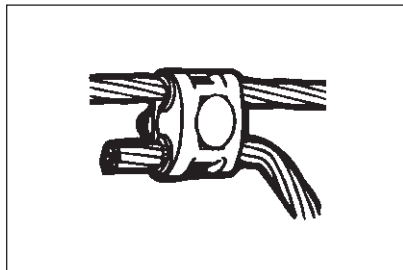


Blackburn®

Parallel Groove Connectors

Type PAA—One and Two-Bolt Aluminum Parallel Groove Clamps



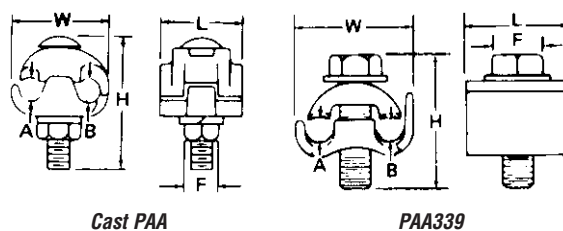
- For use on copper, aluminum and ACSR conductors
- Order pre-filled with oxide inhibitor for use on copper to aluminum
- Clamps are high-strength, heat treated cast aluminum alloy
- Galvanized steel carriage bolt, nut and lockwasher are standard; for hex head bolts add suffix 3
- PAA339 is extruded aluminum alloy, furnished with hex head bolt

Cat. No.		Conductor Range				Conductor Diameter				Dimensions (in.)				Bolt Size
		Main		Tap		Main		Tap						
Standard	Prefilled	ACSR	AL/CU	ACSR	AL/CU	max.	min.	max.	min.					
	PAA29	2—6	2 str.—6 sol.	2—6	2 str.—6 sol.	.316	.162	.316	.162	⅝	1⅜	1⅜	1⅝	⅝
	PAA339	1/0—6	1/0 str.—6 sol.	1/0—6	1/0 str.—6 sol.	.398	.162	.398	.162	⅝	1⅞	1⅜	1½	⅝
PAA4	PAA49	1/0—6	1/0 str.—6 sol.	1/0—6	1/0 str.—6 sol.	.398	.162	.398	.162	⅝	2⅝	1⅞	1½	⅝
PAA5	PAA59	1/0—8	1/0 str.—8 sol.	1/0—8	1/0 str.—8 sol.	.398	.128	.398	.128	⅝	2⅝	1⅝	1½	⅝
PAA6	PAA69	1/0—8	2/0 str.—8 sol.	1/0—8	2/0 str.—8 sol.	.414	.128	.414	.128	⅝	2⅝	1⅝	1⅝	⅝
PAA10†	PAA109	336.4—1/0 1/0—6 AR	400—1/0 str. 1/0—6 AR	1/0—8	1/0 str.—8 sol.	.741	.368	.398	.128	⅝	2⅝	2	1¼	⅝
PAA12	PAA129	4/0—2	4/0 str.—2 sol.	4/0—2	4/0 str.—2 sol.	.563	.258	.563	.258	¾	2¼	2	2	½
PAA400*	PAA4009*	336.4—1/0 1/0—6 AR	400—1/0 str. 1/0—6 AR	336.4—1/0	400—1/0 str.	.741	.368	.741	.368	¾	3¼	3¼	2½	½

* PAA 400 and 4009 are two bolt clamps.

AR = Over armor rod

† RUS Listed.



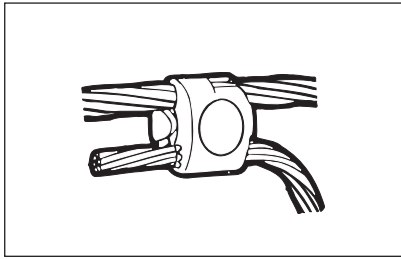
Cast PAA

PAA339

Blackburn®

Parallel Groove Connectors

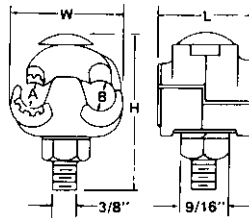
Type PAC—Aluminum Parallel Groove Clamps with Cast Copper Liner



- Aluminum body cast around pronged copper liner effectively seals out moisture
- Corrosion resistant; copper conductor is in contact with copper aluminum conductor surrounded by aluminum; clamp provides wide physical separation of conductors reducing possibility of galvanic corrosion; aluminum bodies are pressure cast of corrosion resistant alloy; steel bolt and lockwasher are galvanized, and the nut is nickel plated
- One piece construction; no loose parts to assemble during installation; copper inserts always face each other; carriage bolts Furnished standard
- For hex head bolt add suffix 3

Cat. No.		Conductor Range			Conductor Diameter		Dimensions (in.)		
Standard	Prefilled	Main	AL	Tap Copper	Main	Tap	H	W	L
PAC345 [†]	PAC3459	1/0—8	1/0 str.—8 sol.	1/0 str.—8 sol.	.398-.128	.373-.128	2 ⁷ / ₃₂	1 ¹⁷ / ₃₂	1 ¹ / ₄
PAC7 [†]	PAC79	336.4—1/0 1/0—6 AR	400—2/0 str. 1/0—6 AR	1/0 str.—8 sol.	.741-.398	.373-.128	2 ¹⁵ / ₃₂	1 ⁵ / ₈	1 ¹ / ₆

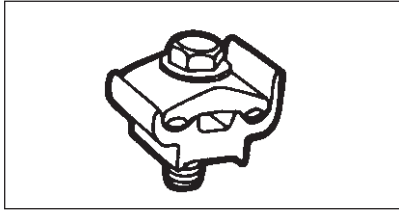
[†] RUS Listed.



Blackburn®

Parallel Groove Connectors

Type PAE—Parallel Groove Clamps, Extruded Type



- Extruded parallel groove clamps for use on aluminum to aluminum or aluminum to copper connections with oxide inhibitor
- Tin plating (-P) or wax dip (-6) must be specified for without oxide inhibitor filled connectors
- Standard PAE clamp is supplied with contax (-9) and galvanized steel hardware

- All connectors can be installed with live line tools
 - Options:
 - 7 Aluminum hardware
 - P Tin plating
 - 6 Wax dip for oxide protection
- Example: Cat. Number for PAE 2121 with Contax and aluminum hardware is PAE-2121-79

Cat. No.	Conductor Range		Conductor Diameter (in.)		Fig.	Dimensions (in.)						Galvanized Steel Bolt Thd. Size.	Aluminum Bolt Thd. Size.
	Main	Tap	Main max. min.	Tap max. min.		H	W	L	F	B	A		
PAE-2121-9†	2/0 ACSR—6 sol. 6 AR	2/0 ACSR—6 sol. 6 AR	.447 .162	.447 .162	1	2	1 1/8	1 1/8	3/16	7/8	—	3/8—16 UNC	3/8—16 UNC
PAE-4141-9†	4/0 ACSR—2 sol. 4-6 AR	4/0 ACSR—2 sol. 4-6 AR	.563 .258	.563 .258	1	2	2	1 1/8	3/16	7/8	—	3/8—16 UNC	3/8—16 UNC
PAE-3921-9-2	397.5 ACSR—3/0 str. 2/0—6 AR	2/0 str.—6 sol. 6 AR	.743 .464	.414 .162	2	2 5/16	2 1/4	1 1/8	3/4	1 1/8	—	1/2—13 UNC	1/2—13 UNC
PAE-9941-9	1000 KCMIL—397.5 ACSR 336.4—2/0 AR	4/0 ACSR—2 sol. 4-6 AR	1.152 .743	.563 .258	3	2 13/16	2 59/64	2 1/4	3/4	—	—	1/2—13 UNC	1/2—13 UNC
PAE-3931-9-2	397.5 ACSR—3/0 str. 2/0—6 AR	3/0 ACSR—2 str. 6 AR	.743 .464	.502 .292	4	2 5/16	2 5/16	3 3/8	3/4	—	1 1/4	1/2—13 UNC	1/2—13 UNC
PAE-3939-9-2	397.5 ACSR—3/0 str. 2/0—6 AR	397.5 ACSR—3/0 str. 2/0—6 AR	.743 .464	.743 .464	5	2 5/16	2 5/16	3 3/8	3/4	—	1 1/8	1/2—13 UNC	3/8—11 UNC
PAE-9921-9	1000 KCMIL—397.5 ACSR 336.4—2/0 AR	2/0 str.—6 sol. 6 AR	1.152 .743	.414 .162	3	2 13/16	2 3/16	2 1/4	3/4	—	—	1/2—13 UNC	3/8—11 UNC
PAE-9939-9	1000 KCMIL—397.5 ACSR 336.4—2/0 AR	397.5 ACSR—3/0 str. 2/0—6 AR	1.152 .743	.743 .464	4	2 5/16	3 3/64	3 1/2	3/4	—	1 1/2	1/2—13 UNC	3/8—11 UNC
PAE-9999-9	1000 KCMIL—397.5 ACSR 336.4—2/0 AR	1000 KCMIL—397.5 ACSR 336.4—2/0 AR	1.152 .743	1.152 .743	6	2 13/16	3 1/2	6	3/4	—	2	1/2—13 UNC	3/8—11 UNC

† RUS Listed.

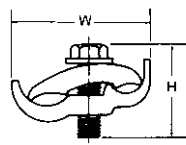
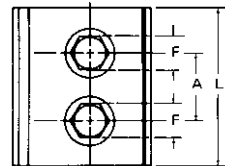
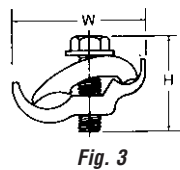
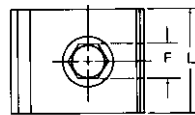
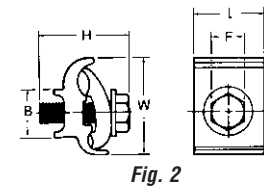
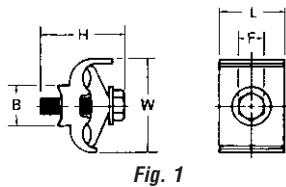


Fig. 4

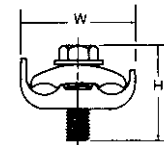
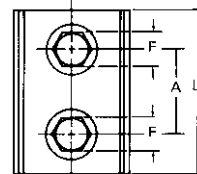


Fig. 5

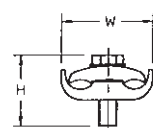
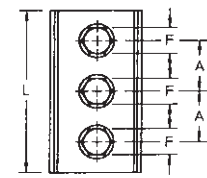
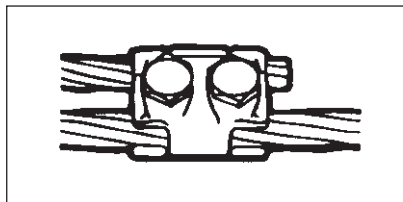


Fig. 6

Blackburn®

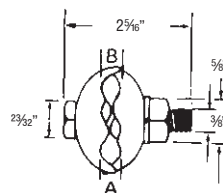
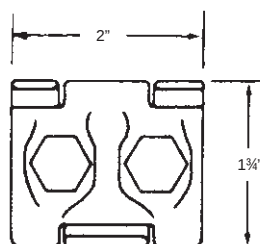
Parallel Groove Connectors

Type PC—Two-Bolt Parallel Groove Clamp



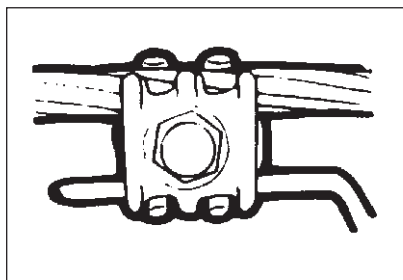
- A copper alloy parallel groove clamp; hex head bolts with square shank of silicon bronze, spring washers also of silicon bronze
- Square shank bolts prevent turning while tightening
- Contour of casting permits use of socket wrench if desired
- Large contact area increases conductance
- No special tools required
- Not recommended for aluminum conductor

Cat. No.	Conductor Range AWG or KCMIL				Conductor Diameter (in.)			
	Main		Tap		A		B	
	max.	min.	max.	min.	max.	min.	max.	min.
PC250	250 str.	4 sol.	250 str.	4 sol.	.575	.204	.575	.204



Blackburn®

Parallel Groove Connectors



- Cast of high strength copper alloy
- Furnished with silicon bronze hex washer head bolt
- Parallel groove design; no need to remove bolt for installation
- Only one size for all requirements from No. 8 solid copper to 1/0 ACSR or 2/0 copper
- Available plated, unplated or with plating in one groove

Type K—Jumper Clamps

Cat. No.	Plated Groove		Copper Groove	
	Max.	Min.	Max.	Min.
K1	1/0 ACSR 2 SCG amerductor 7/16 galv. strand	6 ACSR 12SCG amerductor 8 solid iron	2/0 str. copper 7/16 Copperweld* 2A Copperweld*	8 solid copper 9-12D Copperweld* etc.

Plated with plating removed from one groove. For use with aluminum, amerductor, or galvanized steel strand to copper or copper bonded steel wires.

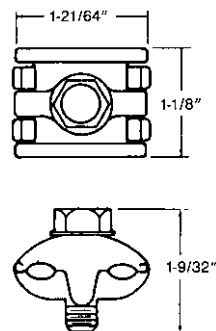
Cat. No.	Either Groove	
	Max.	Min.
K2	1/0 ACSR 2 SCG amerductor 7/16 galvanized steel strand	6 ACSR 12 SCG amerductor 8 solid iron

Clamp plated. For use with amerductor, aluminum, or galvanized steel stranding.

Cat. No.	Either Groove	
	Max.	Min.
K3	2/0 str. copper 7/16 copperweld* 2A copperweld*	8 solid copper 9 1/2D copperweld* etc.

Clamp, not plated. For copper to copper connections.

* Trademark of Copperweld.

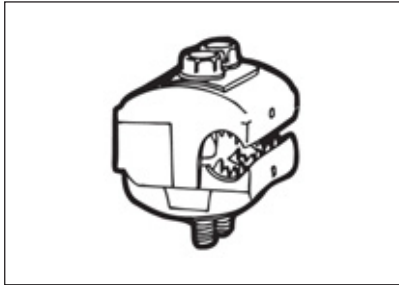


Blackburn®

Insulated Conductor Connectors



MECHANICAL CONNECTORS



- Performs as a splice or tap for non-tension applications up to 600 Volts depending on the size of the connector
- Eliminates need for conductor insulation stripping
- Self-insulated for hot line applications
- No taping required after installation
- For copper to copper, copper to aluminum and aluminum to aluminum applications
- U.L. 486B Listed AL9CU (90°C rated)
- For use on insulated conductor only
- Six connector line covers the range from #10-500 KCMIL

Type IPC—Talon™ Insulation Piercing Connectors

Cat. No.	AL or CU Conductor Range AWG/mm ²		No. Bolts	Fig	Dimensions (in.)		
	Main	Tap			W	H	L
IPC1102*	1/0—8	2—8	1	1	2 ³ / ₁₆	2	1 ¹⁷ / ₃₂
	50—6	35—6					
IPC4111	4/0—1/0	1/0—6	2	2	2 ¹ / ₂	3	1 ¹⁹ / ₃₂
	95—50	50—16					
IPC4141	4/0—1/0	4/0—1/0	2	2	2 ⁵ / ₈	3 ¹ / ₄	1 ²⁹ / ₃₂
	95—50	95—50					
IPC5041*	500—350	4/0—4	1	1	2	2 ¹ / ₂	2 ¹ / ₈
	240—185	90—25					
IPC3535	350—4/0	350—4/0	2	2	2 ¹ / ₁₆	2 ¹ / ₂	2 ¹ / ₈
	185—95	185—95					
IPC3541	350—4/0	4/0—10	1	1	2 ³ / ₄	3	2 ⁵ / ₈
	185—95	95—6					

* 600 Volt Rating (All others 300 Volt).

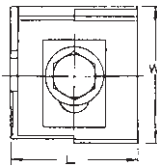


Fig. 1

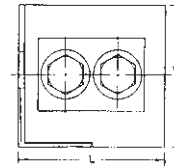
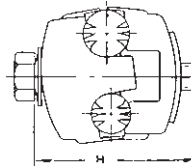
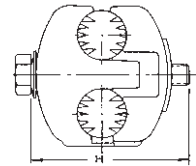
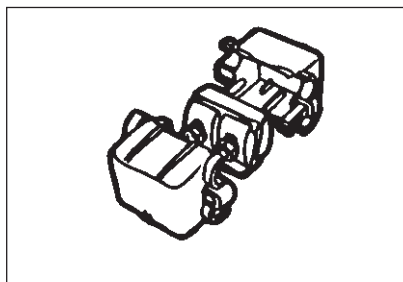


Fig. 2



Blackburn®

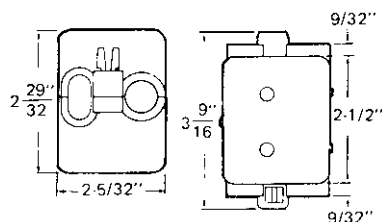
Insulated Conductor Connectors



- Takes up to 4 taps; taps may be added later without interrupting service or removing cover
- Stainless steel hardware may be tightened with $\frac{9}{16}$ " wrench or with hexagonal Allen wrench, provided with each standard package
- Impact resistant cover and clamp clearly marked with easy to read cable ranges
- Extended insulating shields make cable stripping easier
- Prefilled with Blackburn Contax

Type PT—Insulated Phase Line Connectors

Cat. No.	Number of Taps	Conductor Range			
		Main		Tap	
		AWG	ACSR	AWG	ACSR
PT49	4	4/0 str.—2 str.	2/0—2	1/0 str.—6 sol.	2-6



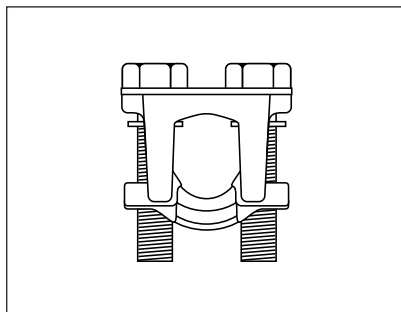
Blackburn®

Two-Bolt Connectors



MECHANICAL CONNECTORS

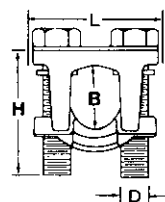
Type 2B—Two-Bolt Connector without Spacer



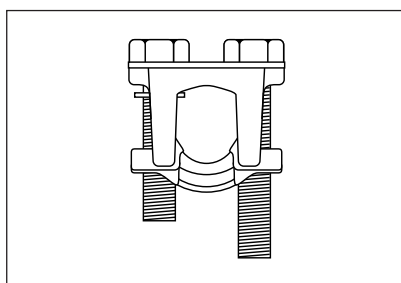
- Castings and bolts of high-strength copper alloy
- Cap is removable; neoprene washers capture each bolt in bottom casting, aiding installation
- U.L. 486A Listed for copper conductor only

Cat. No.	Conductor Range (AWG or KCMIL)				Conductor Diameter (B)		Bolt Head	Dimensions (in.)		
	Main		Tap		max.	min.		L	H	D
2B10	1/0 str.	2 str.	1/0 str.	10 sol.	.746	.394	1/2	1 5/16	1 3/4	5/16
2B20BB	2/0 str.	2 str.	2/0 str.	8 sol.	.838	.420	1/2	1 5/16	1 1/4	5/16
2B40	4/0 str.	1/0 str.	4/0 str.	6 sol.	1.056	.530	9/16	1 23/32	1 3/4	3/8
2B350	350 KCMIL	4/0 str.	350 KCMIL	4 sol.	1.362	.726	3/4	2 1/8	2	1/2
2B500	500 KCMIL	350 KCMIL	500 KCMIL	4 sol.	1.626	.883	3/4	2 1/4	2 1/2	1/2
2B800	800 KCMIL	600 KCMIL	800 KCMIL	2 sol.	2.062	1.149	3/4	2 1/2	2 1/2	1/2
2B1000	1000 KCMIL	750 KCMIL	1000 KCMIL	2 sol.	2.304	1.255	15/16	2 31/32	2 3/4	5/8

U.L. 486A



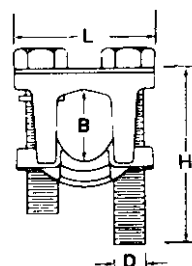
Type 2BX—One-Piece Two-Bolt Connector without Spacer



- Castings and bolts of high-strength copper alloy
- One piece construction
- Free bolt is held in place with neoprene washer during installation
- One extra length bolt allows top casting to swing free over two conductors of maximum range
- U.L. 486A Listed for copper conductor only

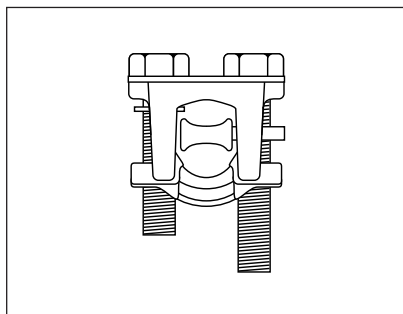
Cat. No.	Conductor Range (AWG or KCMIL)				Conductor Diameter (B)		Bolt Head	Dimensions (in.)		
	Main		Tap		max.	min.		L	H	D
2B10X	1/0 str.	2 str.	1/0 str.	10 sol.	.746	.394	1/2	1 5/16	1 1/2	5/16
2B20X	2/0 str.	2 str.	2/0 str.	8 sol.	.838	.420	1/2	1 5/16	1 1/2	5/16
2B40X	4/0 str.	1/0 str.	4/0 str.	6 sol.	1.056	.530	9/16	1 23/32	1 7/8	3/8
2B350X	350 KCMIL	4/0 str.	350 KCMIL	4 sol.	1.362	.726	3/4	2 1/8	2 1/4	1/2
2B500X	500 KCMIL	350 KCMIL	500 KCMIL	4 sol.	1.626	.883	3/4	2 1/4	2 1/2	1/2
2B800X	800 KCMIL	600 KCMIL	800 KCMIL	2 sol.	2.062	1.149	3/4	2 1/2	2 3/4	1/2
2B1000X	1000 KCMIL	750 KCMIL	1000 KCMIL	2 sol.	2.304	1.255	15/16	2 31/32	3 1/4	5/8

U.L. 486A



Blackburn®

Two-Bolt Connectors

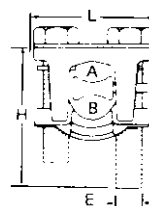


- U.L. 486A Listed for copper conductor only
- For use on copper conductors only
- Castings and bolts of high-strength copper alloy; spacer of ductile, high-conductivity copper alloy
- One-piece construction; contoured spacer is ringed and swings easily over the conductor

Type 2BW—One-Piece Two-Bolt Connector with Spacer



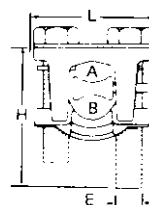
Cat. No.	Conductor Range (AWG or KCMIL)				Conductor Diameter				Bolt Head	Dimensions		
	Main		Tap		A		B			L	H	E
	max.	min.	max.	min.	max.	min.	max.	min.				
2B10W	1/0 str.	2 str.	1/0 str.	10 sol.	.373	.292	.373	.102	½	1⅝	1⅞	⅝
2B20W	2/0 str.	2 str.	2/0 str.	8 sol.	.419	.292	.419	.128	½	1⅞	1⅞	⅝
2B40W	4/0 str.	1/0 str.	4/0 str.	6 sol.	.528	.368	.528	.162	⅞	1⅞ ₃₂	2⅞	⅜
2B350W	350 KCMIL	4/0 str.	350 KCMIL	4 sol.	.681	.522	.681	.204	¾	2⅞	2½	½
2B500W	500 KCMIL	350 KCMIL	500 KCMIL	4 sol.	.813	.679	.813	.204	¾	2¼	2¼	½
2B800W	800 KCMIL	600 KCMIL	800 KCMIL	2 sol.	1.031	.891	1.031	.258	¾	2½	3¼	½
2B1000W	1000 KCMIL	750 KCMIL	1000 KCMIL	2 sol.	1.152	.997	1.152	.258	⅞	2⅞ ₃₂	3¾	⅝



Type 2BPW—One-Piece Two-Bolt Connector with Spacer



Cat. No.	Conductor Range (AWG or KCMIL)				Conductor Dia.				Bolt Head	Dimensions		
	Main		Tap		A		B			L	H	E
	max.	min.	max.	min.	max.	min.	max.	min.				
2B10PW	1/0-2	1/0-6	1/0 str.-2 str.	1/0 str.-2sol.	0.398	0.292	0.398	0.102	1/2	1 1/16	1 5/8	1/16
2B20PW	2/0-2	2/0-6	2/0 str.-2 str.	1/0 str.-2sol.	0.447	0.292	0.447	0.128	1/2	1 5/16	1 5/8	5/16
2B40PW	4/0-1/0	4/0-6	4/0 str.-1/0 str.	4/0 str.-1/0sol.	0.563	0.368	0.563	0.162	9/16	1 23/32	2 1/8	3/8
2B350PW	350-4/0	350-4	350-4/0	350-4 sol.	0.680	0.522	0.680	0.204	3/4	2 1/8	2 1/2	1/2
2B500PW	397.5-336.4	397.5-4	500-350	500-4 sol.	0.813	0.679	0.813	0.204	3/4	2 1/4	2 3/4	1/2
2B800PW	666.6-397.5	666.6-2	800-600	800-2 sol.	1.031	0.891	1.031	0.258	3/4	2 1/2	3 1/4	1/2
2B1000PW	900-666.6	900-2	1000-750	1000-2 sol.	1.162	0.997	1.162	0.258	15/16	2 31/32	3 3/4	5/8



- U.L. 486A Listed for copper conductor only
- For use on copper, aluminum and ACSR conductors