

# 3M™ Shielded/Jacketed, Flat Cable

.050" 28 AWG Stranded, PVC/PVC

3517 Series



- Meets external wiring requirements of National Electrical Code, Article 725 (CL2)
- UL listed for USA and Canadian markets
- 28 AWG stranded wire on .050 inch centers permits mass termination to broad line of IDC connectors
- 360 degree expanded copper shielding provides 20 db average shielding effectiveness
- Primary cable is zippable for branching or discrete terminations
- See the Regulatory Information Appendix (RIA) in the “RoHS compliance” section of [www.3M.com/Interconnects](http://www.3M.com/Interconnects) for compliance information (RIA E1 & C1 apply)

Date Modified: December 8, 2009

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## Physical

**Jacket Material:** Polyvinyl Chloride (PVC)

Color: Black

Primary Material: PVC

Color: Gray

**Marking:**

Standard: (UL) CL2 75C 28 AWG or AWM 20879 3M NU C  AWM IIA/B 80C 300V FT1 EU <50V

**Conductors:** 28 AWG, 7 × 36 AWG [ 7 × Ø 0.127 ] Tinned Stranded Copper

Shielding Material: Expanded Copper

## Electrical

**Voltage Rating:** USA: N.E.C. 725, CL2 or AWM 300V    Canada: <50V    EU: <50V

**Insulation Resistance:** (Primary Cable) > 1 × 10<sup>10</sup> Ω/10 ft. [ 3 m ]

<b>Characteristic Impedance:</b>	<b>Unbalanced</b>	<b>Balanced</b>
	70 Ω	119 Ω

<b>Capacitance:</b>	21.5 pF/ft [ 70.5 pF/m ]	12.7 pF/ft [ 41.7 pF/m ]
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<b>Inductance:</b>	0.11 μH/ft [ 0.35 μH/m ]	0.18 μH/ft [ 0.59 μH/m ]
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<b>Propagation Delay:</b>	1.51 ns/ft [ 4.95 ns/m ]	1.51 ns/ft [ 4.95 ns/m ]
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<b>Velocity of Propagation:</b>	67%	67%
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Note: Unbalanced is measured between ground-signal-ground conductors, with shield grounded. Balanced is measured between signal conductors within a pair, with the shield floating.

## Environmental

**Temperature Rating:** USA: CL2; 75°C or AWM: -20°C to +80°C    Canada: 80°C

**Flammability Rating:** USA: N.E.C. 725, CL2    Canada: FT1

UL File No.: E118773, Power Limited Circuit Cable: CL2 (or AWM Style 20879)

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Inch  
[mm]

Tolerance Unless Noted			
	.0	.00	.000
Inch	±.1	±.01	±.005

[ ] Dimensions for Reference Only

Number of Conductors	3M Part Number	Dimension A ± .040"	Dimension B
09	3517/09	.58 [ 14.7 ]	0.400 ± .007 [ 10.16 ]
10	3517/10	.63 [ 16.0 ]	0.450 ± .007 [ 11.43 ]
14	3517/14	.83 [ 21.1 ]	0.650 ± .007 [ 16.51 ]
15	3517/15	.88 [ 22.4 ]	0.700 ± .007 [ 17.78 ]
16	3517/16	.93 [ 23.6 ]	0.750 ± .011 [ 19.05 ]
20	3517/20	1.13 [ 28.7 ]	0.950 ± .011 [ 24.13 ]
24	3517/24	1.33 [ 33.8 ]	1.150 ± .011 [ 29.21 ]
25	3517/25	1.38 [ 35.0 ]	1.200 ± .011 [ 30.48 ]
26	3517/26	1.43 [ 36.3 ]	1.250 ± .011 [ 31.75 ]
30	3517/30	1.63 [ 41.4 ]	1.450 ± .015 [ 36.83 ]
34	3517/34	1.83 [ 46.5 ]	1.650 ± .015 [ 41.91 ]
36	3517/36	1.93 [ 49.0 ]	1.750 ± .015 [ 44.45 ]
37	3517/37	1.98 [ 50.3 ]	1.800 ± .015 [ 45.72 ]
40	3517/40	2.13 [ 54.1 ]	1.950 ± .015 [ 49.53 ]
50	3517/50	2.63 [ 66.8 ]	2.450 ± .015 [ 62.23 ]
60	3517/60	3.13 [ 79.5 ]	2.950 ± .015 [ 74.93 ]
64	3517/64	3.38 [ 85.9 ]	3.150 ± .015 [ 80.01 ]



Note: Red marking on edge of primary cable designates wire #1.

## Ordering Information

**3517/XX XX**

Blank = Standard  
C = Canadian Certified Version

Number of Conductors  
(See Table)

Blank = Standard  
SF = Splice Free

Note: Available in standard 100 ft or 300 ft rolls, please specify when ordering. Contact 3M for availability of additional conductor counts and/or custom roll lengths.

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