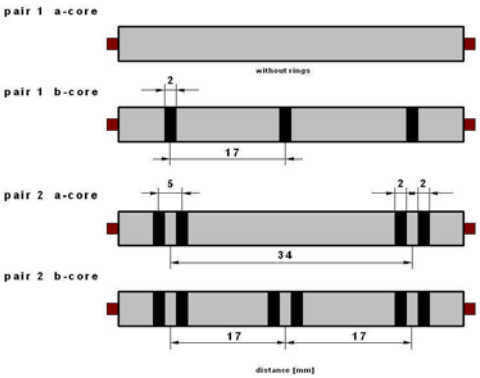
Draka
Draka Comteq | Cable Solutions EMEA

A-02Y(L)2Y
n x 2 x 0.5 STVI BD
n x 2 x 0.8 / 0.9 STV BD

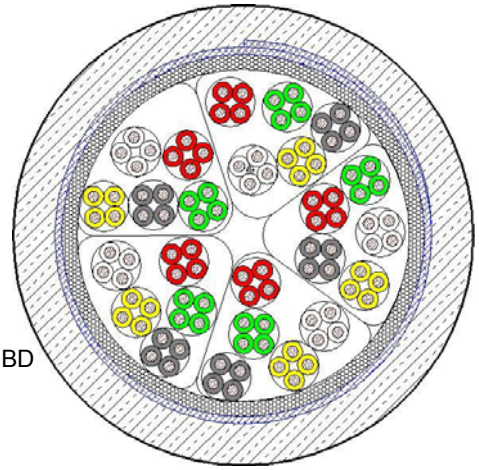
HF outdoor telecommunication cable, quads twisted to bundles, Al-laminated sheath, guaranteed HF-parameters

According to specification TS 0031/96 of T-Com, issued June 2004



Ringmarking of quads

Principle drawing
A-02Y(L)2Y 50x2x0.5 STVI BD



Application

Telecommunication cable, star quad twisted, used for telecommunication and data transmission.

Colour Coding, Marking

Quad:	Marking of cores of star quads with black rings as shown on picture above
Basic unit:	5 main colours of star quad: red (quad 1), green (quad 2), grey (quad 3), yellow (quad 4), white (quad 5)

Construction

A-02Y(L)2Y	
Conductor	copper solid, 0.5, 0.8 or 0.9 mm, soft annealed
Insulation	cellular-PE (02Y)
Twisting	five quads forming one unit, dimension 50 – 500 x 2 x 0.5 mm contain a maximum number of 3 air tubes of HD-PE or PP
Cable core wrapping	at least one layer of plastic foil with overlap
Moisture barrier	laminated sheath formed by an aluminium tape (0.15 mm thick) coated on at least one side with copolymer, and bonded with
Outer sheath	PE (2Y)
Optional	Variations with requirements regarding lightning protection, protection against interferences and tensile loading.

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Mechanical and Thermal Properties

Temperature range	during operation	- 20°C to + 70°C
	during installation	- 20°C to + 50°C
Peel-off strength Al-foil – PE-sheath		0.8 N/mm

Electrical Properties

at 20°C ± 5°C

Conductor diameter (nominal value)	mm	0.5	0.8	0.9
tolerance	mm	± 0.02	± 0.02	± 0.02
Conductor loop resistance (nominal value)	Ω/km	180	69.0	54.4
tolerance	Ω	± 12.0	± 4.2	± 2.2
Difference of resistance	Ω/km	0 ± 2.0	0 ± 0.69	0 ± 0.54
Insulation resistance DC ≥ 100 V, 1 min	GΩxkm	≥ 5	≥ 10	≥ 10
Mutual capacitance at 1000 Hz	nF/km	≤ 41	≤ 41	≤ 38
Capacitance unbalance at 1000 Hz				
k_1	pF/km	0 ± 500	0 ± 440	0 ± 200
k_{9-12}	pF/km	0 ± 220	0 ± 200	0 ± 120
e_{1-2}	pF/km	0 ± 1200	-	-
e_{a1-2}	pF/km	-	0 ± 400	0 ± 400
Test voltage at 50 Hz, 2 min				
core/core	V	≥ 350	≥ 500	≥ 500
core/screen	V	≥ 2000	≥ 2000	≥ 2000
Pneumatic resistance	nbar*s*cm^{-4}	≤ 374	≤ 374	≤ 374

Electrical Properties at Higher Frequencies

Impedance at 1 MHz	Ω	135 ± 15	130 ± 15	135 ± 15
Attenuation at				
0.12 MHz	dB/km	≤ 7	-	-
0.30 MHz	dB/km	≤ 10	-	-
1 MHz	dB/km	≤ 19	≤14	≤ 12
4 MHz	dB/km	≤ 38	-	-
Nearend-crosstalk attenuation (NEXT) an_1; an_{9-12}				
0.12 MHz	dB	≥ 56	-	-
0.30 MHz	dB	≥ 50	-	-
1 MHz	dB	≥ 43	≥ 37	≥ 37
4 MHz	dB	≥ 34	-	-
Farend-crosstalk attenuation (ELFEXT) af_1-a; af_{9-12}-a				
1 MHz	dB/km	≥ 37	≥ 37	≥ 37
Longitudinal conversion loss	dB/100m	≥ 50	-	-

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Additional Properties

Dimension	Outer diameter	Cable weight net	Standard supply length	Drum size flange-Ø	Transport weight gross	Copper content	Tensile strength max. *)	Fire load
	mm	kg/km	m	mm	kg/reel	kg/km	N	MJ/m
A-02Y(L)2Y n x 2 x 0.5 STVI BD								
100 x	25.0	574	2000	201	1698	393	2310	
200 x	32.2	1026	2000	251	2953	785	4620	
300 x	38.5	1476	1000	201	2026	1178	6930	
400 x	43.6	1928	1000	221	2638	1570	9240	
500 x	48.0	2361	1000	251	3261	1963	11550	
700 x	55.5	3218	1000	281	4393	2748	16170	
800 x	60.0	3731	666	251	3385	3141	18480	
1000 x	66.2	4588	666	281	4230	3926	23100	
1200 x	72.1	5465	500	250	3608	4711	27720	
1500 x	80.3	6795	333	251	3163	5890	34650	
2000 x	92.6	9037	333	250	3884	7854	46210	
A-02Y(L)2Y n x 2 x 0.8 STV BD								
30 x	21.1	455	1000	121	599	307		7
50 x	26.0	704	1000	161	984	503		10
100 x	34.7	1297	1000	201	1847	1005	4600	16
200 x	47.4	2459	1000	251	3359	2011	8500	27
300 x	57.6	3639	500	221	2530	3016	11500	39
400 x	65.6	4749	500	251	3275	4022	14500	49
500 x	72.7	5871	500	250	3811	5027	17000	59
600 x	79.6	7038	333	251	3244	6032		70
800 x	91.2	9279	333	250	3965	8043	21500	91
A-02Y(L)2Y n x 2 x 0.9 STV BD								
200 x	53.0	3340	666	2800	3380	2545	10000	
500 x	81.5	8010	333	2500	3570	6362	18700	

*) Conductor pulling with cable pulling head