

T&B® Cable Tray

Long-span AH1-8 series aluminum cable tray

NEMA VE-1 Section 5.2.2 states that for each design of cable tray, two specimens shall be tested. An unspliced straight section of the greatest width shall be used in each test. ABB decided to conduct further testing on multiple length to width ratios and lateral torsional buckling considerations resulting in the following data.

All calculations and data in Table 1 are based on cable trays with rungs spaced on 12 in. centers with tray supported as simple spans with deflection measured at the midpoint. Continuous spans may reduce the deflection by as much as 50%.

Deflection factor

For lighter loads, deflection at any length can be calculated by multiplying the load by the deflection factor.

The load ratings are total load including environmental factors such as snow loads. Dynamic loads such as wind will also need to be considered. Refer to the technical section of the T&B Cable Tray catalogue for more information.

Table 1

Width (in.)		Support Span Length (ft.)				
		32	34	36	38	40
12	Load (lb/ft.)	81	72	64	57	44
	Deflection (in.)	3.275	3.710	4.144	4.582	4.343
18	Load (lb/ft.)	116	103	92	82	61
	Deflection (in.)	4.689	5.307	5.958	6.592	6.021
24	Load (lb/ft.)	142	126	113	101	78
	Deflection (in.)	5.741	6.492	7.317	8.119	7.698
30	Load (lb/ft.)	157	139	124	112	95
	Deflection (in.)	6.347	7.161	8.030	9.004	9.376
36	Load (lb/ft.)	167	148	132	118	112
	Deflection (in.)	6.751	7.625	8.548	9.486	11.054
Deflection Factor		0.0404	0.0515	0.0648	0.0804	0.0987

01 AH1-8 series

02 Lateral torsional buckling of cable tray

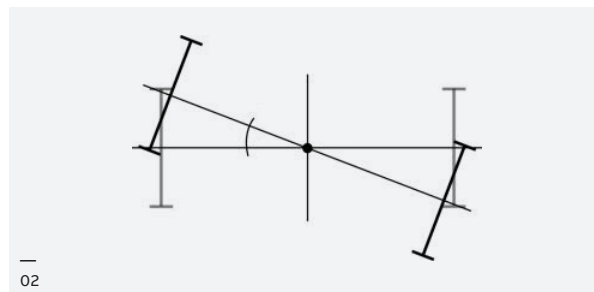


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