Detailed Specifications & Technical Data

METRIC MEASUREMENT VERSION

29506 Multi-Conductor - 1000V UL Flexible Motor Supply Cable

For more Information
please call

1-800-Belden1

General Description:

4-cond. (3) stranded tinned copper circuit conductors plus (1)ground wire with PVC insulation, XLP insulation, overall Duofoil® (100% Cov.) plus a tinned copper braid shield (85% cov.) , tinned copper sectioned drain wire, Sun-&oil-resistant PVC jacket.

Usage (Overall)

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

Physical Characteristics (Overall)

Conductor

AWG:

# Conductors	AWG	Stranding	Conductor Material
3	4	7x19x25	TC - Tinned Copper

Total Number of Conductors:	3

Ground Wire

Ground Wire (Y/N):	Y
Ground Wire AWG:	4
Ground Wire Stranding:	7x19x25
Ground Wire Conductor Material:	TC - Tinned Copper
Ground Wire Insulation Material:	PVC - Polyvinyl Chloride

Insulation

Insulation Material:

Insulation Material	Wall Thickness (mm)
XLP - Cross Linked Polyolefin	1.524

Insulation Resistance:	300 Megaohms/1000 ft.

Insulation Color Code Chart:

Number	Color
2	Black and Numbered 1
3	Black and Numbered 2
4	Black and Numbered 3
1	Green/Yellow

Outer Shield

Outer Shield Material:

Layer #	Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
1	Duofoil®	Tape	Aluminum Foil-Polyester Tape	100
2		Braid	TC - Tinned Copper	85

Outer Shield Drain Wire AWG:

AWG	Stranding	Drain Wire Conductor Material
10 (4x)	105x30	TC - Tinned Copper

Outer Jacket

Outer Jacket Material:

Outer Jacket Material	Nom. Wall Thickness (mm)
PVC - Polyvinyl Chloride	2.362

Overall Cable

Overall Nominal Diameter:	29.540 mm

Mechanical Characteristics (Overall)

Wet Temperature Range:	-40°C To +90°C
Dry Temperature Range:	-40°C To +90°C
Bulk Cable Weight:	1680.178 Kg/Km

Max. Recommended Pulling Tension:	8629.508 N
Min. Bend Radius/Minor Axis:	236.220 mm

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification:	TC-ER, Unlisted Singles, WTTC
NEC Articles:	336 - ER
CEC/C(UL) Specification:	600V Type CIC TC
CSA Specification:	1000 V AWM I/II A/B
EU Directive 2011/65/EU (ROHS II):	Yes
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):	10/13/2005
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
PMSHA Specification:	P-07-KA070003
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
Oil Resistance:	Yes

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)
50

Nom. Inductance:

Inductance (µH/m)
0.528241

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/m)
121.397

Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/m)
219.827

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)
0.85306

Max. Operating Voltage - UL:

Voltage
1000 V RMS (Flexible Motor Supply Cable)
600 V RMS (NEC Type TC)

Max. Operating Voltage - Other:

Voltage	Description
1000 V RMS	CSA AWM I/II A/B

Max. Recommended Current:

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Current
95 Amps per conductor @ 30°C (per NEC)

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
29506 0101000	1,000 FT	1,157.000 LB	BLACK	C Z	3 #4 XLPE, #4 PVC SH HMF
29506 010250	250 FT	319.750 LB	BLACK	C Z	3 #4 XLPE, #4 PVC SH HMF
29506 0102500	2,500 FT	2,782.500 LB	BLACK		3 #4 XLPE, #4 PVC SH HMF
29506 0103000	3,000 FT	3,594.000 LB	BLACK	C Z	3 #4 XLPE, #4 PVC SH HMF

Notes:
C = CRATE REEL PUT-UP.
Z = FINAL PUT-UP LENGTH MAY VARY (+ OR -) 10% FOR SPOOLS OR REELS AND(+ OR -) 5% FOR UNREEL CARTONS FROM LENGTH SHOWN.

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