

Product: 7416W

MachFlex™, 17C+1G #18 Str BC, PVC-NYL Ins, TPE Jkt, 1000V WTTC, 600V TC-ER

Request Sample

Product Description

MachFlex™ for High Flex, 17+1G Conductor 18AWG (16x30) Bare Copper, PVC-NYL Insulation, TPE Outer Jacket, 1000V WTTC, 600V TC-ER

Technical Specifications

Product Overview

Suitable Applications:	Robotics, Robot, Continuous Flex

Construction Details

Conductor

Element	No. of Elements	Size	Stranding	Material
Conductor(s)	17	18 AWG	16x30	BC - Bare Copper
Ground	1	18 AWG	16x30	BC - Bare Copper

Insulation

Element	Material	Nom. Thickness	Nom. Insulation Diameter	Color Code
Conductor(s)	PVC/Nylon - Polyvinyl Chloride + Nylon	0.021 in (0.53 mm)	0.089 in (2.3 mm)	Black and Numbered
Ground	PVC/Nylon - Polyvinyl Chloride + Nylon	0.021 in (0.53 mm)		Green / Yellow Stripe

Outer Jacket

Material	Nom. Thickness	Nom. Diameter
TPE - Thermoplastic Elastomer	0.063 in (1.6 mm)	0.576 in (14.6 mm)

Overall Cable Diameter (Nominal):	0.576 in (14.6 mm)

Electrical Characteristics

Electricals

Element	Nom. Conductor DCR
Conductor(s)	6.5 Ohm/1000ft (21 Ohm/km)
Ground	6.5 Ohm/1000ft (21 Ohm/km)

Voltage

UL Voltage Rating
1000 V RMS (WTTC), 600 V (TC-ER, UL AWM 20328)

Mechanical Characteristics

Temperature

UL Temperature	Operating
90°C Dry, 75°C Wet	-40°C to +90°C

Bend Radius

Stationary Min.	Installation Min.	Flexing Min.
2.3 in (58 mm)	2.3 in (58 mm)	5.8 in (150 mm)

Max. Pull Tension:	414 lbs (188 kg)

Bulk Cable Weight:	195 lbs/1000ft (290 kg/km)

Standards and Compliance

Environmental Suitability:	Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance
Flammability / Reaction to Fire:	UL1685 (UL Loading), 1202
NEC / UL Compliance:	Article 336, Article 760, TC-ER, WTTC
AWM Compliance:	AWM 20328, I/II A/B
CEC / C(UL) Compliance:	CIC, TC
European Directive Compliance:	EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE)
APAC Compliance:	China RoHS II (GB/T 26572-2011)

History

Update and Revision:	Revision Number: 0.350 Revision Date: 01-10-2024

Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC	Footnote
7416W 060250	Chrome	Reel	250 ft	612825186007	C
7416W 0601000	Chrome	Reel	1,000 ft	612825185994	C

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