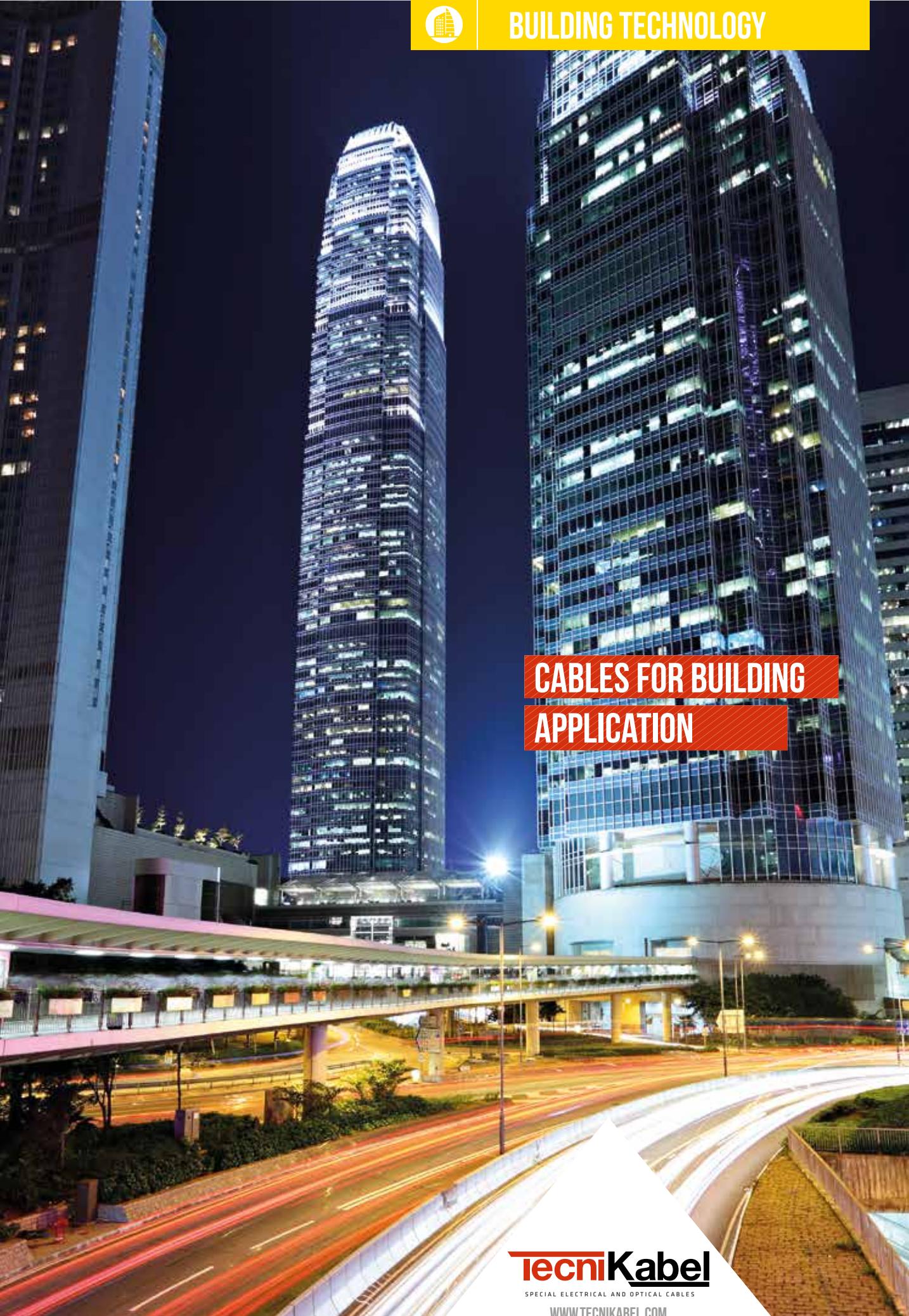




BUILDING TECHNOLOGY



CABLES FOR BUILDING  
APPLICATION

**TecniKabel**  
SPECIAL ELECTRICAL AND OPTICAL CABLES  
[WWW.TECNIKABEL.COM](http://WWW.TECNIKABEL.COM)



**tecnikabel**

SPECIAL ELECTRICAL AND OPTICAL CABLES



Techni Kabel

## INTRODUCTION

### Structured cabling solutions.

Tecnikabel can provide a wide range of signal transmission solutions for public and private areas. Whether building entrance or roof, data center, meeting rooms, auditoriums or conference rooms, we can build management and security system control rooms for each individual office or workstation. Fully integrated solutions employing copper cable and fiber to carry voice, video and data.

### Security & alarm cables

Many current public and private buildings, such as offices, hospitals, airports, amusement parks, retail outlets, schools, stadiums and other such places, all have surveillance systems to track visitors and employees. The purpose of these systems is clear: to protect people, the facility and its assets. These cables are designed to make installation as simple as possible, and thereby save time and money. Based on the continuous demands of the market, Tecnikabel has developed the series 3, 6 and 7 of cables for building applications. In the event of fire, it is critically important that the electrical detection, warning and alarm systems continue to operate - even in extreme conditions, such as fire and high heat. To ensure the safety and evacuation of personnel, the fire alarm system must not fail. Many Tecnikabel cables are specifically designed for use during severe fires. In such circumstances, fire resistance, low smoke emission and zero halogen emissions ensure there is no irremediable risk to either circuit or personnel.

These cables are ideal for fire detection systems, emergency lighting, video surveillance and public address systems.

The cables must ensure the following main features are complied with:

- high level of alarm circuit efficiency
- continuous operation in the event of fire

### PRODUCT LINES

	TRANSPORTATION
	OIL / GAS & PETROCHEMICALS
	TELECOMMUNICATION
	OPTICAL
	AUTOMATION
	SUBMARINE
	HEALTHCARE
	AUDIOVIDEO
	NAVAL
	DEFENSE
	HYBRID
	BUILDING TECHNOLOGY

## **TECNIKABEL**

is focused on constant product innovation to get competitive advantages with endless commitment to research and development.

### **PRODUCTION**

Updated production Systems, stringent process procedures and expert operators reached the goal to carry out our production efficient and flexible.

In 30 years of activity, we produced more than 26.000 different types of cables.

### **FINAL INSPECTIONS**

At the end of every production process each cable is checked in its electrical and physical performances for a complete compliance to customer specifications.

### **LABORATORY TESTS**

We submit our cables to the most severe tests, simulating critical applications. In addition to the tests required by current norms, we invest on new special equipment for additional mechanical and electrical testing, heading to a steady increase of standard performance of our cables.

### **MATERIALS RESEARCH AND DEVELOPMENT**

Our thirty year experience took us to carry on research of new materials in order to improve performances, costs and fulfill the standards required by our customers.

## QUALITY SYSTEM

Since 1978, constant commitment to Quality has awarded Tecnikabel approval from American and European Authorities, complying with the most demanding international manufacturing and quality standards.



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## SYMBOLS

### ENVIRONMENTAL PROPERTIES



FLAME RETARDANT SINGLE WIRE  
(IEC 60332-1-2)



DIRECT BURIAL



FLAME RETARDANT BUNCHED WIRES  
(IEC 60332-3)



ANTIBALLISTIC  
PROTECTION



FIRE RESISTANCE (IEC 60331 - EN50200 -  
BS6387 CWZ)

### CHEMICAL PROPERTIES



REDUCED EMISSION OF FUMES AND  
TOXIC GASES (IEC 60754-1; EN 50267-2-1)



MUD RESISTANCE



SMOKE DENSITY (IEC 61034-1/2)



MINERAL OIL RESISTANCE



LOW ACIDITY AND CORROSIVITY OF  
EVOLVED GASES (IEC 60754-2)



HYDROCARBONS RESISTANCE



WEATHERING TEST RESISTANCE  
(OUTDOOR)

### MECHANICAL PROPERTIES



INDOOR



MECHANICAL RESISTANCE



WATER RESISTANCE



REDUCED BENDING RADIUS



RODENT RESISTANCE



WORK AT LOW TEMPERATURE



HAZARDOUS AREA



FLEXIBLE INSTALLATION



FULLY DIELECTRIC





# **FIRE PERFORMANCES**

## **IEC 60332-1 / EN 50265 / BS 4066:**

### **Fire propagation on a vertical single cable.**

The single cable is mounted vertically and flamed with a Bunsen burner.

The flame must extinguish itself, at least 50 mm below the upper fixing clamp.

Temperature of burner, duration and angle of flame application, are described in the reference standards.



## **IEC 61034-1/2 / EN 50268-1/2 Measurement of smoke density of cables burning under defined conditions.**

A few samples of cable are burnt in a cubic (3x3x3m) chamber using a flammable liquid.

The light transmittance of the resulting smoke is measured using an optical light detector. The test duration is about 40 minutes, depending by the quantity and composition of the liquid fuel. At the end of the test the light transmittance of the smoke must be 60% minimum.

## **IEC 60754-1 / EN 50267-2-1 Test on gases evolved during combustion of materials from cables - Determination of the halogen acid gas content.**

This standard covers the general aspects of potential hazard caused from corrosiveness of smoke and combustion gases.

A small quantity of non-metallic material is heated in a tube, the resulting gases are tested for their halogen content. The flame temperature is  $800^{\circ}\text{C} \pm 10^{\circ}\text{C}$ , with a test duration of  $40 \pm 5$  min in total.

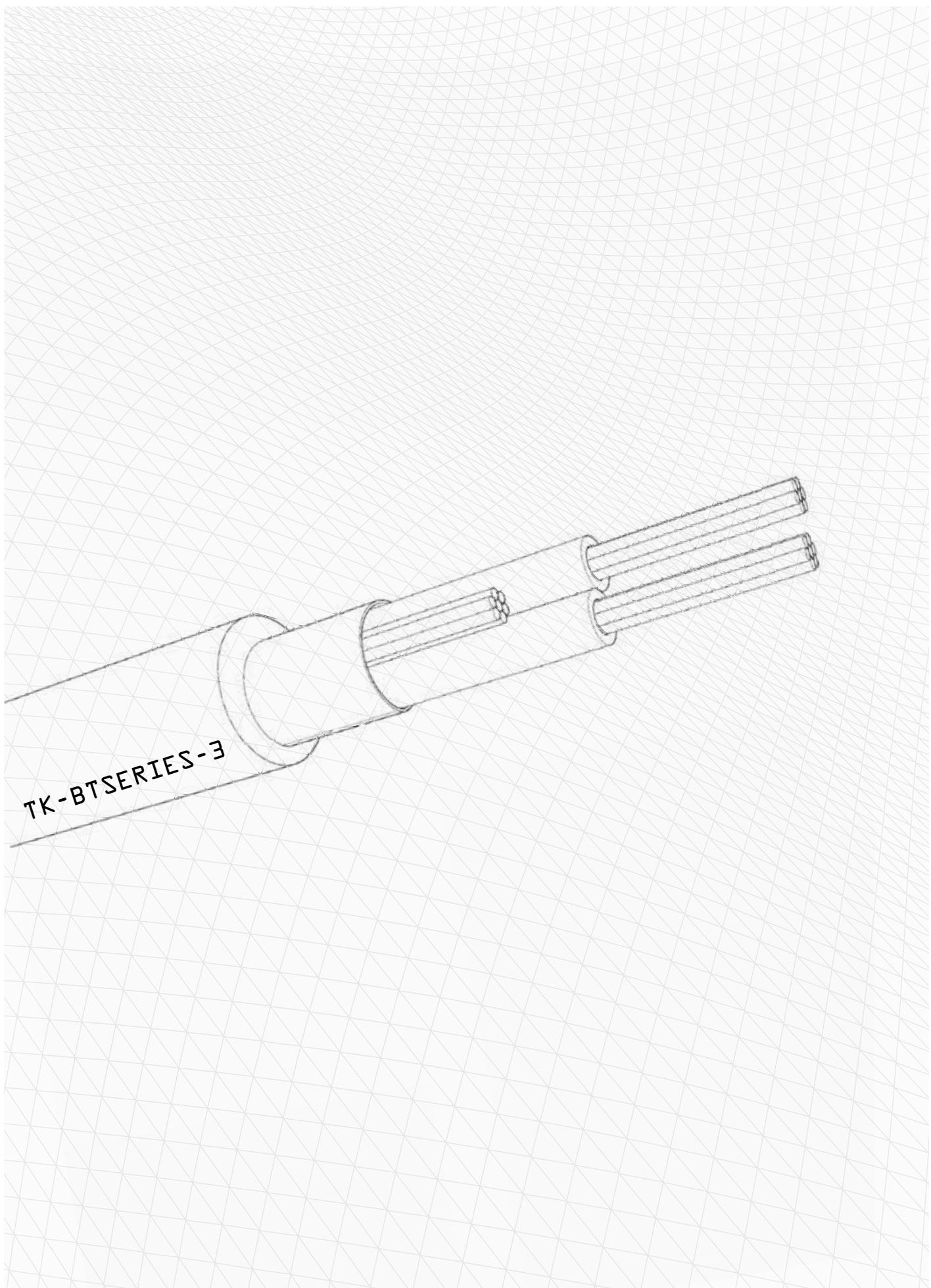
The halogen content of non-metallic materials must be less than 0.5% or 5 mg/g.

## **IEC 60754-2 / EN 50267-2-2 Test on gases evolved during combustion of materials from cables - Determination of acidity (by pH measurement) and conductivity.**

A small quantity of non-metallic material is burnt in a furnace, the pH and conductivity of combustion gases dissolved in water are measured.

The minimum pH value of the washing water must 4.3, and the maximum conductivity must be 10  $\mu\text{S}/\text{mm}$ .

► TK-BTSERIES-3





## CABLE SPECIFICATIONS



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## TECHNICAL DATA

### Conductor

### Insulation

### Core identification

Stranded Bare Copper

Polyolefin

Black, Red. (2 Cores)

Black, Red, White. (3 Cores)

Black, Red, White, Green. (4 Cores)

Black, Red, White, Green,

Brown, Blue.(6 Cores)

Black, Red, White, Green,

Brown, Blue, Orange, Yellow. (8 Cores)

### Outer Sheath

### Colour

Flame retardant, low smoke and halogen-free or PVC material

Grey

Other colours available upon request

### Operating Voltage

### Operating temperature range

### Installation temperature

### Minimum bending radius

300V

-40°C ÷ + 80°C (LSZH)

-20°C ÷ + 70°C (PVC)

-10°C ÷ + 50°C

Static: 5 x outer diameter

Dynamic: 15 x outer diameter

## FIRE PERFORMANCE

### Fire propagation

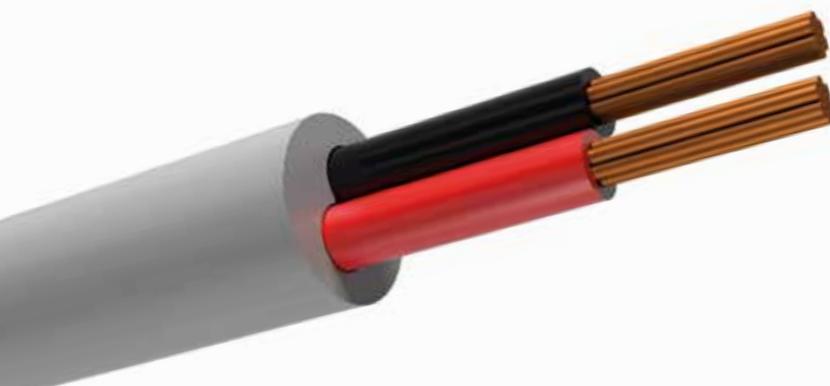
### Halogen-free

### Low smoke density

IEC 60332-1-2

IEC 60754-1/2 (only LSZH material)

IEC 61034-1/2 (only LSZH material)



(\*) Only for LSZH version

(\*\*) Only for PVC version

## TK-MUCASCBI/SERIES 3

### MAIN FEATURES

N° of Cores & Conductor	Nominal diameter	Conductor resistance (@20°C max.)	Insulation resistance (@20°C min.)	Max pulling force	Cable weight [Kg/Km]	TK code
Cross Section N°. X AWG	Sheath [mm]	[Ω/Km]	[MΩ * Km]	[N]		[p/n]
2 x AWG22	3.7	58	20	34	18.2	324TK36222
3 x AWG22	3.9	58	20	51	23.3	324TK36322
4 x AWG22	4.2	58	20	68	28.8	324TK36422
6 x AWG22	5.0	58	20	102	41.3	324TK36622
8 x AWG22	5.4	58	20	136	52.2	324TK36822
2 x AWG20	4.5	38	20	56	27.9	331TK36220
3 x AWG20	4.7	38	20	84	35.1	331TK36320
4 x AWG20	5.1	38	20	112	44.4	331TK36420
6 x AWG20	6.1	38	20	168	62.3	331TK36620
8 x AWG20	6.6	38	20	224	76.8	331TK36820
2 x AWG18	4.9	24	20	80	36.6	338TK36218
3 x AWG18	5.2	24	20	120	48.0	338TK36318
4 x AWG18	5.6	24	20	160	59.4	338TK36418
6 x AWG18	6.6	24	20	240	84.5	338TK36618
8 x AWG18	7.1	24	20	320	106.2	338TK36818
2 x AWG16	5.2	16	20	132	44.2	343TK36216
3 x AWG16	5.5	16	20	198	59.3	343TK36316
4 x AWG16	6.0	16	20	264	74.9	343TK36416
6 x AWG16	7.1	16	20	396	104.2	343TK36616
8 x AWG16	7.7	16	20	528	133.1	343TK36816
2 x AWG14	6.3	10	20	204	63.3	350TK36214
3 x AWG14	6.7	10	20	306	88.6	350TK36314
4 x AWG14	7.3	10	20	408	110.5	350TK36414
6 x AWG14	8.7	10	20	612	159.6	350TK36614
8 x AWG14	9.4	10	20	813	206.2	350TK36814
2 x AWG12	7.5	6.4	20	326	98.2	363TK36212
3 x AWG12	7.9	6.4	20	489	130.6	363TK36312
4 x AWG12	8.7	6.4	20	652	164.9	363TK36412
6 x AWG12	10.4	6.4	20	978	237.4	363TK36612
8 x AWG12	11.5	6.4	20	1304	306.8	363TK36812



### CABLE SPECIFICATIONS



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### TECHNICAL DATA

#### Conductor

#### Insulation

#### Core identification

Stranded Bare Copper

Polyolefin

- Black, Red. (2 Cores)
- Black, Red, White. (3 Cores)
- Black, Red, White, Green. (4 Cores)
- Black, Red, White, Green,
- Brown, Blue.(6 Cores)
- Black, Red, White, Green,
- Brown, Blue, Orange, Yellow. (8 Cores)

#### Overall Shield

#### Outer Sheath

#### Colour

Aluminium/Plastic Tape with Tinned Copper Drain Wire

Flame retardant, low smoke and halogen-free or PVC material

Grey

Other colours available upon request

#### Operating Voltage

#### Operating temperature range

#### Installation temperature

#### Minimum bending radius

300V

-40°C ÷ + 80°C (LSZH)

-20°C ÷ + 70°C (PVC)

-10°C ÷ + 50°C

Static: 5 x outer diameter  
Dynamic: 15 x outer diameter

### FIRE PERFORMANCE

#### Fire propagation

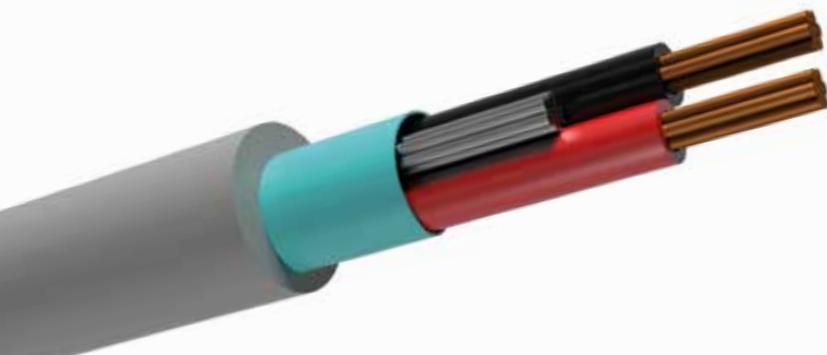
#### Halogen-free

#### Smoke density

IEC 60332-1-2

IEC 60754-1/2 (only LSZH material)

IEC 61034-1/2 (only LSZH material)



(\*) Only for LSZH version

(\*\*) Only for PVC version

## TK-MSCASCBI/SERIES 3

### MAIN FEATURES

N° of Cores & Conductor Cross Section	Nominal diameter Sheath [mm]	Conductor resistance (@20°C max.) [Ω/Km]	Insulation resistance (@20°C min.) [MΩ * Km]	Max pulling force [N]	Cable weight [Kg/Km]	TK code [p/n]
2 x AWG22	3.8	58	20	34	21.5	424TK35222
3 x AWG22	4.0	58	20	51	26.6	424TK35322
4 x AWG22	4.3	58	20	68	32.1	424TK35422
6 x AWG22	5.1	58	20	102	44.6	424TK35622
8 x AWG22	5.5	58	20	136	55.5	424TK35822
2 x AWG20	4.6	38	20	56	31.2	431TK35220
3 x AWG20	4.8	38	20	84	38.4	431TK35320
4 x AWG20	5.2	38	20	112	47.7	431TK35420
6 x AWG20	6.2	38	20	168	65.6	431TK35620
8 x AWG20	6.7	38	20	224	80.1	431TK35820
2 x AWG18	5.0	24	20	80	39.9	438TK35218
3 x AWG18	5.3	24	20	120	51.3	438TK35318
4 x AWG18	5.7	24	20	160	62.7	438TK35418
6 x AWG18	6.7	24	20	240	87.8	438TK35618
8 x AWG18	7.2	24	20	320	109.5	438TK35818
2 x AWG16	5.3	16	20	132	47.5	443TK35216
3 x AWG16	5.6	16	20	198	62.6	443TK35316
4 x AWG16	6.1	16	20	264	78.2	443TK35416
6 x AWG16	7.2	16	20	396	107.5	443TK35616
8 x AWG16	7.8	16	20	528	136.4	443TK35816
2 x AWG14	6.4	10	20	204	66.6	450TK35214
3 x AWG14	6.8	10	20	306	91.9	450TK35314
4 x AWG14	7.4	10	20	408	113.8	450TK35414
6 x AWG14	8.8	10	20	612	162.9	450TK35614
8 x AWG14	9.5	10	20	813	209.5	450TK35814
2 x AWG12	7.6	6.4	20	326	101.5	463TK35212
3 x AWG12	8.0	6.4	20	489	133.9	463TK35312
4 x AWG12	8.8	6.4	20	652	168.2	463TK35412
6 x AWG12	10.5	6.4	20	978	240.7	463TK35612
8 x AWG12	11.6	6.4	20	1304	310.1	463TK35812

► NOTES



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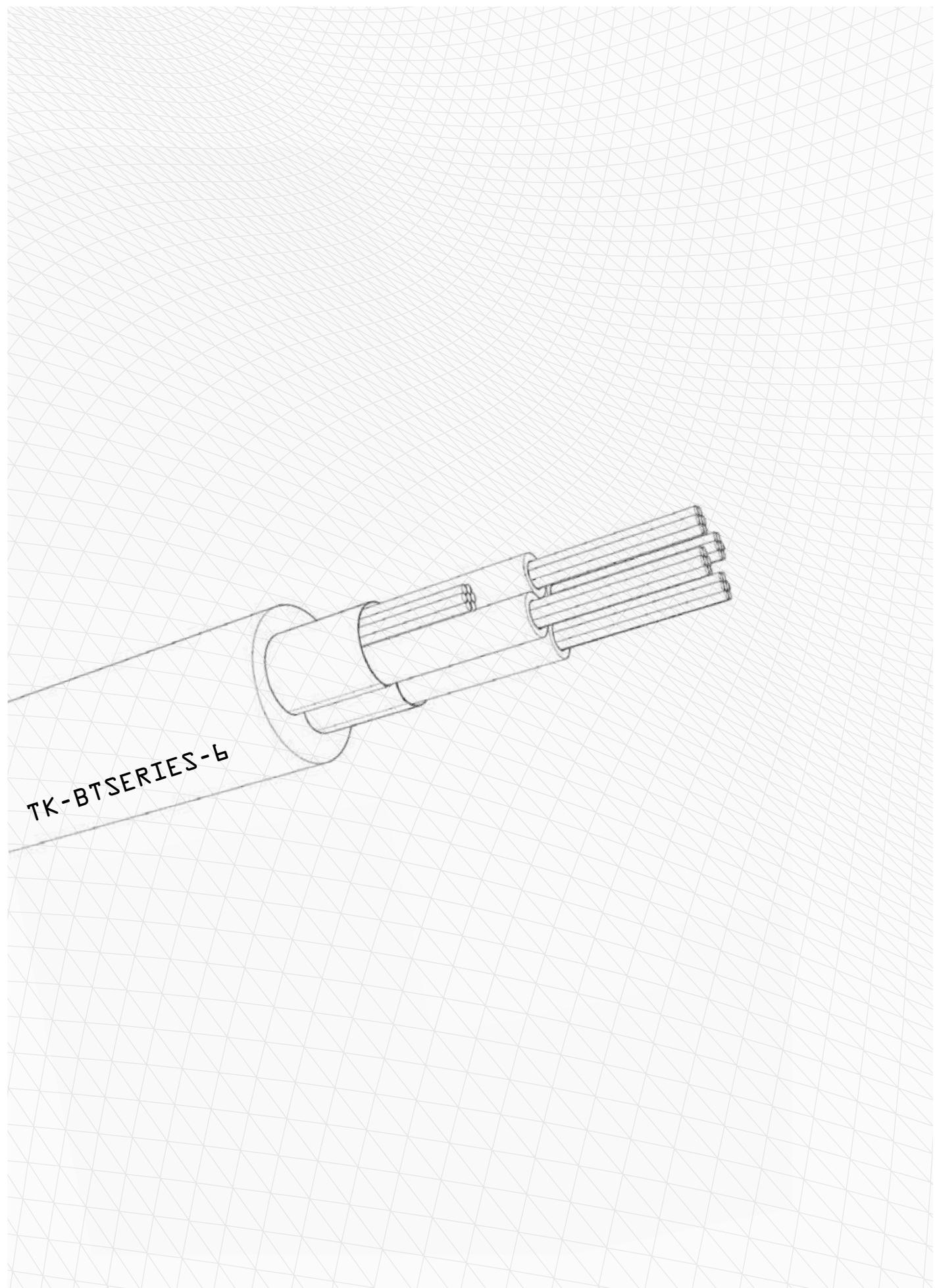
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► TK-BTSERIES-6





## CABLE SPECIFICATIONS



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## TECHNICAL DATA

**Characteristic Impedance**

120Ω (nominal)

**Mutual Capacitance**

42 pF/m (nominal)

**Operating Voltage**

300V

**Operating temperature range**

-40°C ÷ + 80°C (LSZH)

**Installation temperature**

-20°C ÷ + 70°C (PVC)

**Minimum bending radius**

-10°C ÷ + 50°C

Static: 5 x outer diameter

Dynamic: 15 x outer diameter

## FIRE PERFORMANCE

**Fire propagation**

IEC 60332-1-2

**Halogen-free**

IEC 60754-1/2 (only LSZH material)

**Smoke density**

IEC 61034-1/2 (only LSZH material)

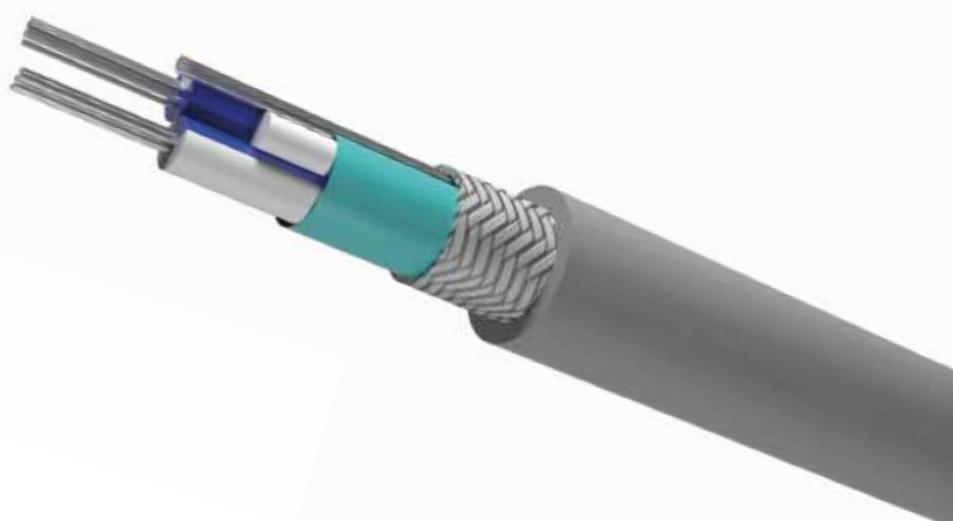
(\*) Only for LSZH version

(\*\*) Only for PVC version

## ► TK-MPSCRS485/SERIES 6

### MAIN FEATURES

N° of Cores & Conductor	Nominal diameter	Conductor resistance (@20°C max.)	Insulation resistance (@20°C min.)	Max pulling force	Cable weight [Kg/Km]	TK code
Cross Section N°. X AWG	Sheath [mm]	[Ω/Km]	[MΩ * Km]	[N]		[p/n]
1 x 2 x AWG24	5.9	90	500	22	49	518TK69124
2 x 2 x AWG24	8.7	90	500	44	81.8	518TK69224
3 x 2 x AWG24	9.2	90	500	66	90.9	518TK69324
4 x 2 x AWG24	9.9	90	500	88	114.1	518TK69424
1 x 2 x AWG22	7.3	59	500	35	67.5	524TK69122
2 x 2 x AWG22	9.1	59	500	70	76.1	524TK69222
3 x 2 x AWG22	10.5	59	500	105	97.6	524TK69322
4 x 2 x AWG22	11.4	59	500	140	120.2	524TK69422



**CABLE SPECIFICATIONS**

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**TECHNICAL DATA****Characteristic Impedance**

100Ω (nominal)

**Mutual Capacitance**

46 pF/m (nominal)

**Operating Voltage**

300V

**Operating temperature range**

-40°C ÷ + 80°C (LSZH)

**Installation temperature**

-20°C ÷ + 70°C (PVC)

**Minimum bending radius**

-10°C ÷ + 50°C

Static: 5 x outer diameter

Dynamic: 15 x outer diameter

**FIRE PERFORMANCE****Fire propagation**

IEC 60332-1-2

**Halogen-free**

IEC 60754-1/2 (only LSZH material)

**Smoke density**

IEC 61034-1/2 (only LSZH material)

(\*) Only for LSZH version

(\*\*) Only for PVC version

## ► TK-MPISCRS422/SERIES 6

### MAIN FEATURES

N° of Cores & Conductor	Nominal diameter	Conductor resistance (@20°C max.)	Insulation resistance (@20°C min.)	Max pulling force	Cable weight [Kg/Km]	TK code
Cross Section	Sheath [mm]	[Ω/Km]	[MΩ * Km]	[N]		[p/n]
2 x 2 x AWG24	6.7	90	500	44	42.1	418TK68224
3 x 2 x AWG24	8.4	90	500	66	58.8	418TK68324
4 x2 x AWG24	9.2	90	500	88	74.6	418TK68424
6 x2 x AWG24	10.7	59	500	132	105.1	418TK68624
1 x2 x AWG22	7.3	59	500	35	67.5	424TK68122
2 x2 x AWG22	9.1	59	500	70	76.1	424TK68222
3 x2 x AWG22	10.5	59	500	105	97.6	424TK68322
4 x2 x AWG22	11.4	59	500	140	120.2	424TK68422





**CABLE SPECIFICATIONS**

<b>Conductor</b>	Stranded Tinned Copper
<b>Insulation</b>	Semi-Rigid PVC
<b>Core identification</b>	<ul style="list-style-type: none"> <li>- (Black/Red)</li> <li>1 Pair</li> <li>- (Black/Red) (Black/White)</li> <li>2 Pairs</li> <li>- (Black/Red) (Black/White) (Black/Green)</li> <li>3 Pairs</li> <li>- (Black/Red) (Black/White) (Black/Green) (Black/Blue)</li> <li>4 Pairs</li> <li>- (Black/Red) (Black/White) (Black/Green) (Black/Blue) (Black/Yellow)</li> <li>5 Pairs</li> <li>- (Black/Red) (Black/White) (Black/Green) (Black/Blue) (Black/Yellow) (Black/Brown)</li> <li>6 Pairs</li> <li>- (Black/Red) (Black/White) (Black/Green) (Black/Blue) (Black/Yellow) (Black/Brown) (Black/Orange)</li> <li>7 Pairs</li> <li>- (Black/Red) (Black/White) (Black/Green) (Black/Blue) (Black/Yellow) (Black/Brown) (Black/Orange) (Black/White)</li> <li>8 Pairs</li> </ul>
<b>Overall Shield</b>	Aluminium/Plastic Tape with Tinned Copper Drain Wire
<b>Outer Sheath</b>	Flame retardant, low smoke and halogen-free or PVC material
<b>Colour</b>	<ul style="list-style-type: none"> <li>Grey</li> <li>Other colours available upon request</li> </ul>

**TECHNICAL DATA**

<b>Characteristic Impedance</b>	100Ω (nominal)
<b>Mutual Capacitance</b>	46 pF/m (nominal)
<b>Operating Voltage</b>	300V
<b>Operating temperature range</b>	-40°C ÷ + 80°C (LSZH) -20°C ÷ + 70°C (PVC)
<b>Installation temperature</b>	-10°C ÷ + 50°C
<b>Minimum bending radius</b>	Static: 5 x outer diameter Dynamic: 15 x outer diameter

**FIRE PERFORMANCE**

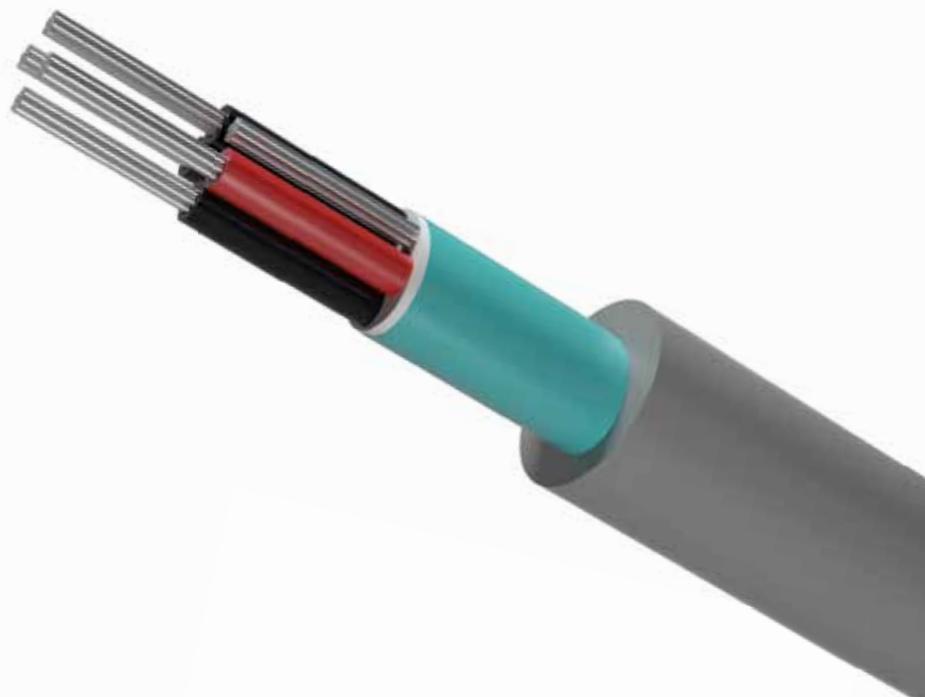
<b>Fire propagation</b>	IEC 60332-1-2
<b>Halogen-free</b>	IEC 60754-1/2 (only LSZH material)
<b>Smoke density</b>	IEC 61034-1/2 (only LSZH material)

(\*\*) Only for PVC version

## ► TK-MPSCRS232/SERIES 6

### MAIN FEATURES

N° of Cores & Conductor Cross Section	Nominal diameter [mm]	Conductor resistance (@20°C max.) [Ω/Km]	Insulation resistance (@20°C min.) [MΩ * Km]	Max pulling force [N]	Cable weight [Kg/Km]	TK code [p/n]
1 x 2 x AWG24	4	90	20	22.5	18.1	418TK67124
2 x 2 x AWG24	5.7	90	20	45	27.5	418TK67224
3 x 2 x AWG24	5.9	90	20	67.5	38.9	418TK67324
4 x 2 x AWG24	6.7	90	20	90	48.2	418TK67424
5 x 2 x AWG24	7.3	90	20	112.5	57	418TK67524
6 x 2 x AWG24	7.4	90	20	135	65.6	418TK67624
7 x 2 x AWG24	7.5	90	20	157.5	72.8	418TK67724
8 x 2 x AWG24	8.3	90	20	180	85	418TK67824



CABLE SPECIFICATIONS



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TECHNICAL DATA



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FIRE PERFORMANCE

**Conductor**

**Insulation**

**Core identification**

Solid Bare Copper

Polyolefin

- (Black/White)

Pair

- (Black, Red, White, Green)

Star quad

**Overall Shield**

Aluminium/Plastic Tape

with Tinned Copper Drain Wire

**Outer Sheath**

Flame retardant, low smoke and

halogen-free or PVC material

**Colour**

Green

Other colours available upon request

**Mutual Capacitance**

$\leq 100 \text{ pF/m}$

**Operating Voltage**

300V

**Operating temperature range**

-40°C ÷ + 80°C (LSZH)

-20°C ÷ + 70°C (PVC)

-10°C ÷ + 50°C

**Installation temperature**

Static: 5 x outer diameter

**Minimum bending radius**

Dynamic: 15 x outer diameter

**Fire propagation**

IEC 60332-1-2

**Halogen-free**

IEC 60754-1/2 (only LSZH material)

**Smoke density**

IEC 61034-1/2 (only LSZH material)

(\*) Only for LSZH version

(\*\*) Only for PVC version

## ► TK-PQSCKNX/EIB/SERIES 6

### MAIN FEATURES

N° of Cores & Conductor	Nominal diameter	Conductor resistance (@20°C max.)	Insulation resistance (@20°C min.)	Max pulling force	Cable weight [Kg/Km]	TK code
Cross Section N°. X AWG	Sheath [mm]	[Ω/Km]	[MΩ * Km]	[N]		[p/n]
1x 2 x AWG20	5.6	39	500	50	38.1	431TKXE208
1x 4 x AWG20	6.2	39	500	100	52.2	431TKXE408





## CABLE SPECIFICATIONS



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## TECHNICAL DATA



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**Conductor**  
**Insulation**  
**Core identification**

Solid Bare Copper  
 Polyolefin  
 - (White/Blue, Blue/White)  
 1 Pair  
 - (White/Blue, Blue/White)  
 (White/Orange, Orange/White)  
 2 Pairs

**Outer Sheath**

Flame retardant, low smoke and  
 halogen-free or PVC material

**Colour**

Violet  
 Other colours available upon request

**Characteristic Impedance**

100Ω (nominal)

**Mutual Capacitance**

46 pF/m (nominal)

**Operating Voltage**

300V

**Operating temperature range**

-40°C ÷ + 80°C (LSZH)

**Installation temperature**

-20°C ÷ + 70°C (PVC)

**Minimum bending radius**

-10°C ÷ + 50°C

Static: 5 x outer diameter  
 Dynamic: 15 x outer diameter

## FIRE PERFORMANCE

**Fire propagation**

IEC 60332-1-2

**Halogen-free**

IEC 60754-1/2 (only LSZH material)

**Smoke density**

IEC 61034-1/2 (only LSZH material)

(\*) Only for LSZH version

(\*\*) Only for PVC version

## ► TK-MPUCLB/SERIES 6

### MAIN FEATURES

N° of Cores & Conductor	Nominal diameter	Conductor resistance (@20°C max.)	Insulation resistance (@20°C min.)	Max pulling force	Cable weight [Kg/Km]	TK code
Cross Section N°. X AWG	Sheath [mm]	[Ω/Km]	[MΩ * Km]	[N]	[Kg/Km]	[p/n]
1x 2 x AWG22	3.5	61	500	33	17.5	324TK66122
2 x 2 x AWG22	4.6	61	500	66	23.9	324TK66222





## CABLE SPECIFICATIONS

**Conductor**  
**Insulation**  
**Core identification**

Solid Bare Copper  
Polyolefin  
- (White/Blue, Blue/White)  
1 Pair  
- (White/Blue, Blue/White)  
(White/Orange, Orange/White)  
2 Pairs

**Individual Shield**

Aluminium/Plastic Tape with Tinned Copper Drain Wire or each pair

**Outer Sheath**

Flame retardant, low smoke and halogen-free or PVC material

**Colour**

Violet  
Other colours available upon request

## TECHNICAL DATA

**Characteristic Impedance**

100Ω (nominal)

**Mutual Capacitance**

46 pF/m (nominal)

**Operating Voltage**

300V

**Operating temperature range**

-40°C ÷ + 80°C (LSZH)  
-20°C ÷ + 70°C (PVC)

**Installation temperature**

-10°C ÷ + 50°C

**Minimum bending radius**

Static: 5 x outer diameter  
Dynamic: 15 x outer diameter

## FIRE PERFORMANCE

**Fire propagation**

IEC 60332-1-2

**Halogen-free**

IEC 60754-1/2 (only LSZH material)

**Smoke density**

IEC 61034-1/2 (only LSZH material)

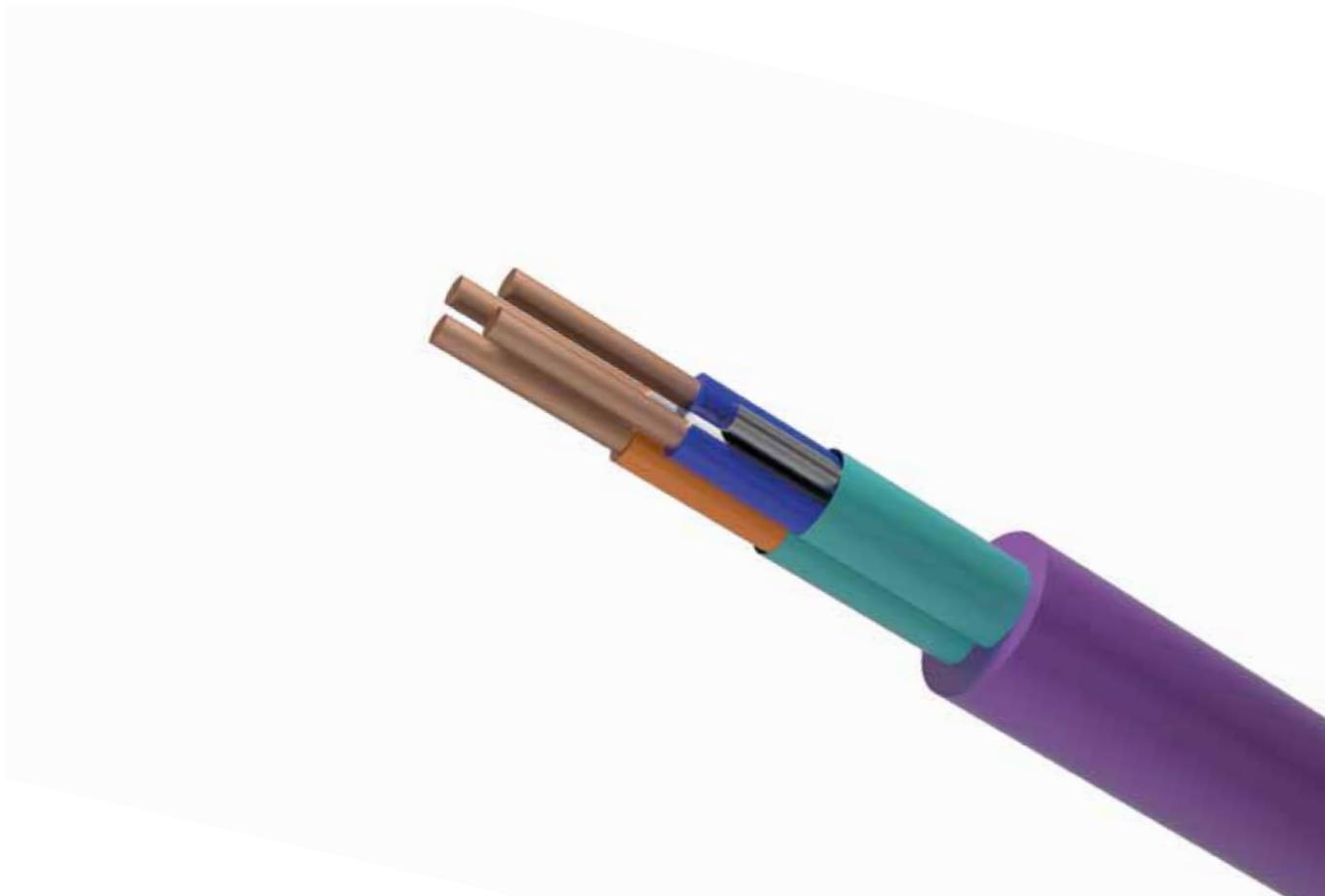
(\*) Only for LSZH version

(\*\*) Only for PVC version

## ► TK-MPISCLB/SERIES 6

### MAIN FEATURES

N° of Cores & Conductor	Nominal diameter	Conductor resistance (@20°C max.)	Insulation resistance (@20°C min.)	Max pulling force	Cable weight [Kg/Km]	TK code
Cross Section N°. X AWG	Sheath [mm]	[Ω/Km]	[MΩ * Km]	[N]	[Kg/Km]	[p/n]
1 x 2 x AWG22	5.2	61	500	33	27.5	424TK65122
2 x 2 x AWG22	7.6	61	500	66	56.2	424TK65222



## CABLE SPECIFICATIONS



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## TECHNICAL DATA



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### Conductor

### Insulation

### Core identification

### Outer Sheath

### Colour

Stranded Tinned Copper

Polyolefin

- White/Black

Flame retardant, low smoke and halogen-free or PVC material

Grey

Other colours available upon request

### Mutual Capacitance

### Operating Voltage

### Operating temperature range

### Installation temperature

### Minimum bending radius

$\leq 100 \text{ pF/m}$

300V

-40°C ÷ + 80°C (LSZH)

-20°C ÷ + 70°C (PVC)

-10°C ÷ + 50°C

Static: 5 x outer diameter

Dynamic: 15 x outer diameter

## FIRE PERFORMANCE

### Fire propagation

### Halogen-free

### Smoke density

IEC 60332-1-2

IEC 60754-1/2 (only LSZH material)

IEC 61034-1/2 (only LSZH material)



(\*) Only for LSZH version

(\*\*) Only for PVC version

## ► TK-PUCIB/SERIES 6

### MAIN FEATURES

N° of Cores & Conductor Cross Section	Nominal diameter [mm]	Conductor resistance (@20°C max.) [Ω/Km]	Insulation resistance (@20°C min.) [MΩ * Km]	Max pulling force [N]	Cable weight [Kg/Km]	TK code [p/n]
1x 2 x AWG22	4.5	59	500	35	26.9	324TK66122P
1x 2 x AWG20	5.3	38	500	60	36.8	331TK66120P
1x 2 x AWG18	6	24	500	88	48.1	338TK66118P
1x 2 x AWG16	7.9	16	500	125	75.2	343TK66116P
1x 2 x AWG14	8.9	10	500	215	103.8	350TK66114P
1x 2 x AWG12	10.1	6	500	344	123.8	363TK66112P





## CABLE SPECIFICATIONS



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## TECHNICAL DATA



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**Conductor**

Stranded Tinned Copper

**Insulation**

Polyolefin

- White/Black

**Core identification**

Flame retardant, low smoke and halogen-free or PVC material

**Outer Sheath**

Aluminium/Plastic Tape with Tinned Copper Drain Wire

**Overall Shield**

Grey

Other colours available upon request

**Colour**

**Mutual Capacitance**

$\leq 100 \text{ pF/m}$

**Operating Voltage**

300V

**Operating temperature range**

-40°C ÷ + 80°C (LSZH)

-20°C ÷ + 70°C (PVC)

**Installation temperature**

-10°C ÷ + 50°C

**Minimum bending radius**

Static: 5 x outer diameter

Dynamic: 15 x outer diameter

**Fire propagation**

IEC 60332-1-2

**Halogen-free**

IEC 60754-1/2 (only LSZH material)

**Smoke density**

IEC 61034-1/2 (only LSZH material)

## FIRE PERFORMANCE

(\*) Only for LSZH version

(\*\*) Only for PVC version

## ► TK-PSCIB/SERIES 6

### MAIN FEATURES

N° of Cores & Conductor	Nominal diameter	Conductor resistance (@20°C max.)	Insulation resistance (@20°C min.)	Max pulling force	Cable weight [Kg/Km]	TK code
Cross Section N°. X AWG	Sheath [mm]	[Ω/Km]	[MΩ * Km]	[N]		[p/n]
1x 2 x AWG22	4.6	59	500	35	27.9	424TK65122P
1x 2 x AWG20	5.4	38	500	60	37.8	431TK65220P
1x 2 x AWG18	6.1	24	500	88	49.1	438TK65218P
1x 2 x AWG16	8	16	500	125	76.2	443TK65216P
1x 2 x AWG14	9	10	500	215	104.8	450TK65214P
1x 2 x AWG12	10.2	6	500	344	124.8	463TK65212P





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## CABLE SPECIFICATIONS

### Conductor Insulation Core identification

Stranded Tinned Copper  
Polyolefin  
- (Black/Red) (Black/White)  
2 Pairs  
- (Black/Red) (Black/White)  
(Black/Green)  
3 Pairs  
- (Black/Red) (Black/White)  
(Black/Green) (Black/Blue)  
(Black/Yellow) (Black/Brown)  
6 Pairs

### Individual Shield

Aluminium/Plastic Tape with Tinned Copper Drain Wire and on each pair

### Outer Sheath

Flame retardant, low smoke and halogen-free or PVC material

### Colour

Grey  
Other colours available upon request

## TECHNICAL DATA

### Characteristic Impedance

50Ω (nominal)

### Mutual Capacitance

100 pF/m (nominal)

### Operating Voltage

300V

### Operating temperature range

-40°C ÷ + 80°C (LSZH)

### Installation temperature

-20°C ÷ + 70°C (PVC)

### Minimum bending radius

-10°C ÷ + 50°C

Static: 5 x outer diameter

Dynamic: 15 x outer diameter

## FIRE PERFORMANCE

### Fire propagation

IEC 60332-1-2

### Halogen-free

IEC 60754-1/2 (only LSZH material)

### Smoke density

IEC 61034-1/2 (only LSZH material)

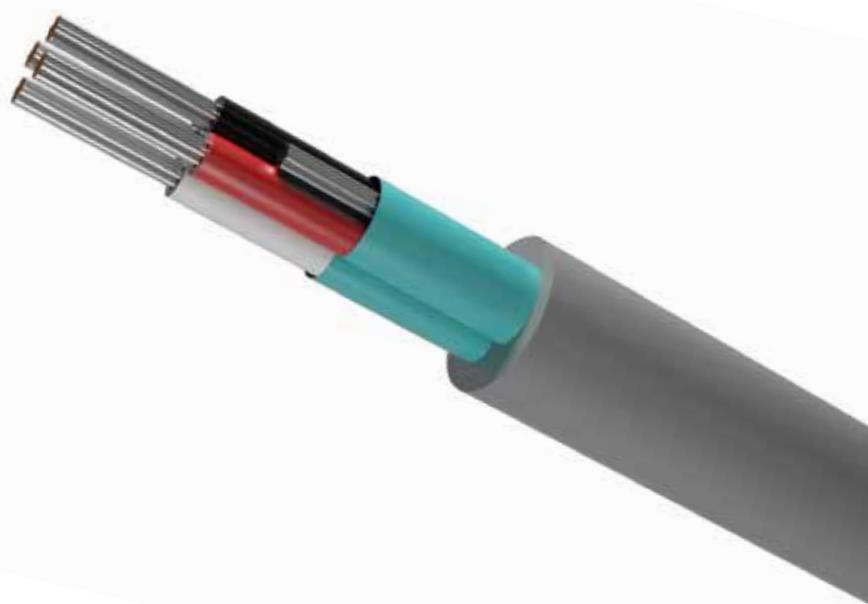
(\*) Only for LSZH version

(\*\*) Only for PVC version

## ► TK-MPISCIB/SERIES 6

### MAIN FEATURES

N° of Cores & Conductor	Nominal diameter	Conductor resistance (@20°C max.)	Insulation resistance (@20°C min.)	Max pulling force	Cable weight [Kg/Km]	TK code
Cross Section N°. X AWG	Sheath [mm]	[Ω/Km]	[MΩ * Km]	[N]	[Kg/Km]	[p/n]
2 x 2 x AWG22	4.2	61	500	33	50.1	424TK65222P
3 x 2 x AWG22	7.1	61	500	50	73.3	424TK65322P
6 x 2 x AWG22	9.3	61	500	100	149.5	424TK65622P



► NOTES



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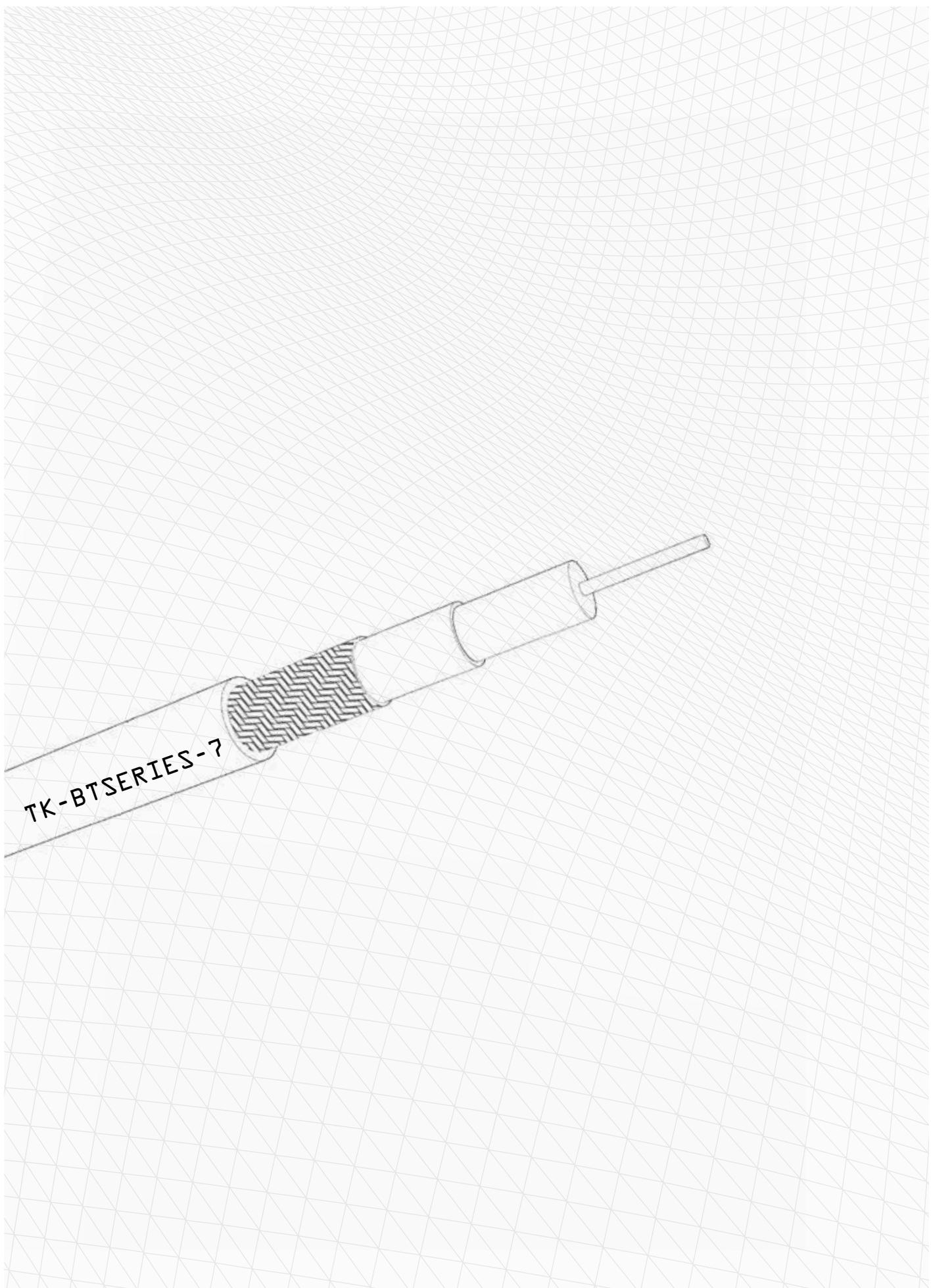
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► TK-BTSERIES-7





## CABLE SPECIFICATIONS



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## TECHNICAL DATA



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## FIRE PERFORMANCE

### Conductor

Solid or Stranded Bare Copper

Foam or Solid Polyolefin

Natural

### Insulation

### Core identification

### Individual Shield

### Outer Sheath

### Colour

Bare Copper Braid - Coverage 95%

Flame retardant, low smoke and

halogen-free or PVC material

Black

Other colours available upon request

### Characteristic Impedance

75Ω (nominal)

### Mutual Capacitance

53 pF/m (nominal)

### Return Loss 1 ÷ 1000MHz

&lt;20 dB

### Operating temperature range

-40°C ÷ + 80°C (LSZH)

-20°C ÷ + 70°C (PVC)

### Installation temperature

-10°C ÷ + 50°C

### Minimum bending radius

Static: 5 x outer diameter

Dynamic: 15 x outer diameter

### Fire propagation

IEC 60332-1-2

### Halogen-free

IEC 60754-1/2 (only LSZH material)

### Smoke density

IEC 61034-1/2 (only LSZH material)

(\*) Only for LSZH version

(\*\*) Only for PVC version

## ► TK-CCCTVAVA/SERIES 7

### MAIN FEATURES

Coax Type	Nominal diameter Conductor [mm]	Nominal diameter Insulation [mm]	Nominal diameter Sheath [mm]	Conductor resistance (@20°C max.) [Ω/Km]	Insulation resistance (@20°C min.) [MΩ * Km]	Max pulling force [N]	Cable weight [Kg/Km]	TK code [p/n]
RG59	0.81	3.7	6	35	500	32	49	6059TK7559A
RG59 flex	19 x 0.18	3.7	6	40	500	25	50	6059TK7559AF
RG6	1.02	4.6	6.8	23	500	40	56	6006TK7506A
RG6 flex	19 x 0.22	4.6	6.8	30	500	33	57	6006TK7506AF
RG11	1.63	7.1	10	9	500	65	116	6011TK7511A
RG11 flex	19 x 0.34	7.1	10	10	500	86	117	6011TK7511AF

### Nominal attenuation in dB/100 m

MHz	5	10	50	100	200	300	400	450	550	700	750	870	1000
RG59	1.9	2.95	6.23	8.53	11.81	15.3	16.41	18.92	21.03	22.97	24.8	26.84	27.89
RG6	1.78	2.36	4.92	6.56	9.51	12.43	13.78	15.14	17.15	18.37	19.73	20.26	21.96
RG11	0.99	1.51	2.96	4.27	6.23	8.27	9.51	10.31	11.51	13.45	13.95	14.87	17.06





## CABLE SPECIFICATIONS



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## FIRE PERFORMANCE



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### Conductor

### Insulation

### Core identification

### Overall Shield

### Individual Shield

### Outer Sheath

### Colour

Solid Bare Copper  
Foam or Solid Polyolefin

Natural

Aluminium/Plastic Tape with Tinned Copper Drain Wire and Tinned Copper Braid - Coverage 95%

Bare Copper Braid - Coverage 95%

Flame retardant, low smoke and halogen-free or PVC material

Black

Other colours available upon request

### Characteristic Impedance

### Mutual Capacitance

### Operating temperature range

### Installation temperature

### Minimum bending radius

$75\Omega$  (nominal)

53 pF/m (nominal)

-40°C ÷ + 80°C (LSZH)

-20°C ÷ + 70°C (PVC)

-10°C ÷ + 50°C

Static: 5 x outer diameter

Dynamic: 15 x outer diameter

### Fire propagation

### Halogen-free

### Smoke density

IEC 60332-1-2

IEC 60754-1/2 (only LSZH material)

IEC 61034-1/2 (only LSZH material)

(\*) Only for LSZH version

(\*\*) Only for PVC version

## ► TK-CHDTVHDVA/SERIES 7

### MAIN FEATURES

Coax Type	Nominal diameter Conductor [mm]	Nominal diameter Insulation [mm]	Nominal diameter Sheath [mm]	Conductor resistance (@20°C max.) [Ω/Km]	Insulation resistance (@20°C min.) [MΩ * Km]	Max pulling force [N]	Cable weight [Kg/Km]	TK code [p/n]
RG59	0.81	3.7	6	35	500	32	49	6059TK7559H
RG6	1.02	4.6	6.8	23	500	40	56	6006TK7506H
RG11 flex	19 x 0.34	7.1	10	10	500	86	117	6011TK7511HF

### Nominal Return Loss (dB)

MHz	<1000	<2000	<3000	<4500
RG59	23	22	16	15
RG6	23	22	16	15
RG11	23	22	16	15

### Nominal attenuation in dB/100 m

MHz	1	5	10	50	100	300	550	750	1000	2000	3000	4500
RG59	0.98	2.07	2.95	6.23	7.55	13.68	18.83	22.23	25.29	38.24	46.13	56.50
RG6	0.79	1.71	2.33	4.57	6.40	11.96	15.76	18.05	21.36	31.44	39.76	50.46
RG11	0.53	1.12	1.51	2.96	4.20	7.49	10.41	12.38	14.57	21.84	27.84	35.98



It is essential to stay within the fire behavior and flame-fire-retardant limits set by the strictest reference standards and our own internal QA. Four tests are carried out to assess specific properties under fire conditions:



### **Test for vertical flame propagation for a single insulated wire or cable.**

- According to UL standards  
(Cable Flame, VW1, Horizontal Flame Test)
- CSA (FT1, FT2)
- CEI EN or IEC 60332-1-2 / 60332-1-3 / 60332-2-2



### **Measurement of smoke density of cables burning under defined conditions**

- According to IEC 61034-1 and IEC 61034-2

► NOTES

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## CONTACT

### HEADQUARTER

VOLPIANO  
via Brandizzo, 243  
10088 Volpiano (Turin) Italy  
Tel. +39 011 9951997  
Fax +39 011 9953062  
[www.tecnikabel.com](http://www.tecnikabel.com)

### PRODUCTION PLANTS

VOLPIANO  
via Brandizzo, 243  
10088 Volpiano (Turin) Italy

ALMESE  
via Rivera, 100  
10040 Almese (Turin) Italy

### COMMERCIAL OFFICES



TECNIKABEL ROME  
via Casali delle Cornacchiele, 154  
00178 ROMA - ITALY



TECNIKABEL M.E. JLT  
3008 Mazaya Business Avenue  
Jumeirah Lake Towers  
DUBAI, UAE



TECNIKABEL ASIA PTE LTD  
16 Tuas South Street 2  
SINGAPORE 637786

### AGENT / DEALER



TK DEUTSCHLAND GmbH  
Herdewerg 8  
83623 Steingau, GERMANY