

Catalog Supplement

G&W Electric Co.

Date: March, 1994
No.: GW20-CS48
File behind CA3 tab

G&W 115 - 161kV GIS Terminations for Self Contained Liquid Filled Cables

Terminations and termination enclosures for high voltage gas insulated switchgear (GIS) are required in IEC 859 standards to meet specified dimensional requirements in order to be interchangeable. To accommodate this requirement, G&W has modified its line of time proven ATL style terminations to meet the dimensional requirements specified in IEC 859 standards.

APPLICATION

G&W's ATL-A-SF style terminations are designed for self contained liquid filled cables up to 4000 kcmil at 115kV and 138kV and approximately 3200 kcmil at 161kV.

FEATURES

Reliable support insulator - High grade, non-tracking, epoxy insulators provide excellent mechanical and electrical characteristics. The insulators are compatible with SF₆ gas by-products, ensuring long life of the termination. The design of the insulators also allows for an optional cable shield break.

Field proven stress control - Pre-perforated paper rolls provide gradual stress relief and re-

duce installation time of the termination. Perforations permit applying the rolls of impregnated paper in a cylindrical form on the cable and tearing the paper at perforations to produce the required contour. The paper roll is computer generated at the factory for the specific cable to provide optimum stress control.

Rigid cable support - The connector is locked in position by a threaded hood at the top of the support insulator. The electrical connection between the GIS and termination is not subjected to the mechanical forces from the cable.

Positive sealing system - A double "O" ring sealing system is used to seal between the termination oil compartment and the GIS SF₆ compartment. Fully retained gaskets are compressed to seal the interior of the termination from the atmosphere.

Ease of installation - A kit consisting of a temporary installation support for the paper roll and necessary consumable material facilitate installation. Installation time is significantly reduced using perforated paper rolls; and the construction supervisor can readily determine that all dimensions of cable preparation are in accordance with specifications.

RATINGS

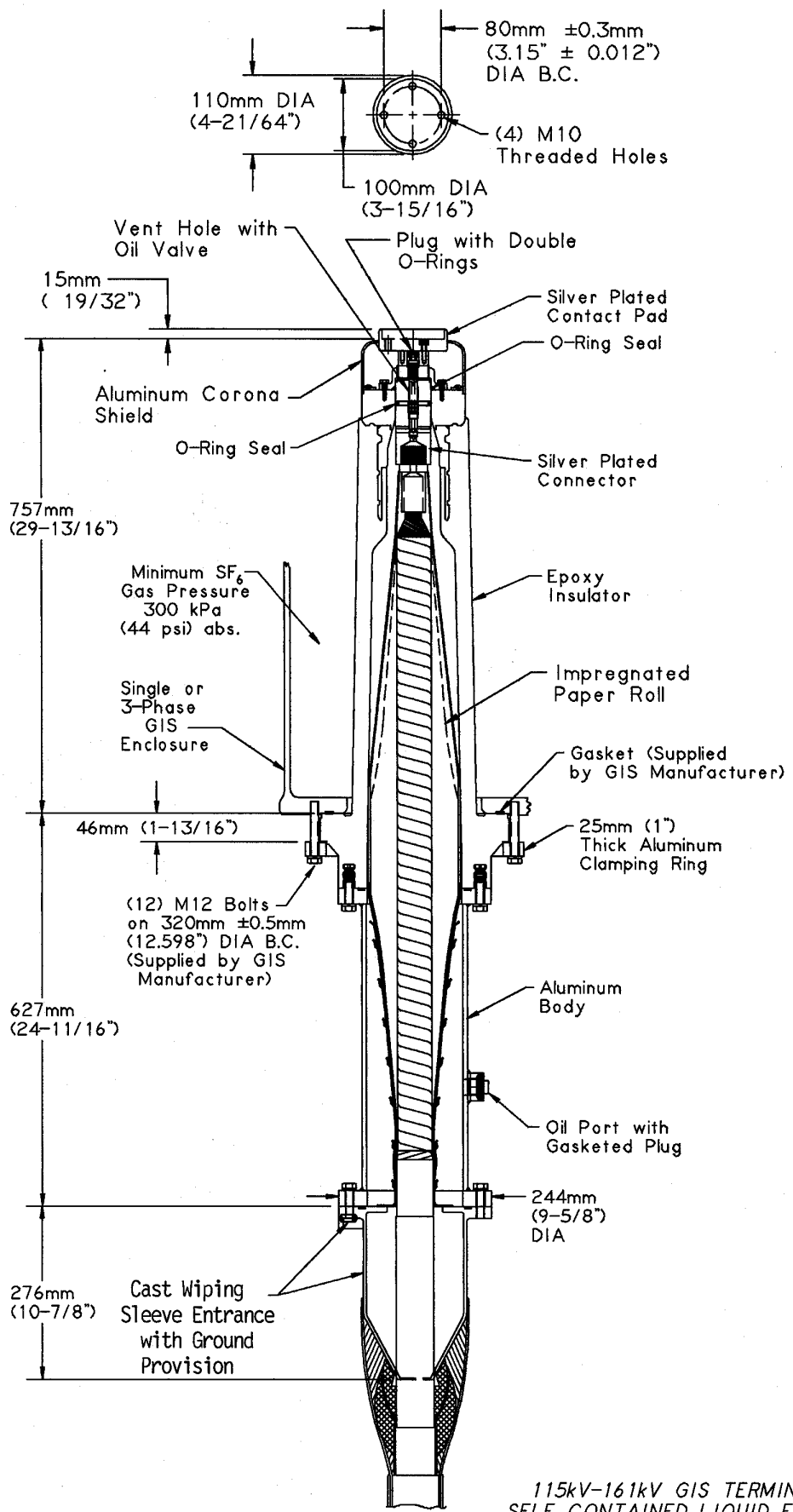
Insulation class*,	
kV	115..... 138..... 161
Maximum design voltage to ground, kV ...	73..... 88..... 102
BIL, kV	550..... 650..... 750
Minimum cable conductor diameter	0.5" (13mm)
Maximum cable conductor diameter	2.4" (61mm)
Minimum cable insulation diameter	1.4" (35mm)
Maximum cable insulation diameter	3.5" (90mm)
Minimum oil pressure, relative pressure	20kPa (3psi)
Maximum oil pressure, relative pressure	800kPa (116psi)

* Corresponding ratings per IEC are 123kV, 145kV, and 170kV.

FULLY TESTED

G&W ATL-A-SF terminations are designed and tested in accordance with IEEE 48 for Class 1 terminations, IEC 859 and IEC 141-1.

NOTE: For 69kV GIS terminations, please contact your G&W representative.



115kV-161kV GIS TERMINATION FOR
SELF CONTAINED LIQUID FILLED CABLES
TYPE: ATL-A-SF