

3M™ Round, Shielded/Jacketed, Disc. Wire Cable

28 AWG Stranded, Twisted Pair, PO/PVC

3647B Series



- IEEE 1284 Compliant - 36 conductor
- Twisted pairs reduce crosstalk in balanced drive applications
- Wires are color coded for easy identification
- Meets external wiring requirements of National Electrical Code, Article 725 (CL2)
- UL listed for US and Canadian markets
- Dual shielding provides 35 db average shielding effectiveness
- RoHS* compliant

Date Modified: June 15, 2005

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Physical

Jacket Material: Polyvinyl Chloride (PVC)
Color: Beige
Primary Material: Polyolefin (PO)
Marking Standard: (UL) CL2 75C 28 AWG 3M XX
C ~~75~~ AWM II A/B 80C 150V FT1 EU <50V IEEE 1284 compliant
(where XX may be MR, NU or NW)
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	Canada: 150V	EU: <50V
Insulation Resistance:	(Primary Cable) > 1 × 10 ¹⁰ Ω/10 ft. [3m]		
	Unbalanced	Balanced	
Characteristic Impedance:	63 Ω	100 Ω	
Capacitance:	24.2 pF/ft (79.4 pF/m)	15.3 pF/ft (50.2 pF/m)	
Inductance:	.10 μH/ft (0.33 μH/m)	.15 μH/ft (0.49 μH/m)	
Propagation Delay:	1.54 ns/ft (5.05 ns/m)	1.54 ns/ft (5.05 ns/m)	
Velocity of Propagation:	66%	66%	

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 Canada: 80°C
Flammability Rating: USA: N.E.C. 725, CL2 Canada: FT1

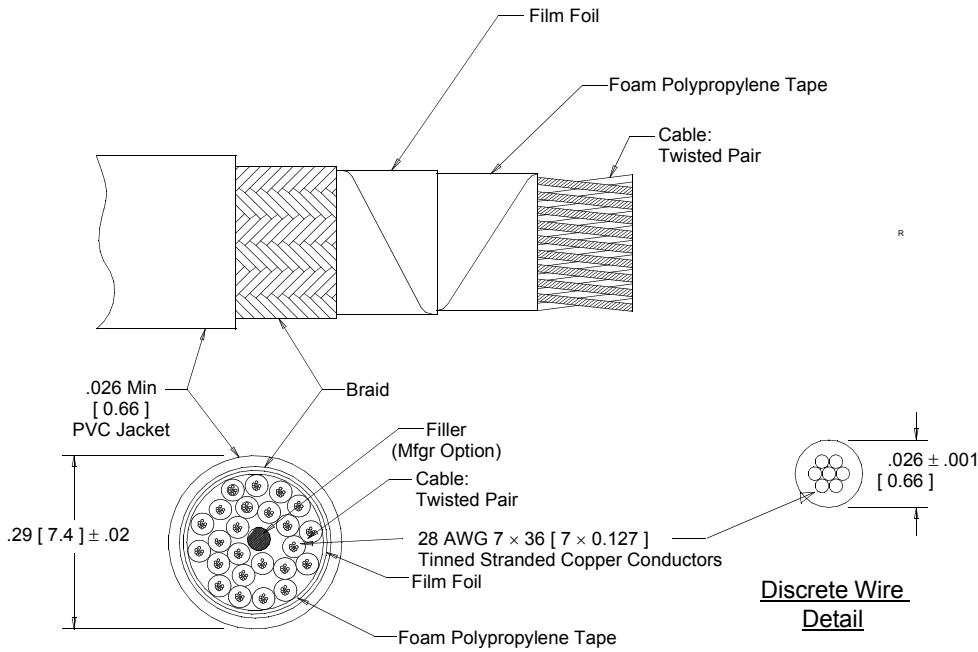
* RoHS = Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment
"RoHS compliant" means that the product or part does not contain any of the following substances in excess of the following maximum concentration values in any homogeneous material, unless the substance is in an application that is exempt under RoHS: (a) 0.1% (by weight) for lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers; or (b) 0.01% (by weight) for cadmium. Unless otherwise stated by 3M in writing, this information represents 3M's knowledge and belief based upon information provided by third party suppliers to 3M.

UL File No.: E118773, Power limited Circuit Cable; CL2

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Pair Identification						
Pairs	Cond	1st Conductor		Cond	2nd Conductor	
		Solid	Band		Solid	Band
1	1	White	Tan	2	Tan	White
2	3	White	Brown	4	Brown	White
3	5	White	Pink	6	Pink	White
4	7	White	Orange	8	Orange	White
5	9	White	Yellow	10	Yellow	White
6	11	White	Green	12	Green	White
7	13	White	Blue	14	Blue	White
8	15	White	Violet	16	Violet	White
9	17	White	Gray	18	Gray	White
10	19	Tan	Brown	20	Brown	Tan
11	21	Tan	Pink	22	Pink	Tan
12	23	Tan	Orange	24	Orange	Tan
13	25	Tan	Yellow	26	Yellow	Tan
14	27	Tan	Green	28	Green	Tan
15	29	Tan	Blue	30	Blue	Tan
16	31	Tan	Violet	32	Violet	Tan
17	33	Tan	Gray	34	Gray	Tan
18	35	Brown	Pink	36	Pink	Brown

Inch
[mm]

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

[] Dimensions for Reference only

Ordering Information

3647B/36

Number of Conductors

Note: Standard length is 300 feet per roll.

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Important Notice

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Electronics

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*Minimum 10%
Post-Consumer Fiber*

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