

Superconducting Semi-Rigid coaxial cable



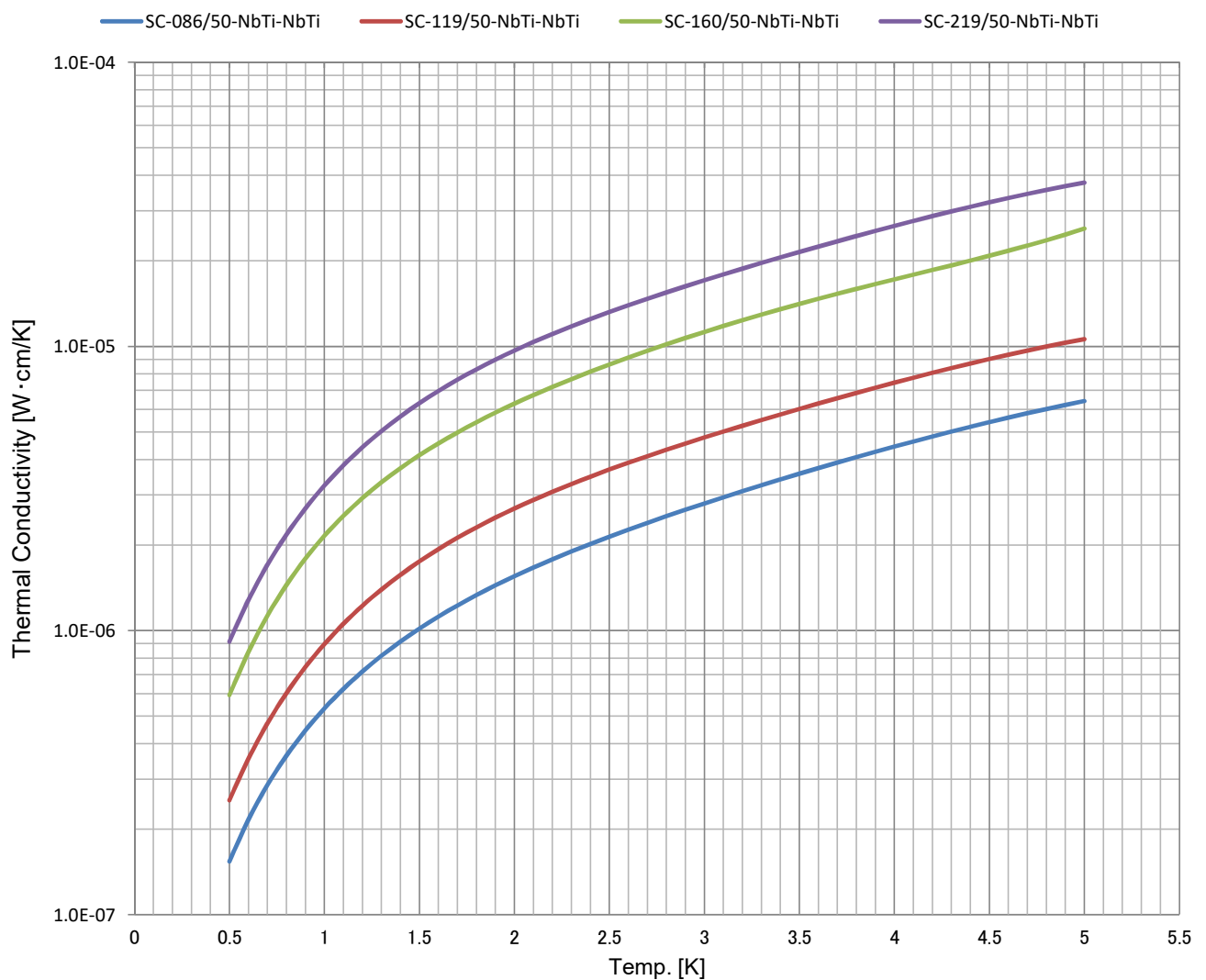
Features

Superconducting semi-rigid coaxial cable use **Niobium Titanium** as center and outer conductors.

Variety of cable size meets your specific research and development



Thermal Conductivity of Superconducting Cables



Specifications

Part number		SC-086/50-NbTi-NbTi	SC-119/50-NbTi-NbTi		
◇ Structure/Material					
Outer conductor	Diameter [mm]	0.90 +0.02/-0.04	1.19 ±0.0254		
	Material	Niobium Titanium	Niobium Titanium		
Dielectric	Diameter [mm]	0.66 ± 0.0254	0.94 ± 0.0254		
	Material	PTFE	PTFE		
Center conductor	Diameter [mm]	0.203 ± 0.013	0.287 ± 0.013		
	Material	Niobium Titanium	Niobium Titanium		
◇ Thermal conductivity at 4K [W·cm/K]		4.63E-06	7.54E-06		
◇ Electrical properties					
Characteristic impedance [Ω]		50±3.0	50±2.5		
Voltage withstanding VRMS(60Hz)		2000	2000		
Max. operating frequency [GHz]		154	108		
Capacitance (Average) [pF/m]		96.2	95.2		
Attenuation [dB/m] at 300K and 4K	FRQ.	300K	4K	300K	4K
	0.5GHz	7.6	Less than 0.5dB	5.3	Less than 0.5dB
	1.0GHz	10.7		7.5	
	5.0GHz	24.0		16.9	
	10.0GHz	34.1		24.0	
	20.0GHz	48.3		34.1	
◇ Mechanical properties					
Max. operating temperature [°C]		90	90		
Min. inside bend radius [mm]		3.2	6.4		
Max. length [m]		1	1		

Part number		SC-160/50-NbTi-NbTi	SC-219/50-NbTi-NbTi		
◇ Structure/Material					
Outer conductor	Diameter [mm]	1.6 ± 0.0254	2.19 ± 0.0254		
	Material	Niobium Titanium	Niobium Titanium		
Dielectric	Diameter [mm]	1.05 ± 0.0254	1.67 ± 0.0254		
	Material	PTFE	PTFE		
Center conductor	Diameter [mm]	0.32 ± 0.013	0.51 ± 0.013		
	Material	Niobium Titanium	Niobium Titanium		
◇ Thermal conductivity at 4K [W·cm/K]		1.66E-05	2.64E-05		
◇ Electrical properties					
Characteristic impedance [Ω]		50±2.5	50±2.0		
Voltage withstanding VRMS(60Hz)		2000	2500		
Max. operating frequency [GHz]		97	61		
Capacitance (Average) [pF/m]		95.6	95.2		
Attenuation [dB/m] at 300K and 4K	FRQ.	300K	4K	300K	4K
	0.5GHz	4.6	Less than 0.4dB	3.0	Less than 0.3dB
	1.0GHz	6.7		4.3	
	5.0GHz	15.1		9.6	
	10.0GHz	21.5		13.6	
	20.0GHz	30.6		19.4	
◇ Mechanical properties					
Max. operating temperature [°C]		90	100		
Min. inside bend radius [mm]		6.4	10		
Max. length [m]		1	1		



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