



PTFE NEMA HP3 Wire

September 2017

Wiring Harness Components and Associated Products

Polytetrafluoroethylene (PTFE) is a fluorocarbon polymer insulation material that allows wiring systems to be used and operated in the most demanding of environments.

PTFE is resistant to lubricants and fuels, very flexible, plus it has excellent thermal and electrical properties. Particularly suitable for applications requiring high levels of thermal and chemical resistance.

Features & Benefits:

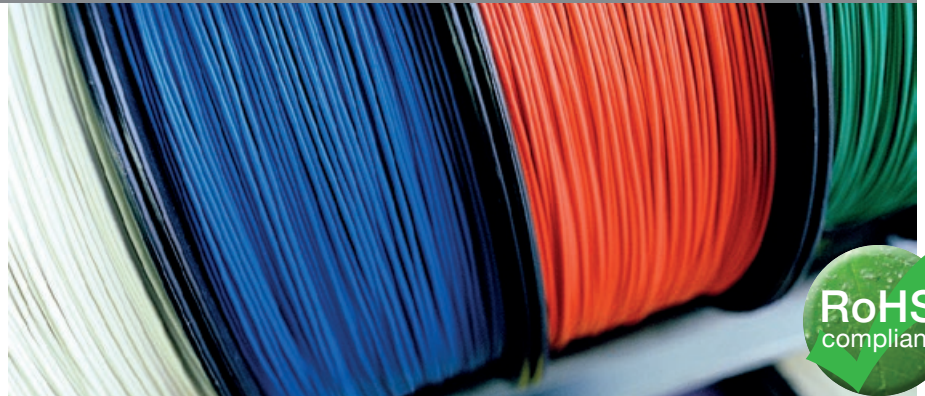
- Very high dielectric performance
- Non flammable / Flame retardant
- Excellent chemical resistance
- Silver and Nickel plated conductors
- Water repellent

Operating Temperature:

- -65°C to +200°C (Silver plated Cu)

Voltage Rating:

- 250, 600 & 1000 volts RMS working



PTFE Equipment Wire Nema HP3 (MIL-W-16878) Type ET, E and EE

Mechanically Tough and Flexible
 Excellent Temperature Performance
 Over 130 Wire Combinations Now in Stock
 for same day despatch

Part numbering example

Wire Voltage Rating:

- ET** 250 V (previously known as M16878/6)
- E** 600 V (previously known as M16878/4)
- EE** 1000 V (previously known as M16878/5)

Construction:

- W** Wrapped (available to order)
- X** Extruded (selection available from stock)

Conductor Material:

- B** Silver plated Cu
- C** Nickel plated Cu
- D** Silver plated high strength Cu alloy
- E** Nickel plated high strength Cu alloy*
- F** Silver plated Cu clad steel*
- G** Nickel plated Cu clad steel*

* Available to special order

Conductor Size:

See table over, for availability by wire type.

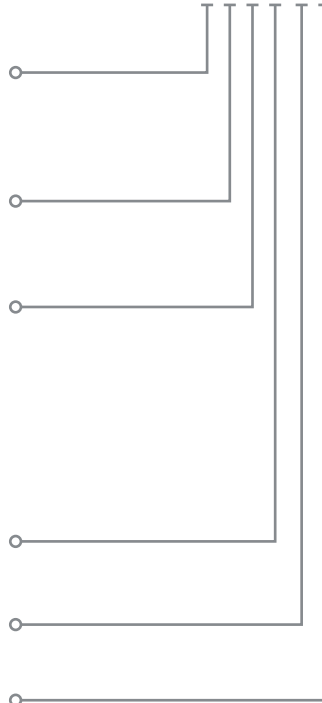
Conductor Stranding:

See table over, for availability by wire type.

Colour Code:

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

NEMA HP3-EXBGE9



Common - Standard Sizes Available by Wire Type

Overview of popular wires, broader selection is also available.

HP3 Type **ET** 250V (M16878/6)

Size	Part Number	Conductor				Cable Dia	Resistance	Weight
		Strands	Gauge	Nom. Ø	CSA			
AWG		No.	awg	mm	mm ²	mm	Ω/km	kg/km
32	HP3-ETXBABx	7	40	0.254	0.034	0.559	568	0.80
30	HP3-ETXBBAx	1	30	0.254	0.051	0.559	354	1.01
30	HP3-ETXBBBx	7	38	0.305	0.057	0.610	330	1.12
28	HP3-ETXBCAx	1	28	0.320	0.080	0.635	223	1.41
28	HP3-ETXBABx	7	36	0.381	0.089	0.686	209	1.50
26	HP3-ETXBABx	1	26	0.404	0.130	0.711	140	1.93
26	HP3-ETXBABx	7	34	0.483	0.140	0.787	133	2.08
26	HP3-ETXBABx	19	38	0.508	0.150	0.787	126	2.23
24	HP3-ETXBABx	7	32	0.610	0.230	0.914	83	4.02
24	HP3-ETXBABx	19	36	0.635	0.240	0.914	80	3.13
22	HP3-ETXBABx	19	34	0.813	0.380	1.070	50	4.61
20	HP3-ETXBABx	19	32	1.020	0.620	1.270	30	7.00

HP3 Type **E** 600V (M16878/4)

Size	Part Number	Conductor				Cable Dia	Resistance	Weight
		Strands	Gauge	Nom. Ø	CSA			
AWG		No.	awg	mm	mm ²	mm	Ω/km	kg/km
32	HP3-EXBABx	7	40	0.254	0.034	0.762	568	1.43
30	HP3-EXBBBx	7	38	0.305	0.057	0.813	330	1.79
28	HP3-EXBCBx	7	36	0.381	0.089	0.889	309	2.23
26	HP3-EXBDAx	1	26	0.404	0.130	0.914	140	2.68
26	HP3-EXBDBx	7	34	0.483	0.140	0.991	133	2.98
26	HP3-EXBDEx	19	38	0.508	0.150	0.991	126	3.13
24	HP3-EXBEBx	7	32	0.610	0.230	1.120	83	4.02
24	HP3-EXBEEEx	19	36	0.635	0.240	1.120	80	4.17
22	HP3-EXBFBx	7	30	0.762	0.350	1.270	52	5.51
22	HP3-EXBFEx	19	34	0.813	0.380	1.270	50	5.65
20	HP3-EXBGEx	19	32	1.020	0.620	1.470	30	8.33
18	HP3-EXBHEEx	19	30	1.270	0.960	1.750	19	12.4

HP3 Type **EE** 1000V (M16878/5)

Size	Part Number	Conductor				Cable Dia	Resistance	Weight
		Strands	Gauge	Nom. Ø	CSA			
AWG		No.	awg	mm	mm ²	mm	Ω/km	kg/km
32	HP3-EEXBABx	7	40	0.254	0.034	1.02	568	1.93
30	HP3-EEXBBBx	7	38	0.305	0.057	1.07	330	2.38
28	HP3-EEXBCBx	7	36	0.381	0.089	1.14	209	2.83
26	HP3-EEXBDBx	7	34	0.483	0.140	1.25	133	3.27
26	HP3-EEXBDEx	19	38	0.508	0.150	1.25	126	3.57
24	HP3-EEXBEBx	7	32	0.610	0.230	1.37	83	5.21
24	HP3-EEXBEEEx	19	36	0.635	0.240	1.37	80	5.36
22	HP3-EEXBFEx	19	34	0.813	0.380	1.52	50	7.00
20	HP3-EEXBGEx	19	32	1.020	0.620	1.73	30	9.82
18	HP3-EEXBHBx	7	26	1.220	0.900	2.01	21	13.50
18	HP3-EEXBHEEx	19	30	1.270	0.960	2.01	19	14.1
16	HP3-EEXBJEx	19	29	1.450	1.230	2.26	15	18.0
14	HP3-EEXBKEx	19	27	1.830	1.940	2.69	9	26.6
12	HP3-EEXBLEEx	19	25	2.310	3.090	3.18	6	39.1
10	HP3-EEXBMGx	37	26	2.820	4.610	3.68	4	56.3

All information provided is believed to be reliable. We advise however that customers should separately evaluate the suitability of our products for their particular application. IS-Rayfast give no guarantee in respect of the accuracy or sufficiency of the information presented and disclaim any liability regarding its use. Our responsibilities are only those listed in our Standard Terms and Conditions of Sale for these products. In no instance will we be liable for any eventual, indirect, or consequential damage or damages from the sale, resale, transfer, use or misuse of the product.

Tel: +44 (0)1793 616700 • Email: sales@is-rayfast.com

www.is-rayfast.com

2 Lydiard Fields, Swindon, Wiltshire, SN5 8UB, UK.

