

#### MIL-C-55021 | NEMA WC 55021

The MIL-C-55021C covers electrical cables consisting of unshielded and unjacketed, shielded, jacketed, or shielded ad jacketed twisted pairs and triples, and shielded or shielded and jacketed singles. The cable is intended for internal wiring of electrical equipment for applications of -40°C to +105°C (M55021/1) and -65°C to +200°C (M55021/2). Cable constructed with PVC insulation or jackets are not to be used in aerospace applications.

### **Cable Designation**

| Wire Type   | Conductor Size | Conductor<br>Material | Color of 1st<br>Wire | Color of 2nd<br>Wire | Color of 3rd<br>Wire | Covering Over<br>Components |
|-------------|----------------|-----------------------|----------------------|----------------------|----------------------|-----------------------------|
| E           | 24             | С                     | 901                  | 902                  | 9                    | STW                         |
| (Section 1) | (Section 2)    | (Section 3)           | (Section 4)          | (Section 4)          | (Section 4)          | (Section 5)                 |

## Section 1: Wire Type

| Letter | Wire Specification  | Letter | Wire Specification  |
|--------|---------------------|--------|---------------------|
| В      | M16878/1            | EE     | NEMA HP3 (M16878/5) |
| С      | M16878/2            | BJ     | M16878/17           |
| D      | M16878/3            | CJ     | M16878/18           |
| Е      | NEMA HP3 (M16878/4) | DJ     | M16878/19           |

## **Section 2: Conductor Size and Stranding**

| Conductor Size  | Stranding  |
|-----------------|------------|
| 26 AWG - 30 AWG | 7 Strands  |
| 12 AWG - 24 AWG | 19 Strands |
| 10 AWG          | 37 Strands |

#### **Section 3: Conductor Material**

| Conductor Code | Conductor Type             |
|----------------|----------------------------|
| С              | Annealed Copper            |
| S              | Copper Clad Steel          |
| Н              | High Strength Copper Alloy |

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## **Section 4: Color Code**

The first color in the series is the base color of the wire. Second and third colors indicate stripes. The color code designators for wires 2 and 3 represent a twisted pair or triplet, respectively, and are separated by a dash. For single shielded and single shielded and jacketed constructions, a dash would not be used

| Code | Color  | Code | Color  |
|------|--------|------|--------|
| 0    | Black  | 5    | Green  |
| 1    | Brown  | 6    | Blue   |
| 2    | Red    | 7    | Violet |
| 3    | Orange | 8    | Gray   |
| 4    | Yellow | 9    | White  |

# Section 5: Covering Over Component Wire(s)

| Letter | Covering                                  | Letter | Covering  |
|--------|---|--------|---|
| U      | Unjacketed and unshielded                 | S      | Shielded and unjacketed                           |
| Р      | Polyvinylchloride (PVC) Jacket            | SP     | Shielded and covered with a PVC Jacket            |
| F      | Fluorinatedethylenepropylene (FEP) Jacket | SF     | Shielded and covered with FEP Jacket              |
| J      | Polyamide Jacket                          | SJ     | Shielded and covered with a Polyamide Jacket      |
| T      | Polytetrafluoroethylene (PTFE) Jacket     | STW    | Shielded and covered with a wrapped PTFE Jacket   |
|        |   | STX    | Shielded and covered with an extruded PTFE Jacket |

#### **Section 6: Identification Method**

Tape under the shield or jacket of any of the wires for unjacketed cables. Print indicated Military Specification number, manufacturer's CAGE number, type of designation and year of manufacture.