

3M™ Round, Shielded/Jacketed, Flat Cable

.050" 28 AWG Stranded, Mass-Term, PVC/PVC

3659 Series




- Round construction permits easier routing
- 28 AWG wire on .050 inch pitch permits mass termination to broad line of IDC connectors
- Continuous split/bond repeat allows for mass termination on 2.4 inch centers (approximate)
- Primary cable is zippable for branching or discrete terminations
- Meets external wiring requirements of National Electrical Code, Article 725 (CL2)
- UL listed for USA and Canadian markets
- Dual shielding provides 35 db average shielding effectiveness

Date Modified: January 23, 2004

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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 20267 3M NU  AWM IIA/B 80C 300V FT1 EU <50V
Conductors:	28 AWG 7 × 36 [7 × 0.127] Tinned Stranded Copper
Shielding:	001 [0.03] Thick Aluminum/Polyester Film Foil and 90% Coverage Tinned Copper Braid

Electrical

Voltage Rating:	USA: N.E.C. 725, CL2 or AWM; 300V	Canada: 300V	EU: <50V
Insulation Resistance:	> 1 × 10 ¹⁰ Ω/10 ft. [3m]		
Characteristic Impedance:	Unbalanced 62Ω	Balanced 106 Ω	
Capacitance:	27.7 pF/ft. [90.88 pF/m] 15.2 pF/ft. [49.9 pF/m]		
Inductance:	.13 μH/ft. [0.43 μH/m] .20 μH/ft. [0.66 μH/m]		
Propagation Delay:	1.72 ns/ft. [5.64 ns/m] 1.62 ns/ft. [5.32 ns/m]		
Velocity of Propagation:	59% 62%		

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 Max or AWM; -20°C to +80°C	Canada: 80°C
Flammability Rating:	USA: N.E.C. 725, CL2	Canada: FTI

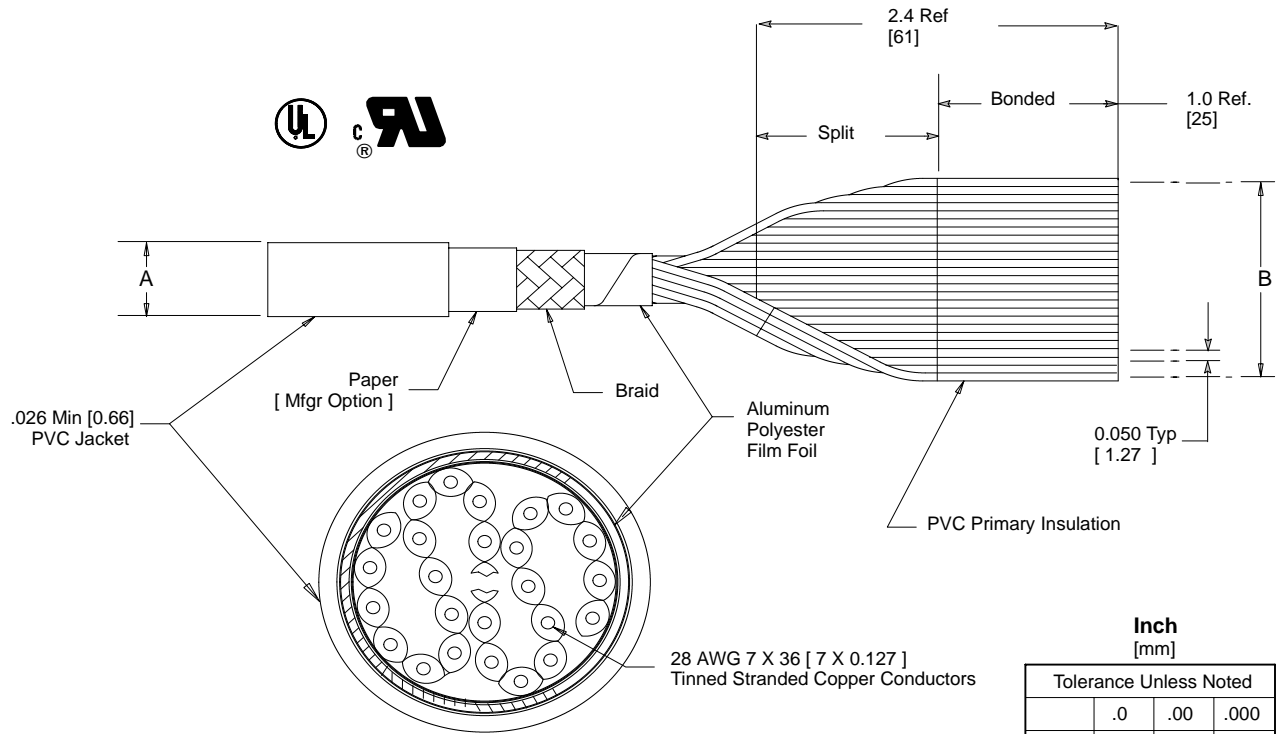
UL File No.: E118773, Power Limited Circuit Cable: CL2 (or AWM Style 20267)

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Number of Conductors	3M Part Number	Dimension A ± .03	Dimension B Ref (See Note 2)
09	3659/09	0.27 [6.9]	0.40 [10.2]
10	3659/10	0.27 [6.9]	0.45 [11.4]
14	3659/14	0.31 [7.9]	0.65 [16.5]
15	3659/15	0.31 [7.9]	0.70 [17.8]
16	3659/16	0.31 [7.9]	0.75 [19.1]
20	3659/20	0.34 [8.6]	0.95 [24.1]
24	3659/24	0.37 [9.4]	1.15 [29.2]
25	3659/25	0.37 [9.4]	1.20 [30.5]
26	3659/26	0.37 [9.4]	1.25 [31.8]
34	3659/34	0.41 [10.4]	1.65 [41.9]
36	3659/36	0.43 [10.9]	1.75 [44.5]
37	3659/37	0.43 [10.9]	1.80 [45.7]
40	3659/40	0.43 [10.9]	1.95 [49.5]
50	3659/50	0.48 [12.2]	2.45 [62.2]
60	3659/60	0.51 [13.0]	2.95 [74.9]
64	3659/64	0.54 [13.7]	3.15 [80.0]



- Notes:
1. Red marking on one edge of primary cable designates wire #1.
 2. Dimension B pertains to bonded area only.

Inch [mm]			
Tolerance Unless Noted			
	.0	.00	.000
Inch	±.1	±.05	±.010

[] Dimensions for Reference only

Ordering Information

3659/XX

Number of Conductors (See Table)

Note: Available in standard length of 100 or 300 ft/roll, please specify when ordering.

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Important Notice

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