

## Aluminum Shear Bolt Splice Connectors

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### FEATURES

- Shear Bolt connectors meet the electrical requirements (Class A) of ANSI C119.4 and exceed the mechanical requirements of a class 3 connector by a large margin of safety.
- The solid center stop (available on most sizes) inside the connector ensures proper conductor positioning and eliminates oil leakage when connecting oil impregnated conductors.
- Design made from seamless, high conductivity, high strength, tin-plated aluminum alloy for heavy-duty utility applications
- Compact and smooth body design
- Dual rated for aluminum and copper conductors

### APPLICATIONS

- Accommodate a conductor range from #2 compact to 1000 kcmil concentric, stranded Class B.
- The primary application of aluminum Shear Bolt connectors is for underground splices up to 35 kV.
- Shear Bolt connectors are ideally suited for aluminum to aluminum, aluminum to copper and copper to copper applications making them the universal connector solution. Please refer to tests listed below.
- Shear Bolt connectors are designed to be compatible with TE's Raychem brand cable accessories and insulation products.

### BENEFITS

- ♦ TE Connectivity's aluminum Shear Bolt connectors are range-taking mechanical connectors. Just six connectors will accommodate a wide range of aluminum and copper conductors from #2 AWG compact stranded to 1000 kcmil standard stranded class B.
- ♦ Provides long service life under normal operating conditions with reserve capacity for emergency loading conditions.
- ♦ The connector design incorporates shear head bolts, which ensures that the correct torque is applied to each bolt and the optimal contact force is generated to minimize connection resistance.



**Ordering Information**  
Catalog Number T25446-000

**Battery**  
Catalog Number J68898-000

### PRODUCT SPECIFICATIONS

<b>Wide application range</b>	Six connectors needed to accommodate all cable sizes from #2 AWG compact strand to 1,000 kcmil concentric stranded in both aluminum and copper	Reduces inventory and prevents accidental use of the wrong connector
<b>Hexagonal shear head bolts</b>	Installs with simple ratchet-type socket wrench	Installs easily and quickly in confined areas
<b>No crimp tooling or dies required</b>	Installs easily using readily available tools	Ease of installation. Installation tool is no longer a source of failure. Reduces tool and die inventory, maintenance and cost
<b>Torque-controlled shear head bolts</b>	Sheared head gives positive indication of correct installation	Low contact resistance gives superior electrical performance
<b>Centering inserts for small diameter conductors</b>	Properly positions small conductors for proper connection	Minimizes voltage stresses at transition from connector body to cable installation
<b>Knurled inner bore</b>	Unique profile breaks through conductor oxides and grips conductor strands	Generates low contact resistance and increases pullout rating
<b>Solid center stop</b>	Eliminates oil leakage and insures proper conductor position	Accommodates transition applications from polymeric to oil impregnated conductors

## PRODUCT SELECTION INFORMATION: DIMENSIONS IN INCHES (MM)

Catalog Number	Part Number	Conductor Range	O.D. Range	Length	Connector O.D.	Strip Length	Number of Bolts	Socket Size
<b>Aluminum Shear Bolt Splice Connectors</b>								
ASBS-2-3/0	CL8618-000	2 AWG compact stranded to 3/0 AWG standard stranded	.268-.470 (6.8-11.9)	2.5 (65)	.95 (24)	1 1/8 (28.5)	2	1/2 (13)
ASBS-2-350	694472-000	2 AWG compact stranded to 350 kcmil standard stranded	.268-.681 (6.8-17.3)	3.9 (100)	1.22 (31)	1 3/4 (44.4)	4	11/16 (17)
ASBS-3/0-500	CL8619-000	3/0 AWG compact stranded to 500 kcmil standard stranded	.423-.813 (10.7-20.6)	4.9 (125)	1.3 (34)	2 3/8 (60)	4	3/4 (19)
ASBS-3/0-500-S	CU2713-000	3/0 AWG compact stranded to 500 kcmil standard stranded	.423-.813 (10.7-20.6)	4.9 (125)	1.3 (34)	2 3/8 (60)	4	3/4 (19)
ASBS-350-750	CL7947-000	350 kcmil compact stranded to 750 kcmil standard stranded	.616-.998 (15.6-25.3)	6.7 (170)	1.67 (42.5)	3 1/8 (80)	6	7/8 (22)
ASBS-500-750	E89931-000	500 kcmil compact stranded to 750 kcmil standard stranded	.736-.998 (18.7-25.3)	6.0 (152)	1.52 (39)	2 7/8 (73)	6	3/4 (19)
ASBS-600-1000	C68131-000	600 kcmil compact stranded to 1000 kcmil standard stranded	.813-1.152 (20.6-29.2)	8.0 (203)	1.75 (44.4)	3 7/8 (98)	6	7/8 (22)

Catalog Number	Part Number	Conductor Range	O.D. Range	Length	Connector O.D.	Strip Length	Number of Bolts	Socket Size	Insert Used
<b>Aluminum Shear Bolt Splice Connectors UL/CSA Listed</b>									
ASBS-2-U	1974155-1	2 AWG compact to 2 AWG concentric	0.268-0.292 (6.81-7.42)	2.6 (65)	0.94 (24)	1 1/8 (28.5)	2	1/2 (13)	Yes**
ASBS-2-4/0-U	1974138-1	2 AWG compact to 4/0 AWG concentric	0.268-0.528 (6.81-13.41)	3.9 (100)	1.22 (31)	1 3/4 (44.4)	4	11/16 (17)	No
ASBS-2-4/0/250-350-U	2182352-1	Side #1: 2 AWG compact to 4/0 AWG concentric Side #2: 250 compact to 350 kcmil concentric	Side #1: 0.268-0.528 (6.81-13.41) Side #2: 0.520-0.681 (13.21-17.30)	3.9 (100)	1.22 (31)	1 3/4 (44.4)	4	11/16 (17)	No
ASBS-250-350-U	1974139-1	250 compact to 350 kcmil concentric	0.520-0.681 (13.21-17.30)	3.9 (100)	1.22 (31)	1 3/4 (44.4)	4	11/16 (17)	No
ASBR-250-350/350-500	2182769-1	Side #1: 250 compact to 350 kcmil concentric Side #2: 350 compact to 500 kcmil concentric	Side #1: 0.520-0.681 (13.21-17.30) Side #2: 0.616-0.813 (15.65-20.65)	5.4 (138)	1.3 (33) / 1.67 (42.5)	1.87 (47.5) / 3.2 (82.5)	5	11/16 (17) / 7/8 (22)	No
ASBR-250-350/600-750	2182770-1	Side #1: 250 compact to 350 kcmil concentric Side #2: 600 kcmil compact to 750 kcmil concentric	Side #1: 0.520-0.681 (13.21-17.30) Side #2: 0.813-0.998 (20.65-25.35)	5.4 (138)	1.3 (33) / 1.67 (42.5)	1.87 (47.5) / 3 1/8 (80)	5	11/16 (17) / 7/8 (22)	No
ASBS-350-500-U	1974144-1	350 compact to 500 kcmil concentric	0.616-0.813 (15.65-20.65)	6.7 (170)	1.67 (42.5)	3 1/8 (80)	6	7/8 (22)	Yes**
ASBR-350-500/ 600-750-U	1974146-1	Side #1: 350 kcmil compact to 500 kcmil concentric Side #2: 600 kcmil compact to 750 kcmil concentric	Side #1: 0.616-0.813 (15.65-20.65) Side #2: 0.813-0.998 (20.65-25.35)	6.7 (170)	1.67 (42.5)	3 1/8 (80)	6	7/8 (22)	Yes**
ASBR-350-500/1000	2182732-1	Side #1: 350 kcmil compact to 500 kcmil concentric Side #2: 1000 kcmil compact to 1000 kcmil concentric	Side #1: 0.616-0.813 (15.65-20.65) Side #2: 1.060-1.152 (26.92-29.26)	7.4 (189)	1.67 (42.5) / 1.75 (44.5)	3.25 (82.5) / 3.9 (99)	6	7/8 (22)	Yes**
ASBS-600-750-U	1974145-1	600 kcmil compact to 750 kcmil concentric	0.813-0.998 (20.65-25.35)	6.7 (170)	1.67 (42.5)	3 1/8 (80)	6	7/8 (22)	No
ASBR-600-750/1000	2182734-1	Side #1: 600 kcmil compact to 750 kcmil concentric Side #2: 1000 kcmil compact to 1000 kcmil concentric	Side #1: 0.813-0.998 (20.65-25.35) Side #2: 1.060-1.152 (26.92-29.26)	7.4 (189)	1.67 (42.5) / 1.75 (44.5)	3.25 (82.5) / 3.9 (99)	6	7/8 (22)	No
ASBS-1000-U	1974151-1	1000 kcmil compact to 1000 kcmil concentric	1.060-1.152 (26.92-29.26)	8.0 (203)	1.75 (44.5)	3 7/8 (98)	6	7/8 (22)	No

\*\* DO NOT remove insert. Please contact your TE representative for conductor sizes or types not listed.

## ADDITIONAL PRODUCT INFORMATION

P11: 408-8990, 408  
Test Report: 502-47292 (1)



Listed by Underwriters Laboratories Inc., File No. E13288  
Certified by Canadian Standards Association, File No. LR7189

## Copper Shear Bolt Splice Connectors

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### FEATURES

- The connector is supplied with two copper inserts assembled into the connector body to center small conductor sizes. For larger sizes, inserts are not required and are easily removed with a standard screwdriver. Please see the installation table for details.
- An oxide-inhibiting joint compound is factory-applied in the barrel of the connector to provide low initial contact resistance, seal out air and moisture, prevent oxidation/corrosion, and maintain a reliable connection for the life of the installation.
- Copper Shear Bolt connectors have an impermeable oil block for connecting paper-insulated cables.

### APPLICATIONS

- The connectors have been electrically tested to the class A requirements of ANSI C119.4 and mechanically rated at a pull out force of 1670 lbs for the #2 AWG to 250 kcmil version; 2300 lbs for the 2/0 AWG to 500 kcmil version; 3000 lbs for the 300 kcmil to 750 kcmil version; 3800 lbs for the 500 kcmil to 1000 kcmil version; 4500 lbs for the 1000 kcmil to 1250 kcmil version, and 6000 lbs for 2000 kcmil version. Engineering Test Reports are available upon request.

### BENEFITS

- ♦ TE Connectivity's copper Shear Bolt connectors are range-taking, mechanical connectors that will accommodate a wide range of copper cables from #2 AWG compact stranded to 2000 kcmil compact stranded. The primary application is for underground splices up to 35 kV.



**Ordering Information**  
Catalog Number T25446-000

Battery  
Catalog Number J68898-000

### INSTALLATION

Copper Shear Bolt connectors use four (six for the CSBS 500-1000) bronze alloy shear head bolts, two (or three) on each side of the center stop. A torque wrench is not required. The only tool required is a standard ratchet wrench with a hexagonal socket. \* Refer to the following installation table.

Catalog Number	PII Number*	Socket Size	Test Reports	Application Guide
<b>CSBS-2-250</b>	408-10327	1/2 (13)	502-47407	Remove inserts for cable sizes equal to or greater than 4/0 AWG compressed
<b>CSBS-2/0C-500C</b>	408-8894	11/16 (17)	502-47265	Remove inserts for cable sizes equal to or greater than 300 kcmil compact.
<b>CSBS-2/0-500-CPR</b>	408-10327	11/16 (17)	502-47265	Remove inserts for cable sizes equal to or greater than 350 kcmil compressed.
<b>CSBS-300C-750C</b>	408-8863	3/4 (19)	502-47257 502-47260	Remove inserts for cable sizes equal to or greater than 500 kcmil compact.
<b>CSBS-300-750</b>	408-10327	3/4 (19)	502-47260	Remove inserts for cable sizes equal to or greater than 600 kcmil compressed.
<b>CSBS-500-1000</b>	408-10327	3/4 (19)	502-47386	Remove inserts for cable sizes equal to or greater than 750 kcmil stranded
<b>CSBS-1000-1250</b>	408-10317	3/4 (19)	502-47371 (I)	No insert
<b>CSBS-2000</b>	408-10327	3/4 (19)	502-47474 (I)	No insert

\*Installation Instructions Reference Number

Please contact your TE representative for conductor sizes or types not listed in this catalog.

### PRODUCT SELECTION INFORMATION: DIMENSIONS IN INCHES (MM)

Catalog Number	Part Number	Conductor Cable Range	O.D. Range	Length	Connector O.D.	Stop
<b>CSBS-2-250</b>	CU6629-000	#2 AWG compact to 250 kcmil conc stranded	.268-.575 (6.81-14.61)	3.2 (81)	1.05 (26.7)	Solid
<b>CSBS-2/0C-500C</b>	E20628-000	2/0 compact to 500 kcmil compact	.376-.736 (9.5-18.7)	4 (101)	1.2 (30.5)	Solid
<b>CSBS-2/0-500-CPR</b>	CU1218-000	2/0 compact to 500 kcmil compressed	.376-.79 (9.5-20)	4 (101)	1.3 (33)	Solid
<b>CSBS-300C-750C</b>	310084-000	300 kcmil compact to 750 kcmil compact	.570-.945 (14.5-24.0)	5 (127)	1.45 (36.8)	Solid
<b>CSBS-300-750</b>	ED2175-000	300 kcmil compact to 750 kcmil conc strand	.570-.99 (14.5-25.4)	5 (127)	1.5 (38.1)	Solid
<b>CSBS-500-1000</b>	ED2183-000	500 kcmil compact to 1000 kcmil conc stranded	.736 - 1.152 (1.87-2.93)	7 (178)	1.75 (44.5)	Solid
<b>CSBS-1000-1250</b>	ED2184-000	1000 kcmil compact to 1250 kcmil conc stranded	1.060 -1.289 (26.92-32.74)	7 (178)	1.9 (48)	Solid
<b>CSBS-2000</b>	2182603-1	2000 kcmil compact to 2000 kcmil conc stranded	1.535 - 1.632 (38.99-41.45)	8 (208)	2.3 (58.7)	Solid