

Product: 29546

VFD 100% Gnd, 3C #3/0 Str TC XLPO Ins + #3/0 Symm. Seg. Gnd (3 of #4+) Str BC, CTS, Blk PVC Jkt, 2000V TC-ER 90C Dry/Wet 2000V Flexible Motor Supply Cable

Request Sample

Product Description

Belden 100% Ground Flexible VFD, 3 Conductor 3/0AWG (7x19x19) Tinned Copper XLPO Insulation M4 Color Code + 3/0AWG Symmetrical Segmented Ground (3 of 4AWG+) Bare Copper Stranded, Overall Dual Copper Tapes Helically Applied Shield, Black PVC Outer Jacket, 2000V TC-ER 90C Dry/Wet 2000V Flexible Motor Supply Cable 1000V CSA AWM I/II A/B 2000V RW90 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
	3/0	19x7x19	TC - Tinned Copper	3
Ground Wire	4	7x19x25	BC - Bare Copper	3

Conductor Count:	3

Insulation

Material	Nominal Wall Thickness
XLPE - Cross Linked Polyethylene	0.093 in

Color Chart

Number	Color
1	Black and Numbered 1
2	Black and Numbered 2
3	Black and Numbered 3

Outer Shield Material

Type	Layer	Material	Coverage [%]
Tape	1	Spiral Copper	100 %
Tape	2	Spiral Copper	100 %

Outer Jacket Material

Material	Nominal Diameter	Nominal Wall Thickness
PVC - Polyvinyl Chloride	1.739 in	0.12 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR
0.063 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Conductor	Nom. Capacitance Conductor to Other Conductor to Shield
52 pF/ft	94 pF/ft

Inductance

Nominal Inductance
0.138 µH/ft

Impedance

Nominal Characteristic Impedance
46 Ohm

Current

Max. Recommended Current [A]
225 Amps per conductor @ 30°C

Voltage

UL Voltage Rating
2000 V RMS
1000 V RMS

Temperature Range

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

Mechanical Characteristics

Oil Resistance:	Yes
Bulk Cable Weight:	2538 lbs/1000ft
Max Recommended Pulling Tension:	5025 lbs
Min Bend Radius/Minor Axis:	17.5 in

Standards

NEC Articles:	336 - ER
NEC/(UL) Specification:	TC-ER, RHW-2, WTTC
CEC/C(UL) Specification:	TC
CSA AWM Specification:	AWM I/II A/B
PMSHA Specification:	P-07-KA070003
Other Specification:	2000V 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):	2005-11-09
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

C(UL) Flammability:	RW90, FT4
UL Flammability:	UL1685 UL Loading
CSA Flammability:	FT4
IEEE Flammability:	1202, 383

UL voltage rating:	2000 V RMS (NEC Type TC)

Plenum/Non-Plenum

Plenum (Y/N):	No

Part Number

Variants

Item #	Color	UPC	Length
29546 0101000	Black	612825138600	1,000 ft
29546 0102000	Black	612825138617	2,000 ft

History

Update and Revision:	Revision Number: 0.313 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.