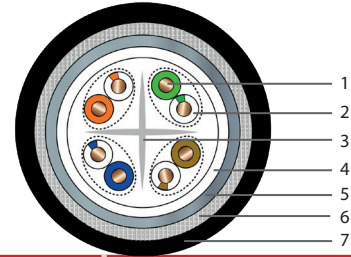


CAT 6A SF-UTP 23 AWG OUTDOOR DATA CABLE



AREAS OF USE / FEATURES	CABLE CONSTRUCTION
ERAT CAT 6A Outdoor cables are designed for outdoor installations and harsh environmental conditions. Featuring a UV-resistant black PE outer jacket, they are suitable for outdoor applications and are used for the transmission of digital and analog voice, data, video, and PoE signals. ERAT CAT 6A SF/UTP cables support 10 Gbps data transmission with an operating bandwidth of 500 MHz. The cable is designed with a cross separator to minimize pair-to-pair interference and ensure stable transmission performance. Upon customer request, the cables can be manufactured with HFFR or other types of outer jacket materials. • 10000BASE-TX Gigabit Ethernet • 10000BASE-T Gigabit Ethernet • 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. PE Isolated 3. Separator 4. Polyester Tape 5. Aluminum Foil 6. Tinned Copper Braid 7. Outer Sheath

PHYSICAL PROPERTIES	
Conductor	Pure, annealed copper
Conductor Diameter	23 AWG
Isolated	Polyolefin
Number of Isolates	8, in 4 twisted pairs
Internal Shielding	Laminated aluminum foil providing 100% opacity (foil side facing outwards)
External Shielding	Tinned Copper Braid
Polyester Tape Wrap	Polyester tape provides 100% coverage.
Outer Sheath	UV-resistant and weather-resistant PE compound suitable for outdoor installation.
Jacket Color	Black. (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	60 N / mm ² max
Bending Radius (Short-Term)	4 x Cable Diameter
Bending Radius (Long-Term)	8 x Cable Diameter
Operating Temperature	-40 to +80 °C
Installation Temperature	-10 to +60 °C
Storage Temperature	-40 to +80 °C

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PACKAGING, DIMENSIONS & WEIGHT

Packaging Type	Outer Diameter (mm)	Approximate Weight (kg)
500 m Plywood Reel	7.9±0.3	29.3
1000 m Plywood Reel	7.9±0.3	58

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	55 dB min @ 30-100 MHz 55-20Log(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