

# LANmark-A750 Cat 6A XTP Solid CMR-CMX Outdoor PVC

## LANmark-A750 Cat 6A XTP Solid CMR-CMX Outdoor PVC

### Contact

Berk-Tek Industrial Inquiry  
Phone: 717-354-6200  
industrial.support@leviton.com

**Part Number:** 11099213

Berk-Tek LANmark Industrial Light-Duty (LD) Ethernet Cables enable the expansion and integration of Ethernet into the Industrial environment. With over 50 years of manufacturing expertise, you can be sure these Industrial Cables will perform both mechanically and electrically. With its 600V AWM design, industrial PVC jacket, cold-bend performance, and resistance to sunlight and oil, this cable is suitable for light to medium duty, static, industrial applications. This Cat 6A compliant product delivers innovative noise canceling XTP technology with exceptional alien crosstalk (AXT). This XTP design requires no bonding or grounding to allow for simple and efficient installation. It is rated CMR and CMX Outdoor, so it easily transitions from indoor to outdoor environments. It is also suitable for cable tray installations.

## DESCRIPTION

### Construction

Bare copper wire insulated with HDPE. Two primaries are twisted together to form a pair and four such pairs are cabled together with a central filler to form the basic unit. The cable core is surrounded by an aluminum/polyester discontinuous shield and contained with an industrial PVC jacket.

### Related Standards

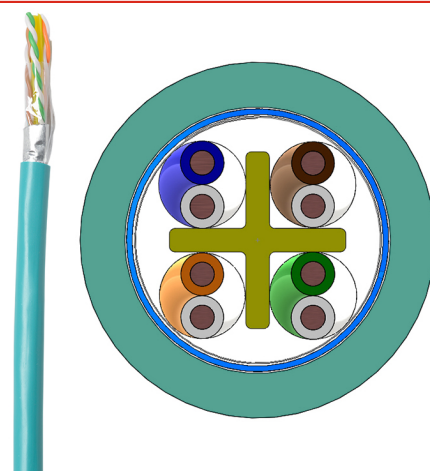
Low Voltage - EU Directive 2014/35/EU, CE Approved

RoHS - EU Directive 2011/65/EU

PoE+ - Type 2 (802.3at)

| Ratings             |               |               |
|---------------------|---------------|---------------|
| Description         | Method        |               |
| Listed Type         | UL1666        | CMR           |
| Listed Type         | UL444         | CMX Outdoor   |
| Oil Resistance      | UL1581 50.182 | 60°C          |
| Sunlight Resistance | UL444 7.22    | Yes (720 hrs) |

| Attributes                       |             |                        |
|----------------------------------|-------------|------------------------|
| Description                      | Method      |                        |
| AWM Style                        | UL758       | 21695 (600V, 80°C)     |
| Cold Bend                        | UL444 7.10  | -40°C                  |
| Weld Spatter Resistance          | Internal    | Yes                    |
| Installation Pull Tension (Max): |             |                        |
| Bend Radius: > 3 inch            | Internal    | 40 lbs.                |
| Bend Radius: > 1.25 inch         | TIA 568-C.0 | 25 lbs.                |
| Abrasion                         | UL2556 7.10 | 75 cycles/1.5 lb. load |



**EtherNet/IP™**  
ODVA Compliant

## STANDARDS

**International** ISO/IEC 11801;  
ODVA EtherNet/IP Compliant

**National** ANSI/TIA-568.2-D;  
UL 444

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## CHARACTERISTICS

### Construction characteristics

|                    |                                  |
|--------------------|----------------------------------|
| Conductor material | 23 AWG Solid Bare Copper         |
| Filler             | HDPE Cross Filler                |
| Insulation         | HDPE                             |
| Shielding          | Aluminum/Polyester Discontinuous |
| Core Tape          | Polyester                        |
| Jacket Material    | PVC                              |
| Colour             | Teal                             |

### Dimensional characteristics

|                                        |           |
|----------------------------------------|-----------|
| Insulated conductor diameter (Nominal) | 0.047 in  |
| Average jacket thickness               | 0.03 in   |
| Minimum jacket thickness at any point  | 0.024 in  |
| Cable diameter (Nominal)               | 0.313 in  |
| Nominal cable weight                   | 43 lb/kft |
| Length per reel                        | 1000.0 ft |

### Electrical characteristics

|                                  |                  |
|----------------------------------|------------------|
| Mutual capacitance               | 5.1 nF/100m max. |
| DC Resistance (max.)             | 9.38 Ohm/100m    |
| DC resistance unbalance (max.)   | 5 %              |
| Nominal velocity of propagation  | 66 %             |
| Maximum pair to ground unbalance | 330 pF/100m      |

### Transmission characteristics

|                                 |            |
|---------------------------------|------------|
| Skew (max.)                     | 45 ns/100m |
| Insertion loss de-rating factor | 1.2        |

### Mechanical characteristics

|                              |       |
|------------------------------|-------|
| Maximum installation tension | 25 lb |
|------------------------------|-------|

### Usage characteristics

|                                            |              |
|--------------------------------------------|--------------|
| Packaging                                  | Reel         |
| Minimum Bending Radius - Install           | 2.58 in      |
| Recommended installation temperature range | -20 .. 80 °C |
| Recommended operating temperature range    | -40 .. 80 °C |
| Recommended storage temperature range      | -40 .. 80 °C |

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## LANMARK-A750 - PARAMETRIC DATA: ELECTRICAL

FQ = Frequency (MHz) / TIA = TIA Spec / PG = Product Guarantee

|       | RL (dB)       |        | NEXT (dB)      |         | PSNEXT (dB)      |        | ACRF (dB)         |        | PSANEXT (dB) |        | LCL/TCL |
|-------|---------------|--------|----------------|---------|------------------|--------|-------------------|--------|--------------|--------|---------|
| FQ    | TIA           | PG     | TIA            | PG      | TIA              | PG     | TIA               | PG     | TIA          | PG     | PG      |
| 1     | 20.00         | 20.00  | 74.30          | 75.30   | 72.30            | 72.30  | 67.80             | 71.80  | 67.00        | 67.00  | 50.00   |
| 4     | 23.00         | 23.00  | 65.30          | 66.30   | 63.30            | 63.30  | 55.80             | 59.80  | 67.00        | 67.00  | 44.0    |
| 10    | 25.00         | 25.00  | 59.30          | 60.30   | 57.30            | 57.30  | 47.80             | 51.80  | 67.00        | 67.00  | 40.00   |
| 16    | 25.00         | 25.00  | 56.20          | 57.30   | 54.20            | 54.30  | 43.70             | 47.70  | 67.00        | 67.00  | 38.00   |
| 20    | 25.00         | 25.00  | 54.80          | 55.80   | 52.80            | 52.80  | 41.80             | 45.80  | 67.00        | 67.00  | 37.00   |
| 31.25 | 23.60         | 23.60  | 51.90          | 52.90   | 49.90            | 49.90  | 37.90             | 41.90  | 67.00        | 67.00  | 35.10   |
| 62.5  | 21.50         | 21.50  | 47.40          | 48.40   | 45.40            | 45.40  | 31.90             | 35.90  | 65.60        | 67.00  | 32.00   |
| 100   | 20.10         | 20.10  | 44.30          | 45.30   | 42.30            | 42.30  | 27.80             | 31.80  | 62.50        | 66.50  | 30.00   |
| 250   | 17.30         | 17.30  | 38.30          | 39.30   | 36.30            | 36.30  | 19.80             | 23.80  | 56.50        | 60.50  | 26.00   |
| 350   | 16.30         | 16.30  | 36.10          | 37.20   | 34.10            | 34.20  | 16.90             | 20.90  | —            | 58.30  | 24.60   |
| 400   | 15.90         | 15.90  | 35.30          | 36.30   | 33.30            | 33.30  | 15.80             | 19.80  | 53.50        | 57.50  | 23.40   |
| 500   | 15.20         | 15.20  | 33.80          | 34.80   | 31.80            | 31.80  | 13.80             | 17.80  | 52.00        | 56.00  | 23.00   |
| 600   | —             | 14.70* | —              | 33.60*  | —                | 30.60* | —                 | 16.20* | —            | 54.80* | 22.20*  |
| 750   | —             | 14.00* | —              | 32.20*  | —                | 29.20* | —                 | 14.30* | —            | 53.40* | 21.20*  |
|       | IL (dB/100 m) |        | ACR (dB/100 m) |         | PSACR (dB/100 m) |        | PSACRF (dB/100 m) |        | PSAACRF (dB) |        | EL TCTL |
| FQ    | TIA           | PG     | TIA            | PG      | TIA              | PG     | TIA               | PG     | TIA          | PG     | PG      |
| 1     | 2.10          | 2.10   | 72.20          | 73.20   | 70.20            | 70.20  | 64.80             | 64.80  | 67.00        | 67.00  | 35.00   |
| 4     | 3.80          | 3.80   | 61.50          | 62.50   | 59.50            | 59.50  | 52.80             | 52.70  | 66.20        | 67.00  | 23.00   |
| 10    | 5.90          | 5.90   | 53.40          | 54.40   | 51.40            | 51.40  | 44.80             | 44.80  | 58.20        | 62.20  | 15.00   |
| 16    | 7.50          | 7.50   | 48.80          | 49.80   | 46.80            | 46.80  | 40.70             | 40.70  | 54.10        | 58.10  | 10.90   |
| 20    | 8.40          | 8.40   | 46.40          | 47.40   | 44.40            | 44.40  | 38.80             | 38.80  | 52.20        | 56.20  | 9.00    |
| 31.25 | 10.50         | 10.50  | 41.40          | 42.40   | 39.40            | 39.40  | 34.90             | 34.90  | 48.30        | 52.30  | —       |
| 62.50 | 15.00         | 15.00  | 32.40          | 33.40   | 30.40            | 30.40  | 28.90             | 28.80  | 42.30        | 46.30  | —       |
| 100   | 19.10         | 19.10  | 25.20          | 26.20   | 23.20            | 23.20  | 24.80             | 24.80  | 38.20        | 42.20  | —       |
| 250   | 31.10         | 31.10  | 7.30           | 8.20    | 5.30             | 5.30   | 16.80             | 16.80  | 30.20        | 34.20  | —       |
| 350   | 37.20         | 37.20  | -1.10          | 0.00    | -3.10            | —      | 13.90             | 13.90  | —            | 31.30  | —       |
| 400   | 40.10         | 40.10  | -4.80          | -3.80   | -6.80            | —      | 12.80             | 12.70  | 26.20        | 30.20  | —       |
| 500   | 45.30         | 45.30  | -11.40         | -10.50  | -13.4            | —      | 10.80             | 10.80  | 24.20        | 28.20  | —       |
| 600   | —             | 50.10* | —              | -16.40* | —                | —      | —                 | 9.20*  | —            | 26.60* | —       |
| 750   | —             | 56.70* | —              | -24.50* | —                | —      | —                 | 7.30*  | —            | 24.70* | —       |

\*Values provided for reference only.

## LANMARK-A750 - TECHNICAL INFORMATION

| Transmission Characteristics |             |             |
|------------------------------|-------------|-------------|
| Description                  |             |             |
| ISO/IEC 11801                |             | Category 6A |
| ANSI/TIA-568.2-D             |             | Category 6A |
| Coupling Attenuation         | IEC 61156-5 | Type I      |
| Transfer Impedance           | IEC 61156-5 | Grade 2     |
| ODVA EtherNet/IP™ Compliant  |             | Category 5e |
| Color Code                   |             |             |
| Pair-1                       | White       | Blue        |
| Pair-2                       | White       | Orange      |
| Pair-3                       | White       | Green       |

All drawings, designs, specifications, plans and particulars of weights, size and dimensions contained in the technical or commercial documentation of Nexans is indicative only and shall not be binding on Nexans or be treated as constituting a representation on the part of Nexans.

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Pair-4

White

Brown