



Caledonian

Caledonian HV Cable Accessories



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72.5KV Straight through / Insulation Joints



» Application

These joints can be classified as two kinds: straight through joint & insulation joint, which are completely pre-molded integrating inner insulation, field control screen and stress cone, suitable for burying with vertical and the location that may be water immersed.

» Features

- » This is a single-piece slip-over joint. The main insulation of the joint is wholly prefabricated structure, integrating the insulating, high voltage screen and stress-relief cone.

- » The out shell of the joint is made of thick metal tube and the out layer is covered with insulated layer with high density, ensuring the high intensity mechanical protection, insulating and anticorrosion. It is equipped additionally with protective FRP (fibre-reinforce-plastic) box which is filled with water-resistant sealing material.

- » The outer screen of main insulating is made of extruding technology. The main insulation is wholly prefabricated. Installed by mechanical per-expanded technology at locale.

- » The outer protection is made of insulating material shell. It has excellent mechanical protection, sealing property and against magnetization. Reasonable design, compact structure, install easily and running reliably.

- » Install easily and running reliably.

- » As earthing terminal with metallic shell previously connects with soft-annealed wire, its waterproofness comes better.

» Standard

IEC 60840, IEC 62067

Caledonian HV Cable Accessories

» Ordering Information

Ordering Code	Rated Voltage	Highest Voltage	Cross Section
	U(kV)	Um(kV)	mm ²
HVSJ-72.5/S	60 to 69	72.5	240-1600

S-cross section of cable conductor.

» Technical Parameters

Test sequence	Test item	Standard: IEC60840:2004	Results
1	Partial discharge at normal temperature	54kV (1.5U ₀), <5pC	pass
2	Heating cycles	72kV (2U ₀), 95°C-100°C, 8h heating, 16h cooling, 20 cycles	pass
3	Partial discharge at high temperature	54kV (1.5U ₀), <5pC	pass
4	Thundering impulse voltage (10 positive, 10 negative)	325kV	no flashover or breakdown
5	A.C. voltage after impulse	90kV (2.5U ₀), 15min	no flashover or breakdown
6	Test for outer protection	The joint is tested as follows after 20 cold and heat cycles in : D.C. voltage withstand: 20kV, 1min, no breakdown; Impulse voltage: 75kV at two ends of joint, 37.5kV at each end to ground for 10 positive, 10 negative	pass and no breakdown





72.5KV Outdoor Termination with Prefabricated Silicone Rubber



» Application

These terminations are designed for outdoor conditions, suitable for high density population district, inside power station and high altitude area, serious contaminative area.

» Features

- » Integrated, made of excellent electricity performance liquid silicone, without oil, no explosion
- » The stress-relief cone and the skirts are prefabricated of excellent electricity performance liquid silicone, without vertical line on its surface, so that it can safety and stably running in bad weather area and serious contaminative area.
- » Simple structure, small, light. Its weight is less than 10% of porcelain insulator with the same rated voltage, easy to install and no maintenance.
- » The outer surface of the highest electric field part is covered with skirts.
- » Excellent vibration-resistance performance, installed with vertical or incline.
- » Dry style so that there is no oil leakage accident happened.
- » Special dimension product for special area can be delivered at any time.
- » Metal tube in the tail make more rigidity, suitable all kind of weather environment.

» Standard

IEC 60840

» Ordering Information

Ordering Code	Rated Voltage	Highest Voltage	Cross Section
	U(kV)	Um(kV)	mm ²
HVOTP-72.5/S	60 to 69	72.5	240-1600

S-cross section of cable conductor.

Caledonian HV Cable Accessories

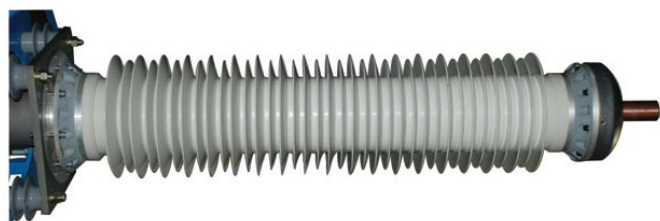
» Technical Parameters

Test sequence	Test item	Standard: IEC60840:2004	Results
1	Partial discharge	54kV (1.5U ₀), <5pC	pass
2	Heating cycles	72kV (2U ₀), 95°C-100°C, 8h heating, 16h cooling, 20 cycles	pass
3	Partial discharge	54kV (1.5U ₀), <5pC	no change after heating cycles
4	Impulse voltage (10 positive, 10 negative)	325kV	no flashover or breakdown
5	A.C. voltage after impulse	90kV (2.5U ₀), 15min	no flashover or breakdown





72.5KV Composite Outdoor Termination



» Application

These terminations are designed for outdoor or contamination area, suitable for littoral area and the area near the center of the city.

» Features

- » Made up of epoxy tube cover silicone insulation with insulating oil in it. The stress-relief cone is prefabricated.
- » Excellent vibration-resistance performance, no danger in explosion.
- » Light and easy to install.
- » Its weight is less than 30% of porcelain insulator with the same rated voltage, easy to load and unload for transportation.
- » Excellent capability of ultraviolet resistance, aging resistance weather resistance and anticorrosion.
- » The earthing of the stress-relief cone is reliable.

» Standard

IEC 60840

» Ordering Information

Ordering Code	Rated Voltage	Highest Voltage	Cross Section
	U(kV)	Um(kV)	mm ²
HVOTC-72.5/S	60 to 69	72.5	240-1600

S-cross section of cable conductor.

Caledonian HV Cable Accessories

» Technical Parameters

Test sequence	Test item	Standard: IEC60840:2004	Results
1	Partial discharge	54kV (1.5U ₀), <5pC	pass
2	Heating cycles	72kV (2U ₀), 95°C-100°C, 8h heating, 16h cooling, 20 cycles	pass
3	Partial discharge	54kV (1.5U ₀), <5pC	no change after heating cycles
4	Impulse voltage (10 positive, 10 negative)	325kV	no flashover or breakdown
5	A.C. voltage after impulse	90kV (2.5U ₀), 15min	no flashover or breakdown





72.5KV GIS Plug In Terminations



» Application

These terminations are suitable for kinds of GIS or transformer. Whether SF6 or all kind of insulative oil can be used outer insulation of our products.

» Features

- » Made up of prefabricated stress-relief cone and epoxy bushing without insulating oil.
- » The press of the spring compress on the cone wall of the bushing, so that the press of interface is kept permanently during the course of running.
- » The termination is dry style without oil.
- » The earthing is reliable and the installation is easy.

» Standard

IEC 60840

» Ordering Information

Ordering Code	Rated Voltage	Highest Voltage	Cross Section
	U(kV)	Um(kV)	mm ²
HVTG-72.5/S	60 to 69	72.5	240-1600

S-cross section of cable conductor.

Caledonian HV Cable Accessories

» Technical Parameters

Test sequence	Test item	Standard: IEC60840:2004	Results
1	Partial discharge	54kV (1.5U ₀), <5pC	pass
2	Heating cycles	72kV (2U ₀), 95°C-100°C, 8h heating, 16h cooling, 20 cycles	pass
3	Partial discharge	54kV (1.5U ₀), <5pC	no change after heating cycles
4	Impulse voltage (10 positive, 10 negative)	325kV	no flashover or breakdown
5	A.C. voltage after impulse	90kV (2.5U ₀), 15min	no flashover or breakdown
6	Pressure leakage	charge to 0.2MPa, no leakage after 1h	no leakage



UNITED KINGDOM

Marchants Industrial Centre,
Mill Lane, Laughton, Lewes,
East Sussex, BN8 6AJ, UK
Tel: 44 (0) 20 7419 5087
Fax: 44 (0) 20 7831 9489
Email: sales@caledonian-cables.co.uk
www.caledonian-cables.co.uk

HONG KONG

Rm 1519, 15/F, Chevalier Commercial Centre,
No. 8 Wang Hoi Road, Kowloon Bay,
Hong Kong
Tel: 852-2116 1238
Fax: 852-2803 0726
Email: hk@caledonian-cables.co.uk
www.caledonian-cables.co.uk