



Energy Division

Raychem CSJA

In-line Cold Shrinkable Joints for 1/C Shielded Power Cables (15-35 kV)

Tyco Electronics introduces the “All-in-One” CSJA cold shrinkable joint for 15 kV through 35 kV. It is designed to splice tape shield, wire shield, LC shield, UniShield, JCN and flat strap shielded cables.

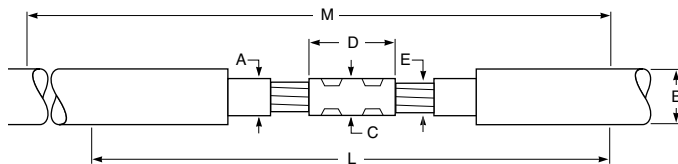
Features

- This cable joint has a pre-expanded EPDM re-jacketing sleeve and an integrated neutral sock. The “All-in-One” design is easy to install with minimal steps and short installation time.
- A pre-expanded, single-piece silicone rubber joint body with high mechanical expansion capability allows a wide application range.

- An ergonomically designed spiral holdout provides a smooth installation with low release forces.
- Total length of the splice body on the holdout is 14 to 19 inches providing a compact design.
- The silicone rubber body provides high dielectric strength, high tear strength, low tension set, and excellent low temperature recovery.
- Integrated electrical stress control enhanced by factory molded stress cones and a Faraday cage.

- Void filling stress relief mastics are not necessary.
- Proven shield continuity concept which can also bridge concentric neutrals.
- The joint accepts both mechanical and compression connectors.
- When a ShearBolt connector is used, this is a totally crimpless system.
- Meets IEEE-404 requirements for 15 kV through 35 kV.
- Each silicone splice body is factory tested to include AC withstand and partial discharge in accordance with IEEE-404 production tests.





Selection Information: Dimensions in Inches (millimeters)

Voltage Class	Catalog Number	Nominal Cable Range	Min/Max	Max Jacket OD	Neutral Sock (AWG)	Connector Dimensions		Kit Installed Length	Required Installation Space
			Insulation OD			Max. OD	Max. Length		
			A			C	D		
CSJA Joint without Connector									
15kV	CSJA-1521	#2 - 350	0.69 - 1.20 (17.5 - 30.5)	1.50 (38.1)	1/0	1.30 (33.0)	5.50 (140.0)	29 (737)	39 (990)
15kV	CSJA-1522	4/0 - 750	0.87 - 1.40 (22.1 - 35.6)	1.80 (46.0)	1/0	1.50 (38.0)	5.50 (140.0)	29 (737)	39 (990)
15kV	CSJA-1523	350 - 1000	1.03 - 1.58 (26.2 - 40.0)	2.05 (52.1)	2/0	1.65 (42.0)	6.69 (170.0)	33 (838)	43 (1090)
15kV	CSJA-1524	750 - 1250	1.28 - 2.05 (32.50 - 52.0)	2.60 (66.0)	2/0	1.85 (47.0)	7.90 (200.0)	37 (939)	49 (1244)
28kV	CSJA-2822	#1 - 500	0.87 - 1.40 (22.1 - 35.6)	1.80 (46.0)	1/0	1.50 (38.0)	5.50 (140.0)	29 (737)	39 (990)
28kV	CSJA-2823	4/0 - 750	1.03 - 1.58 (26.20 - 40.0)	2.05 (52.1)	2/0	1.65 (42.0)	6.69 (170.0)	33 (838)	43 (1090)
28kV	CSJA-2824	500 - 1250	1.28 - 2.05 (32.50 - 52.0)	2.60 (66.0)	2/0	1.85 (47.0)	7.90 (200.0)	37 (939)	49 (1244)
35kV	CSJA-3523	1/0 - 350	1.03 - 1.49 (26.20 - 37.8)	2.05 (52.1)	2/0	1.40 (35.6)	5.50 (140.0)	33 (838)	43 (1090)
35kV	CSJA-3524	350 - 1000	1.36 - 2.05 (34.54 - 52.0)	2.60 (66.0)	2/0	1.96 (50.0)	7.90 (200.0)	37 (939)	49 (1244)
35kV	CSJA-3525	750 - 1250	1.63 - 2.36 (41.40 - 60.0)	2.60 (66.0)	2/0	2.36 (60.0)	7.90 (200.0)	37 (939)	49 (1244)

Voltage Class	Catalog Number	Nominal Cable	Min/Max		Max	Neutral	Min/Max Diameter	Kit	Required		
		Range	Insulation	OD	Jacket	OD	Over Cable	Installed	Installation		
			OD	OD	OD	Conductor*	Length	Space			
CSJA Joint with Copper Mechanical ShearBolt Connector											
15kV	CSJA-1521M1	2/0 - 350	0.69 - 1.20	(17.5 - 30.5)	1.50	(38.1)	1/0	0.376 - 0.736	(9.50 - 18.7)	29 (737)	39 (990)
15kV	CSJA-1522M1	4/0 - 500	0.87 - 1.40	(22.1 - 35.6)	1.80	(46.0)	1/0	0.376 - 0.736	(9.50 - 18.7)	29 (737)	39 (990)
15kV	CSJA-1522M2	350 - 750	0.87 - 1.40	(22.1 - 35.6)	1.80	(46.0)	1/0	0.570 - 0.945	(14.5 - 24.0)	29 (737)	39 (990)
15kV	CSJA-1523M2	350 - 750	1.03 - 1.58	(26.2 - 40.0)	2.05	(52.1)	2/0	0.570 - 0.945	(14.5 - 24.0)	33 (838)	43 (1090)
28kV	CSJA-2822M1	2/0 - 500	0.87 - 1.40	(22.1 - 35.6)	1.80	(46.0)	1/0	0.376 - 0.736	(9.50 - 18.7)	29 (737)	39 (990)
28kV	CSJA-2823M2	350 - 750	1.03 - 1.58	(26.2 - 40.0)	2.05	(52.1)	2/0	0.570 - 0.945	(14.5 - 24.0)	33 (838)	43 (1090)
28kV	CSJA-2824M2	500 - 750	1.28 - 2.05	(32.50 - 52.0)	2.60	(66.0)	2/0	0.570 - 0.945	(14.5 - 24.0)	37 (939)	49 (1244)
35kV	CSJA-3523M1	2/0 - 350	1.03 - 1.49	(26.20 - 37.8)	2.05	(52.1)	2/0	0.376 - 0.736	(9.50 - 18.7)	33 (838)	43 (1090)
35kV	CSJA-3524M2	350 - 750	1.36 - 2.05	(34.54 - 52.0)	2.60	(66.0)	2/0	0.570 - 0.945	(14.5 - 24.0)	37 (939)	49 (1244)

* Min/max diameter over cable conductor accepted by the copper mechanical connector.

Voltage Class	Catalog Number	Nominal Cable Range	Min/Max	Max Jacket OD	Neutral	Min/Max Diameter Over Cable Conductor *	Kit Installed Length	Required Installation Space
			Insulation OD		Sock (AWG)			
			A		B			
CSJA Joint with Aluminum Mechanical Shear Bolt Connector								
15kV	CSJA-1521M4	#2 - 3/0	0.69 - 1.20 (17.5 - 30.5)	1.50 (38.1)	1/0	0.268 - 0.470 (6.80 - 11.9)	29 (737)	39 (990)
15kV	CSJA-1521M5	#2 - 350	0.69 - 1.20 (17.5 - 30.5)	1.50 (38.1)	1/0	0.268 - 0.681 (6.80 - 17.3)	29 (737)	39 (990)
15kV	CSJA-1522M6	4/0 - 500	0.87 - 1.40 (22.1 - 35.6)	1.80 (46.0)	1/0	0.423 - 0.813 (10.7 - 20.6)	29 (737)	39 (990)
15kV	CSJA-1522M7	500 - 750	0.87 - 1.40 (22.1 - 35.6)	1.80 (46.0)	1/0	0.736 - 0.998 (18.7 - 25.3)	29 (737)	39 (990)
15kV	CSJA-1523M8	350 - 750	1.03 - 1.58 (26.20 - 40.0)	2.05 (52.1)	2/0	0.616 - 0.998 (15.7 - 25.3)	33 (838)	43 (1090)
15kV	CSJA-1524M9	750 - 1000	1.28 - 2.05 (32.50 - 52.0)	2.60 (66.0)	2/0	0.813- 1.152 (20.6 - 29.2)	37 (939)	49 (1244)
28kV	CSJA-2822M5	#1 - 350	0.87 - 1.40 (22.1 - 35.6)	1.80 (46.0)	1/0	0.268 - 0.681 (6.80 - 17.3)	29 (737)	39 (990)
28kV	CSJA-2822M6	4/0 - 500	0.87 - 1.40 (22.1 - 35.6)	1.80 (46.0)	1/0	0.423 - 0.813 (10.7 - 20.6)	29 (737)	39 (990)
28kV	CSJA-2823M8	350 - 750	1.03 - 1.58 (26.20 - 40.0)	2.05 (52.1)	2/0	0.616 - 0.998 (15.7 - 25.3)	33 (838)	43 (1090)
28kV	CSJA-2824M8	500 - 750	1.28 - 2.05 (32.50 - 52.0)	2.60 (66.0)	2/0	0.616 - 0.998 (15.7 - 25.3)	37 (939)	49 (1244)
28kV	CSJA-2824M9	750 - 1000	1.28 - 2.05 (32.50 - 52.0)	2.60 (66.0)	2/0	0.813- 1.152 (20.60 - 29.2)	37 (939)	49 (1244)
35kV	CSJA-3523M5	1/0 - 350	1.03 - 1.49 (26.20 - 37.8)	2.05 (52.1)	2/0	0.268 - 0.681 (6.8 - 17.3)	33 (838)	43 (1090)
35kV	CSJA-3524M8	350 - 750	1.36 - 2.05 (34.54 - 52.0)	2.60 (66.0)	2/0	0.616 - 0.998 (15.7 - 25.3)	37 (939)	49 (1244)
35kV	CSJA-3524M9	750 - 1000	1.36 - 2.05 (34.54 - 52.0)	2.60 (66.0)	2/0	0.813- 1.152 (20.60 - 29.2)	37 (939)	49 (1244)
35kV	CSJA-3525M10	1000 - 1250	1.63 - 2.36 (41.40 - 60.0)	2.60 (66.0)	2/0	1.060- 1.251 (23.0 - 31.7)	37 (939)	49 (1244)

* Min/max diameter over cable conductor accepted by the aluminum mechanical connector.

Cold-Applied External Grounding Kit

Catalog Number	Length of Moisture Blocked Braid	Braid (AWG)
CSJ-EG-1	24 (610)	#8
CSJ-EG-2	24 (610)	#6
CSJ-EG-3	24 (610)	#4

Ordering Information

- Selections are based on the typical dimensions of 100% insulated cables, manufactured in accordance with AIEC standard. Nominal insulation thickness (100%): 15kV: 175mils, 25kV: 260mils, 35kV: 345mils.
- Select the appropriate catalog number. Use the insulation OD, and jacket OD range as the final ordering criteria.
- For mechanical ShearBolt connector included in the kit confirm the correct connector selection according to the Min/Max diameter over the cable conductor from the tables.
- If external grounding is required, order the CSJ-EG kit.
- For other applications or if you have any questions, contact your Tyco Electronics representative.
- Standard package: 1kit per box.
- Related test reports: EDR-5430, EDR-5455, EDR-5513
- For AL Mechanical ShearBolt connector information request datasheet 9-1773440-4 and for CU request 165972.

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