



ELECTRICAL
MECHANICAL
INSULATION

GANUSA
EMI



Medium Voltage
Crosslinked Polyolefin
Shapes

CCBA/CRSA/CRBA/CIBA



CCBA/CRSA/CRBA/CIBA

CCBA anti-track cable break out boots seal and protect cable and conduit breakouts

CRSA anti-track rain skirts reduce flash over potential in terminations and insulators

CRBA anti-track right angle boots seal and protect right angle terminations

CIBA anti-track in-line boots seal and protect single legged step down transitions

Features

- Designed for Medium Voltage Applications to 36kV
- Shaped components to meet a variety of configuration requirements
- Meets ESI 09-13
- Continuous operating temperature: -55°C to 120°C
- Shrink temperature: 120°C



Technical Data

Physical

Property	Test Method	Typical Performance
Tensile Strength	ASTM D412	2600 psi (18 MPa)
Elongation	ASTM D412	600%
Heat Aging (500hrs. at 120°C)		
Tensile Strength	ASTM D412	2200 psi (15.2 MPa)
Elongation	ASTM D412	400%
Low Temperature Flexibility (-40°C)	ASTM D2671	No cracking
Flammability	ASTM D635	Non Burning Classification
Weatherometer	ASTM G-53	
Tensile	ASTM D412	2000 psi (13.8 MPa)
Elongation	ASTM D412	600%
Dielectric Strength	ASTM D412	375 V/mil (15 kV/mm)
Tracking Resistance	ASTM D2303	Non-Tracking

Electrical

Dielectric Strength	ASTM D149, IEC 243	400 V/mil (16 kV/mm)
Volume Resistivity	STM D257	1.9x10 ¹⁶ ohm-cm
Track Resistance	ASTM D2303	Non-Tracking

Chemical

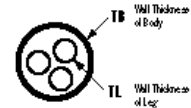
Chemical Resistance		
Tensile Strength	ASTM D412	1900 psi (13 MPa)
Elongation	ASTM D412	640%

Dimensions

CCBA Anti Track Break Out Boots

ORDER REF. NO. METRIC IMPERIAL	LEGS	EXPANDED				RECOVERED										
		DIAMETER (MIN)		DIAMETER (MAX)		DIAMETER (MAX)		LENGTH (NOM)		WALL THICKNESS OF BODY (NOM)		WALL THICKNESS OF LEG (NOM)				
XXX	YYY	mm	d	INCH	mm	d	INCH	mm	d	INCH	mm	d	INCH	mm	d	INCH
055	220	3	55.8	2.20	30.4	1.20	23.5	0.92	9.5	0.37	180	7.09	3.0	0.12	2.0	0.08
090	350	3	90.0	3.54	35.0	1.38	35.5	1.39	14.5	0.57	200	7.87	3.0	0.12	2.0	0.08
110	430	3	110.0	4.33	40.0	1.57	35.5	1.39	18.0	0.70	230	9.06	4.0	0.16	3.0	0.12
120	470	3	120.0	4.72	60.0	2.36	61.0	2.40	26.0	1.02	300	11.81	4.0	0.16	3.0	0.12

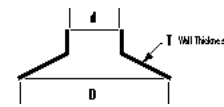
CCBA



CRSA Anti-Track Rain Shirts

ORDER REF. NO. METRIC IMPERIAL	XXX	YYY	EXPANDED				RECOVERED							
			DIAMETER (MIN)		DIAMETER (MAX)		DIAMETER (MAX)		WALL THICKNESS (NOM)					
			mm	d	IN	mm	d	IN	mm	d	IN	mm	d	IN
044		170	44	1.73		95	3.74		15	0.59		3.0	0.12	
058		230	58	2.28		115	4.52		22	0.86		3.0	0.12	
076		300	76	2.99		135	5.31		31	1.22		3.0	0.12	

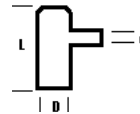
CRSA



CIBA / CRBA Anti-Track Inline and Right Angle Boots

ORDER REF. NO. METRIC IMPERIAL	XXX	YYY	EXPANDED				RECOVERED									
			DIAMETER (MIN)		DIAMETER (MAX)		DIAMETER (MAX)		LENGTH (NOM)							
			mm	d	IN	mm	d	IN	mm	d	IN	mm	d	IN		
CIBA-085		CIBA-335	85.0	3.34		45.0	1.77		41.5	1.63		21.0	0.82		240	9.4
CRBA-085-L		CRBA-335-L	85.0	3.34		45.0	1.77		43.0	1.69		21.0	0.82		183	7.2
CRBA-085-S		CRBA-335-S	85.0	3.34		45.0	1.77		40.0	1.57		16.5	0.64		145	5.7

CRBA



CIBA



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CANUSA-EMI is a global company providing electrical and mechanical insulation solutions for a variety of industries and applications. Starting from products created by extensive developmental research at Shaw Industries (incorporated 1955), CANUSA-EMI is a recognized world leader in the provisioning of high quality heat shrink products.

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Ordering

Select a dimension which will shrink snugly over the component to be covered. If recovery is restricted the resultant wall thickness will be less than specified.

To Order in Metric Units:

Order Ref. No.
CCBA-3-XXX-OO-M
Option

Order Ref. No.
CRSA-XXX-OO-M
Option

Order Ref. No.
CRBA-XXX-X-OO-M
Option L or S

Order Ref. No.
CIBA-XXX-OO-M
Option

To Order in Imperial Units:

Order Ref. No.
CCBA-3-YYY-OO-I
Option

Order Ref. No.
CRSA-YYY-OO-I
Option

Order Ref. No.
CRBA-YYY-Y-OO-I
Option L or S

Order Ref. No.
CIBA-YYY-OO-I
Option

Standard Colors (CC)

Order Code	Color
RD	RED

Standards: ES1 09-13

Note: Non standard sizes available subject to factory quotation

Options (OO)

	Lined	Unlined
Unprinted	00	01