

# RAYCHEM MEDIUM VOLTAGE TERMINATION (HVT)

5 kV - 35 kV

#### **KEY FEATURES**

- Broad range of standard indoor and outdoor kits for all plastic cable types, including armored cable
- Easy installation with a single technique which eliminates retraining-even on armored cable
- HVT termination system may be installed upright or inverted and can bend to the same bending radius as the cable

TE Connectivity's (TE) Raychem HVT medium voltage termination system features a non-tracking, insulating surface that can withstand long-term electrical stress and surface pollution. The need for proven stress control is even more important at higher voltages. The materials used in TE's HVT terminations are suitable for severely polluted areas and for all installation conditions, including top feed installation.

#### Reliable, field proven performance

Independent testing and field experience have repeatedly proven the long-term stability, durability and reliability of the HVT 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. TE's 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 thermomechanical compatibility between the termination system and the cable.

#### **Testing**

TE's medium-voltage terminations are fully qualified per IEEE-48 as Class I terminations to provide a long, trouble-free service life.

#### **Ease of installation**

The HVT termination kits can be installed on all cable types without special adapters or accessories.









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

Installed length: 10.5" (267mm)

Indoor	Outdoor Kit	Conductor Size (Min Max.)	Insulation Diameter (Min Max.)	Jacket O.D. (Max)
15 kV		15 kV (.175220")		
HVT-151-G	HVT-151-SG	#4 AWG - 1/0 AWG	0.60-0.95 (15 - 24)	1.20 (30)
HVT-152-G	HVT-152-SG	2/0 AWG - 350 kcmil	0.80 - 1.25 (20 - 32)	1.50 (38)
HVT-153-G	HVT-153-SG	400 kcmil - 1000 kcmil	1.10 - 1.65 (28 - 42)	2.10 (53)
HVT-154-G	HVT-154-SG	1250 kcmil – 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-252-G	HVT-252-SG	#2 AWG - 250 kcmil	0.80 - 1.25 (20 - 32)	1.50 (38)
HVT-253-G	HVT-253-SG	300 kcmil - 750 kcmil	1.10 - 1.70 (28 - 43)	2.10 (53)
HVT-254-G	HVT-254-SG	1000 kcmil - 1750 kcmil	1.60 - 2.45 (41 - 62)	2.75 (70)
HVT-255-G	HVT-255-SG	2000 kcmil - 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-352-G	HVT-352-SG	#1 AWG - 1/0 AWG	0.80 - 1.25 (20 - 32)	1.50 (38)
HVT-353-G	HVT-353-SG	2/0 AWG - 500 kcmil	1.10 - 1.85 (28 - 47)	2.10 (53)
HVT-354-G	HVT-354-SG	750 kcmil – 1750 kcmil	1.60 - 2.45 (41 - 62)	2.75 (70)
HVT-355-G	HVT-355-SG	2000 kcmil – 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-80 Series (5 - 8 kV)	HVT-150 Series (15 kV)	HVT-250 Series ( 25 kV)	HVT-350 Series ( 35 kV)
AC Withstand, 1 minute, (kV)	35	50	65	90
DC Withstand, 15 minutes (kV)	65	75	105	140
Partial Discharge (min. kV) for 3 pc or less	9	15.6	25.8	36
Impulse withstand 1.2 X 50 us, crest kV (outdoor)	95	110	150	200
Impulse withstand 1.2 X 50 us, crest kV (indoor)	80	95	125	150
Continuous current rating	Equal to cable ampacity	Equal to cable ampacity	Equal to cable ampacity	Equal to cable ampacity
Wet withstand, 10 seconds, kV rms	30	45	60	80
Dry withstand, 6 hours, kV rms	25	35	55	75

#### Note:

- $^{*}$  URD and LC kits are rated for 15 35 kV only; HVT-M kits for 5/8 25 kV only.
- \*\* HVT-250 meets requirements of 25/28 kV systems.

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<sup>&</sup>quot;"Outdoor kits (-SJ, -SG, or -SLC designation) were tested with skirts (rain sheds). Indoor kits (-J, -G, -LC designation) do not contain skirts.