HTC-50-1-1, 0.5Lz/1.5, CEH50

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

Flame resistance

acc. to IEC 60332-1

Construction

Inner conductor	stranded copper wires, tinned, 7x 0.17, diameter 0.51 mm
Semiconductive layer	semiconductive PE, diameter 0.70 mm
Insulation	XPE crosslinked, diameter 1.50 mm
Semiconductive layer	semiconductive PE, diameter 1.7 mm
Outer conductor	copper braid, bare
Wrapping	Mica tape
Sheath	FRNC, flame retardant, non corrosive Copolymer, diameter 3.2 mm
Colour	red RAL 3002
Printing CERN-Spec 477 Rev.1	DRAKA COMTEQ – manufacturing year HTC-50-1-1 meter marking and batch number
Printing CERN-Spec 477 Rev. 2	DRAKA COMTEQ – manufacturing year CEH50 meter marking and batch number

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	≤ 120 Ω/km
	Outer conductor	≤ 42.8 Ω/km
Mutual capacitance		167 pF/m
Characteristic impedance	1 MHz	42 Ω
Operating voltage		5 kV_{DC}
Test voltage	Inner/Outer conductor	12.5 kV_{DC}
Insulation resistance		≥ 5 GΩ*km
Partial discharge test		5.3 kV_{rms}
Discharge pulse magnitude		≤ 20 pC

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

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
1002777	2xCH	0.5Lz/1.5	CEH50	3.2	16.2	1000	400/120/280	18.2	7.0	42

*PWD (Plywood drum)