



HTC-50-5-1, 0.96Lz/4.7AF, CEH54

Coaxial and Triaxial FRNC-High Voltage Low Power Cables acc. to CERN and DESY Specifications



Application

see product overview

Standards

acc. to CERN-Specification 477 rev. 2

Flame resistance

IEC 60332-1

Construction

Inner conductor	stranded copper wires, tinned, 7x0.32, diameter 0.96 mm
Semiconductive layer	semiconductive PE, , diameter 1.70 mm
Insulation	XPE, crosslinked, , diameter 4.7 mm
Semiconductive layer	semiconductive PE, , diameter 5.1 mm
Outer conductor	copper braid, tinned
Wrapping	Al-PETP-Al-foil
Sheath	FRNC, flame retardant, non corrosive Copolymer, diameter 8.6 mm
Colour	red RAL 3002

Mechanical properties

Minimum bending radius (during Installation)	without load	5 x D (D= outer diameter)
	with load	10 x D (D= outer diameter)
Temperature range		-25° C to + 70° C
Radiation resistance		$\geq 10^6$ Gy (= 10^8 rad)
Fire propagation test		cables < 10 mm acc. to IEC 60332-1
		cables > 10 mm acc. to IEC 60332-2-24
Corrosivity		acc. to IEC 60754-2
Smoke density		acc. to IEC 61034



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Electrical properties

at 20°C

DC resistance	Inner conductor	$\leq 33 \Omega/\text{km}$
Mutual capacitance		120 pF/km
Characteristic impedance	at 1 MHz	54 Ω
Operating voltage		20 kV _{DC}
Test voltage	conductor/screen	50 kV _{DC}
Insulation resistance		5 G Ω *km
Partial discharge test		21.2 kV _{rms}
Discharge pulse magnitude		$\leq 20 \text{ pC}$

Technical data

Product code	Designation	Type	Brand name	Outer diameter mm	Weight kg/km	Standard delivery length m	Drum size *OWD	Gross weight kg	Copper content	Tensile force N
1002776	2XC(St)H	0.96Lz/ 4.7 AF	HTC-50-5-1 CEH54	8.6	95	1000	710/30 0/448	125	30.4	145

*OWD (One way drum)