G&W Electric
Engineered to order. Built to last.®

Python® Cable Accessories

Extruded Dielectric Cable 69kV-500kV Rating



G&W Electric's portfolio of transmission cable accessories reflects our long history of industry-leading research and development. We are a pioneer in the design and manufacturing of quality cable accessories, with a long history of expertise that actively contributes to development standards for IEEE.

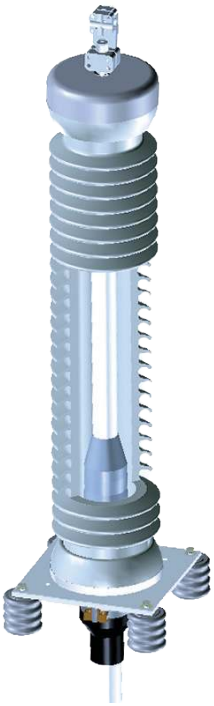
G&W Electric offers a variety of transmission cable accessories available for extruded, self-contained and pipe type cables for outdoor and equipment mount applications. Our power cable accessories offer a diverse range of cable terminations, available up to 500kV. Designs are manufactured to ensure seamless installation and adaptability to various cable types and sizes.

- Components used in cable systems
- Factory Molded
- For outdoor applications through 500kV
- For gas insulated substations and transformers through 500kV
- 100% Tested
- Dry type designs available for easy installation
- Mechanical Shrink installation option available

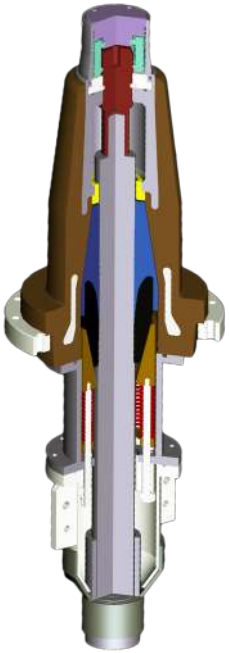
PYTHON® SERIES



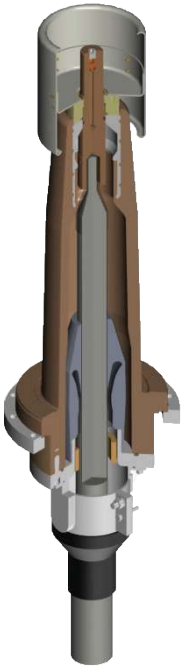
Dry Type Outdoor Terminations



Outdoor Terminations



Dry GIS and Transformer Terminations



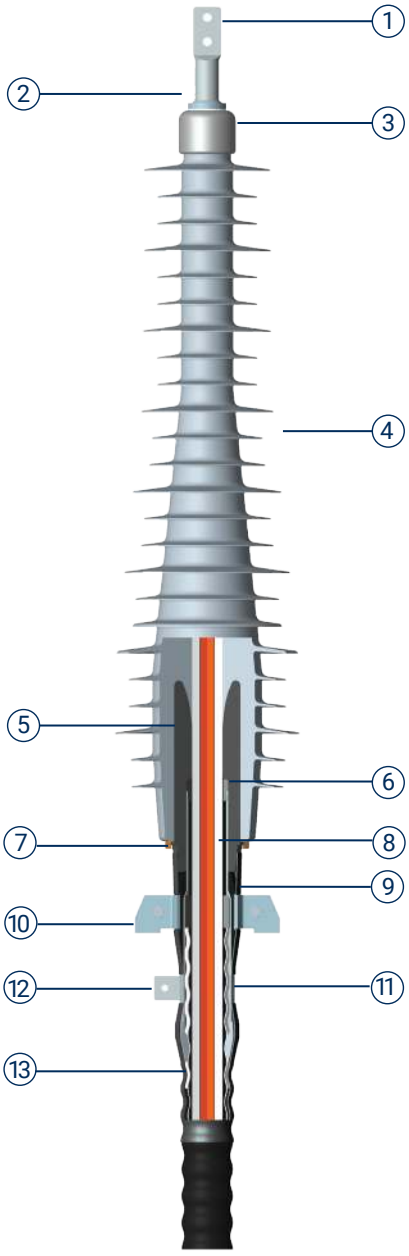
GIS and Transformer Terminations



Premolded Joint

Dry Type Outdoor Terminations

G&W Electric's Python premolded dry type outdoor terminations are available for 145kV IEC (138kV IEEE) XLPE and EPR cable systems.



FEATURES

- Lightweight
- Dry type premolded termination body
- Flexible design
- Vertical, horizontal or angled mounting positions
- Mechanical shrink installation
- Tested to IEC 60840

STANDARD COMPONENTS

1. Conductor Connector (Crimp type connectors supplied as standard)
2. Hood nut
3. Corona shield cap
4. Termination body
5. Stress Cone
6. Position and cushion ring
7. Slip ring
8. Cable entrance housing
9. Insulation and seal tapes
10. Mounting bracket
11. Heat shrink tube
12. Grounding plate
13. Wiping seal

APPLICATION RANGE EPR, XLPE CABLE

CONDUCTOR MATERIAL	CONDUCTOR SIZE	INSULATION DIAMETER
PAT130C - 145(138kV)		
Copper	240mm² - 1600 mm² (500 kcmil - 3000 kcmil)	59mm - 90mm (2.32 in. - 3.54 in.)
Aluminum	2400mm² - 1200mm² (500 kcmil - 2500 kcmil)	59mm - 90mm (2.32 in. - 3.54 in.)

Outdoor Terminations

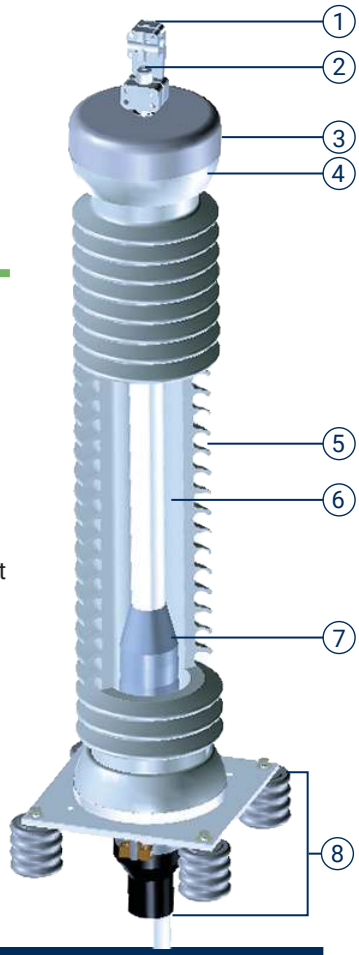
G&W Electric's Python outdoor PAT style transmission terminations are designed for extruded dielectric cable systems from 72.5kV to 550kV IEC (69kV to 500kV IEEE).

FEATURES

- Pressure tight epoxy socket insulator
- Prefabricated silicone rubber stress cone
- Application range is 240mm² - 2500mm² XLPE cable
- Meet or exceed requirements of IEC 60840, IEC 62067, IEEE 48, IEEE 404 and AEIC CS9-06

STANDARD COMPONENTS

1. Aerial lug specified by user
2. Connector (Crimp type connectors supplied as standard)
3. Aluminum cap plate
4. Aluminum corona shield
5. Insulator
6. Dielectric fluid
7. Premolded rubber stress cone
8. Aluminum entrance housing with heat shrink seal, standoff insulators (4) and galvanized steel mounting plate
9. Cable preparation kit



APPLICATION RANGE

CONDUCTOR MATERIAL	CONDUCTOR SIZE	INSULATION DIAMETER**
PAT119 - 72.5 (69kV)		
Copper	240mm² - 2000mm² (500 kcmil - 4000 kcmil)	40.5mm - 93.2mm (1.59in. - 3.67in.)
Aluminum*	240mm² - 2000mm² (500 kcmil - 4000 kcmil)	
PAT140 - 145 (138kV)		
Copper	240mm² - 2000mm² (500 kcmil - 4000 kcmil)	43mm - 106.5mm (1.69in. - 4.19in.)
Aluminum*	240mm² - 2000mm² (500 kcmil - 4000 kcmil)	
PAT150 - 170 (161kV)		
Copper	240mm² - 1600mm² (500 kcmil - 4000 kcmil)	43mm - 106.5mm (1.69in. - 4.19in.)
Aluminum*	240mm² - 1200mm² (500 kcmil - 4000 kcmil)	
PAT160 - 245 (230kV)		
Copper	400mm² - 2500mm² (750 kcmil - 5000 kcmil)	65mm - 124.9mm (2.55in. - 4.92in.)
Aluminum*	400mm² - 2500mm² (750 kcmil - 5000 kcmil)	
PAT180 - 362 (345kV)		
Copper	800mm² - 2500mm² (1500kcmil-5000kcmil)	104mm - 133.5mm (4.1in. - 5.26in.)
Aluminum*	800mm² - 2500mm² (1500kcmil-5000kcmil)	
PAT190 - 550 (500kV)		
Copper	800mm²-2500mm² (1500kcmil-5000kcmil)	104mm-133.5mm (4.1in - 5.26in)
Aluminum*	800mm²-2500mm² (1500kcmil-5000kcmil)	

**Aluminum conductors larger than 1200mm² (2500 kcmil) may require special conductor connection provisions. Contact your G&W Electric representative for additional cable sizes*

Dry GIS and Transformer Terminations

G&W Electric's Python SSC style transmission terminations are designed for gas insulated switchgear and transformer applications on extruded dielectric cable systems rated up to 550kV IEC (500kV IEEE).

FEATURES

- Pressure tight epoxy socket insulator
- Prefabricated silicone rubber stress cone
- Dry type design, no oil filling of the termination required
- Dimensions meet the requirements of IEC 62271-209
- Application range is 240mm² - 2500mm² XLPE cable
- Meet or exceed requirements of IEC 60840, IEC 62067, IEEE 48, IEEE 404 and AEIC CS9-06

STANDARD COMPONENTS

1. Contact Pad
2. Quick connect assembly
3. Connector
4. Stress cone stopper
5. Epoxy Insulator
6. Premolded rubber stress cone
7. Clamping ring
8. Stress cone compression kit
9. Entrance housing
10. Heat shrink tube

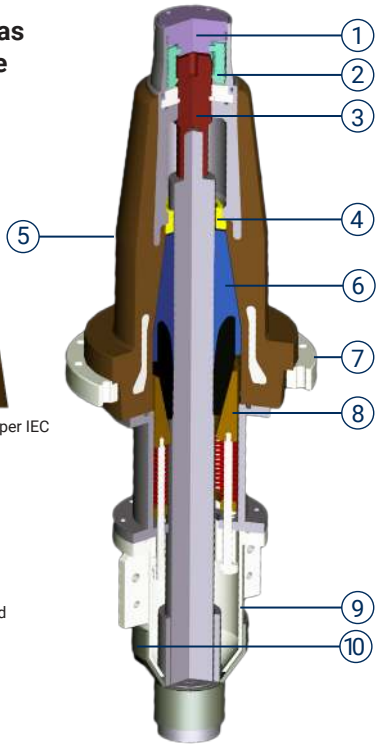
Note: Standard kit also includes: grease, sandpaper, PVC tape, heat shrink seal, solder, flux, tinned copper ground braid and grounding lugs



Contact Pad per IEC 62271-209



Corona Shield



APPLICATION RANGE

CONDUCTOR MATERIAL	CONDUCTOR SIZE	INSULATION DIAMETER**
SSC140 - 145 (138kV)		
Copper	240mm² - 2000mm² (500kcmil - 4000kcmil)	57.5mm - 101.5mm (2.26 in. - 3.99 in.)
Aluminum*	240mm² - 1200mm² (500kcmil - 2500kcmil)	
SSC140 Plug-in/Plug-out 145 (138kV)		
Copper	240mm² - 1600mm² (500kcmil - 3200kcmil)	57.5mm - 91.5mm (2.26 in. - 3.60 in.)
Aluminum*	240mm² - 1600mm² (500kcmil - 3200kcmil)	
SSC150 - 170 (161kV)		
Copper	240mm² - 2000mm² (500kcmil - 4000kcmil)	57.5mm - 101.5mm (2.26 in. - 3.99 in.)
Aluminum*	240mm² - 1200mm² (500kcmil - 2500kcmil)	
SSC160 - 245 (230kV)		
Copper	400mm² - 2500mm² (750kcmil - 5000kcmil)	76.5mm - 116.5mm (3.01 in. - 4.59 in.)
Aluminum*	400mm² - 1200mm² (750kcmil - 2500kcmil)	
SSC160 Plug-in/Plug-out 245 (230kV)		
Copper	400mm² - 1600mm² (750kcmil - 3200kcmil)	73mm - 108mm (2.87 in. - 4.25in.)
Aluminum*	400mm² - 1600mm² (750kcmil - 3200kcmil)	
SSC180 - 362 (345kV)		
Copper	1200mm² - 2500mm² (2500kcmil - 5000kcmil)	104mm - 133.5mm (4.10 in. - 5.26 in.)
Aluminum*	800mm² - 1200mm² (1500kcmil - 2500kcmil)	
SSC190 - 550 (500kV)		
Copper	800mm²-2500mm² (1500kcmil - 5000kcmil)	104mm - 133.5mm (4.10 in. - 5.26 in.)
Aluminum*	800mm²-2500mm² (1500kcmil - 5000kcmil)	

** Aluminum conductors larger than 1200mm² (2500 kcmil) may require special conductor connection provisions. Contact your G&W Electric representative for additional cable sizes.5*

GIS and Transformer Terminations

G&W Electric's Python PATR style transmission terminations are designed for gas insulated substation and oil immersed equipment applications on extruded dielectric cable systems rated: 72.5kV, 145kV, and 245kV IEC (69kV,138kV, 230kV IEEE)

FEATURES

- Stress Cone: Factory molded and 100% tested
- Available with mechanical shrink or slip on installation method
- 69kV and 138kV are type tested per applicable requirements of IEEE 48 and IEC 60840
- 230kV is prequalification and type tested per IEC 62067
- Suitable for XLPE and EPR cables



Contact Pad per IEC 60859

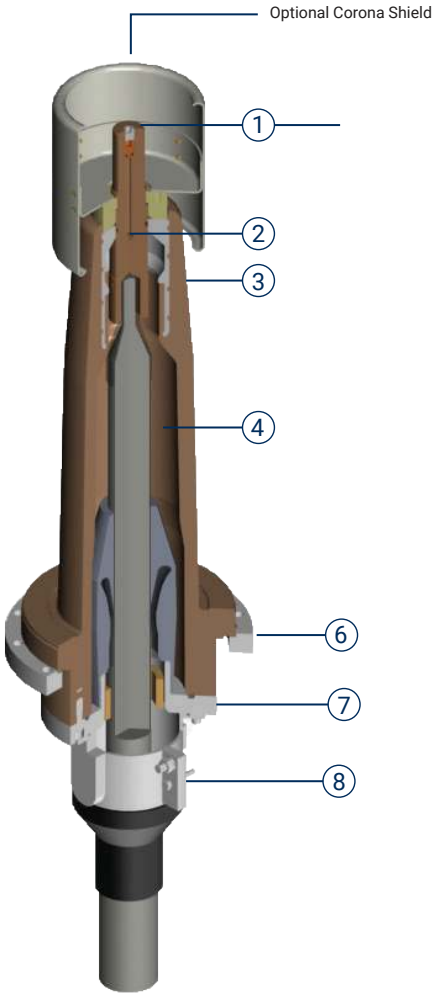


Contact Pad per IEC 62271

STANDARD COMPONENTS

1. Equipment connection:
   - Contact pad style suitable for GIS or oil immersed transformer applications
   - Stem connector style suitable for oil immersed transformer applications. Various styles of aerial lugs are available for stem connector design.
2. Connector with double "O"-ring seal
3. Epoxy insulator with built-in cable shield break
4. Dielectric fluid
5. Premolded rubber stress cone
6. Aluminum clamping ring
7. Aluminum base plate
8. Aluminum entrance housing with heat shrink seal

Note: Standard kit also includes: grease, sandpaper, PVC tape, heat shrink seal, solder, flux, tinned copper ground braid and grounding lugs.



APPLICATION RANGE

CONDUCTOR MATERIAL	CONDUCTOR SIZE	INSULATION DIAMETER
PATR119 - 72.5 (69kV)		
Copper	240mm² - 1600mm² (500 kcmil - 3000 kcmil)	40.5mm - 90mm (1.59 in. - 3.54 in.)
Aluminum*	240mm² - 1200mm² (500 kcmil - 2500 kcmil)	
PATR140 - 145 (138kV)		
Copper	240mm² - 2000mm² (500 kcmil - 4000 kcmil)	43mm - 106.5mm (1.69 in. - 4.19 in.)
Aluminum*	240mm² - 1200mm² (500 kcmil - 2500 kcmil)	
PATR160 - 245 (230kV)		
Copper	400mm² - 2500mm² (750 kcmil - 5000 kcmil)	65mm - 124.9mm (2.55 in. - 4.92 in.)
Aluminum*	400mm² - 1200mm² (750 kcmil - 2500 kcmil)	

** Aluminum conductors larger than 800mm² (1600 kcmil) may require special conductor connection provisions. Contact your G&W Electric representative for additional cable sizes.*

Premolded Joint

G&W Electric's Python premolded rubber joints (PMJ) are available from 72.5kV to 550kV (69kV to 500kV IEEE) extruded dielectric cable systems.

FEATURES

- Factory premolded joint
- 100% routine tested
- 69kV type tested per IEC60840
- 115 - 230kV type tested per IEC60840, IEC62067 and IEEE404
- 500kV type tested per IEC62067

APPLICATIONS

- Extruded dielectric cable systems, XLPE and EPR insulated
  - Cable ground shield: copper wires/tapes, corrugated aluminum or copper sheath, lead sheath
  - Direct burial, submersed or vault

OPTIONS

- Available with mechanical shrink or slip-on installation method
- Shield break or Non shield break configurations
- Available with the following options for outer protection:
  - Heat shrink tubing
  - Copper housing
- Shear bolt connectors available



APPLICATION RANGE

CONDUCTOR MATERIAL	CONDUCTOR SIZE	INSULATION DIAMETER
PMJ119 - 72.5 (69)kV		
Copper	240mm² - 2000mm² (500 kcmil - 4000 kcmil)	50.8mm - 93.2mm (2 in. - 3.67 in.)
Aluminum*	240mm² - 2000mm² (500 kcmil - 4000 kcmil)	
PMJ140 - 145 (138) kV		
Copper	240mm² - 2000mm² (500 kcmil - 4000 kcmil)	54mm - 98mm (2.12 in. - 3.86 in.)
Aluminum*	240mm² - 2000mm² (500 kcmil - 4000 kcmil)	
PMJ150 - 170 (161kV)		
Copper	240mm² - 2000mm² (500 kcmil - 4000 kcmil)	60mm - 98mm (2.36 in. - 3.86 in.)
Aluminum*	240mm² - 2000mm² (500 kcmil - 4000 kcmil)	
PMJ160 - 245 (230kV)		
Copper	400mm² - 2500mm² (750 kcmil - 5000 kcmil)	74mm - 124mm (2.91 in. - 4.88 in.)
Aluminum*	400mm² -2500mm² (750 kcmil - 5000 kcmil)	
PMJ180 - 362 (345kV)		
Copper	800mm² - 2500mm² (1500 kcmil - 5000 kcmil)	95mm - 133mm (3.74 in. - 5.24 in.)
Aluminum*	800mm² - 2500mm² (1500 kcmil - 5000 kcmil)	
PMJ190 - 550 (500kV)		
Copper	800mm² - 2500mm² (1500 kcmil - 5000 kcmil)	95mm - 133mm (3.74 in. - 5.24 in.)
Aluminum*	800mm² - 2500mm² (1500 kcmil - 5000 kcmil)	

** Aluminum conductors larger than 500mm² (1000 kcmil) may require special conductor connection provisions. Contact your G&W Electric representative for additional cable sizes.*

Contact us today

+1.708.388.5010 or info@gwelec.com

G&W Electric

Engineered to order. Built to last.®

Since 1905, G&W Electric has been a leading provider of innovative power grid solutions including the latest in load and fault interrupting switches; reclosers; sensors; system protection equipment; power grid automation; transmission and distribution cable terminations; and joints and other cable accessories. G&W Electric is headquartered in Bolingbrook, Illinois, U.S.A., with manufacturing facilities and sales support in more than 100 countries, including Canada, Italy, China, Mexico, Brazil, India, UAE and Singapore. We help our customers meet their challenges and gain a competitive edge through a suite of advanced products and technical services.

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