

Cold Shrink QT-III Outdoor Skirted Termination

Kit Number	BIL	Cable Insulation O.D. Range in. (mm)	Conductor Size Range AWG and kcmil (mm ²)					UPC (054007-)
			5 kV	8.7 kV	15 kV	25/28 kV	35 kV	
Shielded Cable Kits (Each kit makes three terminations)								
7620-S-2	95 kV	0.32 – 0.59 (8,2 – 15,0)	8 – 4	8 – 6	—	—	—	42168
7621-S-2	95 kV	0.44 – 0.89 (11,2 – 22,7)	2 – 3/0	4 – 2/0	—	—	—	42169
7622-S-2	110 kV	0.64 – 1,08 (16,3 – 27,4)	4/0 – 400	3/0 – 300	2 – 4/0 (35 – 120)	—	—	42170
7692-S-4	150 kV	0.64 – 1,08 (16,3 – 27,4)	4/0 – 400	3/0 – 300	2 – 4/0 (35 – 120)	2 – 1/0 (35 – 50)	—	42211
7693-S-4	150 kV	0.72 – 1.29 (18,3 – 32,8)	300 – 500	250 – 500	2/0 – 300 (70 – 150)	2 – 4/0 (35 – 120)	—	42212
7694-S-4	150 kV	0.83 – 1.53 (21,1 – 38,9)	500 – 750	350 – 700	4/0 – 500 (120 – 240)	2/0 – 250 (70 – 150)	—	42213
7695-S-4	150 kV	1.05 – 1.80 (26,7 – 45,7)	700 – 1500	600 – 1250	500 – 1000 (240 – 500)	250 – 800 (125 – 400)	—	42214
7696-S-4	150 kV	1.53 – 2.32 (38,9 – 58,9)	1750 – 2000	1500 – 2000	1250 – 2000 (625 – 1000)	900 – 1750 (500 – 800)	—	42215
7683-S-8	200 kV	0.72 – 1.29 (18,3 – 32,8)	300 – 500	250 – 500	2/0 – 300 (70 – 150)	2 – 4/0 (35 – 120)	2 – 2/0 (35 – 70)	42465
7684-S-8	200 kV	0.83 – 1.53 (21,1 – 38,9)	500 – 750	350 – 700	4/0 – 500 (120 – 240)	2/0 – 250 (70 – 150)	2 – 4/0 (35 – 120)	42466
7685-S-8	200 kV	1.05 – 1.80 (26,7 – 45,7)	700 – 1500	600 – 1250	500 – 1000 (240 – 500)	250 – 800 (125 – 400)	3/0 – 600 (95 – 325)	42467
7686-S-8	200 kV	1.53 – 2.32 (38,9 – 58,9)	1750 – 2000	1500 – 2000	1250 – 2000 (625 – 1000)	900 – 1750 (500 – 800)	700 – 1500 (400 – 725)	42468
Concentric and Jacketed Concentric Cable Kits (Each kit makes one termination)								
7642-S-2	110 kV	0.64 – 1.08 (16,3 – 27,4)	4/0 – 400	3/0 – 300	2 – 4/0 (35 – 120)	—	—	42011
7652-S-4	150 kV	0.64 – 1.08 (16,3 – 27,4)	4/0 – 400	3/0 – 300	2 – 4/0 (35 – 120)	2 – 1/0 (35 – 120)	—	42178
7653-S-4	150 kV	0.72 – 1.29 (18,3 – 32,8)	300 – 500	250 – 500	2/0 – 300 (70 – 150)	2 – 4/0 (35 – 120)	—	42192
7654-S-4	150 kV	0.83 – 1.53 (21,1 – 38,9)	500 – 750	350 – 700	4/0 – 500 (120 – 240)	2/0 – 250 (70 – 150)	—	42203
7655-S-4	150 kV	1.05 – 1.80 (26,7 – 45,7)	700 – 1500	600 – 1250	500 – 1000 (240 – 500)	250 – 800 (150 – 400)	—	42208
7656-S-4	150 kV	1.53 – 2.32 (38,9 – 58,9)	1750 – 2000	1500 – 2000	1250 – 2000 (625 – 1000)	900 – 1750 (500 – 800)	—	42210
7663-S-8	200 kV	0.72 – 1.29 (18,3 – 32,8)	300 – 500	250 – 500	2/0 – 300 (70 – 150)	2 – 4/0 (35 – 120)	2 – 2/0 (35 – 70)	42433
7664-S-8	200 kV	0.83 – 1.53 (21,1 – 38,9)	500 – 750	350 – 700	4/0 – 500 (120 – 240)	2/0 – 250 (70 – 150)	2 – 4/0 (35 – 120)	42447
7665-S-8	200 kV	1.05 – 1.80 (26,7 – 45,7)	700 – 1500	600 – 1250	500 – 1000 (240 – 500)	250 – 800 (150 – 400)	3/0 – 600 (95 – 325)	42461
7666-S-8	200 kV	1.53 – 2.32 (38,9 – 58,9)	1750 – 2000	1500 – 2000	1250 – 2000 (625 – 1000)	900 – 1750 (500 – 800)	700 – 1500 (400 – 725)	42463
High Fault Current Cable Kits (Each kit makes one termination)								
7652-S-HSG-4	150 kV	0.64 – 1.08 (16,3 – 27,4)	4/0 – 400	3/0 – 300	2 – 4/0 (35 – 120)	2 – 1/0 (35 – 50)	—	42171
7653-S-HSG-4	150 kV	0.72 – 1.29 (18,3 – 32,8)	300 – 500	250 – 500	2/0 – 300 (70 – 150)	2 – 4/0 (35 – 120)	—	42185
7654-S-HSG-4	150 kV	0.83 – 1.53 (21,1 – 38,9)	500 – 750	350 – 700	4/0 – 500 (120 – 240)	2/0 – 250 (70 – 150)	—	42199
7655-S-HSG-4	150 kV	1.05 – 1.80 (26,7 – 45,7)	700 – 1500	600 – 1250	500 – 1000 (240 – 500)	250 – 800 (150 – 400)	—	42207
7656-S-HSG-4	150 kV	1.53 – 2.32 (38,9 – 58,9)	1750 – 2000	1500 – 2000	1250 – 2000 (625 – 1000)	900 – 1750 (500 – 800)	—	42209
7663-S-HSG-8	200 kV	0.72 – 1.29 (18,3 – 32,8)	300 – 500	250 – 500	2/0 – 300 (70 – 150)	2 – 4/0 (35 – 120)	2 – 2/0 (35 – 70)	42440
7664-S-HSG-8	200 kV	0.83 – 1.53 (21,1 – 38,9)	500 – 750	350 – 700	4/0 – 500 (120 – 240)	2/0 – 250 (70 – 150)	2 – 4/0 (35 – 120)	42454
7665-S-HSG-8	200 kV	1.05 – 1.80 (26,7 – 45,7)	700 – 1500	600 – 1250	500 – 1000 (240 – 500)	250 – 800 (125 – 400)	3/0 – 600 (95 – 325)	42462
7666-S-HSG-8	200 kV	1.53 – 2.32 (38,9 – 58,9)	1750 – 2000	1500 – 2000	1250 – 2000 (625 – 1000)	900 – 1750 (500 – 800)	700 – 1500 (400 – 725)	42464
Inverted Kits for Shielded Cable (Each kit makes three terminations)								
7622-S-INV-2	110 kV	0.64 – 1.08 (16,3 – 27,4)	4/0 – 400	3/0 – 300	2 – 4/0 (35 – 120)	—	—	43016
7693-S-INV-4	150 kV	0.72 – 1.29 (18,3 – 32,8)	300 – 500	250 – 500	2/0 – 300 (70 – 150)	2 – 4/0 (35 – 120)	—	43017
7695-S-INV-4	150 kV	1.05 – 1.80 (26,7 – 45,7)	700 – 1500	600 – 1250	500 – 1000 (240 – 500)	250 – 800 (150 – 400)	—	43018
7696-S-INV-4	150 kV	1.53 – 2.32 (38,9 – 58,9)	1750 – 2000	1500 – 2000	1250 – 2000 (500 – 1000)	900 – 1750 (500 – 800)	—	43019
Inverted Kits for Concentric and Jacketed Concentric Cable (Each kit makes one termination)								
7642-S-INV-2	110 kV	0.64 – 1.08 (16,3 – 27,4)	4/0 – 400	3/0 – 300	2 – 4/0 (35 – 120)	—	—	04622
7653-S-INV-4	150 kV	0.72 – 1.29 (18,3 – 32,8)	300 – 500	250 – 500	2/0 – 300 (70 – 150)	2 – 4/0 (35 – 120)	—	04625
7655-S-INV-4	150 kV	1.05 – 1.80 (26,7 – 45,7)	700 – 1500	600 – 1250	500 – 1000 (240 – 500)	250 – 800 (150 – 400)	—	04623
7656-S-INV-4	150 kV	1.53 – 2.32 (38,9 – 58,9)	1750 – 2000	1500 – 2000	1250 – 2000 (625 – 1000)	900 – 1750 (500 – 800)	—	04624
Concentric and Jacketed Concentric Cable Kits with Top Insulator (Each kit makes one termination)								
7652-S-4-TI	150 kV	0.64 – 1.08 (16,3 – 27,4)	4/0 – 400	3/0 – 300	2 – 4/0 (35 – 120)	2 – 1/0 (35 – 50)	—	43409
7653-S-4-TI	150 kV	0.72 – 1.29 (18,3 – 32,8)	300 – 500	250 – 500	2/0 – 300 (70 – 150)	2 – 4/0 (35 – 120)	—	43410
7654-S-4-TI	150 kV	0.83 – 1.53 (21,1 – 38,9)	500 – 750	350 – 700	4/0 – 500 (120 – 240)	2/0 – 250 (70 – 150)	—	43411
7655-S-4-TI	150 kV	1.05 – 1.80 (26,7 – 45,7)	700 – 1500	600 – 1250	500 – 1000 (240 – 500)	250 – 800 (150 – 400)	—	43412
7656-S-4-TI	150 kV	1.53 – 2.32 (38,9 – 58,9)	1750 – 2000	1500 – 2000	1250 – 2000 (625 – 1000)	900 – 1750 (500 – 800)	—	43413

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• Cable Types for Terminating	pg. 216	• Tape Terminations	pg. 237
• Cold Shrink QT-III	pg. 218	• Electrostatic Animal Guard	pg. 238
Single Conductor			
Three Conductor			

Cold Shrink Terminations



Over 25 years ago, 3M pioneered cold shrink technology. Since then, field use and laboratory analysis have repeatedly proven its merits and reliability. Through constant innovation, we have refined cold shrink products making them better than ever. They're easier to apply and built to withstand even the most punishing environmental conditions. Enhanced performance at a lower installed cost continue to make 3M the preferred choice for cold shrink solutions.

3M Cold Shrink QT-II and QT-III terminations are designed using 3M developed track resistant silicone rubber and Hi-K stress control material in conjunction with 3M's unique Cold Shrink delivery system.

The QT-II and the QT-III are supplied prestretched on a removable core. Removal of the core (unwind) after positioning the termination allows the product to shrink into position, providing a tight seal.

3M Cold Shrink terminations offer easy installation and reliable performance when terminating indoor and outdoor medium voltage cable.

QT-II and QT-III Cold Shrink silicone rubber is specifically formulated as a high track resistant material with hydrophobicity (water repelling action) to insure a long life expectancy.

These Cold Shrink terminations are lightweight for either free-hanging or bracket mounting arrangements.

3M offers you two options for choosing a Cold Shrink Termination. The QT-III utilizes the latest technology with built in Hi-K stress controlling mastic and silicone sealing mastic resulting in a much more user-friendly application. The QT-II offers many of the same advantages and benefits as the QT-III but does require several additional steps during the installation.

All terminations meet or exceed IEEE 48 requirements.

Choosing the right terminations.

Questions to ask yourself before ordering a terminating product.

What is Voltage Rating? 5 kV ___ 8 kV ___ 15 kV ___ 25/28 kV ___ 35 kV ___ 46 kV ___

What is Insulation Level? 100% ___ 133% ___

What is Conductor Size? _____ AWG/kcmil

What is Cable/Shielding Type? (tape, drain wire, UniShield®, LC Shielded, Jacketed Concentric Neutral, other) _____

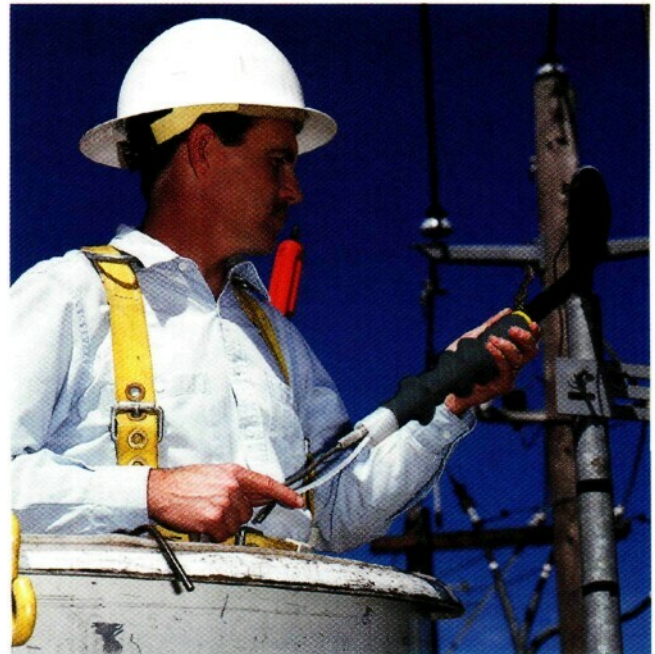
What is Conductor Material? Copper _____ Aluminum (Al/Cu) _____

Where will the termination be mounted? Indoor ___ Outdoor ___ Cabinet Indoor ___
 Vented Cabinet Outdoor ___ Heated Cabinet Outdoor ___

QT-III Silicone Rubber

Single Conductor

3M™ Cold Shrink QT-III terminations offer easy installation and reliable performance when terminating indoor and outdoor medium voltage cable. The unique step-core design combined with the built in Hi-K stress control and silicone sealing compounds means simpler installation on all types of cable. The QT-III assures long-term reliability through an improved silicone rubber body with enhanced hydrophobic recovery. UV stability and track and erosion resistance. Plus its Hi-K stress control design delivers excellent BIL performance and lower surface stress resulting in a more compact termination. Through superior engineering, 3M Cold Shrink QT-III terminations deliver maximum performance.



Cold Shrink QT-III Outdoor Termination

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Cold Shrink QT-III Indoor Tubular Termination

Kit Number	BIL	Cable Insulation O.D. Range in. (mm)	Conductor Size Range AWG and kcmil (mm ²)				UPC (054007-)
			5 kV	8.7 kV	15 kV	25/28 kV	
Shielded Cable Kits (Each kit makes three terminations)							
7620-T-95	95 kV	0.32 – 0.59 (8,2 – 15,0)	8 – 4	8 – 6	—	—	41758
7621-T-95	95 kV	0.44 – 0.89 (11,2 – 22,7)	2 – 3/0	4 – 2/0	—	—	41759
7622-T-110	110 kV	0.64 – 1.08 (16,3 – 27,4)	4/0 – 400	3/0 – 300	2 – 4/0 (35 – 120)	—	41760
7624-T-110	110 kV	0.83 – 1.53 (21,1 – 38,9)	500 – 750	350 – 700	4/0 – 500 (120 – 240)	—	41761
7625-T-110	110 kV	1.05 – 1.80 (26,7 – 45,7)	700 – 1500	600 – 1250	500 – 1000 (240 – 500)	—	41762
7626-T-110	110 kV	1.53 – 2.32 (38,9 – 58,9)	1750 – 2000	1500 – 2000	1250 – 2000 (500 – 1000)	—	41763
7693-T-150	150 kV	0.72 – 1.29 (18,3 – 32,8)	300 – 500	250 – 500	2/0 – 300 (70 – 150)	2 – 4/0 (35 – 120)	41778
7695-T-150	150 kV	1.05 – 1.80 (26,7 – 45,7)	700 – 1500	600 – 1250	500 – 1000 (240 – 500)	250 – 800 (150 – 400)	41779
7696-T-150	150 kV	1.53 – 2.32 (38,9 – 58,9)	1750 – 2000	1500 – 2000	1250 – 2000 (500 – 1000)	900 – 1750 (500 – 800)	41780
Concentric and Jacketed Concentric Cable Kits (Each kit makes one termination)							
7642-T-110	110 kV	0.64 – 1.08 (16,3 – 27,4)	4/0 – 400	3/0 – 300	2 – 4/0 (35 – 120)	—	41764
7644-T-110	110 kV	0.83 – 1.53 (21,1 – 38,9)	500 – 750	350 – 700	4/0 – 500 (120 – 240)	—	41766
7645-T-110	110 kV	1.05 – 1.80 (26,7 – 45,7)	700 – 1500	600 – 1250	500 – 1000 (240 – 500)	—	41768
7646-T-110	110 kV	1.53 – 2.32 (38,9 – 58,9)	1750 – 2000	1500 – 2000	1250 – 2000 (500 – 1000)	—	41770
7653-T-150	150 kV	0.72 – 1.29 (18,3 – 32,8)	300 – 500	250 – 500	2/0 – 300 (70 – 150)	2 – 4/0 (35 – 120)	41772
7655-T-150	150 kV	1.05 – 1.80 (26,7 – 45,7)	700 – 1500	600 – 1250	500 – 1000 (240 – 500)	250 – 800 (150 – 400)	41774
7656-T-150	150 kV	1.53 – 2.32 (38,9 – 58,9)	1750 – 2000	1500 – 2000	1250 – 2000 (500 – 1000)	900 – 1750 (500 – 800)	41776
High Fault Current Cable Kits (Each kit makes one termination)							
7642-T-HSG-110	110 kV	0.64 – 1.08 (16,3 – 27,4)	4/0 – 400	3/0 – 300	2 – 4/0 (35 – 120)	—	41765
7644-T-HSG-110	110 kV	0.83 – 1.53 (21,1 – 38,9)	500 – 750	350 – 700	4/0 – 500 (120 – 240)	—	41767
7645-T-HSG-110	110 kV	1.05 – 1.80 (26,7 – 45,7)	700 – 1500	600 – 1250	500 – 1000 (240 – 500)	—	41769
7646-T-HSG-110	110 kV	1.53 – 2.32 (38,9 – 58,9)	1750 – 2000	1500 – 2000	1250 – 2000 (500 – 1000)	—	41771
7653-T-HSG-150	150 kV	0.72 – 1.29 (18,3 – 32,8)	300 – 500	250 – 500	2/0 – 300 (70 – 150)	2 – 4/0 (35 – 120)	41773
7655-T-HSG-150	150 kV	1.05 – 1.80 (26,7 – 45,7)	700 – 1500	600 – 1250	500 – 1000 (240 – 500)	250 – 800 (150 – 400)	41775
7656-T-HSG-150	150 kV	1.53 – 2.32 (38,9 – 58,9)	1750 – 2000	1500 – 2000	1250 – 2000 (500 – 1000)	900 – 1750 (500 – 800)	41777