



Energy Division

HVT-ZL High Voltage Termination

The HVT-ZL high voltage termination system is based on the HVT-Z termination and still features the new, co-extruded one-piece termination. The HVT-ZL is intended for applications that require longer installation. This may include coastal environments or legacy HVT installations. The main termination component consists of the proven Raychem non-tracking tube together with a co-extruded stress control grading layer. This stress control layer is based on ceramic semi-conductor technology (ZnO) and provides superior discharge and impulse performance. When the tubing is shrunk down, the coating softens and sticks to irregular surfaces, providing moisture seals as well as electrical stress control.

Reliable, field proven performance

Independent testing and field experience have repeatedly proven the long-term stability, durability and reliability of Tyco Electronics' HVT-Z system, even in highly polluted environments. The non-tracking, insulating outer jacket can withstand the rigors of long-term electrical stress and surface pollution without loss of performance. The non-tracking material offers the additional benefit of being maintenance free, with no need for periodic cleaning. Extensive load cycle testing verifies the long-term thermo-mechanical compatibility between the termination system and the cable. This long-term HVT experience, together with the co-extruded ZnO stress control system, provides the new, superior HVT-ZL termination.

Flexible and versatile

An HVT-ZL termination system may be installed upright or inverted and can bend to the same bending radius as the cable. Slim and lightweight, the system can also be mounted directly to fuse cut-outs or other devices, eliminating the cost of additional supporting brackets.

Testing

Tyco Electronics' high-voltage terminations are fully qualified per IEEE-48 as Class I terminations to provide a long, trouble-free service life.

HVT-ZL Product Family

Selection Information: dimensions in inches (millimeters)

Indoor	Outdoor Kit	Conductor Size (Min. - Max.)		Insulation Diameter (Min. - Max.)	Jacket O.D. (Max.)
5/8 kV		5 kV (0.90")	8 kV (0.115")		
HVT-ZL-80-G	HVT-ZL-80-SG	#4 - #1 AWG	#6 - #2 AWG	0.35 - 0.60 (9 - 15)	0.95 (24)
HVT-ZL-81-G	HVT-ZL-81-SG	1/0 AWG - 250 kcmil	#1 - 4/0 AWG	0.60 - 0.95 (15 - 24)	1.20 (30)
HVT-ZL-82-G	HVT-ZL-82-SG	300 - 500 kcmil	250 - 500 kcmil	0.80 - 1.25 (20 - 32)	1.50 (38)
HVT-ZL-83-G	HVT-ZL-83-SG	600 - 1750 kcmil	600 - 1750 kcmil	1.10 - 1.75 (28 - 44)	2.10 (53)
HVT-ZL-84-G	HVT-ZL-84-SG	1500 - 2500 kcmil	2000 - 2500 kcmil	1.60 - 2.45 (41 - 62)	2.75 (70)

Installed Length 10.5" (267 mm)

Indoor	Outdoor Kit	Conductor Size (Min. - Max.)		Insulation Diameter (Min. - Max.)	Jacket O.D. (Max.)
15 kV		15 kV(.175 - .220")			
HVT-ZL-151-G	HVT-ZL-151-SG	#4 - 1/0 AWG		0.60 - 0.95 (15 - 24)	1.20 (30)
HVT-ZL-152-G	HVT-ZL-152-SG	2/0 AWG - 350 kcmil		0.80 - 1.25 (20 - 32)	1.50 (38)
HVT-ZL-153-G	HVT-ZL-153-SG	400 - 1000 kcmil		1.10 - 1.65 (28 - 44)	2.10 (53)
HVT-ZL-154-G	HVT-ZL-154-SG	1250 - 2500 kcmil		1.60 - 2.45 (41 - 62)	2.75 (70)

Installed Length 15.0" (381 mm)

Indoor	Outdoor Kit	Conductor Size (Min. - Max.)		Insulation Diameter (Min. - Max.)	Jacket O.D. (Max.)
25 kV		25 kV (0.260")			
HVT-ZL-252-G	HVT-ZL-252-SG	#2 AWG - 250 kcmil		0.80 - 1.25 (20 - 32)	1.50 (38)
HVT-ZL-253-G	HVT-ZL-253-SG	300 - 750 kcmil		1.10 - 1.70 (28 - 43)	2.10 (53)
HVT-ZL-254-G	HVT-ZL-254-SG	1000 - 2000 kcmil		1.60 - 2.45 (41 - 62)	2.75 (70)
HVT-ZL-255-G	HVT-ZL-255-SG	2000 - 2500 kcmil		2.05 - 3.00 (52 - 76)	3.45 (88)

Installed Length 28.0" (711 mm)

Indoor	Outdoor Kit	Conductor Size (Min. - Max.)		Insulation Diameter (Min. - Max.)	Jacket O.D. (Max.)
35 kV		35 kV (0.345")			
HVT-ZL-352-G	HVT-ZL-352-SG	#1 - 1/0 AWG		0.80 - 1.25 (20 - 32)	1.50 (38)
HVT-ZL-353-G	HVT-ZL-353-SG	2/0 AWG - 500 kcmil		1.10 - 1.75 (28 - 44)	2.10 (53)
HVT-ZL-354-G	HVT-ZL-354-SG	750 - 1750 kcmil		1.60 - 2.45 (41 - 62)	2.75 (70)
HVT-ZL-355-G	HVT-ZL-355-SG	2000 - 2500 kcmil		2.05 - 3.00 (52 - 76)	3.45 (88)

Installed Length 33.0" (838 mm)

Testing Chart:

Product and Voltage Class Test Description	HVT-Z-80 Series (5-8 kV)	HVT-Z-150 Series (15 kV)	HVT-Z-250 & 350 Series (25 - 35 kV)
AC Withstand, 1 minute, (kV)	35	60	90
DC Withstand, 15 minutes (kV)	65	75	140
Partial Discharge (min. kV) for 3 pc or less	9	15.6	36
Impulse withstand 1.2 X 50 us, crest kV	95	110	200
Continuous current rating	Equal to cable ampacity		
Wet withstand, 10 seconds, kV rms.	30	45	80
Dry withstand, 6 hours, kV rms.	25	35	75

Test Reports:

Voltage Class	Indoor	Outdoor
5/8/15 kV	EDR-5322	EDR-5323-A
25/28/35 kV	EDR-5337	EDR-5338

Tyco Electronics Corporation
8000 Purfoy Road
Fuquay Varina, NC 27526-9349
Tel: 800.327.6996
Fax: 800.527.8350
E-mail: naenergy@tycoelectronics.com
<http://energy.tycoelectronics.com/hvt-zl>
www.tycoelectronics.com
Copyright 2005, 2007, 2009-2010
Tyco Electronics Corporation
All rights reserved.
1773458-1 E390 06/10

All of the above information, including drawings, illustrations and graphic designs, reflects our present understanding and is to the best of our knowledge and belief correct and reliable. Users, however, should independently evaluate the suitability of each product for the desired application. Under no circumstances does this constitute an assurance of any particular quality or performance. Such an assurance is only provided in the context of our product specifications or explicit contractual arrangements. Our liability for these products is set forth in our standard terms and conditions of sale. Raychem, TE (logo) and Tyco Electronics are trademarks of the Tyco Electronics group of companies and its licensors.

Energy Division - a pioneer in the development of economical solutions for the electrical power industry. Our product range includes: Cable accessories, connectors & fittings, electrical equipment, instruments, lighting controls, insulators & insulation enhancement and surge arresters.