BELDEN
SENDING ALL THE RIGHT SIGNALS



Product: 29502

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

Request Sample

Product Description

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

Technical Specifications

Product Overview

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

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

Insulation

Material	Nominal Wall Thickness
XLPE - Cross Linked Polyethylene	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

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 (Type TC)	

Temperature Range

UL Temp Rating:	90°C Dry, 90°C Wet
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, RHW-2, 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, LS0H, Toxicity Testing

UL Flammability:	UL1685 UL Loading
CSA Flammability:	FT4

IEEE Flammability:	1202
UL voltage rating:	1000 V RMS (Flexible Motor Supply Cable)

Part Number

Variants

Item #	Color	UPC	Length	Footnote
29502 010100	Black	612825136743	100 ft	
29502 0101000	Black	612825136750	1,000 ft	C Z
29502 010250	Black	612825136781	250 ft	C Z
29502 010500	Black	612825136804	500 ft	C Z
29502 0105000	Black	612825136811	5,000 ft	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.

History

Update and Revision:	Revision Number: 0.323 Revision Date: 09-10-2019

© 2019 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.