

Quick Reference Guide Bus Bar Connectivity

THINGS TO CONSIDER WHEN CHOOSING BUS BAR PRODUCTS

Application: Properties like dimensions, shape, isolation, plating, base material and use of connector should be considered when choosing a bus bar product.

Current and Voltage: Does the connector require power only, or a combination of power and signal? How much current is required in the application? Keep in mind that bus bar product performance is usually measured in amperes (or Amps). The voltage is also highly important as it defines the spacing between the contacts and is related to safety requirements.

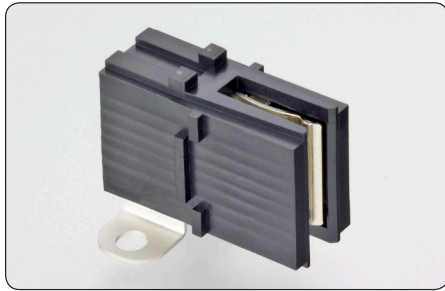
Hot-Pluggability: Will the application be mated while under electrical load? If so, a hot-pluggable connector is required. Many of the products in this guide have been approved for use in hot-plug applications.

TYPICAL POWER CONNECTOR APPLICATIONS

- Bus bar-based power distribution
- Power racks
- Rack-mounted switching power supplies
- Core network energy systems
- Cellular base stations
- PSU power distribution
- Servers, storage & network routers
- Industrial
- Computer
- Modular power supply
- Alternative (green) energy systems
- Power inverters

CROWN CLIP Connectors

Crown Clip Jr. Connectors

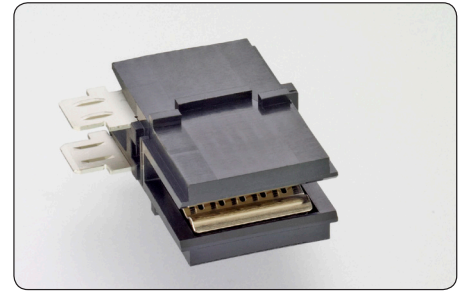
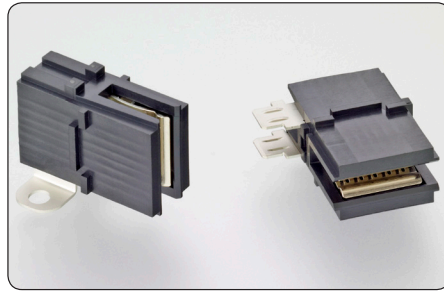


Screw Mount

Reference Part Number*

1982995-1

- Mates directly to a power bus bar
- Provides a space-efficient interconnection in solder or screw mount configurations
- Low insertion/extraction forces
- Ideal for power supply/distribution applications
- Bus bar misalignment: $\pm .75$ mm



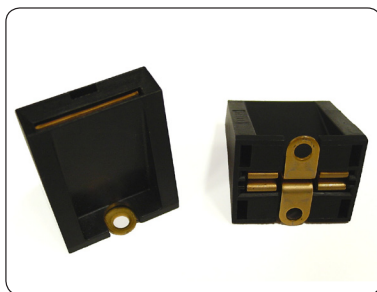
Solder Tail

Reference Part Numbers*

2178410-1 | 2178411-1 | 1551953-1

- Blind mate
- Hot pluggable
- Copper bus bar, plated nickel or suitable alternative
- Current = 170A
- Anti Over Stress feature
- Mating bus bar thickness: 3.0 ± 0.1 mm

Connector	Part Number	Length (mm [in1])	Width (mm [in1])	Comment	Rated Current	Current Interruption
CROWN CLIP	1643906-1	36.45 [1.435]	25.40 [1.000]	Single Pole	300A	100A at 48V 200A at 42V
CROWN CLIP II	1643903-1	36.45 [1.435]	25.40 [1.000]	Dual Pole	300A	100A at 48V 200A at 42V
Dual CROWN CLIP	1926671-1	35.56 [1.400]	25.40 [1.000]	Dual Pole	350A	100A at 60V 200A at 5V
CROWN CLIP Jr.	1982995-1 2178410-1 2178411-1 2178531-1 1551953-1	35.56 [1.400]	26.67 [1.050]	Feed Through	170A	-



CROWN CLIP Series Sockets

Reference Part Number*

1643906-1



CROWN CLIP II Sockets

Reference Part Number*

1643903-1



Dual CROWN CLIP Sockets

Reference Part Number*

1926671-1

CROWN CLIP II Sockets

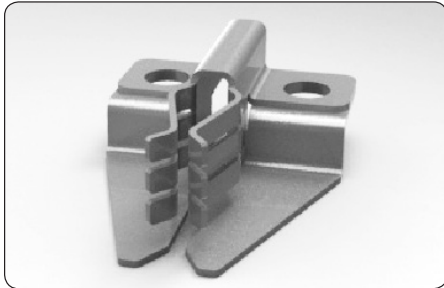
- Compact, high-current socket connectors for high current bus bar power distribution
- Utilizes ELCON CROWN BAND product technology and is available in single pole format to mate with a solid blade (handling up to 350 Amps) or in a dual pole format to mate with laminated bus bar tabs
- Beryllium copper alloy, selectively plated with gold, over nickel
- Bus bar misalignment: ± 1.0 mm max.
- Bus bar width: 3.18mm or 0.125"

*Part numbers listed are examples of some available samples, please visit website for additional and mating part numbers

Pluggable Bus Bar Connectors

- Board-to-Bus, Wire-to-Bus bar and Board-to-Bus bar
- Silver plated copper alloy
- Mate with .125" or .062" thick plated bus bar providing a separable connection that eases assembly, inspection and troubleshooting
- Ideal for computer, industrial control and modular power supply applications that demand low millivolt drop and reliable separation
- Blind mateable (misalignment up to + .060" [1.52mm] for both series)

125 Series



Reference Part Number*
104502-1



Reference Part Number*
104501-1



Reference Part Number*
213647-1

- Contact rated current = 500 A
- 100 mating cycles minimum
- 1" [25.4mm] minimum width bus bar

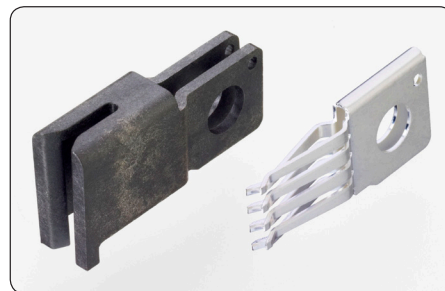
Series	Part Number	Dimensions		
		"A" (Width)	"B" (Height)	"C" (Length)
125 Series Fits Bus bar .125 [3.18] Thick	104502-1*	2.290 58.17	1.141 28.99	3.200 81.28
	104501-1*	.850 21.59	1.122 28.5	3.294 83.67
	213647-1	1.250 31.75	1.141 28.99	1.993 50.61

*Bus bar or Cable Power Feed

062 Series



Reference Part Number*
104729-1



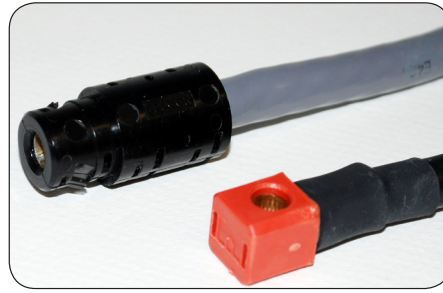
Reference Part Number*
104742-2

Series	Part Number	Dimensions		
		"A" (Width)	"B" (Height)	"C" (Length)
062 Series Fits Bus bar .062 [1.57] Thick	104729-1	1.360 34.54	.705 17.91	1.342 34.09
	104742-2	.356 9.04	.705 17.91	1.342 34.09

- Contact rated current = 250 A
- 50 cycle minimum
- ½" [12.7mm] minimum width bus bar

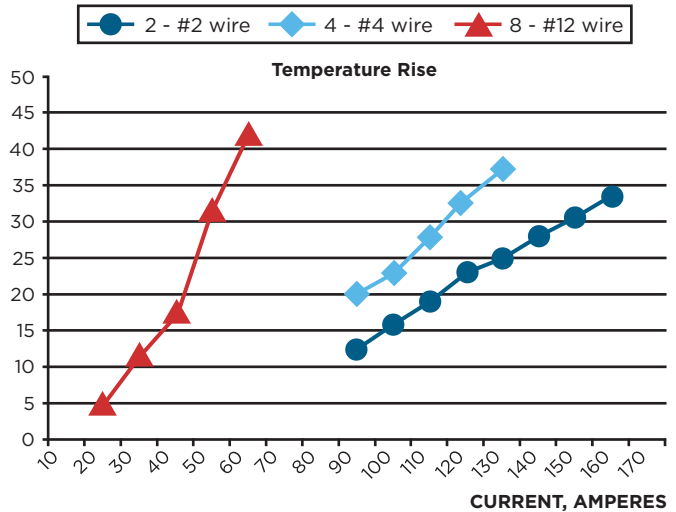
*Part numbers listed are examples of some available samples, please visit website for additional and mating part numbers

RAPID LOCK Quick Connect/Disconnect Bus Bar Connectors



RAPID LOCK Quick Connect/Disconnect Bus Bar Connectors

- Replacement for threaded studs
- No loose nuts = no fretting/heat rise
- Quick connect/disconnect
- Safety locking feature
- Currents from 50A to 250A
- Wire sizes from 2.5 to 95mm²
- Color coding available
- Straight and right angle versions



Pin Connectors Swage

Type	Type	Size	Current Rating	Part No
Pin Contact	Swage	#8	50A	6648221-1
Pin Contact	Swage	#4	120A	6648222-1*
Pin Contact	Swage	#2	150A	6648223-1
Pin Contact	Swage	12mm	250A	1857523-3

Pin Connectors Screw and Washer

Type	Type	Size	Current Rating	Part No
Pin Contact	Screw & Washer	2085957-1*	#4	120A
Pin Contact	Screw & Washer	6648226-1	#2	150A

Insulation Boots

Part No	Size	Color
1651003-1	#4 #8	Black
1651003-2	#4 #8	Red
1651003-3	#4 #8	Grey
1651003-4	#4 #8	Blue
1766600-1	#2	Black
1766600-2	#2	Red
1766600-3	#2	Grey
1766600-4	#2	Blue

Socket Connectors - Straight

Type	Size	Wire Size	Current Rating	Color	Part No
Straight housing	#8			Black	1643279-1
Straight housing	#8			Red	1643279-2
Straight housing	#8			Blue	1643279-3
Straight receptacle contact	#8	#8	50A		6648317-1
Straight housing	#4			Black	1651766-1
Straight receptacle contact	#4	#4	120A		6648434-1

Socket Connectors - Right Angle

Type	Part No	Size	Wire Size	Current Rating	Color
Right Angle Socket	6648228-1	#8	#8	50A	Black
Right Angle Socket	6648228-2	#8	#8	50A	Red
Right Angle Socket	6648237-1	#8	#12		Black
Right Angle Socket	6648235-1	#4	#4	120A	Black
Right Angle Socket	6648235-2	#4	#4	120A	Red
Right Angle Socket	6648239-1	#4	#6		Black
Right Angle Socket	6648239-2	#4	#6		Red
Right Angle Socket	6648236-1	#4	#8		Black
Right Angle Socket	6648236-2	#4	#8		Red

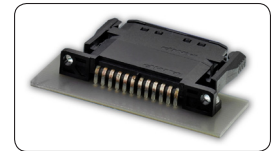
*Part numbers listed are examples of some available samples, please visit website for additional and mating part numbers

AMPOWER Wave Crimp System

- Single, dual conductor cables available with various thicknesses
- Currents supported of 80-135 Amps (with 30°C temperature rise)
- Operating voltage up to 600V
- Right angle and vertical headers
- Sequential mating
- Termination of flat cable requires no stripping, does not reduce cable cross section and provides a reliable, low resistance, gas tight interface
- First flat cable tap that allows branching from primary trunk lines, side tapping and discrete wire tapping
- Interfacing to other TE connectors like drawer, card edge, and CROWN CLIP connectors possible

Socket Connectors - Straight

Part Number	Width (mm [in1])	Thickness (mm [in1])	Number of conductors W (inch[mm]) x T (inch [mm])	Color	Operating Voltage	Max Current (A)
1-765210-7	1.018 (25.86)	0.024 (0.61)	1 x 0.987 (25.07) x 0.01 (0.25)	Blue	300	80
1-765210-8	1.018 (25.86)	0.034 (0.86)	1 x 0.987 (25.07) x 0.02 (0.51)	Blue	300	110
1-765210-9	1.018 (25.86)	0.024 (0.61)	2 x 0.45 (11.43) x 0.01 (0.25)	Blue	300	40/40
2-765210-0	1.018 (25.86)	0.034 (0.86)	2 x 0.45 (11.43) x 0.02 (0.51)	Blue	300	55/55
2-765210-3	0.484 (12.29)	0.024 (0.61)	1 x 0.45 (11.43) x 0.01 (0.25)	Blue	300	40
2-765210-4	0.484 (12.29)	0.034 (0.86)	1 x 0.45 (11.43) x 0.01 (0.25)	Blue	300	40
2-765210-5	1.018 (25.86)	0.044 (1.12)	1 x 0.987 (25.07) x 0.03 (0.76)	Red	300	135
2-765210-6	1.018 (25.86)	0.052 (1.32)	1 x 0.987 (25.07) x 0.03 (0.76)	Red	600	135



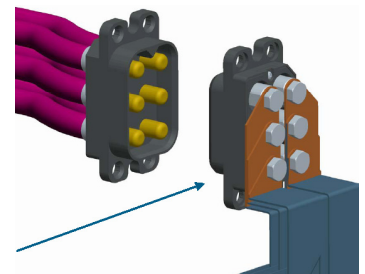
Part Number	Description	Tail Type	Tail Length (inch)
765191-1	slim plug	N/A	N/A
765478-1	slim plug receptacle	Solder	N/A
1-765206-7	slim vert header	Solder	0.131
1-765206-8	slim vert header	Solder	0.165
1-765206-9	slim vert header	Solder	0.225
2-765206-0	slim vert header with eyelet	Solder	0.131
765271-1	slim vert header	Action	0.144
765204-5	slim R/A header	Solder	0.124
765204-6	slim R/A header	Solder	0.165
765277-1	Tap	N/A	N/A
765311-1	Side Tap, R/A Side TAP	N/A	N/A
765275-1	Side Tap Jogged	N/A	N/A
5765527-1	2 Cable Vert Header	Solder	0.131
5765527-2	2 Cable Vert Header	Solder	0.165
765608-1	2 Cable R/A Header	Solder	0.273
5765208-1	4 Cable Vert header	Solder	0.131
5765208-2	4 Cable Vert header	Solder	0.165
5765208-3	4 Cable Vert header	Solder	0.235
5765208-4	4 Cable Vert header	Solder	0.305
765208-5	4 Cable Vert header	Action	0.144
766510-1	4 Cable R/A Header	Solder	0.273
765528-1	2 Cable receptacle	N/A	N/A
765528-1 needs	765529-1, 765209-1, 768209-2	N/A	N/A
765247-1	4 Cable receptacle	N/A	N/A
765247-1 needs	765248-1, 765209-1, 768209-2	N/A	N/A
766569-1	Cable to Cable Receptacle PM	N/A	N/A
766569-1 PM needs	765530-1, 765245-1	N/A	N/A
766569-1	Cable to Cable Receptacle STR	N/A	N/A
766569-1 STR needs	765529-1, 765245-1	N/A	N/A

Part Number	Description	Centerline (inch,(mm))	Hole Size (inch,(mm))
765228-1	Terminal Block Interface Full Width		
765228-1 needs	765216-1	0.562 (14.27)	0.171 x 0.250 (4.34 x 6.35)
765228-1	765225-1	0.688 (17.48)	0.270 x 0.296 (6.86 x 7.52)
765229-1	Terminal Block Interface Half Width		
765229-1 needs	765216-1	0.562 (14.27)	0.171 x 0.250 (4.34 x 6.35)
765229-1 needs	765225-1	0.688 (17.48)	0.270 x 0.296 (6.86 x 7.52)

Part Number	Description	Stud Size (inch,(mm))	Hole Size (inch,(mm))
765228-1	Stud Interface		
765228-1 needs	765226-1	0.250 (6.35)	0.266 (6.76)
765228-1	766226-2	0.312 (7.92)	0.328 (8.33)

AMPOWER Wave Crimp Flat Cable:

- Flat cable dissipates heat better
- Carries same current with;
- Space savings
- Improved airflow
- Less weight



FOR MORE INFORMATION

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Part numbers in this brochure are RoHS Compliant*, unless marked otherwise.

*as defined www.te.com/leadfree

te.com/products/busbar

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