

## Outdoor Telephone Cables

# PD-AP

A-2Y(L)2Y



### Application

- In underground cable ducts.
- Cables having 0.4 and 0.5 mm conductor diameter are used for distribution network.
- Cables having 0.6, 0.63, 0.65, 0.8 and 0.9 mm conductor diameter are used for long distance network.

### Cable Construction

- 1 - Conductor : Electrolytic annealed solid copper (CCITT Yellow Book Vol. III-2-G.541 B article, IEC 28 and ASTM B 3).
- 2 - Insulation : Color coded solid polyethylene (BS 6234 Type 03 - ASTM D 1248).
- 3 - Stranding : Star quads or pairs, each having special lay length to minimize the crosstalk and capacitance unbalance, are assembled into 10 pairs units. Groups having 25, 50 or 100 pairs are stranded together into cable core.
- 4 - Wrapping : A non-hygroscopic and dielectric polyester tape is applied on the cable core longitudinally or helically.
- 5 - Screen : Both sides are coated with copolymer coated flat aluminum tape over cable core longitudinally for screening.
- 6 - Outer Jacket: Linear low-density or medium-density, UV resistant black polyethylene outer jacket (ASTM D 1248).

### Notes

Reference Standard: TS EN 60708

## Technical Characteristics

	Conductor Diameter						
	0.40 mm	0.50 mm	0.60 mm	0.63 mm	0.65 mm	0.80 mm	0.90 mm
<b>Conductor Resistance <math>\Omega</math>/km (20 °C)</b>							
Maximum Average	139,4	89,4	62,1	58	57	35	27,6
Maximum Individual	146,6	93	64,6	60	58	37	28,8
<b>Insulation Resistance <math>M\Omega</math>/km (500 V DC)</b>	>10000	>10000	>15000	>15000	>15000	>15000	>15000
<b>Mutual Capacitance nF/km (800 Hz)</b>							
Maximum Average	50	50	45	45	45	45	45
Maximum Individual	56	56	51	51	51	51	51
<b>Capacitance Unbalance pF/500 m</b>							
<b>Between Pairs</b>							
Maximum Average	125	125	60	60	60	60	60
Maximum Individual	350	350	325	325	325	325	325
<b>Between Adjacent Quads</b>							
Maximum Average	125	125	60	60	60	60	60
Maximum Individual	275	275	270	270	270	270	270
<b>To Screen</b>							
Maximum Average	500	500	325	325	325	325	325
Maximum Individual	2000	2000	1300	1300	1300	1300	1300
<b>Dielectric Strength</b>							
<b>V (DC, 1 minute)</b>							
Pair - Pair	1400	1400	2000	2000	2000	2400	3000
Pair - Screen	1400	1400	2000	2000	2000	2400	3000

## PD-AP (Quad)

Part Number	Pair Count	Conductor Diameter (mm)	Approx. Cable Diameter (mm)	Copper Weight (kg/km)	Approx. Weight (kg/km)	Packing Lengths (m)
3.161.4.1.1.0040.0.0002	2	0.4	6.2	4.8	38	1000/2000
3.161.4.1.1.0040.0.0004	4	0.4	6.3	9.5	44	1000/2000
3.161.4.1.1.0040.0.0006	6	0.4	7.3	14.3	56	1000/2000
3.161.4.1.1.0040.0.0010	10	0.4	7.9	23.7	74	1000/2000
3.161.4.1.1.0040.0.0020	20	0.4	9.5	47.4	113	1000/2000
3.161.4.1.1.0040.0.0030	30	0.4	11.8	71.1	157	1200
3.161.4.1.1.0040.0.0040	40	0.4	12.6	94.8	192	1200
3.161.4.1.1.0040.0.0050	50	0.4	13.6	118.5	228	1200
3.161.4.1.1.0040.0.0070	70	0.4	14.9	165.9	296	1200
3.161.4.1.1.0040.0.0080	80	0.4	15.8	189.6	329	1200
3.161.4.1.1.0040.0.0100	100	0.4	17.4	241.6	404	1200
3.161.4.1.1.0040.0.0150	150	0.4	21.3	362.4	580	1000
3.161.4.1.1.0040.0.0200	200	0.4	23.3	483.2	744	1000
3.161.4.1.1.0040.0.0250	250	0.4	28.1	604	942	1000
3.161.4.1.1.0040.0.0300	300	0.4	28.1	724.8	1090	1000
3.161.4.1.1.0040.0.0350	350	0.4	28.9	845.5	1245	1000
3.161.4.1.1.0040.0.0400	400	0.4	31.1	966.3	1409	500
3.161.4.1.1.0040.0.0500	500	0.4	35.2	1207.9	1739	500
3.161.4.1.1.0040.0.0600	600	0.4	38.3	1449.5	2080	500
3.161.4.1.1.0040.0.0700	700	0.4	40.2	1691	2400	400
3.161.4.1.1.0040.0.0800	800	0.4	42.8	1932.6	2728	400
3.161.4.1.1.0040.0.0900	900	0.4	46.5	2174.2	3055	400
3.161.4.1.1.0040.0.1000	1000	0.4	49.1	2415.8	3400	400
3.161.4.1.1.0040.0.1200	1200	0.4	52.6	2898.9	4038	300
3.161.4.1.1.0040.0.1500	1500	0.4	59.4	3623.6	5053	300
3.161.4.1.1.0040.0.1600	1600	0.4	69.3	3865.2	5475	250
3.161.4.1.1.0040.0.1800	1800	0.4	65.2	4348.3	6017	250
3.161.4.1.1.0040.0.2100	2100	0.4	69.3	5073	6951	250
3.161.4.1.1.0040.0.2400	2400	0.4	72	5797.8	7869	250
Part Number	Pair Count	Conductor Diameter (mm)	Approx. Cable Diameter (mm)	Copper Weight (kg/km)	Approx. Weight (kg/km)	Packing Lengths (m)
3.161.4.1.1.0050.0.0002	2	0.5	6.6	7.5	44	1000/2000
3.161.4.1.1.0050.0.0004	4	0.5	6.7	14.9	53	1000/2000
3.161.4.1.1.0050.0.0006	6	0.5	7.9	22.3	68	1000/2000
3.161.4.1.1.0050.0.0010	10	0.5	8.5	37.1	92	1000/2000
3.161.4.1.1.0050.0.0020	20	0.5	10.4	74.1	149	1200
3.161.4.1.1.0050.0.0030	30	0.5	13.1	111.1	209	1200
3.161.4.1.1.0050.0.0040	40	0.5	14.1	148.1	261	1200
3.161.4.1.1.0050.0.0050	50	0.5	15.2	185.2	313	1200
3.161.4.1.1.0050.0.0070	70	0.5	16.8	259.2	411	1200
3.161.4.1.1.0050.0.0080	80	0.5	19.5	296.2	474	1200
3.161.4.1.1.0050.0.0100	100	0.5	19.8	377.5	571	1200
3.161.4.1.1.0050.0.0150	150	0.5	24.3	566.2	827	1000
3.161.4.1.1.0050.0.0200	200	0.5	26.7	755	1067	1000
3.161.4.1.1.0050.0.0250	250	0.5	29.6	943.7	1330	1000
3.161.4.1.1.0050.0.0300	300	0.5	32.2	1132.4	1574	500
3.161.4.1.1.0050.0.0350	350	0.5	35.5	1321.1	1822	500
3.161.4.1.1.0050.0.0400	400	0.5	35.8	1509.9	2047	500

## PD-AP (Quad)

Part Number	Pair Count	Conductor Diameter (mm)	Approx. Cable Diameter (mm)	Copper Weight (kg/km)	Approx. Weight (kg/km)	Packing Lengths (m)
3.161.4.1.1.0050.0.0500	500	0.5	40.6	1887.3	2532	400
3.161.4.1.1.0050.0.0600	600	0.5	44.2	2264.8	3029	400
3.161.4.1.1.0050.0.0700	700	0.5	46.4	2642.2	3503	400
3.161.4.1.1.0050.0.0800	800	0.5	49.5	3019.7	3990	400
3.161.4.1.1.0050.0.0900	900	0.5	53.7	3397.1	4474	300
3.161.4.1.1.0050.0.1000	1000	0.5	56.7	3774.6	4977	300
3.161.4.1.1.0050.0.1200	1200	0.5	60.8	4529.5	5922	300
3.161.4.1.1.0050.0.1500	1500	0.5	68.8	5661.9	7411	250
3.161.4.1.1.0050.0.1600	1600	0.5	70.7	6039.3	7895	250
3.161.4.1.1.0050.0.1800	1800	0.5	75.5	6794.2	8842	250
Part Number	Pair Count	Conductor Diameter (mm)	Approx. Cable Diameter (mm)	Copper Weight (kg/km)	Approx. Weight (kg/km)	Packing Lengths (m)
3.161.4.1.1.0060.0.0002	2	0.6	7.3	10.7	52	1000/2000
3.161.4.1.1.0060.0.0004	4	0.6	7.5	21.4	66	1000/2000
3.161.4.1.1.0060.0.0006	6	0.6	9	32	89	1000/2000
3.161.4.1.1.0060.0.0010	10	0.6	9.7	53.4	122	1000/2000
3.161.4.1.1.0060.0.0020	20	0.6	12.1	106.7	204	1200
3.161.4.1.1.0060.0.0030	30	0.6	15.6	160	293	1200
3.161.4.1.1.0060.0.0040	40	0.6	16.9	213.3	368	1200
3.161.4.1.1.0060.0.0050	50	0.6	18.4	266.6	442	1200
3.161.4.1.1.0060.0.0070	70	0.6	20.4	373.2	587	1000
3.161.4.1.1.0060.0.0100	100	0.6	24.2	543.6	820	1000
3.161.4.1.1.0060.0.0150	150	0.6	30	815.4	1201.7	1000
3.161.4.1.1.0060.0.0200	200	0.6	33.1	1087.1	1556	500
3.161.4.1.1.0060.0.0250	250	0.6	36.8	1358.9	1943	500
3.161.4.1.1.0060.0.0300	300	0.6	40	1630.7	2302	500
3.161.4.1.1.0060.0.0350	350	0.6	41.5	1902.4	2647	400
3.161.4.1.1.0060.0.0400	400	0.6	44.7	2174.2	3006	400
3.161.4.1.1.0060.0.0500	500	0.6	50.9	2717.7	3725	300
3.161.4.1.1.0060.0.0600	600	0.6	55.5	3261.3	4456	300
3.161.4.1.1.0060.0.0700	700	0.6	58.2	3804.8	5163	300
3.161.4.1.1.0060.0.0900	900	0.6	67.7	4891.9	6599	250
3.161.4.1.1.0060.0.1000	1000	0.6	71.5	5435.4	7338	250
3.161.4.1.1.0060.0.1200	1200	0.6	76.8	6522.5	8743	250

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Part Number	Pair Count	Conductor Diameter (mm)	Approx. Cable Diameter (mm)	Copper Weight (kg/km)	Approx. Weight (kg/km)	Packing Lengths (m)
3.161.4.1.1.0080.0.0002	2	0.8	8.5	19	70	1000/2000
3.161.4.1.1.0080.0.0004	4	0.8	8.6	38	94	1000/2000
3.161.4.1.1.0080.0.0006	6	0.8	10.7	56.9	130	1200
3.161.4.1.1.0080.0.0010	10	0.8	11.5	94.8	187	1200
3.161.4.1.1.0080.0.0020	20	0.8	14.9	189.6	329	1200
3.161.4.1.1.0080.0.0030	30	0.8	19.5	284.4	475	1200
3.161.4.1.1.0080.0.0040	40	0.8	21.4	379.2	607	1000
3.161.4.1.1.0080.0.0050	50	0.8	23.4	473.9	737	1000
3.161.4.1.1.0080.0.0070	70	0.8	26.2	663.5	992	1000
3.161.4.1.1.0080.0.0100	100	0.8	31.4	966.3	1403	500
3.161.4.1.1.0080.0.0150	150	0.8	39.2	1449.5	2065	500
3.161.4.1.1.0080.0.0200	200	0.8	43.4	1932.6	2692	400
3.161.4.1.1.0080.0.0300	300	0.8	52.6	2898.9	3999	300
3.161.4.1.1.0080.0.0400	400	0.8	59.1	3865.2	5249	300
3.161.4.1.1.0080.0.0500	500	0.8	67.5	4831.5	6517	250
3.161.4.1.1.0080.0.0600	600	0.8	73.6	5797.8	7807	250
Part Number	Pair Count	Conductor Diameter (mm)	Approx. Cable Diameter (mm)	Copper Weight (kg/km)	Approx. Weight (kg/km)	Packing Lengths (m)
3.161.4.1.1.0090.0.0002	2	0.9	8.9	24	79	1000/2000
3.161.4.1.1.0090.0.0004	4	0.9	9.1	48	109	1000/2000
3.161.4.1.1.0090.0.0006	6	0.9	11.4	72	152	1200
3.161.4.1.1.0090.0.0010	10	0.9	12.2	120	220	1200
3.161.4.1.1.0090.0.0020	20	0.9	15.9	240	392	1200
3.161.4.1.1.0090.0.0030	30	0.9	21	359.9	573	1000
3.161.4.1.1.0090.0.0040	40	0.9	23	479.9	735	1000
3.161.4.1.1.0090.0.0050	50	0.9	25.3	599.8	896	1000
3.161.4.1.1.0090.0.0070	70	0.9	28.3	839.7	1210	1000
3.161.4.1.1.0090.0.0100	100	0.9	34.1	1223	1719	500
3.161.4.1.1.0090.0.0150	150	0.9	42.7	1834.5	2536	400
3.161.4.1.1.0090.0.0200	200	0.9	47.3	2446	3317	400
3.161.4.1.1.0090.0.0300	300	0.9	57.4	3668.9	4930	300
3.161.4.1.1.0090.0.0400	400	0.9	64.4	4891.9	6481	300
3.161.4.1.1.0090.0.0500	500	0.9	73.7	6114.8	8056	250
3.161.4.1.1.0090.0.0600	600	0.9	80.4	7337.8	9650	200

## PD-AP (Pair)

Part Number	Pair Count	Conductor Diameter (mm)	Approx. Cable Diameter (mm)	Copper Weight (kg/km)	Approx. Weight (kg/km)	Packing Lengths (m)
3.163.1.1.1.0040.0.0002	2	0.4	6	4.8	37	1000/2000
3.163.1.1.1.0040.0.0004	4	0.4	7	9.5	49	1000/2000
3.163.1.1.1.0040.0.0006	6	0.4	7.9	14.3	61	1000/2000
3.163.1.1.1.0040.0.0010	10	0.4	8.6	23.7	79	1000/2000
3.163.1.1.1.0040.0.0020	20	0.4	10.5	47.4	125	1200
3.163.1.1.1.0040.0.0030	30	0.4	12.9	71.1	172	1200
3.163.1.1.1.0040.0.0040	40	0.4	13.9	94.8	211	1200
3.163.1.1.1.0040.0.0050	50	0.4	15.1	118.5	251	1200
3.163.1.1.1.0040.0.0070	70	0.4	16.6	165.9	322	1200
3.163.1.1.1.0040.0.0100	100	0.4	19.5	241.6	445	1200
3.163.1.1.1.0040.0.0150	150	0.4	24	362.4	637	1000
3.163.1.1.1.0040.0.0200	200	0.4	26.5	483.2	819	1000
Part Number	Pair Count	Conductor Diameter (mm)	Approx. Cable Diameter (mm)	Copper Weight (kg/km)	Approx. Weight (kg/km)	Packing Lengths (m)
3.163.1.1.1.0050.0.0002	2	0.5	6.5	7.5	43	1000/2000
3.163.1.1.1.0050.0.0004	4	0.5	7.6	14.9	59	1000/2000
3.163.1.1.1.0050.0.0006	6	0.5	8.7	22.3	76	1000/2000
3.163.1.1.1.0050.0.0010	10	0.5	9.5	37.1	103	1000/2000
3.163.1.1.1.0050.0.0020	20	0.5	11.8	74.1	167	1200
3.163.1.1.1.0050.0.0030	30	0.5	14.8	111.1	234	1200
3.163.1.1.1.0050.0.0040	40	0.5	16	148.1	291	1200
3.163.1.1.1.0050.0.0050	50	0.5	17.4	185.2	348	1200
3.163.1.1.1.0050.0.0070	70	0.5	15.2	259.2	431	1200
3.163.1.1.1.0050.0.0100	100	0.5	22.8	377.5	633	1000
3.163.1.1.1.0050.0.0150	150	0.5	28.2	566.2	923	1000
3.163.1.1.1.0050.0.0200	200	0.5	31.3	755	1194	500
Part Number	Pair Count	Conductor Diameter (mm)	Approx. Cable Diameter (mm)	Copper Weight (kg/km)	Approx. Weight (kg/km)	Packing Lengths (m)
3.163.1.1.1.0060.0.0002	2	0.6	7.4	10.7	54	1000/2000
3.163.1.1.1.0060.0.0004	4	0.6	8.9	21.4	80	1000/2000
3.163.1.1.1.0060.0.0006	6	0.6	10.6	32	104	1200
3.163.1.1.1.0060.0.0010	10	0.6	11.4	53.4	145	1200
3.163.1.1.1.0060.0.0020	20	0.6	14.7	106.7	244	1200
3.163.1.1.1.0060.0.0030	30	0.6	18.8	160	350	1200
3.163.1.1.1.0060.0.0040	40	0.6	20.6	213.3	438	1000
3.163.1.1.1.0060.0.0050	50	0.6	22.5	266.6	528	1000
3.163.1.1.1.0060.0.0070	70	0.6	25.1	373.2	701	1000
3.163.1.1.1.0060.0.0080	80	0.6	26.9	426.6	804	1000
3.163.1.1.1.0060.0.0100	100	0.6	30.5	543.6	999	500
3.163.1.1.1.0060.0.0150	150	0.6	38.2	815.4	1465	500
3.163.1.1.1.0060.0.0200	200	0.6	42.2	1087.1	1892	400

## PD-AP (Pair)

Part Number	Pair Count	Conductor Diameter (mm)	Approx. Cable Diameter (mm)	Copper Weight (kg/km)	Approx. Weight (kg/km)	Packing Lengths (m)
3.163.1.1.1.0063.0.0002	2	0.63	7.6	11.8	58	1000/2000
3.163.1.1.1.0063.0.0004	4	0.63	9.3	23.6	85	1000/2000
3.163.1.1.1.0063.0.0006	6	0.63	11	35.3	113	1200
3.163.1.1.1.0063.0.0010	10	0.63	11.9	58.8	158	1200
3.163.1.1.1.0063.0.0020	20	0.63	15.4	117.6	269	1200
3.163.1.1.1.0063.0.0030	30	0.63	19.9	176.4	386	1200
3.163.1.1.1.0063.0.0040	40	0.63	21.7	235.2	484	1000
3.163.1.1.1.0063.0.0050	50	0.63	23.8	293.9	584	1000
3.163.1.1.1.0063.0.0070	70	0.63	26.6	411.5	777	1000
3.163.1.1.1.0063.0.0100	100	0.63	32.4	599.3	1107	500
3.163.1.1.1.0063.0.0150	150	0.63	40.5	898.9	1628	400
3.163.1.1.1.0063.0.0200	200	0.63	45	1198.5	2113	400
Part Number	Pair Count	Conductor Diameter (mm)	Approx. Cable Diameter (mm)	Copper Weight (kg/km)	Approx. Weight (kg/km)	Packing Lengths (m)
3.163.1.1.1.0065.0.0002	2	0.65	7.8	12.6	61	1000/2000
3.163.1.1.1.0065.0.0004	4	0.65	9.6	25.1	90	1000/2000
3.163.1.1.1.0065.0.0006	6	0.65	11.5	37.6	121	1200
3.163.1.1.1.0065.0.0010	10	0.65	12.4	62.6	169	1200
3.163.1.1.1.0065.0.0020	20	0.65	16.2	125.2	289	1200
3.163.1.1.1.0065.0.0030	30	0.65	20.9	187.8	415	1000
3.163.1.1.1.0065.0.0040	40	0.65	22.9	250.3	522	1000
3.163.1.1.1.0065.0.0050	50	0.65	25.1	312.9	634	1000
3.163.1.1.1.0065.0.0070	70	0.65	28.9	438	848	1000
3.163.1.1.1.0065.0.0100	100	0.65	35.2	637.9	1208	500
3.163.1.1.1.0065.0.0150	150	0.65	42.9	956.9	1770	400
3.163.1.1.1.0065.0.0200	200	0.65	47.6	1275.8	2302	400

## PD-AP (Pair)

Part Number	Pair Count	Conductor Diameter (mm)	Approx. Cable Diameter (mm)	Copper Weight (kg/km)	Approx. Weight (kg/km)	Packing Lengths (m)
3.163.1.1.1.0080.0.0002	2	0.8	8.3	19	72	1000/2000
3.163.1.1.1.0080.0.0004	4	0.8	10.3	38	110	1200
3.163.1.1.1.0080.0.0006	6	0.8	12.4	56.9	150	1200
3.163.1.1.1.0080.0.0010	10	0.8	13.4	94.8	213	1200
3.163.1.1.1.0080.0.0020	20	0.8	17.6	189.6	376	1200
3.163.1.1.1.0080.0.0030	30	0.8	22.9	284.4	544	1000
3.163.1.1.1.0080.0.0040	40	0.8	25.1	379.2	694	1000
3.163.1.1.1.0080.0.0050	50	0.8	27.6	473.9	842	1000
3.163.1.1.1.0080.0.0070	70	0.8	31	663.5	1131	500
3.163.1.1.1.0080.0.0100	100	0.8	37.8	966.3	1622	500
3.163.1.1.1.0080.0.0150	150	0.8	47.6	1449.5	2396	400
Part Number	Pair Count	Conductor Diameter (mm)	Approx. Cable Diameter (mm)	Copper Weight (kg/km)	Approx. Weight (kg/km)	Packing Lengths (m)
3.163.1.1.1.0090.0.0002	2	0.9	8.5	24	78	1000/2000
3.163.1.1.1.0090.0.0004	4	0.9	10.6	48	123	1200
3.163.1.1.1.0090.0.0006	6	0.9	12.9	72	168	1200
3.163.1.1.1.0090.0.0010	10	0.9	13.9	120	244	1200
3.163.1.1.1.0090.0.0020	20	0.9	18.3	240	435	1200
3.163.1.1.1.0090.0.0030	30	0.9	23.9	359.9	634	1000
3.163.1.1.1.0090.0.0040	40	0.9	26.3	479.9	813	1000
3.163.1.1.1.0090.0.0050	50	0.9	29.3	599.8	1006	1000
3.163.1.1.1.0090.0.0070	70	0.9	32.7	839.7	1344	500
3.163.1.1.1.0090.0.0100	100	0.9	40.3	1223	1954	400