



Product: [29524](#)

VFD, 3C #8 Str TC XLPE Ins + #14 Symm. Seg. Gnd (3 of #14) Str BC, CTS, Blk PVC Jkt, 600/1000V TC-ER 90C Dry/Wet 1000V CSA AWM I/II A/B

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Product Description

Belden Premium VFD, 8 AWG (7 x 19 x 29) Tinned Copper, 3 Conductor, XLPE Insulation M4 Color Code, With 3 #14 AWG (41 x 30) Bare Copper Drain Wire, Overall Copper Tape Applied Shield, Black Outer PVC Jacket, 600/1000V TC-ER 90C Dry/Wet 1000V, CSA AWM I/II A/B Sun Res Dir Bur Oil Resistant.

Technical Specifications

Product Overview

Suitable Applications:	Variable Frequency Drives (VFD); AC Motor and Drive Systems; Class 1 Division 2 Hazardous Locations; Recommended Cable Gland Belden BTC100A0791RA
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Construction Details

Conductor

Element	Size	Stranding	Material	Notes
Conductor(s)	8 AWG	7x19x29	TC - Tinned Copper	ASTM B3 Copper B8 Class B Stranding
Segmented Ground Wire	14 AWG	41x30	BC - Bare Copper	Segmented Ground (3 Totaling 10+ AWG)

Insulation

Element	Material	Nom. Thickness	Nom. Insulation Diameter	Color Code
Conductor(s)	XLPE - Cross-Linked Polyethylene (Thermoset)	0.47 in	0.26 in (6.6 mm)	ICEA Chart M4
Ground Wire	No Insulation			

Outer Shield

Shield Type	Material	Coverage	Notes
Tape	Bare Copper (BC)	100%	2 mil Copper Tape
	Bare Copper (BC)		

Outer Jacket

Material	Nom. Thickness	Nom. Diameter	Ripcord
XLPE - Cross-Linked Polyethylene (Thermoset)	0.063 in mm	0.697 in (17.7 mm)	Yes

Overall Cable Diameter (Nominal):	0.697 in (17.7 mm)
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Electrical Characteristics

Electricals

Element	Nom. Conductor DCR	Nom. Capacitance Cond-to-Cond	Nom. Capacitance Cond-to-Other (Conds + Shield)	Nom. Characteristic Impedence	Nom. Velocity of Prop.	Max. Current
Conductor(s)	0.564 Ohm/1000ft (1.85 Ohm/km)	31 pF/ft (100 pF/m)	63 pF/ft (210 pF/m)	50 Ohm	55%	55 Amps per Conductor at 30°C
	0.90 Ohm/1000ft (3.0 Ohm/km)					

Voltage

UL Voltage Rating
600/1000 V (TC-ER)

Mechanical Characteristics

Temperature

UL Temperature	Operating
90°C Dry, 90°C Wet	-20°C To +90°C

Bend Radius

Stationary Min.	Installation Min.
5.23 in (133 mm)	5.23 in

Max. Pull Tension:	678 lbs (308 kg)
Bulk Cable Weight:	350 lbs/1000ft (520 kg/km)

Standards and Compliance

Environmental Suitability:	Indoor, Outdoor, Sunlight Resistance, Burial
Sustainability:	CA Prop 65
Flammability / Reaction to Fire:	UL 1685 UL Loading, IEEE 1202 FT4
NEC / UL Compliance:	Article 336, TC-ER, XHHW-2
ICEA Compliance:	S-95-658
European Directive Compliance:	EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE)
APAC Compliance:	China RoHS II (GB/T 26572-2011)
Other Standard Compliance(s):	P-07-KA070003-MSHA

History

Update and Revision:	Revision Number: 0.25 Revision Date: 05-05-2025
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