



Product: [A03042G](#)

TC VN/PVC, 3+G C #4+8 Str BC, PVC-NYL Ins E2, Blk PVC Jkt, 600V TC-ER  
90C Dry 75C Wet SUN RES DIR BUR

Product Description

UL Type TC-ER (1277) PVC-Nylon/PVC, 3+G Conductor 4+8AWG (7x12+7x16) Bare Copper, PVC-NYL Insulation E2 Color Code, Black PVC Outer Jacket, 600V TC-ER 90C Dry 75C Wet SUN RES DIR BUR

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)	4	7x12	BC - Bare Copper	3
Ground	8	7x16	BC - Bare Copper	1

Conductor Count:	3
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Insulation

Material	Nominal Diameter	Nominal Wall Thickness
PVC/Nylon - Polyvinyl Chloride + Nylon	0.0309 in	0.0485 in
No Insulation		

Color Chart

Number	Color
1	Black
2	Red
3	Blue

Outer Jacket

Material	Nominal Diameter	Nominal Wall Thickness
PVC - Polyvinyl Chloride	0.822 in	0.063 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR
0.26 Ohm/1000ft

Current

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

Voltage

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

Temperature Range

Operating Temperature Range:	-30°C to 90°C Dry, +75°C Wet
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Mechanical Characteristics

Bulk Cable Weight:	548 lbs/1000ft
Max. Pull Tension:	1002 lbs
Min. Bend Radius/Minor Axis:	3.29 in

Standards

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

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

Suitability

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

Flammability, LSOH, Toxicity Testing

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

History

Update and Revision:	Revision Number: 0.49 Revision Date: 01-10-2024
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