Technical Data **TD650006EN**

Effective August 2014
Supersedes 500-51, March 2003

200 A 35 kV class three-phase loadbreak junction

General

Eaton's Cooper Power Systems 200 A, 35 kV Class three-phase loadbreak junction provides two, three or four 21.1/36.6 kV loadbreak interfaces that are internally bused together and meet all requirements of IEEE Std 386™-2006 standard – 200 A Loadbreak Interface No. 1A, 21.1/36.6 kV (large 35 kV Class interface). Loadbreak junctions are used in pad-mounted apparatus, underground vaults, and other apparatus to sectionalize, establish loops, taps and splices, and to facilitate apparatus change-outs. Sectionalizing a cable run to find and isolate a cable fault is made easy when a loadbreak junction is used with large interface 35 kV Class 21.1/36.6 kV three-phase loadbreak elbows and other accessories meeting the requirements of IEEE Std 386™-2006 standard

The 21.1/36.6 kV three-phase rated loadbreak junction should not be used with 21.1 kV single-phase rated loadbreak elbow connectors or grounding elbows. For quick identification, Eaton's Cooper Power Systems 21.1/36.6 kV three-phase rated loadbreak junctions are color coded with purple nose pieces. Mating 21.1/36.6 kV three-phase loadbreak elbow connectors (*Document 500-41, 200 A 35 kV Class Three-Phase (Purple Cuff) Loadbreak Elbow Connector*) have a molded purple cuff. Single-phase rated products are color coded with tan nose pieces and molded cuffs. When mated with comparably rated products, the junction provides a fully shielded, submersible, separable connection for loadbreak operation.

The junction has a continuous copper current path from female contact to female contact. No aluminum components are used. It also has ablative arc interrupters with excellent de-ionizing properties. The body is molded of high quality peroxide cured EPDM insulation and has a molded semi-conductive peroxide cured EPDM shield.

The loadbreak junction is available with an adjustable stainless steel bracket for mounting flat or at a 45° angle. Stainless steel "U" straps are available for direct wall mounting.

Cooper Power Systems
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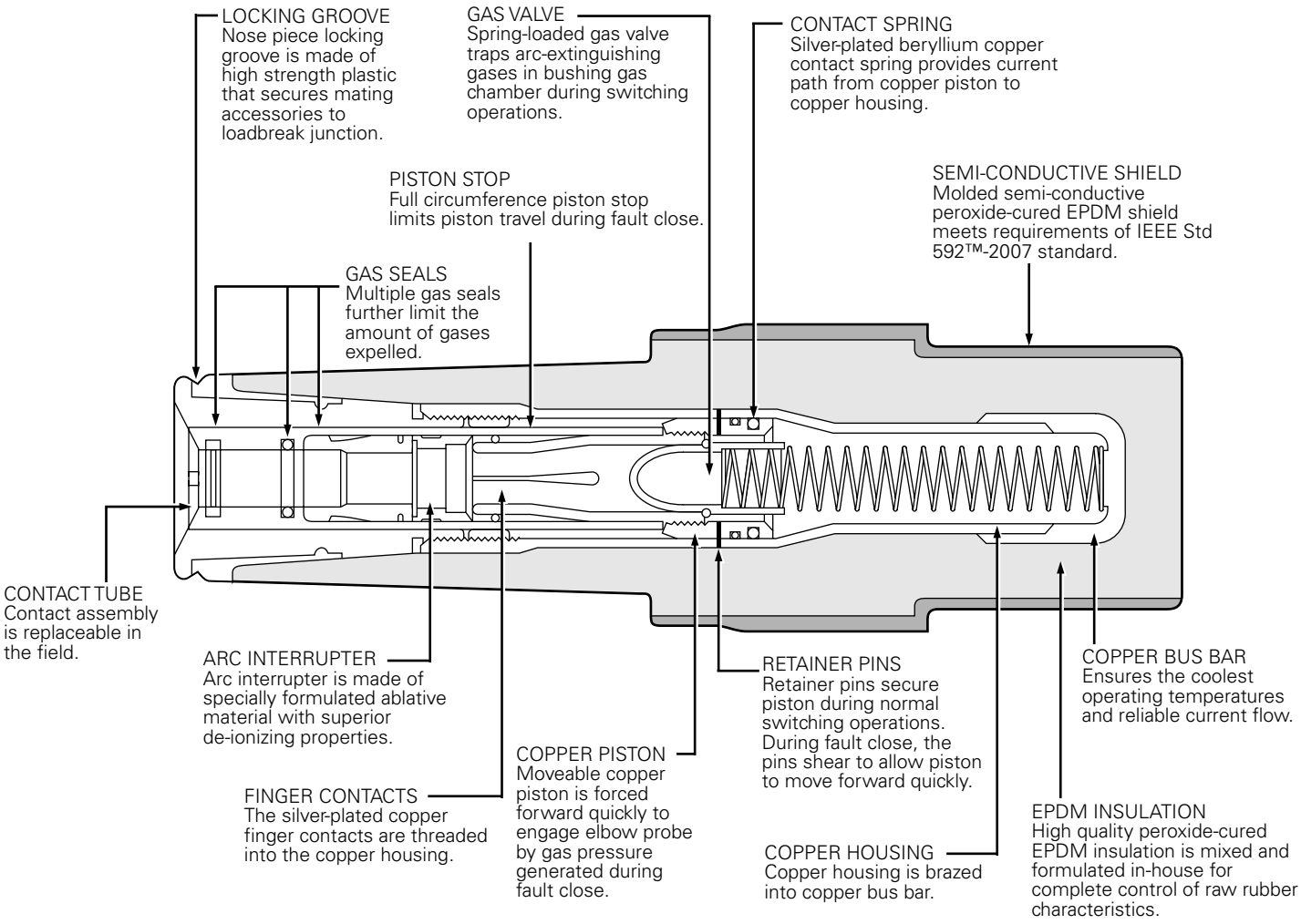


Figure 1. Three-phase cutaway loadbreak junction. Field proven, all copper current path ensures the coolest operating temperatures and reliability.

Note: Dimensions given are for reference only.

Installation

No special tools are required. Junctions are bolted to the mounting surface. Refer to *Service Information S500-15-1 200 A 35 kV Class Loadbreak Junction Installation Instructions* for details.

Production tests

Tests conducted in accordance with IEEE Std 386™-2006 standard:

- ac 60 Hz 1 Minute Withstand
  - 50 kV
- Minimum Corona Voltage Level
  - 26 kV

Tests are conducted in accordance with Eaton's Cooper Power Systems requirements.

- Physical Inspection
- Periodic Dissection
- Periodic Fluoroscopic (X-ray) Analysis

Table 1. Voltage Ratings and Characteristics

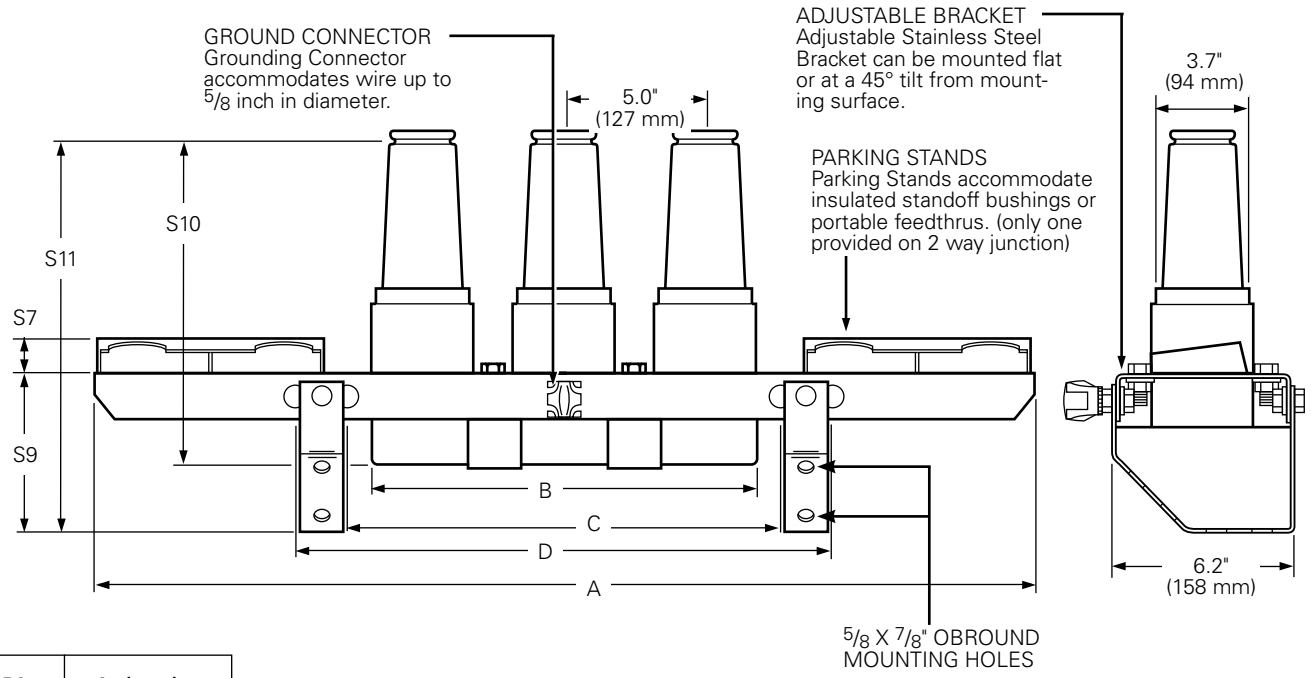
Description	kV
Standard Voltage Class	35
Maximum Rating Phase-to-Phase	36.6
Maximum Rating Phase-to-Ground	21.1
AC 60 Hz 1 Minute Withstand	50
DC 15 Minute Withstand	103
BIL and Full Wave Crest	150
Minimum Corona Voltage Level	26

Voltage ratings and characteristics are in accordance with IEEE Std 386™-2006 standard.

Table 2. Current Ratings and Characteristics

Description	Amperes
Continuous	200 A rms
Switching	10 operations at 200 A rms at 36.6 kV
Fault Closure	10,000 A rms symmetrical at 36.6 kV for 0.17 s after 10 switching operations
Short Time	10,000 A rms symmetrical for 0.17 s
	3,500 A rms symmetrical for 3.0 s

Current ratings and characteristics are in accordance with IEEE Std 386™-2006 standard.



S Dim.	in (mm)
S7	1.02 (25.8)
S9	5.46 (139)
S10	11.52 (292.7)
S11	13.79.(350.2)

Figure 2. Three-phase junction shows mounting dimensions for 2-, 3- and 4-way interfaces. See Table 5 for dimensional information.

Note: Dimensions given are for reference only.

Ordering information

To order a 35 kV Class (21.1/36.6 kV) three-phase loadbreak junction, specify the appropriate product from Table 3.

Each kit contains:

- Loadbreak Junction (with mounting bracket or straps, depending on product ordered)
- Shipping Caps (not for energized operation)
- Installation Instruction Sheet

Table 3. Loadbreak Junctions

Number of Interfaces	Junction Only	Junction with U-Straps	Junction with Bracket
2	LJ235C2	LJ235C2U	LJ235C2B
3	LJ235C3	LJ235C3U	LJ235C3B
4	LJ235C4	LJ235C4U	LJ235C4B

Table 4. Replacement Parts

Description	Catalog Number
Contact Tube	2637407B04B
Contact Tube Replacement Tool	2637585B01
U-Strap Kit with Hardware (1 strap)	2637570A01B
Stainless Steel Bracket Assembly (2-way)	2604688B01B
Stainless Steel Bracket Assembly (3-way)	2604688B02B
Stainless Steel Bracket Assembly (4-way)	2604688B03B

Table 5. Dimensional Information

Number of Interfaces	Mounting Dimensions in./mm			
	A	B	C	D
2	23.1	8.8	15.0	19.0
	(587)	(223)	(381)	(483)
3	33.3	13.8	15.0	19.0
	(846)	(350)	(381)	(483)
4	38.5	18.8	20.0	24.0
	(978)	(477)	(508)	(610)

Note: C and D are minimum and maximum stud centerline separations for mounting.

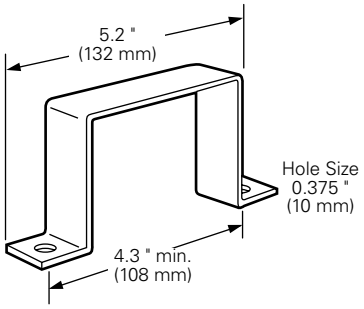


Figure 3. Stainless steel U-Strap for direct wall mount.

Note: Dimensions given are for reference only.

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