



PREFORMED LINE PRODUCTS
The connection you can count on.

Section 3 - Joining

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Compression Splice - Full Tension



CMSJ

For ACSR Conductors

ACSR Compression Splices are manufactured with an aluminium sleeve and a hot-dipped galvanised steel inner sleeve. These are designed to take the loading equivalent of the conductor. The fitting has tapered ends to reduce both compression at this point and minimise corona. ACSR Splices are clearly marked with the area for compression on both inner steel sleeve and the outer aluminium splice body. Each fitting is stamped with the conductor stranding and size, plus the recommended compression die A/F size. The table of fittings as shown suits Australian Standard ACSR conductors.

Part Number	Conductor Stranding	A/F Steel	A/F Alum.
CMSJ-075-X	3/4/2.50 or 6/1/2.75		18
CMSJ-090-X	4/3/3.00		18
CMSJ-113-4	6/1/3.75	9.5	18
CMSJ-143-2	6/4.75+7/1.60	9.5	22
CMSJ-143-X	6/4.75+7/1.60		21
CMSJ-146	7/4.39+7/1.93	9.5	21
CMSJ-159	26/2.54+7/1.90	11	28.5
CMSJ-165-8	30/7/1.093"	13	28.5
CMSJ-175	30/7/2.50	16	28.5
CMSJ-175-2	30/7/2.50	16	34.5
CMSJ-181	30/7/2.59	16	28.5
CMSJ-195	30/7/2.79	6	34.5
CMSJ-199	26/3.14+7/2.44	16	34.5
CMSJ-210-1	30/7/3.00	17	34.5
CMSJ-210-6	18/19/3.00	28	44.5
CMSJ-219	26/3.45+7/2.68	19	31.5
CMSJ-227	30/7/3.25	19	34.5
CMSJ-233	12/7/4.65	26	41
CMSJ-235	30/7/3.35	19	40
CMSJ-245	30/7/3.50	19	40
CMSJ-250	48/3.00+2.33	17.3	34
CMSJ-260	30/7/3.71	19	40
CMSJ-270-1	54/7/3.00	17	44.5
CMSJ-270-2	54/7/3.00	17	44.5
CMSJ-286	54/7/3.18	19	41
CMSJ-293	54/7/3.25	19	44.5
CMSJ-300-1	54/7/3.35	19	44.5
CMSJ-301-T	36/1/4.30	10.4	44
CMSJ-315-1	54/7/3.50	19	47.5
CMSJ-324-1	42/2.72+19/2.59	26	47.5
CMSJ-338-1	54/3.75+19/2.25	26	47.5
CMSJ-342-1	45/4.27+7/2.85	20	47.5
CMSJ-362-1	54/4.02+19/2.41	20.5	50
CMSJ-488-2	84/4.44+19/2.66	21.5	64.4

Note: -X denotes a single piece fitting.

For other sizes or international standard conductors, please contact PLP.

Compression Splice - Full Tension



CMSA & CMSAAAC

For AAAC, AAC Conductors

Single piece fittings for AAC and AAAC conductors. Designed and manufactured to meet Australian Standards, each fitting is stamped according to conductor stranding size and the recommended compression die A/F size.

Part Number		Conductor Stranding	A/F Alum.
AAC	AAAC		
CMSA-090		7/3.00	17.3
CMSA-102	CMSAAAC-102-FT	7/3.40	18
CMSA-113	CMSAAAC-113	7/3.75	18
CMSA-135	CMSAAAC-135	7/4.50	21
	CMSAAAC-140-1	7/4.65	19
CMSA-143		7/4.75	21
	CMSAAAC-143-1	7/4.75	22
CMSA-163	CMSAAAC-163-2	19/3.25	28.5
CMSA-188		19/3.75	28.5
	CMSAAAC-188-1	19/3.75	30
CMSA-210	CMSAAAC-210-1	37/3.00	34.5
CMSA-211-FT		19/4.22	34.5
CMSA-228	CMSAAAC-228-1	37/3.25	34.5
CMSA-238-3		19/4.75	44.2
	CMSAAAC-238-1	19/4.75	40
	CMSAAAC-245-1	37/3.50	40
CMSA-263-3	CMSAAAC-263-1	37/3.75	40
	CMSAAAC-270	61/3.00	40
CMSA-293	CMSAAAC-293	61/3.25	44.5
	CMSAAAC-315	61/3.50	48
	CMSAAAC-338-1	61/3.75	47.5
CMSA-368-2		61/4.09	52.5
	CMSAAAC-413-2	91/3.76	58.5
	CMSAAAC-450-2	91/.161"	62

Note: For other sizes or international standard conductors, please contact PLP.



CMS

For SC/AC and SC/GZ

Made from 304 stainless steel, these are single piece fittings for SC/AC and SC/GZ conductors. Designed and manufactured to meet Australian Standards, each fitting is stamped according to conductor stranding size and the recommended compression die A/F size.

Part Number	Conductor Stranding	A/F Steel
CMS-083-1	7/2.75	17
CMS-098-1	7/3.25	17
CMS-105-1	19/2.00	19
CMS-113-1	7/3.75	19
CMS-128-2	7/4.25	19

Compression Splice - Non Tension



CMSA

For ACSR, AAAC, AAC Conductors

This is a single piece design manufactured in aluminium. Crimp area is clearly identified and each fitting is stamped with the manufacturer's name, the size and recommended compression die A/F size.

Part Number	Conductor Stranding	A/F Alum.
CMSA-075-NT	3/4/2.50	18
CMSA-090-NT	4/3/3.00	18
CMSA-113-NT	6/1/3.75	18
CMSA-135-NT	7/4.50	21
CMSA-143-NT	7/4.75	22
CMSA-163-NT	19/3.25	28.5
CMSA-175-NT	37/2.50	28.5
CMSA-188-NT	19/3.75	28.5
CMSA-210-NT	37/3.00	34.5
CMSA-238-NT	19/4.75	40
CMSA-263-NT	37/3.75	40
CMSA-293-NT	61/3.25	44.5
CMSA-338-NT	61/3.75	47.5

Shunt Splice



ARSS

For ACSR, AAAC, AAC Conductors

Any electrical connections or splices that exist on overhead electrical power lines are subject to possible degradation over long periods of time in service. The causes for the possible degradation can include inadequate or aging inhibitor, material creep, inadequate cleaning or improper installation. The result is generally an increase of electrical resistance which produces excessive heat. Over time the excessive heat further degrades the connection until ultimately a failure (electrical and/or mechanical) occurs.

PREFORMED™ Aluminium Splice Shunts have been designed to restore the electrical and mechanical integrity of compression splices and the electrical integrity of Dead-ends that have been found in a deteriorating state, either high temperature or high resistance. The shunt is designed so that the electrical conductivity of the complete set of rods is slightly greater than the conductivity of the conductor on which it is being installed. This means that shunt can electrically replace all of the aluminium strands of the conductor, and the resulting resistance of the Compression Splice. As a result of the decreased resistance and the increase in aluminium mass and surface area, the temperature of the Splice/Shunt combination will be much lower than the conductor.

Because of the overall length of the shunt and the use of conductive grit on the inner bore of the rods, the shunt is designed to hold between 50% and 65% of the rated breaking strength of the conductor. This means that even if overheating has reduced the strength of or even melted some of the aluminium strands of the conductor, the shunt will restore much of the mechanical integrity.

Part Number	Conductor Stranding	Colour Code
ARSS-075	3/4/2.50	Blue
ARSS-113	7/3.75	Black
ARSS-132	8/3.60/7/2.00	Purple
ARSS-210-2	37/3.00	Red
ARSS-260	30/7/3.71	Black
ARSS-270-2	54/7/3.00	Red
ARSS-286	54/7/3.18	Orange
ARSS-315-2	54/7/3.50	Purple

