

# Round, Shielded/Jacketed, Discrete 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 USA and Canadian markets
- Dual shielding provides 35 db average shielding effectiveness

Date Modified: July 29, 1999

TS-0582-12  
Sheet 1 of 2

125

## Physical


### Jacket

Material: Polyvinyl Chloride (PVC)

Color: Beige

**Primary Material:** Polyolefin (PO)

### Marking

Standard: (UL) CL2 75C 28AWG 3M MR  AWM II A/B 80C 150V FT1 EU <50V  
IEEE 1284 Compliant

**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)  $>1 \times 10^{10} \Omega / 10 \text{ ft. [ 3m ]}$

	<b>Unbalanced</b>	<b>Balanced</b>
<b>Characteristic Impedance</b>	63 $\Omega$	100 $\Omega$
<b>Capacitance</b>	24.2 pF/ft. [ 79.4 pF/m ]	15.3 pF/ft. [ 50.2 pF/m ]
<b>Inductance</b>	.10 $\mu\text{H}/\text{ft. [ 0.33 } \mu\text{H}/\text{m ]}$	.15 $\mu\text{H}/\text{ft. [ 0.49 } \mu\text{H}/\text{m ]}$
<b>Propagation Delay</b>	1.54 ns/ft. [ 5.05 ns/m ]	1.54 ns/ft. [ 5.05 ns/m ]
<b>Velocity of Propagation</b>	66%	66%

Note: Unbalanced is measured between conductors within a pair with one conductor connected to the shield. Balanced is measured between conductors within a pair with the shield floating.

## Environmental

**Temperature Rating:** USA: CL2: 75°C Max Canada: 80C

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

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

### 3M Interconnect Solutions Division

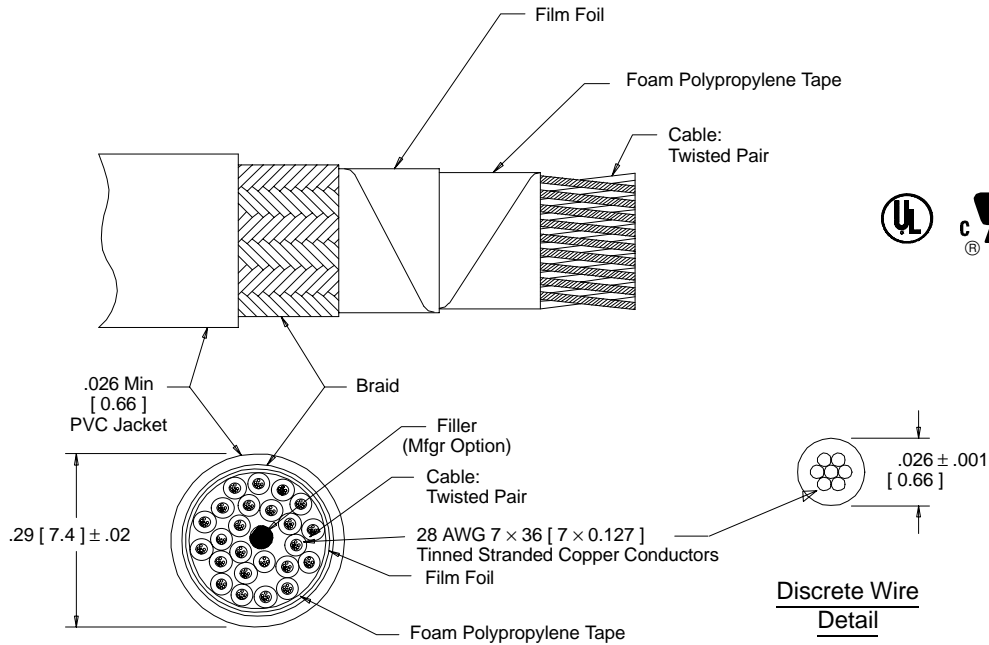
6801 River Place Blvd.  
Austin, TX 78726-9000

For technical, sales or ordering information call  
**800-225-5373**

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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			
	.0	.00	.000
Inch	± .1	± .05	± .010

[ ] Dimensions for Reference only

### Ordering Information

**3647B/36**

Number of Conductors

Note: Standard length is 300 feet per roll.

TS-0582-12  
Sheet 2 of 2

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