

# NEMA HP-3 TYPES E, EE, ET

*Replaces M16878/4,/5,/6,/23,/25,/27*

## Construction

Stranded or solid silver or nickel plated copper  
Extruded Polytetrafluoroethylene (PTFE)

## Ratings/Approvals

SPC 200° C NPC 260° C

NEMA HP-3 has no requirement for the wire to be printed.

XE 18awg & smaller dual rated to UL1213

XEE 18awg & smaller dual rated to UL1180

|                | Type E   |         | Type EE  |         | Type ET  |         | DC Resistance |
|----------------|----------|---------|----------|---------|----------|---------|---------------|
|                | M16878/4 |         | M16878/5 |         | M16878/6 |         |               |
| Voltage Rating | 600      |         | 1000     |         | 250      |         |               |
| AWG/Stranding  | Mils/OD  | lbs/mft | Mils/OD  | lbs/mft | Mils/OD  | lbs/mft | Ohms/mft      |
| 30 1/30        | 10/.030" | 1       | 15/.040" | 1       | 6/.022"  | 1       | 106.0         |
| 30 7/38        | 10/.032" | 1       | 15/.042" | 1       | 6/.024"  | 1       | 100.0         |
| 28 1/28        | 10/.033" | 2       | 15/.043" | 2       | 6/.025"  | 1       | 66.7          |
| 28 7/36        | 10/.035" | 2       | 15/.045" | 2       | 6/.027"  | 1       | 63.6          |
| 28 19/40       | 10/.035" | 2       | 15/.045" | 2       | 6/.027"  | 1       | 63.1          |
| 26 1/26        | 10/.036" | 2       | 15/.046" | 2       | 6/.028"  | 2       | 41.9          |
| 26 7/34        | 10/.039" | 2       | 15/.049" | 2       | 6/.031"  | 2       | 39.7          |
| 26 19/38       | 10/.039" | 2       | 15/.049" | 2       | 6/.031"  | 2       | 37.3          |
| 24 1/24        | 10/.040" | 3       | 15/.050" | 3       | 6/.032"  | 3       | 26.2          |
| 24 7/32        | 10/.044" | 3       | 15/.054" | 3       | 6/.036"  | 3       | 24.5          |
| 24 19/36       | 10/.045" | 3       | 15/.055" | 3       | 6/.036"  | 3       | 23.6          |
| 22 1/22        | 10/.045" | 4       | 15/.055" | 4       | 6/.038"  | 3       | 16.5          |
| 22 7/30        | 10/.050" | 4       | 15/.060" | 4       | 6/.042"  | 3       | 15.6          |
| 22 19/34       | 10/.051" | 4       | 15/.061" | 5       | 6/.042"  | 4       | 14.8          |
| 20 1/20        | 10/.052" | 5       | 15/.062" | 6       | 6/.044"  | 5       | 10.3          |
| 20 7/28        | 10/.058" | 5       | 15/.068" | 6       | 6/.050"  | 5       | 9.8           |
| 20 19/32       | 10/.058" | 6       | 15/.068" | 7       | 6/.050"  | 5       | 9.1           |
| 18 7/26        | 10/.069" | 8       | 15/.079" | 9       | -        | -       | 6.2           |
| 18 19/30       | 10/.069" | 8       | 15/.079" | 9       | -        | -       | 5.8           |
| 16 19/29       | 13/.080" | 10      | 18/.089" | 11      | -        | -       | 4.5           |
| 14 19/27       | 13/.095" | 15      | 18/.106" | 17      | -        | -       | 2.9           |
| 12 19/25       | 15/.114" | 23      | 21/.125" | 24      | -        | -       | 1.8           |
| 10 37/26       | 13/.134" | 35      | 19/.145" | 35      | -        | -       | 1.2           |
| 8 133/29       | -        | -       | 24/.209" | 68      | -        | -       | 0.7           |
| 6 133/27       | -        | -       | 28/.263" | 107     | -        | -       | -             |

Additional constructions available - check with the factory for details

All figures referenced are nominal

# NEMA HP3/HP4 REFERENCE GUIDE

replaces M16878



## Construction

X = Extruded  
W = Wrapped (HP3 only)

## AWG Size

|   |     |
|---|-----|
| B | 30  |
| C | 28  |
| D | 26  |
| E | 24  |
| F | 22  |
| G | 20  |
| H | 18  |
| J | 16  |
| K | 14  |
| L | 12  |
| M | 10  |
| N | 8   |
| P | 6   |
| R | 4   |
| S | 2   |
| T | 1   |
| U | 1/0 |
| W | 2/0 |
| Y | 3/0 |
| Z | 4/0 |

## NEMA Type

|     |            |
|-----|------------|
| HP3 | Dielectric |
| E   | PTFE       |
| EE  | PTFE       |
| ET  | PTFE       |
|     |            |
| HP4 | Dielectric |
| K   | FEP        |
| KK  | FEP        |
| KT  | FEP        |

## Conductor

|   |                                   |
|---|-----------------------------------|
| B | Silver plated copper              |
| C | Nickel plated copper              |
| D | Silver plated high-strength alloy |
| E | Nickel plated high-strength alloy |
| F | Silver plated copper clad steel   |
| G | Nickel plated copper clad steel   |
| H | Tin plated copper (HP4 only)      |

## Stranding

|   |      |
|---|------|
| A | 1    |
| B | 7    |
| E | 19   |
| G | 37   |
| L | 133  |
| P | 665  |
| R | 817  |
| S | 1045 |
| T | 1330 |
| V | 1665 |
| W | 2109 |

## Color Code

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

**\*Constructions listed are those currently manufactured by Harbour Industries**