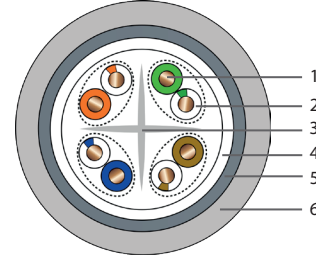
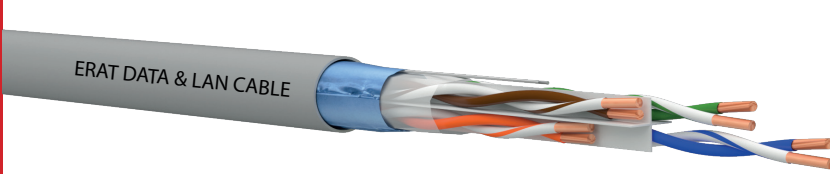


## CAT 6A U-UTP 23 AWG DATA CABLE

IEC 61156-5+A1



| AREAS OF USE / FEATURES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CABLE CONSTRUCTION                                                                                                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>ERAT Cat 6A cables are used to transmit digital and analog audio, data, video, and PoE signals.</p> <p>ERAT Cat 6A U/UTP cables are designed to support data transmission speeds of 10 Gbps at a frequency of 500 MHz. They feature a separator to minimize crosstalk between the cable pairs. Production is available with either LSZH-HFFR or PVC jacketing, depending on customer requirements.</p> <ul style="list-style-type: none"> <li>10000BASE-TX Gigabit Ethernet</li> <li>10000BASE-T Gigabit Ethernet</li> <li>1000BASE-TX Gigabit Ethernet</li> <li>1000BASE-T Gigabit Ethernet</li> <li>ATM 155 / ATM 25</li> <li>100BASE-T "Fast Ethernet"</li> <li>100BASE-T2/ 100BASE-T4</li> <li>100BASE-TX</li> <li>10BASE-T Ethernet</li> <li>ISDN, TPDDI, TP-PMD</li> <li>Power Over Ethernet (PoE)</li> </ul> | <ol style="list-style-type: none"> <li>1. Copper Conductor</li> <li>2. LSZH / PVC Isolated</li> <li>3. Separator</li> <li>4. Polyester Tape</li> <li>5. Aluminum Foil</li> <li>6. Outer Sheath</li> </ol> |

| PHYSICAL PROPERTIES               |                                                                                                   |
|-----------------------------------|---------------------------------------------------------------------------------------------------|
| <b>Conductor</b>                  | Pure, annealed copper                                                                             |
| <b>Conductor Diameter</b>         | 23 AWG                                                                                            |
| <b>Isolated</b>                   | Polyolefin                                                                                        |
| <b>Number of Isolates</b>         | 8, in 4 twisted pairs                                                                             |
| <b>Polyester Tape Wrap</b>        | Polyester tape provides 100% coverage.                                                            |
| <b>Internal Shielding</b>         | Laminated aluminum foil providing 100% opacity (foil side facing inwards)                         |
| <b>Outer Sheath</b>               | LSZH (Low Smoke Zero Halogen) flame-retardant or PVC compound                                     |
| <b>Jacket Color</b>               | Grey (RAL 7040). (Different colors can be produced upon customer request.)                        |
| <b>Performance Guarantee</b>      | A 25-year system performance guarantee is offered when end-to-end ERAT-branded products are used. |
| <b>Cable Labeling Information</b> | Brand, Cable type, Relevant standards, Date, Serial number, Meters                                |

| MECHANICAL AND ENVIRONMENTAL PROPERTIES |                            |
|-----------------------------------------|----------------------------|
| <b>Tensile Force</b>                    | 50 N / mm <sup>2</sup> max |
| <b>Bending Radius (Short-Term)</b>      | 4 x Cable Diameter         |
| <b>Bending Radius (Long-Term)</b>       | 8 x Cable Diameter         |
| <b>Operating Temperature</b>            | -40 to +70 °C              |
| <b>Installation Temperature</b>         | -10 to +50 °C              |
| <b>Storage Temperature</b>              | -40 to +70 °C              |

## CAT 6A U-UTP 23 AWG DATA CABLE

### PACKAGING, DIMENSIONS & WEIGHT

| Packaging Type      | Outer Diameter (mm) | Approximate Weight (kg) |
|---------------------|---------------------|-------------------------|
| 500 m Plywood Reel  | 7.4±0.3             | 27.0                    |
| 1000 m Plywood Reel | 7.4±0.3             | 54.0                    |

### ELECTRICAL PROPERTIES

|                                   |                                                     |
|-----------------------------------|-----------------------------------------------------|
| Impedance Characteristic          | 100±6 Ohm @ 1-500 MHz                               |
| DC Resistance                     | 82 Ohm/km max.                                      |
| Resistance Imbalance              | 2% max.                                             |
| Effective Capacity                | 56 pF/m nom. @ 1 KHz                                |
| Capacitance Imbalance (to Ground) | 1600 pF/km max. @ 1 KHz.                            |
| Voltage                           | 72 Vdc max.                                         |
| Dielectric Strength               | 1.7 kV AC / 2 seconds                               |
| Signal Speed (NVP)                | Min. %78 - 80                                       |
| Inter-lane Signal Skew            | 45 nS/100m max @ 1-500 MHz                          |
| Insulation Resistance             | 5000 MegaOhm·km min. @ 500 Vdc                      |
| Joint Attenuation                 | 40 dB min @ 30-100 MHz 40-20Log(f/100) @100-500 MHz |

| Frequency (MHz) | Return Loss (dB) | Insertion Loss (dB) | NEXT Loss (dB) | PS NEXT Loss (dB) | ACRF (dB) |
|-----------------|------------------|---------------------|----------------|-------------------|-----------|
|                 | Min.             | Max.                | Min.           | Min.              | Min.      |
| 1.00            | 19.1             | 1.9                 | 65.0           | 62.0              | 64.2      |
| 4.00            | 21.0             | 3.5                 | 64.1           | 61.8              | 52.1      |
| 8.00            | 21.0             | 5.0                 | 59.4           | 57.0              | 46.1      |
| 10.00           | 21.0             | 5.5                 | 57.8           | 55.5              | 44.2      |
| 16.00           | 20.0             | 7.0                 | 54.6           | 52.2              | 40.1      |
| 20.00           | 19.5             | 7.8                 | 53.1           | 50.7              | 38.2      |
| 25.00           | 19.0             | 8.8                 | 51.5           | 49.1              | 36.2      |
| 31.25           | 18.5             | 9.8                 | 50.0           | 47.5              | 34.3      |
| 62.50           | 16.0             | 14.0                | 45.1           | 42.7              | 28.3      |
| 100.00          | 14.0             | 18.0                | 41.8           | 39.3              | 24.2      |
| 200.00          | 11.0             | 26.1                | 36.9           | 34.3              | 18.2      |
| 250.00          | 10.0             | 29.5                | 35.3           | 32.7              | 16.2      |
| 300.00          | 9.2              | 32.7                | 34.0           | 31.4              | 14.6      |
| 400.00          | 8.0              | 38.4                | 29.9           | 27.1              | 12.1      |
| 500.00          | 8.0              | 43.8                | 26.7           | 23.8              | 10.2      |

### ISOLATED COLORS

|                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                       |                                                                                       |                                                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |  |  |  |  |  |
| Blue                                                                                | Blue/White                                                                          | Orange                                                                              | Orange /White                                                                       | Yellow                                                                              | Yellow /White                                                                         | Brown                                                                                 | Brown/White                                                                           |