

## DK6000A data cable F/UTP Cat 6A Dca LSFH 23AWG

Category-6A and Dca Euroclass data cable, F/UTP type (Foiled cable, Unfoiled pairs), with copper conductor and LSFH sheath (Low Smoke Free of Halogen), violet colour.

It achieves a bandwidth up to 650 MHz (higher than the 500 MHz specified by the standard).

|                     |               |
|---------------------|---------------|
| <b>Ref.</b>         | 219322        |
| <b>Logical ref.</b> | CAT6ALF500V   |
| <b>EAN13</b>        | 8424450251430 |

### Other features

|               |          |
|---------------|----------|
| <b>Colour</b> | Violet   |
| <b>Length</b> | 500.00 m |

### Packaging info

|               |        |
|---------------|--------|
| <b>Reel</b>   | 500 m  |
| <b>Pallet</b> | 8000 m |

### Physical data

|                            |             |
|----------------------------|-------------|
| <b>Net weight</b>          | 54.00 g     |
| <b>Gross weight</b>        | 56.00 g     |
| <b>Width</b>               | 7.00 mm     |
| <b>Height</b>              | 1,000.00 mm |
| <b>Depth</b>               | 7.00 mm     |
| <b>Main product weight</b> | 54.00 g     |

### Highlights

- F/UTP Cable (foiled cable with unfoiled pairs)
- Solid copper inner conductor (23AWG)
- Compatible with PoE/PoE+ (Power over Ethernet) technology, allowing the cable to power

network devices

- PE (Polyethylene) copper conductor insulation, 1.14mm diameter
- Aluminium foil + polyester between ground cable and outer cable sheath
- CuSn ground cable
- LSFH (Low Smoke Free of Halogen) outer sheath, 0.50mm thick and 7.3mm diameter
- 72% nominal speed
- Certified according to the applicable standards as defined in the available declarations of conformity and performance

## Discover

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### Category 6A

Data cable category Cat 6A (augmented) has its origins on Cat 6 and it is backwards compatible, with the standards of the inferior categories (Cat 6/5e and Cat 3). Category 6A evolves over category 6, allowing to achieve transmission frequencies of up to 500 MHz (in each pair) and 10 Gbps of throughput. It includes characteristics and specifications to avoid crosstalk and noise. This type of data cable can be used in 10BASE-T, 100BASE-T, 1000BASE-T and 10GBASE-T compliant systems.

Our category 6A cables are characterized for:

- Comply with TIA/EIA-568B.2-1
- Transfer rate up to 10Gbps
- Frequency range of up to 650 MHz (higher than the 500 MHz specified by the standard)
- Nominal impedance of 100 ohms
- Maximum resistance per conductor below 9.38 ohms/100m

### Compatibility of RJ45 connectors with Televes data cables:

| Reference         | 219602        | 219701 | 219901 | 219910 | 212201 | 2123 | 212302 | 212305 | 212310 | 212101 | 219302 | 219312 | 219313 | 219322 |
|-------------------|---------------|--------|--------|--------|--------|------|--------|--------|--------|--------|--------|--------|--------|--------|
| Female connectors | 209901/209907 | OK     | OK     | OK     | OK     | OK   | OK     | OK     | OK     | X      | X      | X      | X      | X      |
|                   | 209905        | OK     | OK     | OK     | OK     | OK   | OK     | OK     | OK     | X      | X      | X      | X      | X      |
|                   | 209921/209925 | OK     | OK     | OK     | OK     | OK   | OK     | OK     | OK     | X      | X      | OK     | OK     | X      |
|                   | 209926        | OK     | OK     | OK     | OK     | OK   | OK     | OK     | OK     | X      | X      | OK     | OK     | X      |
|                   | 209903        | OK*    | OK*    | OK     | OK*    | OK*  | OK*    | OK*    | OK*    | OK     | X      | X      | X      | X      |
|                   | 209923        | OK*    | OK*    | OK     | OK*    | OK*  | OK*    | OK*    | OK*    | OK     | OK     | OK*    | OK*    | OK     |
|                   | 209929/209501 | OK*    | OK*    | OK     | OK*    | OK*  | OK*    | OK*    | OK*    | OK     | OK     | OK*    | OK*    | OK     |
| Male connectors   | 209902        | OK     | OK     | OK     | OK     | OK   | OK     | OK     | OK     | X      | X      | X      | X      | X      |
|                   | 209961/209962 | OK     | OK     | OK     | OK     | OK   | OK     | OK     | OK     | X      | X      | X      | X      | X      |
|                   | 209904        | OK*    | OK*    | OK     | OK*    | OK*  | OK*    | OK*    | OK*    | OK     | X      | X      | X      | X      |
|                   | 209906        | OK     | OK     | OK     | OK     | OK   | OK     | OK     | OK     | X      | X      | X      | X      | X      |
|                   | 209965/209966 | OK     | OK     | OK     | OK     | OK   | OK     | OK     | OK     | X      | X      | X      | X      | X      |
|                   | 209922        | OK*    | OK*    | OK     | OK*    | OK*  | OK*    | OK*    | OK*    | X      | X      | OK     | OK     | X      |
|                   | 209924        | OK*    | OK*    | OK     | OK*    | OK*  | OK*    | OK*    | OK*    | OK*    | OK     | OK*    | OK*    | OK     |

OK Compatible

OK\* Compatible, but there are better choices

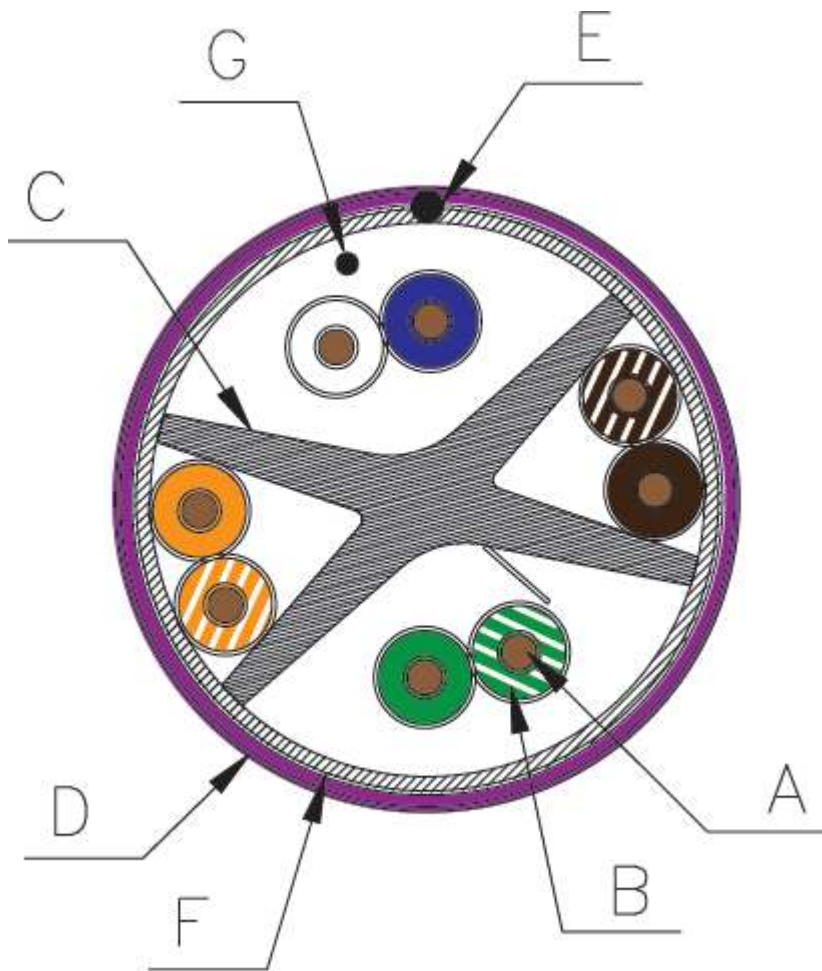
X Incompatible

\*\* Mechanical compatibility

## Mounting details

### DETAIL VIEW OF THE DATA CABLE SECTION

- A. Inner conductor
- B. Inner conductor isolation
- C. Crucifix Filler
- D. Outer sheath
- E. Rip cord
- F. Shielding foil
- G. Drain wire



## Technical specifications : Ref. 219322

|                              |          |                       |       |       |        |        |        |        |           |          |         |         |         |         |         |         |         |         |
|------------------------------|----------|-----------------------|-------|-------|--------|--------|--------|--------|-----------|----------|---------|---------|---------|---------|---------|---------|---------|---------|
| Model                        |          | DK6000A               |       |       |        |        |        |        |           |          |         |         |         |         |         |         |         |         |
| Type                         |          | F/UTP                 |       |       |        |        |        |        |           |          |         |         |         |         |         |         |         |         |
| Euroclass                    |          | Dca                   |       |       |        |        |        |        |           |          |         |         |         |         |         |         |         |         |
| Euroclass: Smoke Production  |          | s2                    |       |       |        |        |        |        |           |          |         |         |         |         |         |         |         |         |
| Euroclass: Flaming droplets  |          | d2                    |       |       |        |        |        |        |           |          |         |         |         |         |         |         |         |         |
| Euroclass: Acidity           |          | a1                    |       |       |        |        |        |        |           |          |         |         |         |         |         |         |         |         |
| Categorie                    |          | Cat 6A                |       |       |        |        |        |        |           |          |         |         |         |         |         |         |         |         |
| Transmission bandwidth       |          | 650MHz                |       |       |        |        |        |        |           |          |         |         |         |         |         |         |         |         |
| Transfer rate                |          | 10Gbps                |       |       |        |        |        |        |           |          |         |         |         |         |         |         |         |         |
| Conductor Diameter           | mm       | 0.55                  |       |       |        |        |        |        |           |          |         |         |         |         |         |         |         |         |
| Conductor Material           |          | Solid copper          |       |       |        |        |        |        |           |          |         |         |         |         |         |         |         |         |
| Conductor type AWG           |          | 23                    |       |       |        |        |        |        |           |          |         |         |         |         |         |         |         |         |
| Conductor isolation Diameter | mm       | 1.14                  |       |       |        |        |        |        |           |          |         |         |         |         |         |         |         |         |
| Conductor isolation Material |          | Polyethylene          |       |       |        |        |        |        |           |          |         |         |         |         |         |         |         |         |
| Crucifix filler              |          | Yes                   |       |       |        |        |        |        |           |          |         |         |         |         |         |         |         |         |
| Shielding foil of pairs      |          | Aluminium + Polyester |       |       |        |        |        |        |           |          |         |         |         |         |         |         |         |         |
| Drain wire Diameter          | mm       | 0.4                   |       |       |        |        |        |        |           |          |         |         |         |         |         |         |         |         |
| Drain wire Material          |          | Tinned copper (CuSn)  |       |       |        |        |        |        |           |          |         |         |         |         |         |         |         |         |
| Outer sheath Diameter        | mm       | 7.3                   |       |       |        |        |        |        |           |          |         |         |         |         |         |         |         |         |
| Outer sheath Material        |          | LSFH                  |       |       |        |        |        |        |           |          |         |         |         |         |         |         |         |         |
| Outer sheath Thickness       | mm       | 0.5                   |       |       |        |        |        |        |           |          |         |         |         |         |         |         |         |         |
| Rip cord                     |          | Yes                   |       |       |        |        |        |        |           |          |         |         |         |         |         |         |         |         |
| Spark Test                   | Vac      | 3000                  |       |       |        |        |        |        |           |          |         |         |         |         |         |         |         |         |
| Nominal impedance            | Ω        | 100                   |       |       |        |        |        |        |           |          |         |         |         |         |         |         |         |         |
| Conductor resistance         | Ohm/100m | < 9.38                |       |       |        |        |        |        |           |          |         |         |         |         |         |         |         |         |
| Nominal speed                | %        | 72                    |       |       |        |        |        |        |           |          |         |         |         |         |         |         |         |         |
| Working voltage              | V        | 300                   |       |       |        |        |        |        |           |          |         |         |         |         |         |         |         |         |
| Operating temperature        | °C       | -25 ... 70            |       |       |        |        |        |        |           |          |         |         |         |         |         |         |         |         |
| Frequencies                  |          | 1 MHz                 | 4 MHz | 8 MHz | 10 MHz | 16 MHz | 20 MHz | 25 MHz | 31.25 MHz | 62.5 MHz | 100 MHz | 200 MHz | 250 MHz | 300 MHz | 400 MHz | 500 MHz | 600 MHz | 650 MHz |
| Attenuation (max.)           | dB/100m  | 2.1                   | 3.8   | 5.3   | 5.9    | 7.5    | 8.4    | 9.4    | 10.5      | 15       | 19.1    | 27.6    | 31.1    | 34.3    | 40.1    | 45      | --      | --      |
| Attenuation (typ.)           | dB/100m  | 2                     | 3.8   | 5.2   | 5.8    | 7.5    | 8.2    | 9.2    | 10.2      | 14.5     | 18.7    | 27      | 30.5    | 34      | 39.9    | 44.1    | 49.7    | 52      |
| NEXT (min.)                  | dB/100m  | 74.3                  | 65.3  | 60.8  | 59.3   | 56.2   | 54.8   | 53.3   | 51.9      | 47.4     | 44.3    | 39.8    | 38.3    | 37.1    | 35.3    | 34      | --      | --      |
| NEXT (typ.)                  | dB/100m  | 86.2                  | 81.2  | 74.7  | 72.6   | 72.4   | 68.3   | 66.1   | 64.9      | 60.1     | 55.3    | 50.2    | 49.4    | 48.5    | 43.6    | 40.4    | 33.7    | 31.9    |
| PS NEXT (min.)               | dB/100m  | 72.3                  | 63.3  | 58.8  | 57.3   | 54.2   | 52.8   | 51.3   | 49.9      | 45.4     | 42.3    | 37.8    | 36.3    | 35.1    | 33.3    | 32      | --      | --      |
| PS NEXT (typ.)               | dB/100m  | 84.4                  | 79.7  | 72.2  | 70.5   | 69.8   | 66.1   | 63.7   | 62.4      | 57.9     | 52.7    | 46.9    | 46.6    | 45.3    | 40.4    | 36.3    | 31.8    | 30.5    |
| ACR-N (min.)                 | dB/100m  | 72.2                  | 61.5  | 55.5  | 53.4   | 48.7   | 46.4   | 43.9   | 41.4      | 32.4     | 25.2    | 12.2    | 7.2     | 2.8     | -4.8    | -12     | --      | --      |
| ACR-N (typ.)                 | dB/100m  | 84.2                  | 77.4  | 69.4  | 66.5   | 64.8   | 59.8   | 56.5   | 54.2      | 44.8     | 35.9    | 22.4    | 18.2    | 14.2    | 3.7     | -4.6    | -16     | -20.1   |
| PS ACR-N (min.)              | dB/100m  | 70.2                  | 59.5  | 53.5  | 51.4   | 46.7   | 44.4   | 41.9   | 39.4      | 30.4     | 23.2    | 10.2    | 5.2     | 0.8     | -6.8    | -14     | --      | --      |
| PS ACR-N (typ.)              | dB/100m  | 82.4                  | 75.8  | 67    | 64.6   | 62.2   | 57.6   | 54.2   | 51.8      | 42.7     | 33.3    | 19.1    | 15.5    | 11.2    | 0.9     | -8.5    | -17.8   | -21.2   |
| ACR-F (min.)                 | dB/100m  | 67.8                  | 55.8  | 49.7  | 47.8   | 43.7   | 41.8   | 39.8   | 37.9      | 31.9     | 27.8    | 21.8    | 19.8    | 18.3    | 15.8    | 14      | --      | --      |
| ACR-F (typ.)                 | dB/100m  | 80.2                  | 68.5  | 63.5  | 62.3   | 62.8   | 65.3   | 58.9   | 53.1      | 48.5     | 40.8    | 37.1    | 34      | 34      | 28.7    | 29.4    | 31.3    | 25.9    |
| PS ACR-F (min.)              | dB/100m  | 64.8                  | 52.8  | 46.7  | 44.8   | 40.7   | 38.8   | 36.8   | 34.9      | 28.9     | 24.8    | 18.8    | 16.8    | 15.3    | 12.8    | 11      | --      | --      |
| PS ACR-F (typ.)              | dB/100m  | 77.8                  | 66.3  | 61.2  | 60.2   | 61.9   | 63.5   | 57.5   | 52.5      | 46.5     | 38.3    | 36.2    | 31.1    | 31.7    | 27.2    | 27.8    | 27      | 25.1    |
| Return losses (min.)         | dB       | 20                    | 23    | 24.5  | 25     | 25     | 25     | 24.3   | 23.6      | 21.5     | 20.1    | 18      | 17.3    | 16.8    | 15.9    | 15      | --      | --      |
| Return losses                | dB       | 26.7                  | 30.9  | 37.9  | 38.5   | 33.1   | 34.2   | 32.5   | 34.4      | 32.8     | 29.9    | 28      | 27.1    | 25.3    | 23.8    | 22.2    | 19.3    | 18.5    |