

HTC-50-3-2 (0.9Lz/3.0z), CBH50

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 0.30, diameter 0.90 mm
Insulation	XPE, crosslinked, diameter 2.95 mm
Outer conductor	copper braid, tinned
Wrapping	Al-PET-Al-foil
Sheath	FRNC, flame retardant, non corrosive Copolymer, diameter 5.2 mm
Colour	red RAL 3002
Printing	DRAKA COMTEQ – GERMANY – manufacturing year HTC-50-3-2 - FRNC meter marking and batch number for product code CS2997200
Printing	DRAKA COMTEQ – GERMANY – manufacturing year CBH50 meter marking and batch number for product code CS2997201

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	$\leq 37.0 \Omega/\text{km}$
	Outer conductor	$\leq 13.1 \Omega/\text{km}$
Mutual capacitance		101 pF/m
Characteristic impedance	1 MHz	50 Ω
Operating voltage		8 kV _{DM}
Test voltage	Inner/Outer conductor	20 kV _{DC}
Insulation resistance		$\geq 10 \text{ G}\Omega \cdot \text{km}$
Partial discharge test		8.5 kV _{rms}
Discharge pulse magnitude		$\leq 20 \text{ pC}$

Electrical data

at 20°C

Frequency (MHZ)	Attenuation (dB/100m)
1	1.5
10	4.6
100	14.5
200	20.7
800	42.5
1000	47.8
1600	61.9
2000	69.2
3000	86.3

All other requirements in accordance with CERN Spec. 477 rev. 2

Technical data

Product code	Designation	Type	Brand name	Outer diameter	Weight	Standard delivery length	Drum size	Gross weight	Copper content	Tensile force
				mm	kg/km	m	*OWD	kg		N
1002812	2XC(St)H	0.9Lz/3.0z	HTC-50-3-2	5.2	43.0	1000	600/250/403	54	18.9	120
1002813	2XC(St)H	0.9Lz/3.0z	CBH50	5,2	43.0	1000	600/250/403	54	19.1	120

*OWD (One way drum)

Product Code Table

Product Description	Product Code	PG Reference Code	PG Part Number
CBH50 (0.9Lz/3.0z-LSHF-FR)		60015035	60015035

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