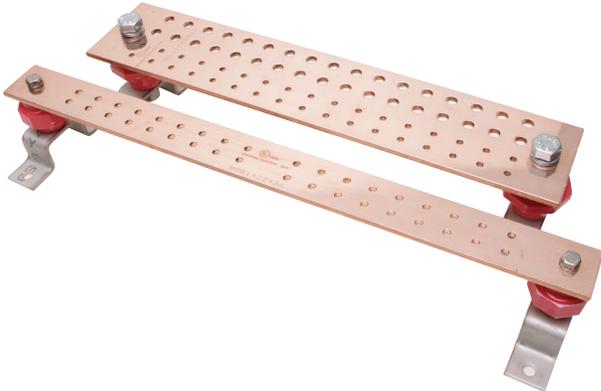


Grounding Busbars

Complete Product Guide





Busbars—For common ground point and power applications

Burndy cULus Listed busbars available in many different sizes and hole patterns.

More capabilities than ever.

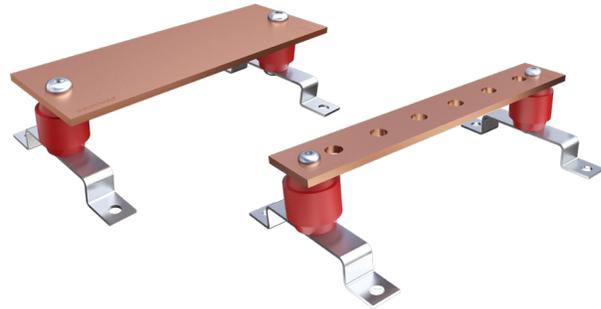
- Maximum width 8"
- Maximum length is 12'
- Thickness 1/8"- 5/8" copper
- Steel bar now available
- Threaded holes no issue—over 4X's faster to produce
- Most ground bars can be turned around 2-3 weeks
- Custom bar design assistance including drawing generally within 24 hours.
- Competitive pricing
- cULus Listed solutions
- Available in many different sizes and hole patterns
- Plexiglass cover
- Insulators and brackets included and assembled; add "K" to the suffix

The grounding busbar is the most popular bonding product in use today.

Bus or Ground Bars Copper, Tinned Copper, and Stainless Steel



cULus Listed bus or ground bars are available in a wide variety of configurations: Hole and slot patterns, unplated copper, tin plated or stainless steel. These bars are available with or without brackets and insulators, Plexiglass cover is also available.



Bus or Ground Bar Numbering System

Below is a guide on how to understand the ground bar numbering system. Each character of the catalog number represents specific details of our bars.

Please note that other sizes, materials, and options may be available.

Contact Customer Service or your local sales representative for more information.

T	C	B	V	1	4	4	1	2	0	J	K	4	T	L	E
----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------

Bar Types Codes

CB: Plain Copper
TCB: Tinned Copper
SCB: Silver Plated Copper
SSB: Stainless Steel
GSB: Galvanized Steel
Other materials may be available

Radius Corners

V: Radius Corners
 Blank - Standard Square Corners

Thickness

Fractional thickness in inches of the bar
 example: 14 = 1/4"

Width

Width of bar in inches

Length

Length of bar in inches

Hole Pattern

Requested hole pattern
Blank if no holes desired

Pigtail Length (if required)

See Chart for Pigtail Cable Length²

Leave blank if Pigtail is stranded or "L" for Solid

Tinned Pigtail (if required)

Put **T** here for tinned
Blank if not required

Pigtail (if required)

See Pigtail Cable Size Chart¹

Pigtail #	Size
1	#6
2	#4
3	250 kcmil
4	#2
5	#1
6	1/0
7	2/0
8	500 kcmil
9	4/0

Pigtail Length	Length in Feet*
A	2'
B	5'
C	10'
D	15'
E	20'
F	25'
G	30'
H	35'

*Custom lengths available
 Contact the factory for more information

Assembly Type Codes:

- K:** Brackets & Insulators
- B:** Brackets Only
- I:** Insulators Only
- C:** Beam Clamps & Insulators
- A:** Brackets & Insulators with Anti-theft Bolts
- P:** Plexiglass Cover (Includes Brackets & Insulators)
- T:** TMGB Telecom Main Ground Bar Plexiglass Cover (Includes Brackets & Insulators)
- M:** MGB (Main Ground Bar) Plexiglass Cover (includes brackets and insulators)
- U:** Universal (Includes Brackets, Insulators, Beam Clamps and Drive-In Anchors)
- FAA1:** Plexiglass Cover (includes Brackets & Insulators) Main Ground Plate
- FAA2:** Plexiglass Cover (includes Brackets & Insulators) Supplemental Ground Plate
- FAA3:** Plexiglass Cover (includes Brackets & Insulators) Multipoint Ground Plate
- FAA4:** Plexiglass Cover (includes Brackets & Insulators) Single Point Ground Plate

Blank for Nothing (Bar ONLY)

NOTE: for FAA Ground Plate Options see page 10

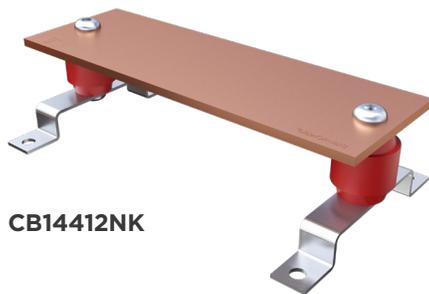
Types CB, TCB, SSB

Copper, Tinned Copper, and
Stainless Steel Bus or Ground Bar

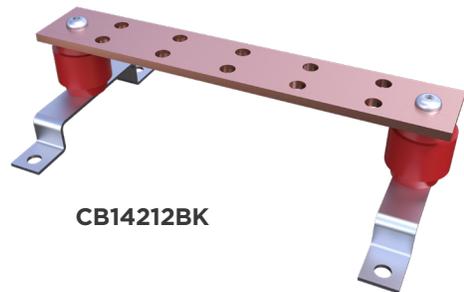


cULus Listed bus or ground bars are available in a wide variety of configurations: Hole and slot patterns, unplated copper, tin plated or stainless steel. These bars are available with or without brackets and insulators, Plexiglass cover is also available.

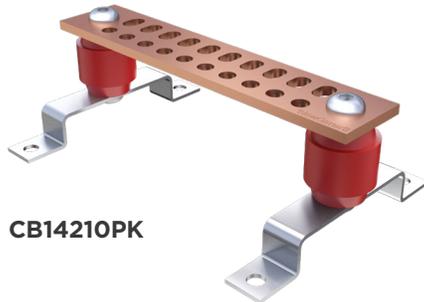
For special applications necessitating a non-standard configuration, please contact Customer Service or your local sales representative.



CB14412NK



CB14212BK



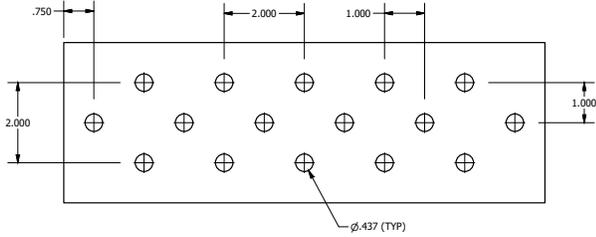
CB14210PK



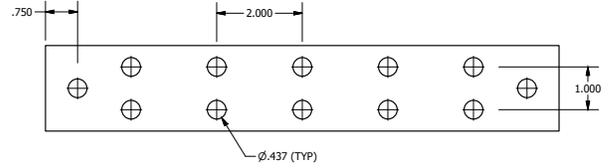
CB14412JP

Catalog Number	Hole Pattern	Insulator & Bracket	Tinned	Bar Size	# of Holes
CB14412JK	J	Yes	No	1/4" x 4" x 12"	27
CB14412M	M	No	No	1/4" x 4" x 12"	48
CB14412MK	M	Yes	No	1/4" x 4" x 12"	48
CB14210P	P	No	No	1/4" x 2" x 10"	26
CB14210PK	P	Yes	No	1/4" x 2" x 10"	26
CB14212P	P	No	No	1/4" x 2" x 12"	26
CB14212PK	P	Yes	No	1/4" x 2" x 12"	26

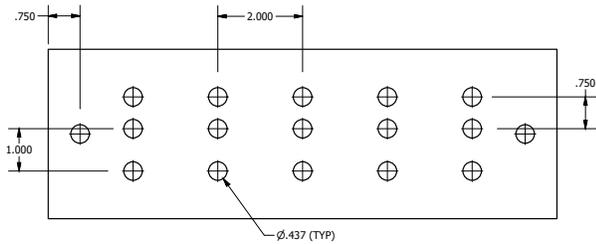
Common Busbar Patterns



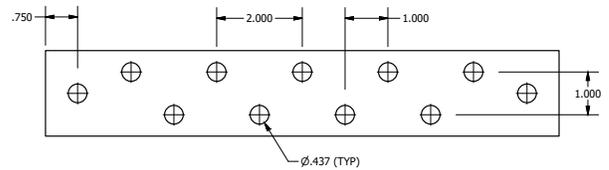
Pattern A



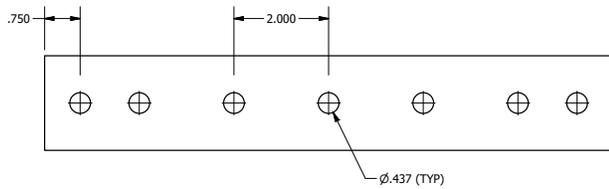
Pattern B



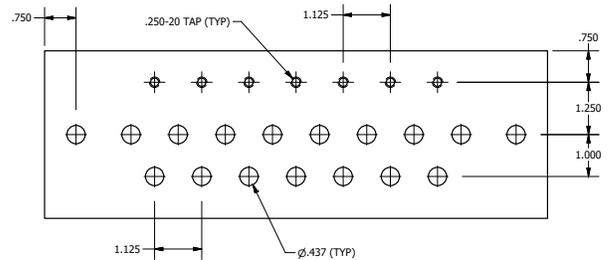
Pattern C



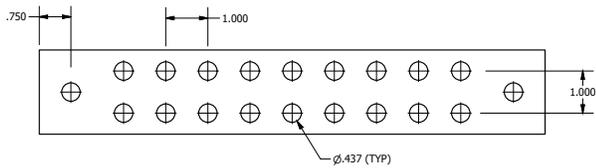
Pattern D



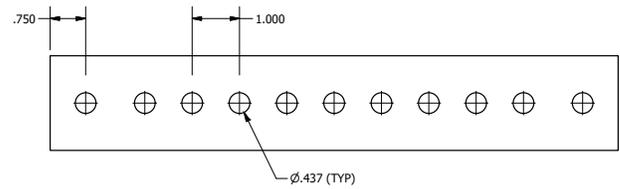
Pattern E



Pattern F



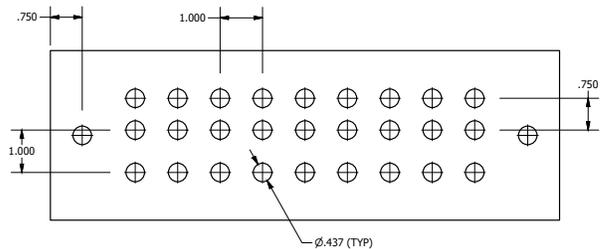
Pattern G



Pattern H

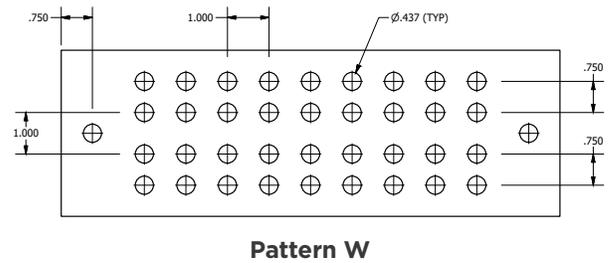
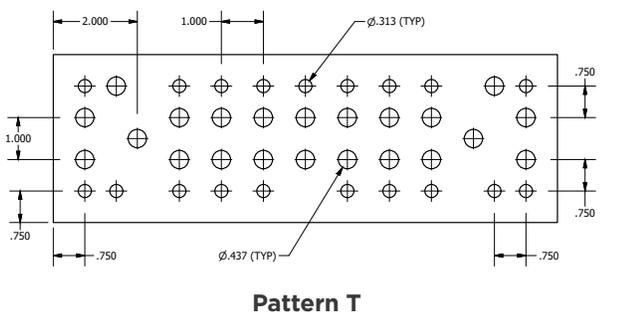
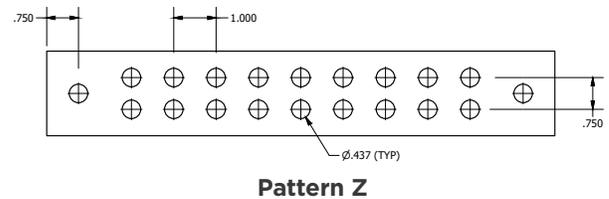
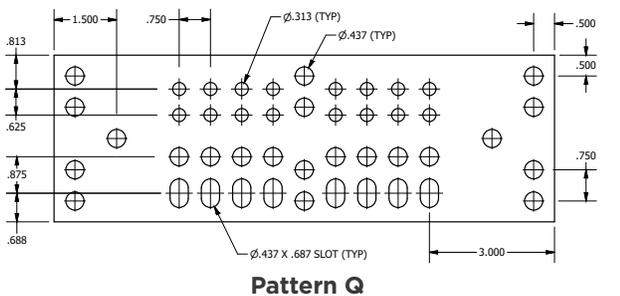
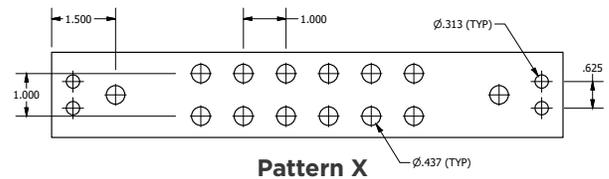
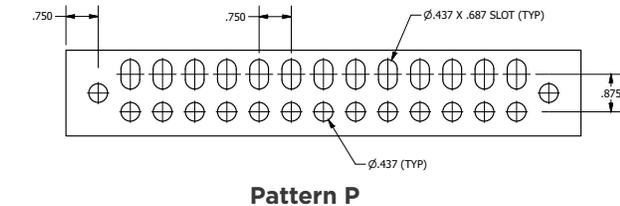
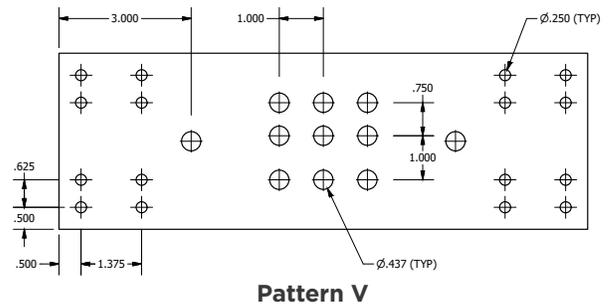
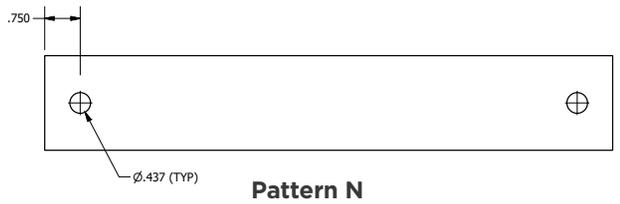
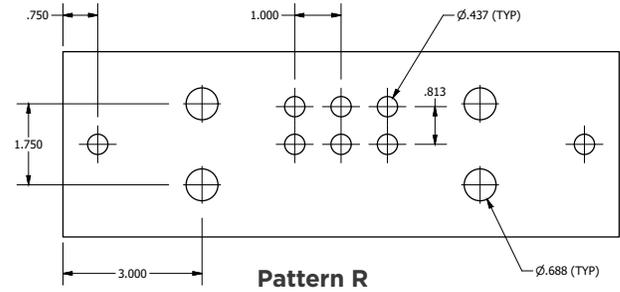
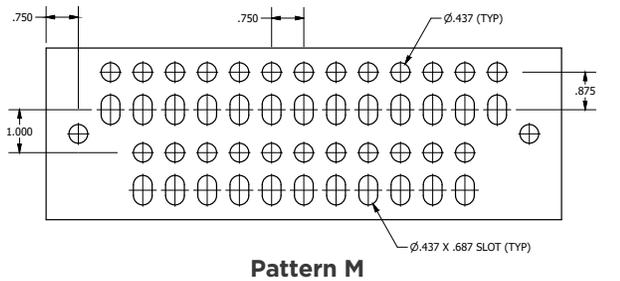
NOTES:

- All holes are 7/16" unless specified differently. To order threaded holes, specify hole size; the standard tapped hole size is 1/4"-20 unless specified otherwise
- Above bar patterns represent a 12" ground bar
- All bars are available with tin plating
- For NEMA hole pattern ground bars see page 9



Pattern J

Common Busbar Patterns



NOTE:
For telecom ground bars -
See Pattern S on pages 7 & 8

S Pattern

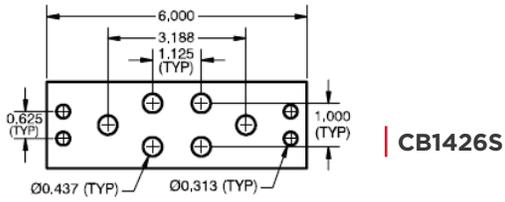
2" Telecom Bus or Ground Bar



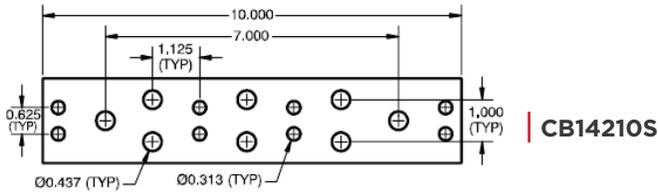
Catalog numbers as shown below are for the BAR ONLY; if you would like the kit (includes brackets and insulators) add K to the end of the catalog number (example shown to the right).



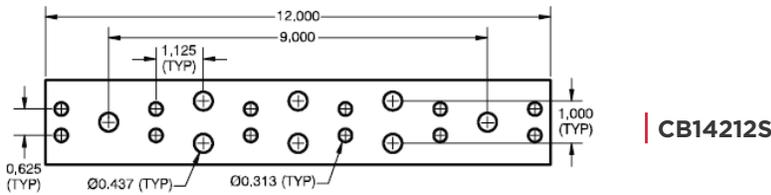
TCB14212SK



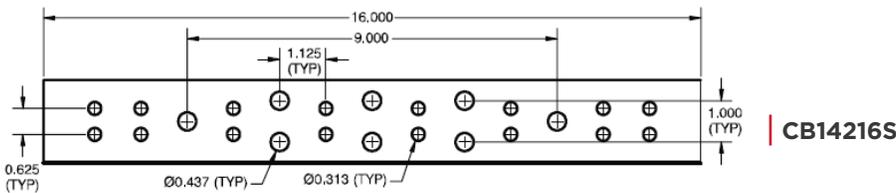
CB1426S



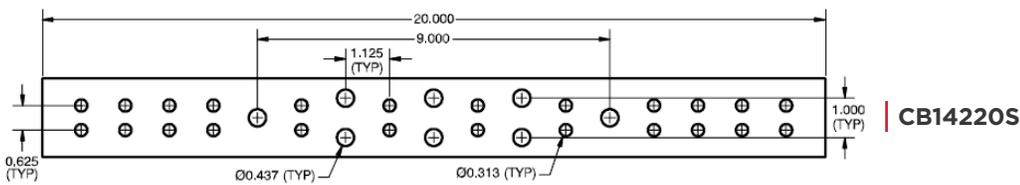
CB14210S



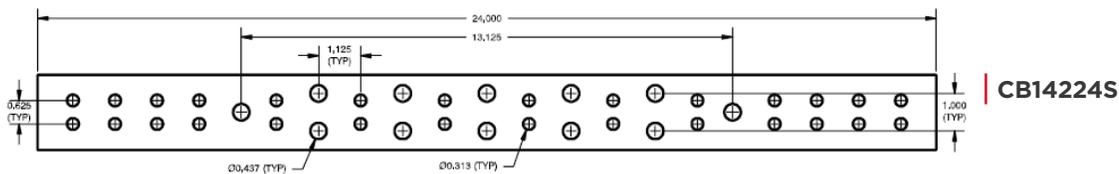
CB14212S



CB14216S



CB14220S



CB14224S

NOTE:

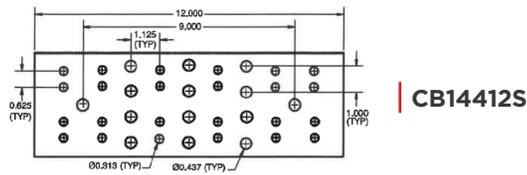
Small packet of anti-oxidant joint compound is included with each S pattern bar

S Pattern

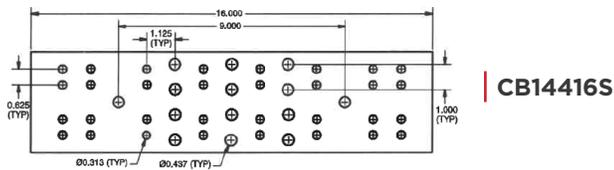
4" Telecom Bus or Ground Bar



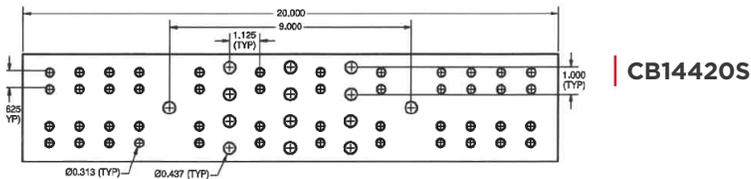
Catalog numbers as shown below are for the BAR ONLY; if you would like the kit (includes brackets and insulators) add K to the end of the catalog number (example shown to the right).



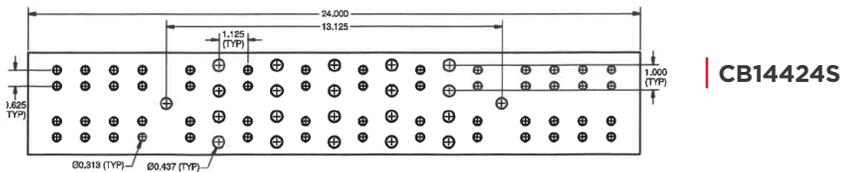
CB14412S



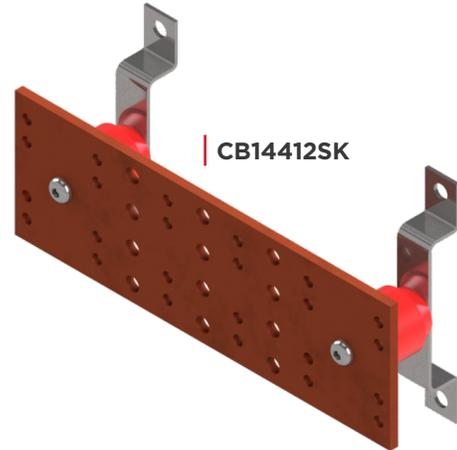
CB14416S



CB14420S



CB14424S



CB14412SK

NOTE:

Small packet of anti-oxidant joint compound is included with each S pattern bar

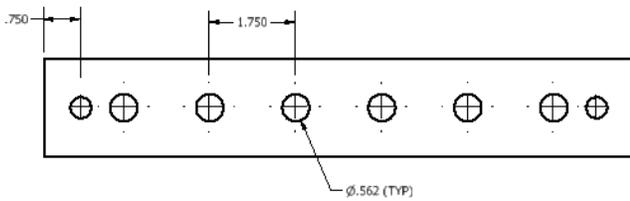
Y Pattern

NEMA Hole Pattern Bus or Ground Bus



Industry standard hole pattern in accordance with NEMA CC1 Standard.

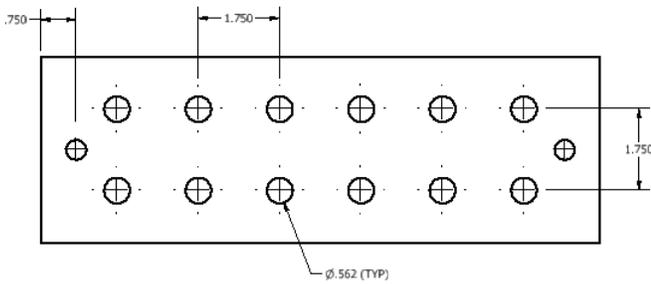
Add suffix "K" for insulators and brackets. Can be used with BURNDY Lugs with NEMA pads.



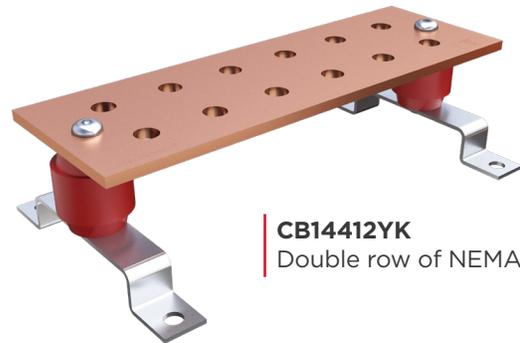
Pattern Y
Single Row of NEMA Holes



CB14212YK
Single Row of NEMA Holes



Pattern Y
Double row of NEMA holes
on bars 3" and wider

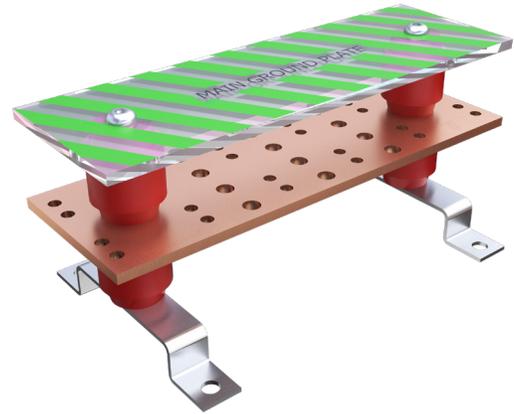


CB14412YK
Double row of NEMA holes

FAA Ground Plate Options

FAA suffixes (FAA1, FAA2, FAA3, FAA4, etc.) may be used with various sized bars and hole patterns.

FAA plexiglass label configurations are in accordance with the Department of Transportation Federal Aviation Administration Standard FAA-STD-019f.



FAA1 = MAIN GROUND PLATE*
Alternating Green and Clear stripes



FAA2 = SUPPLEMENTAL GROUND PLATE*
Alternating Green and Clear stripes



FAA3 = MULTIPOINT GROUND PLATE*
Alternating Green and Orange stripes



FAA4 = SINGLE POINT GROUND PLATE*
Alternating Green and Yellow stripes

***NOTE:**

Plexiglass text shall be 3/8" high black lettering in Arial font.

Patterns J and M

Ground Bar



Pattern J

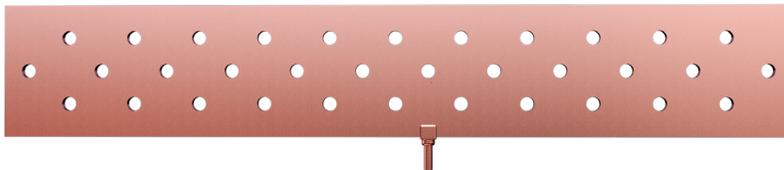
Catalog Number	Description	Tinned	Bar Size	# of Holes
CB14412J	Bar Only	No	1/4" x 4" x 12"	27
TCB14412J		Yes	1/4" x 4" x 12"	27
CB14412JK	Bar with Insulators & Brackets	No	1/4" x 4" x 12"	27
TCB14412JK		Yes	1/4" x 4" x 12"	27
CB14420J	Bar Only	No	1/4" x 4" x 20"	51
TCB14420J		Yes	1/4" x 4" x 20"	51
CB14420JK	Bar with Insulators & Brackets	No	1/4" x 4" x 20"	51
TCB14420JK		Yes	1/4" x 4" x 20"	51
CB14424J	Bar Only	No	1/4" x 4" x 24"	63
TCB14424J		Yes	1/4" x 4" x 24"	63
CB14424JK	Bar with Insulators & Brackets	No	1/4" x 4" x 24"	63
TCB14424JK		Yes	1/4" x 4" x 24"	63



Hole Pattern "J"

NOTES:

- Mounting holes not included in total
- Accommodates 2-hole lugs spaced 3/4", 1", and 1-3/4" on center
- 12" bar pictured; holes are 7/16" diameter
- Bars available tin plated; with pigtailed, tamper proof bolts, plexiglass cover
- Other sizes available, contact sales for details



Ground Bar shown with Optional pigtail

Pattern M

Catalog Number	Description	Tinned	Bar Size	# of Holes
CB14412M	Bar Only	No	1/4" x 4" x 12"	48
TCB14412M		Yes	1/4" x 4" x 12"	48
CB14412MK	Bar with Insulators & Brackets	No	1/4" x 4" x 12"	48
TCB14412MK		Yes	1/4" x 4" x 12"	48
CB14420M	Bar Only	No	1/4" x 4" x 20"	88
TCB14420M		Yes	1/4" x 4" x 20"	88
CB14420MK	Bar with Insulators & Brackets	No	1/4" x 4" x 20"	88
TCB14420MK		Yes	1/4" x 4" x 20"	88
CB14424M	Bar Only	No	1/4" x 4" x 24"	112
TCB14424M		Yes	1/4" x 4" x 24"	112
CB14424MK	Bar with Insulators & Brackets	No	1/4" x 4" x 24"	112
TCB14424MK		Yes	1/4" x 4" x 24"	112



Hole Pattern "M"

NOTES:

- Mounting holes not included in total
- Accommodates 2-hole lugs spaced 3/4" and 1" on center
- 12" bar pictured; holes are 7/16" diameter, slots are 7/16" x 11/16"
- Bars available tin plated; tamper proof bolts, plexiglass cover
- Other sizes available, contact sales for details

Pattern P

Ground Bar



Pattern P

Catalog Number	Description	Tinned	Bar Size	# of Holes
CB14212P	Bar Only	No	1/4" x 2" x 12"	26
TCB14212P		Yes	1/4" x 2" x 12"	26
CB14212PK	Bar with Insulators & Brackets	No	1/4" x 2" x 12"	26
TCB14212PK		Yes	1/4" x 4" x 12"	26



Hole Pattern "P"

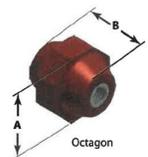
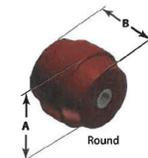
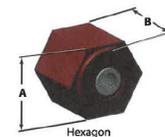
NOTES:

- Mounting holes not included in total
- Accommodates 2-hole lugs spaced 3/4" and 1" on center
- 12" bar picture; holes are 7/16" diameter; slots are 7/16" x 11/16"
- Bars available tin plated; with pigtailed, tamper proof bolts, plexiglass cover
- Other sizes available, contact sales for details

Standoff Insulators (Red)

Manufactured from glass reinforced thermoset polyester

Catalog Number	A	B	Shape	Thread Size	Voltage Rating
38-6330-00	1"	1"	Hexagon	1/4"-20 x 5/16" AL	600
38-6330-01	1"	1-1/4"	Hexagon	1/4"-20 x 5/16" AL	600
38-6331-01	2"	1-1/2"	Octagon	1/4"-20 x 7/16" STL	1500
38-6333-00	1-3/4"	2"	Round	3/8"-16 x 9/16" STL	2300
38-6334-00	2"	2"	Octagon	1/2"-13 x 5/8" STL	2500
38-6334-01	2"	2"	Octagon	3/8"-16 x 9/16" STL	2500
38-7725-00	2"	2-1/4"	Octagon	3/8"-16 x 9/16" STL	2700
38-7725-01	2"	2-1/4"	Octagon	1/2"-13 x 5/8" STL	2700
38-6335-00	2-1/2"	2-5/8"	Octagon	5/8"-11 x 3/4" STL	3400

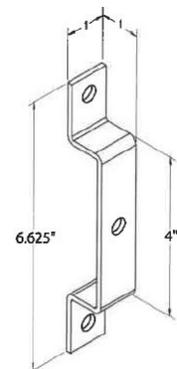
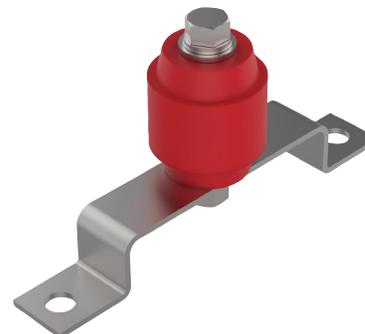


Mounting Brackets

Catalog Number	Mounting Hole Size	H	Kit?
38-7230-00	7/16"	1"	Yes
38-7228-00	7/16"	1"	No

NOTES:

- Manufactured from 304 Stainless Steel
- Kit includes 2 of the assembly (pictured) plus the 3/8" hardware required to mount to a ground bar
- Mounting Kit uses 38-6333-00 insulators (round)



Perimeter Bar Numbering System

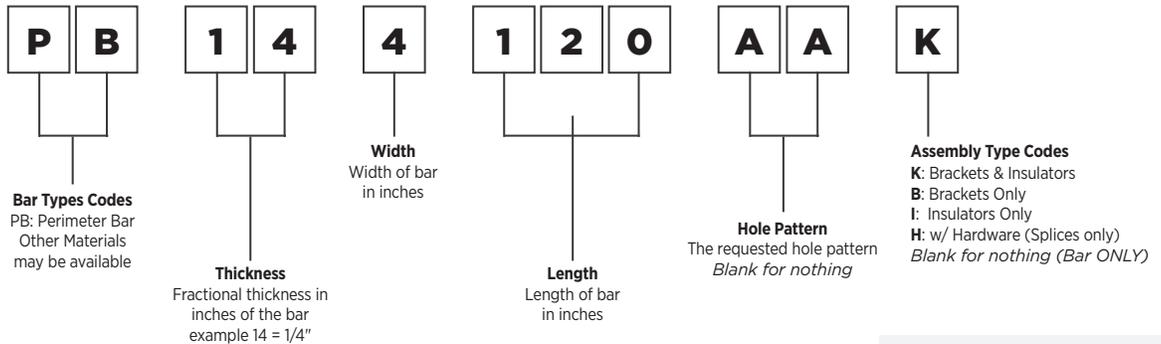
Below is a guide on how to understand the perimeter busbar numbering system.

Each digit of the catalog number represents specific details.

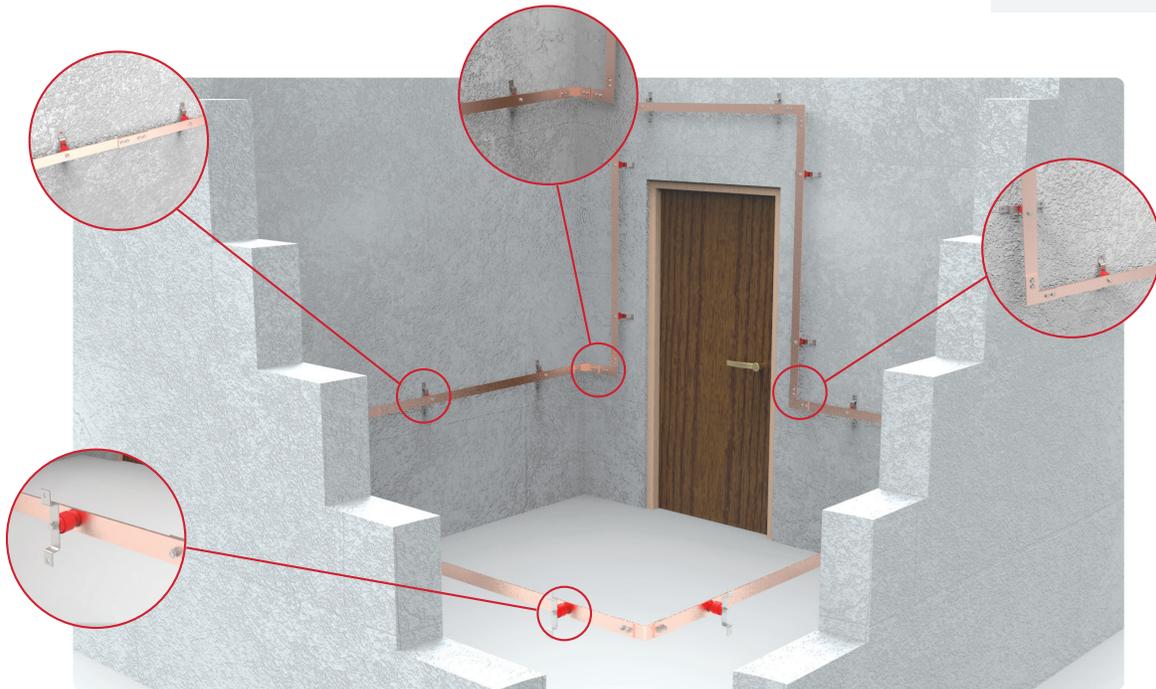
Please note that other sizes, materials, and options may be available.

Contact customer service or your local sales representative for more information.

The example below indicates a plain copper perimeter bar, 1/4" thick, 4" wide, and 10' (120") long, with hole pattern AA, includes brackets and insulators.



Radius Corners are available
Please contact customer service



SPB Splice Plate



90SPB Splice Plate



PLB Splice Plate



PPB Splice Plate



Perimeter Busbars

NN and NNH Patterns

A perimeter busbar system is designed to terminate ground wires and cables from equipment and other devices within a structure. The system encompasses straight bars, elbows, splicers, insulators and mounting brackets. This versatile system is great for clean rooms, data centers and laboratories when designing around corners and doors.

Perimeter Busbar Splices

Catalog Number	Description
SPB1426NN	2" SPB Splice Plate - does NOT include hardware
SPB1426NNH	2" SPB Splice Plate - DOES include hardware
SPB1449NN	4" SPB Splice Plate - does NOT include hardware
SPB1449NNH	4" SPB Splice Plate - DOES include hardware
90SPB1424NN	2" 90 Degree SPB Splice Plate - does NOT include hardware
90SPB1424NNH	2" 90 Degree SPB Splice Plate - DOES include hardware
90SPB1446NN	4" 90 Degree SPB Splice Plate - does NOT include hardware
90SPB1446NNH	4" 90 Degree SPB Splice Plate - DOES include hardware
PLB1425NN	2" L Shape PLB Splice Plate - does NOT include hardware
PLB1425NNH	2" L Shape PLB Splice Plate - DOES include hardware
PPB1448NN	4" PPB Splice Plate - does NOT include hardware
PPB1448NNH	4" PPB Splice Plate - DOES include hardware

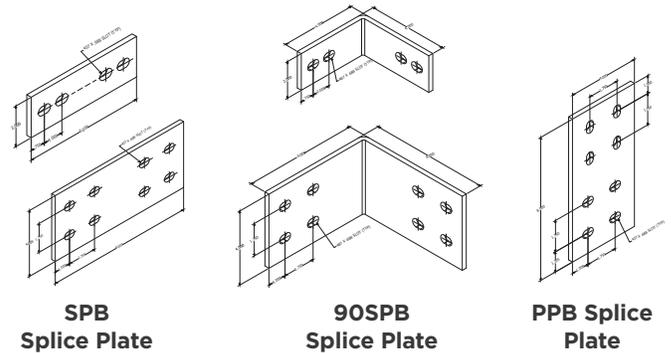
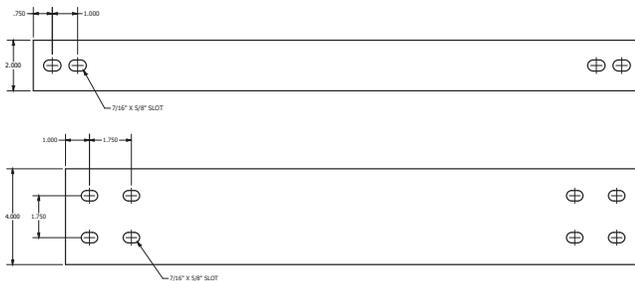


38-7230-01
Single Mounting Assembly Set
 (1 insulator, bracket and hardware necessary for a single set)
 Sold separately

Add suffix K to Perimeter Busbar Catalog Number to receive appropriate number of mounting assemblies depending on the length of the bar

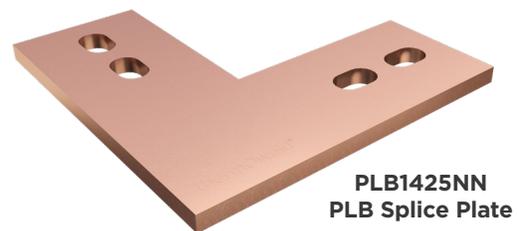
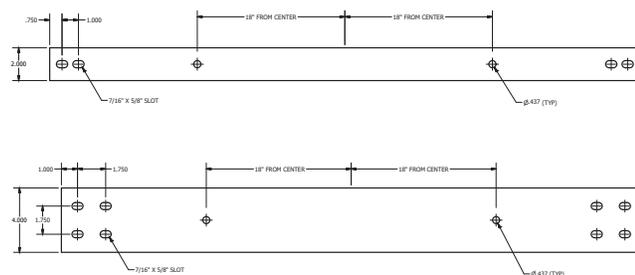
NN Pattern

No hole pattern except mounting holes.
 Can be made to any length.



AA Pattern

Holes are spaced 36" apart, can be made to any length.



PLB1425NN
PLB Splice Plate

Type BBB

Copper Busbar



Bare copper Busbar, UL Listed for grounding.
Available in many sizes and hole patterns.
Brackets and insulators included with most styles.

Also available in undrilled, horizontal and vertical versions. Busbar is used in a variety of applications. Can be used as a common ground point and “power” applications as well.

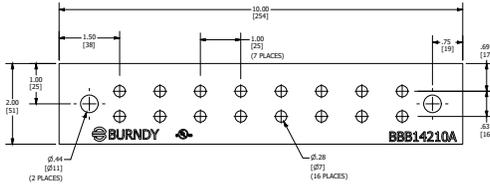
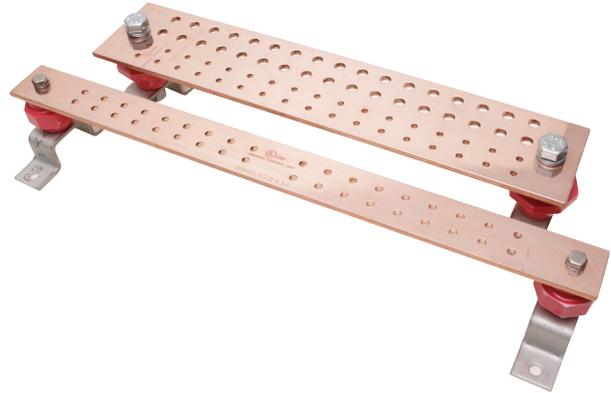


Figure 1

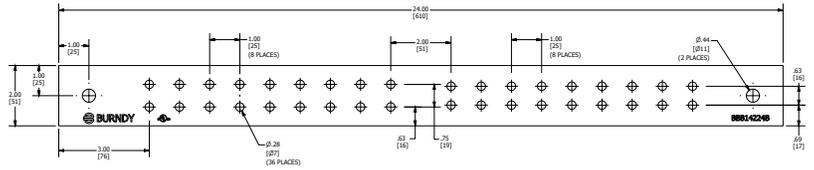


Figure 2

Catalog Number	Fig No.	T - Bar Thickness	W - Bar Width	L - Bar Length	E1	E2	E3	F1	F2	No. of Holes	K
BBB14210A	1	1/4"	2 in	10"	0.63	—	—	1.00	—	16	0.28
BBB14224B	2	1/4"	2 in	24"	0.62	0.75	—	1.00	1.00	36	0.28
BBB14410C	3	1/4"	4 in	10"	0.75	1.00	—	1.25	—	22	0.44
BBB14410D	4	1/4"	4 in	10"	1.25	1.00	—	1.13	1.13	22	0.44
BBB14412E	5	1/4"	4 in	12"	0.75	1.00	—	2.00	1.25	18	0.44
BBB14412F	6	1/4"	4 in	12"	1.00	0.75	—	2.00	1.25	24	0.44
BBB14416G	7	1/4"	4 in	16"	0.75	1.00	—	1.69	—	24	0.44
BBB14416H	8	1/4"	4 in	16"	1.00	1.00	0.75	1.69	—	32	0.44
BBB14420J	9	1/4"	4 in	20"	1.00	1.00	0.75	1.00	—	68	0.44
BBB412UD	—	1/4"	4 in	12"	N/A	N/A	N/A	N/A	N/A	0	—
BBB424UD	—	1/4"	4 in	24"	N/A	N/A	N/A	N/A	N/A	0	—
BBBHR19**	—	3/16"	3/4 in	19"	0.38	—	—	—	—	8	—
BBBVR36**	—	1/4"	5/8 in	36"	0.32	—	—	—	—	16	—

NOTES:

* Contact factory for custom sizes.

NOTE:

**BBBHR19 and BBBVR36 do not include insulator and brackets.

To order Insulator & Brackets separately, use catalog number B38723000.

Copper Busbar

Type BBB Drawings

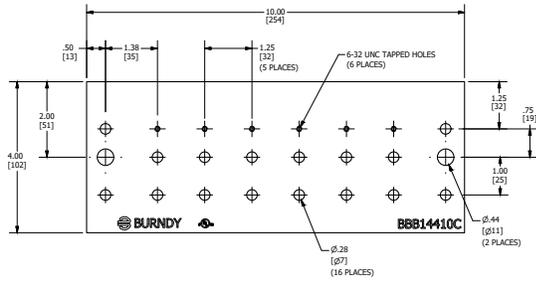


Figure 3

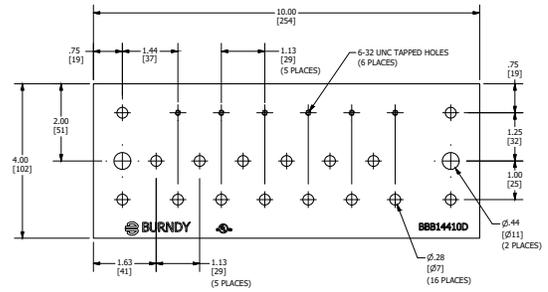


Figure 4

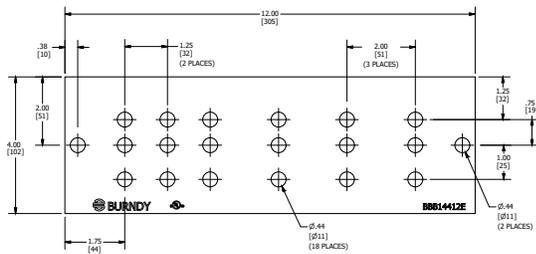


Figure 5

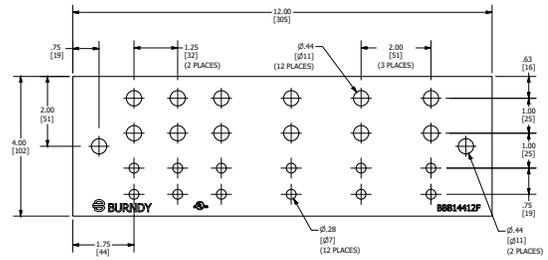


Figure 6

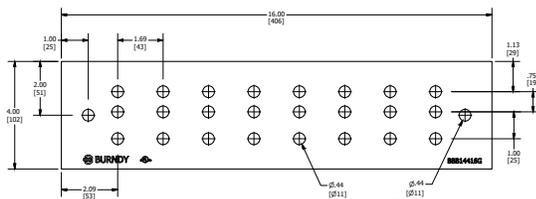


Figure 7

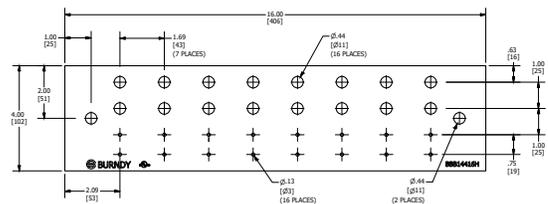


Figure 8

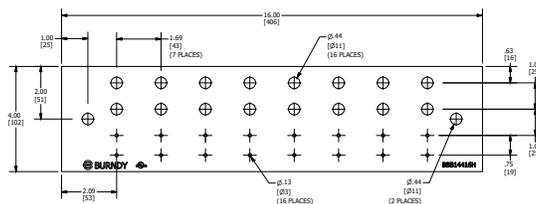


Figure 9

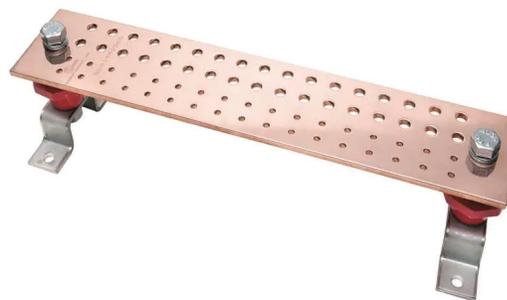
Busbar Ampacity

Below is a table of common sized busbars and their ampacity ratings for various temperature rises.

Bar Dimensions (Thickness x Width)	Example Catalog	30°C Rise (70°C Operating Temp.)	50°C Rise (90°C Operating Temp.)	65°C Rise (105°C Operating Temp.)
1/4 x 1	CB14112	400	530	620
1/4 x 1.5	CB141.512	560	740	860
1/4 x 2	CB14212	710	940	1,100
1/4 x 3	CB14312	990	1,150	1,550
1/4 x 4	CB14412	1,250	1,700	1,950
1/4 x 6	CB14612	1,750	2,350	2,700
3/8 x 1	CB38112	510	680	790
3/8 x 1.5	CB381.512	710	940	1,100
3/8 x 2	CB38212	880	1,150	1,350
3/8 x 3	CB38312	1,200	1,600	1,850
3/8 x 4	CB38412	1,500	2,000	2,350
3/8 x 6	CB38612	2,100	2,800	3,250
1/2 x 1	CB12112	620	820	940
1/2 x 1.5	CB121.512	830	1,100	1,250
1/2 x 2	CB12212	1,000	1,350	1,550
1/2 x 3	CB12312	1,400	1,850	2,150
1/2 x 4	CB12412	1,700	2,300	2,650
1/2 x 6	CB12612	2,400	3,150	3,650

The following assumptions and conditions apply:

- AC current
- 40°C ambient temperature
- Emissivity of 0.4
- Bar orientation is horizontal run, on edge



For a more complete list of ampacities based on bar size and temperature rises, please visit the Copper Development Association:
https://www.copper.org/applications/electrical/busbar/bus_table1.html

Ampacity Calculation

Calculating the ampacity of a busbar is very complex as it is dependent on several variables. Some of these variables include, but are not limited to, size and shape of bar, bar orientation, bar material, and other various operating environmental conditions such as ambient temperature, allowed operating temperature, and air flow (enclosure vs open free air or forced air convection), and AC vs. DC current.

Published data from the Copper Development Association is an excellent starting point for a quick reference table of standard bar sizes vs. common allowed temperature rises, as seen in industry. The table provides ampacities at three different temperature rises, 30°C, 50°C, and 65°C. The values shown in the table are based “on samples exposed for 60 days in an industrial environment”. Some of the variables were fixed, such as 40°C ambient temperature, horizontal on edge orientation, AC current, and a bar emissivity of 0.4. To use the table, first determine your desired bar thickness and width as well as the allowed temperature rise. Then, look for the intersection of these two points on the table to determine the ampacity for that bar size under the specific operation conditions.

Copper Development Association:

https://www.copper.org/applications/electrical/busbar/bus_table1.html

Please also reference this Application Data Sheet, concerning the ampacities of rectangular copper busbars, as well as the governing equations used to calculate ampacity, by the Copper Development Association:

https://www.copper.org/publications/pub_list/pdf/a6022.pdf

On page 19, you will find the set of equations, derivations, and variables (based on the governing equation in the above data sheet) you can use to calculate the ampacity of the busbar. Simply determine your operating conditions and assumptions and modify the necessary variables. The following sample equation is for a 1/4" thick, 4" wide and 12" long bar, oriented horizontally on edge, with a 40°C ambient temperature, 30°C temperature rise, DC current, and assumed variable values.

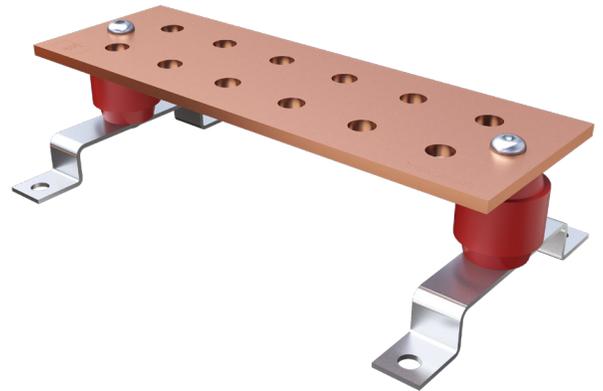
***NOTE:**

Calculated values might differ slightly from the values shown in the Copper Development Association table, as variables and assumptions might be different and calculated values are theoretical, where values in the Copper Development Association table are experimental, based on actual samples.

Ampacity Calculation

Calculating thermal energy produced and thermal energy dissipated

- $E_{in} = I^2 \times R$
 I = current
 R = resistance = $\frac{\rho L}{A_c}$
 ρ = resistivity of the conductor
 L = length of conductor
 A_c = cross sectional area of the conductor
- $E_{out} = Q_{conv} + Q_{rad}$
 Q_{conv} = heat disputed due to convection
 Q_{rad} = heat disputed due to radiation



Orientation: horizontal run, on edge

Calculating heat dissipation via convection

- $Q_{conv} = [h_v * A_v * (T_c - T_a)] + [h_{ht} * A_{ht} * (T_c - T_a)] + [h_{hb} * A_{hb} * (T_c - T_a)]$
 h_v = vertical convection coefficient of free air $\frac{W}{m^2K}$
 h_{ht} = horizontal convection coefficient of top surface of free air $\frac{W}{m^2K}$
 h_{hb} = horizontal convection coefficient of bottom surface of free air $\frac{W}{m^2K}$
 A_v = vertical surface of conductor (m^2)
 A_{ht} = top horizontal surface area of conductor (m^2)
 A_{hb} = bottom horizontal surface area of conductor (m^2)
 T_a = ambient temperature (K)
 T_c = conductor operating temperature (K)

Calculating heat dissipation via radiation

- $Q_{rad} = \sigma \times e (T_c^4 - T_a^4) \times A$
 σ = Stefan - Boltzmann Constant = $5.6073 \times 10^{-8} (\frac{W}{m^2K})$
 e = emmissivity (material property)
 T_c = conductor operating temperature (K)
 T_a = ambient temperature (K)
 A = surface area of conductor (m^2)

Ampacity Calculation

Calculating ampacity

- $E_{in} = E_{out}$
- $I^2 \times R = Q_{rad} + Q_{conv}$
- $I^2 = \frac{Q_{rad} + Q_{conv}}{R}$
- $I = \sqrt{\frac{\sigma \times e (T_c - T_a) \times A + [h_v \times A_v \times (T_c - T_a)] + [h_{ht} \times A_{ht} \times (T_c - T_a)] + [h_{hb} \times A_{hb} \times (T_c - T_a)]}{\frac{\rho L}{A_c}}}$

Where:

σ = Stefan - Boltzmann Constant = 5.6073×10^{-8}

ρ = resistivity (70°C operating temp.) = 2.0524×10^{-8} ohm (m)

L = length of conductor = 0.3048 m

A_c = cross section area of the conductor = 0.00064516 m^2

H_v = vertical convection coefficient of conductor = 5.5262

H_{ht} = horizontal convection coefficient of top surface of free air = 0

H_{hb} = horizontal convection coefficient of bottom surface of free air = 0

A_v = vertical surface area = 0.063266 m^2

A_{ht} = horizontal surface area of top surface of conductor = 0.001935 m^2

A_{hb} = horizontal surface area of bottom surface of conductor = 0.001935 m^2

T_{amb} = ambient temperature = 313.15 (K)

T_{cond} = conductor temperature = 343.15 (K)

e = emissivity = 0.4

A = surface area of conductor = 0.067097 m^2

NOTE:

For this example bar size and application, H_{ht} and H_{hb} are both 0 due to small surface area.

$$I = \sqrt{\frac{(5.6703 \times 10^{-8} \times 0.4 (343.15^4 - 313.15^4) \times 0.0670966) + [5.5262 \times 0.063226 \times (30)] + [0 \times 0.001935 \times (30)] + [0 \times 0.001935 \times (30)]}{\frac{(2.0524 \times 10^{-8}) \times 0.3048}{0.000645516}}}$$

$$I = \sqrt{\frac{(6.4666) + [10.4820]}{9.6966 \times 10^{-6}}}$$

$$I = 1,322.08$$



A proud member of the Hubbell family.

©2023 Burndy. All rights reserved.
 Hubbell and the Hubbell logo are registered trademarks
 or trademarks of Hubbell Incorporated.
 All other trademarks are the property of their respective owners.
www.hubbell.com/burndy | Customer Service 1-800-346-4175
 International 603-647-5299 | Canada 1-800-465-7051

LI-BURG-SF-EN-000356 | REV 12/2023