



Product: [29523](#)

VFD, 3C #10 Str TC XLPE Ins + #14 Symm. Seg. Gnd (3 of #16) Str TC, OS + TC Brd, Blk PVC Jkt, 600/1000V TC-ER 90C Dry/Wet 1000V CSA AWM I/II A/B

Request Sample

Product Description

Belden Premium VFD, 12 AWG (105 x 30) Tinned Copper, 3 Conductor, XLPE Insulation M4 Color Code, Duofoil Beldfoil Shield With 3 #14 AWG (41 x 30) Tinned Copper Drain Wire, Overall Beldfoil® (100%) + Tinned Copper Braid Coverage (85%), 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 BTC075A0551RA
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Construction Details

Conductor

Element	No. of Elements	Size	Stranding	Material	Notes
Conductor(s)	3	10 AWG	65x30		ASTM B3 Copper B8 Class B Stranding
Segmented Ground Wire	3	14 AWG	65x34		3 Ground Segments Totaling 10+ AWG
				TC - Tinned Copper	
				TC - Tinned Copper	

Insulation

Element	Material	Nom. Thickness	Nom. Insulation Diameter	Color Code
Conductor(s)	XLPE - Cross-Linked Polyethylene (Thermoset)	0.030 in (0.76 mm)	0.184 in (4.67 mm)	ICEA Chart M4
Ground Wire	No Insulation			

Outer Shield

Shield Type	Material	Coverage	Drainwire Type
Tape	Tinned Copper (TC)	100%	14 AWG (41x30) TC
Braid	Tinned Copper (TC)	85%	

Outer Jacket

Material	Nom. Thickness
XLPE - Cross-Linked Polyethylene (Thermoset)	0.047 in (1.2 mm)

Overall Cable Diameter (Nominal):	0.517 in (13.1 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)	0.895 Ohm/1000ft (2.94 Ohm/km)	31 pF/ft (100 pF/m)	60 pF/ft (200 pF/m)	50 Ohm	55%	40 Amps per Conductor at 30C
	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.
3.878 in (98.50 mm)	3.878 in (98.50 mm)

Max. Pull Tension:	400 lbs (180 kg)
Bulk Cable Weight:	263 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor, Sunlight Resistance
Sustainability:	CA Prop 65
Flammability / Reaction to Fire:	UL 1685 UL Loading, IEEE 1202 FT4
NEC / UL Compliance:	Article 336, TC-ER
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: 0.9 Revision Date: 05-05-2025
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