

Product: 7105W

MachFlex™, 8+1G C #20 Str BC, PVC Ins, TPE Jkt, PLTC

Request Sample

Product Description

MachFlex™ for High Flex, 8+1G Conductor 20AWG (74x38) Bare Copper, PVC Insulation, TPE Outer Jacket, PLTC

Technical Specifications

Product Overview

Suitable Applications:	Robotics, Robot, Continuous Flex

Construction Details

Conductor

Element	No. of Elements	Size	Stranding	Material
Conductor(s)	8	20 AWG	74x38	BC - Bare Copper
Ground Wire	1	20 AWG	74x38	BC - Bare Copper

Insulation

Element	Material	Nom. Thickness	Nom. Insulation Diameter	Color Code
Conductor(s)	PVC - Polyvinyl Chloride	0.015 in (0.38 mm)	0.074 in (1.9 mm)	Black and Numbered
Ground Wire	PVC - Polyvinyl Chloride	0.015 in (0.38 mm)	0.074 in (1.9 mm)	Green/Yellow

Outer Shield

Material
No Shield

Outer Jacket

Separator	Material	Nom. Thickness	Nom. Diameter
non-Woven Tape	TPE - Thermoplastic Elastomer	0.042 in (1.1 mm)	0.376 in

Overall Cable Diameter (Nominal):	0.376 in

Electrical Characteristics

Electricals

Element	Nom. Conductor DCR	Max. Current
Conductor(s)	10.8 Ohm/1000ft	6.3 Amps per Conductor at 30ºC
Ground Wire	10.7 Ohm/1000ft (35.1 Ohm/km)	14.4 Amps per Conductor at 30ºC

Voltage

UL Voltage Rating	Voltage Rating
300 V	600 V

Mechanical Characteristics

Temperature

UL Temperature	Operating
UL : 90°C, AWM 20327 : 105°C	-40°C To 105°C

Bend Radius

Stationary Min.	Installation Min.
3.76 in (95.5 mm)	3.76 in

Max. Pull Tension:	113.4 lbs (51.44 kg)
Bulk Cable Weight:	81 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 725, PLTC
AWM Compliance:	AWM 20327, AWM I/II A/B
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: 0.190 Revision Date: 01-10-2024

Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC	Footnote
7105W 003250	Orange	Reel	250 ft	612825181989	C
7105W 0031000	Orange	Reel	1,000 ft	612825181972	C
7105W 0035000	Orange	Reel	5,000 ft	612825181996	

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