

# **IEC Separable Connectors 42 kV, 630A**

**Front T-Body / Coupling (Rear) T-Body Connector**



# APPLICATION

Chardon Front T-Body / Coupling (Rear) T-Body Connectors are fully screened and fully submersible when mated with proper bushings or plugs. The products are used to terminate polymeric cable to dead front apparatus such as transformers, switchgear, and other equipment. They can be used for 42kV applications.

# KEY FEATURES

- / Provides a fully shielded and submersible connection whenmated with the proper bushing or plug.
- / Type "C" 630A Interface.
- / Mounting can be vertical, horizontal, or any angle in between.
- / No minimum phase clearance requirements.
- / 100% electrically tested at factory.

# PRODUCT RATINGS

|                                                |               |
|------------------------------------------------|---------------|
| Rated Voltage Class (U <sub>r</sub> )          | 42 kV         |
| AC 5 Minute Withstand                          | 117 kV        |
| DC 15 Minute Voltage Withstand                 | 125 kV        |
| Partial Discharge                              | 45 kV < 10 pC |
| BIL and Full Wave Crest (Impulse)              | 200 kV        |
| Thermal Short Circuit (Conductor, 2 sec twice) | 24.1 kA       |
| Dynamic Short Circuit (Conductor, 10ms)        | 85.2 kA       |
| Continuous Current                             | 630 A         |

# PRODUCTION TESTS

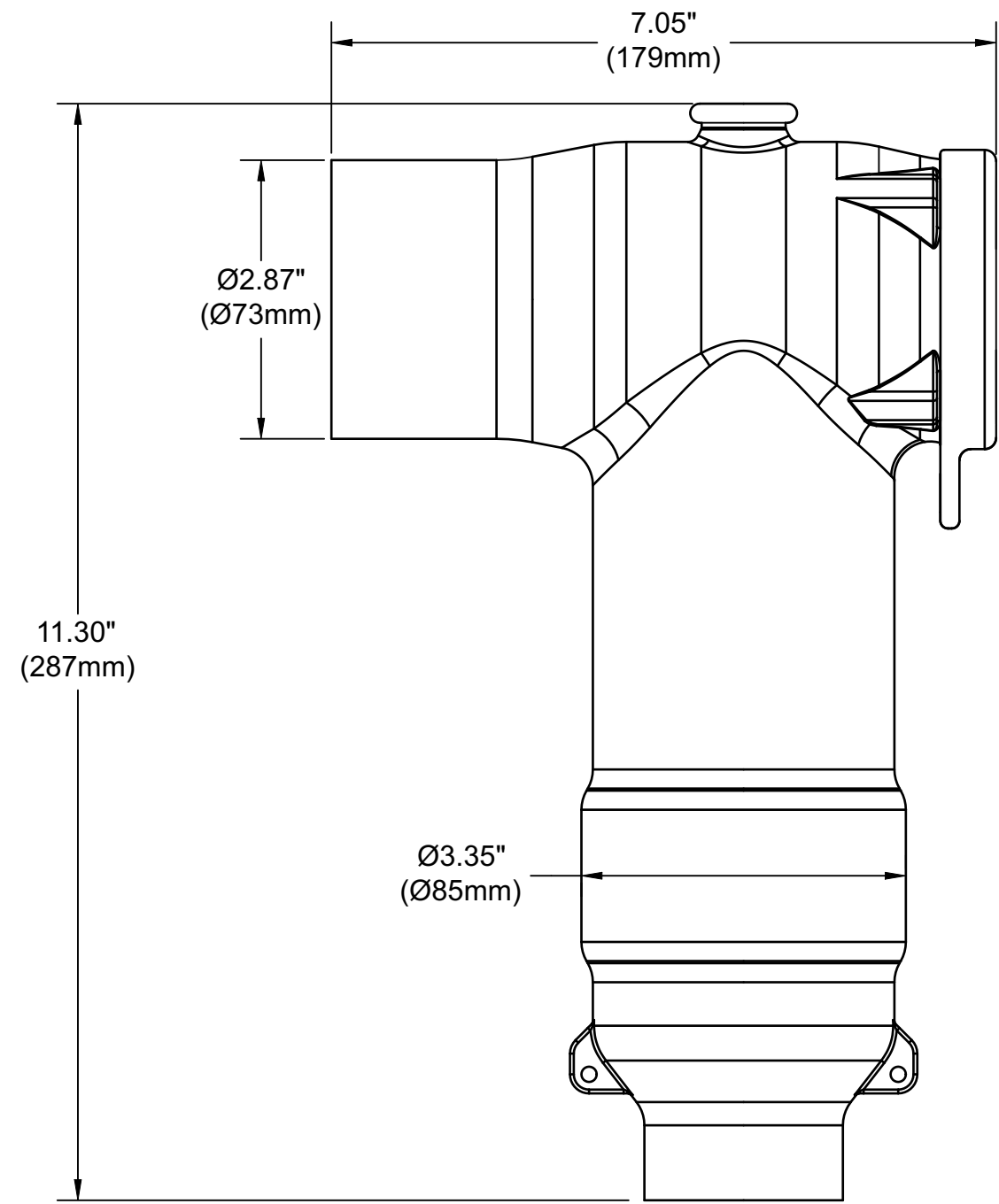
Tests conducted in accordance with IEC 60502-4.

- / Partial Discharge – 45 kV ≤ 3pC
- / AC 5 Minute Withstand – 117 kV

# DETAILED COMPOSITION OF THE CHARDON 42 KV FRONT T-BODY CONNECTOR



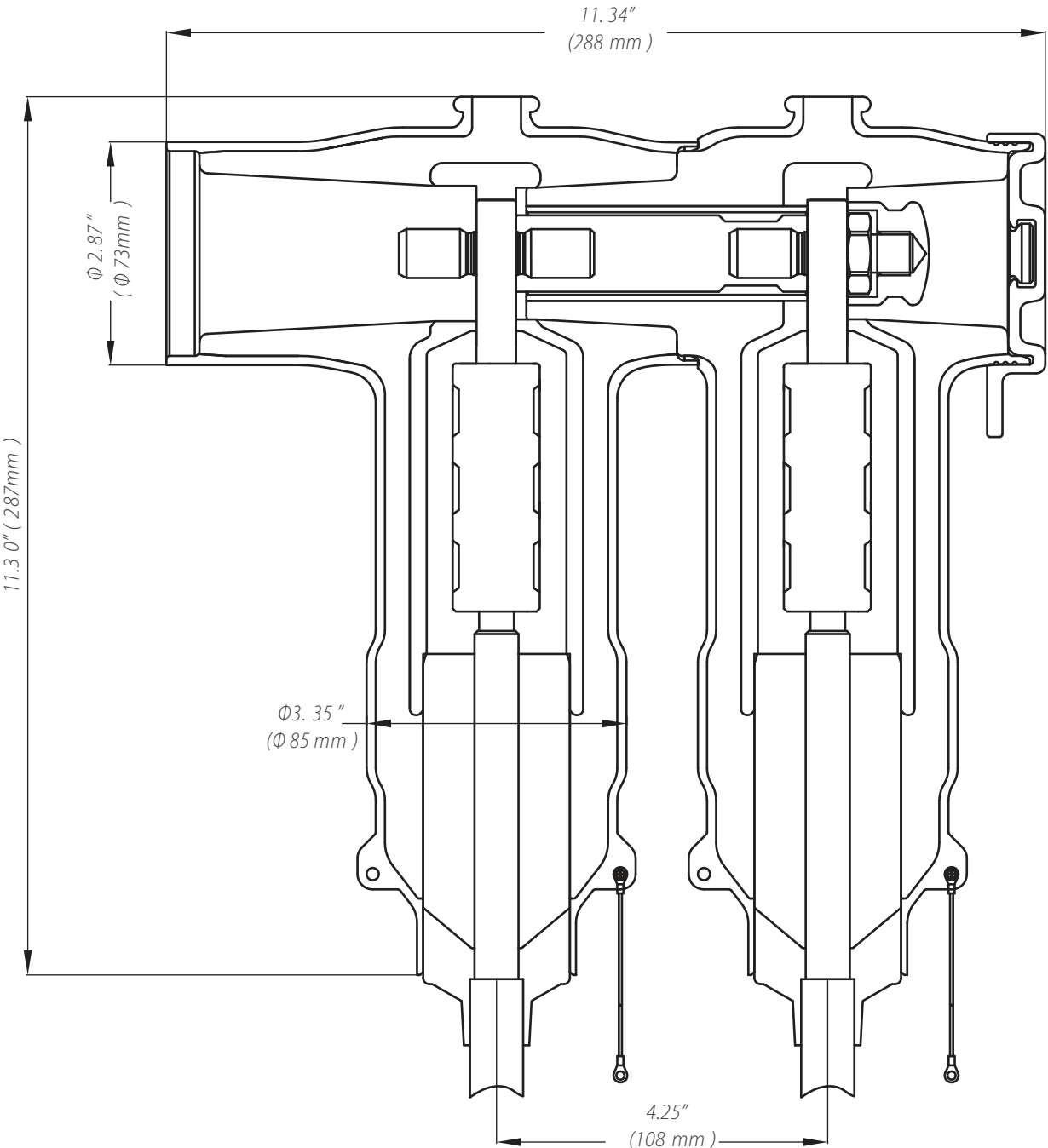
**DETAILED COMPOSITION OF THE CHARDON  
42 KV FRONT T-BODY CONNECTOR**



**DETAILED COMPOSITION OF THE CHARDON  
42 KV COUPLING (REAR) T-BODY CONNECTOR**



DETAILED COMPOSITION OF THE CHARDON  
42 KV COUPLING (REAR) T-BODY CONNECTOR



ORDERING INFORMATION

|     |       |      |       |       |       |
|-----|-------|------|-------|-------|-------|
| 42- | ---   | 630- | -     | ---   | -     |
|     | STEP1 |      | STEP2 | STEP3 | STEP4 |

|       |     |
|-------|-----|
| STEP1 | --- |
|-------|-----|

Selection of Front / Rear T-body

| Code |                        |
|------|------------------------|
| FDT  | Front T-body           |
| RDT  | Coupling (Rear) T-body |

|       |   |
|-------|---|
| STEP2 | - |
|-------|---|

Selection of Cable Insulation Dimension

| Range Code | mm (inch)                   |
|------------|-----------------------------|
| LA         | 15.5 - 19.0 (0.610 - 0.748) |
| LB         | 18.0 - 21.0 (0.709 - 0.827) |
| LC         | 20.0 - 23.0 (0.787 - 0.905) |
| LD         | 22.0 - 25.0 (0.866 - 0.984) |
| LE         | 24.0 - 27.0 (0.945 - 1.063) |
| LF         | 26.0 - 29.0 (1.024 - 1.142) |
| LG         | 28.0 - 32.0 (1.102 - 1.260) |
| LH         | 31.0 - 34.0 (1.220 - 1.339) |
| LI         | 33.0 - 37.0 (1.299 - 1.457) |
| LJ         | 36.0 - 39.0 (1.417 - 1.535) |
| LK         | 38.0 - 42.0 (1.496 - 1.654) |

|       |     |
|-------|-----|
| STEP3 | --- |
|-------|-----|

Selection of Conductor Size

| Conductor Code | Conductor Size (mm²) |
|----------------|----------------------|
| 25             | 25                   |
| 35             | 35                   |
| 50             | 50                   |
| 70             | 70                   |
| 95             | 95                   |
| 120            | 120                  |
| 150            | 150                  |
| 185            | 185                  |
| 240            | 240                  |
| 300            | 300                  |
| 400            | 400                  |

|       |   |
|-------|---|
| STEP4 | - |
|-------|---|

Selection of Compression Connector Material

| Code |                    |
|------|--------------------|
| B    | Bi-metal (Al & Cu) |
| C    | Copper             |

Ordering Example:

For a CHARDON 42 kV Front T-body with cable insulation outer dimension of 39.0 mm and a conductor size of 185 mm² with copper compression connector, the part number would be as follows.

|     |     |     |    |     |   |
|-----|-----|-----|----|-----|---|
| 42- | FDT | 630 | LK | 185 | C |
|-----|-----|-----|----|-----|---|

If a shear bolt connector is selected in this kit, the part number would be 42-FDT630LK-SBC-B-150-240/2.

|     |     |     |    |                    |
|-----|-----|-----|----|--------------------|
| 42- | FDT | 630 | LK | SBC-B-150-240/2-AL |
|-----|-----|-----|----|--------------------|

Chardon Shear Bolt Connector

Example:

For a Shear Bolt Connector with a conductor Range between 20-50 mm², the part number would be : SBC-B-25-50/1.

| CATALOG NO.        | Conductor Range(mm²) |
|--------------------|----------------------|
| SBC-B-25-50/1-AL   | 25-50                |
| SBC-B-70-120/2-AL  | 70-120               |
| SBC-B-150-240/2-AL | 150-240              |
| SBC-B-120-300/2-AL | 120-300              |
| SBC-B-300-400/3-AL | 300-400              |





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