



**Product:** [77807WS](#)

MachFlex™, 7+G C #18 Str BC, PVC Ins, OA TC Brd, PVC Jkt, PVC Jkt, AWM 2587

[Request Sample](#)

Product Description

MachFlex™ for High Flex, 7+G Conductor 18AWG (105(7x15)x38) Bare Copper, PVC Insulation, Overall Tinned Copper Braid(85%) Shield, PVC Inner Jacket, PVC Outer Jacket, AWM 2587

Technical Specifications

Product Overview

Suitable Applications:	Robotics, Robot, Continuous Flex
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Construction Details

Conductor

Element	No. of Elements	Size	Stranding	Material
Conductor(s)	6	18	105x38	BC - Bare Copper
Ground	1	18	105x30	BC - Bare Copper

Insulation

Element	Material	Nom. Thickness	Nom. Insulation Diameter	Color Code
Conductor(s)	PVC - Polyvinyl Chloride	0.022 in (0.56 mm)	0.096 in (2.4 mm)	Red and Numbered
Ground	PVC - Polyvinyl Chloride	0.022 in (0.56 mm)	0.096 in (2.4 mm)	Yellow/Green/Green

Outer Shield

Shield Type	Material	Coverage
Braid	Tinned Copper (TC)	85%

Inner Jacket

Separator	Material	Nom. Thickness	Nom. Diameter
Tissue Tape	PVC - Polyvinyl Chloride	0.030 in (0.76 mm)	0.408 in (10.4 mm)

Outer Jacket

Separator	Material	Nom. Thickness	Nom. Diameter
Tissue Tape	PVC - Polyvinyl Chloride	0.045 in (1.1 mm)	0.532 in

Overall Cable Diameter (Nominal):	0.532 in (13.5 mm)
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Electrical Characteristics

Electricals

Element	Nom. Conductor DCR	Nom. Capacitance Cond-to-Cond	Max. Current
Conductor(s)	6.4 Ohm/1000ft	45 pF/ft (150 pF/m)	9.8 Amps per Conductor at 30°C
Ground Wire	6.66 Ohm/1000ft (21.9 Ohm/km)		

Voltage

UL Voltage Rating	Voltage Rating
600 V (AWM 2587)	600 V (CSA AWM I/II A/B)

Mechanical Characteristics

Temperature

UL Temperature	Operating
90°C	-40°C To 90°C (Static), -5°C To 90°C (Flexing)

Bend Radius

Flexing Min.
4.3 in (110 mm)

Max. Pull Tension:	105 lbs (47.6 kg)
Bulk Cable Weight:	344 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Oil Resistance
AWM Compliance:	AWM 2587, AWM 10012, AWM I/II A/B
European Directive Compliance:	EU CE Mark, 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: 0.142 Revision Date: 05-31-2024
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Part Numbers

Variants

Item #	Color	Putup Type	UPC
77807WS 010100	Black	Reel	612825412403
77807WS 0101000	Black	Reel	612825412410

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