

## 2xCH 0.3L/0.87 (C-50-1-1), XCH 0.3L/0.87 (CAD50)

Coaxial according to CERN –specification 461 Rev. 6



### Application

The radio-frequency cables described in this chapter are used in transmitter and receiver installations in radio communications as well as in the entire field of commercial radio-frequency technology and electronics.

### Standards

DIN 47264, EN 50117-1, IEC 61196-1

### Flame resistance

acc. to IEC 60332-1

### Construction

Inner conductor	stranded copper wires, bare (7 x 0.10 mm), diameter 0.30 ± 0.01 mm
Insulation	XPE, crosslinked, diameter 0.88 ± 0.05
Outer conductor	copper braid, bare, 94% optical coverage
Sheath	FRNC, diameter 2.1 ± 0.1 mm brown, RAL 8017
Printing CERN-Spec 461 Rev. 5	DRAKA – manufacturing year C-50-1-1 meter marking and batch number
Printing CERN-Spec 461 Rev. 6	DRAKA – manufacturing year CAD50 meter marking and batch number

### Mechanical properties

Minimum bending radius	without load	5 x outer diameter
	with load	10 x outer diameter
Temperature	during operation	-30° C to + 70° C
	during installation	-15° C to + 55° C
Corrosivity		IEC 60754-2

### Electrical properties

at 20°C

DC resistance	Inner conductor	306 Ω/km
	Outer conductor	53 Ω/km
Mutual capacitance		100 pF/m
Velocity ratio		67 %
Characteristic impedance at 200 MHz		50 Ω ± 3 Ω
Operating voltage		1.2 kV <sub>rms</sub>

## 2xCH 0.3L/0.87 (C-50-1-1), XCH 0.3L/0.87 (CAD50)

Test voltage	Inner/Outer conductor	3.0 kV <sub>rms</sub>
Partial discharge test		1.3 kV <sub>rms</sub>
Insulation resistance		≥ 5 GΩ*km

### Electrical data

at 20°C

Frequency (MHz)	Attenuation (dB/100m)	Max. power rating (Watts) (ambient temperature 40°C and max. inner conductor temperature 100°C)	Return loss (dB) several peaks are allowed
	nominal	maximum	
1	4.8		Frequency (MHz)
10	14.5		
100	45		
200	64		

All further requirements acc. to CERN Spec. 461 Rev. 6

### Technical data

Product code	Designation	Type	Brand name	Outer diameter mm	Weight kg/km	Standard delivery length m	Drum size *CBS **PWD	Gross weight kg	Copper content	Tensile force N
1002789	2XCH	0.3L/ 0.87	CAD50	2.0	8.2	2000	370/180/ 200	18.6	4.5	25

\*CBS (cardboard spool)

\*\*PWD (plywood drum)