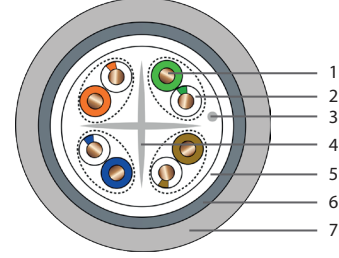
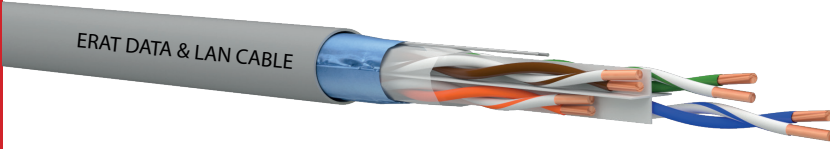


CAT 6 F-UTP 23 AWG DATA CABLE

IEC 61156-5+A1



AREAS OF USE / FEATURES	CABLE CONSTRUCTION
ERAT Cat 6 cables are used to transmit digital and analog audio, data, video, and PoE signals. ERAT Cat 6 F/UTP cables are designed for data transmission at speeds of 1 Gbps and frequencies up to 250 MHz. They feature a separator to minimize crosstalk between the cable pairs. Production is available with LSZH-HFFR or PVC jacketing, depending on customer requirements. • 1000BASE-TX Gigabit Ethernet • 1000BASE-T Gigabit Ethernet • ATM 155 / ATM 25 • 100BASE-T "Fast Ethernet" • 100BASE-T2/ 100BASE-T4 • 100BASE-TX • 10BASE-T Ethernet • ISDN, TPDDI, TP-PMD • Power Over Ethernet (PoE)	1. Copper Conductor 2. LSZH / PVC Isolated 3. Grounding Wire 4. Separator 5. Polyester Tape 6. Aluminum Foil 7. Outer Sheath

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

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

CAT 6 F-UTP 23 AWG DATA CABLE

PACKAGING, DIMENSIONS & WEIGHT

Packaging Type	Outer Diameter (mm)	Approximate Weight (kg)
500 m Plywood Reel	7.4±0.3	27.5
1000 m Plywood Reel	7.4±0.3	55.0

ELECTRICAL PROPERTIES

Impedance Characteristic	100±6 Ohm @ 1-250 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. % 67 - 69
Signal Transmission Time (Propagation Delay)	534 + 36/f ^{1/2} nS/100m max @ 1-250 MHz
Inter-lane Signal Skew	45 nS/100m max @ 1-250 MHz
Insulation Resistance	5000 MegaOhm·km min. @ 500 Vdc
Joint Attenuation	55 dB min @ 30-100 MHz 55-20Log(f/100) @100-250 MHz
Transfer Impedance	10 mOhm/m max @ 1-10 MHz 30 mOhm/m max @ 30 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	7.9	53.1	50.7	38.2
25.00	19.0	8.9	51.5	49.1	36.2
31.25	18.5	10.0	50.0	47.5	34.3
62.50	16.0	14.4	45.1	42.7	28.3
100.00	14.0	18.6	41.8	39.3	24.2
200.00	11.0	27.4	36.9	34.3	18.2
250.00	10.0	31.1	35.3	32.7	16.2

ISOLATED COLORS

							
Blue	Blue/White	Orange	Orange /White	Yellow	Yellow /White	Brown	Brown/White