

Berk-Tek LANmark-B751 Cat 6A FTP Solid CMR-CMX Outdoor PVC



Berk-Tek LANmark Industrial Medium-Duty 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 offers best-in-class electrical performance with additional signal isolation advantages of a shielded F/UTP design. 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

23 AWG, bare copper wire insulated with HDPE. Two insulated conductors twisted together with varying lays to form a pair and four pairs laid up to form the basic unit. The cable is shielded with an overall aluminum/polyester foil with stranded tinned copper drain wire and ripcord and jacketed in industrial PVC compound.

Related Standards

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

RoHS - EU Directive 2011/65/EU

PoE+ - Type 2 (802.3at)

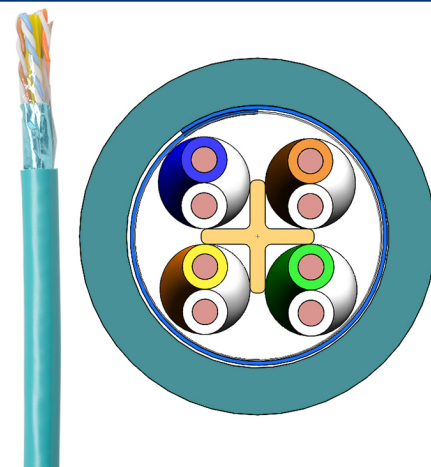
ODVA EtherNet/IP™ Compliant

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: > 1.26 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

CHARACTERISTICS

Construction characteristics

Conductor material	23 AWG Solid Bare Copper
Filler	HDPE Cross Filler
Insulation	HDPE
Jacket Material	PVC
Shielding	Aluminum/Polyester
Core Tape	Polyester
Drain wire	26 AWG Stranded TPC

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)	0.315 in
Nominal cable weight	43 lb/kft
Length per reel	1000.0 ft



Electrical characteristics



Nominal velocity of propagation	66 %
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Usage characteristics

Recommended installation temperature range	-20 .. 80 °C
Recommended operating temperature range	-40 .. 80 °C
Recommended storage temperature range	-40 .. 80 °C

PRODUCT LIST

Part Number	Description	Packaging	Colour
 11099214	LANmark-B751 Cat 6A FTP Solid CMR-CMX Outdoor PVC	Reel	Teal
 11101959	LANmark-B751 Cat 6A FTP Solid CMR-CMX Outdoor PVC	Reel	Black

 = Make to order,  = In stock

LANMARK-B751 - PARAMETRIC DATA: ELECTRICAL

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

FQ	RL (dB)		NEXT (dB)		PSNEXT (dB)		ACRF (dB)		PSANEXT (dB)		LCL/TCL
	TIA	PG	TIA	PG	TIA	PG	TIA	PG	TIA	PG	PG
1	20.00	20.00	74.30	74.30	72.30	72.30	67.80	67.80	67.00	67.00	50.00
4	23.00	23.00	65.30	65.30	63.30	63.30	55.80	55.70	67.00	67.00	44.00
10	25.00	25.00	59.30	59.30	57.30	57.30	47.80	47.80	67.00	67.00	40.00
16	25.00	25.00	56.20	56.30	54.20	54.30	43.70	43.70	67.00	67.00	38.00
20	25.00	25.00	54.80	54.80	52.80	52.80	41.80	41.70	67.00	67.00	37.00
31.25	23.60	23.60	51.90	51.90	49.90	49.90	37.90	37.90	67.00	67.00	35.10
62.5	21.50	21.50	47.40	47.40	45.40	45.40	31.90	31.80	65.60	65.60	32.00
100	20.10	20.10	44.30	44.30	42.30	42.30	27.80	27.80	62.50	62.50	30.00
250	17.30	17.30	38.30	38.30	36.30	36.30	19.80	19.80	56.50	56.50	26.00
350	16.30	16.30	36.10	36.20	34.10	34.20	16.90	16.90	—	54.30	24.60
400	15.90	15.90	35.30	35.30	33.30	33.30	15.80	15.70	53.50	53.40	24.00
500	15.20	15.20	33.80	33.80	31.80	31.80	13.80	13.80	52.00	52.00	23.00
600	—	14.70*	—	32.60*	—	30.60*	—	12.20*	—	50.80*	22.20*
750	—	14.00*	—	31.20*	—	29.20*	—	10.30*	—	49.30*	21.20*

FQ	IL (dB/100 m)		ACR (dB/100 m)		PSACR (dB/100 m)		PSACRF (dB/100 m)		PSAACRF (dB)		EL TCTL
	TIA	PG	TIA	PG	TIA	PG	TIA	PG	TIA	PG	PG
1	2.10	2.10	72.20	72.20	70.20	70.20	64.80	64.80	67.00	67.00	35.00
4	3.80	3.80	61.50	61.50	59.50	59.50	52.80	52.70	66.20	66.20	23.00
10	5.90	5.90	53.40	53.40	51.40	51.40	44.80	44.80	58.20	58.20	15.00
16	7.50	7.50	48.80	48.80	46.80	46.80	40.70	40.70	54.10	54.10	10.90
20	8.40	8.40	46.40	46.40	44.40	44.50	38.80	38.70	52.20	52.20	9.00
31.25	10.50	10.50	41.40	41.50	39.40	39.50	34.90	34.90	48.30	48.30	—
62.50	15.00	15.00	32.40	32.40	30.40	30.40	28.90	28.80	42.30	42.30	—
100	19.10	19.10	25.20	25.30	23.20	23.20	24.80	24.80	38.20	38.20	—
250	31.10	31.10	7.30	7.30	5.30	5.30	16.80	16.80	30.20	30.20	—
350	37.20	37.20	-1.10	-0.90	-3.10	—	13.90	13.90	26.20	27.30	—
400	40.10	40.10	-4.80	-4.50	-6.80	—	12.80	12.70	26.20	26.20	—
500	45.30	45.30	-11.40	-11.40	-13.4	—	10.80	10.80	24.20	24.20	—
600	—	50.10*	—	-17.40	—	—	—	9.20*	—	22.60*	—
750	—	56.70*	—	-25.50	—	—	—	7.30*	—	20.70*	—

*Values provided for reference only

LANMARK-B751 - TECHNICAL DATA

Transmission Characteristics		
Description		
ISO/IEC 11801		Category 6A
ANSI/TIA-568.2-D		Category 6A
ODVA EtherNet/IP™ Compliant		Category 5e
Color Code		
Pair-1	White	Blue
Pair-2	White	Orange
Pair-3	White	Green
Pair-4	White	Brown