BELDEN

Product: 10GAR ☒

10GAR Category 6A U/UTP 4Pair, 23AWG, PVC Jacket Riser-CMR

Product Description

23 AWG solid bare copper conductors, non-plenum, Polyolefin insulation, twisted pairs, central spline, overall cabling PET tape, special barrier tape, PVC jacket

Technical Specifications

Product Overview

Suitable Applications:	Horizontal and building backbone Cable. Support current and future category 6 and 6A applications: such as 10GBase-T (10 Gigabit Ethernet), 1000Base-T (Gigabit Ethernet), 100 Base-T, 10 Base-T, ISDN, ATM as well as PoE application etc.

Construction Details

Conductor

Size	Stranding	Material	No. of Pairs
23 AWG	Solid	BC - Bare Copper	4

Insulation

Material	Color Code
PO - Polyolefin	Blue & White/Blue Stripe, Orange & White/Orange Stripe, Green & White/Green Stripe, Brown & White/Brown Strip

Outer Jacket

Material
PVC - Polyvinyl Chloride

Overall Cable Diameter (Nominal):	7.0 mm (0.28 in)

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
93.8 Ohms/km@ 20 Deg.C	330 pF/100m

Delay

Max. Delay Skew
45 ns/100m

High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]
1	2.1 dB/100m	74.3	72.3	68.0	65.0	20.0
4	3.8 dB/100m	65.3	63.3	56.0	53.0	23.0
10	5.9 dB/100m	59.3	57.3	48.0	45.0	25.0
16	7.5 dB/100m	56.2	54.2	44.0	41.0	25.0
31.25	10.5 dB/100m	51.9	49.9	38.0	35.0	23.6
62.5	15.0 dB/100m	47.4	45.4	32.0	29.0	21.5
100	19.1 dB/100m	44.3	42.3	28.0	25.0	20.1
200	27.6 dB/100m	39.8	37.8	22.0	19.0	18.0
250	31.1 dB/100m	38.3	36.3	20.0	17.0	17.3

300	34.3 dB/100m	37.1	35.1	18.0	15.0	16.8
400	40.1 dB/100m	35.3	33.3	16.0	13.0	15.9
500	45.3 dB/100m	33.8	31.8	14.0	11.0	15.2

Voltage

UL Voltage Rating
72 V DC

Mechanical Characteristics

Temperature

Operating	Installation	Storage
-20°C To +75°C	0°C To +60°C	-20°C To +75°C

Bend Radius

Installation Min.
15×OD

Max. Pull Tension:	110 N (25 lbf)
Bulk Cable Weight:	48.7 kg/km (32.7 lbs/1000ft)

Standards and Compliance

Environmental Suitability:	Riser, Indoor
Flammability / Reaction to Fire:	UL 1666 CMR
IEEE Compliance:	IEEE 802.3bt Type 1, Type 2, Type 3, Type 4
Data Category:	Category 6A
TIA/EIA Compliance:	TIA 568.2-D
ISO/IEC Compliance:	ISO/IEC 11801-1, IEC 61156-5
European Directive Compliance:	EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2)

Product Notes

Notes:	Special barrier tape

History

Update and Revision:	Revision Number: 0.13 Revision Date: 04-29-2025

Part Numbers

Variants

Item #	Color	Putup Type
10GAR 006305M	Blue	305 M
10GAR 008305M	Gray	305 M
10GAR 009305M	White	305 M
10GAR 004305M	Yellow	305 M