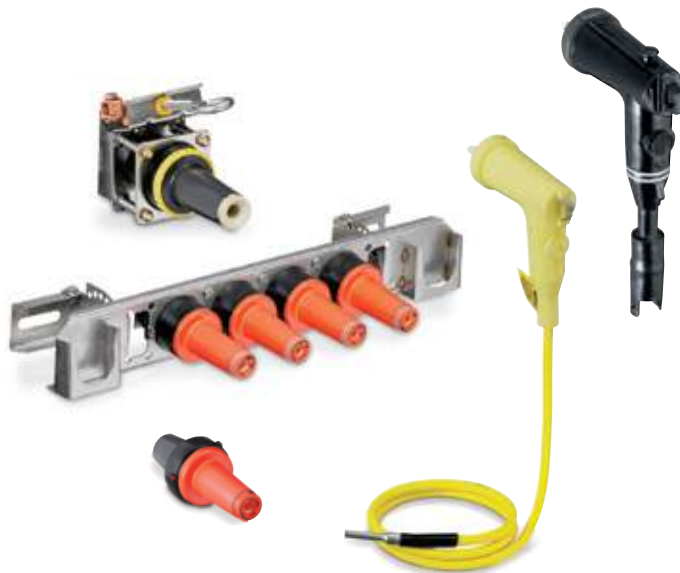


200-Amp Loadbreak Elbows

200-Amp Loadbreak Connectors and Accessories

200-Amp Loadbreak Connectors and Accessories provide a convenient method to connect/disconnect cable and equipment on power distribution systems. Loadbreak elbows include provisions for energized operation using standard hotstick tools, allowing loadmake/break operation and a visible disconnect. Components can be isolated with insulated caps, plugs and parking bushings.

Optional accessories allow system grounding, testing, bypass, surge protection and current limiting fusing. Additional connecting points and taps can be provided by use of junctions or feed-thrus.



Ratings Overview

See **page H-2** for complete information, including switching and fault close ratings.

Current Ratings

200A Continuous
10kA sym. 10 Cycles

Voltage Ratings

15kV Class
8.3kV Phase-to-Ground
14.4kV Phase-to-Phase
95kV BIL
34kV AC Withstand
53kV DC Withstand
11kV Corona Extinction

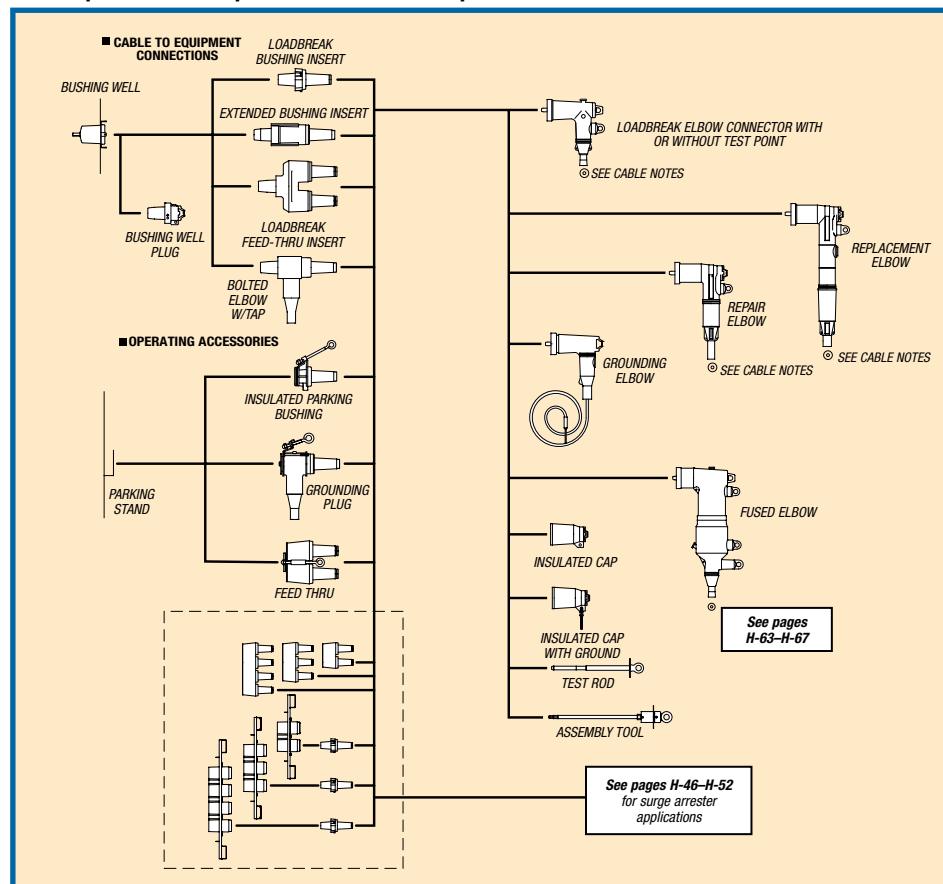
25kV Class

15.2kV Phase-to-Ground
26.3kV Phase-to-Phase
125kV BIL
40kV AC Withstand
78kV DC Withstand
19kV Corona Extinction

35kV Class

21.1kV Phase-to-Ground
36.6kV Phase-to-Phase
150kV BIL
50kV AC Withstand
103kV DC Withstand
26kV Corona Extinction

200-Amp Loadbreak Separable Connector Components



THORNE &
DERRICK
INTERNATIONAL

Thorne & Derrick
+44 (0) 191 410 4292
www.powerandcables.com

200-Amp Loadbreak Elbows

ILLUSTRATION (NOT TO SCALE)	DESCRIPTION	VOLTAGE CLASS	CAT. NO.	NOTES
	Elbow Connector	15kV	165LR-W5X Use Tables W1 and X1	N2, 3, 4, 5
		25kV	275LR-W5X Use Tables W16 and X1	N2, 3, 4, 5
		35kV	375LR-W5X Use Tables W3 and X2	N2, 3, 5
	Elbow Connector w/ Test Point	15kV	166LR-W5X Use Tables W1 and X1	N2, 3, 4, 5, 23
		25kV	276LR-W5X Use Tables W16 and X1	N2, 3, 4, 5, 23
		35kV	376LR-W5X Use Tables W3 and X2	N2, 3, 5, 23
	Jacket Seal Elbow Connector	15kV	165LRJS-W5X Use Tables W1 and X1	N2, 19
		25kV	275LRJS-W5X Use Tables W16 and X1	N2, 19
	Jacket Seal Elbow Connector w/ Test Point	15kV	166LRJS-W5X Use Tables W1 and X1	N2, 19, 23
		25kV	276LRJS-W5X Use Tables W16 and X1	N2, 19, 23
	Repair Elbow Connector	15kV	167ELR-W5X Use Tables W5 and X1	N5, 10, 18
		25kV	273ELR-W5X Use Tables W5 and X1	N5, 10, 18
	Repair Elbow Connector w/ Test Point	15kV	168ELR-W5X Use Tables W5 and X1	N5, 10, 18, 23
		25kV	274ELR-W5X Use Tables W5 and X1	N5, 10, 18, 23
	Replacement Elbow	15kV	167RLR-W5X Use Tables W4 and X1	N5, 11, 13
		25kV	273RLR-W5X Use Tables W2 and X1	N5, 11, 13
	Replacement Elbow w/ Test Point	15kV	168RLR-W5X Use Tables W4 and X1	N5, 11, 13, 23
		25kV	274RLR-W5X Use Tables W2 and X1	N5, 11, 13, 23
	Direct Test Elbow Connector	15kV	167DLR-W5X Use Tables W4 and X1	N2, 5, 21
		25kV	273DLR-W5X Use Tables W2 and X1	N2, 5, 21
	Direct Test Repair Elbow Connector	15kV	167DELR-W5X Use Tables W5 and X1	N5, 10, 18, 21
		25kV	273DELR-W5X Use Tables W5 and X1	N5, 10, 18, 21
	Direct Test Repair Elbow Connector w/ Test Point	15kV	168DELR-W5X Use Tables W5 and X1	N5, 10, 18, 21, 23
		25kV	274DELR-W5X Use Tables W5 and X1	N5, 10, 18, 21, 23
	Fused Elbow (Full Range Current Limiting)	15kV	168FLR H-WOX 274FLR H-WOX <i>See pages H-63-H-67</i>	N23
		25kV		N23
	Bolted Elbow w/ Tap	15kV	167LRT-W5X Use Tables W4 and X1	N17
	Bushing Insert	15kV	1601A4	N4, 8
		25kV	2701A4	N4, 8
		35kV	3701A4	N6, 20
		35kV	3701A3	N8, 20
	Extended Bushing Insert	15kV	1601EA4	N8
		25kV	2701EA4	N8
	Feed-Thru Insert	15kV	1602A3R	N16
		25kV	2702A1	N16
	Insulated Cap	15kV	3702A1	N6, 16
			160DR	N9
	Insulated Cap w/ Ground	15kV	160DRG	N9
		15kV	167DRG	N7, 9
		25kV	273DRG	N7, 9
		35kV	375DRG	N7, 9
	Insulated Cap w/ Ground and Test Point	15kV	168DRG	N7
		25kV	274DRG	N7
		35kV	376DRG	N7

ILLUSTRATION (NOT TO SCALE)	DESCRIPTION	VOLTAGE CLASS	CAT. NO.	NOTES
	Grounding Plug (1/0 AWG x 6' Ground Lead)	15kV 25kV	161GP 272GP	
	Grounding Elbow (1/0 AWG x 6' Ground Lead)	15kV 25/35kV	160GLR 370GLR	N12
	Feed-Thru	15kV	164FT	N6
		25kV	274FT	
		35kV	371FT	
	Feed-Thru Vertical	15kV	373FT	
		25kV	164FTV	
		35kV	274FTV	
	Adjustable Bracket 2-Point Feed-Thru	15kV	373FTV	
		25kV	164FT2-AB	
		35kV	274FT2-AB	
	Adjustable Bracket 3-Point Feed-Thru	15kV	373FT2-AB	N22
		25kV	164FT3-AB	
		35kV	274FT3-AB	
	Adjustable Bracket 4-Point Feed-Thru	15kV	373FT3-AB	N22
		25kV	164FT4-AB	
		35kV	274FT4-AB	
	Feed-Thru Well	15/25kV	373FT4-AB	N22
			K1601WFT	
	Feed-Thru Well Vertical	15/25kV	K1601WFTV	
	Insulated Parking Brushing	15kV	161SOP	N20
		25kV	272SOP	
		35kV	372SOP	
	Insulated Parking Brushing	15kV	164SOP	N22
		25kV	274SOP	
	Test Rod	All	370TR	
	Bushing Well	15/25kV	276BWP	
		35kV	M276BWP	
	Assembly Tool	All	200AT	N8

- N1. Copper lug for use on COPPER CONDUCTOR ONLY.
- N2. W5X indicates that the catalog number includes 02500X long bi-metal compression lug as standard. For an all-copper lug, replace W5X with W2X in Table X1 to specify the all-copper 02702X lug.
- N3. Also available as housing only. Specify: 165BLR-W; 275BLR-W; 375BLR-W; 166BLR-W; 276BLR-W; 376BLR-W.
- N4. Also available as elbow/insert combination. Specify: 165A4-WX; 275A4-WX; 166A4-WX; 276A4-WX.
- N5. Also available with 200ECS jacket seal included. Add - "S" suffix to catalog number.
- N6. Rated for single-phase applications only.
- N7. Equipped with insulated cuff.
- N8. Includes internal torquing feature using 200AT Assembly Tool.
- N9. Also available without probe. Specify "A" suffix - Example: 273DRGA.
- N10. Repair elbow has extended length contact and elbow housing resulting in a net gain of 3/4" in length.
- N11. Replacement elbow has extended-length contact and elbow housing resulting in a net gain of 8/4" in length.
- N12. Rated for 25kV thru 35kV applications.
- N13. Includes long bi-metal contact 00400X.
- N14. 160CA Cable Size Adapter can only be used with elbow part numbers 165LR/166LR C size only.
- N16. Fully rotatable for 360° positioning. Includes bail assembly to secure feed-thru insert to bushing well.
- N17. Includes 02800X bi-metal contact.
- N18. Includes 02509X long bi-metal contact.
- N19. Includes built-in jacket seal. Also available as housing only — specify: 165BLRJS-W, 166BLRJS-W, 275BLRJS-W or 276BLRJS-W. Also available as elbow/insert combination — specify: 165JSA4-W5X, 166JSA4-W5X, 275JSA4-W5X or 276JSA4-W5X.
- N20. Includes a black vent ring.
- N21. Direct Test Connectors, along with a 200TC-X series meter adapter, a properly rated voltage meter and Hot-line Stick provide a means for direct conductor voltage testing.
- N22. With stainless steel bracket.
- N23. Test Point Cap catalog number 156-7

Refer to the **W** and **X** tables on **page H-45** for sizing to cable insulation diameter and conductor size. For cable shield adapters and jacket seals, see **page H-37**.

200-Amp Loadbreak Elbows

200-Amp Loadbreak Connectors and Accessories (continued)

Ratings Overview

See **page H-2** for complete information, including switching and fault close ratings.

Current Ratings

200A Continuous
10kA sym. 10 Cycles

Voltage Ratings

15kV Class

8.3kV Phase-to-Ground
14.4kV Phase-to-Phase
95kV BIL
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53kV DC Withstand
11kV Corona Extinction

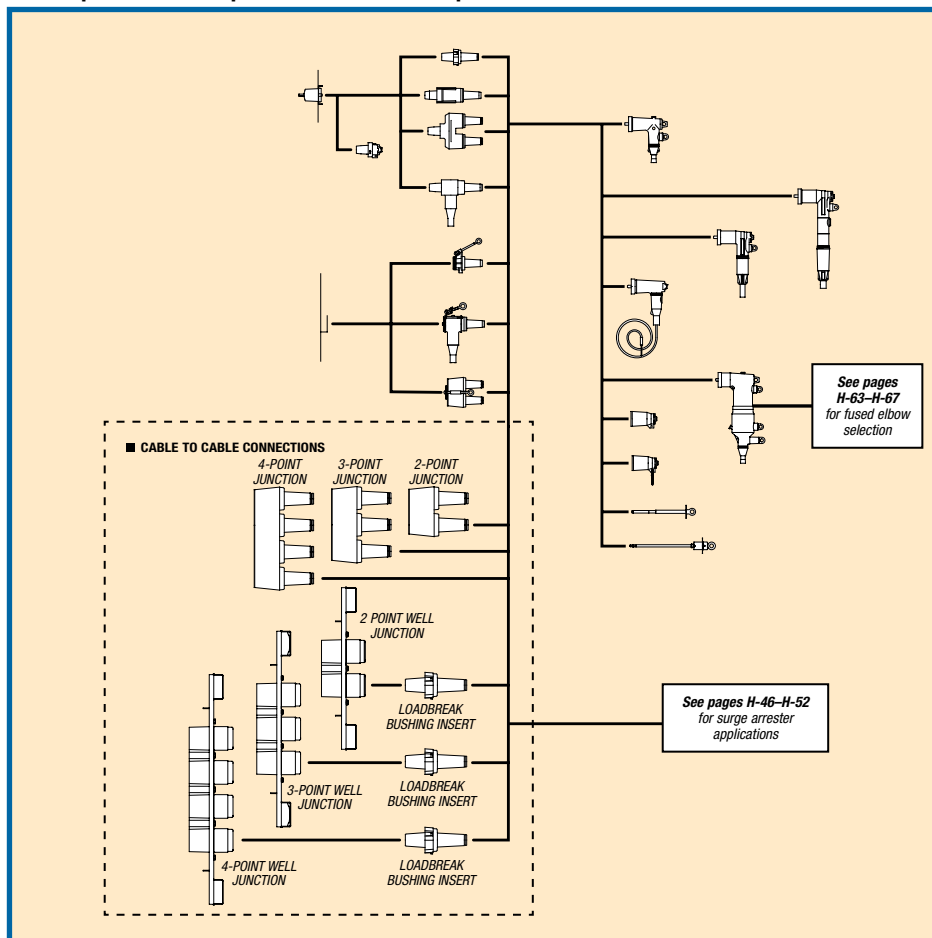
25kV Class

15.2kV Phase-to-Ground
26.3kV Phase-to-Phase
125kV BIL
40kV AC Withstand
78kV DC Withstand
19kV Corona Extinction

35kV Class

21.1kV Phase-to-Ground
36.6kV Phase-to-Phase
150kV BIL
50kV AC Withstand
103kV DC Withstand
26kV Corona Extinction

200-Amp Loadbreak Separable Connector Components



200-Amp Loadbreak Elbows

ILLUSTRATION (NOT TO SCALE)	DESCRIPTION	VOLTAGE CLASS	CAT. NO.	NOTES
	Contacts:		Use Table X1	
	LR Long Bi-Metal	All	02500X	
	ELR Bi-Metal	15/25kV	02509X	N1
	LR Copper	All	02702X	N2
	LRT Contact	15kV	02800X	
	RLR Contact	15/25kV	00400X	N3
	Elbow Probe	15kV	166LRF	
		25kV	274LRF	
		35kV	375LRF	
	Elbow Cable Entrance Insulating Plug	All	10EP-W Use Table W6	
	Cable Size Adapter	15kV	160CA-W Use Table W6 EB-FA Only	N4
	Direct Voltage Test Meter Adapter for:	All	200TC-1	N14
	HD Electric Meters			
	Ross Meters		200TC-2	N14
	Chance Meters		200TC-4	N14
	2-Way Well Junction w/ S.S. Bracket	15/25kV	K1601WJ2	N6
	2-Way Well Junction w/ "U" Straps	15/25kV	K1601WJ2-5	N5, 6, 11
	3-Way Well Junction w/ S.S. Bracket	15/25kV	K1601WJ3	N6
	3-Way Well Junction w/ "U" Straps	15/25kV	K1601WJ3-5	N5, 6, 12
	4-Way Well Junction w/ S.S. Bracket	15/25kV	K1601WJ4	N6
	4-Way Well Junction w/ "U" Straps	15/25kV	K1601WJ4-5	N5, 6, 13
	2-Point Junction with Stainless Steel Bracket	15kV	164J2	N7
		25kV	274J2	N7
		35kV	373J2	N7
	2-Point Junction w/"U" Straps	15kV	164J2-5	N5, 8
		25kV	274J2-5	N5, 11
		35kV	373J2-5	N5, 11
	3-Point Junction with Stainless Steel Bracket	15kV	164J3	N7
		25kV	274J3	N7
		35kV	373J3	N7
	3-Point Junction w/"U" Straps	15kV	164J3-5	N5, 9
		25kV	274J3-5	N5, 12
		35kV	373J3-5	N5, 12
	4-Point Junction with Stainless Steel Bracket	15kV	164J4	N7
		25kV	274J4	N7
		35kV	373J4	N7
	4-Point Junction w/"U" Straps	15kV	164J4-5	N5, 10
		25kV	274J4-5	N5, 13
		35kV	373J4-5	N5, 13

- N1. Repair elbow has extended-length contact and elbow housing resulting in a net gain of 3/4" in length.
- N2. Copper lug for use on COPPER CONDUCTOR ONLY.
- N3. Replacement elbow has extended-length contact and elbow housing resulting in a net gain of 8 7/8" in length.
- N4. 160CA Cable Size Adapter can only be used with elbow catalog numbers 165LR/166LR C size only.
- N5. Also available as rubber only, without straps. Specify suffix "-4" in place of "-5" in the catalog number.
- N6. Supplied with replaceable stud. Replacement stud available separately. Specify 1000-150.
- N7. Hardware packages, consisting of brackets and straps only, may be ordered separately by specifying "-6" in the catalog number. Example 164J4-6.
- N8. Hardware package, consists of "U" straps and back plate only, may be ordered separately by specifying 1601US-J2.
- N9. Hardware package, consists of "U" straps and back plate only, may be ordered separately by specifying 1601US-J3.
- N10. Hardware package, consists of "U" straps and back plate only, may be ordered separately by specifying 1601US-J4.
- N11. Hardware package, consists of "U" straps and back plate only, may be ordered separately by specifying 271-68.
- N12. Hardware package, consists of "U" straps and back plate only, may be ordered separately by specifying 271-61.
- N13. Hardware package, consists of "U" straps and back plate only, may be ordered separately by specifying 271-70.
- N14. For use with Direct Test Connectors.

Refer to the **W** and **X** tables on **page H-45** for sizing to cable insulation diameter and conductor size. For cable shield adapters and jacket seals, see **page H-37**.