



## OVERVIEW

Prysmian’s all-dielectric armor loose tube cable provides all the benefits of Prysmian’s loose tube cable along with enhanced mechanical protection. Multiple layers of fiberglass provide dielectric armoring, superior tensile strength, and small rodent retardant protection.

## SPECIFICATIONS / RATINGS

- Applications** Multi-purpose outdoor, aerial lashed, duct, direct buried
- Constructions** Gel or dry buffer tubes
- Fiber Count** 4 to 432 fibers in color-coded buffer tubes
- Fiber Types** Single-mode / bend-insensitive / NZDSF / multimode / hybrid
  - Options** Steel central member / 24 AWG copper pair(s) / 16 AWG tonewire
  - Other Versions** Standard loose tube all-dielectric non-armor or metallic armor cable, gel or dry
- Standards** ANSI / ICEA 640, RUS 7 CFR 755 (RUS Listed), Telcordia GR-20
- Registered Supplier** ISO 9001, ISO 14001, TL 9000, and OHSAS 18001



## FEATURES AND BENEFITS

### Enhanced Mechanical Protection

- All-dielectric armor provides enhanced mechanical and small rodent retardant protection
- 1000 lbf tensile strength – 66% higher strength compared to standard loose tube cable
- Multiple layers of fiberglass armoring between 2 polyethylene jackets maintain cable flexibility and easy cable handling, especially during cable terminations
- Thicker outer jacket of high density polyethylene (HDPE) provide enhanced durability
- Suitable for aerial lashed, duct, and direct buried applications

### Easy Cable Entry & Termination

- Up to 20 foot mid-span buffer tube storage capability, allowing for easy mid-cable access
- 2.5 mm flexible polypropylene buffer tubes provide flexibility for easy routing in closures up to 432 fibers
- Available with G657.A2 fiber which has a bending loss 100 times lower than single-mode fiber

### Reliable Lifetime Performance

- Tested for resistance against small rodents
- Guaranteed standards-based performance
- Available with gel or dry buffer tubes

**All-Dielectric Armor Loose Tube (EDHDA2J)**

Fiber Count Range	Recommended Fiber Count	Recommended Part Number Prysmian*	# of Buffer Tubes	Diameter		Approx. Cable Weight		Bend Radius Load		Bend Radius No Load		Max. Reel Length	
				Inches	mm	lb/kft	kg/km	Inches	cm	inches	cm	feet	meters
6 to 60	6	EDHDA2J-12-AA-006-BB	5	0.52	13.2	77	114	10	25	5	13	41,010	12,500
	12	EDHDA2J-12-AA-012-BB											
	24	EDHDA2J-12-AA-024-BB											
	36	EDHDA2J-12-AA-036-BB											
	48	EDHDA2J-12-AA-048-BB											
60	EDHDA2J-12-AA-060-BB												
62 to 72	72	EDHDA2J-12-AA-072-BB	6	0.53	13.5	86	128	11	27	5	13	41,010	12,500
74 to 96	96	EDHDA2J-12-AA-096-BB	8	0.58	14.7	110	163	12	29	6	15	41,010	12,500
98 to 120	120	EDHDA2J-12-AA-120-BB	10	0.65	16.6	134	200	13	32	6	17	41,010	12,500
122 to 144	144	EDHDA2J-12-AA-144-BB	12	0.72	18.4	155	230	14	36	7	18	37,994	11,581
146 to 216	216	EDHDA2J-12-AA-216-BB	18	0.72	18.4	162	241	14	37	7	18	37,994	11,581
218 to 288	288	EDHDA2J-12-AA-288-BB	24	0.85	21.6	198	264	17	42	8	21	27,510	8,386

**All-Dielectric Armor Loose Tube (ETHDA2J)**

Fiber Count Range	Recommended Fiber Count	Recommended Part Number Prysmian*	# of Buffer Tubes	Diameter		Approx. Cable Weight		Bend Radius Load		Bend Radius No Load		Max. Reel Length	
				Inches	mm	lb/kft	kg/km	Inches	cm	inches	cm	feet	meters
6 to 60	6	ETHDA2J-12-AA-006-BB	5	0.52	13.2	80	119	10	25	5	13	41,010	12,500
	12	ETHDA2J-12-AA-012-BB											
	24	ETHDA2J-12-AA-024-BB											
	36	ETHDA2J-12-AA-036-BB											
	48	ETHDA2J-12-AA-048-BB											
60	ETHDA2J-12-AA-060-BB												
6 to 72	72	ETHDA2J-12-AA-072-BB	6	0.53	13.5	90	134	11	27	5	13	41,010	12,500
74 to 96	96	ETHDA2J-12-AA-096-BB	8	0.58	14.7	115	171	12	29	6	15	41,010	12,500
98 to 120	120	ETHDA2J-12-AA-120-BB	10	0.65	16.6	141	210	13	32	6	17	41,010	12,500
122 to 144	144	ETHDA2J-12-AA-144-BB	12	0.72	18.4	169	252	14	36	7	18	37,994	11,581
146 to 216	216	ETHDA2J-12-AA-216-BB	18	0.72	18.4	172	256	14	37	7	18	37,994	11,581
218 to 288	288	ETHDA2J-12-AA-288-BB	24	0.85	21.6	214	318	17	42	8	21	27,510	8,386
290 to 432	432	EDHDA2J-24-AA-432-BB	18	0.81	20.7	200	298	16	41	8	21	29,386	8,958

\* Where AA equals glass type and BB equals attenuation

**Installation**

Maximum installation load: 1000 lbf (4500 N)  
Maximum operation load: 300 lbf (1333 N)

**Temperature Range**

Shipping and Storage: -40° F to +167° F (-40° C to +75° C)  
Installation: -22° F to +140° F (-30° C to +60° C)  
Operation: -40° F to +158° F (-40° C to +70° C)

**Mechanical Performance (per ICEA 640 and Telcordia GR20)**

Minimum installation bend radius: 20 times the cable diameter  
Minimum operating bend radius: 10 times the cable diameter  
Short Term Compression: 220 N/cm over 10 cm (125 lb/in over 4 inches)  
Long Term Compression: 110 N/cm over 10 cm (62.5 lb/in over 4 inches)  
Impact Load: 4.4 Nm

## Ordering Guide

The Prysmian Group part number incorporates several significant attributes involving cable design and optical performance. The appropriate part number can be configured using the process described below

**Example:** ExpressLT™ dry loose tube | all-dielectric armor dual jacket, 72 fiber single-mode fibers (printed in feet)

<b>1</b> LENGTH MARKINGS	<b>2</b> PRODUCT FAMILY	<b>3</b> CONSTRUCTION	<b>4</b> FIBER GROUPING	<b>5</b> FIBER TYPE	<b>6</b> FIBER COUNT	<b>7</b> FIBER GRADE
F	EDH	DA2J	12	HB	072	E3

PART NUMBER CONSTRUCTION	
<b>1</b>	<b>LENGTH MARKINGS</b>
	F = Feet or M = Meters
<b>2</b>	<b>PRODUCT FAMILY</b>
	ETH = ExpressLT™ Gel-Filled Tube
	EDH = ExpressLT™ Dry
<b>3</b>	<b>CONSTRUCTION</b>
	DA2J = All-Dielectric Armor, Dual Jacket
<b>4</b>	<b>FIBER GROUPING</b>
	12 = 12f per tube
	24 = 24f per tube with two 12 fiber groups

FIBER INFORMATION				
<b>5</b>	<b>FIBER TYPE</b>			
<b>SINGLE-MODE</b>				
	HB = Single-Mode (ITU G.652 C & D) Low Water Peak			
	ES = Enhanced Single-Mode (ITU G.652 C & D)			
	CE = Corning™ SMF28e+ Single-Mode			
	B1 = Bend-Insensitive Single-Mode (ITU G.657.A1 & G.652.D)			
	B2 = Bend-Insensitive Single-Mode (ITU G.657.A2 & .B2, & G.652.D)			
	TU = TeraLight Ultra Single-Mode (ITU G.655 & G.656)			
	LE = LEAF NZDSF (ITU G.655)			
	<b>MULTIMODE</b>	<b>Wavelength (nm)</b>	<b>Bandwidth (MHz)</b>	<b>1 GbE Dist (m)</b>
	G6 = OM1 (62.5µm)	850/1300	200/500	300/550
	G5 = OM2+ BIF (50µm)	850/1300	700/500	800
	G3 = OM3 BIF (50µm)	850/1300	1500/500	1000
	G4 = OM4 BIF (50µm)	850/1300	3500/500	1100
<b>6</b>	<b>FIBER COUNT</b>			
	004 to 432 fibers			
<b>7</b>	<b>FIBER GRADE</b>			
<b>SINGLE-MODE</b>				
	<b>Attenuation (dB/km)</b>	<b>Wavelength (nm)</b>	<b>Fiber Type</b>	
	E1 = 0.40/0.40/0.30	1310/1383/1550	HB, ES, or CE	
	E3 = 0.35/0.35/0.25	1310/1383/1550	HB, ES, CE, B1, or B2	
	NA = 0.40/0.25	1310/1550	TeraLight Ultra SM	
	N1 = 0.25	1550	LEAF SM	
<b>MULTIMODE</b>				
	<b>Attenuation (dB/km)</b>	<b>Wavelength (nm)</b>	<b>Fiber Type</b>	
	M2 = 3.5/1.0	850/1300	OM1 (62.5µm)	
	M3 = 3.0/1.0	850/1300	OM2+, OM3, OM4 (50µm)	

Other cable constructions and fiber performance grades available on request.