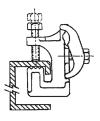
# **Grounding and Bonding Products**

## **Cable Tray Ground Clamp**









Cat. No.	Cable	Description	
10105	0	Cable for single conductors #4 solid to 2/0 str.	
10109	Copper or aluminum	Cable for single conductors 2/0 solid to 4/0 str.	

Material: malleable iron.
Standard finish: zinc plated.

For use with aluminum and steel cable tray.





### **Blackburn® Ground Clamp**







igure 2

Castings are of high strength, corrosion-resistant copper alloy.

		Conductor Range	
Cat. No.	Min.	Max.	Figure
GTC13P	#4 sol.	2/0 str.	1
GTC14P	2/0 str.	250 Kcmil	1
GTC23P	#4 sol.	2/0 str.	2
GTC24P	2/0 str.	250 Kcmil	2

Bolt has square shank to prevent turning and allow clamp to be tightened with one wrench. Material: copper alloy.

Standard finish: tin-plated for aluminum cable tray.

For our complete offering of Grounding & Bonding products, consult our Connectivity and Grounding Catalogue.



# **Grounding and Bonding Products**

### Blackburn® Cable Tray Ground Clamp







Cat. No.	Cable	Description
CTG250	Al or Cu	For parallel or tapping applications #2 solid to 250 Kcmil.

Material: copper alloy. Standard finish: tin-plated.

#### Blackburn® Lay-in Lug







Cat. No.	Conductor Range		Stud Size	
	Min.	Max.	(in.)	(mm²)
LL306	#6 solid	3/0 str.	0.33	8.38
LL2506	#6 str.	250 Kcmil	0.33	8.38

Material: Tin-plated high strength 6061-T6 aluminum alloy.

These grounding connectors are dual rated for aluminum and copper conductors. The opened face design allows the installer to quickly lay-in the grounding conductor as a jumper.

#### **Bonding Jumpers**







Cat. No.	Bonding Amp. Capacity	Single Bolt Hole	Description
FBD12-1*	600 A	7/16	12 in. flat flexible braid
FBD16-1*	600 A	7/16	16 in. flat flexible braid
FBD18-1*	600 A	7/16	18 in. flat flexible braid
FBD24-1*	600 A	7/16	24 in. flat flexible braid
FBD30-1*	600 A	7/16	30 in. flat flexible braid
FBD36-1*	600 A	7/16	36 in. flat flexible braid
FBE12-1*	1200 A	9/16	12 in. flat flexible braid
FBE16-1*	1200 A	9/16	16 in. flat flexible braid
FBE18-1*	1200 A	9/16	18 in. flat flexible braid
FBE24-1*	1200 A	9/16	24 in. flat flexible braid
FBE30-1*	1200 A	9/16	30 in. flat flexible braid
FBE36-1*	1200 A	9/16	36 in. flat flexible braid
FBG12-1*	2000 A	9/16	12 in. flat flexible braid
FBG16-1*	2000 A	9/16	16 in. flat flexible braid
FBG18-1*	2000 A	9/16	18 in. flat flexible braid
FBG24-1*	2000 A	9/16	24 in. flat flexible braid
FBG30-1*	2000 A	9/16	30 in. flat flexible braid
FBG36-1*	2000 A	9/16	36 in. flat flexible braid

\* CSA Certified and UL Listed for grounding & bonding equipment.

Custom braids are available.

Material: copper. Standard finish: Tin-plated.

For our complete offering of grounding & bonding products, consult our connectivity and grounding catalogue.





# **Grounding and Bonding Products**

#### **Grounding & Bonding**

Table 1 (NEC TABLE 392.7 (B))
Metal Area Requirements for Cable Trays Used as Equipment Grounding Conductors

Maximum Fuse Ampere Rating, Circuit Minimum Cross-Sectional Area of		
Breaker Ampere Trip Setting, or Circuit Breaker Protective Relay Ampere Trip Setting for Ground Fault Protection of any Cable Circuit in the Cable Tray System	Metal* Steel Cable Trays	In Square Inches  Aluminum Cable Trays
60	0.20	0.20
100	0.40	0.20
200	0.70	0.20
400	1.00	0.40
600	1.50**	0.40
1000	-	0.60
1200	-	1.00
1600	-	1.50
2000	-	2.00**

For SI units: one square inch = 645 square millimeters.

For larger ampere ratings an additional grounding conductor must be used.

Table 2 (Based on NEC Table 250-95 and CEC Table 16)
Minimum Size Equipment Grounding
Conductors for Grounding & Bonding Raceway and Equipment

Rating or Setting of Automatic Overcurrent	Size		
Device in Circuit Ahead of Equipment, Conduit, etc. Not exceeding (Amperes)	Copper Wire No.	Aluminum or Copper-Clad Aluminum Wire No.*	
15	14	12	
20	12	10	
30	10	8	
40	10	8	
60	10	8	
100	8	6	
200	6	4	
300	4	2	
400	3	1	
500	2	1/0	
600	1	2/0	
800	1/0	3/0	
1000	2/0	4/0	
1200	3/0	250 kcmil	
1600	4/0	350 kcmil	
2000	250 kcmil	400 kcmil	
2500	350 kcmil	600 kcmil	
3000	400 kcmil	600 kcmil	
4000	500 kcmil	800 kcmil	
5000	700 kcmil	1200 kcmil	

<sup>\*</sup> See installation restrictions in NEC Section 250-92(a).

For more information on grounding and bonding cable tray, refer to NEMA VE 2 Cable Tray Installation Guidelines.



<sup>\*</sup> Total cross-sectional area of both side rails for ladder or trough-type cable trays: or the minimum cross-sectional area of metal in channel-type cable trays or cable trays of one-piece construction.

<sup>\*\*</sup> Steel cable trays shall not be used as equipment grounding conductors for circuits with ground-fault protection above 600 A. Aluminum cable trays shall not be used as equipment grounding conductors for circuits with ground-fault protection above 2000 A.