3M™ Loadbreak Elbow 215-Series

200-Amp, 95 kV BIL, 15 kV

Data Sheet **July 2021**

Product Description	The 3M™ Loadbreak Elbow 215-Series, 200-Amp, 95kV BIL, 15kV is a fully shielded and insulated plug-in termination which meets the testing criteria outlined in IEEE Standard 386 - "Separable Insulated Connector Systems", IEEE Standard 592 - "Exposed Semi-Conducting Shields" and ANSI Standard C119.4 for Electrical Connectors. This product should be used for connecting underground cables to transformers, switchgear, junctions and other manufacturers products that also conform to IEEE Standard 386, Interface 5. These kits are designed for use on 15kV rated industrial shielded power cables and come with a capacitive test point that can be utilized with a fault circuit indicator in order to determine the presence of voltage when using a high-impedance meter. The instruction sheet included with the kit describe installations for tape shield, flat strap neutral and jacketed concentric neutral types of solid dielectric cables with extruded semi-conductive insulation shields. In addition, these kits are designed for use in ambient temperatures between -40°C and 65°C and can be operated energized between -20°C and 65°C.
Agency Approvals & Self Certifications	Meets the requirements of ANSI/IEEE Standard 386 – "Separable Insulated Connector Systems." For RoHS and REACH information, please visit www.3M.com/regs
Kit Contents	Each 3M Loadbreak Elbow 215-Series kit contains the following materials: • 1 Loadbreak; 200A, 15kV with Test Point • 1 Bi-Metal Compression Lug • 1 Copper Tape strip • 1 3M™ Cold Shrink Jacketing Tube • 1 Ground Braid Assembly • 1 Bleeder Wire (for use on JCN & Flat Strap Cable) • 1 Constant Force Spring • 2 Mastic Sealing Strips • 2 Silicone Lubricants • 1 3M Cable Cleaning Kit CC-2 • 1 Instruction Sheet

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Applications

The 3M™ Loadbreak Elbow 215-Series should be used for connecting underground cables to transformers, switchgear, junctions and other manufacturers products that also conform to IEEE Standard 386, Interface 5.The Loadbreak Elbows are fully shielded, molded rubber to components using peroxide-cured insulating and conductive compounds.

This system is designed to terminate shielded power cables with aluminum or copper conductors ranging in size from #4 AWG to 250 kcmil. It may be installed on any 200 A rated interface that conforms to IEEE Std. 386, Interface 5. The loadbreak elbows accommodate cable insulation diameters from 0.495" - 1.135".

Characteristics

Voltage Ratings

Description	kV
Standard Voltage Class	15
Maximum Rating Phase-to-Ground	8.3
Maximum Rating Phase-to-Phase	14.4
ac 60 Hz 1 Minute Withstand	34
dc 15 Minute Withstand	53
BIL and Full Wave Crest	95
Minimum Corona Voltage Level	11

Voltage ratings and characteristics are in accordance with ANSI/IEEE Standard 386.

Current Ratings

Description (200A, Interface 5)	Amperes
Continuous	200 A rms
Short Time	10,000 A rms symmetrical for 0.17 s 3,500 A rms symmetrical for 3.00 s

Current ratings and characteristics are in accordance with ANSI/IEEE Standard 386.

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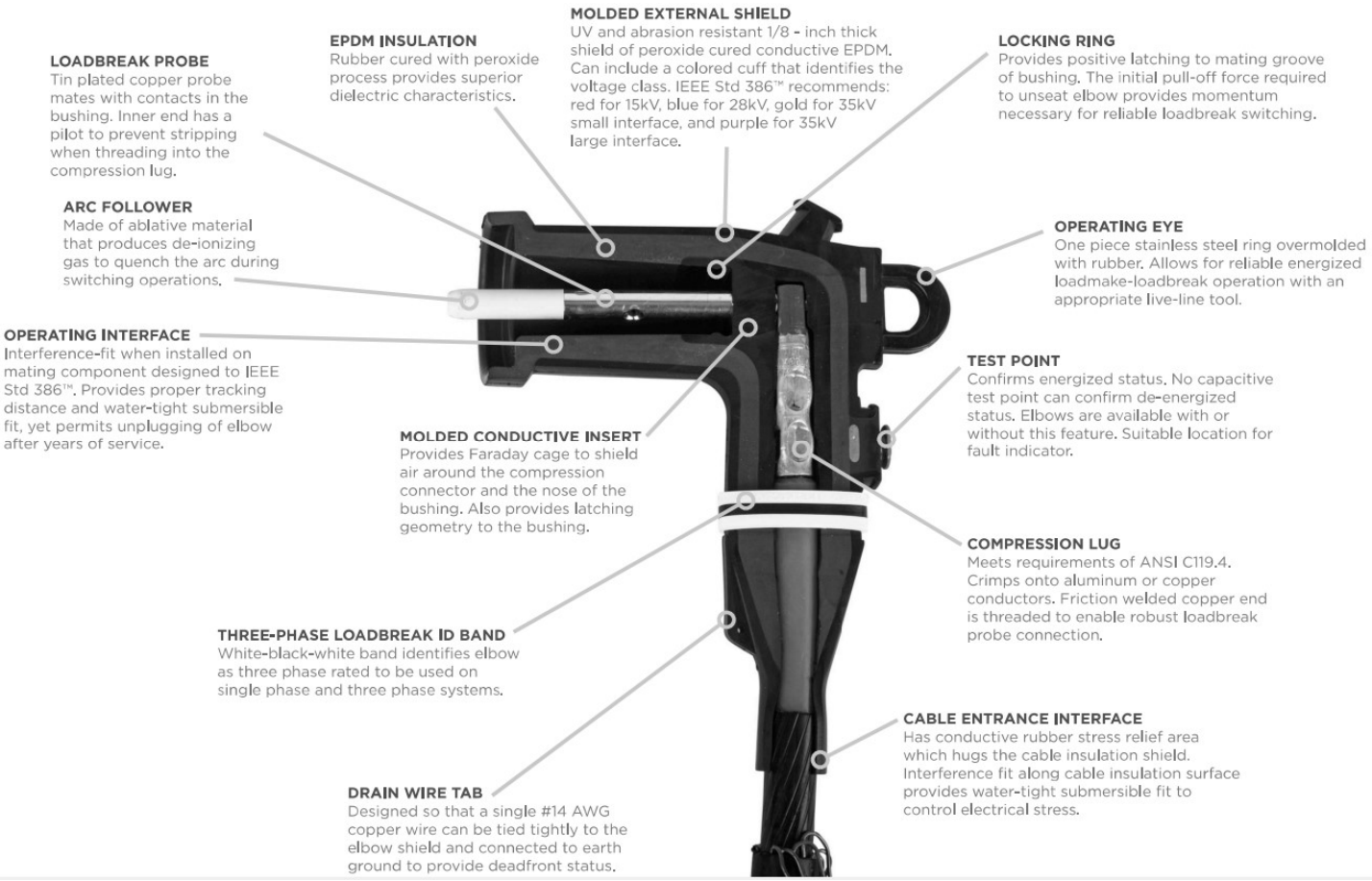
Features and Descriptions



Loadbreak Elbow 215-series, 200 Amp, 95kV BIL, 15kV Selection Charts

215LB-series 200A 15kV Loadbreak Kit Selection Charts

PLEASE READ - - IMPORTANT NOTES:

Kit sizing noted below are in accordance with AEIC/ICEA industry cable standards. Final kit selection should be based off of the cable insulation diameter for your specific application. If your application falls beyond the parameters of the kits noted below, please utilize the appropriate parts list and component charts to construct a kit for your specific application.

Kit #	Cable Insulation OD Range in. (mm)	Conductor Size Range			
		100%		133%	
		Stranded & Compressed	Compact & Solid	Stranded & Compressed	Compact & Solid
215LB302B	0.495" - 0.730" (12,5 - 18,5 mm)	4	2	--	--
215LB402B	0.635" - 0.905" (16,1 - 23,0 mm)	--	--	4	2
215LB403B		2	1	2	1
215LB404B		1	1/0	1	1/0
215LB405B		1/0	2/0	--	--
215LB505B	0.760" - 1.135" (19,3 - 28,8 mm)	--	--	1/0	2/0
215LB506B		2/0	3/0	2/0	3/0
215LB507B		3/0	4/0	3/0	4/0
215LB508B		4/0	250	4/0	250

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Loadbreak Elbow 215-series, 200 Amp, 95kV BIL, 15kV Selection Charts Continued

215LBx-Bx-series 200A 15kV Loadbreak Base Kit Selection Chart (without Bi-Metal Compression Connector)

PLEASE READ - - IMPORTANT NOTES:

All kits noted below contain all of the same kit components as are found in the standard kits with the exception of a compression connector. Please utilize the Loadbreak Connector Selection Chart to complete the construction of this kit for your specific application. Final kit selection should be based off of the cable insulation diameter for your specific application.

Kit #	Cable Insulation OD Range in. (mm)	Conductor Size Range			
		100%		133%	
		Stranded & Compressed	Compact & Solid	Stranded & Compressed	Compact & Solid
215LB30-B1	0.495" - 0.730" (12,5 - 18,5 mm)	4	2	--	--
215LB40-B1	0.635" - 0.905" (16,1 - 23,0 mm)	--	--	4	2
		2	1	2	1
		1	1/0	1	1/0
		1/0	2/0	--	--
215LB50-B1	0.760" - 1.135" (19,3 - 28,8 mm)	--	--	1/0	2/0
		2/0	3/0	2/0	3/0
		3/0	4/0	3/0	4/0
		4/0	250	4/0	250

Loadbreak Connector Selection Chart

Kit #	Conductor Size Range	
	Stranded & Compressed	Compact & Solid
200LUGB1	#6	#4
200LUGB2	#3/#4	#2/#3
200LUGB3	#2	#1
200LUGB4	#1	1/0
200LUGB5	1/0	2/0
200LUGB6	2/0	3/0
200LUGB7	3/0	4/0
200LUGB8	4/0	250

Availability

The 3M™ 215-series 200 Amp, 15kV Loadbreak kits are available for connecting 15kV shielded power cables to ANSI/IEEE 386 loadbreak bushings. This product is designed for use with Tape Shield, JCN and Flat Strap shielded cable types.

These kits are available from your local authorized 3M electrical distributor.

Note: The core material being removed from the Cold Shrink Tube is mixed polymers and can be recycled with other waste.

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