

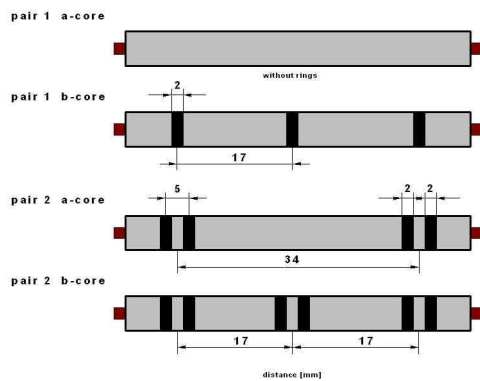


A-02YSF(L)2Y n x 2 x 0.5 STVI BD n x 2 x 0.8 STV BD

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

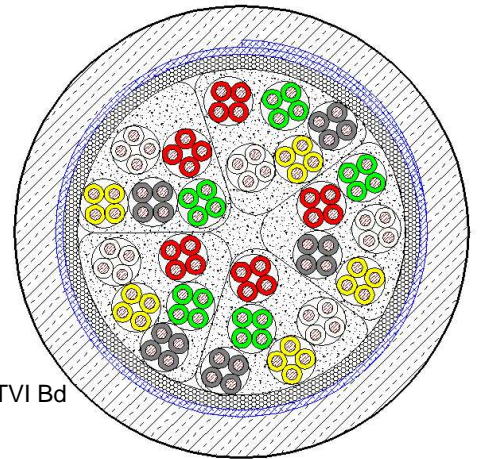
According to specification TS 0031/96 of T-Com, issued June 2004

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Ringmarking of quads

Principle drawing
A-02YSF(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 starquads with black rings as shown on picture above
 Basic unit: 5 main colours of starquad: red (quad 1), green (quad 2), grey (quad 3), yellow (quad 4), white (quad 5)

Construction

A-02YSF(L)2Y	
Conductor	copper solid, 0.5 oder 0.8 mm, soft annealed
Insulation	foam-skin-PE (02YS)
Twisting	five quads forming one unit, unit stranding
Filling	with filling compound, drop point $\geq 70^\circ\text{C}$
Cable core wrapping	one layer of water swellable material, longitudinally applied 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



A-02YSF(L)2Y

n x 2 x 0.5 STVI BD

n x 2 x 0.8 STV BD

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
tolerance	mm	± 0.02	± 0.02
Conductor loop resistance (nominal value)	Ω/km	180	69.0
tolerance	Ω	± 12.0	± 4.2
Difference of resistance	Ω/km	0 ± 2.0	0 ± 0.69
Insulation resistance DC ≥ 100 V, 1 min	GΩxkm	≥ 1.5	≥ 3.0
Mutual capacitance at 1000 Hz	nF/km	≤ 41	≤ 41
Capacitance unbalance at 1000 Hz			
k ₁	pF/km	0 ± 500	0 ± 440
k ₉₋₁₂	pF/km	0 ± 220	0 ± 220
e ₁₋₂	pF/km	0 ± 1200	-
e _{a1-2}	pF/km	-	0 ± 600
Test voltage at 50 Hz, 2 min			
core/core	V	≥ 350	≥ 500
core/screen	V	≥ 2000	≥ 2000

Electrical Properties at Higher Frequencies

Impedance at 1 MHz	Ω	135 ± 15	130 ± 15
Attenuation at			
0.12 MHz	dB/km	≤ 7	-
0.30 MHz	dB/km	≤ 10	-
1 MHz	dB/km	≤ 17	≤ 11
4 MHz	dB/km	≤ 34	-
Nearend-crosstalk attenuation (NEXT) an ₁ ; an ₉₋₁₂			
0.12 MHz	dB	≥ 56	-
0.30 MHz	dB	≥ 50	-
1 MHz	dB	≥ 43	≥ 43
4 MHz	dB	≥ 34	-
Farend-crosstalk attenuation (ELFEXT) af _{1-a} ; af _{9-12-a}			
1 MHz	dB/km	≥ 37	≥ 37
Longitudinal conversion loss	dB/100m	≥ 50	-



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

Additional Properties

Dimension	Outer diameter	Cable weight net	Standard supply length	Drum size flange-Ø	Transport weight gross	Copper content	Tensile strength max.	
	mm	kg/km	m	mm	kg/reel	kg/km	N	
A-02YSF(L)2Y n x 2 x 0.5 STVI Bd								
6 x	9.0	85	2000	1400	330	24	150	2.5
10 x	10.5	115	2000	1400	390	39	250	3
20 x	13.5	190	2000	1800	700	79	450	4.5
30 x	15.5	275	2000	2000	930	118	600	6
50 x	19.0	420	2000	2200	1430	196	900	8
100 x	25.5	780	2000	2500	2290	393	1600	14
150 x	30.5	1105	2000	2800	3440	589	2300	20
200 x	34.5	1465	2000	2800	4160	785	3900	25
300 x	41.0	2085	1000	2500	2810	1178	5400	36
A-02YSF(L)2Y n x 2 x 0.8 STV Bd								
30 x	23.5	590	1000	1800	970	302	1300	11
50 x	28.5	950	1000	2000	1500	503	2300	17
100 x	39.4	1740	1000	2200	2450	1005	4600	31
200 x	56.2	3460	750	2500	3470	2011	8500	59
300 x	67.9	5080	500	2500	3415	3016	11500	89
400 x	77.5	6680	500	2800	4515	4022	14500	117