

20 Core MRI Coil Cable Specification

HFL-1015-0298Rev.1

1. Scope

This specification covers the construction and the electrical properties of 20 Core Multi Cable with Braid used for MRI Coil. Materials are MRI Compatible

2. Construction and material

Item		Unit	Specified Value		
			30AWG Coaxial (A)	26AWG Wire(B)	
Number of cores		-	8(RG178)	12	
Inner Conductor	Material	-	Silver plated Copper wire		
	Stranding	No./mm	7/0.10	19/0.10	
	Diameter(Nom.)	mm	0.30	0.50	
Insulation	Material	-	FEP	FEP	
	Thick.(Nom.)	mm	0.15	0.15	
	Diameter	mm	0.75±0.08	0.90±0.08	
	Color	-	Nature	See Fig.1	
Braid Shielding	Material	-	Silver plated Copper wire	-	
	Strand Dia. (approx.)	mm	0.10		
	Dia.(approx.)	mm	1.40		
	Coverage	%	90%		
Sheath	Material	-	FEP		
	Thick.(Nom.)	mm	0.05		
	Diameter	mm	1.80±0.10		
	Color	-	See Fig.1		
Assembly Diameter(Nom.)1		mm	8coax 30AWG+12 wire 26AWG+PTFE Tape		
Tape	Material	-	PTFE		
	Thick.(Nom.)	mm	0.05		
	Diameter	mm			
Braid Shielding	Material	-	Tinned copper wire		
	Dia.(approx.)	mm	24/13/0.1		
	Dia	mm	8.2		
	Coverage	%	85%		
Sheath	Material	-	PVC		
	Thickness (Nom.)	mm	0.9		
	Diameter	mm	10±0.30		
	Color	-	Ivory		

3. Electrical Properties

Item	Unit	Specified Value	
		30AWG Coaxial	26AWG Wire
Rating temperature	℃	80	80
Rating voltage	V	30	30
Conductor Resistance (20℃)	Ω/km	Max.377	Max.140
Insulation Resistance* (20℃)	MΩ-km	Min. 1,524	Min. 1,524
Dielectric Strength	VAC/Min	500	100
Characteristic Impedance	Ω	50±5	
Attenuation	100MHz	0.52	-
	400 MHz	1.2	
	1 GHz	1.7	
	2 GHz	2.42	
	3 GHz	3.08	
VSWR	-	<1.3	

4. Packing

- (1) Unit length(Min) : 100m(Min.10)
 (2) Package : Coiled into carton box

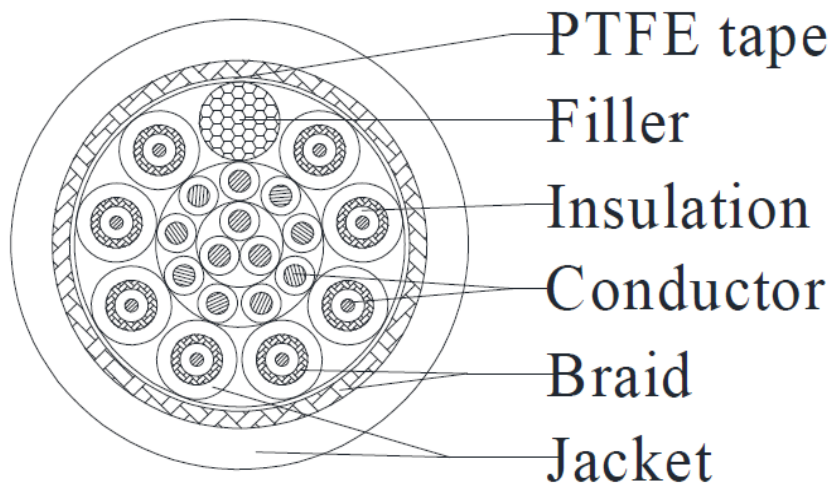


Fig.1 Cross section view of cable

NO	Color	NO	Color	NO	Color
A1	Black	B1	Black	B9	Orange
A2	White	B2	White	B10	Pink
A3	Yellow	B3	Yellow	B11	Violet
A4	Brown	B4	Brown	B12	Natural
A5	Green	B5	Green		
A6	Grey	B6	Grey		
A7	Red	B7	Red		
A8	Blue	B8	Blue		