

Insulation Build Up

1/14/2003

PF1, PF2, PF3, PF5, PF6 Turn to Turn

		Thickness		Dielectric Strength	
1/2 Lap Layer of Kapton	Kapton	0.002		7.8	
	Adhesive	0.0015			
	Kapton	0.002		7.8	
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	Adhesive	0.0015			
	Kapton	0.002		7.8	
	Adhesive	0.0015			
1/2 Lap Layer Dry Glass	Glass	0.007		0.63	
	Glass	0.007		0.63	
1/2 Lap Layer Dry Glass	Glass	0.007		0.63	
	Glass	0.007		0.63	
PF1, PF2, PF3, PF5 , PF6		0.042	Inches	33.7	KV

Insulation Build Up

PF3, & TF Turn to Turn

1/2 Lap Layer of Kapton	Kapton	0.002		7.8	
	Adhesive	0.0015			
	Kapton	0.002		7.8	
	Adhesive	0.0015			
1/2 Lap Layer of Kapton	Kapton	0.002		7.8	
	Adhesive	0.0015			
	Kapton	0.002		7.8	
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	Kapton	0.002		7.8	
	Adhesive	0.0015			
1/2 Lap Layer Dry Glass	Glass	0.007		0.63	
	Glass	0.007		0.63	
1/2 Lap Layer Dry Glass	Glass	0.007		0.63	
	Glass	0.007		0.63	
PF3, & TF		0.049	Inches	49.3	KV

Insulation Build Up

Ground Wrap

6 x (1/2 Lap Layers) Glass		0.12	Inches	1.1	KV
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NCSX Coil Voltage Standoff Requirements

1/10/2003

		PF1	PF2	PF3	PF4	PF5	PF6	TF
Operating Voltage (KV)		2	2	4	6	2	2	6
Maintenance Field Test Voltage (KV)	(Operating Voltage x 2) + 1	5	5	9	13	5	5	13
Manufacturing Test Voltage (KV)	Maintenance Test Voltage x 2	7.5	7.5	13.5	19.5	7.5	7.5	19.5
Design Voltage Standoff (KV)	Manufacturing Test Voltage x 2	15.0	15.0	27.0	39.0	15.0	15.0	39.0

New Design Specification (KV)		33.7	33.7	33.7	49.3	33.7	33.7	49.3
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