

## VariSTAR™ Surge Arrester Cross Reference Tables

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#### Intermediate-Class Surge Arresters

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#### Station-Class Surge Arresters

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**Intermediate-Class Cross Reference**

**UltraSIL Polymer-Housed VariSTAR Type UI Current to Previous Designs**

| UltraSIL VariSTAR Type UI |                    |                        |                         | Porcelain Type ZAF1<br>(Discontinued June 1, 2011) |
|---------------------------|--------------------|------------------------|-------------------------|--|
| Current Long Form         | Current Short Form | Long Form (Old Design) | Short Form (Old Design) |  |
| UIAA003002A0645A11        | UIAA003A           | UI0030020631A11        | UI003A                  | AZF1A3   |
| UIAA006005A0645A11        | UIAA006A           | UI0030020631A11        | UI006A                  | AZF1A60  |
| UIAA009007A0845A11        | UIAA009A           | UI0090070831A11        | UI009A                  | AZF1A9   |
| UIAA010008A0845A11        | UIAA010A           | UI0100080831A11        | UI010A                  | AZF1A10  |
| UIAA012010A0845A11        | UIAA012A           | UI0120101031A11        | UI012A                  | AZF1A12  |
| UIAA015012A0845A11        | UIAA015A           | UI0150121231A11        | UI015A                  | AFZ1A15  |
| UIAA018015A1045A11        | UIAA018A           | UI0180151231A11        | UI018A                  | AZF1A18  |
| UIAA021017A1045A11        | UIAA021A           | UI0210171231A11        | UI021A                  | AZF1A21  |
| UIAA024019A1245A11        | UIAA024A           | UI0240191431A11        | UI024A                  | AZF1A24  |
| UIAA027022A1445A11        | UIAA027A           | UI0270221631A11        | UI027A                  | AZF1A27  |
| UIAA030024A1445A11        | UIAA030A           | UI0300241831A11        | UI030A                  | AZF1A30  |
| UIAA033027A1645A11        | UIAA033A           | UI0330271831A11        | UI033A                  | AZF1A33  |
| UIAA036029A1645A11        | UIAA036A           | UI0360291831A11        | UI036A                  | AZF1A36  |
| UIAA039031A1845A11        | UIAA039A           | UI0390312031A11        | UI039A                  | AZF1A39  |
| UIAA045036A2045A11        | UIAA045A           | UI0450362231A11        | UI045A                  | AZF1A45  |
| UIAA048039A2245A11        | UIAA048A           | UI0480392631A11        | UI048A                  | AZF1A48  |
| UIAA054042A2245A11        | UIAA054A           | UI0540422631A11        | UI054A                  | AZF1A54  |
| UIAA060048A2645A11        | UIAA060A           | UI0600483031A11        | UI060A                  | AZF1A60  |
| UIAA072057A2845A11        | UIAA072A           | UI0720574031A11        | UI072A                  | AZF1A72  |
| UIAA090070A3845A11        | UIAA090A           | UI0900704631A11        | UI090A                  | AZF1A90  |
| UIAA096076A4045A11        | UIAA096A           | UI0960764831A11        | UI096A                  | AZF1A96  |
| UIAA108084A4445A11        | UIAA108A           | UI1080845431A11        | UI108A                  | AZF1A108   |
| USAA120098A5245A11        | USAA120A           | US1200986045A11        | US120A                  | AZF1A120   |

**Note:** Standard line terminal for the UltraSIL Polymer-Housed Intermediate-Class arrester is now the 4-hole-style NEMA connector.

**Competitor Cross Reference Table to UltraSIL Polymer-Housed VariSTAR Type UI Intermediate-Class Surge Arresters**

| Arrester |      | Eaton                                  | Hubbell    |            | McLean      | ABB        |
|----------|------|--|------------|------------|-------------|------------|
|          |      |  | PVIA       | PVI-LP     | ZIP         | XPI-III    |
| Rating   | MCOV | Single impulse Energy Rating (of MCOV) |            |            |             |            |
| (kV rms) |      | 3.9 kJ/kV                              | 3.6 kJ/kV  | 5.1 kJ/kV  | 5.0 kJ/kV   | 3.6 kJ/kV  |
| 3        | 2.55 | UIAA003A (UIAA003002A0645A11)          | 3000033001 | 3008033001 | ZIP003-1111 | U003SA002B |
| 6        | 5.1  | UIAA006A (UIAA006005A0645A11)          | 3000053001 | 3008053001 | ZIP006-1111 | U006SA005B |
| 9        | 7.65 | UIAA009A (UIAA009007A0845A11)          | 3000083001 | 3008083001 | ZIP009-1111 | U009SA007B |
| 10       | 8.4  | UIAA010A (UIAA010008A0845A11)          | 3000093001 | 3008093001 | ZIP010-1111 | U010SA008B |
| 12       | 10.2 | UIAA012A (UIAA012010A0845A11)          | 3000103001 | 3008103001 | ZIP012-1111 | U012SA010B |
| 15       | 12.7 | UIAA015A (UIAA015012A0845A11)          | 3000133001 | 3008133001 | ZIP015-1111 | U015SA012B |
| 18       | 15.3 | UIAA018A (UIAA018015A1045A11)          | 3000153001 | 3008153001 | ZIP018-1111 | U018SA015B |
| 21       | 17.0 | UIAA021A (UIAA021017A1045A11)          | 3000173001 | 3008173001 | ZIP021-1111 | U021SA017B |
| 24       | 19.5 | UIAA024A (UIAA024019A1245A11)          | 3000193001 | 3008193001 | ZIP024-1111 | U024SA019B |
| 27       | 22   | UIAA027A (UIAA027022A1445A11)          | 3000223001 | 3008223001 | ZIP027-1111 | U027SA022B |
| 30       | 24.4 | UIAA030A (UIAA030024A1445A11)          | 3000243001 | 3008243001 | ZIP030-1111 | U030SA024B |
| 33       | 27.5 | UIAA033A (UIAA033027A1645A11)          | -          | -          | ZIP033-1111 | U036SA029B |
| 36       | 29   | UIAA036A (UIAA036029A1645A11)          | 3000293001 | 3008293001 | ZIP036-1111 | -          |
| 39       | 31.5 | UIAA039A (UIAA039031A1845A11)          | 3000313001 | 3008313001 | ZIP039-1111 | -          |
| 42       | 34   | UIAA042A (UIAA042034A1845A11)          | -          | -          | ZIP042-1111 | -          |
| 45       | 36.5 | UIAA045A (UIAA045036A2045A11)          | 3000363001 | 3008363001 | ZIP045-1111 | -          |
| 48       | 39   | UIAA048A (UIAA048039A2245A11)          | 3000393001 | 3008393001 | ZIP048-1111 | -          |
| 54       | 42   | UIAA054A (UIAA054042A2245A11)          | 3000423001 | 3008423001 | ZIP054-1111 | -          |
| 60       | 48   | UIAA060A (UIAA060048A2645A11)          | 3000483001 | 3008483001 | ZIP060-1111 | -          |
| 66       | 53   | UIAA066A (UIAA066053A2645A11)          | -          | -          | ZIP066-1111 | -          |
| 72       | 57   | UIAA072A (UIAA072057A2845A11)          | 3000573001 | 3008573001 | ZIP072-1111 | -          |
| 90       | 70   | UIAA090A (UIAA090070A3845A11)          | 3000703001 | -          | ZIP090-1111 | -          |
| 96       | 76   | UIAA096A (UIAA096076A4045A11)          | 3000763001 | -          | ZIP096-1111 | -          |
| 108      | 84   | UIAA108A (UIAA108084A4445A11)          | 3000843001 | -          | ZIP108-1111 | -          |

**Note:** Hubbell and Joslyn arrester part numbers may contain a four-digit suffix which references different mounting or connector options. For more information, please contact your regional product specialist.

**Station-Class Polymer Cross Reference**

**UltraSIL Polymer-Housed VariSTAR Station-Class Surge Arresters Current Design Part Numbers**

| Arrester |      | Eaton                         |                               |                               |
|----------|------|-------------------------------|-------------------------------|-------------------------------|
| Rating   | MCOV | Current Design                |                               |                               |
| (kV rms) |      | 3.9 kJ/kV                     | 6.2 kJ/kV                     | 10.0 kJ/kV                    |
| 3        | 2.55 | USAA003A (USAA003002A0845A11) | UHAA003A (UHAA003002A0845A11) | UXAA003A (UXAA003002A0845A11) |
| 6        | 5.1  | USAA006A (USAA006005A1045A11) | UHAA006A (UHAA006005A1045A11) | UXAA006A (UXAA006005A1045A11) |
| 9        | 7.65 | USAA009A (USAA009007A1045A11) | UHAA009A (UHAA009007A1045A11) | UXAA009A (UXAA009007A1045A11) |
| 10       | 8.4  | USAA010A (USAA010008A1045A11) | UHAA010A (UHAA010008A1045A11) | UXAA010A (UXAA010008A1045A11) |
| 12       | 10.2 | USAA012A (USAA012010A1245A11) | UHAA012A (UHAA012010A1245A11) | UXAA012A (UXAA012010A1245A11) |
| 15       | 12.7 | USAA015A (USAA015012A1245A11) | UHAA015A (UHAA015012A1245A11) | UXAA015A (UXAA015012A1245A11) |
| 18       | 15.3 | USAA018A (USAA018015A1445A11) | UHAA018A (UHAA018015A1445A11) | UXAA018A (UXAA018015A1445A11) |
| 21       | 17.0 | USAA021A (USAA021017A1445A11) | UHAA021A (UHAA021017A1445A11) | UXAA021A (UXAA021017A1445A11) |
| 24       | 19.5 | USAA024A (USAA024019A1645A11) | UHAA024A (UHAA024019A1645A11) | UXAA024A (UXAA024019A1645A11) |
| 27       | 22   | USAA027A (USAA027022A1645A11) | UHAA027A (UHAA027022A1645A11) | UXAA027A (UXAA027022A1645A11) |
| 30       | 24.4 | USAA030A (USAA030024A1845A11) | UHAA030A (UHAA030024A1845A11) | UXAA030A (UXAA030024A1845A11) |
| 33       | 27.5 | USAA033A (USAA033027A1845A11) | UHAA033A (UHAA033027A1845A11) | UXAA033A (UXAA033027A1845A11) |
| 36       | 29   | USAA036A (USAA036029A1845A11) | UHAA036A (UHAA036029A1845A11) | UXAA036A (UXAA036029A1845A11) |
| 39       | 31.5 | USAA039A (USAA039031A2245A11) | UHAA039A (UHAA039031A2245A11) | UXAA039A (UXAA039031A2245A11) |
| 42       | 34   | USAA042A (USAA042034A2245A11) | UHAA042A (UHAA042034A2245A11) | UXAA042A (UXAA042034A2245A11) |
| 45       | 36.5 | USAA045A (USAA045036A2445A11) | UHAA045A (UHAA045036A2445A11) | UXAA045A (UXAA045036A2445A11) |
| 48       | 39   | USAA048A (USAA048039A2645A11) | UHAA048A (UHAA048039A2645A11) | UXAA048A (UXAA048039A2645A11) |
| 54       | 42   | USAA054A (USAA054042A2645A11) | UHAA054A (UHAA054042A2645A11) | UXAA054A (UXAA054042A2645A11) |
| 60       | 48   | USAA060A (USAA060048A2845A11) | UHAA060A (UHAA060048A2845A11) | UXAA060A (UXAA060048A2845A11) |
| 66       | 53   | USAA066A (USAA066053A3045A11) | UHAA066A (UHAA066053A3045A11) | UXAA066A (UXAA066053A3045A11) |
| 72       | 57   | USAA072A (USAA072057A3245A11) | UHAA072A (UHAA072057A3245A11) | UXAA072A (UXAA072057A3245A11) |
| 78       | 62   | USAA078A (USAA078062A4045A11) | UHAA078A (UHAA078062A4045A11) | UXAA078A (UXAA078062A4045A11) |
| 84       | 68   | USAA084A (USAA084068A4445A11) | UHAA084A (UHAA084068A4445A11) | UXAA084A (UXAA084068A4445A11) |
| 90       | 70   | USAA090A (USAA090070A4645A11) | UHAA090A (UHAA090070A4645A11) | UXAA090A (UXAA090070A4645A11) |
| 96       | 76   | USAA096A (USAA096076A4845A11) | UHAA096A (UHAA096076A4845A11) | UXAA096A (UXAA096076A4845A11) |
| 108      | 84   | USAA108A (USAA108084A5245A11) | UHAA108A (UHAA108084A5245A11) | UX1AA08A (UXAA108084A5245A11) |
| 120      | 98   | -                             | USAA120A (USAA120098A5645A11) | UHAA120A (UHAA120098A5645A11) |
| 132      | 106  | -                             | USAA132A (USAA132106A6045A11) | UHAA132A (UHAA132106A6045A11) |
| 138      | 111  | -                             | USAA138A (USAA138111A6445A11) | UHAA138A (UHAA138111A6445A11) |
| 144      | 115  | -                             | USAA144A (USAA144115A6445A11) | UHAA144A (UHAA144115A6445A11) |
| 162      | 130  | -                             | USAA162A (USAA162130A8045A11) | UHAA162A (UHAA162130A8045A11) |
| 168      | 131  | -                             | USAA168A (USAA168131A8245A11) | UHAA168A (UHAA168131A8245A11) |
| 172      | 140  | -                             | USAA172A (USAA172140A8445A11) | UHAA172A (UHAA172140A8445A11) |
| 180      | 144  | -                             | USAA180A (USAA180144A8645A11) | UHAA180A (UHAA180144A8645A11) |
| 192      | 152  | -                             | USAA192A (USAA192152A8845A11) | UHAA192A (UHAA192152A8845A11) |
| 198      | 160  | -                             | USAA198A (USAA198160A9245A11) | UHAA198A (UHAA198160A9245A11) |
| 204      | 165  | -                             | USAA204A (USAA204165A9445A11) | UHAA204A (UHAA204165A9445A11) |
| 216      | 174  | -                             | USAA216A (USAA216174AA645A11) | UHAA216A (UHAA216174AA645A11) |
| 228      | 180  | -                             | USAA228A (USAA228180AB045A11) | UHAA228A (UHAA228180AB045A11) |
| 234      | 187  | -                             | -                             | -                             |
| 240      | 190  | -                             | USAA240A (USAA240190AB245A11) | UHAA240A (UHAA240190AB245A11) |

| Arrester |      | Eaton                                  |                          |                          |
|----------|------|--|--------------------------|--------------------------|
| Rating   | MCOV | Single impulse Energy Rating (of MCOV) |                          |                          |
| (kV rms) |      | 3.4 kJ/kV                              | 5.5 kJ/kV                | 8.9 kJ/kV                |
| 3        | 2.55 | US003A (US0030020845A11)               | UH003A (UH0030020845A11) | UX003A (UX0030020845A11) |
| 6        | 5.1  | US006A (US0060051045A11)               | UH006A (UH0060051045A11) | UX006A (UX0060051045A11) |
| 9        | 7.65 | US009A (US0090071045A11)               | UH009A (UH0090071045A11) | UX009A (UX0090071045A11) |
| 10       | 8.4  | US010A (US0100081045A11)               | UH010A (UH0100081045A11) | UX010A (UX0100081045A11) |
| 12       | 10.2 | US012A (US0120101245A11)               | UH012A (UH0120101245A11) | UX012A (UX0120101245A11) |
| 15       | 12.7 | US015A (US0150121445A11)               | UH015A (UH0150121445A11) | UX015A (UX0150121445A11) |
| 18       | 15.3 | US018A (US0180151445A11)               | UH018A (UH0180151445A11) | UX018A (UX0180151445A11) |
| 21       | 17.0 | US021A (US0210171645A11)               | UH021A (UH0210171645A11) | UX021A (UX0210171645A11) |
| 24       | 19.5 | US024A (US0240191845A11)               | UH024A (UH0240191845A11) | UX024A (UX0240191845A11) |
| 27       | 22   | US027A (US0270221845A11)               | UH027A (UH0270221845A11) | UX027A (UX0270221845A11) |
| 30       | 24.4 | US030A (US0300242045A11)               | UH030A (UH0300242045A11) | UX030A (UX0300242045A11) |
| 33       | 27.5 | US033A (US0330272245A11)               | UH033A (UH0330272245A11) | UX033A (UX0330272245A11) |
| 36       | 29   | US036A (US0360292245A11)               | UH036A (UH0360292245A11) | UX036A (UX0360292245A11) |
| 39       | 31.5 | US039A (US0390312245A11)               | UH039A (UH0390312245A11) | UX039A (UX0390312245A11) |
| 42       | 34   | US042A (US0420342445A11)               | UH042A (UH0420342445A11) | UX042A (UX0420342445A11) |
| 45       | 36.5 | US045A (US0450362645A11)               | UH045A (UH0450362645A11) | UX045A (UX0450362645A11) |
| 48       | 39   | US048A (US0480392645A11)               | UH048A (UH0480392645A11) | UX048A (UX0480392645A11) |
| 54       | 42   | US054A (US0540422845A11)               | UH054A (UH0540422845A11) | UX054A (UX0540422845A11) |
| 60       | 48   | US060A (US0600483045A11)               | UH060A (UH0600483045A11) | UX060A (UX0600483045A11) |
| 66       | 53   | US066A (US0660534045A11)               | UH066A (UH0660534045A11) | UX066A (UX0660534045A11) |
| 72       | 57   | US072A (US0720574445A11)               | UH072A (UH0720574445A11) | UX072A (UX0720574445A11) |
| 78       | 62   | US078A (US0780624845A11)               | UH078A (UH0780624845A11) | UX078A (UX0780624845A11) |
| 84       | 68   | US084A (US0840684845A11)               | UH084A (UH0840684845A11) | UX084A (UX0840684845A11) |
| 90       | 70   | US090A (US0900705045A11)               | UH090A (UH0900705045A11) | UX090A (UX0900705045A11) |
| 96       | 76   | US096A (US0960765245A11)               | UH096A (UH0960765245A11) | UX096A (UX0960765245A11) |
| 108      | 84   | US108A (US1080845845A11)               | UH108A (UH1080845845A11) | UX108A (UX1080845845A11) |
| 120      | 98   | -                                      | US120A (US1200986045A11) | UH120A (UH1200986045A11) |
| 132      | 106  | -                                      | US132A (US1321067645A11) | UH132A (UH1321067645A11) |
| 138      | 111  | -                                      | US138A (US1381117845A11) | UH138A (UH1381117845A11) |
| 144      | 115  | -                                      | US144A (US1441157845A11) | UH144A (UH1441157845A11) |
| 162      | 130  | -                                      | US162A (US1621308645A11) | UH162A (UH1621308645A11) |
| 168      | 131  | -                                      | US168A (US1681318645A11) | UH168A (UH1681318645A11) |
| 172      | 140  | -                                      | US172A (US1721408845A11) | UH172A (UH1721408845A11) |
| 180      | 144  | -                                      | US180A (US1801449045A11) | UH180A (UH1801449045A11) |
| 192      | 152  | -                                      | US192A (US192152A445A11) | UH192A (UH192152A445A11) |
| 198      | 160  | -                                      | US198A (US198160A845A11) | UH198A (UH198160A845A11) |
| 204      | 165  | -                                      | US204A (US204165B045A11) | UH204A (UH204165B045A11) |
| 216      | 174  | -                                      | US216A (US216174B445A11) | UH216A (UH216174B445A11) |
| 228      | 180  | -                                      | US228A (US228180B645A11) | UH228A (UH228180B645A11) |
| 234      | 187  | -                                      | -                        | -                        |
| 240      | 190  | -                                      | US240A (US240190C045A11) | UH240A (UH240190C045A11) |

**Competitor Cross Reference Station-Class Polymer-Housed Surge Arresters**

| Arrester |      | Current Design                |                               |                               |
|----------|------|-------------------------------|-------------------------------|-------------------------------|
| Rating   | MCOV |                               |                               |                               |
| (kV rms) |      | 3.9 kJ/kV                     | 6.2 kJ/kV                     | 10.0 kJ/kV                    |
| 3        | 2.55 | USAA003A (USAA003002A0845A11) | UHAA003A (UHAA003002A0845A11) | UXAA003A (UXAA003002A0845A11) |
| 6        | 5.1  | USAA006A (USAA006005A1045A11) | UHAA006A (UHAA006005A1045A11) | UXAA006A (UXAA006005A1045A11) |
| 9        | 7.65 | USAA009A (USAA009007A1045A11) | UHAA009A (UHAA009007A1045A11) | UXAA009A (UXAA009007A1045A11) |
| 10       | 8.4  | USAA010A (USAA010008A1045A11) | UHAA010A (UHAA010008A1045A11) | UXAA010A (UXAA010008A1045A11) |
| 12       | 10.2 | USAA012A (USAA012010A1245A11) | UHAA012A (UHAA012010A1245A11) | UXAA012A (UXAA012010A1245A11) |
| 15       | 12.7 | USAA015A (USAA015012A1245A11) | UHAA015A (UHAA015012A1245A11) | UXAA015A (UXAA015012A1245A11) |
| 18       | 15.3 | USAA018A (USAA018015A1445A11) | UHAA018A (UHAA018015A1445A11) | UXAA018A (UXAA018015A1445A11) |
| 21       | 17.0 | USAA021A (USAA021017A1445A11) | UHAA021A (UHAA021017A1445A11) | UXAA021A (UXAA021017A1445A11) |
| 24       | 19.5 | USAA024A (USAA024019A1645A11) | UHAA024A (UHAA024019A1645A11) | UXAA024A (UXAA024019A1645A11) |
| 27       | 22   | USAA027A (USAA027022A1645A11) | UHAA027A (UHAA027022A1645A11) | UXAA027A (UXAA027022A1645A11) |
| 30       | 24.4 | USAA030A (USAA030024A1845A11) | UHAA030A (UHAA030024A1845A11) | UXAA030A (UXAA030024A1845A11) |
| 33       | 27.5 | USAA033A (USAA033027A1845A11) | UHAA033A (UHAA033027A1845A11) | UXAA033A (UXAA033027A1845A11) |
| 36       | 29   | USAA036A (USAA036029A1845A11) | UHAA036A (UHAA036029A1845A11) | UXAA036A (UXAA036029A1845A11) |
| 39       | 31.5 | USAA039A (USAA039031A2245A11) | UHAA039A (UHAA039031A2245A11) | UXAA039A (UXAA039031A2245A11) |
| 42       | 34   | USAA042A (USAA042034A2245A11) | UHAA042A (UHAA042034A2245A11) | UXAA042A (UXAA042034A2245A11) |
| 45       | 36.5 | USAA045A (USAA045036A2445A11) | UHAA045A (UHAA045036A2445A11) | UXAA045A (UXAA045036A2445A11) |
| 48       | 39   | USAA048A (USAA048039A2645A11) | UHAA048A (UHAA048039A2645A11) | UXAA048A (UXAA048039A2645A11) |
| 54       | 42   | USAA054A (USAA054042A2645A11) | UHAA054A (UHAA054042A2645A11) | UXAA054A (UXAA054042A2645A11) |
| 60       | 48   | USAA060A (USAA060048A2845A11) | UHAA060A (UHAA060048A2845A11) | UXAA060A (UXAA060048A2845A11) |
| 66       | 53   | USAA066A (USAA066053A3045A11) | UHAA066A (UHAA066053A3045A11) | UXAA066A (UXAA066053A3045A11) |
| 72       | 57   | USAA072A (USAA072057A3245A11) | UHAA072A (UHAA072057A3245A11) | UXAA072A (UXAA072057A3245A11) |
| 78       | 62   | USAA078A (USAA078062A4045A11) | UHAA078A (UHAA078062A4045A11) | UXAA078A (UXAA078062A4045A11) |
| 84       | 68   | USAA084A (USAA084068A4445A11) | UHAA084A (UHAA084068A4445A11) | UXAA084A (UXAA084068A4445A11) |
| 90       | 70   | USAA090A (USAA090070A4645A11) | UHAA090A (UHAA090070A4645A11) | UXAA090A (UXAA090070A4645A11) |
| 96       | 76   | USAA096A (USAA096076A4845A11) | UHAA096A (UHAA096076A4845A11) | UXAA096A (UXAA096076A4845A11) |
| 108      | 84   | USAA108A (USAA108084A5245A11) | UHAA108A (UHAA108084A5245A11) | UX1AA08A (UXAA108084A5245A11) |
| 120      | 98   | -                             | USAA120A (USAA120098A5645A11) | UHAA120A (UHAA120098A5645A11) |
| 132      | 106  | -                             | USAA132A (USAA132106A6045A11) | UHAA132A (UHAA132106A6045A11) |
| 138      | 111  | -                             | USAA138A (USAA138111A6445A11) | UHAA138A (UHAA138111A6445A11) |
| 144      | 115  | -                             | USAA144A (USAA144115A6445A11) | UHAA144A (UHAA144115A6445A11) |
| 162      | 130  | -                             | USAA162A (USAA162130A8045A11) | UHAA162A (UHAA162130A8045A11) |
| 168      | 131  | -                             | USAA168A (USAA168131A8245A11) | UHAA168A (UHAA168131A8245A11) |
| 172      | 140  | -                             | USAA172A (USAA172140A8445A11) | UHAA172A (UHAA172140A8445A11) |
| 180      | 144  | -                             | USAA180A (USAA180144A8645A11) | UHAA180A (UHAA180144A8645A11) |
| 192      | 152  | -                             | USAA192A (USAA192152A8845A11) | UHAA192A (UHAA192152A8845A11) |
| 198      | 160  | -                             | USAA198A (USAA198160A9245A11) | UHAA198A (UHAA198160A9245A11) |
| 204      | 165  | -                             | USAA204A (USAA204165A9445A11) | UHAA204A (UHAA204165A9445A11) |
| 216      | 174  | -                             | USAA216A (USAA216174A645A11)  | UHAA216A (UHAA216174A645A11)  |
| 228      | 180  | -                             | USAA228A (USAA228180A8045A11) | UHAA228A (UHAA228180A8045A11) |
| 234      | 187  | -                             | -                             | -                             |
| 240      | 190  | -                             | USAA240A (USAA240190A8245A11) | UHAA240A (UHAA240190A8245A11) |

**Note:** Hubbell and Joslyn arrester part numbers may contain a four-digit suffix which references different mounting or connector options. For more information, please contact your regional product specialists.

| Arrester |      | Hubbell   |           |               | McLean    | ABB         |            |             |            |
|----------|------|-----------|-----------|---------------|-----------|-------------|------------|-------------|------------|
| Rating   | MCOV | PVNA      | PVN       | SVN           | ZSP       | XPS         | PEXLIM R   | PEXLIM Q    | PEXLIM P   |
|          |      | 5.1 kJ/kV | 7.3 kJ/kV | 11.5 kJ/kV    | 4.5 kJ/kV | 4.5 kJ/kV   | 5.1 kJ/kV  | 7.8 kJ/kV   | 12.0 kJ/kV |
|          |      |           |           |               |           | -5.6 kJ/kV  |            |             |            |
| (kV rms) |      |           |           |               |           |             |            |             |            |
| 3        | 2.55 | 310703    | 310003    | -             | ZSP0003   | Q003SA002AS | -          | -           | -          |
| 6        | 5.1  | 310705    | 310005    | -             | ZSP0006   | Q006SA005AS | -          | -           | -          |
| 9        | 7.65 | 310708    | 310008    | -             | ZSP0009   | Q009SA007AS | -          | -           | -          |
| 10       | 8.4  | 310709    | 310009    | -             | ZSP0010   | Q010SA008AS | -          | -           | -          |
| 12       | 10.2 | 310710    | 310010    | -             | ZSP0012   | Q012SA010AS | -          | -           | -          |
| 15       | 12.7 | 310713    | 310013    | -             | ZSP0015   | Q015SA012AS | -          | -           | -          |
| 18       | 15.3 | 310715    | 310015    | -             | ZSP0018   | Q018SA015AS | R018-YV024 | -           | P018-XV024 |
| 21       | 17.0 | 310717    | 310017    | -             | ZSP0021   | Q021SA017AS | R021-YV024 | -           | P021-XV024 |
| 24       | 19.5 | 310719    | 310019    | -             | ZSP0024   | Q024SA019AS | R024-YV024 | Q024-XV024  | P024-XV024 |
| 27       | 22   | 310722    | 310022    | -             | ZSP0027   | Q027SA022AS | R027-YV024 | -           | -          |
| 30       | 24.4 | 310724    | 310024    | -             | ZSP0030   | Q030SA024AS | R030-YV036 | Q030-XV036  | P030-XV036 |
| 33       | 27.5 | -         | -         | -             | -         | -           | R033-YV036 | Q033-XV036  | P033-XV036 |
| 36       | 29   | 310729    | 310029    | -             | ZSP0036   | Q036SA029AS | R036-YV036 | Q036-XV036  | P036-XV036 |
| 39       | 31.5 | 310731    | 310031    | -             | ZSP0039   | Q039SA031AS | R039-YV036 | -           | P039-XV036 |
| 42       | 34   | -         | -         | -             | -         | -           | R042-YV036 | Q042-XV052  | P042-XV052 |
| 45       | 36.5 | 310736    | 310036    | -             | ZSP0045   | Q045SA036AS | R045-YV036 | Q045-XV052  | P045-XV052 |
| 48       | 39   | 310739    | 310039    | -             | ZSP0048   | Q048SA039AS | R048-YV036 | Q048-XV052  | P048-XV052 |
| 54       | 42   | 310742    | 310042    | SVN054GA042AA | ZSP0054   | Q054SA042AS | R054-YH072 | Q054-XV052  | P054-XV052 |
| 60       | 48   | 310748    | 310048    | SVN060GA048AA | ZSP0060   | Q060SA048AS | R060-YH072 | Q060-XV052  | P060-XV052 |
| 66       | 53   | -         | -         | -             | ZSP0066   | -           | R066-YV072 | Q066-XV052  | P066-XV052 |
| 72       | 57   | 310757    | 310057    | SVN072GA057AA | ZSP0072   | Q072SA057AS | R072-YV072 | Q072-XV052  | P072-XV052 |
| 78       | 62   | -         | -         | -             | -         | -           | R078-YV100 | Q078-XV100  | P078-XV100 |
| 84       | 68   | -         | -         | -             | -         | -           | R084-YV100 | Q084-XV100  | P084-XV100 |
| 90       | 70   | -         | 310070    | SVN090GA070AA | ZSP0090   | Q090SA070AS | R090-YV100 | Q090-XV100  | P090-XV100 |
| 96       | 76   | -         | 310076    | SVN096GA076AA | ZSP0096   | Q096SA076BS | R096-YV100 | Q096-XV100  | P096-XV100 |
| 108      | 84   | -         | 310084    | SVN108GA084AA | ZSP0108   | Q108SA084BS | R108-YH145 | Q108-XH123  | P108-XH123 |
| 120      | 98   | -         | 310098    | SVN120GA098AA | ZSP0120   | Q120SA098BS | R120-YH120 | Q120-XH123  | P120-XH123 |
| 132      | 106  | -         | 310106    | SVN132GA106AA | ZSP0132   | Q132SA106BS | R132-YH170 | Q132-XH170  | P132-XH170 |
| 138      | 111  | -         | -         | -             | ZSP0138   | -           | R138-YH170 | Q1438-XH170 | P138-XH170 |
| 144      | 115  | -         | 310115    | SVN144GA115AA | ZSP0144   | Q144SA115BS | R144-YH170 | Q144-XH170  | P144-XH170 |
| 162      | 130  | -         | -         | -             | -         | -           | -          | Q162-XV170  | P162-XV170 |
| 168      | 131  | -         | 310131    | SVN168GA131AA | -         | Q168SA131BS | -          | Q168-XV170  | P168-XV170 |
| 172      | 140  | -         | 310140    | SVN172GA140AA | ZSP0172   | Q172SA140BS | -          | Q172-XV170  | P172-XV170 |
| 180      | 144  | -         | 310144    | SVN180GA144AA | ZSP0180   | Q180SA144BS | -          | Q180-XV170  | P180-XM245 |
| 192      | 152  | -         | 310152    | SVN192GA152AA | ZSP0192   | Q192SA152BS | -          | Q192-XV170  | P192-XM245 |
| 198      | 160  | -         | -         | -             | -         | -           | -          | Q198-XH245  | P198-XH245 |
| 204      | 165  | -         | -         | -             | -         | -           | -          | Q204-XH245  | P204-XH245 |
| 216      | 174  | -         | -         | -             | -         | Q216SA173BS | -          | Q216-XH300  | P216-XH300 |
| 228      | 180  | -         | 310178    | SVN228GA180AA | -         | Q228SA178BS | -          | Q228-XH300  | P228-XH300 |
| 234      | 187  | -         | -         | -             | -         | Q234SA187BS | -          | Q234-XH300  | P234-XH300 |
| 240      | 190  | -         | -         | -             | -         | Q240SA190BS | -          | Q240-XH300  | P240-XH300 |

**Competitor Cross Reference Station-Class Polymer-Housed Surge Arresters**

| Arrester |      | Current Design                |                               |                               |
|----------|------|-------------------------------|-------------------------------|-------------------------------|
| Rating   | MCOV |                               |                               |                               |
| (kV rms) |      | 3.9 kJ/kV                     | 6.2 kJ/kV                     | 10.0 kJ/kV                    |
| 3        | 2.55 | USAA003A (USAA003002A0845A11) | UHAA003A (UHAA003002A0845A11) | UXAA003A (UXAA003002A0845A11) |
| 6        | 5.1  | USAA006A (USAA006005A1045A11) | UHAA006A (UHAA006005A1045A11) | UXAA006A (UXAA006005A1045A11) |
| 9        | 7.65 | USAA009A (USAA009007A1045A11) | UHAA009A (UHAA009007A1045A11) | UXAA009A (UXAA009007A1045A11) |
| 10       | 8.4  | USAA010A (USAA010008A1045A11) | UHAA010A (UHAA010008A1045A11) | UXAA010A (UXAA010008A1045A11) |
| 12       | 10.2 | USAA012A (USAA012010A1245A11) | UHAA012A (UHAA012010A1245A11) | UXAA012A (UXAA012010A1245A11) |
| 15       | 12.7 | USAA015A (USAA015012A1245A11) | UHAA015A (UHAA015012A1245A11) | UXAA015A (UXAA015012A1245A11) |
| 18       | 15.3 | USAA018A (USAA018015A1445A11) | UHAA018A (UHAA018015A1445A11) | UXAA018A (UXAA018015A1445A11) |
| 21       | 17.0 | USAA021A (USAA021017A1445A11) | UHAA021A (UHAA021017A1445A11) | UXAA021A (UXAA021017A1445A11) |
| 24       | 19.5 | USAA024A (USAA024019A1645A11) | UHAA024A (UHAA024019A1645A11) | UXAA024A (UXAA024019A1645A11) |
| 27       | 22   | USAA027A (USAA027022A1645A11) | UHAA027A (UHAA027022A1645A11) | UXAA027A (UXAA027022A1645A11) |
| 30       | 24.4 | USAA030A (USAA030024A1845A11) | UHAA030A (UHAA030024A1845A11) | UXAA030A (UXAA030024A1845A11) |
| 33       | 27.5 | USAA033A (USAA033027A1845A11) | UHAA033A (UHAA033027A1845A11) | UXAA033A (UXAA033027A1845A11) |
| 36       | 29   | USAA036A (USAA036029A1845A11) | UHAA036A (UHAA036029A1845A11) | UXAA036A (UXAA036029A1845A11) |
| 39       | 31.5 | USAA039A (USAA039031A2245A11) | UHAA039A (UHAA039031A2245A11) | UXAA039A (UXAA039031A2245A11) |
| 42       | 34   | USAA042A (USAA042034A2245A11) | UHAA042A (UHAA042034A2245A11) | UXAA042A (UXAA042034A2245A11) |
| 45       | 36.5 | USAA045A (USAA045036A2445A11) | UHAA045A (UHAA045036A2445A11) | UXAA045A (UXAA045036A2445A11) |
| 48       | 39   | USAA048A (USAA048039A2645A11) | UHAA048A (UHAA048039A2645A11) | UXAA048A (UXAA048039A2645A11) |
| 54       | 42   | USAA054A (USAA054042A2645A11) | UHAA054A (UHAA054042A2645A11) | UXAA054A (UXAA054042A2645A11) |
| 60       | 48   | USAA060A (USAA060048A2845A11) | UHAA060A (UHAA060048A2845A11) | UXAA060A (UXAA060048A2845A11) |
| 66       | 53   | USAA066A (USAA066053A3045A11) | UHAA066A (UHAA066053A3045A11) | UXAA066A (UXAA066053A3045A11) |
| 72       | 57   | USAA072A (USAA072057A3245A11) | UHAA072A (UHAA072057A3245A11) | UXAA072A (UXAA072057A3245A11) |
| 78       | 62   | USAA078A (USAA078062A4045A11) | UHAA078A (UHAA078062A4045A11) | UXAA078A (UXAA078062A4045A11) |
| 84       | 68   | USAA084A (USAA084068A4445A11) | UHAA084A (UHAA084068A4445A11) | UXAA084A (UXAA084068A4445A11) |
| 90       | 70   | USAA090A (USAA090070A4645A11) | UHAA090A (UHAA090070A4645A11) | UXAA090A (UXAA090070A4645A11) |
| 96       | 76   | USAA096A (USAA096076A4845A11) | UHAA096A (UHAA096076A4845A11) | UXAA096A (UXAA096076A4845A11) |
| 108      | 84   | USAA108A (USAA108084A5245A11) | UHAA108A (UHAA108084A5245A11) | UX1A08A (UXAA108084A5245A11)  |
| 120      | 98   | -                             | USAA120A (USAA120098A5645A11) | UHAA120A (UHAA120098A5645A11) |
| 132      | 106  | -                             | USAA132A (USAA132106A6045A11) | UHAA132A (UHAA132106A6045A11) |
| 138      | 111  | -                             | USAA138A (USAA138111A6445A11) | UHAA138A (UHAA138111A6445A11) |
| 144      | 115  | -                             | USAA144A (USAA144115A6445A11) | UHAA144A (UHAA144115A6445A11) |
| 162      | 130  | -                             | USAA162A (USAA162130A8045A11) | UHAA162A (UHAA162130A8045A11) |
| 168      | 131  | -                             | USAA168A (USAA168131A8245A11) | UHAA168A (UHAA168131A8245A11) |
| 172      | 140  | -                             | USAA172A (USAA172140A8445A11) | UHAA172A (UHAA172140A8445A11) |
| 180      | 144  | -                             | USAA180A (USAA180144A8645A11) | UHAA180A (UHAA180144A8645A11) |
| 192      | 152  | -                             | USAA192A (USAA192152A8845A11) | UHAA192A (UHAA192152A8845A11) |
| 198      | 160  | -                             | USAA198A (USAA198160A9245A11) | UHAA198A (UHAA198160A9245A11) |
| 204      | 165  | -                             | USAA204A (USAA204165A9445A11) | UHAA204A (UHAA204165A9445A11) |
| 216      | 174  | -                             | USAA216A (USAA216174A645A11)  | UHAA216A (UHAA216174A645A11)  |
| 228      | 180  | -                             | USAA228A (USAA228180A045A11)  | UHAA228A (UHAA228180A045A11)  |
| 234      | 187  | -                             | -                             | -                             |
| 240      | 190  | -                             | USAA240A (USAA240190AB245A11) | UHAA240A (UHAA240190AB245A11) |

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| Arrester |      | GE            |                | BOWTHORPE          |                    | SIEMENS            |                    |  |  |
|----------|------|---------------|----------------|--------------------|--------------------|--------------------|--------------------|--|--|
| Rating   | MCOV | TRANQUELL XEP | HSR            | 3EQ1....-1/LD1     | 3EQ1....-1/LD2     | 3EQ1....-1/LD3     | 3EQ1....-2/LD2     |  |  |
| (kV rms) |      | 4.9 kJ/kV     | 4.5 kJ/kV      | 4.5 kJ/kV          | 5.0 kJ/kV          | 5.5 kJ/kV          | 5.0 kJ/kV          |  |  |
| 3        | 2.55 | 9L11XPA003S   | -              | -                  | -                  | -                  | -                  |  |  |
| 6        | 5.1  | 9L11XPA006S   | HSRA6L1E1M0    | -                  | -                  | -                  | -                  |  |  |
| 9        | 7.65 | 9L11XPA009S   | HSRA9L1E1M0    | -                  | -                  | -                  | -                  |  |  |
| 10       | 8.4  | 9L11XPA010S   | HSRA10.5L1E1M0 | -                  | -                  | -                  | -                  |  |  |
| 12       | 10.2 | 9L11XPA012S   | HSRA12L1E1M0   | -                  | -                  | -                  | -                  |  |  |
| 15       | 12.7 | 9L11XPA015S   | HSRA15L1E1M0   | -                  | -                  | -                  | -                  |  |  |
| 18       | 15.3 | 9L11XPA018S   | HSRB18L1E1M0   | -                  | -                  | -                  | -                  |  |  |
| 21       | 17.0 | 9L11XPA021S   | HSRB21L1E1M0   | -                  | -                  | -                  | -                  |  |  |
| 24       | 19.5 | 9L11XPA024S   | HSRB24L1E1M0   | -                  | -                  | -                  | -                  |  |  |
| 27       | 22   | 9L11XPA027S   | HSRB27L1E1M0   | -                  | -                  | -                  | -                  |  |  |
| 30       | 24.4 | 9L11XPA030S   | HSRB30L1E1M0   | -                  | -                  | -                  | -                  |  |  |
| 33       | 27.5 | -             | -              | -                  | -                  | -                  | -                  |  |  |
| 36       | 29   | 9L11XPA036S   | HSRC36L1E1M0   | 3EQ1036-1PL1-1/LD1 | 3EQ1036-1PL2-1/LD2 | 3EQ1036-1PL3-1/LD3 | 3EQ1036-1PL2-1/LD2 |  |  |
| 39       | 31.5 | 9L11XPA039S   | HSRC39L1E1M0   | -                  | -                  | -                  | -                  |  |  |
| 42       | 34   | -             | HSRC42L1E1M0   | -                  | -                  | -                  | -                  |  |  |
| 45       | 36.5 | 9L11XPA045S   | HSRC45L1E1M0   | 3EQ1045-1PL1-1/LD1 | 3EQ1045-1PL2-1/LD2 | 3EQ1045-1PL3-1/LD3 | 3EQ1045-1PL2-1/LD2 |  |  |
| 48       | 39   | 9L11XPA048S   | 2HSRB48L1E1M0  | -                  | -                  | -                  | -                  |  |  |
| 54       | 42   | 9L11XPA054S   | -              | -                  | -                  | -                  | -                  |  |  |
| 60       | 48   | 9L11XPA060S   | 2HSRB60L1E1M0  | 3EQ1060-1PL1-1/LD1 | 3EQ1060-1PL2-1/LD2 | 3EQ1060-1PL3-1/LD3 | 3EQ1060-1PL2-1/LD2 |  |  |
| 66       | 53   | 9L11XPA066S   | -              | -                  | -                  | -                  | -                  |  |  |
| 72       | 57   | 9L11XPA072S   | 2HSRC71L1E1M0  | -                  | -                  | -                  | -                  |  |  |
| 78       | 62   | -             | -              | -                  | -                  | -                  | -                  |  |  |
| 84       | 68   | -             | 2HSRC84L1E1M0  | -                  | -                  | -                  | -                  |  |  |
| 90       | 70   | 9L11XPA090S   | -              | -                  | -                  | -                  | -                  |  |  |
| 96       | 76   | 9L11XPA096S   | 3HSRC96L1E1M0  | 3EQ1096-1PL1-1/LD1 | 3EQ1096-1PL2-1/LD2 | 3EQ1096-1PL3-1/LD3 | 3EQ1096-1PL2-1/LD2 |  |  |
| 108      | 84   | 9L11XPA108S   | 3HSRC108L1E1M0 | 3EQ1108-1PL1-1/LD1 | 3EQ1108-1PL2-1/LD2 | 3EQ1108-1PL3-1/LD3 | 3EQ1108-1PL2-1/LD2 |  |  |
| 120      | 98   | 9L11XPA120S   | 3HSRC120L1E1M0 | 3EQ1120-1PL1-1/LD1 | 3EQ1120-1PL2-1/LD2 | 3EQ1120-1PL3-1/LD3 | 3EQ1120-1PL2-1/LD2 |  |  |
| 132      | 106  | 9L11XPA132S   | -              | 3EQ1132-1PL1-1/LD1 | 3EQ1132-1PL2-1/LD2 | 3EQ1132-1PL3-1/LD3 | 3EQ1132-1PL2-1/LD2 |  |  |
| 138      | 111  | -             | -              | -                  | -                  | -                  | -                  |  |  |
| 144      | 115  | 9L11XPA144S   | -              | 3EQ1144-1PL1-1/LD1 | 3EQ1144-1PL2-1/LD2 | 3EQ1144-1PL3-1/LD3 | 3EQ1144-1PL2-1/LD2 |  |  |
| 162      | 130  | -             | -              | -                  | -                  | -                  | -                  |  |  |
| 168      | 131  | -             | -              | -                  | -                  | -                  | -                  |  |  |
| 172      | 140  | -             | -              | -                  | -                  | -                  | -                  |  |  |
| 180      | 144  | -             | -              | 3EQ1180-1PL1-1/LD1 | 3EQ1180-1PL2-1/LD2 | 3EQ1180-1PL3-1/LD3 | 3EQ1180-1PL2-1/LD2 |  |  |
| 192      | 152  | -             | -              | 3EQ1192-1PL1-1/LD1 | 3EQ1192-1PL2-1/LD2 | 3EQ1192-1PL3-1/LD3 | 3EQ1192-1PL2-1/LD2 |  |  |
| 198      | 160  | -             | -              | 3EQ1198-1PL1-1/LD1 | -                  | -                  | -                  |  |  |
| 204      | 165  | -             | -              | -                  | -                  | -                  | -                  |  |  |
| 216      | 174  | -             | -              | -                  | -                  | -                  | -                  |  |  |
| 228      | 180  | -             | -              | -                  | -                  | -                  | -                  |  |  |
| 234      | 187  | -             | -              | -                  | -                  | -                  | -                  |  |  |
| 240      | 190  | -             | -              | -                  | 3EQ1240-1PL2-1/LD2 | -                  | 3EQ1240-1PL2-1/LD2 |  |  |

**Competitor Cross Reference Station-Class Polymer-Housed Surge Arresters**

| Arrester |      | Current Design                |                               |                               |
|----------|------|-------------------------------|-------------------------------|-------------------------------|
| Rating   | MCOV |                               |                               |                               |
| (kV rms) |      | 3.9 kJ/kV                     | 6.2 kJ/kV                     | 10.0 kJ/kV                    |
| 3        | 2.55 | USAA003A (USAA003002A0845A11) | UHAA003A (UHAA003002A0845A11) | UXAA003A (UXAA003002A0845A11) |
| 6        | 5.1  | USAA006A (USAA006005A1045A11) | UHAA006A (UHAA006005A1045A11) | UXAA006A (UXAA006005A1045A11) |
| 9        | 7.65 | USAA009A (USAA009007A1045A11) | UHAA009A (UHAA009007A1045A11) | UXAA009A (UXAA009007A1045A11) |
| 10       | 8.4  | USAA010A (USAA010008A1045A11) | UHAA010A (UHAA010008A1045A11) | UXAA010A (UXAA010008A1045A11) |
| 12       | 10.2 | USAA012A (USAA012010A1245A11) | UHAA012A (UHAA012010A1245A11) | UXAA012A (UXAA012010A1245A11) |
| 15       | 12.7 | USAA015A (USAA015012A1245A11) | UHAA015A (UHAA015012A1245A11) | UXAA015A (UXAA015012A1245A11) |
| 18       | 15.3 | USAA018A (USAA018015A1445A11) | UHAA018A (UHAA018015A1445A11) | UXAA018A (UXAA018015A1445A11) |
| 21       | 17.0 | USAA021A (USAA021017A1445A11) | UHAA021A (UHAA021017A1445A11) | UXAA021A (UXAA021017A1445A11) |
| 24       | 19.5 | USAA024A (USAA024019A1645A11) | UHAA024A (UHAA024019A1645A11) | UXAA024A (UXAA024019A1645A11) |
| 27       | 22   | USAA027A (USAA027022A1645A11) | UHAA027A (UHAA027022A1645A11) | UXAA027A (UXAA027022A1645A11) |
| 30       | 24.4 | USAA030A (USAA030024A1845A11) | UHAA030A (UHAA030024A1845A11) | UXAA030A (UXAA030024A1845A11) |
| 33       | 27.5 | USAA033A (USAA033027A1845A11) | UHAA033A (UHAA033027A1845A11) | UXAA033A (UXAA033027A1845A11) |
| 36       | 29   | USAA036A (USAA036029A1845A11) | UHAA036A (UHAA036029A1845A11) | UXAA036A (UXAA036029A1845A11) |
| 39       | 31.5 | USAA039A (USAA03903A12245A11) | UHAA039A (UHAA03903A12245A11) | UXAA039A (UXAA03903A12245A11) |
| 42       | 34   | USAA042A (USAA042034A2245A11) | UHAA042A (UHAA042034A2245A11) | UXAA042A (UXAA042034A2245A11) |
| 45       | 36.5 | USAA045A (USAA045036A2445A11) | UHAA045A (UHAA045036A2445A11) | UXAA045A (UXAA045036A2445A11) |
| 48       | 39   | USAA048A (USAA048039A2645A11) | UHAA048A (UHAA048039A2645A11) | UXAA048A (UXAA048039A2645A11) |
| 54       | 42   | USAA054A (USAA054042A2645A11) | UHAA054A (UHAA054042A2645A11) | UXAA054A (UXAA054042A2645A11) |
| 60       | 48   | USAA060A (USAA060048A2845A11) | UHAA060A (UHAA060048A2845A11) | UXAA060A (UXAA060048A2845A11) |
| 66       | 53   | USAA066A (USAA066053A3045A11) | UHAA066A (UHAA066053A3045A11) | UXAA066A (UXAA066053A3045A11) |
| 72       | 57   | USAA072A (USAA072057A3245A11) | UHAA072A (UHAA072057A3245A11) | UXAA072A (UXAA072057A3245A11) |
| 78       | 62   | USAA078A (USAA078062A4045A11) | UHAA078A (UHAA078062A4045A11) | UXAA078A (UXAA078062A4045A11) |
| 84       | 68   | USAA084A (USAA084068A4445A11) | UHAA084A (UHAA084068A4445A11) | UXAA084A (UXAA084068A4445A11) |
| 90       | 70   | USAA090A (USAA090070A4645A11) | UHAA090A (UHAA090070A4645A11) | UXAA090A (UXAA090070A4645A11) |
| 96       | 76   | USAA096A (USAA096076A4845A11) | UHAA096A (UHAA096076A4845A11) | UXAA096A (UXAA096076A4845A11) |
| 108      | 84   | USAA108A (USAA108084A5245A11) | UHAA108A (UHAA108084A5245A11) | UX1AA08A (UXAA108084A5245A11) |
| 120      | 98   | -                             | USAA120A (USAA120098A5645A11) | UHAA120A (UHAA120098A5645A11) |
| 132      | 106  | -                             | USAA132A (USAA132106A6045A11) | UHAA132A (UHAA132106A6045A11) |
| 138      | 111  | -                             | USAA138A (USAA138111A6445A11) | UHAA138A (UHAA138111A6445A11) |
| 144      | 115  | -                             | USAA144A (USAA144115A6445A11) | UHAA144A (UHAA144115A6445A11) |
| 162      | 130  | -                             | USAA162A (USAA162130A8045A11) | UHAA162A (UHAA162130A8045A11) |
| 168      | 131  | -                             | USAA168A (USAA168131A8245A11) | UHAA168A (UHAA168131A8245A11) |
| 172      | 140  | -                             | USAA172A (USAA172140A8445A11) | UHAA172A (UHAA172140A8445A11) |
| 180      | 144  | -                             | USAA180A (USAA180144A8645A11) | UHAA180A (UHAA180144A8645A11) |
| 192      | 152  | -                             | USAA192A (USAA192152A8845A11) | UHAA192A (UHAA192152A8845A11) |
| 198      | 160  | -                             | USAA198A (USAA198160A9245A11) | UHAA198A (UHAA198160A9245A11) |
| 204      | 165  | -                             | USAA204A (USAA204165A9445A11) | UHAA204A (UHAA204165A9445A11) |
| 216      | 174  | -                             | USAA216A (USAA216174A645A11)  | UHAA216A (UHAA216174A645A11)  |
| 228      | 180  | -                             | USAA228A (USAA228180AB045A11) | UHAA228A (UHAA228180AB045A11) |
| 234      | 187  | -                             | -                             | -                             |
| 240      | 190  | -                             | USAA240A (USAA240190AB245A11) | UHAA240A (UHAA240190AB245A11) |

**Note:** Hubbell and Joslyn arrester part numbers may contain a four-digit suffix which references different mounting or connector options. For more information, please contact your regional product specialists.

| Arrester |      | SIEMENS            |                    |                    |                    |
|----------|------|--------------------|--------------------|--------------------|--------------------|
| Rating   | MCOV | 3EQ1...-2/LD3      | 3EL2               | 3EQ4               | 3EQ4               |
| (kV rms) |      | 8.0 kJ/kV          | 8.0 kJ/kV          | 8.0 kJ/kV          | 10.0 kJ/kV         |
| 3        | 2.55 | -                  | -                  | -                  | -                  |
| 6        | 5.1  | -                  | -                  | -                  | -                  |
| 9        | 7.65 | -                  | -                  | -                  | -                  |
| 10       | 8.4  | -                  | -                  | -                  | -                  |
| 12       | 10.2 | -                  | -                  | -                  | -                  |
| 15       | 12.7 | -                  | -                  | -                  | -                  |
| 18       | 15.3 | -                  | -                  | -                  | -                  |
| 21       | 17.0 | -                  | -                  | -                  | -                  |
| 24       | 19.5 | -                  | -                  | -                  | -                  |
| 27       | 22   | -                  | -                  | -                  | -                  |
| 30       | 24.4 | -                  | 3EL2030-23F31-4NH5 | -                  | -                  |
| 33       | 27.5 | -                  | -                  | -                  | -                  |
| 36       | 29   | 3EQ1036-1PL3-1/LD3 | 3EL2036-23F31-4NH5 | -                  | -                  |
| 39       | 31.5 | -                  | 3EL2039-23F31-4NH5 | -                  | -                  |
| 42       | 34   | -                  | -                  | -                  | -                  |
| 45       | 36.5 | 3EQ1045-1PL3-1/LD3 | 3EL2045-23F31-4NH5 | -                  | -                  |
| 48       | 39   | -                  | 3EL2048-23F31-4NH5 | -                  | -                  |
| 54       | 42   | -                  | 3EL2054-23F31-4NH5 | -                  | -                  |
| 60       | 48   | 3EQ1060-1PL3-1/LD3 | 3EL2060-23F31-4NH5 | -                  | -                  |
| 66       | 53   | -                  | -                  | -                  | -                  |
| 72       | 57   | -                  | 3EL2072-23J31-4NH5 | -                  | -                  |
| 78       | 62   | -                  | -                  | -                  | -                  |
| 84       | 68   | -                  | -                  | -                  | -                  |
| 90       | 70   | -                  | 3EL2090-23J31-4NH5 | -                  | -                  |
| 96       | 76   | 3EQ1096-1PL3-1/LD3 | 3EL2096-23J31-4NH5 | 3EQ4096-2PN31-4NA0 | -                  |
| 108      | 84   | 3EQ1108-1PL3-1/LD3 | 3EL2108-23M31-4NH5 | -                  | -                  |
| 120      | 98   | 3EQ1120-1PL3-1/LD3 | 3EL2120-23M31-4NH5 | 3EQ4120-2PN31-4NA0 | 3EQ4120-3PN41-4NA0 |
| 132      | 106  | 3EQ1132-1PL3-1/LD3 | 3EL2132-2xQ32-4NH5 | -                  | -                  |
| 138      | 111  | -                  | -                  | -                  | -                  |
| 144      | 115  | 3EQ1144-1PL3-1/LD3 | 3EL2144-2xQ32-4NH5 | 3EQ4144-2PN31-4NA0 | 3EQ4144-3PN41-4NA0 |
| 162      | 130  | -                  | -                  | -                  | -                  |
| 168      | 131  | -                  | 3EL2168-2xJ32-4NH5 | -                  | -                  |
| 172      | 140  | -                  | 3EL2172-2xJ32-4NH5 | -                  | -                  |
| 180      | 144  | 3EQ1180-1PL3-1/LD3 | 3EL2180-2xJ32-4NH5 | -                  | -                  |
| 192      | 152  | 3EQ1192-1PL3-1/LD3 | 3EL2192-2xJ32-4NH5 | 3EQ4192-2PR31-4NA0 | 3EQ4192-3PR41-4NA0 |
| 198      | 160  | -                  | -                  | 3EQ4198-2PR31-4NA0 | 3EQ4198-3PR41-4NA0 |
| 204      | 165  | -                  | -                  | -                  | -                  |
| 216      | 174  | -                  | -                  | -                  | -                  |
| 228      | 180  | -                  | 3EL2228-2xW32-4NH5 | -                  | -                  |
| 234      | 187  | -                  | -                  | -                  | -                  |
| 240      | 190  | 3EQ1240-1PL3-1/LD3 | 3EL2240-2xM32-4NH5 | -                  | -                  |

**Competitor Cross Reference Station-Class Porcelain-Housed Surge Arrester**

| Arrester |           | Eaton   |                |                | Hubbell     |             |             |
|----------|-----------|---|----------------|----------------|-------------|-------------|-------------|
| Rating   | MCOV      | Single and Double Impulse Energy Rating (of MCOV) |                |                |             |             |             |
| (kV rms) | 3.4 kJ/kV |   | 5.6 kJ/kV      |                | 8.9 kJ/kV   |             | -           |
|          | 5.5 kJ/kV | 8.9 kJ/kV   | 14.5 kJ/kV     | 7.3 kJ/kV      | 7.3 kJ/kV   | 11.5 kJ/kV  |             |
| 3        | 2.55      | AZES001G002003                                    | AZEH001G002003 | AZEX041G002003 | 217003-3001 | 216003-3001 | -           |
| 6        | 5.1       | AZES001G005006                                    | AZEH001G005006 | AZEX041G005006 | 217005-3001 | 216005-3001 | -           |
| 9        | 7.65      | AZES001G007009                                    | AZEH001G007009 | AZEX041G007009 | 217008-3001 | 219508-3001 | -           |
| 10       | 8.4       | AZES002G008010                                    | AZEH002G008010 | AZEX042G008010 | 217009-3001 | 219509-3001 | -           |
| 12       | 10.2      | AZES002G010012                                    | AZEH002G010012 | AZEX042G010012 | 218510-3001 | 219510-3001 | -           |
| 15       | 12.7      | AZES002G012015                                    | AZEH002G012015 | AZEX042G012015 | 217013-3001 | 219513-3001 | -           |
| 18       | 15.3      | AZES003G015018                                    | AZEH003G015018 | AZEX043G015018 | 217015-3001 | 216015-3001 | -           |
| 21       | 17.0      | AZES003G017021                                    | AZEH003G017021 | AZEX043G017021 | 218507-3001 | 219517-3001 | -           |
| 24       | 19.5      | AZES003G019024                                    | AZEH003G019024 | AZEX043G019024 | 218519-3001 | 219519-3001 | -           |
| 27       | 22        | AZES004G022027                                    | AZEH004G022027 | AZEX044G022027 | -           | 216022-3001 | -           |
| 30       | 24.4      | AZES004G024030                                    | AZEH004G024030 | AZEX044G024030 | -           | 216024-3001 | -           |
| 33       | 27.5      | AZES004G027033                                    | AZEH004G027033 | AZEX044G027033 | -           | -           | -           |
| 36       | 29        | AZES004G029036                                    | AZEH004G029036 | AZEX044G029036 | -           | 219529-3001 | -           |
| 39       | 31.5      | AZES005G031039                                    | AZEH005G031039 | AZEX045G031039 | -           | 216031-3001 | -           |
| 42       | 34        | AZES005G034042                                    | AZEH005G034042 | AZEX045G034042 | -           | -           | -           |
| 45       | 36.5      | AZES005G036045                                    | AZEH005G036045 | AZEX045G036045 | -           | 219536-3001 | -           |
| 48       | 39        | AZES005G039048                                    | AZEH005G039048 | AZEX045G039048 | -           | 219539-3001 | -           |
| 54       | 42        | AZES006G042054                                    | AZEH006G042054 | AZEX046G042054 | -           | -           | 219542-5001 |
| 60       | 48        | AZES006G048060                                    | AZEH006G048060 | AZEX046G048060 | -           | -           | 219548-5001 |
| 66       | 53        | AZES007G053066                                    | AZEH007G053066 | AZEX047G053066 | -           | -           | -           |
| 72       | 57        | AZES007G057072                                    | AZEH007G057072 | AZEX047G057072 | -           | -           | 219557-5001 |
| 78       | 62        | AZES008G062078                                    | AZEH008G062078 | AZEX048G062078 | -           | -           | -           |
| 84       | 68        | AZES008G068084                                    | AZEH008G068084 | AZEX048G068084 | -           | -           | -           |
| 90       | 70        | AZES008G070090                                    | AZEH008G070090 | AZEX048G070090 | -           | -           | 219570-5001 |
| 96       | 76        | AZES008G076096                                    | AZEH008G076096 | AZEX048G076096 | -           | -           | 219576-5001 |
| 108      | 84        | AZES009G084108                                    | AZEH009G084108 | AZEX049G084108 | -           | -           | 219584-5001 |
| 120      | 98        | -   | AZES009G098120 | AZEH049G098120 | -           | -           | 217598-5001 |
| 132      | 106       | -   | AZES012G106132 | AZEH052G106132 | -           | -           | 219606-5001 |
| 138      | 111       | -   | AZES012G111138 | AZEH052G111138 | -           | -           | -           |
| 144      | 115       | -   | AZES013G115144 | AZEH053G115144 | -           | -           | 219615-5001 |
| 162      | 130       | -   | AZES014G130162 | AZEH054G130162 | -           | -           | -           |
| 168      | 131       | -   | AZES015G131168 | AZEH055G131168 | -           | -           | 219631-5001 |
| 172      | 140       | -   | AZES021G140172 | AZEH061G140172 | -           | -           | 217740-5001 |
| 180      | 144       | -   | AZES022G144180 | AZEH062G144180 | -           | -           | 217744-5001 |
| 192      | 152       | -   | AZES022G152192 | AZEH062G152192 | -           | -           | 217752-5001 |
| 198      | 160       | -   | AZES023G160198 | AZEH063G160198 | -           | -           | -           |
| 204      | 165       | -   | AZES024G165204 | AZEH064G165204 | -           | -           | -           |
| 216      | 174       | -   | AZES024G174216 | AZEH064G174216 | -           | -           | -           |
| 228      | 180       | -   | AZES025G180228 | AZEH065G182228 | -           | -           | 217780-5001 |
| 240      | 190       | -   | AZES025G190240 | AZEH065G190240 | -           | -           | -           |
| 258      | 209       | -   | -              | AZES067G209258 | -           | -           | 217909-5001 |
| 264      | 212       | -   | -              | AZES067G212264 | -           | -           | 217912-5001 |
| 276      | 220       | -   | -              | AZES069G220276 | -           | -           | 217920-5001 |
| 288      | 230       | -   | -              | AZES069G230288 | -           | -           | -           |
| 294      | 235       | -   | -              | AZES070G235294 | -           | -           | -           |
| 300      | 239       | -   | -              | AZES070G239300 | -           | -           | -           |
| 312      | 245       | -   | -              | AZES071G245312 | -           | -           | 217945-5001 |
| 330      | 267       | -   | -              | AZES074G267330 | -           | -           | -           |
| 336      | 269       | -   | -              | AZES074G269336 | -           | -           | -           |
| 360      | 289       | -   | -              | AZES075G289360 | -           | -           | -           |

**Note:** Hubbell and ABB arrester part numbers may contain a suffix which references different mounting or connector options. For more information, please contact your regional product specialist.

| Arrester |   | ABB        |            |            |            |            |
|----------|---|------------|------------|------------|------------|------------|
| Rating   | MCOV  | EXLIM R    | EXLIM Q-E  | EXLIM Q-D  | EXLIM P    | EXLIM T    |
| (kV rms) | Single and Double Impulse Energy Rating (of MCOV) |            |            |            |            |            |
|          | 5.0 kJ/kV   | 7.8 kJ/kV  | 7.8 kJ/kV  | 10.8 kJ/kV | 15.4 kJ/kV |            |
| 3        | 2.55  | -          | -          | -          | -          | -          |
| 6        | 5.1   | -          | -          | -          | -          | -          |
| 9        | 7.65  | -          | -          | -          | -          | -          |
| 10       | 8.4   | -          | -          | -          | -          | -          |
| 12       | 10.2  | -          | -          | -          | -          | -          |
| 15       | 12.7  | -          | -          | -          | -          | -          |
| 18       | 15.3  | -          | -          | -          | -          | -          |
| 21       | 17.0  | -          | -          | -          | -          | -          |
| 24       | 19.5  | R024-CV036 | Q024-EV036 | -          | -          | -          |
| 27       | 22  | R027-CV036 | Q027-EV036 | -          | -          | -          |
| 30       | 24.4  | R030-CV036 | Q030-EV036 | -          | P030-GV036 | -          |
| 33       | 27.5  | R033-CV036 | Q033-EV036 | -          | P033-GV036 | -          |
| 36       | 29  | R036-CV036 | Q036-EV036 | -          | P036-GV036 | -          |
| 39       | 31.5  | R039-CV036 | Q039-EV036 | -          | P039-GV036 | -          |
| 42       | 34  | R042-CV052 | Q042-EV052 | -          | P042-GH052 | -          |
| 45       | 36.5  | R045-CV052 | Q045-EV052 | -          | P045-GH052 | -          |
| 48       | 39  | R048-CV052 | Q048-EV052 | -          | P048-GH052 | -          |
| 54       | 42  | R054-CV052 | Q054-EV052 | -          | P054-GH052 | -          |
| 60       | 48  | R060-CV052 | Q060-EV052 | -          | P060-GH052 | -          |
| 66       | 53  | R066-CM072 | Q066-EV072 | -          | P066-GV072 | -          |
| 72       | 57  | R072-CM072 | Q072-EV072 | -          | P072-GV072 | -          |
| 78       | 62  | R078-CH100 | Q078-EV072 | -          | P078-GV072 | -          |
| 84       | 68  | R084-CH100 | Q084-EH100 | -          | P084-GV072 | -          |
| 90       | 70  | R090-CH100 | Q090-EH100 | -          | P090-GH123 | -          |
| 96       | 76  | R096-CH100 | Q096-EH100 | -          | P096-GH123 | -          |
| 108      | 84  | R090-CH145 | Q108-EH145 | -          | P108-GH123 | -          |
| 120      | 98  | R120-CH145 | Q120-EH145 | -          | P120-GH123 | -          |
| 132      | 106   | R132-CH145 | Q132-EH145 | Q132-DH170 | P132-GH123 | -          |
| 138      | 111   | R138-CH145 | Q138-EH145 | Q138-DH170 | P138-GH123 | -          |
| 144      | 115   | R144-CH145 | Q144-EH145 | Q144-DH170 | P144-GH170 | -          |
| 162      | 130   | R162-CH170 | Q162-EH170 | Q162-DH170 | P162-GH170 | -          |
| 168      | 131   | R168-CH170 | Q168-EH170 | Q168-DH170 | P168-GH170 | -          |
| 172      | 140   | -          | Q172-EH170 | -          | -          | -          |
| 180      | 144   | -          | Q180-EH245 | Q180-DH245 | P180-GH245 | T180-BH245 |
| 192      | 152   | -          | Q192-EH245 | Q192-DH245 | P192-GH245 | T192-BH245 |
| 198      | 160   | -          | Q198-EH245 | Q198-DH245 | P198-GH245 | T198-BH245 |
| 204      | 165   | -          | Q204-EH245 | -          | P204-GH245 | T204-BH245 |
| 216      | 174   | -          | Q216-EH245 | Q216-DV245 | P216-GH245 | T216-BH245 |
| 228      | 180   | -          | Q228-EH245 | Q228-DV245 | P228-GM300 | T228-BM300 |
| 240      | 190   | -          | -          | Q240-DM300 | P240-GM300 | T240-BM300 |
| 258      | 209   | -          | -          | Q258-DM300 | P258-GM300 | T258-BM362 |
| 264      | 212   | -          | -          | Q264-DM300 | P264-GM300 | T264-BM362 |
| 276      | 220   | -          | -          | Q276-DM362 | P276-GM362 | T276-BM362 |
| 288      | 230   | -          | -          | Q288-DM362 | P288-GM362 | T288-BM362 |
| 294      | 235   | -          | -          | -          | -          | -          |
| 300      | 239   | -          | -          | -          | -          | -          |
| 312      | 245   | -          | -          | -          | -          | -          |
| 330      | 267   | -          | -          | Q330-DM420 | P330-GM420 | T330-BM420 |
| 336      | 269   | -          | -          | Q336-DM420 | P336-GM420 | T336-BM420 |
| 360      | 289   | -          | -          | Q360-DM420 | P360-GM420 | T360-BM420 |

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