



Product: [77812WS](#)

MachFlex™, 12+G C #18 Str BC, PVC Ins, OA TC Brd, PVC Jkt, PVC Jkt, AWM 2587

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Product Description

MachFlex™ for High Flex, 12+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

Physical Characteristics (Overall)

| Conductor        |     |           |                  |                   |
|------------------|-----|-----------|------------------|-------------------|
| Element          | AWG | Stranding | Material         | No. of Conductors |
| Conductor(s)     | 18  | 105x38    | BC - Bare Copper | 11                |
| Ground           | 18  | 105x30    | BC - Bare Copper | 1                 |
| Conductor Count: |     |           |                  | 12                |

| Insulation   |                          |                  |                        |
|--------------|--------------------------|------------------|------------------------|
| Element      | Material                 | Nominal Diameter | Nominal Wall Thickness |
| Conductor(s) | PVC - Polyvinyl Chloride | 0.096 in         | 0.022 in               |
| Ground       | PVC - Polyvinyl Chloride |                  |                        |

| Color Chart      |  |
|------------------|--|
| Color            |  |
| Red and Numbered |  |

| Inner Jacket             |                  |                        |
|--------------------------|------------------|------------------------|
| Material                 | Nominal Diameter | Nominal Wall Thickness |
| PVC - Polyvinyl Chloride | 0.480 in         | 0.030 in               |

| Outer Shield |                    |              |
|--------------|--------------------|--------------|
| Type         | Material           | Coverage [%] |
| Braid        | Tinned Copper (TC) | 85%          |

| Outer Jacket             |                  |                        |
|--------------------------|------------------|------------------------|
| Material                 | Nominal Diameter | Nominal Wall Thickness |
| PVC - Polyvinyl Chloride | 0.634 in         | 0.060 in               |

Electrical Characteristics

| Conductor DCR         |                          |
|-----------------------|--------------------------|
| Nominal Conductor DCR | Nominal Outer Shield DCR |
| 6.4 Ohm/1000ft        | 1.6 Ohm/1000ft           |

| Capacitance                             |  |
|---|--|
| Nom. Capacitance Conductor to Conductor |  |
| 45 pF/ft                                |  |

| Inductance         |  |
|--------------------|--|
| Nominal Inductance |  |

|           |
|-----------|
| .19 µH/ft |
|-----------|

Voltage

|                   |
|-------------------|
| UL Voltage Rating |
| 600 V             |

Temperature Range

|                              |  |
|------------------------------|--|
| UL Temperature Rating:       | 90°C   |
| Operating Temperature Range: | -40°C To 90°C (Static), -5°C To 90°C (Flexing) |

Mechanical Characteristics

|   |                   |
|---|-------------------|
| Oil Resistance:                         | Yes               |
| Flex Cycle Rating:                      | 14 Million Cycles |
| Bulk Cable Weight:                      | 497 lbs/1000ft    |
| Maximum Recommended Pulling Tension:    | 174 lbs           |
| Minimum Continuous Flexing Bend Radius: | 5.1 in            |
| Minimum Minor Axis Bend Radius:         | 5.1 in            |

Standards

|                          |                     |
|--------------------------|---------------------|
| UL AWM Style Compliance: | AWM 2587, AWM 10012 |
| CSA AWM Compliance:      | AWM I/II A/B        |

Applicable Environmental and Other Programs

|  |                               |
|--|-------------------------------|
| EU Directive 2000/53/EC (ELV):               | Yes                           |
| EU Directive 2003/11/EC (BFR):               | Yes                           |
| EU Directive 2011/65/EU (RoHS 2):            | Yes                           |
| EU Directive 2012/19/EU (WEEE):              | Yes                           |
| EU Directive 2015/863/EU (RoHS 2 amendment): | Yes                           |
| EU Directive Compliance:                     | EU Directive 2003/11/EC (BFR) |
| EU CE Mark:                                  | Yes                           |

Suitability

|                               |     |
|-------------------------------|-----|
| Suitability - Oil Resistance: | Yes |
|-------------------------------|-----|

Flammability, LS0H, Toxicity Testing

|                    |           |
|--------------------|-----------|
| CSA Flammability:  | FT1       |
| UL voltage rating: | 600 V RMS |

Related Part Numbers

Variants

| Item #         | Color | Put-Up Type | UPC          |
|----------------|-------|-------------|--------------|
| 77812WS 010100 | Black | Reel        | 612825412434 |

History

|                      |  |
|----------------------|--|
| Update and Revision: | Revision Number: 0.140 Revision Date: 05-31-2024 |
|----------------------|--|