



Product: [29502](#)

VFD 300% Gnd, 3C+G #12 Str TC, XLPE Ins+PVC Gnd, OS+TC Brd w/#12 TC Drain, Blk PVC Jkt, 600/1000V TC-ER 90C Dry/Wet 1000V Flexible Motor Supply Cable WTTTC

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Product Description

Belden 300% Ground Flexible VFD, 3 Conductor 12AWG (65x30) Tinned Copper, XLPE Insulation M4 Color Code+PVC Insulated Ground, Overall Beldfoil®+Tinned Copper Braid(85%) Shield w/12AWG Tinned Copper Drain, Black PVC Outer Jacket, 600/1000V TC-ER 90C Dry/Wet 1000V Flexible Motor Supply Cable WTTTC 1000V CSA AWM I/II A/B 600V CIC TC SUN RES DIR BUR Oil Resistant

Technical Specifications

Product Overview

Suitable Applications:	Variable Frequency Drives (VFD); AC Motor and Drive Systems
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Construction Details

Conductor

Element	Number of Element	Size	Stranding	Material
Conductor(s)	3	12 AWG	65x30	TC - Tinned Copper
Ground Wire	1	12 AWG	65x30	TC - Tinned Copper

Insulation

Element	Material	Nom. Thickness	Nom. Insulation Diameter	Color Code
Conductor(s)	XLPE - Cross Linked Polyethylene	0.046 in (1.2 mm)	0.187 in (4.75 mm)	ICEA Chart M4
Ground Wire	PVC - Polyvinyl Chloride	0.047 in (1.2 mm)	0.187 in (4.75 mm)	Green/Yellow Stripe

Outer Shield

Shield Type	Material	Coverage	Drainwire Type
Tape	Tri-Laminate (Alum+Poly+Alum)	100%	12 AWG (65x30) TC
Braid	Tinned Copper (TC)	85%	

Outer Jacket

Material	Nom. Thickness	Nom. Diameter	Ripcord
PVC - Polyvinyl Chloride	0.073 in (1.9 mm)	0.630 in (16.0 mm)	Yes

Overall Cable Diameter (Nominal):	0.630 in (16.0 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 Impedance	Nom. Velocity of Prop.	Max. Current
Conductor(s)	1.566 Ohm/1000ft	26 pF/ft (85 pF/m)	47 pF/ft (150 pF/m)	71 Ohm	55%	30 Amps per Conductor at 30°C
	1.72 Ohm/1000ft (5.64 Ohm/km)					24 Amps per Conductor at 30°C (per NEC)

Voltage

UL Voltage Rating	Voltage Rating
1000 V (TC-ER, WTTTC, UL44, UL Flexible Motor Supply Cable), 600 V (C(UL) CIC TC)	1000 V (AWM I/II A/B)

Mechanical Characteristics

Temperature

UL Temperature	Operating
90°C Dry, 90°C Wet	-40°C To +90°C

Bend Radius

Stationary Min.	Installation Min.
7.6 in (190 mm)	7.6 in (190 mm)

Max. Pull Tension:	502 lbs (228 kg)
Bulk Cable Weight:	277 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor, Outdoor, Sunlight Resistance, Burial
Sustainability:	CA Prop 65
Flammability / Reaction to Fire:	UL 1685 UL Loading, FT4, IEEE 1202 FT4
NEC / UL Compliance:	Article 336, TC-ER, WTTC, UL Flexible Motor Supply Cable
AWM Compliance:	AWM I/II A/B
CEC / C(UL) Compliance:	CIC, TC
ICEA Compliance:	S-95-658
European Directive Compliance:	EU CE Mark, 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: 0.569 Revision Date: 04-14-2023
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Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC
29502 010100	Black	Reel	100 ft	612825136743
29502 010250	Black	Reel	250 ft	612825136781
29502 010500	Black	Reel	500 ft	612825136804
29502 0101000	Black	Reel	1,000 ft	612825136750
29502 0105000	Black	Reel	5,000 ft	612825136811

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