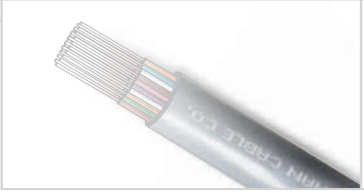
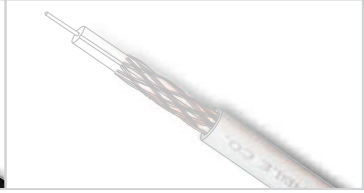
کابلهای مخابراتی و کواکسیال

Telecommunication & Coaxial Cables

4

CONTENTS





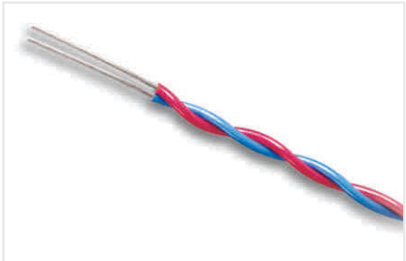
Jumper Wire (Y)

- **Operating Voltage:** 600 v
- **Applicable Standard:** VDE 0815 & 812
- **Construction :**
  Solid plain (or tinned) anneald copper wire
  PVC insulation type YI 1
- **Min. Insulation Resistance at 20°c :** 20 Mohm.Km
- **Application:**
  Single core for use in small aparatus , switching and intercom system and for data transmission

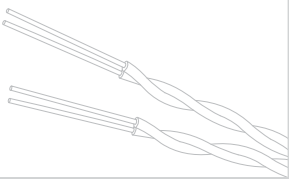
No. of wires conductor /core dia.	Insulation Thickness	SheathThickness	Overall Dia. (Approx.)	Total Weight (Approx.)
	mm	mm	kg/km	ohms/km
1x0.6/1.4	0.4	1.4	4.2	65
2x0.6/1.4	0.4	2.8	8.5	
3x0.6/1.4	0.4	3.0	12.8	
4x0.6/1.4	0.4	3.4	17.0	
1x0.8/1.6	0.4	1.6	6.5	36.6
2x0.8/1.6	0.4	3.2	13.2	
3x0.8/1.6	0.4	3.4	19.9	
4x0.8/1.6	0.4	3.9	26.5	

Jumper Wire (YV)

- **Operating Voltage:** 500V for 0.9 core Dia.
  900V for 1.1 to 2.2 core Dia.
  1500V for 2.8 core Dia.
- **Applicable Standard:** VDE 0812 & 815
- **Construction :**
  Solid tinned annealed copper wire
  PVC insulation type YI 3
- **Application:**
  For use in telephone wiring and signal installation inpremises



No. of wires conductor /core dia.	Insulation Thickness	SheathThickness	Overall Dia. (Approx.)	Total Weight (Approx.)
	mm	mm	kg/km	ohms/km
1x0.5/09	0.2	0.9	2.5	92.2
2x0.5/09	0.2	1.8	5.0	95.0
3x0.5/09	0.2	2.0	7.5	95.0
4x0.5/09	0.2	2.2	10	95.0
1x0.5/1.1	0.3	1.1	3.0	92.2
2x0.5/1.1	0.3	2.2	6.0	95.0
1x0.6/1.1	0.25	1.1	3.7	64.0
2x0.6/1.1	0.25	2.2	7.5	66.0
3x0.6/1.1	0.25	2.4	11.0	66.0
4x0.6/1.1	0.25	2.7	15.0	66.0
1x0.6/1.4	0.4	1.4	4.5	65.0
2x0.6/1.4	0.4	2.8	9.0	66.0
3x0.6/1.4	0.4	3.0	13.5	66.0
4x0.6/1.4	0.4	3.4	18.0	66.0
5x0.6/1.4	0.4	3.8	23.0	66.0
1x0.8/1.4	0.3	1.4	6.0	36.0
2x0.8/1.4	0.3	2.8	12.0	36.7
1x1.0/1.8	0.4	1.8	10.0	22.8
2x1.0/1.8	0.4	3.6	20.0	23.3
1x1.4/2.2	0.4	2.2	17.5	11.6
1x1.8/2.8	0.5	2.8	28.0	7.1



Telephone Cables A2Y (ST) 2Y

Similar to VDE 0816 & IEC 60708

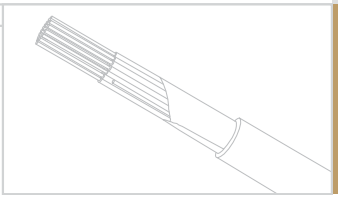
Construction :
Solid plain (or tinned) annealed copper conductor
HDPE insulation type III ASTM D 1248
Static Screen : polyster tape + drain wire + AL polyester
LDPE black sheath type I ASTM D1248
Galvanized steel wire (if required)
Outer sheath: PE black

Application:
For use in outdoor telecommunication installation in dry and damp places, but also in internal network open under ground where better mechanical protection is required we offer armoured with galvanizied steel wire .

No. of Pairs	Conductor dia.	Overall Dia. (Approx.)	Total Weight (Approx.)	Approx. Cable Weight
	mm	mm	mm	kg/km
2	0.4	1.0	4.8	22
4	0.4	1.0	5.5	28
6	0.4	1.0	6.1	36
8	0.4	1.0	6.4	40
10	0.4	1.0	7.8	53
20	0.4	1.2	8.4	89
30	0.4	1.4	11.4	129
40	0.4	1.4	11.5	158
50	0.4	1.4	13.4	191
100	0.4	1.8	18.6	377
2	0.5	1.0	5.8	30
4	0.5	1.0	6.5	39
6	0.5	1.0	7.5	50
8	0.5	1.0	7.9	63
10	0.5	1.0	9.1	74
20	0.5	1.2	11.3	135
30	0.5	1.4	14.2	202
40	0.5	1.4	15.8	258
50	0.5	1.4	16.5	302
100	0.5	1.8	24.2	580
2	0.6	1.0	6.4	34
4	0.6	1.0	6.6	46
6	0.6	1.0	8.1	63
8	0.6	1.0	8.7	80
10	0.6	1.0	9.4	100
20	0.6	1.2	11.9	176
30	0.6	1.4	14.25	258
40	0.6	1.4	15.8	327
50	0.6	1.4	17.8	400
100	0.6	1.8	28.8	783

Electrical Details	0.4	0.5	0.6	0.8	0.9	
Conductor resistance (Max.av.)	144	92.1	63.9	35.3	28	ohm/km
Insulation resistance (Min.)	5000	5000	5000	5000	5000	Mohm.km
Mutual capacitance (Max.av)	56	56	56	56	59	pF/m
Capacitance unbalance(Max.av)	150	150	150	150	150	pF/500m
Test voltage core-core (at 1min.)	500	500	500	500	500	V D.C
Core-screen (at 1 min.)	1500	1500	1500	2250	2250	V D.C

Number of cores upon request
Conductor size 0.8 & 0.9mm upon request
Detail cable construction upon request



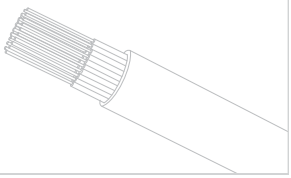
Telephone Cables JYY

Applicable Standard: VDE 0815 & 189

Construction :
Solid plain (or tinned) annealed copper conductor
PVC insulation type YJ 1
PVC sheath type YM 1

Application:
Used in telephone and signal transmission, suitable for installation in dry & damp indoor enviroment.
Laying under ground is not permissible

No. of Pairs	Conductor dia.	Insulation Thickness	Sheath Thickness	Overall Dia. (Approx.)	Total Weight (Approx.)
	mm	mm	mm	mm	kg/km
2	0.5	0.2	0.8	4.8	23
4	0.5	0.2	0.8	6.1	37
6	0.5	0.2	1.0	7.4	55
10	0.5	0.2	1.0	7.7	75
20	0.5	0.2	1.0	9.9	134
30	0.5	0.2	1.2	12.0	196
40	0.5	0.2	1.2	13.5	252
50	0.5	0.2	1.2	14.8	313
60	0.5	0.2	1.4	16.3	378
80	0.5	0.2	1.4	18.5	486
100	0.5	0.2	1.4	20.5	598



Telephone Cables JY-(ST) Y

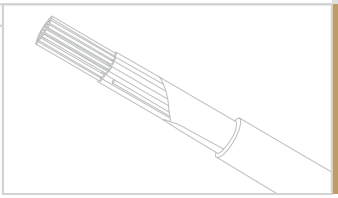
Applicable Standard: IEC 0189

Construction :
Solid plain (or tinned) annealed copper conductor
PVC insulation type YJ 1
Static screen : polyster tape + drain wire + AL polyester tape
PVC sheath type YM 1

Application:
For use in indoor telecommunication installation in dry and damp places, but also in the for fixed installation on outer wall of building. laying under ground is not permissible .

No. of Pairs	Conductor dia.	Insulation Thickness	Sheath Thickness	Overall Dia. (Approx.)	Total Weight (Approx.)
	mm	mm	mm	mm	kg/km
2	0.5	0.2	0.6	5.2	28
4	0.5	0.2	0.7	6.1	41
6	0.5	0.2	0.7	6.8	52
8	0.5	0.2	0.7	7.1	62
10	0.5	0.2	0.7	8.2	83
20	0.5	0.2	1.0	9.9	134
30	0.5	0.2	1.2	12	196
40	0.5	0.2	1.2	13.4	252
50	0.5	0.2	1.2	14.8	313
100	0.5	0.2	1.6	23	700
2	0.6	0.2	0.7	5.6	34
4	0.6	0.2	0.7	6.5	50
6	0.6	0.2	0.7	7.4	68
8	0.6	0.2	0.7	7.9	82
10	0.6	0.2	0.7	8.9	103
20	0.6	0.2	1.0	11.3	193
30	0.6	0.2	10	13.3	271
40	0.6	0.2	1.2	15.8	342
50	0.6	0.2	1.2	17.6	423
100	0.6	0.2	1.6	25.0	850

Electrical Details	0.5	0.6	
Conductor Resistance (Max)	96.5	67	ohm/km
Insulation Resistance (Max)	500	500	mohm.km
Mutual Capacitance (Max)	120	120	pF/m
Capacitance Unbalance (Max)	400	400	pF/500m
Test Voltage (at 1 min.)	1500	1500	V D.C



Self Supporting

Applicable Standard: IEC 708

Construction :
Solid plain annealed conductor
PE Type III ASTM-D 1248
Two insulated conductor twisted togethor
Pairs in 25 pair units system
Pairs (or units) laid-up together to form a cable core &
25 pair units is distinguished by colour binders.
A polyester tape and aluminium-polyester tape with drain wire form overall screen
Aluminium tape (0.2 mm) coated with a copolymer (only for moisture barrier cable)
High tensile 7-strand steel wires as messenger for Aerial Self-Support cable
PE Type I ASTM-D 1248

Application:
Aerial (unfilled) Self-Support cables with integral suspension strand suitable for aerial installation and they are used for transmission of signals in external networks .

No. of Pairs	Conductor dia.	Support No. & dia.	Sheath Thickness	Overall Dia. (Approx.)	Total Weight (Approx.)
	mm	mm	mm	mm	kg/km
10	0.4	7 x 0.9	1.4	16.3 x 9.1	140
15	0.4	7 x 0.9	1.4	17.4 x 8.9	151
20	0.4	7 x 0.9	1.4	18.3 x 10.3	190
30	0.4	7 x 0.9	1.4	19.8 x 12.1	210
40	0.4	7 x 0.9	1.4	21.0 x 12.8	250
50	0.4	7 x 0.9	1.4	22.3 x 14	307
60	0.4	7 x 0.9	1.4	23.3 x 14.8	310
70	0.4	7 x 1.2	1.4	25.1 x 15.8	391

NOTE : CONDUCTOR SIZE : 0.4, 0.6 , 0.8

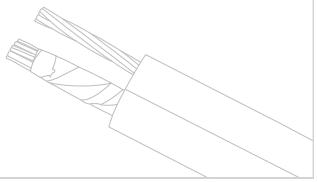
Interphone Cables

Construction :
Solid Plain Annealed Copper Conductor 0.5 mm
Earth wire of bare copper wire (optional)
PVC Insulation Type TI 1 BS 6746
PVC Sheath Type TM 1 or Type 6 BS 6746

Application:
These cables are used for internal wiring for interphone systems in buildings .

No. of Cores	Conductor dia.	Insulation Thickness	Sheath Thickness	Overall Dia. (Approx.)	Total Weight (Approx.)
	mm	mm	mm	mm	kg/km
2	0.5	0.2	0.6	3.1	13.5
4	0.5	0.2	0.6	3.95	21.4
6	0.5	0.2	0.6	4.5	26
8	0.5	0.2	0.6	5	32
10	0.5	0.2	0.6	5.4	39
12	0.5	0.2	0.6	5.75	44

Electrical Details	0.5	
DC Resistance (Max.)	95	Ohms/km
Insulation Resistance (Min.)	50	Mohms.km @20° C
Test voltage	1500	Vrms Spark Test



High Frequency Coaxial Cables

Construction :
Inner Conductor :Plain Annealed Copper Conductor
Dielectric : Polyethylene
Shield : Plain or Tinned annealed Copper
Sheath : PVC

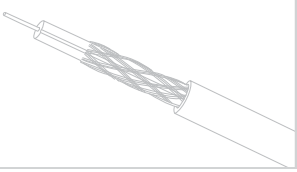
Application:
Radio Frequency Cables (RFC) are manufactured for application in high quality communication apparatus as well as leading wire for high frequency measuring instruments, TV down leads and localized transmitter-reciever units. Generally intended for military and civil application.

According to JIS C-3501

Type	Conductor No. & Diameter of Wires	Diameter Over Insulation	Sheath Thickness	Overall Dia. (Approx.)	Total Weight (Approx.)	Attenuation @ 10 MHz
	mm	mm	mm	mm	kg/km	db/km
75 Ohms Coaxial Cables						
2.5C-2V	1x0.4	2.4	0.5	4	17	45
3C-2V	1x0.5	3.1	0.8	5.4	41	42
3C-2W	1x0.5	3.1	1	6.5	68	40
3C-2T	1x0.5	3.1	1	7.4	1.3	40
5C-2V	1x0.8	4.9	0.9	7.4	71	27
5C-2W	1x0.8	4.9	1	8.3	102	27
7C-2V	7x0.4	7.3	1.1	10.4	141	22
50 Ohms Coaxial Cables						
2.5D-2V	1x0.8	2.7	0.5	4.4	33	85
3D-2V	7x0.32	3.2	0.8	5.4	31	47
3D-2W	7x0.32	3.2	1	5.6	36	47
5D-2V	1x1.4	4.8	0.9	7.3	78	27
5D-2W	1x1.4	4.8	0.9	8	106	27
8D-2V	7x0.8	7.8	1.2	11.1	178	20
8D-2W	7x0.8	7.8	1.4	12.4	245	20

According to MIL-C-17

Type	Conductor No. & Diameter of Wires	Diameter Over Insulation	Sheath Thickness	Overall Dia. (Approx.)	Total Weight (Approx.)	Attenuation @ 10 MHz	Impedance
	mm	mm	mm	mm	kg/km	db/km	Ohms
RG-11	7x0.4	7.3	1	10.2	136	7	75
RG-58	19x0.18	2.96	0.72	4.95	36	17	50
RG-59	1x0.58	3.7	0.86	6.1	46	12	75
RG-62	1x0.8	3.71	0.8	6	47	10.5	93
RG-213	7x0.75	7.25	1.3	13	162	7	50
RG-216	7x0.4	5	1.3	11	187	7	75



Note: