

**Construction**

|                                               |                                         |
|-----------------------------------------------|-----------------------------------------|
| <b>1 Conductor</b><br>Diameter                | <b>Solid Bare Copper</b><br>AWG 23      |
| <b>2 Insulation</b> Color Code                | <b>Solid PE</b>                         |
| Pair 1                                        | Blue/White-Blue                         |
| Pair 2                                        | Orange/White-Orange                     |
| Pair 3                                        | Green/White-Green                       |
| Pair 4                                        | Brown/White-Brown                       |
| <b>3 Central Cross</b>                        | <b>PE Spline</b>                        |
| <b>4 Synthetic Polyester Foil</b><br>Coverage | >100%                                   |
| <b>5 Drain Wire</b><br>Diameter (mm)          | <b>Solid Tinned Copper</b><br>0.40±0.05 |
| <b>6 Shielding</b><br>Coverage                | <b>Al / PET</b><br>≥115%                |
| <b>7 Sheath</b><br>Avg. Thickness (mm)        | <b>PE (UV resistant)</b><br>0.55        |
| Diameter (mm)                                 | 7.50 ± 0.30                             |
| Color                                         | Black                                   |

**Marking**

BCABLES EN50575 F<sub>ca</sub> DOP-BSYXXX-4 PAIRS AWG 23 F/UTP CAT 6A  
500MHZ – 100 OHM – ISO11801/TIA-EIA 568- B.2 CE PE 001M

**Standards**

ISO/IEC 11801-1:2017 (Ed. 1.0) / ISO/IEC 11801-2:2017 (Ed. 1.0)  
IEC 61156-5:2012 (Ed. 2.1)  
EN 50173-1:2011 / EN 50173-2:2007 including amendment A1:2010  
EN 50288-11-1:2012 - ANSI/TIA-568-C.2:2009  
**Euroclass F<sub>ca</sub>**

**Electrical characteristics**

|                                                          |          |
|----------------------------------------------------------|----------|
| Characteristics Impedance (Ω)                            | 100 ± 15 |
| from 1 to 250 MHz                                        |          |
| from 250 to 500 MHz                                      | 100 ± 25 |
| Conductor DC Resistance @ 20 °C (Ω/km)                   | 95       |
| Min. insulation Resistance (MΩ/km)                       | 5000     |
| Mutual Capacitance(nF/km)                                | 56       |
| Velocity of Propagation                                  | 75%      |
| Suitable for POE++                                       |          |
| Comply with EIA/TIA 568 & ISO/IEC 11801 CAT 6A Standard: |          |

| Frequency<br>(MHz) | Attenuation<br>(dB/100m) | Return Loss<br>(dB) | NEXT<br>(dB) |
|--------------------|--------------------------|---------------------|--------------|
| 4                  | 3.8                      | 23.0                | 65.0         |
| 10                 | 5.9                      | 25.0                | 59.0         |
| 16                 | 7.5                      | 25.0                | 56.0         |
| 20                 | 8.4                      | 25.0                | 55.0         |
| 31.25              | 10.5                     | 23.6                | 52.0         |
| 100                | 19.1                     | 20.1                | 44.0         |
| 200                | 27.6                     | 18.0                | 40.0         |
| 250                | 31.1                     | 17.3                | 38.3         |
| 300                | 34.3                     | 16.8                | 37.1         |
| 500                | 45.3                     | 15.2                | 33.8         |

