

Catalog Supplement

G&W Electric Co.

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File behind CA3 Tab

Transmission GIS Cable Terminations For Self-Contained and Pipe Type Fluid Filled Cables

High voltage SF₆ mini-sub terminations are designed for application in gas insulated substations rated 138 through 345kV. Termination designs are available for application on single conductor, low pressure self-contained or high pressure pipe type fluid filled cables.

FEATURES

ATA terminations feature the security of high strength, external porcelain insulation and the proven reliability of perforated paper roll stress control.

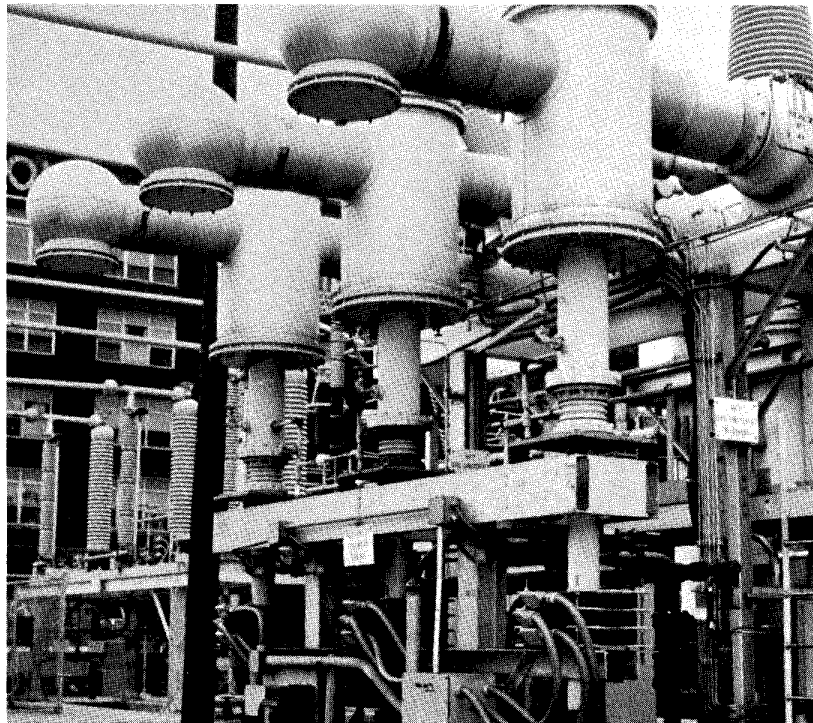
High pressure fluid style ATA-SF terminations utilize a gasketed stainless steel or aluminum body supplied with a stainless steel or copper pipe stub for field welding or brazing to a riser pipe.

For low pressure ATL-SF style units a gasketed stainless steel mounting flange is connected to a spun copper body which permits the cable to be sealed with a wiped lead joint.

DESIGN FLEXIBILITY

The G&W SF₆ terminations cataloged in this section represent standard product designs. Variations in the type of interface connections, SF₆ equipment mounting seals and cable entrance methods are also available to match your particular system design.

▼ Photo shows a typical SF₆ gas insulated substation.



TYPICAL SPECIFICATION (EXAMPLE)

This specification covers the requirements for a high voltage SF₆ gas insulated termination for application in SF₆ gas insulated substation. The termination shall be as manufactured by G&W Electric Co. per catalog number ATA 180N-SF. The termination shall be on single conductor, 345 kV (1175 kV BIL), 3000 kcmil max. conductor size, 200 psi normal operating pressure, fluid filled cable.

The termination shall include as standard a flat bus interface connection, corona shield, ground shield, porcelain insulator, aluminum body and flange, semi-stop oil seal, check valves and filters, perforated paper roll stress relief material riser pipe insulation and base plate insulators.

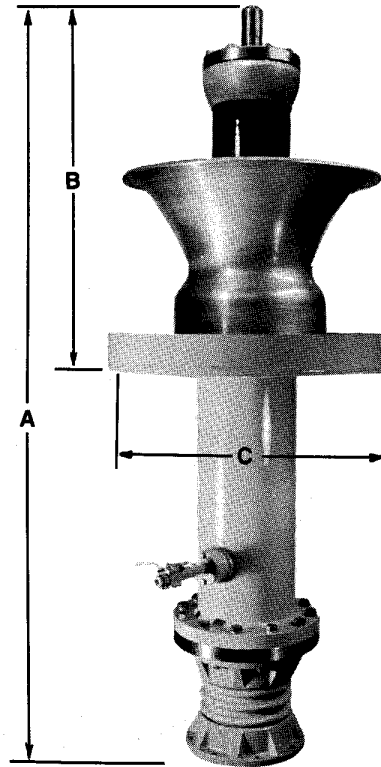
ORDERING INFORMATION

The following steps are needed for ordering:

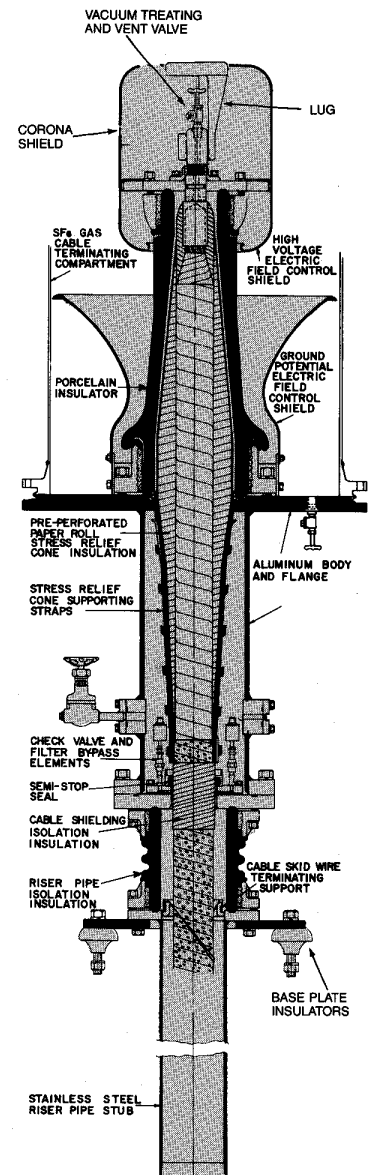
- Select the terminator by catalog number based on voltage, BIL and conductor size.
- Provide a complete description of the cable including the conductor material and diameters over insulation, and shielding system.
- Specify connection lug required based on GIS manufacturer specifications.
- Specify nominal operating pressure of cable.
- Specify nominal operating pressure and interface dimensions with SF₆ equipment.
- Specify optional connection lug, if desired.

Catalog number includes a flat bus interface connection, corona shield, ground shield, porcelain insulator, aluminum body and flange, semi-stop oil seal, check valves and filters, perforated paper roll stress relief material, riser pipe insulator and base plate insulators.

Options include flat or vertical style pad connections, and horizontal pad for tulip connection.



ATA180N-SF Termination



ELECTRICAL CHARACTERISTICS	CABLE DESCRIPTION		
	Fluid Insulated		
Voltage (kV)	138	230	345
BIL (kV)	650	1050	1175
Max. conductor (kcmil)	3000	3000	3000
1 min. withstand, 60 Hz (kV)	310	460	520
15 min. withstand, dc (kV)	355	510	555
Nom. pressure range, SF ₆ (psi)	30-80	30-80	30-80
Nom. pressure range, fluid (psi)	15-400	15-400	15-400

Dimensions approximate -- Do not use for construction.

kV	Catalog No.	BIL kV	Cable* Insulation	Cond. Size Max. - kcm	Approx. Wt. lbs. (kg)	Dimensions - ins (mm)		
						A	B	C
138	ATA 140N-SF	650	HPF	3000	475 (216)	68 (1727)	31 (787)	15 (381)
230	ATA 160N-SF	1050	HPF	3000	850 (386)	80 (2032)	36 (914)	33 (838)
230	ATL 160N-SF	1050	LPF	3000	780 (354)	67 (1702)	35 (889)	30 (762)
345	ATA 180N-SF	1175	HPF	3000	1150 (522)	80 (2032)	36 (914)	33 (838)
345	ATL 180N-SF	1175	LPF	3000	1040 (472)	67 (1702)	35 (889)	30 (762)

* LPF = Low Pressure Fluid

HPF = High Pressure Fluid

Consult factory for terminations for gas insulated cable.