

Product: 7145W

MachFlex™, 3+1G C #12 Str BC, PVC-NYL Ins, TPE Jkt, 1000V WTTC, 600V TC-ER

Request Sample

Product Description

MachFlex™ for High Flex, 3+1G Conductor 12AWG (413(7x59)x38) 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)	3	12 AWG	413x38	BC - Bare Copper
Ground Wire	1	12 AWG	413x38	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)	0.146 in (3.71 mm)	Black and Numbered
Ground Wire	PVC/Nylon - Polyvinyl Chloride + Nylon	0.021 in (0.53 mm)	0.146 in (3.71 mm)	Green/Yellow

Outer Shield

Material
No Shield

Outer Jacket

Separator	Material	Nom. Thickness	Nom. Diameter
non-Woven Tape	TPE - Thermoplastic Elastomer	0.047 in (1.2 mm)	0.446 in

Overall Cable Diameter (Nominal):	0.446 in

Electrical Characteristics

Electricals

Element	Nom. Conductor DCR	Max. Current
Conductor(s)	1.68 Ohm/1000ft	36 Amps per Conductor at 30ºC
Ground Wire	1.72 Ohm/1000ft (5.64 Ohm/km)	57.5 Amps per Conductor at 30ºC

Voltage

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

Mechanical Characteristics

Temperature

UL Temperature	Operating
UL : 90°C Dry, 75°C Wet; AWM 20328 : 105°C	-40°C To 105°C

Bend Radius

Stationary Min.	Installation Min.
1.78 in (45.2 mm)	2.23 in

Max. Pull Tension:	332.8 lbs (151.0 kg)
Bulk Cable Weight:	152 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Outdoor, Sunlight Resistance, UV Resistance, Oil Resistance
Flammability / Reaction to Fire:	UL1685 UL Loading, IEEE 1202 FT4
NEC / UL Compliance:	Article 336
AWM Compliance:	AWM 20328, AWM 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: 0.289 Revision Date: 01-10-2024

Part Numbers

Variants

Item #	Color	UPC	Footnote
7145W 0031000	Orange	612825182597	C
7145W 003250	Orange	612825182603	C
7145W 0035000	Orange	612825182610	

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