AFY-50-12R-FR

Design:

Inner conductor: copper-clad aluminium wire	ø 4.8 mm (0.189 in)
Insulation of foamed Polyethylene (PE) with skin	ø12.1mm (0.476in)
Outer conductor: copper-tape, longitudinal welded Annular corrugation	ø (13.7±0.2) mm (0.539±0.008in)

Jacket:

Thermoplastic copolymer (FRNC)(LS0H) BK	
Wall thickness about 1mm (0.039 in)	ø (15.8±0.2) mm (0.622±0.008in)
Printing: Amphenol FY-50-1/2" F LS0H XXXXXm 801 LOT xx(Y)xx(M)xx(D)	

Electrical data at 20°C

Insulation resistance	≥ 10 GOhm*km (32.8 GOhm*1000ft)
Capacitance (1 kHz)	76 nF/km (23.2 nF/1000ft)
Characteristic Impedance	50±1 Ohm
Relative velocity of propagation	88%
Test voltage (wire/screen rms 50Hz 1min)	2000 V
HF-operating voltage (peak)	≤ 1590 V
following requirement: Return loss（typical） 0-3GHz	≤-23dB (VSWR 1.15)
Screening attenuation	≥ 120 dB
Passive intermodulation	≥ 160 dBc
Inductance	0.190 µH/m (0.058 µH/ft)
Max. operating frequency	8.8 GHz
Cut-off frequency	10 GHz
Max. power range	40 kW

Attenuations table

Frequency (MHz)	100	450	800	900	1000	1800	2000	2100	2200	2700	3000
Attenuation typ. (dB/100m)(dB/100ft)	2.16 (0.65)	4.7 (1.44)	6.4 (1.95)	6.8 (2.07)	7.2 (2.2)	9.9 (3.02)	10.5 (3.2)	10.8 (3.3)	11.1 (3.38)	12.6 (3.8)	13.2 (4.01)
Mean. Power (kW)at 40°C (104 °F)	3.94	1.8	1.33	1.25	1.18	0.85	0.81	0.79	0.76	0.63	0.59
Value of typical gradient 10%.											

Mechanical and thermal characteristics:

Screen material acc. to DIN EN 13602 Cu-ETP-R
Jacket material acc. to DIN EN 50290-2-27 (HD 624.7)
Flame retardant acc. to EN50575: B2ca class

Other characteristics:

Corrosivity of fire gases acc. to IEC 60754-2

Permissible temperature, installation range	-40 °C (-40 °F) up to +60 °C (+140 °F)
Permissible temperature range, operation	-55 °C (-67 °F) up to +85 °C (+185 °F)
Min. bending radius allowed	repeated 125 mm , single 50 mm
Number of bends. minimum (typical)	15 (50)
Tensile strength	≤650 N
Weight about	217 Kg/km (145.8 lb/1000ft)

Designation of order:

4.8/12.1- 50 FR BK
500±25m (1640±82ft) on non-returnable reel