

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 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 × 10¹⁰ Ω/10 ft. [3 m]

| Characteristic Impedance: | Unbalanced | Balanced |
|----------------------------------|-------------------|-----------------|
| | 70 Ω | 119 Ω |

| | | |
|---------------------|--------------------------|--------------------------|
| Capacitance: | 21.5 pF/ft [70.5 pF/m] | 12.7 pF/ft [41.7 pF/m] |
|---------------------|--------------------------|--------------------------|

| | | |
|--------------------|--------------------------|--------------------------|
| Inductance: | 0.11 μH/ft [0.35 μH/m] | 0.18 μH/ft [0.59 μH/m] |
|--------------------|--------------------------|--------------------------|

| | | |
|---------------------------|--------------------------|--------------------------|
| Propagation Delay: | 1.51 ns/ft [4.95 ns/m] | 1.51 ns/ft [4.95 ns/m] |
|---------------------------|--------------------------|--------------------------|

| | | |
|---------------------------------|-----|-----|
| Velocity of Propagation: | 67% | 67% |
|---------------------------------|-----|-----|

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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