2.7/7.3AF PE, 2.7/7.3AF LSHF-FR

Coaxials basing upon DIN 47264, EN 50117-1 and IEC 61196-1

Application

The radio-frequency cables described in this chapter are used in transmitter and receiver installations in radio communications as well as in the entire field of commercial radio-frequency technology and electronics.

Standards

DIN 47264, EN50117-1, IEC 61196-1

Flame resistance

acc. to IEC 60332-3-24 (only for LSHF-FR-Version)

Construction

Inner conductor	copper wire, bare, diameter 2.71 ± 0.02 mm
Insulation	Foam-PE, diameter 7.25 ± 0.10
Outer conductor	Al-PET-Al-foil + copper braid, tinned, 93% optical coverage
Sheath	PE, alternative LSHF-FR, diameter 10.3 ± 0.2
Colour	black, RAL 9005

Mechanical properties

Minimum bending radius	without load	5 x outer diameter
	with load	10 x outer diameter
Temperature	during operation	-30° C to + 70° C
	during installation	-15° C to + 55° C
Corrosivity		IEC 60754-2

Electrical properties

at 20°C

DC resistance	Inner conductor	3.1 Ω/km
	Outer conductor	5.5 Ω/km
Mutual capacitance		79 pF/m
Velocity ratio		84 %
Characteristic impedance at 200 MHz		50 Ω ± 2 Ω
Transfer impedance	1 MHz	≤ 5 mΩ/m
	10 MHz	≤ 4 mΩ/m
	100 MHz	≤ 2 mΩ/m
Operating voltage		1.2 kV_{rms}

2.7/7.3AF PE, 2.7/7.3AF LSHF-FR

Test voltage	Inner/Outer conductor	3.0 kV_{rms}
Screening factor	100-1000 MHz	≥ 90 dB
	1000-3000 MHz	≥ 80 dB
Insulation resistance		≥ 10 GΩ*km

Electrical data

at 20°C

Frequency (MHz)	**Attenuation (dB/100m)**	**Max. power rating (Watts)** (ambient temperature 40°C and max. inner conductor temperature 100°C)	**Return loss (dB)** several peaks are allowed	
	nominal	maximal		
1	0.4	17328	**Frequency (MHz)**	
10	1.3	5480	10-450	≥ 26
100	4.1	1710	450-1000	≥ 23
200	5.7	1132	1000-3000	≥ 18
500	9.3	716		
800	12.2	585		
1000	13.6	523		
1500	16.7	427		
2000	19.5	351		
2500	22.1	325		
3000	248	261		
3500	27.1	240		
4000	29.3	246		
5250	34.3	216		
5725	36.3	205		
6000	37.2	200		

Technical data

Product code	Desig-nation	Type	Brand name	Outer diameter mm	Weight kg/km	Standard delivery length m	Drum size *PWD	Gross weight kg	Copper content	Tensile force N
1002703	02Y(St)C2Y	2.7/7.3 AF	2.7/7.3AF PE	10.3	136	1000	760/470/500	150	101	505
1002762	02Y(St)CH	2.7/7.3 AF	2.7/7.3 AF LSHF-FR	10.3	145	1000	760/470/500	150	101	505

*PWD (Plywood drum)