



Description:

1 pr.(Signal)-16 AWG stranded (26x30) TC cond., XLPE insul., Beldfoil® shield (100% c; 3 cond.(VFD) plus 1 ground wire-10 AWG stranded (105x30) TC cond., XLPE insul., Duofoil® and TC braid Shield (100% acdrain, PVC jacket.

Usage (Overall)

Suitable Applications: AC Motor Drive, VFD, Variable Frequency Drive

Twisted Pair

Physical Characteristics

Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material
1	16	26x30	TC - Tinned Copper

Insulation

Insulation Material:

Insulation Material	Dia. (in.)
XLPE - Cross Linked Polyethylene	0.030

Twisted Pair Color Code Chart:

Number	Color
1	Black and White

Inner Shield

Inner Shield Material:

Inner Shield Trade Name	Type	Inner Shield Material	Coverage (%)
Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100

Inner Shield Drain Wire AWG:

AWG	Stranding	Conductor Material
18	19x30	TC - Tinned Copper

Electrical Characteristics

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)
34.000

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
4.000

Nom. Inner Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
4.990

Multi Conductor

Physical Characteristics

Conductor

AWG:

# Conductors	AWG	Stranding	Conductor Material
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29513 Composite - 1000V UL Flexible Motor Supply Cable

1	10	105x30	TC - Tinned Copper
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Ground Wire

Ground Wire (Y/N): Yes

Ground Wire Material:

AWG	Stranding	Conductor Material	Insulation Material
10	105x30	TC - Tinned Copper	PVC - Polyvinyl Chloride

Insulation

Insulation Material:

Insulation Material	Dia. (in.)
XLPE - Cross Linked Polyethylene	0.045

Insulation Color Code Chart:

Number	Color
1	Black #1
2	Black #2
3	Black #3
4	Green/Yellow

Outer Shield

Outer Shield Material:

Layer #	Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
1	Duofoil®	Tape	Aluminum Foil-Polyester Tape-Aluminum Foil	100.000
2		Braid	TC - Tinned Copper	85.000

Outer Shield Drain Wire AWG:

AWG	Stranding	Drain Wire Conductor Material
10	105x30	TC - Tinned Copper

Electrical Characteristics

Nom. Inductance:

Inductance (µH/ft)
0.184

Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)
53.000

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)
29.000

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
0.988

Physical Characteristics (Overall)

Conductor

Outer Jacket

Outer Jacket Material:

Outer Jacket Material	Nom. Wall Thickness (in.)
PVC - Polyvinyl Chloride	0.105

Outer Jacket Ripcord: Yes

Overall Cabling

Overall Nominal Diameter: 0.985 in.

Mechanical Characteristics (Overall)

Max. Recommended Pulling Tension: 718 lbs.

Min. Bend Radius (Install)/Minor Axis: 9.900 in.

29513 Composite - 1000V UL Flexible Motor Supply Cable

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification:	RHW-2 Singles,TC-ER,XHHW-2
NEC Articles:	336 - ER
CSA Specification:	1000 V AWM I/II A/B
EU CE Mark:	Yes
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	09/21/2006
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes
Other Specification:	1000V UL Flexible Motor Supply Cable

Flame Test

UL Flame Test:	UL1685 UL Loading
CSA Flame Test:	FT4
IEEE Flame Test:	1202,IEEE 383 Vertical Tray Flame Test (70,000 BTU)

Suitability

Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes
Suitability - Burial:	Yes
Sunlight Resistance:	Yes

Plenum/Non-Plenum

Plenum (Y/N):	No
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Electrical Characteristics (Overall)

Max. Operating Voltage - UL:

Voltage

1000 V RMS (Flexible Motor Supply Cable)

Max. Operating Voltage - Other:

Voltage

1000 V RMS (CSA AWM I/II A/B)

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
29513 010100	100 FT	89.300 LB	BLACK	C	COMPOSITE CABLE SH PVC
29513 0101000	1,000 FT	563.000 LB	BLACK	C	COMPOSITE CABLE SH PVC
29513 0103000	3,000 FT	1,671.000 LB	BLACK	C	COMPOSITE CABLE SH PVC
29513 010500	500 FT	286.500 LB	BLACK	C	COMPOSITE CABLE SH PVC

Notes:

C = CRATE REEL PUT-UP.

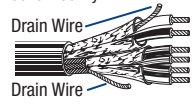


Variable Frequency Drive Cable – Classic Design with Signal Pair

16 to 10 AWG with Foil/Braid Shield Plus Signal Pair for Brake[▲]

Description	Part No.	AWG	Cond. Stranding	Standard Lengths		Standard Unit Wt.		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
				Ft.	m	Lbs.	kg	Inch	mm	Lbs.	N	Inch	mm

Three Stranded TC Circuit Conductors + (1) Full-sized PVC Ground* • Overall Beldfoil + 85% TC Braid Shield • Full Sized TC Drain Wire* + (1) 16 AWG Shielded Signal Pair for Brake with drain wire. (ICEA Method 4 Color Code: Black and Numbered, Green/Yellow Ground) + Black, White Signal Pair

XLPE Insulated Circuit Conductors • Black Sunlight- and Oil-resistant PVC Jacket													
1000V UL Flexible Motor Supply Cable 600V UL 1277 Type TC-ER per 2005 NEC Article 336 1000V CSA AWM I/II A/B FT4 IEEE 1202/383 UL Direct Burial XHHW-2, RHW-2 rated circuit conductors** 90°C Wet/Dry  MSHA P-07-KA070003	29510	Circuit Cond	26x30	100	30.5	34.5	15.7	.75	19.05	272	1210	7.5	190.5
				500	152.4	136.0	61.7						
	Signal Pair	26x30	1000	304.8	309.0	140.2	5000 ^{††}	1524.0	1415.0	641.8			
			16	5000 ^{††}	1524.0	1415.0					641.8		
	29511	Circuit Cond	41x30	100	30.5	67.5	30.6	.82	20.83	368	1638	8.2	208.3
				500	152.4	177.5	80.6						
	Signal Pair	26x30	1000	304.8	340.0	154.2	5000 ^{††}	1524.0	1565.0	709.9			
			16	5000 ^{††}	1524.0	1565.0					709.9		
	29512	Circuit Cond	65x30	100	30.5	77.3	35.1	.90	22.86	527	2345	9.0	228.6
				500	152.4	226.5	102.8						
	Signal Pair	26x30	1000	304.8	438.0	198.7	4000 ^{††}	1219.5	1680.0	762.0			
			16	4000 ^{††}	1219.5	1680.0					762.0		
	29513	Circuit Cond	105x30	100	30.5	89.3	40.5	.99	25.15	718	3195	9.9	251.5
				500	152.4	286.5	130.1						
	Signal Pair	26x30	1000	304.8	490.0	222.3	3000 ^{††}	914.6	1452.0	658.6			
			16	3000 ^{††}	914.6	1452.0					658.6		

See footnotes on page 4.

Variable Frequency Drive Cable – Symmetrical Design

16 to 4/0 AWG with Dual Copper Tape Shield

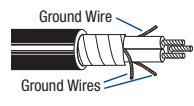
Belden's symmetrical ground design combines the benefits of our classic line of VFD cables with additional features for use on larger, more powerful AC motor drives. Its highly effective shielding provides a low resistance path to

ground, which improves common mode current containment. The spirally applied dual copper tapes provide improved flexibility and highly effective radiated and conducted noise protection. Three symmetrical bare ground wires provide a

balanced ground system. This reduces AC motor shaft voltage, which in turn, reduces the likelihood of premature motor bearing or motor insulation failure.

Description	Part No.	AWG	Cond. Stranding	Standard Lengths		Standard Unit Wt.		Nominal OD		Maximum Pull Tension		Minimum Bend Radius	
				Ft.	m	Lbs.	kg	Inch	mm	Lbs.	N	Inch	mm

Three Stranded TC Circuit Conductors + 3 Symmetrical BC Grounds • 2 Spiral Copper Tape Shields (100% Coverage) (ICEA Method 4 Color Code: Black and Numbered)

XLPE Insulation • Black Sunlight- and Oil-resistant PVC Jacket													
1000V UL Flexible Motor Supply Cable 600V UL 1277 Type TC-ER per 2005 NEC Article 336 600V CSA AWM I/II A/B FT4 IEEE 1202/383 UL Direct Burial XHHW-2 rated circuit conductors** 90°C Wet/Dry  MSHA P-07-KA070003	29520	16	7x24	100	30.4	17.0	7.7	0.40	10.11	107	476	4.0	101.6
				500	152.4	68.5	31.1						
	29521	14	7x22	100	30.4	19.2	8.7	0.42	10.74	162	721	4.3	109.2
				500	152.4	81.0	36.8						
	29522	12	7x20	100	30.4	24.2	11.0	0.48	12.19	258	1148	4.8	121.9
				500	152.4	108.5	49.3						
	29523	10	7x18	100	30.4	25.2	11.4	0.56	14.22	444	1975	5.6	142.2
				500	152.4	111.5	50.6						
	29524	8	7x16	100	30.4	37.8	17.2	0.66	16.76	576	2562	6.6	167.6
				500	152.4	194.0	88.1						
	29525	6	7x14	100	30.4	55.5	25.2	0.76	19.30	915	4070	7.6	193.0
				500	152.4	339.5	154.1						
	29525	6	7x14	1000	304.8	645.0	292.8	5000 ^{††}	1524.0	3000.0	1362.0		
				16	5000 ^{††}	1524.0	3000.0					1362.0	