} I (R \cos \emptyset + X \sin \emptyset)$$

$$= \sqrt{3} \times 1000 (.0000545 \times .50 + .000019 \times .866)$$

$$= .0757 \text{ volts / meter — Concentrated Load}$$

**Sample #4**

1000 Ampere Copper Busway at 50% power factor — 50Hz

**Voltage Drop**

$$= \sqrt{3} I (R \cos \emptyset + X \sin \emptyset)$$

$$= \sqrt{3} \times 1000 (.000040 \times .50 + .000024 \times .866)$$

$$= .0706 \text{ volts / meter — Concentrated Load}$$

$$= \frac{.0706}{2} = .0353 \text{ volts / meter — Distributed Load}$$

**Voltage Drop Values** shown in tables on page 12 are based on a single, concentrated load at the end of the busway run. For distributed loading, multiply the values shown by 0.5.

I-LINE II Busway voltage drop is low. This helps to maintain a stable voltage supply to delicate electronic and computer equipment. Even at low power factors, the extremely low reactance of I-LINE II Busway helps to minimize the instantaneous voltage dips which can be caused by motor starting inrush currents, etc.

**Notes:**

- For balanced 3 phase line-to-line voltage drop of 4 wire busway, use values from tables.

- For balanced 3 phase line-to-neutral voltage drop, multiply values from tables by .577.
- For single phase voltage drop, multiply values from tables by 1.15.
- For other than rated current, multiply values from tables by  $\frac{\text{Actual Current}}{\text{Rated Current}}$
- For different lengths, multiply values from 60Hz tables by  $\frac{\text{Actual Footage}}{100 \text{ ft.}}$



**60Hz VOLTAGE DROP (AT RATED LOAD)****AVERAGE 3 PHASE LINE-TO-LINE VOLTAGE DROP IN VOLTS PER 100 FEET**

Ampere Rating	ALUMINUM Busway — Power Factor %											
	100	95	90	85	80	75	70	60	50	40	30	20
800	3.06	3.29	3.29	3.25	3.18	3.10	3.01	2.81	2.59	2.34	2.08	1.81
1000	2.88	3.11	3.11	3.07	3.02	2.95	2.87	2.68	2.47	2.25	2.00	1.75
1200	2.81	3.01	3.07	3.04	2.99	2.93	2.86	2.68	2.48	2.27	2.03	1.78
1350	2.62	2.84	2.85	2.82	2.77	2.71	2.64	2.47	2.28	2.08	1.86	1.62
1600	2.55	2.75	2.75	2.72	2.67	2.61	2.54	2.37	2.19	1.99	1.77	1.54
2000	2.63	2.85	2.85	2.82	2.77	2.71	2.64	2.47	2.28	2.07	1.85	1.61
2500	2.51	2.70	2.69	2.66	2.61	2.54	2.47	2.30	2.12	1.92	1.70	1.48
3000	2.39	2.56	2.56	2.52	2.47	2.41	2.34	2.18	2.01	1.81	1.61	1.39
4000	2.56	2.80	2.82	2.80	2.76	2.70	2.64	2.48	2.30	2.11	1.89	1.67

**AVERAGE 3 PHASE LINE-TO-LINE VOLTAGE DROP IN VOLTS PER 100 FEET**

Ampere Rating	COPPER Busway — Power Factor %											
	100	95	90	85	80	75	70	60	50	40	30	20
800	2.03	2.39	2.46	2.49	2.49	2.48	2.46	2.38	2.27	2.14	1.99	1.82
1000	2.11	2.48	2.57	2.60	2.61	2.59	2.57	2.49	2.38	2.24	2.09	1.92
1200	1.98	2.32	2.40	2.43	2.44	2.43	2.41	2.33	2.23	2.10	1.96	1.80
1350	1.94	2.30	2.39	2.43	2.44	2.43	2.41	2.34	2.25	2.13	1.99	1.83
1600	1.94	2.31	2.40	2.44	2.45	2.45	2.43	2.36	2.27	2.15	2.01	1.85
2000	2.01	2.39	2.47	2.51	2.52	2.52	2.50	2.43	2.33	2.20	2.06	1.90
2500	1.82	2.16	2.24	2.28	2.29	2.28	2.26	2.20	2.11	2.00	1.87	1.72
3000	1.98	2.36	2.46	2.50	2.52	2.51	2.50	2.43	2.34	2.22	2.08	1.92
4000	1.94	2.28	2.35	2.38	2.38	2.37	2.35	2.27	2.17	2.05	1.90	1.75
5000	1.91	2.27	2.36	2.40	2.41	2.40	2.39	2.32	2.23	2.11	1.98	1.82

**50Hz VOLTAGE DROP (AT RATED LOAD)****AVERAGE 3 PHASE LINE-TO-LINE VOLTAGE DROP IN VOLTS PER METER**

Rating Ampere	ALUMINUM Busway — Power Factor %											
	100	95	90	85	80	75	70	60	50	40	30	20
800	.100	.106	.105	.103	.100	.097	.094	.087	.079	.071	.062	.053
1000	.094	.100	.099	.098	.095	.093	.090	.083	.076	.068	.060	.051
1200	.092	.098	.098	.096	.094	.092	.089	.083	.076	.068	.060	.052
1350	.086	.091	.091	.089	.087	.085	.082	.076	.070	.062	.055	.047
1600	.084	.086	.088	.086	.084	.082	.079	.073	.067	.060	.053	.045
2000	.086	.092	.091	.090	.087	.085	.082	.076	.070	.063	.055	.047
2500	.082	.087	.086	.084	.082	.080	.077	.071	.065	.058	.050	.043
3000	.078	.082	.082	.080	.078	.076	.073	.068	.061	.055	.048	.041
4000	.084	.090	.090	.088	.086	.084	.082	.076	.070	.063	.056	.048

**AVERAGE 3 PHASE LINE-TO-LINE VOLTAGE DROP IN VOLTS PER METER**

Rating Ampere	COPPER Busway — Power Factor %											
	100	95	90	85	80	75	70	60	50	40	30	20
800	.067	.076	.077	.078	.077	.076	.075	.072	.068	.063	.058	.052
1000	.069	.079	.080	.081	.080	.079	.078	.075	.071	.066	.060	.054
1200	.065	.074	.076	.076	.076	.075	.074	.071	.067	.062	.057	.052
1350	.064	.073	.075	.076	.075	.075	.074	.071	.067	.063	.058	.053
1600	.064	.073	.075	.076	.075	.075	.074	.071	.067	.063	.058	.053
2000	.066	.076	.078	.078	.078	.077	.076	.073	.069	.065	.060	.054
2500	.060	.069	.070	.071	.071	.070	.069	.066	.063	.059	.054	.050
3000	.065	.075	.077	.078	.077	.077	.069	.073	.069	.065	.060	.055
4000	.064	.073	.074	.074	.074	.073	.072	.069	.065	.061	.056	.051
5000	.062	.072	.074	.074	.074	.073	.072	.069	.066	.061	.057	.051



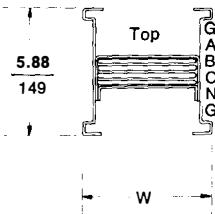
**CROSS SECTIONS — PLUG-IN AND INDOOR FEEDER LENGTHS**


FIGURE A

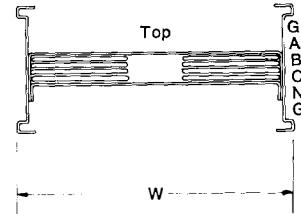


FIGURE B

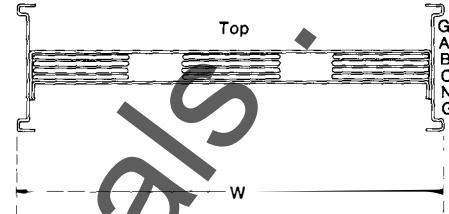


FIGURE C

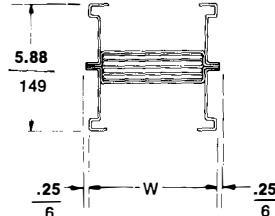
**CROSS SECTIONS — FITTINGS AND ALL WEATHERPROOF**


FIGURE A

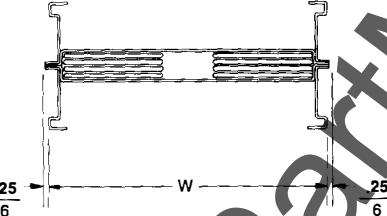


FIGURE B

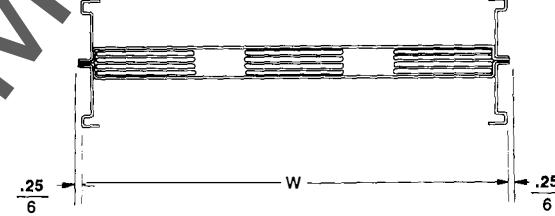


FIGURE C

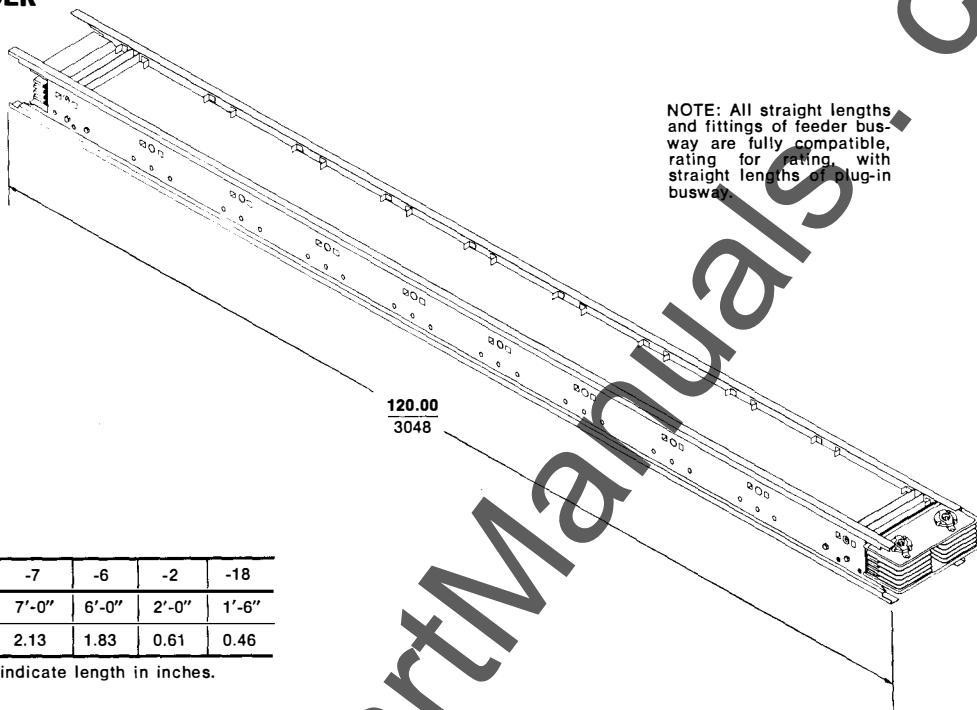
**ALUMINUM CONTENT AND WEIGHT**

Ampere Rating	W	Fig.	Bus Bars Per Phase		Weights—Feeder				Weights—Plug-In			
					Lbs/Ft	Kg/M	Lbs/Ft	Kg/M	Lbs/Ft	Kg/M	Lbs/Ft	Kg/M
			In.	mm								
800	4.34	110	One	.25 x 3.00	9.1	13.5	10.0	14.9	11.2	16.7	12.1	18.0
1000	5.34	136	A	One—.25 x 4.00	10.1	15.0	11.3	16.8	12.2	18.2	13.2	19.9
1200	6.34	161	A	One—.25 x 5.00	11.1	16.5	12.5	18.6	13.2	19.6	14.6	21.7
1350	7.34	186	A	One—.25 x 6.00	12.1	18.0	13.8	20.5	14.2	21.1	15.9	23.7
1600	8.84	225	A	One—.25 x 7.50	13.8	20.5	15.8	23.5	15.9	23.7	17.9	26.6
2000	12.72	323	B	Two—.25 x 4.50	19.1	28.4	22.5	33.5	21.2	31.5	24.6	36.6
2500	16.22	412	B	Two—.25 x 6.00	22.1	32.9	26.7	39.7	24.2	36.0	26.8	39.9
3000	18.72	475	B	Two—.25 x 7.50	25.1	37.3	30.6	45.5	27.2	40.5	32.7	48.7
4000	25.60	650	C	Three—.25 x 6.50	33.9	50.4	40.4	60.1	36.0	53.6	42.5	63.2

**COPPER CONTENT AND WEIGHT**

Ampere Rating	W	Fig.	Bus Bars Per Phase		Weights—Feeder				Weights—Plug-In				
					Lbs/Ft	Kg/M	Lbs/Ft	Kg/M	Lbs/Ft	Kg/M	Lbs/Ft	Kg/M	
			In.	mm									
800	3.84	98	A	One—.25 x 2.50	One—6 x 64	12.1	18.0	14.6	21.7	14.2	21.1	16.7	24.8
1000	4.34	110	A	One—.25 x 3.00	One—6 x 76	13.8	20.5	16.7	24.9	15.9	23.7	18.8	28.0
1200	5.34	136	A	One—.25 x 4.00	One—6 x 102	16.8	25.0	20.8	31.0	18.9	28.1	22.9	34.1
1350	5.84	148	A	One—.25 x 4.50	One—6 x 114	18.3	27.2	22.8	33.9	20.4	30.4	24.9	37.1
1600	6.74	171	A	One—.25 x 5.40	One—6 x 137	21.1	31.4	27.5	40.9	23.2	34.5	29.6	44.0
2000	7.84	199	A	One—.25 x 6.50	One—6 x 165	24.3	36.2	30.8	45.8	26.4	39.3	32.9	49.0
2500	12.72	323	B	Two—.25 x 4.50	Two—6 x 114	38.7	57.6	47.7	71.0	40.8	60.7	49.8	74.1
3000	15.22	387	B	Two—.25 x 5.00	Two—6 x 127	42.7	63.5	51.7	76.9	43.8	65.2	53.8	80.1
4000	23.60	599	C	Three—.25 x 4.50	Three—6 x 114	59.1	87.9	72.6	108.0	61.2	91.1	74.7	111.2
5000	25.10	638	C	Three—.25 x 6.00	Three—6 x 152	72.6	108.0	90.6	134.8	74.7	111.2	92.7	137.9

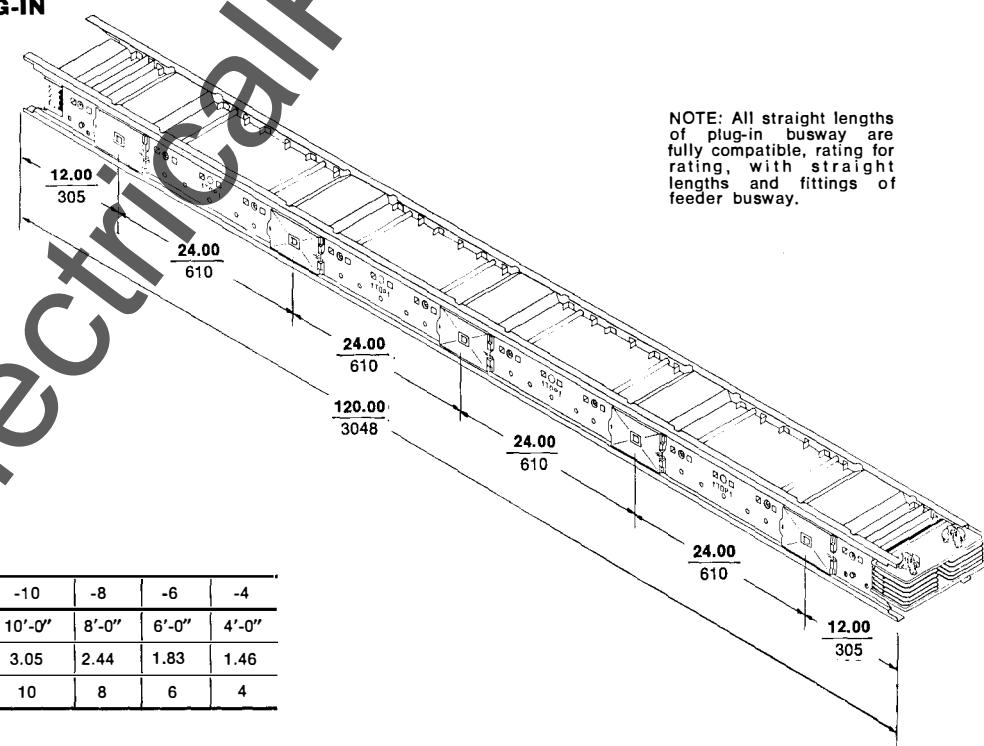
## STRAIGHT LENGTHS — FEEDER



Catalog Number Suffix	-10	-7	-6	-2	-18
Standard Straight Lengths—Feet	10'-0"	7'-0"	6'-0"	2'-0"	1'-6"
Standard Straight Lgths—Meters	3.05	2.13	1.83	0.61	0.46

For straight lengths other than standard indicate length in inches.

## STRAIGHT LENGTHS — PLUG-IN



Catalog Number Suffix	-10	-8	-6	-4
Standard Lengths—Feet	10'-0"	8'-0"	6'-0"	4'-0"
Standard Lengths—Meters	3.05	2.44	1.83	1.46
Number of Plug-In Openings	10	8	6	4

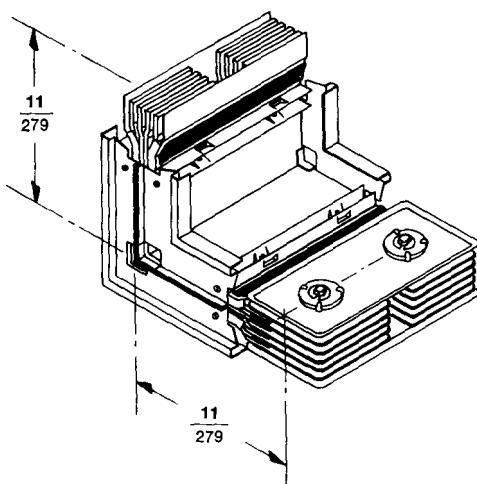


AUGUST, 1986

I-LINE® II BUSWAY  
DIMENSIONS

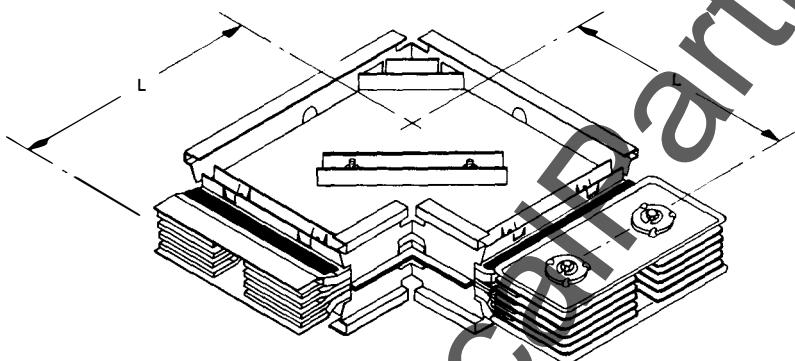
CLASS  
**5615**

**ELBOW — EDGEWISE**



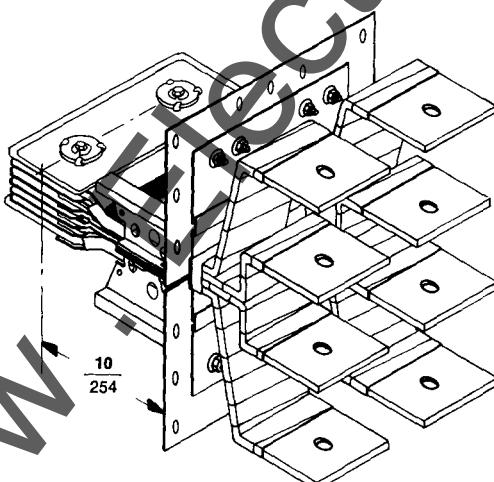
CATALOG NUMBER SUFFIX—LEM11

**ELBOW — FLATWISE**



Ampere Rating		L		Catalog Number Suffix
Aluminum	Copper	In.	mm	
...	800	11.00	279	-LFM11
800	1000	11.00	279	-LFM11
1000	1200	12.00	305	-LFM12
1200	1350	12.00	305	-LFM12
...	1600	12.00	305	-LFM12
1350	2000	13.00	330	-LFM13
1600	...	13.00	330	-LFM13
...	2000	15.00	381	-LFM15
2000	2500	15.00	381	-LFM15
...	3000	16.00	406	-LFM16
2500	...	17.00	432	-LFM17
3000	...	18.00	457	-LFM18
...	4000	21.00	533	-LFM21
...	5000	21.00	533	-LFM21
4000	...	22.00	559	-LFM22

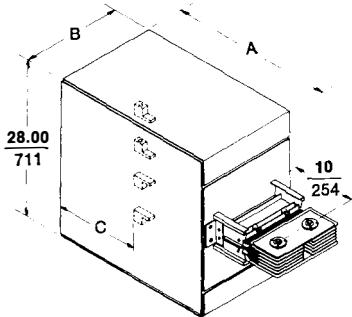
**FLANGED END**



CATALOG NUMBER SUFFIX—10FEB



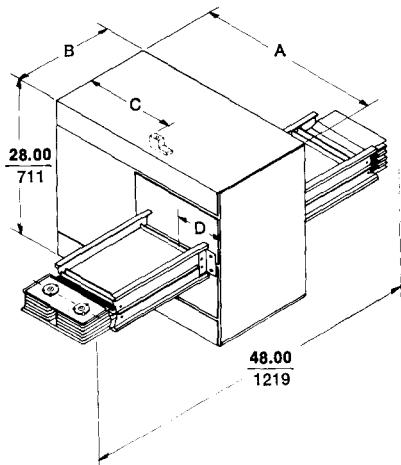
## CABLE TAP BOX — END



CATALOG NUMBER SUFFIX—ETEBMB

Ampere Rating		A		B		C		Lugs Per Ø & N 2/0-500 MCM	Ground Lugs #6-300 MCM
Aluminum	Copper	In.	mm	In.	mm	In.	mm		
800	800	29.14	740	11.00	279	16.00	406	3	2
1000	1000	29.14	740	11.00	279	16.00	406	4	3
1200	1200	29.14	740	11.00	279	16.00	406	4	3
1350	1350	29.14	740	14.88	378	16.00	406	5	3
1600	1600	29.14	740	14.88	378	16.00	406	6	4
....	2000	29.14	740	14.88	378	16.00	406	7	5
2000	....	29.14	740	16.88	429	16.00	406	7	5
2500	2500	39.38	1000	20.88	530	26.00	660	9	6
....	3000	39.38	1000	20.88	530	26.00	660	10	7
3000	....	39.38	1000	23.76	604	26.00	660	10	7
4000	4000	39.38	1000	29.76	756	26.00	660	14	9
....	5000	39.38	1000	29.76	756	26.00	660	17	11

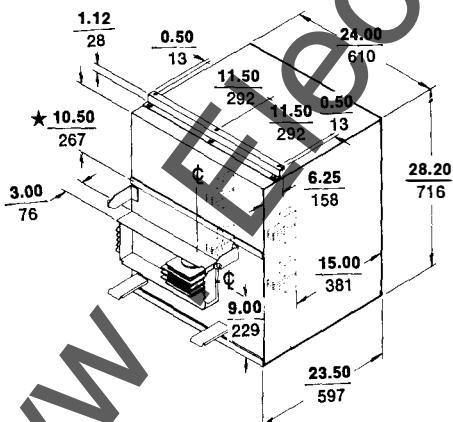
## CABLE TAP BOX — CENTER



CATALOG NUMBER SUFFIX—CTB

Ampere Rating		A		B		C		D		Lugs Per Ø & N 2/0-5000 MCM	Ground Lugs #6-300 MCM
Aluminum	Copper	In.	mm	In.	mm	In.	mm	In.	mm		
800	800	35.00	889	14.00	356	16.00	406	7.27	185	3	2
1000	1000	35.00	889	14.00	356	16.00	406	7.27	185	4	3
1200	1200	35.00	889	14.00	356	16.00	406	7.27	185	4	3
1350	1350	35.00	889	14.00	356	16.00	406	7.27	185	5	3
1600	1600	35.00	889	14.00	356	16.00	406	7.27	185	6	4
....	2000	35.00	889	14.00	356	16.00	406	7.27	185	7	5
2000	....	41.70	1059	20.00	508	17.60	447	10.28	261	7	5
....	2500	41.70	1059	20.00	508	17.60	447	10.28	261	9	6
....	2500	41.70	1059	20.00	508	17.60	447	10.28	261	9	6

## CABLE TAP BOX — BOLT ON



Ampere Rating	Lugs Per Phase and Neutral	Ground Lugs	Catalog Number	
			3-Pole*	30, 4W*
† 800				
1000				
1200				
1350				
1600				
	6-500 MCM	2-500 MCM	PTB-316G	PTB516G

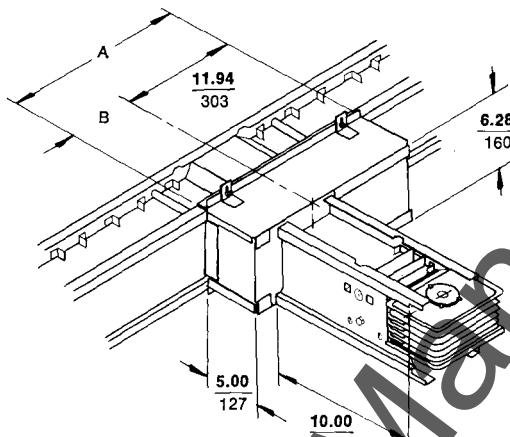
★Gutter—can be moved to opposite end in field. 28.00" clearance required from C of busway, for mounting bolt-on tap boxes when gutter is on top; and 20.00" required mounting clearance when gutter is on the bottom.

\*May be used only on plug-in busway with the same number of poles; i.e., do not use 3-pole units on 30, 4W busway or 30, 4W units on 3-pole busway.

Cannot be mounted in the last opening on either side of a busway run.

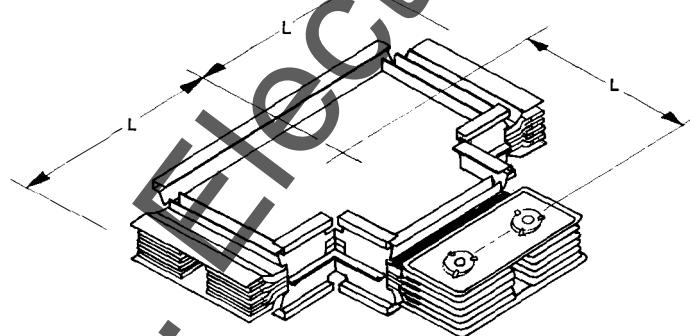
†Cannot be used on 800A Copper I-Line II Busway.



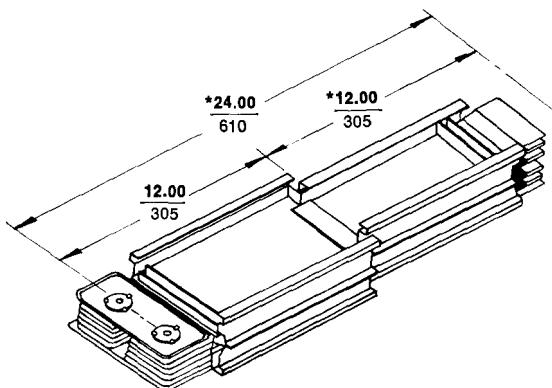
**TEES — PLUG-IN**

Ampere Rating		A		B		Catalog Number	
Aluminum	Copper	In.	mm	In.	mm	3 Pole*	3Ø, 4W*
800	1000	15.61	396	3.67	93	PTT-43-3WG	PTT-43-4WG
1000	1200	16.11	409	4.47	106	PTT-53-3WG	PTT-53-4WG
...	1350	16.36	416	4.42	112	PTT-58-3WG	PTT-58-4WG
1200	...	16.61	422	4.67	119	PTT-63-3WG	PTT-63-4WG
...	1600	16.81	427	4.87	124	PTT-67-3WG	PTT-67-4WG
1350	...	17.11	435	5.17	131	PTT-73-3WG	PTT-73-4WG
1600	...	17.86	454	5.92	150	PTT-88-3WG	PTT-88-4WG

\*May be used on plug-in busway with the same number of poles; i.e. do not use 3-pole units on 3Ø, 4W busway or 3Ø, 4W units on 3-pole busway.

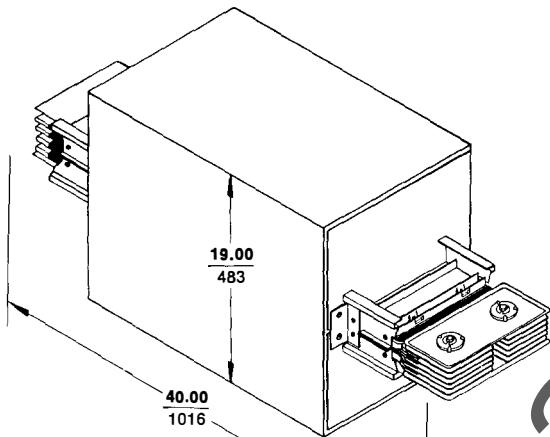
**TEES — FEEDER**

Ampere Rating		L		Catalog Number Suffix
Aluminum	Copper	In.	mm	
...	800	11.00	279	-TFM11
800	1000	11.00	279	-TFM11
1000	1200	12.00	305	-TFM12
1200	1350	12.00	305	-TFM12
...	1600	12.00	305	-TFM12
1350	2000	13.00	330	-TFM13
1600	...	13.00	330	-TFM13
2000	2500	15.00	381	-TFM15
2500	3000	16.00	406	-TFM16
3000	...	17.00	432	-TFM17
...	4000	18.00	457	-TFM18
4000	4000	21.00	533	-TFM21
4000	5000	21.00	533	-TFM21
4000	...	22.00	559	-TFM22

**UNFUSED REDUCER:**

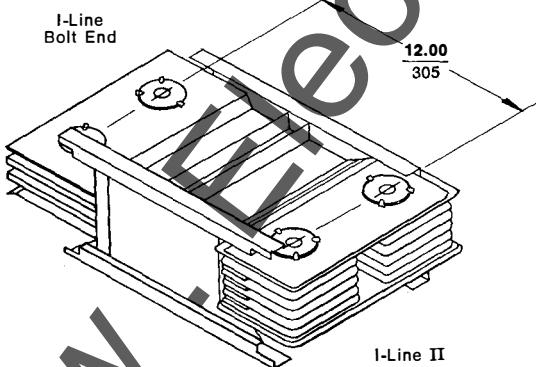
Bolt End Ampere Rating	Catalog Number Suffix									
	*400	*600	800	1000	1200	1350	1600	2000	2500	3000
800	-R04	-R06	-R08	....	....	....	....	....	....	....
1000	-R04	-R06	-R08	-R10	....	....	....	....	....	....
1200	-R04	-R06	-R08	-R10	-R12	....	....	....	....	....
1350	....	-R06	-R08	-R10	-R12	....	....	....	....	....
1600	....	....	-R08	-R10	-R12	-R13	....	....	....	....
2000	....	....	-R08	-R10	-R12	-R13	-R16	....	....	....
2500	....	....	....	-R10	-R12	-R13	-R16	-R20	....	....
3000	....	....	....	-R10	-R12	-R13	-R16	-R20	-R25	....
4000	....	....	....	....	-R12	-R13	-R16	-R20	-R25	-R30
5000	....	....	....	....	....	-R16	-R20	-R25	-R30	....

\*Increase to 18.00" when reducing to 400 or 600 ampere. Overall dimension then becomes 30.00".

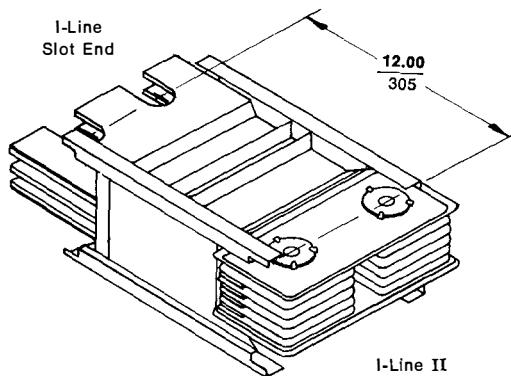
**EXPANSION FITTING:**

CATALOG NUMBER SUFFIX—EJ

NOTE: Expansion joint permits  $\pm$  1.50 inch expansion. Use recommended only when busway passes through building expansion joint.

**ADAPTER**

CATALOG NUMBER SUFFIX—12B



CATALOG NUMBER SUFFIX—12S

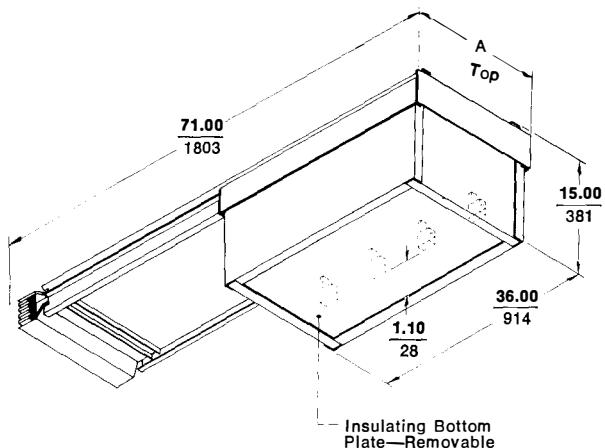
AUGUST, 1986

## I-LINE® II BUSWAY

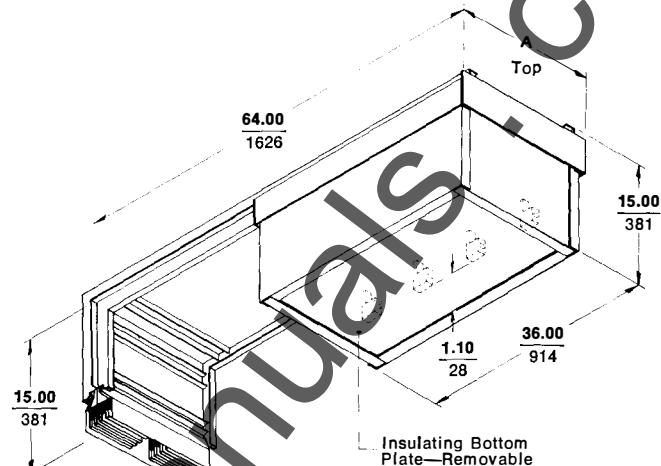
### DIMENSIONS

CLASS  
5615

#### SERVICE HEAD FLATWISE:



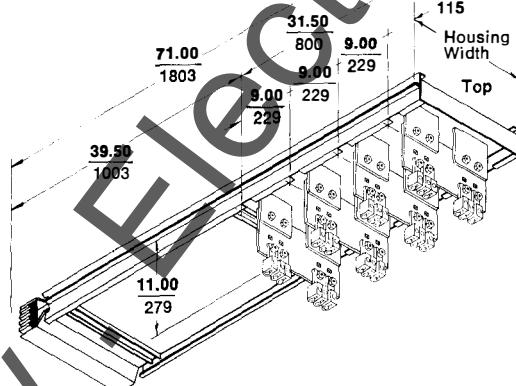
CATALOG NUMBER SUFFIX—SHF



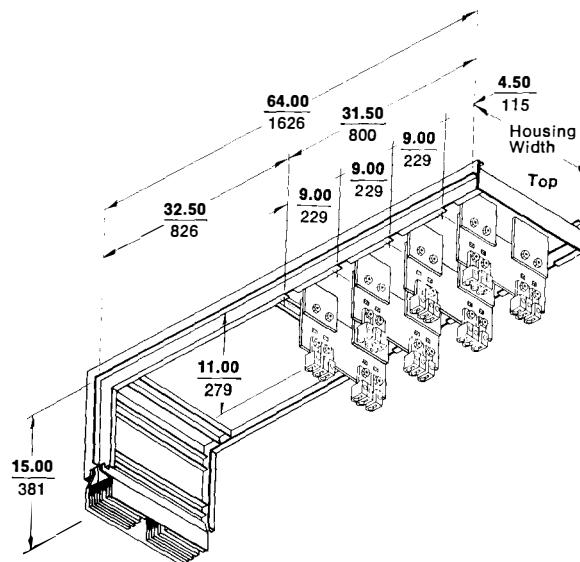
CATALOG NUMBER SUFFIX—LESHF

Ampere Rating	A	Lugs Per Ø 8 N 2/0-500 MCM	Ground Lugs #6-300 MCM
800		2	2
1000		3	3
1200		4	3
1350		4	3
1600	Housing Width Plus 2.23	4	4
2000	57	5	5
2500		7	6
3000		8	7
4000		10	9
5000		13	11

#### TRANSFORMER TAP: (1-3 Ø TRANSFORMER)



CATALOG NUMBER SUFFIX—TSF



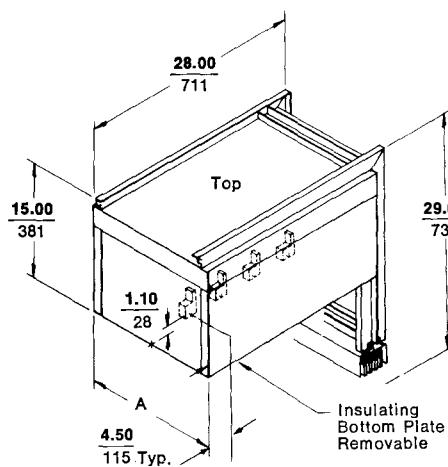
CATALOG NUMBER SUFFIX—LETSF



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## SERVICE HEAD VERTICAL:



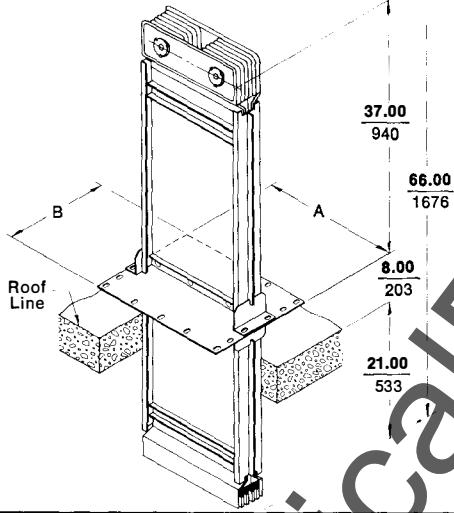
CATALOG NUMBER SUFFIX—SHV

Ampere Rating	A	Lugs Per Ø & N		Ground Lugs #6-300 MCM
		2/0-500 MCM	2	
800			2	
1000			3	3
1200			4	3
1350			4	3
1600	Housing Width Plus	2.23	4	4
2000			5	5
2500			7	6
3000		57	8	7
4000			10	9
5000			13	11

## NOTES:

- Vertical service heads must be braced or supported near top, to withstand weight of cables, ice, wind, etc.
- Refer to N.E.C. 230-24 for required clearance of service drops over roof overhangs, or the ground, roof overhangs, or the ground.

## STRAIGHT LENGTH WITH FLANGED COLLAR

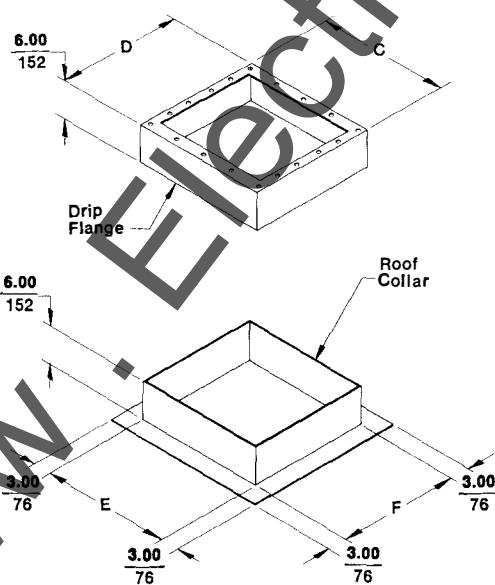


CATALOG NUMBER SUFFIX—66FC

Ampere Rating	A		*B			
	Aluminum	Copper	In.	mm	In.	mm
...		800	9.38	238	13.18	335
800		1000	9.38	238	13.18	335
...		1200	10.00	254	13.18	335
1000		1350	11.00	279	13.18	335
1200		...	12.00	305	13.18	335
1350		1600	13.00	330	13.18	335
1600		2000	15.88	403	19.18	487
2000		2500	17.88	454	19.18	487
2500		3000	21.88	556	19.18	487
3000		...	24.75	629	19.18	487
4000		4000	30.75	781	19.18	487
5000		5000	30.75	781	19.18	487

\*4-Pole dimensions. For 3-pole dimensions subtract .25/6.

## ROOF FLANGE KIT

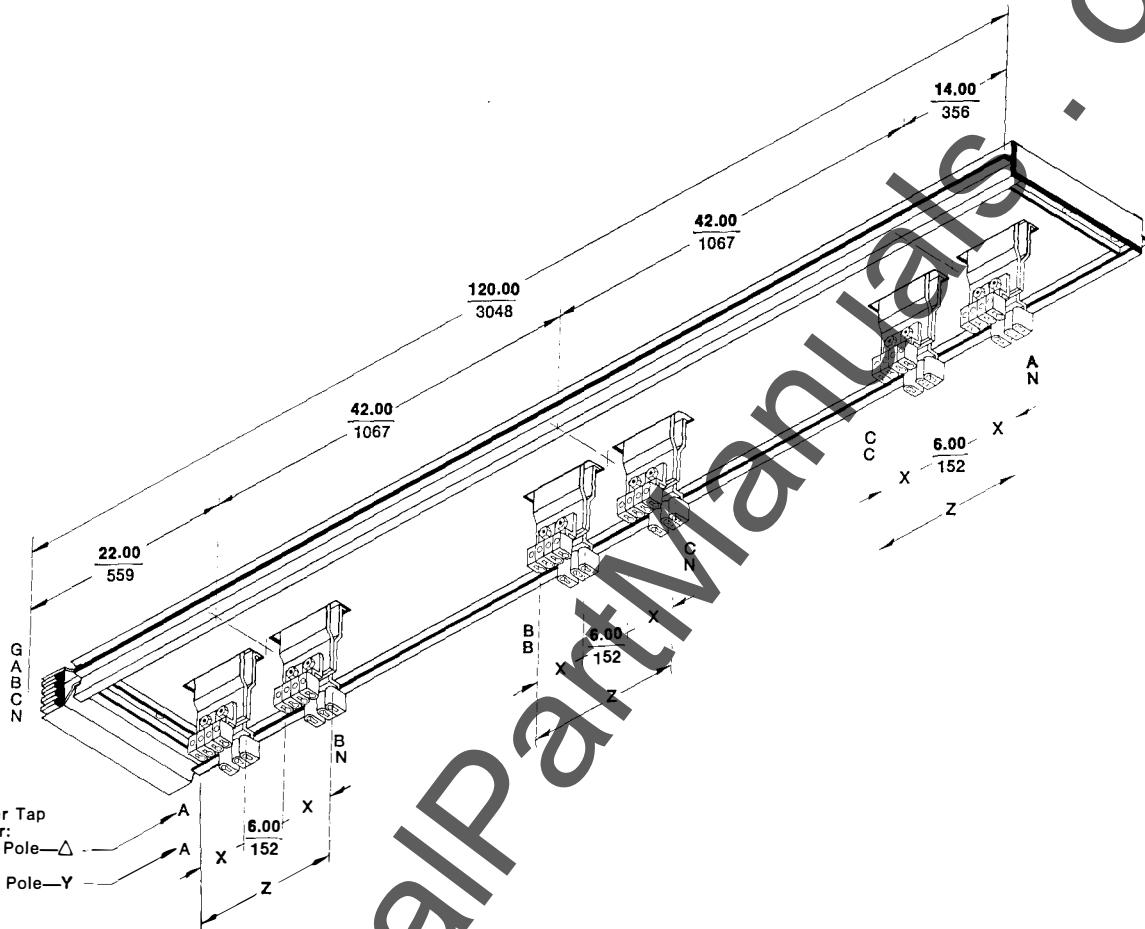


Ampere Rating	C		D		E		F		
	Aluminum	Copper	In.	mm	In.	mm	In.	mm	
600	800	9.72	247	14.23	361	9.21	234	13.72	348
800	1000	9.72	247	14.23	361	9.21	234	13.72	348
...	1200	10.34	263	14.23	361	9.82	250	13.72	348
1000	1350	11.34	288	14.23	361	10.82	275	13.72	348
1200	...	12.34	313	14.23	361	11.82	300	13.72	348
1350	1600	13.34	339	14.23	361	12.82	326	13.72	348
1600	2000	16.22	412	20.23	514	15.71	399	19.72	501
2000	2500	18.22	463	20.23	514	17.71	450	19.72	501
2500	3000	22.22	564	20.23	514	21.71	551	19.72	501
3000	...	25.09	637	20.23	514	24.58	624	19.72	501
4000	4000	39.09	993	20.23	514	30.58	777	19.72	501
5000	5000	39.09	993	20.23	514	30.58	777	19.72	501

NOTE: Roof flange kit will accommodate roof slope up to one inch per foot.



**I-LINE® II BUSWAY**  
**DIMENSIONS**

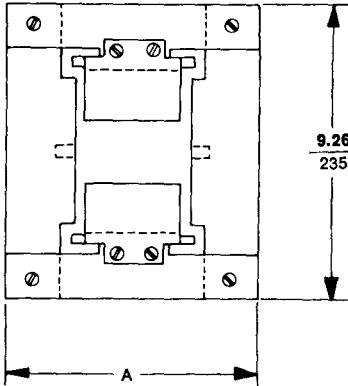
 CLASS  
**5615**
**TRANSFORMER TAP:**  
**(3-1 Ø TRANSFORMERS)**


CATALOG NUMBER SUFFIX — TTF

Ampere Rating		X		Z		Lugs Per Ø & N 2/0-500 MCM	Ground Lugs #6-300 MCM
Aluminum	Copper	In.	mm	In.	mm		
2000	2500	4.50	114	15.00	381	5	5
2500	3000	6.00	152	18.00	457	7	6
3000	3500	5.00	127	16.00	406	8	7
4000	4000	4.50	114	15.00	381	10	9
4000	5000	6.50	165	19.00	483	10	11
		6.00	152	18.00	457		

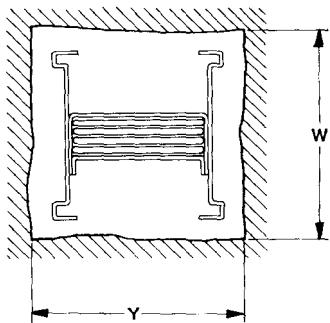


## WALL AND FLOOR FLANGE



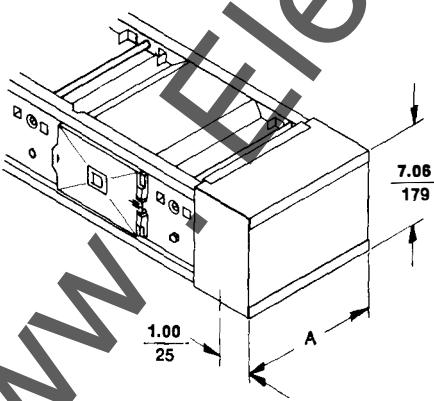
Ampere Rating		A		Catalog Number
Aluminum	Copper	In.	mm	
...	800	7.32	54	ACF-38-WF
800	1000	7.82	61	ACF-43-WF
1000	1200	8.82	78	ACF-53-WF
...	1350	9.32	87	ACF-58-WF
1200	...	9.82	96	ACF-63-WF
1350	1600	10.22	104	ACF-67-WF
...	2000	10.82	117	ACF-73-WF
1600	...	11.32	128	ACF-78-WF
...	2500	12.32	152	ACF-88-WF
2000	2500	16.20	262	ACF-13-WF
...	3000	18.70	350	ACF-15-WF
2500	...	19.70	388	ACF-17-WF
3000	...	22.20	564	ACF-19-WF
...	4000	27.08	733	ACF-24-WF
...	5000	28.58	817	ACF-25-WF
4000	...	29.08	846	ACF-26-WF

## REQUIRED WALL AND FLOOR OPENINGS



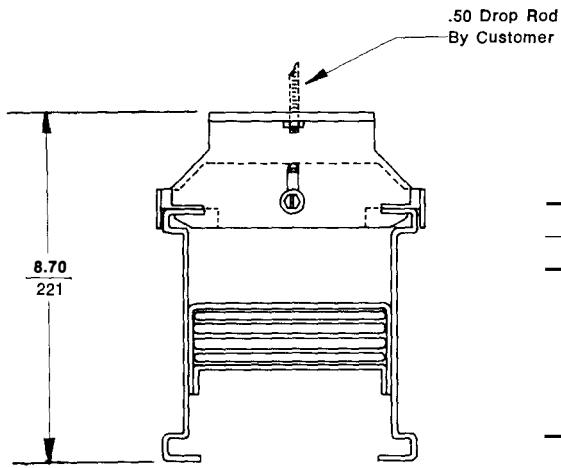
Ampere Rating	Str. Lnth.	Fl. End	Flatwise Elbow*						Edgewise Elbow*					
			Wall Thickness						Wall Thickness					
			4	8	12	16	20	24	4	8	12	16	20	24
...														
800	800	Y	6	10	15	9	11	13	15	17	19	6	6	
800	1000	W	6	10	15	10	12	14	16	18	20	20	22	7
1000	1200	Y	7	11	15	12	14	16	18	20	22	22	24	8
...	1350	W	8	12	15	12	14	16	18	20	22	23	25	9
1200	1350	Y	8	13	15	13	15	17	19	21	23	23	25	10
1350	1600	W	9	14	15	14	16	18	20	22	24	24	26	11
...	2000	Y	10	17	21	15	17	19	21	23	25	25	27	12
1600	2000	W	11	17	21	17	19	21	23	25	27	27	29	14
...	2500	Y	15	19	21	22	24	26	28	30	32	32	35	15
2000	2500	W	17	23	21	26	28	30	32	34	36	36	38	17
...	3000	Y	18	23	21	27	29	31	33	35	37	37	39	18
2500	3000	W	21	26	21	31	33	35	37	39	41	41	21	22
...	4000	Y	26	32	21	37	39	41	43	45	47	47	49	26
...	5000	W	27	32	21	40	42	44	46	48	50	50	52	27
4000	4000	Y	28	32	21	40	42	44	46	48	50	50	52	28

## END CLOSURE

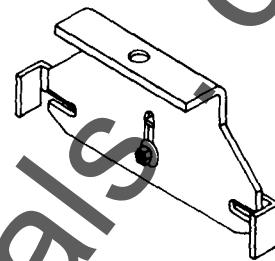
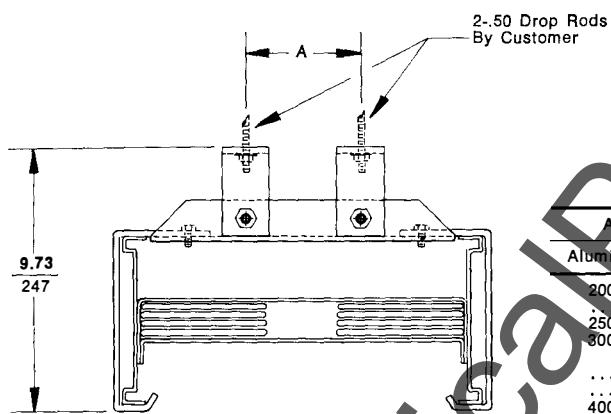


Ampere Rating		A		Catalog Number
Aluminum	Copper	In.	mm	
...	800	4.34	110	ACF-38-EC
800	1000	4.84	123	ACF-43-EC
1000	1200	5.84	148	ACF-53-EC
...	1350	6.34	161	ACF-58-EC
1200	...	6.84	174	ACF-63-EC
1350	1600	7.24	184	ACF-67-EC
...	2000	7.84	199	ACF-73-EC
1350	2000	8.34	212	ACF-78-EC
...	1600	9.34	237	ACF-88-EC
2000	2500	13.22	336	ACF-13-EC
...	3000	15.72	399	ACF-15-EC
2500	...	16.72	425	ACF-17-EC
3000	...	19.22	488	ACF-19-EC
...	4000	24.10	612	ACF-24-EC
...	5000	25.60	650	ACF-25-EC
4000	4000	26.10	663	ACF-26-EC

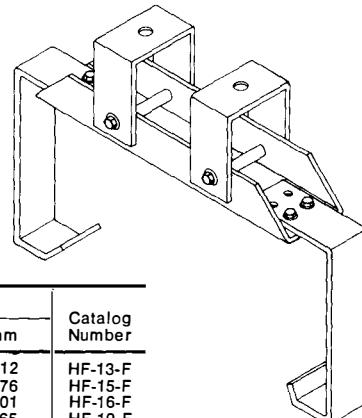
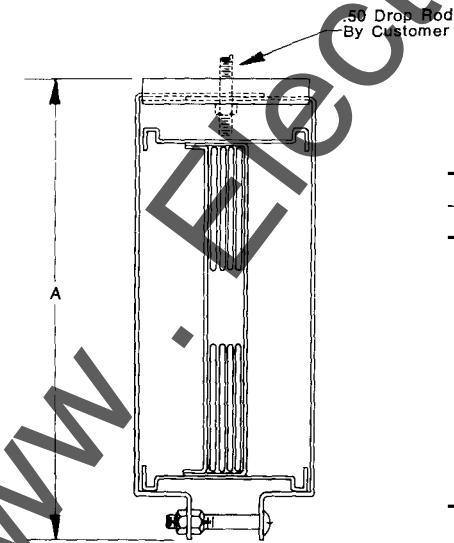


**I-LINE® II BUSWAY**  
**DIMENSIONS**
**CLASS  
5615**
**HANGER — FLATWISE**

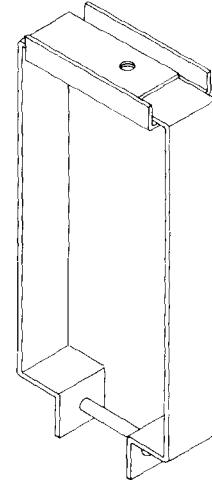
Ampere Rating		Catalog Number
Aluminum	Copper	
....	800	HF-38-F
800	1000	HF-43-F
1000	1200	HF-53-F
....	1350	HF-58-F
1200	....	HF-63-F
....	1600	HF-67-F
1350	2000	HF-73-F
....	....	HF-78-F
1600	....	HF-88-F

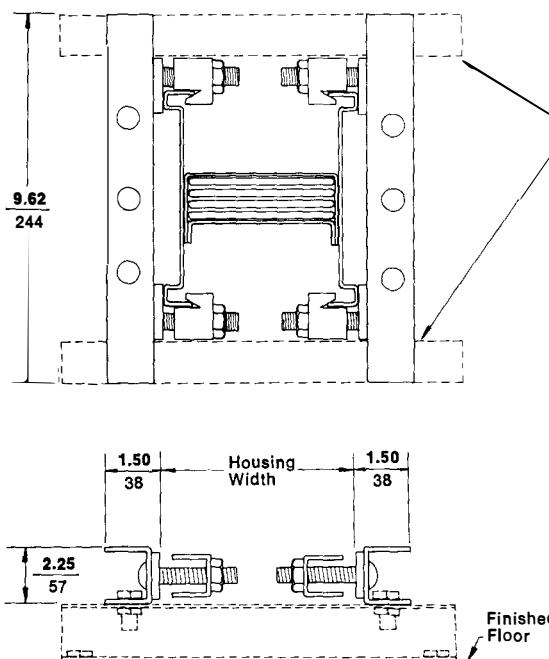
**HANGER — FLATWISE**

Ampere Rating		A	Catalog Number
Aluminum	Copper	In.	mm
2000	2500	4.42	112
....	3000	6.92	176
2500	....	7.92	201
3000	....	10.42	265
....	4000	15.30	389
4000	5000	16.80	427
....	....	17.30	439
4000	....	....	HF-26-F

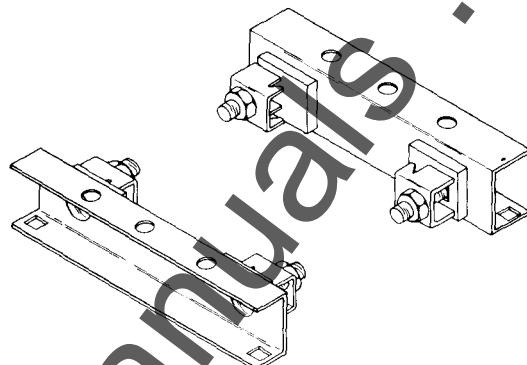
**HANGER — EDGEWISE**

Ampere Rating		A	Catalog Number
Aluminum	Copper	In.	mm
800	800	8.36	212
....	1000	8.36	212
1000	1200	9.86	250
....	1350	9.86	HF-58-E
1200	1600	10.86	HF-67-E
1350	2000	11.86	HF-78-E
1600	....	13.86	HF-88-E
2000	2500	17.24	438
....	3000	19.74	501
2500	....	20.74	HF-15-E
3000	....	24.12	HF-16-E
....	4000	28.12	HF-19-E
4000	5000	29.62	714
....	....	....	HF-24-E
4000	....	....	HF-26-E

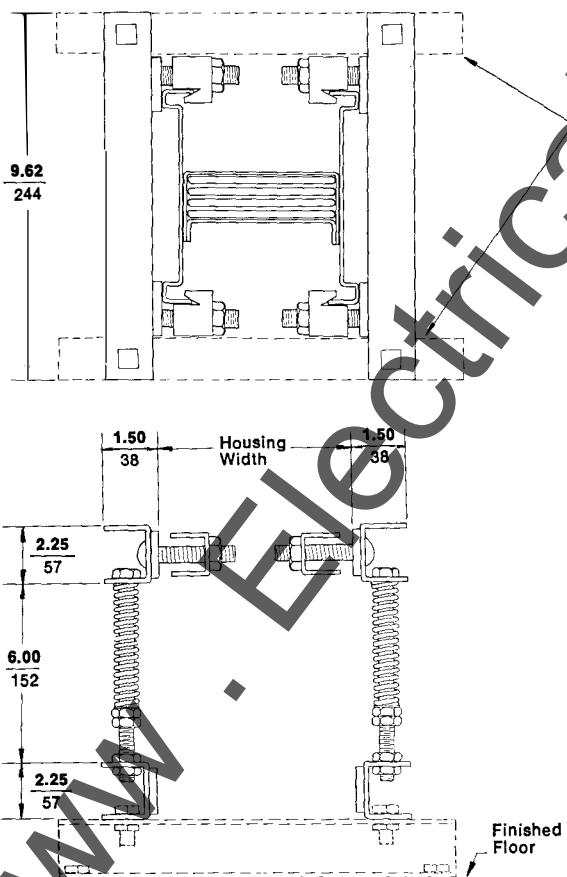


**HANGER — VERTICAL FIXED**

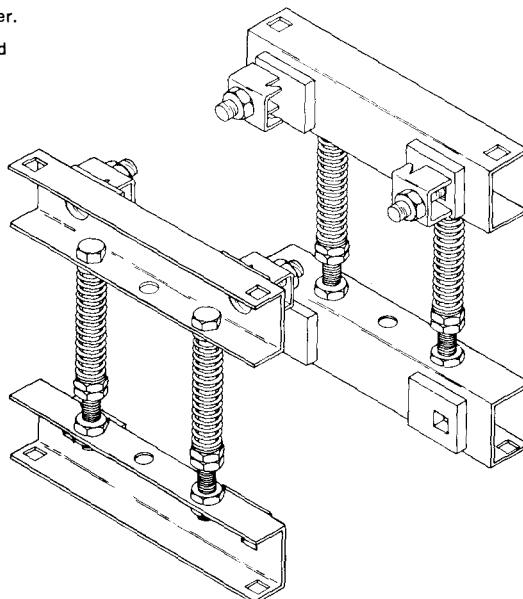
Channel by customer.  
Hardware to secure  
channel to floor and  
hanger to channel  
also by customer.



CATALOG NUMBER HF-V

**HANGER — VERTICAL SPRING**

Channel by customer.  
Hardware to secure  
channel to floor and  
hanger to channel  
also by customer.



CATALOG NUMBER HF-VS

