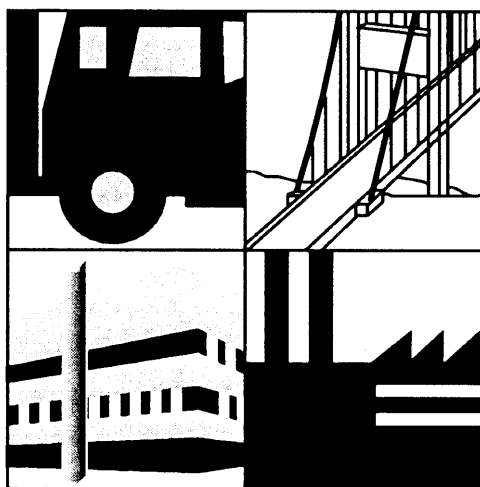


YY

TYPES

433 767 etc

CONTROL CABLES



ALCATEL

CABLENET

CONTROL CABLES

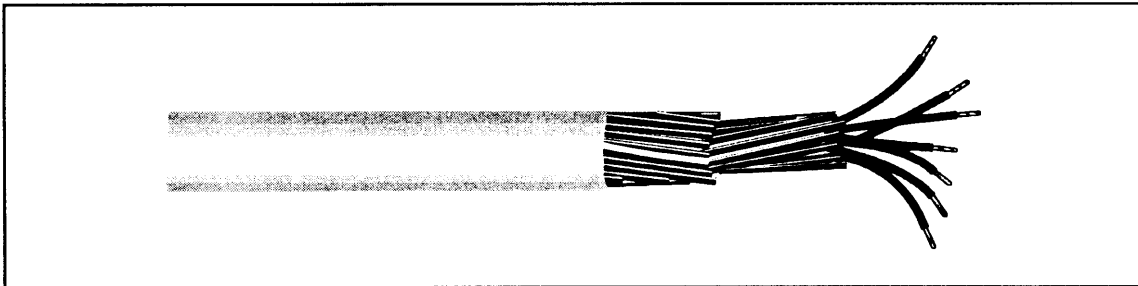
Introduction

Alcatel Cablenet manufactures a comprehensive range of control cables for use in power, control, signal and data processing applications within machine tool, food processing, construction, power stations, heating and air conditioning - and other industrial - sectors.

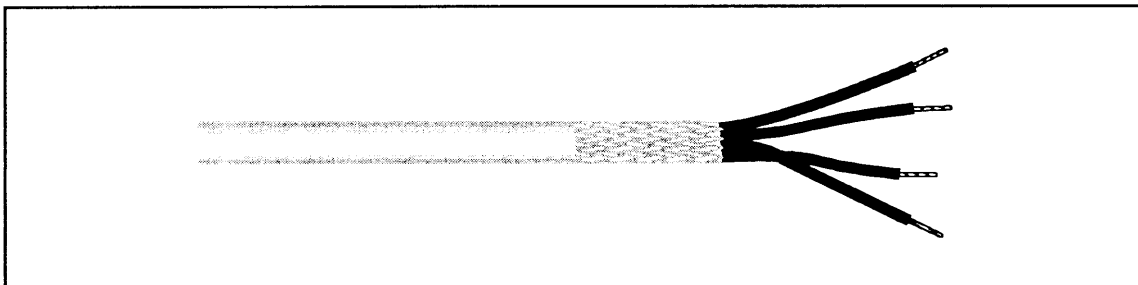
The cables are manufactured using flexible copper conductors and are insulated and sheathed with specially formulated PVC compounds which are resistant to most oils and inorganic compounds.

Alcatel Cablenet - a wholly-owned subsidiary of Alcatel Cable, the world's largest cable company - is located on a seven-acre site in Abbey Wood, south east London.

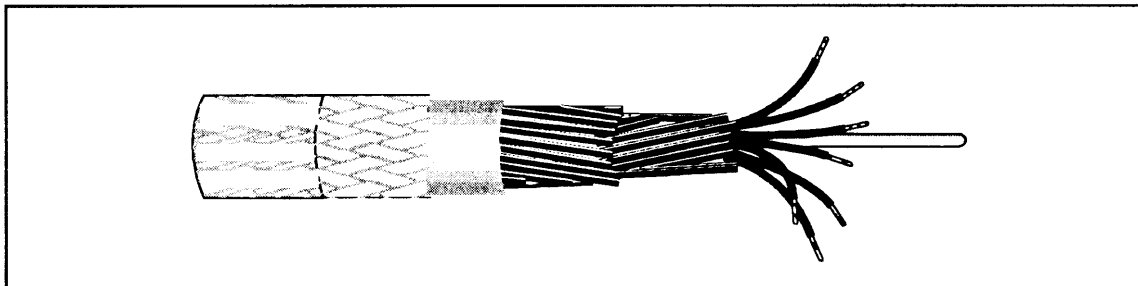
Cable Construction



Multicore YY types PVC/PVC: Multicore YY cables feature PVC cores, black insulation and are numbered in white for easy identification. All cables include a green/yellow earth wire and an overall grey PVC sheath.



Multicore CY types PVC/PVC/TCWB/PVC: CY types also have PVC cores, are insulated in black and are numbered in white for easy identification. All cables include a green/yellow earth wire. Inner PVC sheath tinned copper wire braid, and an overall PVC sheath.



Multicore SY Types PVC/PVC/TSWB/PVC: Construction of the SY is as above but with a tinned steel wire braid and an overall transparent PVC sheath. SY types are suitable for most hostile environments, the steel wire braid provides a high degree of mechanical protection, partial screening and flexibility, and it also allows easy soldering. The cables are manufactured generally to VDE specifications and can be made - to special order - with colour coded cores.

CONTROL CABLES

YY Types PVC/PVC 300/500V working - 3000V test

Temperature range flexing - 5° C to + 80° C

Temperature range static - 20° C to + 80° C

Minimum bending radius 15 times diameter of cable

Conductors plain annealed copper wire

Cable has numbered black cores as standard: colour coded* to order



Cablenet Part No numbered	Cablenet Part No col/coded	CSA mm ²	Conductor size mm	Number of cores	Nom o/d mm	Weight Kg/Km
1352	1402	0.5	16/0.20	2	5.4	40
1353	1403	0.5	16/0.20	3	5.9	47
1354	1404	0.5	16/0.20	4	6.4	57
1355	1405	0.5	16/0.20	5	7.0	66
1357	1407	0.5	16/0.20	7	7.6	90
1358	1408	0.5	16/0.20	8	8.3	96
1362	1412	0.5	16/0.20	12	9.9	133
1368	1418	0.5	16/0.20	18	12.0	197
1375	1425	0.5	16/0.20	25	14.0	270
1379	1434	0.5	16/0.20	34	16.1	369
1382	1432	0.5	16/0.20	42	17.5	429
1393	1433	0.5	16/0.20	50	19.3	525
1384	1434	0.5	16/0.20	61	20.8	614
1385	1435	0.5	16/0.20	80	23.4	787
1386	1436	0.5	16/0.20	100	26.5	980
1002	1052	0.75	24/0.20	2	6.0	48
1003	1053	0.75	24/0.20	3	6.4	57
1004	1054	0.75	24/0.20	4	6.9	70
1005	1055	0.75	24/0.20	5	7.8	86
1007	1057	0.75	24/0.20	7	8.8	117
1008	1058	0.75	24/0.20	8	9.4	134
1012	1062	0.75	24/0.20	12	11.5	190
1018	1068	0.75	24/0.20	18	13.0	270
1025	1075	0.75	24/0.20	25	16.0	374
1029	1079	0.75	24/0.20	34	18.5	500
1032	1082	0.75	24/0.20	41	19.1	590
1033	1083	0.75	24/0.20	42	20.5	595
1034	1084	0.75	24/0.20	50	21.5	695
1035	1085	0.75	24/0.20	61	22.8	818
1036	1086	0.75	24/0.20	65	24.0	880
1037	1087	0.75	24/0.20	80	26.5	1040
1038	1088	0.75	24/0.20	100	29.0	1335
1102	1152	1	32/0.20	2	6.5	59
1103	1153	1	32/0.20	3	7.0	65
1104	1154	1	32/0.20	4	8.0	84
1105	1155	1	32/0.20	5	8.4	105
1107	1157	1	32/0.20	7	9.2	135
1108	1158	1	32/0.20	8	10.0	150
1110	1160	1	32/0.20	10	11.5	190
1112	1162	1	32/0.20	12	12.0	225
1118	1168	1	32/0.20	18	14.5	320
1125	1175	1	32/0.20	25	18.0	456
1134	1179	1	32/0.20	34	20.0	605
1142	1182	1	32/0.20	42	21.3	707
1150	1183	1	32/0.20	50	23.0	840
1161	1185	1	32/0.20	61	25.0	1010
1165	1186	1	32/0.20	65	26.0	1080
1180	1187	1	32/0.20	80	28.0	1300
1200	1188	1	32/0.20	100	31.0	1740

* Colour code page 7

CONTROL CABLES

YY Types PVC/PVC 300/500V working - 3000V test

Temperature range flexing - 5° C to + 80° C

Temperature range static - 20° C to + 80° C

Minimum bending radius 15 times diameter of cable

Conductors plain annealed copper wire

Cable has numbered black cores as standard: colour coded* to order



Cablenet Part No numbered	Cablenet Part No col/coded	CSA mm ²	Conductor size mm	Number of cores	Nom o/d mm	Weight Kg/Km
1202	1252	1.5	30/0.25	2	7.2	77
1203	1253	1.5	30/0.25	3	7.5	87
1204	1254	1.5	30/0.25	4	8.6	115
1205	1255	1.5	30/0.25	5	9.0	144
1207	1257	1.5	30/0.25	7	10.4	175
1208	1258	1.5	30/0.25	8	11.5	205
1210	1260	1.5	30/0.25	10	12.8	256
1212	1262	1.5	30/0.25	12	13.5	300
1218	1268	1.5	30/0.25	18	16.0	455
1225	1275	1.5	30/0.25	25	20.5	630
1227	1277	1.5	30/0.25	32	22.4	791
1228	1278	1.5	30/0.25	34	23.0	930
1230	1280	1.5	30/0.25	42	24.5	1056
1231	1281	1.5	30/0.25	50	27.0	1224
1232	1282	1.5	30/0.25	61	28.0	1438
1233	1283	1.5	30/0.25	65	29.0	1532
1234	1284	1.5	30/0.25	80	32.5	1800
1235	1285	1.5	30/0.25	100	38.0	2225
1302	1330	2.5	50/0.25	2	7.8	123
1303	1331	2.5	50/0.25	3	9.5	153
1304	1332	2.5	50/0.25	4	10.5	190
1305	1333	2.5	50/0.25	5	11.5	230
1307	1334	2.5	50/0.25	7	12.5	260
1308	1335	2.5	50/0.25	8	13.4	294
1312	1337	2.5	50/0.25	12	16.0	480
1318	1340	2.5	50/0.25	18	21.0	750
1325	1341	2.5	50/0.25	25	23.0	1070
1326	1342	2.5	50/0.25	50	35.0	2000
1450	1480	4	56/0.30	3	12.8	230
1451	1481	4	56/0.30	4	13.1	300
1452	1482	4	56/0.30	5	14.4	350
1453	1483	4	56/0.30	7	16.0	487
1434	1484	6	84/0.30	3	15.0	360
1435	1485	6	84/0.30	4	15.7	440
1456	1486	6	84/0.30	5	16.9	537
1457	1487	6	84/0.30	7	19.1	629
1459	1489	10	80/0.40	4	20.7	737
1460	1490	10	80/0.40	5	22.7	914
1461	1491	10	80/0.40	7	32.0	1295
1463	1493	16	126/0.40	4	23.8	1087
1464	1494	16	126/0.40	5	27.5	1370
1465	1495	16	126/0.40	7	28.9	1550
1466	1496	25	196/0.40	4	26.4	1582
1468	1498	35	276/0.40	4	32.8	2100

* Colour code page 7

CONTROL CABLES

CY Types PVC/PVC/TCWB/PVC 300/500V working - 3000V test

Temperature range flexing - 5° C to + 80° C

Temperature range static - 20° C to + 80° C

Minimum bending radius 20 times diameter of cable

Conductors plain annealed copper wire

Cable has numbered black cores as standard: colour coded* to order



Cablenet Part No numbered	Cablenet Part No col/coded	CSA mm ²	Conductor size mm	Number of cores	Nom o/d mm	Weight Kg/Km
1511	1551	0.5	16/0.20	3	6.4	64
1512	1552	0.5	16/0.20	4	6.9	80
1513	1553	0.5	16/0.20	5	7.3	90
1514	1554	0.5	16/0.20	7	8.5	117
1515	1555	0.5	16/0.20	8	9.2	150
1517	1557	0.5	16/0.20	12	10.4	185
1520	1560	0.5	16/0.20	18	12.0	239
1524	1564	0.5	16/0.20	25	14.6	350
1602	1652	0.75	24/0.20	2	6.7	67
1603	1653	0.75	24/0.20	3	7.2	83
1604	1654	0.75	24/0.20	4	7.6	98
1605	1655	0.75	24/0.20	5	8.2	114
1607	1657	0.75	24/0.20	7	9.7	149
1608	1658	0.75	24/0.20	8	10.0	170
1612	1662	0.75	24/0.20	12	12.0	225
1612	1668	0.75	24/0.20	18	13.8	320
1625	1675	0.75	24/0.20	25	16.8	454
1702	1752	1	32/0.20	2	7.0	72
1703	1753	1	32/0.20	3	8.1	90
1704	1754	1	32/0.20	4	8.7	117
1705	1755	1	32/0.20	5	9.7	135
1707	1757	1	32/0.20	7	11.5	172
1708	1758	1	32/0.20	8	10.2	190
1712	1762	1	32/0.20	12	13.7	275
1718	1768	1	32/0.20	18	15.9	393
1725	1775	1	32/0.20	25	19.4	642
1728	1778	1	32/0.20	32	18.7	650
1730	1780	1	32/0.20	36	21.0	730
1733	1783	1	32/0.20	50	25.8	1010
1802	1852	1.5	30/0.25	2	7.7	91
1803	1853	1.5	30/0.25	3	8.9	116
1804	1854	1.5	30/0.25	4	9.7	155
1805	1855	1.5	30/0.25	5	10.5	190
1807	1857	1.5	30/0.25	7	12.1	220
1808	1858	1.5	30/0.25	8	11.5	244
1812	1862	1.5	30/0.25	12	14.5	380
1818	1868	1.5	30/0.25	18	16.9	550
1825	1875	1.5	30/0.25	25	20.5	800
1839	1879	1.5	30/0.25	34	25.0	1075
1833	1883	1.5	30/0.25	50	29.1	1650
1902	1952	2.5	50/0.25	2	8.6	135
1903	1953	2.5	50/0.25	3	9.2	170
1904	1954	2.5	50/0.25	4	10.4	200
1905	1955	2.5	50/0.25	5	12.2	240
1907	1957	2.5	50/0.25	7	14.2	317
1908	1958	2.5	50/0.25	8	15.0	370
1994	1995	4	56/0.30	4	15.6	310

* Colour code page 7

CONTROL CABLES

SY Types PVC/PVC/TSWB/PVC 300/500V working - 3000V test

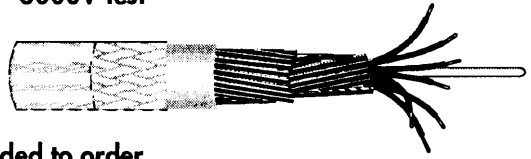
Temperature range flexing - 5° C to + 80° C

Temperature range static - 20° C to + 80° C

Minimum bending radius 20 times diameter of cable

Conductors plain annealed copper wire

Cable has numbered black cores as standard: colour coded to order



Cablenet Part No numbered	Cablenet Part No col/coded	CSA mm ²	Conductor size mm	Number of cores	Nom o/d mm	Weight Kg/Km
2003	2053	0.5	16/0.20	3	9.1	125
2004	2054	0.5	16/0.20	4	9.6	135
2005	2055	0.5	16/0.20	5	10.2	155
2007	2057	0.5	16/0.20	7	11.0	180
2008	2058	0.5	16/0.20	8	12.0	195
2012	2062	0.5	16/0.20	12	13.7	265
2018	2068	0.5	16/0.20	18	15.4	345
2025	2075	0.5	16/0.20	25	16.8	400
2026	2076	0.5	16/0.20	40	19.5	588
2102	2132	0.75	24/0.20	2	9.4	128
2103	2133	0.75	24/0.20	3	9.7	139
2104	2134	0.75	24/0.20	4	10.3	184
2105	3135	0.75	24/0.20	5	10.9	199
2107	2136	0.75	24/0.20	7	11.5	207
2112	2137	0.75	24/0.20	12	14.5	313
2118	2138	0.75	24/0.20	18	16.5	433
2125	2139	0.75	24/0.20	25	20.0	556
2126	2140	0.75	24/0.20	40	25.2	954
2142	2172	1	32/0.20	2	9.8	137
2143	2173	1	32/0.20	3	10.2	154
2144	2174	1	32/0.20	4	10.8	180
2145	2175	1	32/0.20	5	11.5	202
2147	2177	1	32/0.20	7	12.1	242
2152	2182	1	32/0.20	12	15.4	370
2158	2188	1	32/0.20	18	17.5	507
2165	2195	1	32/0.20	25	21.3	653
2166	2196	1	32/0.20	34	23.6	810
2167	2197	1	32/0.20	41	25.5	980
2203	2243	1.5	30/0.25	3	11.0	191
2204	2244	1.5	30/0.25	4	11.8	217
2205	2245	1.5	30/0.25	5	13.2	268
2207	2247	1.5	30/0.25	7	14.2	311
2212	2252	1.5	30/0.25	12	17.2	499
2214	2254	1.5	30/0.25	14	17.6	545
2218	2258	1.5	30/0.25	18	20.6	652
2225	2265	1.5	30/0.25	25	24.1	913
2226	2266	1.5	30/0.25	34	26.5	1133
2227	2267	1.5	30/0.25	50	31.4	1584
2273	2292	2.5	50/0.25	3	13.6	278
2274	2293	2.5	50/0.25	4	14.7	339
2275	2294	2.5	50/0.25	5	16.0	397
2277	2297	2.5	50/0.25	7	17.2	470
2282	2298	2.5	50/0.25	12	22.1	738
2285	2299	2.5	50/0.25	25	31.5	1458
2303	2333	4	56/0.30	3	15.6	342
2304	2334	4	56/0.30	4	17.0	457
2314	2335	6	84/0.30	4	20.9	687
2324	2336	10	80/0.40	4	25.2	1009

CONTROL CABLES

The standard range of control cables is available with numbered cores. For colour coded requirements Cablenet product is supplied in accordance with VDE 0293. Colour coding is shown in the table below. These colour coded cables are available to order only.

No Cores	Colour of Cores
2	Green/Yellow, Black
3	Green/Yellow, Black, Blue
4	Green/Yellow, Black, Blue, Brown
5	Green/Yellow, Black, Blue, Brown, Black
6 & above	Green/Yellow and Numbered cores

Core are numbered at a maximum distance of every 6 inches.

Current ratings of CY,SY & YY control cables

The maximum continuous current rating for an electrical cable is limited by conductor size, number of conductors, maximum temperature rating and environmental conditions such as ambient temperature and air flow.

The table below can be used directly when the number of cores does not exceed three and the cable is surrounded by still air at an ambient temperature of 25°C. Current values are in RMS amperes and are valid for copper conductors only.

If the number of conductors exceeds three then the appropriate derating table shall be used to work out the new rating. A 10 core CSA 2.50 control flex cable would have a current rating in free air at 25°C of $20 \times 0.7 = 14$ amps.

CSA	CURRENT RATING	VOLT DROP AMPERE PER METRE	
		DC OR SINGLE PHASE AC (mV)	THREE PHASE AC (mV)
0.50	3	83	72
0.75	6	56	48
1.00	10	43	37
1.50	16	31	26
2.50	20	18	16
4.00	30	11	9.6
6.00	40	7	6.2
10.00	55	4	3.7

NUMBER OF CONDUCTORS	FACTORS
1	1.6
2 - 3	1.0
4 - 5	0.8
6 - 15	0.7
15 - 30	0.5

JOHN DAWSON
TECHNICAL SALES DEPARTMENT