



Product: [U03102G](#)

TC-ER XLPE/LSZH, 3+G C #10 Str BC, XLPE Ins E2, 1 #10 Grnd, Blk LSZH Jkt, 600V TC-ER 90C Dry/Wet SUN RES

Product Description

UL Type TC (1277) XLPE/LSZH, 3+G Conductor 10 AWG (7x18) Bare Copper, XLPE Insulation E2 Color Code, 1 10AWG (7x18) Ground Wire, Black LSZH Outer Jacket, 600V TC-ER 90C Dry/Wet SUN RES

Technical Specifications

Product Overview

Suitable Applications:	harsh environment digital and serial two-way communication, oil and gas extraction and refining sites, petrochemical, Profibus process automation or Foundation FieldBus process automation, extreme temperature environments, exposure to humidity/moisture, dust, and oil, remote locations long distance applications, etc.
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Physical Characteristics (Overall)

Conductor

Element	AWG	Stranding	Material	No. of Conductors
Conductor(s)	10	7x18	BC - Bare Copper	3
Ground	10	7x18	BC - Bare Copper	1

Conductor Count:	3
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Insulation

Material	Nominal Diameter	Nominal Wall Thickness
XLP, XLPO, XLPE (Thermoset)	0.174 in	0.031 in
No Insulation		

Color Chart

Number	Color
1	Black
2	Red
3	Blue

Outer Jacket

Material	Nominal Diameter	Nominal Wall Thickness
LSZH - Low Smoke Zero Halogen (Flame Retardant)	0.509 in	0.067 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR
1.04 Ohm/1000ft

Current

Max. Recommended Current [A]
40 Amps per Conductor at 30°C

Voltage

UL Description	UL Voltage Rating	Voltage Rating [V]
TC	600 V RMS (Type TC)	600 V RMS (Type TC)

Temperature Range

UL Temp Rating:	90°C Dry, 90°C Wet
Operating Temperature Range:	-30°C To +90°C
Wet Temp Range:	-30°C To +90 °C

Mechanical Characteristics

Bulk Cable Weight:	220 lbs/1000ft
Max. Pull Tension:	249 lbs
Min. Bend Radius/Minor Axis:	2.04 in

Standards

NEC/(UL) Compliance:	TC-ER, XHHW-2
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Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/11/EC (BFR):	Yes
EU Directive 2011/65/EU (RoHS 2):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU (RoHS 2 amendment):	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes

Suitability

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

Flammability, LS0H, Toxicity Testing

UL Flammability:	UL1685 UL Loading
IEEE Flammability:	1202
UL voltage rating:	600 V RMS (Type TC)

History

Update and Revision:	Revision Number: 0.52 Revision Date: 01-10-2024
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