



Product: [127953A](#)

DataTuff® Cat 6, (4 pr) 24 AWG Solid BC, PP/PVC/Alum Armor/PVC, EtherNet/IP, Foil Shld, CMR, CMX Outdoor, 600V AWM

[Request Sample](#)

Product Description

Four Cat 6 24 AWG Bonded-Pairs solid bare copper conductors, polypropylene insulation, FRPE spline center member, inner PVC jacket, overall Beldfoil® Shield (100% coverage), industrial grade oil- and UV-resistant PVC outer jacket

Technical Specifications

Product Overview

Suitable Applications:	Armored Ethernet applications, In Cable tray, in cabinet with high volt devices, such as motor control center, mining, outdoor, harsh environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc. exposure to rodent, crush, or cut through force,
------------------------	---

Construction Details

Conductor

Element	Size	Stranding	Material	Number of Element
Pair(s)	24 AWG	Solid	BC - Bare Copper	4

Insulation

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

Bonded-Pair:	Yes
--------------	-----

Inner Jacket

Material	Nom. Diameter	Ripcord
PVC - Polyvinyl Chloride	0.254 in (6.45 mm)	Yes

Outer Shield

Shield Type	Material	Coverage	Drainwire Type
Tape	Bi-Laminate (Alum+Poly)	100%	24 AWG (7x32) TC

Armor

Armor Type & Material	Armor Thickness	Diameter Over Armor
AIA - Aluminum Interlock Armor	0.025 in (0.64 mm)	0.595 in (15.1 mm)

Outer Jacket

Separator	Material	Nom. Diameter
Polyester Tape	PVC - Polyvinyl Chloride	0.695 in (17.7 mm)

Overall Cable Diameter (Nominal):	0.695 in (17.7 mm)
-----------------------------------	--------------------

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
82 Ohm/km (25 Ohm/1000ft)	330 pF/ft

High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACR [dB]	Min. PSACR [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]	Max./Min. Input Impedance (unFitted) [Ohm]	Max./Min. Fitted Impedance [Ohm]
-----------------	-----------------------------------	----------------	------------------	---------------	-----------------	-------------------------	-----------------------------	----------------------------	--	----------------------------------

1	2.0 dB/100m	74.3	72.3	72.3	70.3	67.8	64.8	21	100 ± 15	100 ± 15
4	3.8 dB/100m	65.3	63.3	61.5	59.5	55.8	52.7	24	100 ± 15	100 ± 15
8	5.3 dB/100m	60.8	58.8	55.4	53.4	49.7	46.7	25.5	100 ± 15	100 ± 15
10	6 dB/100m	59.3	57.3	53.3	51.3	47.8	44.8	26	100 ± 15	100 ± 15
16	7.6 dB/100m	56.2	54.3	48.7	46.7	43.7	40.7	26	100 ± 15	100 ± 15
20	8.5 dB/100m	54.8	52.8	46.3	44.3	41.8	38.8	26	100 ± 15	100 ± 15
25	9.5 dB/100m	53.3	51.3	43.8	41.8	39.8	36.8	25.3	100 ± 15	100 ± 15
31.25	10.7 dB/100m	51.9	49.9	41.2	39.2	37.9	34.9	24.6	100 ± 15	100 ± 15
62.5	15.4 dB/100m	47.4	45.4	32	30	31.9	28.9	22.5	100 ± 15	100 ± 15
100	19.8 dB/100m	44.3	42.3	24.5	22.5	27.8	24.8	21.1	100 ± 15	
155	25.2 dB/100m	41.5	39.5	16.3	14.3	23.9	20.9	19.8	100 ± 22	
200	29.0 dB/100m	39.8	37.8	10.8	8.8	21.8	18.8	19	100 ± 22	
250	32.8 dB/100m	38.3	36.3	5.5	3.5	19.8	16.8	18.3	100 ± 32	

Voltage

UL Voltage Rating
300 V (CMR), 300 V (CMX)

Mechanical Characteristics

Temperature

UL Temperature	Operating	Storage
60°C	-20°C to +60°C	-20°C to +60°C

Max. Pull Tension:	200 lbs (91 kg)
Bulk Cable Weight:	164 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor/Outdoor, Indoor, Sunlight Resistance
Flammability / Reaction to Fire:	UL 1666 Riser, FT4
NEC / UL Compliance:	CMR-CMX
CEC / C(UL) Compliance:	CMG, HL
Data Category:	Category 6
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 6
ISO/IEC Compliance:	ISO/IEC 11801 Cat 6

History

Update and Revision:	Revision Number: 0.116 Revision Date: 01-04-2023
----------------------	--

© 2023 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Belden Wire & Cable:](#)

[127953A 0101000](#)