Detailed Specifications & Technical Data

METRIC MEASUREMENT VERSION

29501 Multi-Conductor - 1000V UL Flexible Motor Supply Cable

For more Information please call

1-800-Belden1

Description:

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

Usage (Overall)

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

Physical Characteristics (Overall)

Conductor

AWG:

# Conductors	AWG	Stranding	Conductor Material
3	14	41x30	TC - Tinned Copper

Total Number of Conductors:	3

Ground Wire

Ground Wire (Y/N):	Y
Ground Wire AWG:	14
Ground Wire Stranding:	41x30
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	1.143

Insulation Resistance:	300 Megaohms/1000 ft.

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
14	41x30	TC - Tinned Copper

Outer Jacket

Outer Jacket Material:

Outer Jacket Material	Nom. Wall Thickness (mm)
PVC - Polyvinyl Chloride	1.854

Overall Cable

Overall Nominal Diameter:	15.342 mm

Mechanical Characteristics (Overall)

UL Temperature Rating:	90°C Wet/Dry

Bulk Cable Weight:	282.758 Kg/Km
Max. Recommended Pulling Tension:	943.018 N
Min. Bend Radius/Minor Axis:	121.920 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:	XHHW-2
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):	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)
80

Nom. Inductance:

Inductance (µH/m)
0.698853

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/m)
75.463

Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/m)
137.802

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)
8.26812

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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:

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

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
29501 010100	30 MT	12.247 KG	BLACK		#14/4C XLPE SH PVC
29501 0101000	305 MT	107.955 KG	BLACK	C Z	#14/4C XLPE SHPVC
29501 010250	76 MT	27.669 KG	BLACK	C Z	#14/4C XLPE SHPVC
29501 010500	152 MT	54.205 KG	BLACK	C Z	#14/4C XLPE SHPVC
29501 0105000	1,524 MT	562.457 KG	BLACK	C Z	#14/4C XLPE SH PVC

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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