



Part Number: 29502

1000V UL Flex Motor VFD, (3) 12 AWG (65x30) TC+Grd, XLP/PVC, Foil+TC Braid Shld, TC-ER

[Request Sample](#)

Product Description

Three 12 AWG stranded (65x30) tinned copper circuit conductors plus ground wire, cross-linked polyolefin insulation, overall Duofoil® (100% coverage) plus a tinned copper braid shield (85% coverage), PVC jacket.

Technical Specifications

Product Overview

Suitable Applications:	AC Motor drives, VFD, Variable Frequency drives
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Physical Characteristics (Overall)

Conductor

Element	AWG	Stranding	Material	No. of Conductors
	12	65x30	TC - Tinned Copper	3
Ground Wire	12	65x30	TC - Tinned Copper	1

Conductor Count:	3
Conductor Size:	12 AWG

Insulation

Material	Nominal Wall Thickness
XLP - Cross Linked Polyolefin	0.045 in
PVC - Polyvinyl Chloride	

Color Chart

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

Outer Shield Material

Type	Layer	Material	Material Trade Name	Coverage [%]	Drainwire Material	Drainwire AWG	Drainwire Construction n x D
Tape	1	Aluminum/Polyester	Duofoil®	100 %	TC - Tinned Copper	12	65x30 mm
Braid	2	TC - Tinned Copper		85 %			

Outer Jacket Material

Material	Nominal Diameter	Nominal Wall Thickness
PVC - Polyvinyl Chloride	0.63 in	0.073 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR
1.6 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Conductor	Nom. Capacitance Conductor to Other Conductor to Shield
26 pF/ft	47 pF/ft

Shielding:	Foil + Braid(s)
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Inductance

Nominal Inductance

0.197 µH/ft

Impedance

Nominal Characteristic Impedance

71 Ohm

Current

Max. Recommended Current [A]

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

Voltage

Description	UL Voltage Rating	Voltage Rating [V]
CSA AWM I/II A/B	1000 V RMS (Flexible Motor Supply Cable)	1000 V RMS (CSA AWM I/II A/B)
	600 V RMS (NEC Type TC)	

Temperature Range

UL Temp Rating:	90°C Wet/Dry
Operating Temp Range:	-40C To +90C
Wet Temp Range:	-40°C To +90 °C
Dry Temp Range:	-40°C To +90 °C

Mechanical Characteristics

Bulk Cable Weight:	250 lbs/1000ft
Max Recommended Pulling Tension:	336 lbs
Min Bend Radius/Minor Axis:	6.3 in

Standards

NEC Articles:	336 - ER
NEC/(UL) Specification:	TC-ER, Unlisted Singles, WTTC
CEC/C(UL) Specification:	600V Type CIC TC
CSA AWM Specification:	1000 V AWM I/II A/B
PMSHA Specification:	P-07-KA070003
Other Specification:	1000V UL Flexible Motor Supply Cable

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/96/EC (BFR):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU:	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2005-10-13
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

Suitability

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

Flammability, LSOH, Toxicity Testing

UL Flammability:	UL1685 UL Loading
CSA Flammability:	FT4
IEEE Flammability:	1202

UL voltage rating:	1000 V RMS (Flexible Motor Supply Cable)
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Part Number

Variants

Item #	Color	Footnote
29502 010100	Black	
29502 0101000	Black	C Z
29502 010250	Black	C Z
29502 010500	Black	C Z
29502 0105000	Black	C Z

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

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