

HTC-50-2-1, 0.6Lz/2.3z

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



Application

see product overview

Standards

acc. to Cern Spec. 477 rev. 2

Flame resistance

IEC 60332-1

Construction

Inner conductor	stranded copper wires, tinned, 7x 0.20, diameter 0.60 mm
Semiconductive layer	semiconductive PE, diameter 0.90 mm
Insulation	XPE, crosslinked, diameter 2.3 mm
Semiconductive layer	semiconductive PE, diameter 2.6 mm
Outer conductor	copper braid, tinned
Wrapping	Al-PET-Al-foil
Sheath	FRNC, flame retardant, non corrosive Copolymer, diameter 4.4 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		≥ 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	$\leq 87.0 \Omega/\text{km}$
	Outer conductor	$\leq 26.9 \Omega/\text{km}$
Mutual capacitance		141 pF/m
Characteristic impedance	1 MHz	50 Ω
Operating voltage		9 kV _{DM}
Test voltage	Inner/Outer conductor	22.5 kV _{DC}
Insulation resistance		$\geq 5 \text{ G}\Omega \cdot \text{km}$
Partial discharge test		9.5 kV _{rms}
Discharge pulse magnitude		$\leq 20 \text{ pC}$

All further requirements acc. to CERN Spec. 477 Rev. 2

Technical data

Product code	Designation	Type	Brand name	Outer diameter mm	Weight kg/km	Standard delivery length m	Drum size *PWD	Gross weight kg	Copper content	Tensile force N
1002814	2xC(St)H	0.6Lz/2.3z	HTC-50-2-1	4.4	28.7	1000	400/120/280	30.5	11	60

*PWD (Plywood drum)

Product Code Table

Product Description	Product Code	PG Reference Code	PG Part Number
HTC-50-2-1 (0.6LZ/2.3Z-LSHF-FR)		60015044	60015044

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