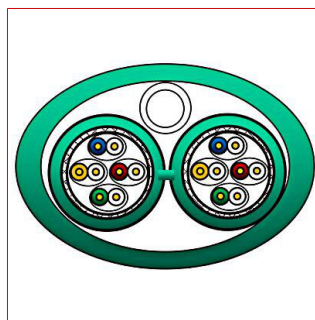
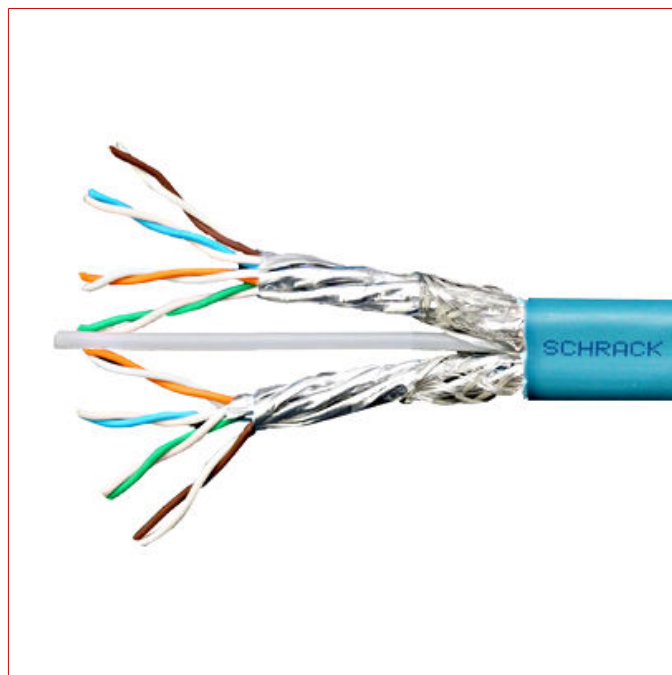


Dátový list pre produkt: HVSKT823BA

# Kábel S/FTP C7-1200 duplex 2x(4x2xAWG23), trubka, B2ca

obsahuje trubku pre FO, modrý



## Dátový kábel S/FTP Kat. 7 1200 MHz B2ca LS0H-3 s trubkou pre optické vlákna HVSKT823BA

Installation cables for generic, structured network cabling systems

- Horizontal and building backbone cable
- Support all applications requiring Class D to Class F applications, such as:  
10GBase-T (10 Gigabit Ethernet), 1000Base-T (Gigabit Ethernet), 100 Base-T, 10 Base-T, FDDI, ATM as well as VoIP, PoE

### GENERAL STANDARDS

- International standard: ISO/IEC 11801 2nd edition (2002) and ISO/IEC 11801 Amendment 2 (2010)
- European standard: EN 50173-1 (2011)



## Technické informácie

|                    |                                                 |
|--------------------|-------------------------------------------------|
| Kategória          | Cat.7                                           |
| Typ dátového kábla | S/FTP                                           |
| Materiál vodiča    | pevný medený vodič AWG23/1 (0,58mm)             |
| Konštrukcia kábla  | 2 x 4 individuálne tienené páry + optická rúrka |

## Technické informácie - Pokračovanie

|                                                       |                                                                                              |
|-------------------------------------------------------|----------------------------------------------------------------------------------------------|
| Farebný kód                                           | pár 1 biela / modrá<br>pár 2 biela / oranžová<br>pár 3 biela / zelená<br>pár 4 biela / hnedá |
| Izolačný materiál                                     | penový polyetylén                                                                            |
| Menovitý priemer izolácie (mm)                        | 1.45                                                                                         |
| Tienenie                                              | tienený                                                                                      |
| Tienenie - fólia                                      | fólia                                                                                        |
| Spoločné tienenie                                     | pocínovaný medený vodič                                                                      |
| Opletaný povrch (%)                                   | 65                                                                                           |
| Lanko                                                 | nylón                                                                                        |
| Plášť kábla                                           | LS0H-3                                                                                       |
| Trieda reakcie na oheň EN50575                        | B2ca                                                                                         |
| Dymivosť                                              | s1                                                                                           |
| Tvorba horľavých častíc                               | d1                                                                                           |
| Kyslosť                                               | a1                                                                                           |
| Farba plášťa                                          | modrá RAL5021                                                                                |
| Požiarné zaťaženie (kJ/m)                             | 3000                                                                                         |
| Dymivosť - priepustnosť (%)                           | > 60                                                                                         |
| Množstvo kyseliny halogénovej kyseliny - hodnota pH   | > 4.3                                                                                        |
| Množstvo halogénového plynu - vodivosť (μS/m)         | < 10                                                                                         |
| Vonkajší priemer (mm)                                 | 7.2 +0.3/-0.1 x 15.2 +0.5/-0.2                                                               |
| Hmotnosť (kg/km)                                      | 175                                                                                          |
| Farba                                                 | aqua                                                                                         |
| Teplotný rozsah - prevádzka (°C)                      | -30 až +60                                                                                   |
| Teplotný rozsah - montáž (°C)                         | +0 až +50                                                                                    |
| Uhol ohybu káblov - static (Ø)                        | 4                                                                                            |
| Uhol ohybu káblov - dynamic (Ø)                       | 8                                                                                            |
| Max. odolnosť v ťahu (N)                              | 110                                                                                          |
| Menovité napätie                                      | 72 VDC                                                                                       |
| Max. trvalý prúd na jeden vodič (pri 25 ° C) (A)      | 1.5                                                                                          |
| Jednosmerná rezistivita pri 20°C (Ωm/100m)            | < 9.5                                                                                        |
| Jednosmerný izolačný odpor (MΩ*km)                    | ≥ 5000                                                                                       |
| Dielektrický silový vodič - vodič (2 sek.) (kV DC)    | 2.5                                                                                          |
| Kapacita batérie (nF/km)                              | < 56                                                                                         |
| Nesymetria kapacity (pF/km)                           | < 1600                                                                                       |
| Rozdiel odporov (%)                                   | < 2 / < 4                                                                                    |
| Pomerné predĺženie pri pretrhnutí (%)                 | 10                                                                                           |
| Minimálne predĺženie pri pretrhnutí izolácie (%)      | ≥ 100                                                                                        |
| Minimálne predĺženie pri pretrhnutí puzdra (%)        | ≥ 100                                                                                        |
| Pevnosť puzdra v ťahu (MPa)                           | > 9                                                                                          |
| Maximálny trvalý prúd na jeden vodič (pri 25 ° C) (A) | 1.5                                                                                          |
| SKEW (ns/100m)                                        | ≤ 25                                                                                         |

## Technické informácie - Pokračovanie

NVP (%)

| 76

### REFERENCE STANDARD: IEC 61156-5

#### High frequency @ 20°C

| TYPE                  | 1 *   | 4     | 10    | 16    | 31.2  | 62.5  | 100   | 125   | 200   | 300   | 600   | 1000 * | 1200 * | MHz     |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|---------|
| Attenuation           | 2.0   | 3.7   | 5.9   | 7.4   | 10.4  | 14.9  | 19.0  | 21.4  | 27.5  | 34.2  | 50.1  | 66.9   | 74.4   | dB/100m |
| NEXT                  | 78.0  | 78.0  | 78.0  | 78.0  | 78.0  | 75.5  | 72.4  | 70.9  | 67.9  | 65.2  | 60.7  | 57.4   | 59.2   | dB/100m |
| PS NEXT               | 75.0  | 75.0  | 75.0  | 75.0  | 75.0  | 72.5  | 69.4  | 67.9  | 64.9  | 62.2  | 57.7  | 54.4   | 56.2   | dB/100m |
| ACR                   | 76.0  | 74.3  | 72.1  | 70.6  | 67.6  | 60.6  | 53.4  | 49.6  | 40.4  | 31.1  | 10.6  | -9.5   | -15.2  | dB/100m |
| PS ACR                | 73.0  | 71.3  | 69.1  | 67.6  | 64.6  | 57.6  | 50.4  | 46.6  | 37.4  | 28.1  | 7.6   | -12.5  | -18.2  | dB/100m |
| ACR-F                 | 78.0  | 78.0  | 75.3  | 71.2  | 65.4  | 59.4  | 55.3  | 53.4  | 49.3  | 45.8  | 39.7  | 35.3   | 33.7   | dB/100m |
| PS ACR-F              | 75.0  | 75.0  | 72.3  | 68.2  | 62.4  | 56.4  | 52.3  | 50.4  | 46.3  | 42.8  | 36.7  | 32.3   | 30.7   | dB/100m |
| Return Loss           | 20.0  | 23.0  | 25.0  | 25.0  | 23.6  | 21.5  | 20.1  | 19.4  | 18.0  | 17.3  | 17.3  | 17.3   | 17.3   | dB/100m |
| TCL level 1           | 40.0  | 34.0  | 30.0  | 28.0  | 25.1  | 22.0  | 20.0  | 19.0  | 17.0  |       |       |        |        | dB/100m |
| EL TCTL               | 35.0  | 23.0  | 15.0  | 10.9  | 5.1   |       |       |       |       |       |       |        |        | dB/100m |
| Impedance upper limit | 122.2 | 115.2 | 111.9 | 111.9 | 114.1 | 118.3 | 121.9 | 123.9 | 128.8 | 131.6 | 131.6 | 131.6  | 131.6  | Ω       |
| Impedance lower limit | 81.8  | 86.8  | 89.4  | 89.4  | 87.7  | 84.5  | 82.0  | 80.7  | 77.6  | 76.0  | 76.0  | 76.0   | 76.0   | Ω       |
| Propagation delay     | 570   | 552   | 545   | 543   | 540   | 539   | 538   | 537   | 536   | 536   | 535   | 535    | 535    | ns/100m |

\*Limits below 4MHz are for information only. Values at 1000MHz are for information only.

## REFERENCE STANDARD: IEC 61156-5

| Electrical parameters at 20 ° C                           | Freq. (MHz)          | Specification                                             | Unit    |
|-----------------------------------------------------------|----------------------|-----------------------------------------------------------|---------|
| Propagation delay (phase delay)                           | 4-600                | $\leq 534 + 36/\sqrt{f}$                                  | ns/100m |
| Longitudinal attenuation                                  | 4-600                | $\leq 1.80 \cdot \sqrt{f} + 0.01 \cdot f + 0.20/\sqrt{f}$ | dB      |
| Transverse Conversion Loss (TCL, level 1)                 | 1-250                | $> 40 - 10 \cdot \log(f)$                                 | dB      |
| Equal Level Transverse Conversion Loss (ELTCTL)           | 1-30                 | $> 35 - 20 \cdot \log(f)$                                 | dB      |
| Near end cross talk (NEXT)                                | 4-600                | $\geq 102.4 - 15 \cdot \log(f)$ (78 max)                  | dB      |
| Power sum near end cross talk (PS NEXT)                   | 4-600                | $\geq 99.4 - 15 \cdot \log(f)$ (75 max)                   | dB      |
| Attenuation cross talk ratio far end (ACR-F)              | 4-600                | $\geq 95.3 - 20 \cdot \log(f)$ (78 max)                   | dB      |
| Power sum attenuation cross talk ratio far end (PS ACR-F) | 4-600                | $\geq 92.3 - 20 \cdot \log(f)$ (75 max)                   | dB      |
| Attenuation cross talk ratio (ACR)                        | 4-600                | NEXT- longitudinal att.                                   | dB      |
| Power sum attenuation cross talk ratio (PS ACR)           | 4-600                | PSNEXT - longitudinal att.                                | dB      |
| Return loss (RL)                                          | $4 \leq f \leq 10$   | $\geq 20 + 5 \cdot \log(f)$                               | dB      |
|                                                           | $10 \leq f \leq 20$  | $\geq 25$                                                 | dB      |
|                                                           | $20 \leq f \leq 600$ | $\geq 25 - 7 \cdot \log(f/20)$ , (17.3 min)               | dB      |
| Coupling attenuation (type 1)                             | 30-100               | $\geq 85$                                                 | dB      |
|                                                           | 100-1200             | $\geq 85 - 20 \cdot \log(f/100)$                          | dB      |
| Transfer impedance (Z <sub>t</sub> , grade 1)             | 1                    | $< 10$                                                    | mΩ/m    |
|                                                           | 10                   | $< 10$                                                    | mΩ/m    |
|                                                           | 30                   | $< 30$                                                    | mΩ/m    |
|                                                           | 100                  | $< 100$                                                   | mΩ/m    |

## TYPICAL VALUES

| TYPE        | 1 * | 4   | 10  | 16  | 31.2 | 62.5 | 100  | 125  | 200  | 300  | 600  | 1000 | 1200 | MHz     |
|-------------|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|---------|
| Attenuation | 1.8 | 3.3 | 5.3 | 6.7 | 9.4  | 13.4 | 17.1 | 19.3 | 26.7 | 30.8 | 45.5 | 67.1 | 60.3 | dB/100m |
| NEXT        | 103 | 100 | 98  | 97  | 95   | 94   | 93   | 92   | 91   | 90   | 89   | 87   | 88   | dB/100m |
| PS NEXT     | 100 | 97  | 95  | 94  | 92   | 91   | 90   | 89   | 88   | 87   | 86   | 84   | 85   | dB/100m |
| ACR         | 101 | 97  | 93  | 91  | 85   | 81   | 76   | 73   | 64   | 59   | 43   | 20   | 28   | dB/100m |
| PS ACR      | 98  | 94  | 90  | 88  | 82   | 78   | 73   | 70   | 61   | 56   | 40   | 17   | 25   | dB/100m |
| ACR-F       | 95  | 94  | 93  | 91  | 90   | 87   | 85   | 83   | 77   | 74   | 60   | 45   | 30   | dB/100m |
| PS ACR-F    | 92  | 91  | 92  | 88  | 87   | 84   | 82   | 80   | 74   | 71   | 57   | 42   | 47   | dB/100m |
| Return Loss | 27  | 30  | 32  | 32  | 35   | 33   | 32   | 31   | 30   | 25   | 23   | 21   | 21   | dB/100m |

Typical values are informative.

## Tabuľka objednávacích čísel

| POPIS                                                                                                                                      | NVP (%) | Hmotnosť medi (kg/km) | OBJ. ČÍSLO |
|--------------------------------------------------------------------------------------------------------------------------------------------|---------|-----------------------|------------|
| Kábel S/FTP C7-1200 duplex 2x(4x2xAWG23), trubka, B2ca<br>obsahuje trubku pre FO, modrý                                                    | 76      | 65                    | HVSKT823BA |
| <b>Voliteľné príslušenstvo</b>                                                                                                             |         |                       |            |
| S-JACK RJ45 tienený, Cat.6a 10GB 4PPoE 100W SFB, min. 24ks<br>Dodávané len ako 24 kusový box, cena je uvedená za 1 ks z 24 kusového boxu ! |         |                       | HSEMRJ6GS2 |
| S-JACK RJ45 tienený, Cat.6a 10GB 4PPoE 100W SFB<br>4PPoE 100W, SFB                                                                         |         |                       | HSEMRJ6GS1 |
| Odvíjací stojan na cievky priemeru 52 cm, 250 kg nosnosť                                                                                   |         |                       | HTOOL00006 |
| Sťahovacia páska 16mm x 4m, čierna                                                                                                         |         |                       | Q7KB0416-S |
| Sťahovacia páska 16mm x 4m, modrá                                                                                                          |         |                       | Q7KB0416-B |
| Sťahovacia páska 16mm x 4m, červená                                                                                                        |         |                       | Q7KB0416-R |
| Sťahovacia páska 16mm x 4m, žltá                                                                                                           |         |                       | Q7KB0416-Y |
| Sťahovacia páska 16mm x 4m, zelená                                                                                                         |         |                       | Q7KB0416-U |