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## BCLS-31

CAT 6A U/UTP 23AWG 650MHz Bulk Cable  
- Low Smoke & Halogen Free

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Kramer's BCLS-31 is a high-performance CAT6A U/UTP cable designed for IT, LAN and Ethernet installations. It is constructed with four pairs of 23AWG solid bare copper conductors with a cross filler in an LSZH jacket with internal rip cord and sequential markings every meter and packed on a fumigated plywood reel. The unique zigzag jacket design provides excellent performance of "six around one" bundle transmission. BCLS-31 cable exceeds CAT 6A specifications to provide additional performance and bandwidth beyond the basic standard

## FEATURES

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High-Performance Single Cable Transmission

Zigzag Jacket Design - Provides excellent performance of six around one bundle transmission

Round & Smooth Jacket without Twisted Stripe

High-Quality Safety Properties

Sweep Frequency up to 650MHz

Length - Available in wooden drums of 500m (1640ft)



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## TECHNICAL SPECIFICATIONS

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CONSTRUCTION	<p>Conductor: 4 pairs of 23AWG solid bare copper</p> <p>Insulation: Polyolefin (PO); blue &amp; white, orange &amp; white, green &amp; white, brown &amp; white</p> <p>Twist: Left-hand</p> <p>Assembly: Left hand direction</p> <p>Rip Cord: Polyester multi-yarn</p> <p>Jacket: Low smoke zero halogen (LSZH), yellow (Pantone 116C)</p>
Filler:	Polyolefin (PO)
DIAMETERS	<p>Jacket: Diameter: <math>8.3 \pm 0.2\text{mm}</math>; thickness: <math>1.10 \pm 0.01\text{mm}</math></p> <p>Insulation: Blue &amp; white: <math>1.17 \pm 0.02\text{mm}</math> Orange &amp; white: <math>1.12 \pm 0.02\text{mm}</math> Green &amp; white: <math>1.15 \pm 0.02\text{mm}</math> Brown &amp; white: <math>1.10 \pm 0.02\text{mm}</math></p>
ELECTRICAL	<p>Temperature &amp; Voltage Rating: <math>60^{\circ}\text{C}</math> @300V</p> <p>Spark Test: 2.5kV DC</p> <p>AC Leakage Current: <math>\leq 10\text{mA}</math> (1.5kV AC) through overall jacket</p> <p>Conductor DC Resistance: <math>\leq 9.38\Omega</math> /100m</p> <p>Resistance Unbalance: <math>\leq 5\%</math></p> <p>Dielectric Strength: 1.5kV AC for 2sec</p> <p>Insulation Resistance: <math>\geq 5000\text{M}\Omega</math> /m</p> <p>Mutual Capacitance: <math>\leq 5.6\text{nF}</math> /100m</p> <p>Capacitance Unbalance: <math>\leq 330\text{pF}</math> /100m pair-to-ground</p> <p>Characteristic Impedance: <math>100 \pm 15\Omega</math> @1~100MHz</p> <p>Coupling Attenuation: <math>\leq 55\text{dB}</math> @30MHz, <math>\leq 41\text{dB}</math> @500MHz</p>
USAGE AND ENVIRONMENTAL	<p>Cable Cold Bend: <math>-20^{\circ}\text{C}</math> for 4hr</p> <p>Insulation Tensile Strength: 2400 PSI min. (1.69kg/m,2)</p> <p>NVP 67%</p> <p>Temperature Range: Storage &amp; shipping: <math>-20^{\circ}\text{C}</math> to <math>60^{\circ}\text{C}</math>; installation: <math>0^{\circ}\text{C}</math> to <math>60^{\circ}\text{C}</math>; operation: <math>-20^{\circ}\text{C}</math> to <math>60^{\circ}\text{C}</math></p> <p>Minimum Bending Radius: <math>\geq 4</math> times of overall diameter</p> <p>Maximum Pulling Tension: <math>\leq 110\text{N}</math></p>
REGULATORY PERFORMANCE	<p>ANSI/TIA-568-C.2 (2009): Balanced Twisted-Pair Telecommunications Cabling and Components Standards</p> <p>ISO/IEC 11801 (Edition 2.2): Information technology – Generic cabling for customer premises</p> <p>IEC 61156-5 (Edition 2.0): Multicore and symmetrical pair/quad cables for digital</p>

communications – Part 5: Symmetrical pair/quad cables with transmission characteristics up to 1000 MHz – Horizontal floor wiring – Sectional specification

EN 50288-6-1:2013: Multi-element metallic cables used in analogue and digital communication and control – Part 6-1: Sectional specification for unshielded cables characterized up to 250MHz – Horizontal and building backbone cables

REGULATORY  
SAFETY

EN 50173-1:2011: Information technology – Generic cabling systems – Part 1: General requirements

IEC 60332-1-2: Tests on electric and optical fiber cables under fire conditions – Part 1-2: Test for vertical flame propagation for a single insulated wire or cable – Procedure for 1kW pre-mixed flame

IEC 61034-1 / 61034-2: Measurement of smoke density of cables burning under defined conditions

IEC 60754-2 Test on gases evolved during combustion of materials from cables

EU Directive 2011/65/EC (RoHS 2)

EU Directive 2006/95/EC (LVD)

CE compliance date: 2010.01.01



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CONFIGURATIONS

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BCLS-31YL-5	CAT 6A U/UTP LSZH Cable - Yellow
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