

3M GSK Series Termination Grounding Kits

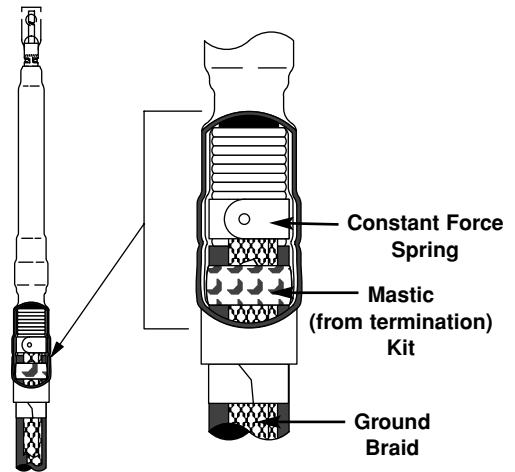
Data Sheet

1. Product Description

The GSK termination grounding kits are designed to convert Jacketed Concentric Neutral (JCN) QT-II or QT-III termination kits and Concentric Neutral (CN) QT-III termination kits for use on Longitudinally Corrugated (L.C.) and Tape shielded power cables. The GSK kits eliminate the need to stock separate termination kits for shielded power cables. The ground braids provided in the GSK kits are designed for applications where high ampacity grounding is desired.

Kit Contents

- 1 Preformed Ground Strap
- 1 Constant Force Spring
- 1 Instruction Sheet



2. Product Applications

The GSK-22, GSK-34 and GSK-56 Kits are primarily designed to be used in conjunction with 3M™ QT-II and QT-III Terminations, but can be used for other grounding applications within their shield diameter range. The GSK kits are available in three sizes that cover conductor sizes ranging from 5kV, 90mil, 3/0AWG to 35kV, 345mil, 1500kcmil. The corresponding GSK/QT-III termination products can be selected using the tables shown on the next page.

Product	Shield Diameter Range, Inches (mm)
GSK-22	0.74"–1.18" (19–30 mm)
GSK-34	0.82"–1.63" (21–41 mm)
GSK-56	1.15"–2.42" (29–61 mm)

Table 1

QT-II Termination Table

Product	QT-III Termination Kit Number	Conductor Size Range (AWG/kcmil)*						
		5 kV (90 mil)	5/8 kV (115 mil)	8 kV (140 mil)	15 kV (175 mil)	15 kV (220 mil)	25/28 kV (260/280 mil)	35 kV (345 mil)
GSK-22	5641	3/0-300	2/0-250	1/0-4/0	2-3/0	2-1/0	—	—
	5651	3/0-300	2/0-250	1/0-4/0	2-3/0	2-1/0	2-1	—
GSK-34	5642	350-750	300-750	250-600	3/0-500	2/0-350	—	—
	5652	350-750	300-750	250-600	3/0-500	2/0-350	1/0-250	—
	5646	350-750	300-750	250-600	3/0-500	2/0-350	1/0-250	2-3/0
GSK-56	5643	750-1500	750-1250	600-1000	500-1000	350-750	—	—
	5644	1000-2000	1000-2000	800-1750	750-1750	600-1500	—	—
	5653	750-1500	750-1250	600-1000	500-1000	350-750	300-500	—
	5654	1000-2000	1000-2000	800-1750	750-1750	600-1500	600-1250	—
	5647	750-1500	750-1250	600-1000	500-1000	350-750	300-500	4/0-400
	5648	1000-2000	1000-2000	800-1750	750-1750	600-1500	600-1250	500-1000

* The conductor sizing is based on the AEIC cable standard, the cable shield diameter is the final determining factor for use of the grounding kits. Shield Diameter Range for the individual kits is shown in Table 1.

Table 2

QT-III Termination Table

Product	QT-III Termination Kit Number	Conductor Size Range (AWG/kcmil)*				
		5 kV (90 mil)	5/8 kV (115 mil)	15 kV (175/220 mil)	25/28 kV (260/280 mil)	35 kV (345 mil)
GSK-22	7642-S-2	4/0-400	3/0-300	2-4/0	—	—
	7652-S-4	4/0-400	3/0-300	2-4/0	2-1/0	—
GSK-34	7656-S-4	300-500	250-500	2/0-300	2-4/0	—
	7654-S-4	500-750	350-700	4/0-500	2/0-250	—
	7663-S-8	300-500	250-500	2/0-300	2-4/0	2-2/0
	7664-S-8	500-750	350-700	4/0-500	2/0-250	2-4/0
GSK-56	7655-S-4	700-1500	600-1250	500-1000	250-800	—
	7656-S-4	1750-2000	1500-2000	1250-2000	900-1750	—
	7665-S-8	700-1500	600-1250	500-1000	250-800	3/0-600
	7666-S-8	1750-2000	1500-2000	1250-2000	900-1750	700-1500

* The conductor sizing is based on the AEIC cable standard, the cable shield diameter is the final determining factor for use of the grounding kits. Shield Diameter Range for the individual kits is shown in Table 1.

Table 3

3. Physical and Electrical Properties

A. Physical Properties

The GSK are preformed (U-shaped) ground straps that are made from woven tinned copper strands. Each tail has a factory solder block for moisture sealing. The constant force springs used in the GSK kits are made using a non-magnetic grade stainless steel.

Product	Cross Sectional Area (CMA)
GSK-22	43,200
GSK-34	43,200
GSK-56	76,800

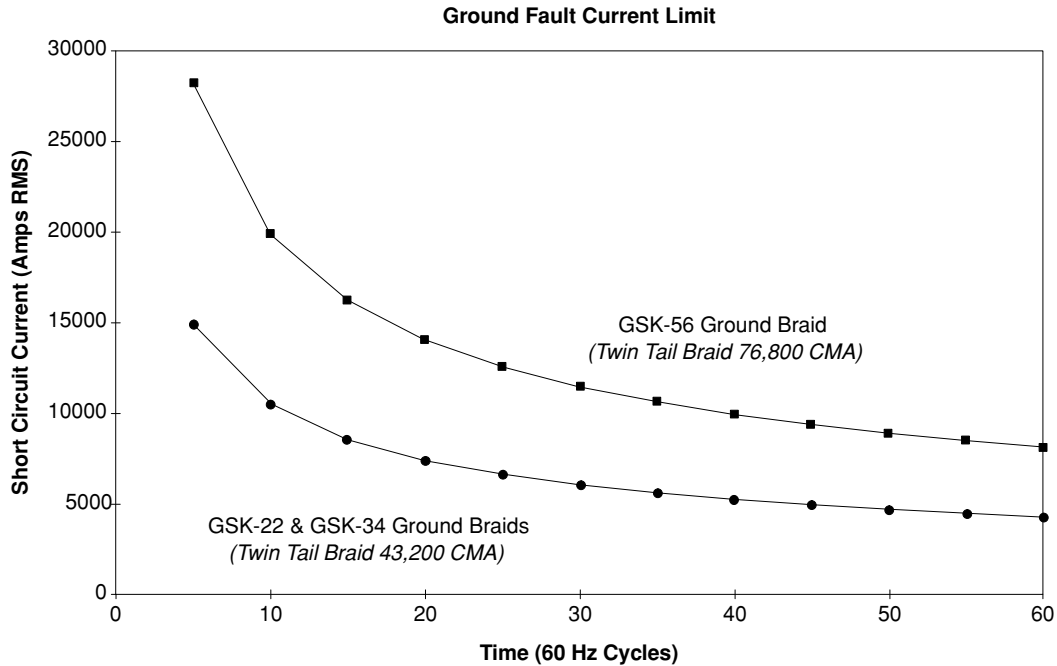
Table 4

B. Common Conductor Size Chart

Cross Sectional Area		
Size	CMA	MM ²
10 AWG	10,380	
	11,844	6
9 AWG	13,090	
	15,792	8
8 AWG	16,510	
	19,740	10
7 AWG	20,820	
6 AWG	26,240	
	27,627	14
	31,580	15
5 AWG	33,090	
4 AWG	41,740	
	43,413	22
	49,430	25
3 AWG	52,620	
	59,200	30
2 AWG	66,360	
	69,070	35
	74,987	38
1 AWG	83,690	

Table 5

C. Short Circuit Current Results



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IMPORTANT NOTICE

Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use.

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