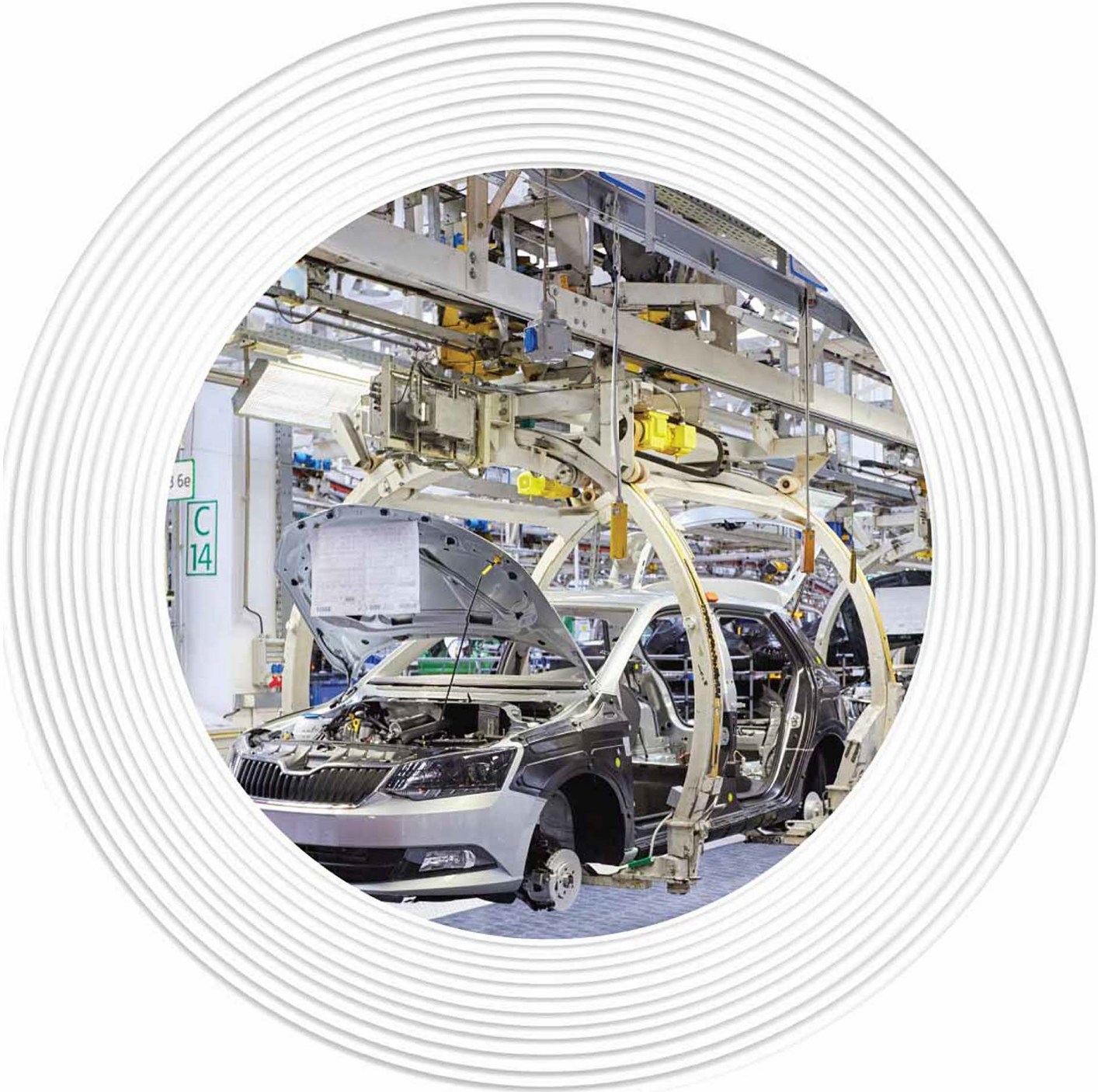


SECTION-IV

DRAG CHAIN AND SERVO CABLES



PRODUCTS

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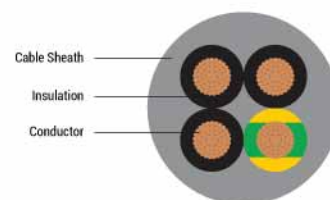
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Application

These cables are used in machine tools, industrial machineries, measurement control, and electrical applications. These are suitable for oily and wet areas within machinery and production shop floors that are subjected to normal mechanical stress. JZ-30400 P is resistant to contact with mineral oil based lubricants, diluted acids, aqueous alkaline and other chemical media. Outdoor use is possible within the indicated temperature range.

Technical Data

Standard : Adapted to EN 50525-2-51

Nominal Voltage : U_0 / U 300 / 500 V

Insulation Resistance : Min. 20 GΩ x cm

Temperature Range : Flexing -5°C to +70°C. Fixed installation -30°C to +70°C

Minimum Bending Radius : Flexing approx 12.5 x cable ø. Fixed installation approx. 4 x cable ø

Test Voltage : 4000V

Cable Construction

Bare copper, fine wire conductors according to EN 60228 cl. 5.

Core insulation of special PVC T12 EN 50363-3.

Black core with continuous white numbering according to DIN VDE 0293.

Cores stranded in layers with optimal lay-length.

Special polyurethane outer sheath (PUR).

Sheath color : Grey (RAL 7001).

Properties

Extensively oil resistant.

Abrasion and notch resistant.

Low adhesive surface.

Resistant to hydrolysis and microbes.

UV resistant to ASTM G 154.

Cable Design Parameters

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
040100201050	2 x 0.5	4.8	8.7	30
040100311050	3G 0.5	5.1	13	37
040100301050	3 x 0.5	5.1	13	37
040100411050	4G 0.5	5.6	17.4	46
040100401050	4 x 0.5	5.6	17.4	46
040100511050	5G 0.5	6	21.7	55
040100501050	5 x 0.5	6	21.7	55
040100711050	7G 0.5	6.7	30.4	72

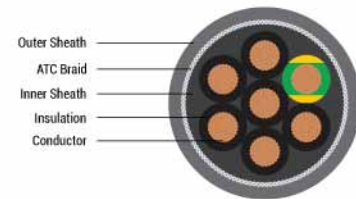
Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
040100701050	7 x 0.5	6.7	30.4	72
040101011050	10G 0.5	8.8	43.5	115
040101211050	12G 0.5	8.9	52.2	126
040101811050	18G 0.5	10.5	78.2	180
040102511050	25G 0.5	12.9	108.6	263
040103411050	34G 0.5	14.3	147.8	337
040104211050	42G 0.5	16.6	182.5	437
040100201075	2 x 0.75	5.3	13	39
040100311075	3G 0.75	5.6	19.6	48
040100301075	3 x 0.75	5.6	19.6	48
040100411075	4G 0.75	6.1	26.1	59
040100401075	4 x 0.75	6.1	26.1	59
040100511075	5G 0.75	6.9	32.6	76
040100501075	5 x 0.75	6.9	32.6	76
040100711075	7G 0.75	7.6	45.6	97
040100701075	7 x 0.75	7.6	45.6	97
040101011075	10G 0.75	10.0	65.2	156
040101211075	12G 0.75	10.1	78.2	171
040101811075	18G 0.75	11.9	117.3	247
040102511075	25G 0.75	14.6	163	357
040103411075	34G 0.75	15.7	221.6	446
040104111075	41G 0.75	17.4	267.3	543
040100200001	2 x 1	5.6	17.4	46
040100310001	3G 1	6.0	26.1	59
040100300001	3 x 1	6.0	26.1	59
040100410001	4G 1	6.8	34.8	77
040100400001	4 x 1	6.8	34.8	77
040100510001	5G 1	7.5	43.5	93
040100500001	5 x 1	7.5	43.5	93
040100710001	7G 1	8.9	60.8	132
040101010001	10G 1	10.8	86.9	191
040101210001	12G 1	11.1	104.3	215
040101810001	18G 1	13.2	156.5	311
040102510001	25G 1	16.2	217.3	452
040103410001	34G 1	18.1	295.5	587
040104110001	41G 1	19.7	356.4	700

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
040100201105	2 x 1.5	6.3	25.5	61
040100311105	3G 1.5	6.7	38.2	78
040100301105	3 x 1.5	6.7	38.2	78
040100411105	4G 1.5	7.3	50.9	98
040100401105	4 x 1.5	7.3	50.9	98
040100511105	5G 1.5	8.2	63.7	123
040100501105	5 x 1.5	8.2	63.7	123
040100711105	7G 1.5	9.0	89.1	160
040100701105	7 x 1.5	9.0	89.1	160
040101211105	12G 1.5	12.1	152.8	280
040101811105	18G 1.5	14.5	229.2	412
040102511105	25G 1.5	17.2	318.3	576
040103411105	34G 1.5	19.6	432.9	766
040104111105	41G 1.5	21.3	522.0	915
040100201205	2 x 2.5	7.6	42.4	93
040100311205	3G 2.5	8.3	63.7	124
040100411205	4G 2.5	9.1	84.9	157
040100511205	5G 2.5	10.2	106.1	196
040100711205	7G 2.5	11.2	148.5	256
040101211205	12G 2.5	14.8	254.6	443
040100410004	4G 4	10.8	135.0	234
040100510004	5G 4	12.1	168.7	292
040100710004	7G 4	13.3	236.2	383
040100410006	4G 6	13.0	202.4	345
040100510006	5G 6	14.5	253.1	430
040100710006	7G 6	16.0	354.3	566
040100410010	4G 10	15.5	344.7	539
040100510010	5G 10	17.1	430.8	666
040100710010	7G 10	19.0	603.2	888
040100410016	4G 16	18.8	574.1	852

Note :

* G = With green/yellow earth core

X = Without green/yellow earth core



Application

These cables are used as data and control cable in machinery. The high level of screening ensures a high degree of interference protection. The PVC-inner sheaths of these cables raise the mechanical strength. Such cables can also be used for outdoor applications for the permitted temperature range.

Technical Data

Standard : Adapted to EN 50525-2-51

Nominal Voltage : U_0 / U 300 / 500 V

Insulation Resistance : Min. 20 G Ω x cm

Temperature Range : Flexing -5°C to +70°C. Fixed installation -30°C to +70°C

Minimum Bending Radius : Flexing 20 x cable ϕ . Fixed installation 6 x cable ϕ

Test Voltage : Core/core: 4000V. Core/screen: 2000V

Cable Construction

Bare copper, fine wire conductors according to EN 60228 cl. 5.

Core insulation of PVC TI2, EN 50363-3.

Black core with continuous white numbering to DIN VDE 0293.

Green/yellow earth core in outer layer (3 cores and above).

Cores stranded in layers with optimal lay-length.

Special PVC inner jacket.

Tinned copper braided screen.

Special polyurethane outer sheath (PUR).

Sheath colour : Grey (RAL 7001).

Properties

Extensively oil resistant.

Abrasion and notch resistant.

Low adhesive surface.

Resistant to hydrolysis and microbes.

UV resistant to ASTM G 154.

The screening density assures disturbance-free transmission of all signals and impulses.

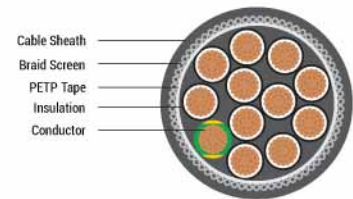
To optimize the EMC features we recommend a large round contact of copper braiding on both ends.

Cable Design Parameters

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
040200201075	2 x 0.75	7.4	30.3	80
040200311075	3G 0.75	7.9	38.5	95
040200301075	3 x 0.75	7.9	38.5	95
040200411075	4G 0.75	8.4	46.7	111
040200401075	4 x 0.75	8.4	46.7	111
040200511075	5G 0.75	8.9	53.6	126
040200501075	5 x 0.75	8.9	53.6	126
040200711075	7G 0.75	9.7	70.4	156
040200701075	7 x 0.75	9.7	70.4	156
040201211075	12G 0.75	12.3	111.2	252
040201811075	18G 0.75	14.5	176.6	366
040202511075	25G 0.75	16.6	235.6	487
040203411075	34G 0.75	18.9	306.9	635
040204111075	41G 0.75	20.6	379.7	765
040200200001	2 x 1	7.9	35.3	92
040200310001	3G 1	8.2	46.5	107
040200300001	3 x 1	8.2	46.5	107
040200410001	4G 1	8.7	55.8	124
040200400001	4 x 1	8.7	55.8	124
040200510001	5G 1	9.5	67.4	149
040200710001	7G 1	10.2	87.5	182
040201210001	12G 1	13.3	160.8	318
040201810001	18G 1	15.5	222.7	437
040202510001	25G 1	17.5	298.6	574
040203410001	34G 1	20.2	389.4	760
040204110001	41G 1	22.0	480.8	915
040200201105	2 x 1.5	8.5	46.3	112
040200311105	3G 1.5	8.9	61.6	133
040200301105	3 x 1.5	8.9	61.6	133
040200411105	4G 1.5	9.6	76.0	159
040200401105	4 x 1.5	9.6	76.0	159
040200511105	5G 1.5	10.3	109.1	200
040200501105	5 x 1.5	10.3	109.1	200
040200711105	7G 1.5	11.3	137	246
040200701105	7 x 1.5	11.3	137	246

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
040201211105	12G 1.5	14.8	218.4	411
040201811105	18G 1.5	17.2	307.5	569
040202511105	25G 1.5	20.1	412.7	774
040203411105	34G 1.5	22.8	547.2	1014
040204111105	41G 1.5	24.7	673.1	1216
040200312105	3G 2.5	10.3	109.0	200
040200412105	4G 2.5	11.3	133.2	243
040200512105	5G 2.5	12.6	161.1	299
040200712105	7G 1.5	13.9	211.6	378
040201212105	12G 2.5	17.6	334.8	608
040200410004	4G 4	13.4	190.6	345
040200510004	5G 4	14.7	233.6	420
040200410006	4G 6	15.8	275.2	493
040200510006	5G 6	17.3	334.1	596
040200410010	4G 10	19.0	434.7	745
040200410016	4G 16	22.2	723.2	1130

Note :
 * G = With green/yellow earth core
 X = Without green/yellow earth core (OZ)re



Application

These cables are used as data and control cable in machinery. The high level of screening ensures a high degree of interference protection. Such cables can also be used for outdoor applications for the permitted temperature range.

Technical Data

Standard : In acc to HD 21.13 S1 resp. VDE 0281-13 and HD 22.10 S1

Temperature Range : Flexing -5°C to +70°C. Fixed installation -30°C to +70°C

Nominal Voltage : U_0 / U 300 / 500 V

Insulation Resistance : Min. 20 GΩ x cm

Minimum Bending Radius : Flexing 20 x cable ø. Fixed installation 6 x cable ø

Test Voltage : Core/core: 4000V. Core/screen: 2000V

Cable Construction

Bare copper, fine wire conductors according to EN 60228 cl. 5.

Core insulation of PVC T12, EN 50363-3.

Black core with continuous white numbering to DIN VDE 0293.

Green/yellow earth core in outer layer (3 cores and above).

Cores stranded in layers with optimal lay-length.

PETP tape.

Tinned copper, braided screen, approx 85% coverage.

Special polyurethane outer sheath (PUR).

Sheath colour : Grey (RAL 7001).

Properties

Extensively oil resistant.

Abrasion and notch resistant.

Low adhesive surface.

Resistant to hydrolysis and microbes.

UV resistant to ASTM G 154.

The screening density assures disturbance-free transmission of all signals and impulses.

To optimize the EMC features we recommend a large round contact of copper braiding on both ends.

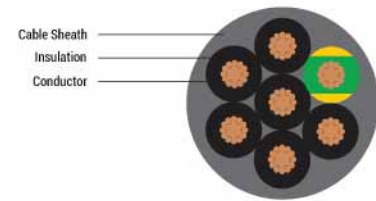
Cable Design Parameters

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
040300201050	2 x 0.5	5.8	19.3	45
040300311050	3G 0.5	6.1	25.5	56
040300301050	3 x 0.5	6.1	25.5	56
040300411050	4G 0.5	6.5	30.1	64
040300401050	4 x 0.5	6.5	30.1	64
040300511050	5G 0.5	7.0	35.8	75
040300501050	5 x 0.5	7.0	35.8	75
040300711050	7G 0.5	7.5	46.7	92
040300701050	7 x 0.5	7.5	46.7	92
040301211050	12G 0.5	9.9	74.2	152
040301201050	12 x 0.5	9.9	74.2	152
040301811050	18G 0.5	11.5	104.3	210
040301801050	18 x 0.5	11.5	104.3	210
040302511050	25G 0.5	13.4	140.0	278
040302501050	25 x 0.5	13.4	140.0	278
040300201075	2 x 0.75	6.2	25.7	54
040300311075	3G 0.75	6.5	32.3	65
040300301075	3 x 0.75	6.5	32.3	65
040300411075	4G 0.75	7.0	40.4	78
040300401075	4 x 0.75	7.0	40.4	78
040300511075	5G 0.75	7.7	48.9	95
040300501075	5 x 0.75	7.7	48.9	95
040300711075	7G 0.75	8.3	64.5	119
040300701075	7 x 0.75	8.3	64.5	119
040301211075	12G 0.75	10.9	103.2	194
040301811075	18G 0.75	12.7	147.4	271
040302511075	25G 0.75	14.8	219.5	372
040302501075	25 x 0.75	14.8	219.5	372
040300200001	2 x 1	6.5	30.5	61
040300310001	3G 1	6.8	40.3	75
040300300001	3 x 1	6.8	40.3	75
040300410001	4G 1	7.3	51.0	91
040300400001	4 x 1	7.3	51.0	91
040300510001	5G 1	8.1	60.7	110
040300500001	5 x 1	8.1	60.7	110
040300710001	7G 1	8.8	80.5	140
040300700001	7 x 1	8.8	80.5	140

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
040301210001	12G 1	11.5	131.2	229
040301810001	18G 1	13.9	188.5	337
040302510001	25G 1	15.9	277.9	452
040300201105	2 x 1.5	7.1	40.8	75
040300311105	3G 1.5	7.5	53.8	95
040300301105	3 x 1.5	7.5	53.8	95
040300411105	4G 1.5	8.2	69	119
040300401105	4 x 1.5	8.2	69	119
040300511105	5G 1.5	8.9	84.4	142
040300501105	5 x 1.5	8.9	84.4	142
040300711105	7G 1.5	9.9	112.9	187
040300701105	7 x 1.5	9.9	112.9	187
040301211105	12G 1.5	13	183.5	306
040301811105	18G 1.5	15.6	288.5	463
040302511105	25G 1.5	17.9	395	614
040303411105	34G 1.5	20.8	511.9	811
040300311205	3G 2.5	8.9	84.4	140
040300411205	4G 2.5	9.9	107.5	179
040300511205	5G 2.5	11	130.8	219
040300711205	7G 2.5	11.9	176.5	281
040301211205	12G 2.5	16	314.8	491
040301811205	18G 2.5	19	454.1	709
040302511205	25G 2.5	22.2	617	954
040300410004	4G 4	11.6	160.8	258
040300710004	7G 4	14.4	269	425
040300410006	4G 6	14.2	233.7	382
040300710006	7G 6	17	415.7	619
040300410010	4G 10	17.2	402.9	608
040300510010	5G 10	19.5	499.3	772
040300410016	4G 16	20.2	647.6	909
040300510016	5G 16	22.6	799.6	1132
040300410025	4G 25	25.1	986.2	1396
040300510025	5G 25	28	1220.9	1737
040300410035	4G 35	28	1369	1838

Note :

- G = With green/yellow earth core
- X = Without green/yellow earth core (OZ)



Application

These are halogen free cables used in machine tools, industrial machineries, measurement control, and electrical applications rated for higher operating temperature. These are suitable for oily and wet areas within machinery and production shop floors that are subjected to normal mechanical stress. It is resistant to contact with mineral oil based lubricants, diluted acids, aqueous, alkaline and other chemical media. Outdoor use is possible within the indicated temperature range.

Technical Data

Standard : Adapted to EN 50525-2-51

Nominal Voltage : U_0 / U 300 / 500V

Insulation Resistance : Min. 20 GΩ x cm

Temperature Range : Flexing -40°C to +90°C. Fixed installation -50°C to +90°C

Minimum Bending Radius : Flexing 12.5 x cable ø. Fixed installation 4 x cable ø

Test Voltage : 4000V

Cable Construction

Bare copper, fine wire conductors according to EN 60228 cl. 5.

Core insulation of TPE.

Black core with continuous white numbering according to DIN VDE 0293.

Cores stranded in layers with optimal lay-length.

Special polyurethane outer sheath (PUR).

Sheath colour : Grey (RAL 7001).

Properties

Extensively oil resistant.

Abrasion and notch resistant.

Low adhesive surface.

Resistant to hydrolysis and microbes.

Flexible at low temperatures.

Halogen free and flame retardant to EN 60332-1-2.

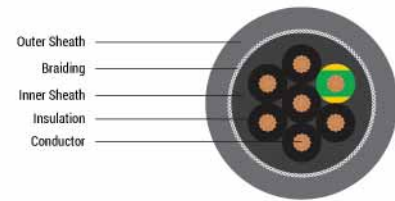
UV resistant to ASTM G 154.

Cable Design Parameters

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
040400201050	2 x 0.5	5.9	8.7	39
040400311050	3G 0.5	6.2	13.0	45
040400411050	4G 0.5	6.9	17.4	57
040400511050	5G 0.5	7.4	21.7	67
040400711050	7G 0.5	9.1	30.4	100
040401211050	12G 0.5	11.3	52.2	158

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
040401811050	18G 0.5	13.2	78.2	220
040402511050	25G 0.5	15.0	108.6	290
040400201075	2 x 0.75	6.4	13.0	48
040400311075	3G 0.75	6.8	19.6	58
040400411075	4G 0.75	7.4	26.1	71
040400511075	5G 0.75	8.6	32.6	94
040400711075	7G 0.75	10.0	45.6	128
040401211075	12G 0.75	12.4	78.2	203
040401811075	18G 0.75	14.4	117.3	283
040402511075	25G 0.75	17.2	163.0	401
040400200001	2 x 1	6.8	17.4	57
040400310001	3G 1	7.2	26.1	69
040400410001	4G 1	8.2	34.8	90
040400510001	5G 1	9.0	43.5	110
040400710001	7G 1	11.1	60.8	163
040401210001	12G 1	13.2	104.3	244
040401810001	18G 1	15.4	156.5	344
040402510001	25G 1	19	217.3	507
040403410001	34G 1	21.8	295.5	675
040404110001	41G 1	23.4	356.4	791
040400201105	2 x 1.5	7.4	25.5	71
040400311105	3G 1.5	8.3	38.2	94
040400411105	4G 1.5	9.0	50.9	116
040400511105	5G 1.5	9.8	63.7	140
040400711105	7G 1.5	12.2	89.1	209
040401211105	12G 1.5	14.5	152.8	317
040401811105	18G 1.5	17.6	229.2	471
040402511105	25G 1.5	20.7	318.3	653
040404111105	41G 1.5	26.3	522.0	1060
040400311205	3G 2.5	9.7	63.7	139
040400411205	4G 2.5	11.0	84.9	181
040400511205	5G 2.5	12.1	106.1	221
040400711205	7G 2.5	14.2	148.5	307
040401211205	12G 2.5	17.8	254.6	500

Note :
•G = With green/yellow earth core
X = Without green/yellow earth core



Application

These are halogen free cables used as data and control cable in machinery. The high level of screening ensures a high degree of interference protection. The special inner sheath aids to the increase in flexibility for robust application. Such cables can also be used for outdoor applications for the permitted temperature range.

Technical Data

Standard : Adapted to EN 50525-2-51

Nominal Voltage : U_0 / U 300 / 500V

Insulation Resistance : Min. 20 GΩ x cm

Temperature Range : Flexing -40°C to +90°C. Fixed installation -50°C to +90°C

Minimum Bending Radius : Flexing 15 x cable ø. Fixed installation 6 x cable ø

Test Voltage : Core/core: 4000V. Core/screen: 2000V

Cable Construction

Bare copper, fine wire conductors according to EN 60228 cl. 5.

Core insulation of TPE.

Black core with continuous white numbering to DIN VDE 0293.

Green/yellow earth core in outer layer (3 cores and above).

Cores stranded in layers with optimal lay-length.

TPE inner sheathed.

Tinned copper braided screen.

Special polyurethane outer sheath (PUR).

Sheath colour : Grey (RAL 7001).

Properties

Extensively oil resistant.

Abrasion and notch resistant.

Low adhesive surface.

Resistant to hydrolysis and microbes.

Halogen free and flame retardant to EN 60332-1-2.

UV resistant to ASTM G 154.

To optimise the EMC features we recommend a large round contact of the copper braiding on both ends.

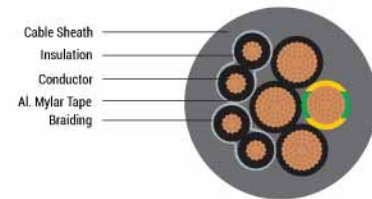
Cable Design Parameters

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
040500311050	3G 0.5	8.3	31.1	83
040500411050	4G 0.5	8.8	37.1	95
040500511050	5G 0.5	9.7	43.3	114

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
040500711050	7G 0.5	11.2	53.8	150
040501211050	12G 0.5	13.7	83.1	226
040501811050	18G 0.5	15.7	114.4	301
040502511050	25G 0.5	18.5	176.0	430
040500201075	2 x 0.75	8.4	31.0	84
040500311075	3G 0.75	8.7	38.8	95
040500411075	4G 0.75	9.5	47.0	114
040500511075	5G 0.75	10.2	55.4	133
040500711075	7G 0.75	11.9	71.2	179
040501211075	12G 0.75	14.5	111.8	269
040502511075	25G 0.75	20.3	236.3	542
040500200001	2 x 1	8.7	36.2	93
040500310001	3G 1	9.3	46.3	111
040500410001	4G 1	9.9	58.3	131
040500510001	5G 1	10.8	67.6	154
040500710001	7G 1	12.8	88.2	213
040501210001	12G 1	15.4	161.2	332
040501810001	18G 1	17.7	223.2	448
040502510001	25G 1	21.5	295.9	637
040503410001	34G 1	23.8	386.0	799
040500201105	2 x 1.5	9.5	46.8	114
040500311105	3G 1.5	9.9	60.8	132
040500411105	4G 1.5	10.8	76.3	161
040500511105	5G 1.5	11.3	91.0	182
040500711105	7G 1.5	13.9	119.5	265
040501211105	12G 1.5	16.8	216.1	416
040501811105	18G 1.5	20.0	302.9	591
040502511105	25G 1.5	23.5	408.1	808
040504111105	41G 1.5	28.7	635.4	1229
040500311205	3G 2.5	11.1	90.9	178
040500411205	4G 2.5	12.3	115.1	222
040500511205	5G 2.5	14.0	159.9	296
040500711205	7G 1.5	16.4	208.5	402
040501211205	12G 2.5	21.0	329.4	648

Note :

- * G = With green/yellow earth core
- X = Without green/yellow earth core



Application

These cables are with composite construction for supply and control between frequency converter and motor.

These are also used as connecting cable between servo controller and motor plant engineering.

One common cable for multiple circuits.

Technical Data

Standard : Adapted to VDE 0812 / 0250 / 0281

Nominal Voltage : Supply cores : 600 / 1000V

Control core pairs : 250V

Insulation Resistance : > 20 GΩ x cm

Temperature Range : Flexing -5°C to +70°C

Fixed installation -30°C to +70°C

Minimum Bending Radius : Flexing 20 x cable ø

Fixed installation 6 x cable ø

Test Voltage : Supply cores : C/C 4000V & C/S : 2000V

Control cores : C/C : 1500V, C/S : 750V

Cable construction

Bare copper, fine wire conductors according to EN 60228 cl. 5. Supply cores : black with white numbers according to VDE 0293 and GN-YE protective conductor.

Control pairs 0.34 Sq. mm, colour coded-WH/BR, GN/YE.

Control pairs 0.5 Sq. mm and above - Black coloured with white numbers to VDE 0293.

Control pair with laminated aluminium film and tinned copper braiding.

The model with one control pair does not have laminated aluminium foil

PVC outer sheath, grey (RAL 7001).

Properties

Flame retardant according to EN 60332-1-2.

Low mutual capacitance.

For use in dry, wet and damp interiors.

SERVO 55700 is also available with UV resistance property as SERVO 55700 UV.

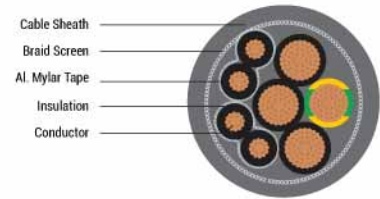
Kindly add 'UV' after the part no. for UV resistant cable.

UV resistant to ASTM G 154.

Cable Design Parameters

Part Number	Number of Cores and Sq. mm per Conductor	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
040601010113	4 G 0.75 + 2 x (2 x 0.34)	9.5	59.9	124
040601020113	4 G 1.5 + 2 x (2 x 0.75)	12.1	103.0	195
040601030113	4 G 2.5 + (2 x 2 x 0.75)	13.9	127.6	258
040601040113	4 G 4 + (2 x 0.75 + 2 x 1)	15.8	182.8	351
040601050113	4 G 6 + (2 x 0.75 + 2 x 1)	16.7	250.3	435
040601060113	4 G 16 + (2 x 2 x 1)	23.5	626.3	1052
040601070113	4 G 1.5 +(2 x 0.75)	11.7	76.9	174
040601080113	5 G 1.5 +(2 x 0.75)	12.7	89.7	203
040601090113	7 G 1.5 +(2 x 0.75)	12.4	115.1	203
040601100113	4 G 2.5 +(2 x 0.75)	13.1	110.9	239
040601110113	7 G 2.5 +(2 x 0.75)	15.2	174.6	335

Note :
 • G = With green/yellow earth core
 X = Without green/yellow earth core



Application

These cables are with composite construction for supply and control between frequency converter and motor. These are also used as connecting cable between servo controller and motor plant engineering. One common cable for multiple circuits.

Technical Data

Standard : Adapted to VDE 0812 / 0250 / 0281

Nominal Voltage : Supply cores : 600 / 1000V

Control Core Pairs : 250V / AC

Insulation Resistance : > 20 GΩ x cm

Temperature Range : Flexing -5°C to +70°C

Fixed installation -30°C to +70°C

Minimum Bending Radius : Flexing 20 x cable ø

Fixed installation 6 x cable ø

Test Voltage : Supply cores : C/C 4000V & C/S : 2000V

Control cores : C/C : 1500V, C/S : 750V

Cable Construction

Conductor Fine wire according to EN 60228, cl. 5

Supply cores: black with white numbers according to VDE 0293 and GN-YE protective conductor;

Control pairs 0.34 sq mm, color coded - WH/BR, GN/YE

Control pairs 0.5 sq mm and above - Black colored with white numbers to VDE 0293

Control pair with laminated aluminium film and tinned copper braiding.

The model with one control pair does not have laminated aluminium foil.

Overall Unit screened with tinned copper braiding.

PVC outer sheath, grey (RAL 7001)

Properties

Flame retardant according to EN 60332-1-2.

Low mutual capacitance.

Screening over each control pair offers mutual EMI protection. Optimal braid screen over the complete unit further offers external EMI protection and aids interference-free operations of frequency converters.

Servo 60700 CY is also available with UV resistance property as SERVO 60700 CY UV.

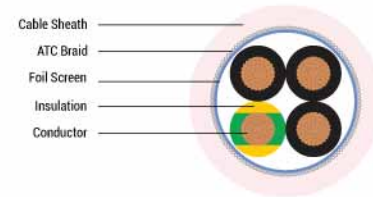
Kindly add 'UV' after the part no. for UV resistant cable.

UV resistant to ASTM G 154.

Cable Design Parameters

Part Number	Number of Cores and Sq. mm per Conductor	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
040701010113	4 G 0.75 + 2 x (2 x 0.34)	10.5	86.2	173
040701020113	4 G 1.5 + 2 x (2 x 0.75)	12.7	136.4	246
040701030113	4 G 2.5 + (2 x 2 x 0.75)	14.9	164.1	328
040701040113	4 G 4 + (2 x 0.75 + 2 x 1)	16.6	223.4	421
040701050113	4 G 6 + (2 x 0.75 + 2 x 1)	17.7	323.5	548
040701060113	4 G 10 + (2 x 0.75 + 2 x 1)	21.6	473.2	839
040701070113	4 G 16 + (2 x 2 x 1)	24.5	712.3	1192
040701080113	4 G 25 + (2 x 2 x 1.5)	30.1	1078.4	1809

Note : * G = With green/yellow earth core X = Without green/yellow earth core



Application

Connecting cable between frequency convertor and motor. This motor power supply cable is used for the frequency converters and assures electromagnetic compatibility in plants and buildings Handling equipment, for SIMOVERT drives, they are particularly suitable for use with industrial pumps, ventilators, conveyor belts and air-conditioning installations and similar applications.

Technical Data

Standard : Adapted DIN VDE 0207/0250/0295

Nominal Voltage : U₀ / U 600 / 1000V

Insulation Resistance : Min. 200 GΩ x cm

Temperature Range : Flexing -5°C to +70°C. Fixed installation -30°C to +70°C

Minimum Bending Radius : Flexing 15 x cable ø. Fixed installation 4 x cable ø

Test Voltage : Supply cores : C/C 4000V & C/S : 2000V

Control cores : C/C : 1500V, C/S : 750V

Mutual Capacitance: According to different cross sections:

core/core 70 to 250 nF/km

core/screen 110 to 410 nF/km

Cable Construction

Bare copper, fine wire conductors according to EN 60228 cl. 5.

PE (polyethylene) core insulation.

Core colours : black, brown, grey, green-yellow.

Cores stranded in concentric layers.

1. screening with special aluminum foil.

2. screening with tinned coated copper braids.

Transparent special PVC outer sheath.

Properties

Flame retardant according to EN 60332-1-2.

Special PE insulation ensures low mutual capacitance, lower dielectric loss, low screen interference currents.

Low capacitance design allows a longer cable connection between frequency converter and motor.

Meets EMC requirements.

Due to the optimal screening an interference-free operation of frequency converters is obtained.

Cable Design Parameters

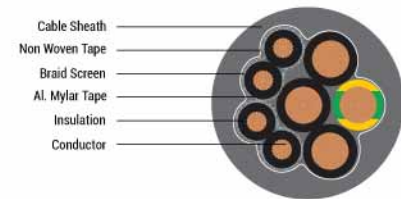
Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
040801010116	4 G 1.5	11.4	72.9	167
040801020116	4 G 2.5	12.4	110.0	215
040801030116	4 G 4.0	15.6	193.3	363
040801040116	4 G 6.0	17.0	269	462
040801050116	4 G 10.0	19.6	435	660

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
040801060116	4 G 16.0	22.1	698.3	955
040801070116	4 G 25.0	26.3	1045.7	1390
040801080116	4 G 35.0	29.5	1431.6	1842
040801090116	4 G 50.0	35.8	2010.3	2656
040801100116	4 G 70.0	40.3	2784.5	3579
040801110116	4 G 95.0	46.5	3146.1	4371
040801120116	4 G 120.0	53.2	4687.6	6190
040801130116	4 G 150.0	57.3	5643.8	7315
040801140116	4 G 185.0	62.3	6959.5	8853
040801150116	3 x 1.5 + 3 G 0.25	11.4	65.1	158
040801160116	3 x 2.5 + 3 G 0.5	12.2	99.4	202
040801170116	3 x 4 + 3 G 0.75	14.4	174.0	308
040801180116	3 x 6 + 3 G 1	15.7	237.6	391
040801190116	3 x 10 + 3 G 1.5	18.0	375.2	554
040801200116	3 x 16 + 3 G 2.5	20.2	603.9	809
040801210116	3 x 25 + 3 G 4	23.8	906.3	1174
040801220116	3 x 35 + 3 G 6	26.9	1250.8	1581
040801230116	3 x 50 + 3 G 10	32.6	1798.9	2317
040801240116	3 x 70 + 3 G 10	36.4	2380.3	2988
040801250116	3 x 95 + 3 G 16	42.0	2825.8	3730
040801260116	3 x 120 + 3 G 16	47.8	3991.9	5072
040801270116	3 x 150 + 3 G 25	51.6	4946.4	6193
040801280116	3 x 185 + 3 G 35	56.5	6217.8	7691

Note :

* G = With green/yellow earth core

X = Without green/yellow earth core



Application

Connecting between the frequency convertor and the motor for power circuits in machine cabling. In dry damp or wet interiors with normal mechanical stress conditions For outdoor usage within the permitted range of temperature.

Technical Data

Standard : Adapted to VDE 0250 / 0281 / 0282

Nominal Voltage : U_0 / U 600 / 1000V. Control cores 250V

Insulation Resistance : Min. 20 GΩ x cm

Temperature Range : Flexing -5°C to +70°C. Fixed installation -30°C to +70°C

Minimum Bending Radius : Flexing 12 x cable ø. Fixed installation 4 x cable ø

Test Voltage : Supply cores: C/C 4000V & C/S: 2000 V

Control cores: C/C: 1500 V, C/S: 750 V

Cable Construction

Bare copper, fine wire conductors according to EN 60228 cl. 6.

Core insulation of special PVC or TPE (control cores).

Control pairs screened with laminated film and braided with a layer of tinned-copper wires.

Cores and pairs are twisted together.

Non woven wrapping.

Extruded PUR outer sheath grey (RAL 7001)

Properties

Flame retardant according to EN 60332-1-2.

The version with special TPE insulation ensures low mutual capacitance, lower dielectric loss, low screen interference currents.

Meets EMC requirements.

Due to the optimal screening an interference-free operation of frequency converters is obtained.

UV resistant to ASTM G 154.

Cable Design Parameters

Kindly complete the part numbers for these cables by adding the suffix (in place of 'y') for the insulation material required:

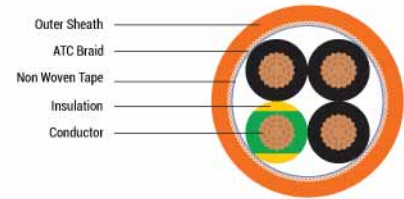
1 - PVC 70°C, 9 - TPE

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
00409010101y3	4 G 0.75 + 2 X (2 X 0.34)	13.9	67.4	168
00409010201y3	4 G 1.5 + 2 X (2 X 0.75)	15.9	108.9	240
00409010301y3	4 G 2.5 + 2 X (2 X 0.75)	16.7	142.9	290
00409010401y3	4 G 4 + (2 X 0.75) + (2 X 1)	19	197.9	374
00409010501y3	4 G 6 + (2 X 0.75) + (2 X 1)	19.6	265.3	459
00409010601y3	4 G 10 + (2 X 0.75) + (2 X 1)	21.2	407.6	663

Note :

* G = With green/yellow earth core

X = Without green/yellow earth core



Application

For power circuits in machine cabling power circuits for electrical equipments used in automation engineering. In dry damp or wet interiors with normal mechanical stress conditions For outdoor usage within the permitted range of temperature.

Technical Data

Standard : Based on EN 50525-2-51
 Nominal Voltage : U_0 / U 600 / 1000V
 Insulation Resistance : Min. 20 GΩ x cm
 Temperature Range : Flexing -5°C to +70°C. Fixed installation -30°C to +70°C
 Minimum Bending Radius : Flexing 7.5 x cable ø. Fixed installation 4 x cable ø
 Test Voltage : Core/core: 4000V. Core/screen: 2000V

Cable Construction

Bare copper, fine wire conductors according to EN 60228 Cl. 6,
 PP(polypropylene) core insulation.
 Cores are twisted together with shorter lay length.
 Non woven wrapping.
 Tinned copper braiding.
 Special PVC TM5 outer sheath to EN 50363-4.1
 PVC orange (RAL 2003).

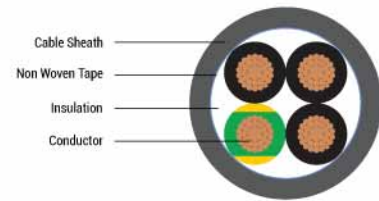
Properties

Flame retardant according to EN 60332-1-2
 Extensively Oil resistant
 PP insulation ensures low mutual capacitance, lower dielectric loss, low screen interference currents.
 Low adhesive surface
 SERVO FD 75781-CY is also available with UV resistance property as SERVO FD 75781-CY UV.
 Kindly add 'UV' after the part no. for UV resistant cable.
 UV resistant to ASTM G 154.

Cable Design Parameters

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
041000411105	4 G 1.5	9.8	74.3	130
041000411205	4 G 2.5	11.9	113.8	205
041000410004	4 G 4	13.5	169.7	286
041000410010	4 G 10	19.7	428	641
041000410016	4 G 16	23.9	661.4	931
041000410035	4 G 35	33.3	1386.2	1808
041000410050	4 G 50	38.3	1937.2	2476

Note :
 * G = With green/yellow earth core



Application

For power circuits in machine cabling power circuits for electrical equipments used in automation engineering. In dry damp or wet interiors with normal mechanical stress conditions for outdoor usage within the permitted range of temperature.

Technical Data

Standard : Adapted to DIN VDE 0250 / 0281 / 0282
 Nominal Voltage : U_0 / U 600 / 1000V
 Insulation Resistance : Min. 20 GΩ x cm
 Temperature Range : Flexing -40°C to +70°C
 Fixed Installation : -50°C to +70°C
 Minimum Bending Radius : Flexing 5 x cable ø. Fixed installation 3 x cable ø
 Test Voltage : 4000V

Cable Construction

Bare copper, fine wire conductors according to EN 60228 Cl. 6.
 TPE core insulation.
 Black coloured with white numbers acc to VDE 0293.
 Cores are twisted together with shorter lay length.
 Non woven wrapping.
 Outer sheath : PUR grey (RAL 7001).

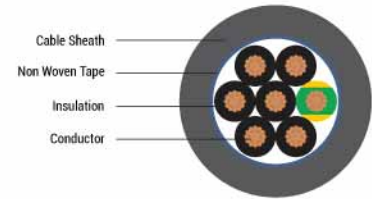
Properties

Flame retardant according to EN 60332-1-2.
 Halogen free.
 Oil resistant.
 Low adhesive surface.
 UV resistant to ASTM G 154.

Cable Design Parameters

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
041100411105	4 G 1.5	10.0	51.2	132
041100411205	4 G 2.5	11.9	85.8	189
041100410004	4 G 4	13.7	138.3	268
041100410006	4 G 6	15.1	204.3	374
041100410010	4 G 10	19.6	358.5	609
041100410016	4 G 16	22.8	580.2	896
041100511105	5 G 1.5	11.2	64.0	161
041100511205	5 G 2.5	13.3	107.2	233
041100510004	5 G 4	15.2	172.9	330
041100510006	5 G 6	16.8	255.3	461
041100510016	5 G 16	25.5	725.2	1106
041100510025	5 G 25	30.8	1130	1699

Note : * G = With green/yellow earth core



Application

For use in power chains or moving machine parts. Suitable for use in measuring, control and regulating circuits. Power circuits for electrical equipment used in automation engineering assembly lines, production lines and in all kinds of machines and plant engineering.

Technical Data

Standard : Requirement adapted to DIN VDE 0245, 0281

Temperature Range : Flexing -5°C to +70°C. Fixed installation -30°C to +70°C

Nominal Voltage : U_0 / U 300 / 500V

Test Voltage : 4000V

Insulation Resistance : Min. 20 GΩ x cm

Minimum Bending Radius : Flexing 7.5 x cable ø. Fixed installation 4 x cable ø

Cable Construction

Bare copper, fine wire conductors according to EN 60228 Cl. 6,

Core insulation of special PVC T12 EN 50363-3.

Black core with continuous white numbering according to DIN VDE 0293.

Green-yellow earth core in the outer layer (3 cores and above).

Non-woven wrapping.

Outer sheath of special PVC, TM2 to DIN/BS EN 50363-4.1.

Colour grey (RAL 7001).

Properties

PVC self-extinguishing and flame retardant according to EN 60332-1-2.

This cable is also available with UV resistance property as SERVO FD 85810 UV

Kindly add 'UV' after the part no. for UV resistant cable.

UV resistant to ASTM G 154.

Cable Design Parameters

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
041200201050	2 x 0.5	5.3	8.7	39
041200311050	3G 0.5	5.7	13	48
041200411050	4G 0.5	6.3	17.4	60
041200511050	5G 0.5	6.8	21.7	71
041200711050	7G 0.5	8.0	30.4	99
041201211050	12G 0.5	9.5	52.1	147
041201811050	18G 0.5	11.4	78.1	214
041202511050	25G 0.5	13.7	108.5	306

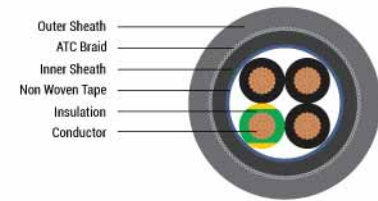
Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
041203011050	30G 0.5	14.3	130.2	344
041203411050	34G 0.5	15.6	147.5	403
041205011050	50G 0.5	18.5	216.9	574
041200201075	2 x 0.75	5.7	13.0	48
041200311075	3G 0.75	6.2	19.5	60
041200411075	4G 0.75	6.8	26.0	75
041200511075	5G 0.75	7.4	32.5	90
041200711075	7G 0.75	8.9	45.6	129
041201211075	12G 0.75	10.6	78.1	194
041201611075	16G 0.75	12	104.1	253
041201811075	18G 0.75	12.7	117.2	283
041202511075	25G 0.75	15.2	162.7	402
041200200001	2 x 1	6.1	17.4	57
041200310001	3G 1	6.6	26.0	72
041200410001	4G 1	7.3	34.7	90
041200510001	5G 1	8.0	43.4	110
041200710001	7G 1	9.6	60.7	157
041201210001	12G 1	11.4	104.1	237
041201410001	14G 1	12.3	121.5	276
041201610001	16G 1	13	138.8	311
041201810001	18G 1	13.9	156.2	353
041202510001	25G 1	16.4	216.9	491
041202610001	26G 1	16.4	225.6	498
041203410001	34G 1	18.9	295.1	658
041204110001	41G 1	20.6	355.8	786
041205010001	50G 1	22.3	433.9	936
041206510001	65G 1	25.4	564.1	1215
041200201105	2 x 1.5	6.8	26.0	75
041200311105	3G 1.5	7.4	39.1	96
041200411105	4G 1.5	8.1	52.1	119
041200511105	5G 1.5	9.1	65.1	150
041200711105	7G 1.5	9.9	91.1	189
041201211105	12G 1.5	12.9	156.2	322
041201811105	18G 1.5	15.0	234.3	456
041202511105	25G 1.5	17.6	325.4	630
041202611105	26G 1.5	17.8	338.4	649

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
041203411105	34G 1.5	20.2	442.6	841
041204111105	41G 1.5	22.0	533.7	1006
041204211105	42G 1.5	22.0	546.7	1017
041205011105	50G 1.5	24.0	650.8	1210
041200311205	3G 2.5	9.0	65.1	148
041200411205	4G 2.5	10.0	86.8	188
041200511205	5G 2.5	11.2	108.5	235
041200711205	7G 2.5	12.5	151.9	307
041201211205	12G 2.5	16.0	260.3	513
041201411205	14G 2.5	17.2	303.7	595
041200310004	3G 4	10.6	104.1	217
041200410004	4G 4	11.7	138.8	274
041200510004	5G 4	13.1	173.6	343
041200410006	4G 6	13.9	208.6	398
041200510006	5G 6	15.5	260.8	496
041200410010	4G 10	17.6	358.5	658
041200510010	5G 10	19.6	448.2	819
041200410016	4G 16	21.0	565.0	983
041200510016	5G 16	23.6	706.2	1236

Note :

* G = With green/yellow earth core

X = Without green/yellow earth core



Application

For use in power chains or moving machine parts. Suitable for use in measuring, control and regulating circuits. Power circuits for electrical equipment used in automation engineering assembly lines, production lines and in all kinds of machines and plant engineering. The PVC-inner sheaths of these cables raise the mechanical strength of the cable.

Technical Data

Standard : Requirement adapted to DINVDE 0245, 0281

Nominal Voltage : U_0 / U 300 / 500V

Insulation Resistance : Min. 20 GΩ x cm

Temperature Range : Flexing -5°C to +70°C. Fixed installation -30°C to +70°C

Minimum Bending Radius : Fixed installation 4 x cable ø

Test Voltage : Core/core: 4000V. Core/screen: 2000V

Cable Construction

Bare copper, fine wire conductors according to EN 60228 Cl.6.

Core insulation of special PVC TI2 EN 50363-3.

Black core with continuous white numbering according to DINVDE 0293.

Green/yellow earth core in the outer layer (3 cores and above).

Cores stranded in layers with short lay-length.

Non-woven wrapping.

PVC inner sheath, grey.

Tinned copper braiding.

Outer sheath of special PVC, TM2 to DIN/BS EN 50363-4.1.

Colour grey (RAL 7001).

Properties

PVC self-extinguishing and flame retardant according to EN 60332-1-2.

SERVO FD 90810 CY is also available with UV resistance property as SERVO FD 90810 CY UV

Kindly add 'UV' after the part no. for UV resistant cable.

UV resistant to ASTM G 154.

Cable Design Parameters

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
041300201050	2 x 0.5	7.2	24.5	76
041300311050	3G 0.5	7.5	30.2	86
041300411050	4G 0.5	8.1	36.3	102
041300511050	5G 0.5	8.6	42.4	116
041300711050	7G 0.5	9.1	54.3	136

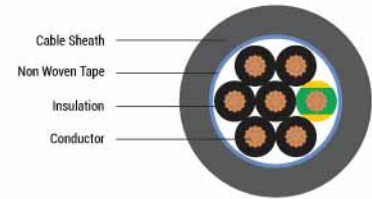
Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
041301211050	12G 0.5	11.5	84.2	216
041301811050	18G 0.5	13.5	117.5	301
041302511050	25G 0.5	15.12	156.9	386
041303011050	30G 0.5	16.02	185.1	442
041300201075	2 x 0.75	7.6	30.6	88
041300311075	3G 0.75	8.1	39.5	104
041300411075	4G 0.75	8.6	47.2	120
041300511075	5G 0.75	9.1	56.6	138
041300711075	7G 0.75	9.9	71.7	167
041301211075	12G 0.75	12.5	117.1	271
041301811075	18G 0.75	14.42	166.1	371
041302511075	25G 0.75	16.52	221.4	491
041303011075	30G 0.75	18	288.2	595
041300200001	2 x 1	8.1	37.3	102
041300310001	3G 1	8.4	47.3	116
041300410001	4G 1	8.9	58.8	136
041300510001	5G 1	9.7	69.4	161
041301210001	12G 1	13.22	145.7	316
041301810001	18G 1	15.42	210.4	442
041302510001	25G 1	17.4	286.0	580
041302610001	26G 1	17.4	295.7	588
041303410001	34G 1	20.2	392.5	788
041304110001	41G 1	22	466.3	927
041305010001	50G 1	23.7	554.0	1093
041300201105	2 x 1.5	8.9	48.2	126
041300311105	3G 1.5	9.3	64.0	148
041300411105	4G 1.5	10.0	82.3	180
041300511105	5G 1.5	10.5	96.8	202
041300711105	7G 1.5	11.5	128.8	254
041301211105	12G 1.5	15.2	216.8	439
041301611105	16G 1.5	16.7	295.2	555
041301811105	18G 1.5	17.7	317.5	617
041302511105	25G 1.5	20.7	426.7	840
041303411105	34G 1.5	23.5	563.9	1095
041300311205	3G 2.5	10.3	100.7	200
041300411205	4G 2.5	11.3	129.4	249

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
041300511205	5G 2.5	12.6	158.5	309
041300711205	7G 2.5	13.9	211.5	392
041300410004	4G 4	13.4	192.3	361
041300510004	5G 4	14.7	236.4	439
041300410006	4G 6	15.8	254.9	492
041300410010	4G 10	19.3	414.4	763
041300410016	4G 16	22.0	635.7	1076

Note :

+ G = With green/yellow earth core

X = Without green/yellow earth core



Application

For use in power chains or moving machine parts. Suitable for use in measuring, control and regulating circuits. Power circuits for electrical equipment used in automation engineering assembly lines, production lines and in all kinds of machines and plant engineering.

Technical Data

Standard : Requirement adapted to DINVDE 0245, 0281

Nominal Voltage : U0 / U 300 / 500V

Insulation Resistance : Min. 20 GΩ x cm

Temperature Range : Flexing -5°C to +70°C. Fixed installation -30°C to +70°C

Minimum Bending Radius : Flexing 7.5 x cable ø. Fixed installation 4 x cable ø

Test Voltage : 4000V

Cable Construction

Bare copper, fine wire conductors according to EN 60228 Cl.6.

Core insulation of special PVC T12 EN 50363-3.

Black core with continuous white numbering according to DINVDE 0293.

Green/yellow earth core in the outer layer (3 cores and above).

Cores stranded in layers with short lay-length.

Non-woven wrapping.

Outer sheath of PUR.

Colour grey (RAL 7001).

Properties

Flame retardant according to EN 60332-1-2.

Oil resistant.

UV resistant to ASTM G 154.

Cable Design Parameters

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
041400201050	2 x 0.5	5.3	9.7	35
041400311050	3G 0.5	5.7	13	43
041400411050	4G 0.5	6.3	17.4	54
041400511050	5G 0.5	6.8	21.7	64
041400711050	7G 0.5	8.0	30.4	89
041401211050	12G 0.5	9.5	52.1	135

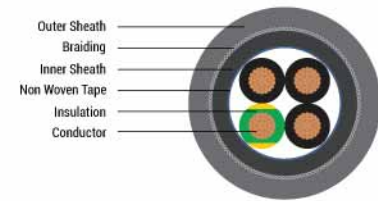
Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
041401811050	18G 0.5	11.4	78.1	198
041400201075	2 x 0.75	5.7	13.0	43
041400311075	3G 0.75	6.2	19.5	55
041400411075	4G 0.75	6.8	26.0	68
041400511075	5G 0.75	7.4	32.5	82
041400711075	7G 0.75	8.9	45.6	118
041401211075	12G 0.75	10.6	78.1	180
041401811075	18G 0.75	12.7	117.2	264
041402511075	25G 0.75	15.2	162.7	373
041400200001	2 x 1	6.1	17.4	51
041400310001	3G 1	6.6	26.0	65
041400410001	4G 1	7.3	34.7	83
041400510001	5G 1	8.0	43.4	101
041400710001	7G 1	9.6	60.7	144
041401210001	12G 1	11.4	104.1	220
041401810001	18G 1	13.9	156.2	329
041402510001	25G 1	16.4	216.9	457
041403410001	34G 1	18.9	295.1	614
041404110001	41G 1	20.6	355.8	735
041405010001	50G 1	22.3	433.9	877
041406510001	65G 1	25.4	564.1	1139
041400201105	2 x 1.5	7.0	26.0	70
041400311105	3G 1.5	7.6	39.1	90
041400411105	4G 1.5	8.3	52.1	114
041400511105	5G 1.5	9.3	65.1	143
041400711105	7G 1.5	10.2	91.1	182
041401211105	12G 1.5	13.3	156.2	312
041401611105	16 G 1.5	14.6	208.3	395
041401811105	18G 1.5	15.4	234.3	444
041402511105	25G 1.5	18.1	325.4	614
041403411105	34G 1.5	20.8	442.6	822
041404211105	42G 1.5	22.6	546.7	997
041405011105	50G 1.5	24.7	650.8	1186
041400311205	3G 2.5	9.0	65.1	136
041400411205	4G 2.5	10.0	86.8	174
041400511205	5G 2.5	11.2	108.5	218

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
041400711205	7G 2.5	12.5	151.9	287
041401211205	12G 2.5	16.0	260.3	482
041401411205	14G 2.5	17.2	303.7	559
041400410004	4G 4	11.7	138.8	255
041400510004	5G 4	13.1	173.6	320
041400110006	1 G 6	6.4	52.2	87
041400410006	4G 6	13.9	208.6	372
041400110010	1 G 10	7.7	89.6	139
041400410010	4G 10	17.6	358.5	616
041400510010	5G 10	19.6	448.2	767
041400110016	1 G 16	9.2	141.2	209
041400410016	4G 16	21.0	565.0	925

Note :

* G = With green/yellow earth core

x = Without green/yellow earth core



Application

For use in power chains or moving machine parts. Suitable for use in measuring, control and regulating circuits. Power circuits for electrical equipment used in automation engineering assembly lines, production lines and in all kinds of machines and plant engineering. The PVC-inner sheath of these cables raise the mechanical strength of the cable.

Technical Data

Standard : Requirement adapted to DINVDE 0245, 0281

Nominal Voltage : U_0 / U 300 / 500V

Insulation Resistance : Min. 20 GΩ x cm

Temperature Range : Flexing -5°C to +70°C. Fixed installation -30°C to +70°C

Minimum Bending Radius : Flexible use 7.5 x cable ø. Fixed installation 4 x cable ø

Test Voltage : Core/core: 4000V. Core/screen: 2000V

Cable Construction

Bare copper, fine wire conductors according to EN 60228 Cl.6.

Core insulation of special PVC TI2 EN 50363-3.

Black core with continuous white numbering according to DINVDE 0293.

Green/yellow earth core in the outer layer (3 cores and above).

Cores stranded in layers with short lay-length.

Non-woven wrapping.

PVC inner sheath, grey.

Tinned copper braiding.

Outer sheath of PUR.

Colour grey (RAL 7001).

Properties

Flame retardant according to EN 60332-1-2.

For use in damp or wet interiors.

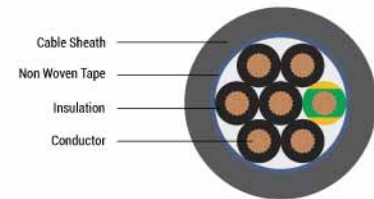
UV resistant to ASTM G 154.

Cable Design Parameters

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
041500201050	2 x 0.5	7.2	24.5	72
041500311050	3G 0.5	7.5	30.2	81
041500411050	4G 0.5	8.1	36.3	96
041500511050	5G 0.5	8.6	42.4	110
041500711050	7G 0.5	9.1	54.3	130
041501211050	12G 0.5	11.5	84.2	207

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
041500201075	2 x 0.75	7.6	30.6	83
041500311075	3G 0.75	8.1	39.5	99
041500411075	4G 0.75	8.6	47.2	114
041500511075	5G 0.75	9.1	56.6	132
041500711075	7G 0.75	9.9	71.7	160
041501211075	12G 0.75	12.5	117.1	261
041501611075	16 G 0.75	13.8	149.1	325
041501811075	18G 0.75	14.4	166.1	358
041502511075	25G 0.75	16.5	221.4	475
041500200001	2 x 1	8.1	37.3	97
041500310001	3G 1	8.4	47.3	111
041500410001	4G 1	8.9	58.8	130
041500510001	5G 1	9.7	69.4	154
041500710001	7G 1	10.4	92.1	189
041501210001	12G 1	13.2	145.7	305
041501810001	18G 1	15.4	210.4	426
041502510001	25G 1	17.4	286.0	563
041500201105	2 x 1.5	8.9	48.2	120
041500311105	3G 1.5	9.3	64.0	142
041500411105	4G 1.5	10.0	82.3	172
041500511105	5G 1.5	10.5	96.8	196
041500711105	7G 1.5	11.5	128.8	247
041501211105	12G 1.5	15.2	216.8	424
041501811105	18G 1.5	17.7	317.5	598
041502511105	25G 1.5	20.7	426.7	814
041500311205	3G 2.5	10.3	100.7	194
041500411205	4G 2.5	11.3	129.4	241
041500511205	5G 2.5	12.6	158.5	298
041500711205	7G 2.5	13.9	211.5	380
041501211205	12 G 2.5	17.5	341.9	609
041501411205	14 G 2.5	18.2	394.5	684
041501410004	4G 4	13.4	192.3	347
041501410006	4G 6	15.8	254.9	477
041501410010	4G 10	19.3	414.4	737
041501410016	4G 16	22.0	635.7	1049

Note :
 * G = With green/yellow earth core
 X = Without green/yellow earth core



Application

For use in power chains or moving machine parts. Suitable for use in measuring, control and regulating circuits. Power circuits for electrical equipment used in automation engineering assembly lines, production lines and in all kinds of machines and plant engineering.

Technical Data

Standard : Requirement adapted to DIN VDE 0250/0281/0282

Nominal Voltage : U_0 / U 300 / 500V

Insulation Resistance : Min. 20 G Ω x cm

Temperature Range : Flexing -40°C to +70°C. Fixed installation -50°C to +70°C

Minimum Bending Radius : Flexing 5 x cable ϕ . Fixed installation 3 x cable ϕ

Test Voltage : 4000V

Cable Construction

Bare copper, fine wire conductors according to EN 60228 Cl.6.

Core insulation of TPE.

Black core with continuous white numbering according to DIN VDE 0293.

Green/yellow earth core in the outer layer (3 cores and above).

Cores stranded in layers with short lay-length.

Non-woven wrapping.

Outer sheath of PUR.

Colour grey (RAL 7001).

Properties

Flame retardant according to EN 60332-1-2.

For use in damp or wet interiors.

UV resistant to ASTM G 154.

Halogen free.

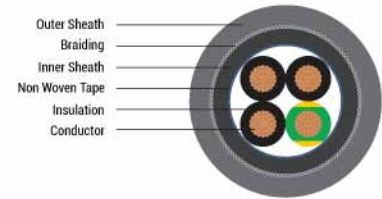
Cable Design Parameters

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
041600201050	2 x 0.5	5.1	9.7	33
041600311050	3G 0.5	5.5	13.0	39
041600411050	4G 0.5	6.0	17.4	49
041600511050	5G 0.5	6.6	21.7	59
041600611050	6 G 0.5	7.1	26.0	70
041600711050	7G 0.5	7.7	30.4	82
041601211050	12G 0.5	9.1	52.1	122

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
041601811050	18G 0.5	10.9	78.1	179
041602011050	20 G 0.5	11.5	86.8	199
041602511050	25 G 0.5	13.4	108.5	262
041603011050	30 G 0.5	13.6	130.2	286
041603611050	36 G 0.5	14.7	156.2	338
041600201075	2x 0.75	5.6	13.0	40
041600311075	3G 0.75	6.0	19.5	51
041600411075	4G 0.76	6.7	26.0	64
041600511075	5G 0.75	7.3	32.5	78
041600711076	7G 0.75	8.8	45.6	112
041601211075	12G 0.75	10.3	78.1	167
041601611075	18G 0.75	12.4	117.2	245
041602011075	20 G 0.75	13.3	130.2	278
041602511075	25G 0.75	15.5	162.7	366
041603611075	36G 0.75	16.9	234.3	471
041600200001	2x 1	6.0	17.4	49
041600310001	3G 1	6.5	26.0	62
041600410001	4G 1	7.2	34.7	79
041600610001	5G 1	7.8	43.4	95
041600710001	7G 1	9.5	60.7	137
041601210001	12G 1	11.2	104.1	208
041601810001	18G 1	13.7	156.2	311
041602010001	20G 1	14.4	173.6	345
041602510001	25G 1	16.8	216.9	452
041603010001	30 G1	17.0	260.3	497
041603610001	36 G1	18.6	312.4	595
041600201105	2x 1.5	6.7	26.0	64
041600311105	3G 1.5	7.3	39.1	84
041600411105	4G 1.5	8.0	52.1	105
041600511105	5G 1.5	9.0	65.1	132
041600711105	7G 1.5	10.7	91.1	186
041601211105	12G 1.5	12.7	156.2	287
041601811105	18G 1.5	15.2	234.3	420
041602511105	25G 1.5	18.8	325.4	614
041603011105	30G 1.5	18.8	390.5	671
041603611105	36G 1.5	20.6	468.6	805

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
041604111105	41G 1.5	22.4	533.7	934
041600311205	3G 2.5	8.9	65.1	131
041600411205	4G 2.5	9.9	86.8	167
041600511205	5G 2.5	11.0	108.5	207
041600711205	7G 2.5	13.4	151.9	300
041601211205	12G 2.5	15.8	260.3	460
041601811205	18G 2.5	18.9	390.5	674
041602511205	25G 2.5	23.5	542.4	989

Note :
 * G = With green/yellow earth core
 X = Without green/yellow earth core



Application

In power chains or moving machine parts suitable for use in measuring, control and regulating circuits. Power circuits for electrical equipments used in automation engineering, assembly lines, production lines, in all kinds of machines and plant engineering.

Technical Data

Standard : Requirement adapted to DIN VDE 0245, 0281

Nominal Voltage : U_0 / U 300 / 500V

Insulation Resistance : Min. 20 GΩ x cm

Temperature Range : Flexing -40°C to +80°C. Fixed installation -50°C to +80°C

Minimum Bending Radius : Flexible use 7.5 x cable ø. Fixed installation 4 x cable ø

Test Voltage : Core/core: 4000V. Core/screen: 2000V

Cable Construction

Bare copper, fine wire conductors according to EN 60228 Cl.6.

Core insulation of special TPE.

Black core with continuous white numbering according to DIN VDE 0293.

Green/yellow earth core in the outer layer (3 cores and above).

Cores stranded in layers with short lay-length.

Non-woven wrapping.

TPE inner sheath, grey.

Tinned copper braiding.

Outer sheath of PUR.

Colour grey (RAL 7001).

Properties

Flame retardant according to EN 60332-1-2.

For use in damp or wet interiors.

UV resistant to ASTM G 154.

Halogen free.

Cable Design Parameters

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
041700201050	2 x 0.5	6.7	25.5	58
041700311050	3G 0.5	7.1	30.6	67
041700511050	5G 0.5	8.2	42.3	90
041700611050	6 G 0.5	8.7	49.2	103
041700711050	7G 0.5	9.5	53.7	120

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
041701211050	12G 0.5	10.9	84.2	168
041701811050	18G 1	12.9	210.4	313
041702011050	20 G 0.5	13.5	128.1	259
041702511050	25G 0.5	15.0	156.9	319
041703011050	30 G 0.5	15.8	181.7	362
041703611050	36 G 0.5	16.9	214.5	420
041700201075	2 x 0.75	7.2	30.6	67
041700311075	3G 0.75	7.6	39.5	80
041700411075	4G 0.75	8.3	47.2	96
041700511075	5G 0.75	8.9	56.6	113
041700711075	7G 0.75	10.6	71.7	155
041701211075	12G 0.75	12.1	117.1	220
041701811075	18G 0.75	14.6	166.1	319
041702511075	25G 0.75	17.7	221.4	452
041703611075	36G 0.75	19.4	306.5	576
041700200001	2 x 1	7.6	37.3	78
041700310001	3G 1	8.1	47.3	94
041700410001	4G 1	8.8	58.8	114
041700510001	5G 1	9.6	69.4	135
041700710001	7G 1	11.3	92.1	185
041701210001	12G 1	13.2	145.7	269
041701810001	18G 1	15.9	210.4	392
041702510001	25G 1	19.5	286	568
041703010001	30 G 1	19.6	335.1	612
041703610001	36 G 1	21.2	397.8	722
041700201105	2 x 1.5	8.9	48.2	106
041700311105	3G 1.5	9.3	64.0	126
041700411105	4G 1.5	10.0	82.0	153
041700511105	5G 1.5	10.5	96.8	172
041700711105	7G 1.5	11.5	128.8	219
041701211105	12G 1.5	15.2	223.8	385
041701811105	18G 1.5	17.7	317.5	535
041702511105	25G 1.5	20.3	426.7	709
041703611105	36 G 1.5	22.7	593.0	938
041700311205	3G 2.5	10.7	96.6	178
041700411205	4G 2.5	11.7	123.6	220

Part Number	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
041700511205	5G 2.5	12.8	151	266
041700711205	7G 2.5	14	211.5	344
041701211205	12 G 2.5	17.5	346.5	553
041701811205	18G 2.5	20.2	499.1	771
041702511205	25G 2.5	23.6	675.3	1044

Note :

- G = With green/yellow earth core
- X = Without green/yellow earth core

