Tecnikabel

WHERE FUTURE FLOWS

CABLES FOR

Rolling Stock Railway Cables

TRANSPORTATION SECTOR

Introduction

Tecnikabel is a recognised European manufacturer of high-performance special cables designed for the full spectrum of Rolling Stock applications, from high-speed trains to regional and mass transit vehicles.

The rapid modernisation of passenger fleets and the increasing complexity of on-board systems have made cable reliability a safety-critical requirement. As electrification advances and on-board electronics become more sophisticated, the demand for power, control, data transmission, and fire detection cables that perform under vibration, mechanical stress, and extreme temperatures has never been greater. Tecnikabel designs and manufactures copper and fibre-optic cables for rolling stock applications across high-speed, regional, and urban transit segments, qualified for the most demanding scenarios: LSZH constructions meeting stringent fire safety standards, fire-resistant solutions ensuring uninterrupted operation, and mechanically robust designs withstanding dynamic stress, electromagnetic interference, and temperature extremes throughout the entire service life of the vehicle.

OUR SECTORS

TRANSPORTATION

AUTOMATION

TELECOMMUNICATION

DEFENSE

MARINE OIL GAS

SUBSEA

BUILDING TECHNOLOGY

In today's technological landscape, many rolling stock applications demand performance and engineering characteristics that exceed standard cable solutions. When off-the-shelf products cannot meet extreme or unconventional requirements, our custom design capability becomes essential. Tecnikabel acts as a technical partner, developing and manufacturing highly specialised cables engineered for critical on-board functions and challenging operating environments.

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

PRODUCTION
Updated production systems, rigorous process controls and skilled operators ensure an efficient, flexible and reliable manufacturing flow. Over nearly half a century of activity, we have engineered and produced more than 26,000 different cable configurations.

FINAL INSPECTIONS
At the end of every production cycle, each cable undergoes full electrical, optical and physical verification to ensure complete compliance with the customer's technical specifications.

LABORATORY TESTS
Our cables are subjected to demanding laboratory tests that replicate critical application conditions. Beyond the standard evaluations required by current regulations, we have developed dedicated equipment for mechanical, environmental, electrical and optical testing to validate performance in extreme scenarios.

MATERIALS RESEARCH AND DEVELOPMENT
With nearly fifty years of experience, we continue to research and develop advanced materials aimed at improving performance, optimising costs and meeting the evolving technical requirements of our customers.

QUALITY SYSTEM
Since 1978, our commitment to Quality has earned Tecnikabel recognition from major American and European authorities, ensuring compliance with the most rigorous international manufacturing and quality standards.

Guaranteed excellence

Tecnikabel's constant commitment to quality has earned recognition from leading American and European authorities, ensuring full compliance with the most demanding international manufacturing and quality standards.

COMPANY MANAGEMENT SYSTEM CERTIFICATION

PRODUCT CERTIFICATION

All cables in this sector are certified:

Reliability you can trust

Safety-driven cable innovation

ADDRESSING NEW HOMOLOGATION REQUIREMENTS: EXTENDED FIRE DURATION

Engineers are continuously designing powerful systems with extensive cabling infrastructures, where high-speed transmission protocols must handle massive volumes of data—including signals and images. These critical communication systems demand maximum stability and peak performance, utilizing both optical fiber and copper cables. Tecnikabel proactively meets the latest offshore and shipbuilding requirements set by homologation bodies. We ensure full-circuit integrity during fire scenarios, complying with IEC 60331 standards for an extended duration of up to 180 minutes. We transform these stringent technical challenges into reliable, future-ready solutions.

GAS-TIGHT RESISTANCE FOR SAFER OPERATIONS IN EXPLOSIVE ENVIRONMENTS

The demand for high-quality data connections between explosive areas and safe zones is growing. Gas-permeable cavities in cables can allow explosive mixtures to migrate to densely populated areas, making strict adherence to technical specifications essential. This need is increasingly important with the expanded use of LNG (Liquefied Natural Gas) for vessel propulsion, storage, and transportation. Tecnikabel, as a co-designer and problem solver, has developed a complete range of copper data cables specifically for such environments. These solutions comply with IEC 60079-14, meeting not only the mechanical, chemical, and thermal requirements for explosive areas but also the critical standards for gas migration. Our cables can therefore be installed in offshore applications without restrictions, providing the optimal solution for safety and reliability.

ENHANCED CABLE PERFORMANCE FOR ARCTIC ENVIRONMENTS

Our cable range is engineered for superior performance in extremely cold conditions. They are suitable for installation at temperatures down to –30 °C, with permanent operating capability as low as –62 °C. The performance of our TKSEA cables in Arctic conditions is validated through cold bend and cold impact tests, in accordance with the North American (Canadian) standard CSA 22/2. Through continuous innovation and proven reliability, Tecnikabel contributes significantly to enhancing safety and operational longevity on board ships and offshore structures worldwide.

Passion flows through our cables.

Content index

Symbols index

ENVIRONMENTAL PROPERTIES


FLAME RETARDANT SINGLE WIRE (EN/IEC 60332-1-2, EN 50265-2-1)


FLAME RETARDANT BUNCHED WIRES (IEC 60332-3, EN 50305 9.1.2, EN 50305 9-1, EN 50266-2-5, EN 50266-2)


FIRE RESISTANCE (IEC 60331, EN50200, EN 50362, BS6387 CWZ)


REDUCED EMISSION OF FUMES AND TOXIC GASES (IEC 60754-1; EN 50267-2-1/2, EN 50305 9.2)


SMOKE DENSITY (EN/IEC 61034-1/2) (EN 50268-2; EN 50268-1/2)


LOW ACIDITY AND CORROSIVITY OF EVOLVED GASES (IEC 60754-2, EN 50267-2-2)


WEATHERING TEST RESISTANCE (OUTDOOR)


INDOOR


WATER RESISTANCE


RODENT RESISTANCE


HAZARDOUS AREA


FLEXIBLE INSTALLATION


FULLY DIELECTRIC


DIRECT BURIAL


ANTIBALLISTIC PROTECTION

CHEMICAL PROPERTIES


MUD RESISTANCE


MINERAL OIL RESISTANCE


HYDROCARBONS RESISTANCE

MECHANICAL PROPERTIES


MECHANICAL RESISTANCE


REDUCED BENDING RADIUS


WORK AT LOW TEMPERATURE

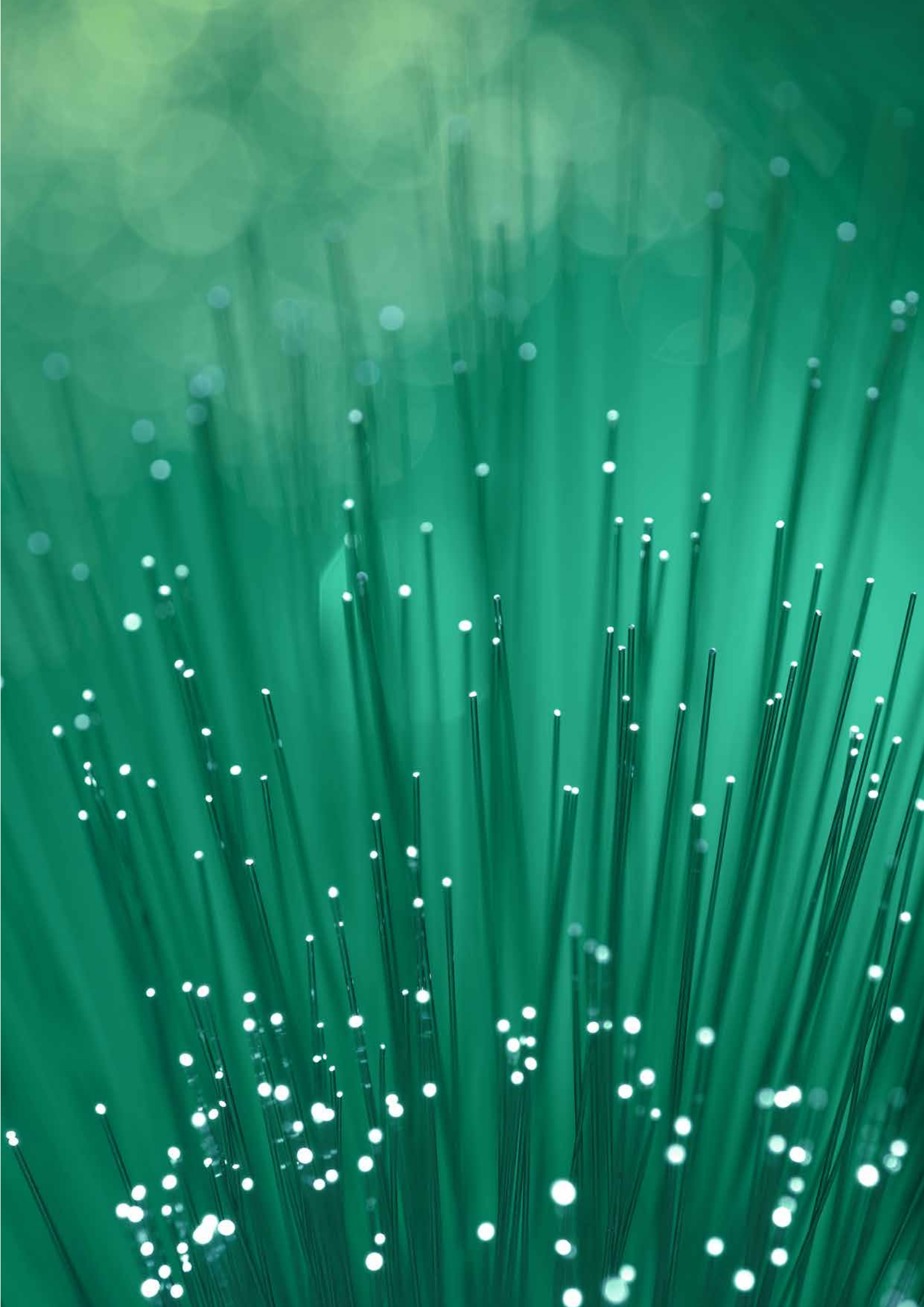


TABLE 1_ POWER AND CONTROL CABLES

HAVING SPECIAL FIRE PERFORMANCE

STANDARD REFERENCE

EN 50264; EN 50305; EN 50355; EN 50343; EN 45545-2 HL3; UNI CEI 11170-3 LR4; DIN 5510-2; BS 6853; NFPA 130

CODE DESIGNATIONS

Insulation System (EN 50264-2-1 and 2-2)

EI 101 Low Temperature Resistant, Oil Resistant ..... Code Designation C
EI 102 Extra Low Temperature Resistant, Oil Resistant ..... Code Designation F
EI 103 Low Temperature Resistant, Extra Oil and Fuel Resistant ..... Code Designation J
EI 104 Extra Low Temperature Resistant, Extra Oil and Fuel Resistant ..... Code Designation M
EI 105 Extra Low Temperature Resistant, Non Oil Resistant ..... Code Designation O

Insulation System (EN 50264-3-1 and 3-2)

EI 106 Low Temperature Resistant, Oil Resistant ..... Code Designation C
EI 107 Extra Low Temperature Resistant, Oil Resistant ..... Code Designation F
EI 108 Low Temperature Resistant, Extra Oil and Fuel Resistant ..... Code Designation J
EI 109 Extra Low Temperature Resistant, Extra Oil and Fuel Resistant ..... Code Designation M
EI 110 Extra Low Temperature Resistant, Non Oil Resistant ..... Code Designation O

Sheath Type (EN 50264-2-1, EN 50264-2-2, EN 50264-3-1 and EN 50264-3-2)

EM 101 Low Temperature Resistant, Oil Resistant ..... Code Designation C
EM 102 Extra Low Temperature Resistant, Oil Resistant ..... Code Designation F
EM 103 Low Temperature Resistant, Extra Oil and Fuel Resistant ..... Code Designation J
EM 104 Extra Low Temperature Resistant, Extra Oil and Fuel Resistant ..... Code Designation M

SINGLE CORE CABLES UNSHEATHED 0.6/1 kV - EN 50264-2-1

characteristics
*see table 1

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper class 5 according to EN 60228
Separator	Eventual polyester colored tape
Insulation	Type crosslinked LSZH see table 1
Core identification	Black if not elsewhere specified

TECHNICAL DATA

Operating voltage	0.6/1 kV
Operating temperature	-40°C ÷ +90°C SEE TABLE 1 -25°C ÷ +90°C SEE TABLE 1
Minimum bending radius	5 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2 EN 50266-2-5 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES						
Nominal cross-sectional area mm²	Conductor diameter Ø mm	Mean thickness of insulation mm	Overall diameter Ø mm		Resistance of conductor @20°C Ω/km	Insulation resistance @20°C MΩ×km
			MIN.	MAX.	MAX.	MIN.
1	1.25	0.8	2.8	3.2	20	65
1.5	1.5	0.8	3	3.5	13.7	55
2.5	1.95	0.8	3.4	3.9	8.21	50
4	2.5	0.8	3.9	4.6	5.09	40
6	3	0.9	4.6	5.4	3.39	35
10	3.9	1.1	5.8	6.8	1.95	30
16	5	1.1	7.2	8.5	1.24	30
25	6.4	1.3	8.6	10	0.795	30
35	7.7	1.3	10.2	11.5	0.565	25
50	9.2	1.5	11.6	13.5	0.393	25
70	11	1.5	13.3	15.5	0.277	20
95	12.5	1.6	14.9	17.4	0.21	20
120	14.2	1.6	16.5	19.3	0.164	20
150	15.8	1.9	18.5	21.7	0.132	15
185	17.5	1.9	20.1	23.6	0.108	15
240	20.1	2.1	22.9	26.8	0.0817	15
300	22.5	2.2	25.4	29.7	0.0654	10
400	25.8	2.3	28.7	33.6	0.0495	10

SINGLE CORE CABLES UNSHEATHED 1.8/3 kV - EN 50264-2-1

characteristics
*see table 1

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper class 5 according to EN 60228
Separator	Eventual polyester colored tape
Insulation	Type crosslinked LSZH see table 1
Core identification	Black if not elsewhere specified

TECHNICAL DATA

Operating voltage	1.8/3 kV
Operating temperature	-40°C ÷ +90°C SEE TABLE 1 -25°C ÷ +90°C SEE TABLE 1
Minimum bending radius	5 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2 EN 50266-2-5 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES						
Nominal cross-sectional area mm²	Conductor diameter Ø mm	Mean thickness of insulation mm	Overall diameter Ø mm		Resistance of conductor @20°C Ω/km	Insulation resistance @20°C MΩ×km
			MIN.	MAX.	MAX.	MIN.
1.5	1.5	2.5	6.2	7.3	13.7	120
2.5	1.95	2.5	6.6	7.8	8.21	100
4	2.5	2.5	7.1	8.4	5.09	90
6	3	2.5	7.6	8.9	3.39	80
10	3.9	2.5	8.4	9.9	1.95	65
16	5	2.5	9.5	11.1	1.24	55
25	6.4	2.5	10.8	12.7	0.795	45
35	7.7	2.5	12	14.1	0.565	40
50	9.2	2.5	13.4	15.7	0.393	35
70	11	2.5	15.1	17.7	0.277	30
95	12.5	2.7	16.9	19.8	0.210	30
120	14.2	2.7	18.5	21.7	0.164	25
150	15.8	2.7	20	23.4	0.132	20
185	17.5	2.7	21.6	25.3	0.108	20
240	20.1	2.7	24.1	28.2	0.0817	20
300	22.5	2.7	26.3	30.8	0.0654	15
400	25.8	2.9	29.8	34.9	0.0495	15

SINGLE CORE CABLES SHEATHED 1.8/3 kV - EN 50264-2-1

characteristics
*see table 1

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper class 5 according to EN 60228
Separator	Eventual polyester colored tape
Insulation	Type crosslinked LSZH see table 1
Core identification	Black if not elsewhere specified
Sheath	Type crosslinked LSZH See table 1 Black if not elsewhere specified

TECHNICAL DATA

Operating voltage	1.8/3 kV
Operating temperature	-40°C ÷ +90°C SEE TABLE 1 -25°C ÷ +90°C SEE TABLE 1
Minimum bending radius	5 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2 EN 50266-2-5 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES							
Nominal cross-sectional area mm²	Conductor diameter Ø mm	Mean thickness of insulation mm	Mean thickness of sheath mm	Overall diameter Ø mm		Resistance of conductor @20°C Ω/km	Insulation resistance @20°C MΩ×km
				MIN.	MAX.	MAX.	MIN.
1.5	1.5	1.3	1.4	6.7	7.8	13.7	960
2.5	1.95	1.3	1.4	7.1	8.3	8.21	850
4	2.5	1.3	1.4	7.6	8.9	5.09	750
6	3	1.3	1.4	8.1	9.5	3.39	670
10	3.9	2.2	1.4	10.6	12.4	1.95	550
16	5	2.2	1.4	11.7	13.6	1.24	450
25	6.4	2.2	1.4	13	15.2	0.795	390
35	7.7	2.2	1.4	14.2	16.6	0.565	350
50	9.2	2.2	1.4	15.6	18.3	0.393	300
70	11	2.2	1.5	17.5	20.5	0.277	260
95	12.5	2.4	1.6	19.6	22.3	0.210	250
120	14.2	2.4	1.6	21.1	24.6	0.164	220
150	15.8	2.4	1.7	22.7	26.6	0.132	210
185	17.5	2.4	1.7	24	28.1	0.1080	200
240	20.1	2.4	1.8	27	31.6	0.0817	180
300	22.5	2.4	1.9	29.4	34.4	0.0654	170
400	25.8	2.6	2	32.7	38.3	0.0495	150

SINGLE CORE CABLES SHEATHED 3.6/6 kV - EN 50264-2-1

characteristics
*see table 1

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper class 5 according to EN 60228
Separator	Semiconductor black tape
Insulation	Type crosslinked LSZH see table 1
Core identification	Black if not elsewhere specified
Sheath	Type crosslinked LSZH See table 1 Black if not elsewhere specified

TECHNICAL DATA

Operating voltage	3.6/6 kV
Operating temperature	-40°C ÷ +90°C SEE TABLE 1 -25°C ÷ +90°C SEE TABLE 1
Minimum bending radius	5 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2 EN 50266-2-5 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES							
Nominal cross-sectional area mm²	Conductor diameter Ø mm	Mean thickness of insulation mm	Mean thickness of sheath mm	Overall diameter Ø mm		Resistance of conductor @20°C Ω/km	Insulation resistance @20°C MΩ×km
				MIN.	MAX.	MAX.	MIN.
2.5	1.95	3	1.4	10.5	12.3	8.21	1300
4	2.5	3	1.4	11	12.9	5.09	1150
6	3	3	1.4	11.5	13.4	3.39	1050
10	3.9	3	1.4	12.3	14.4	1.95	850
16	5	3	1.4	13.3	15.6	1.24	710
25	6.4	3	1.4	14.7	17.2	0.795	630
35	7.7	3	1.4	15.9	18.6	0.565	550
50	9.2	3	1.5	17.5	20.5	0.393	500
70	11	3	1.5	19.2	22.4	0.277	430
95	12.5	3	1.6	20.8	24.3	0.210	400
120	14.2	3.1	1.7	22.7	26.6	0.164	360
150	15.8	3.1	1.7	24.2	28.4	0.132	340
185	17.5	3.2	1.8	26.2	30.7	0.1080	330
240	20.1	3.4	1.9	29.2	34.2	0.0817	300
300	22.5	3.4	1.9	31.5	36.9	0.0654	250
400	25.8	3.4	2	34.8	40.7	0.0495	230

MULTICORE UNSCRENEED CABLES 300/500 V - EN 50264-2-2

characteristics
*see table 1

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper class 5 according to EN 60228
Separator	Eventual polyester colored tape
Insulation	Type crosslinked LSZH see table 1
Core identification	Black numbered if not elsewhere specified
Assembling	N° conductors + eventual filler and tape are assembled together
Sheath	Type crosslinked LSZH see table 1 Black if not elsewhere specified

TECHNICAL DATA

Operating voltage	300/500 V
Operating temperature	-40°C ÷ +90°C SEE TABLE 1 -25°C ÷ +90°C SEE TABLE 1
Minimum bending radius	5 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2 EN 50266-2-5 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES									
Nominal cross-sectional area nxmm²	Conductor diameter Ø mm	Mean thickness of insulation mm	Core diameter Ø mm		Mean thickness of sheath mm	Overall diameter Ø mm		Resistance of conductor @20°C Ω/km	Insulation resistance @20°C MΩ×km
			MIN.	MAX.		MIN.	MAX.		
2x1	1.25	0.6	2.4	2.8	1.4	7.2	8.5	20	140
4x1	1.25	0.6	2.4	2.8	1.4	8.2	9.6	20	140
7x1	1.25	0.6	2.4	2.8	1.4	9.6	11.2	20	140
9x1	1.25	0.6	2.4	2.8	1.4	11.5	13.4	20	140
12x1	1.25	0.6	2.4	2.8	1.4	12.3	14.4	20	140
19x1	1.25	0.6	2.4	2.8	1.4	14.5	16.6	20	140
24x1	1.25	0.6	2.4	2.8	1.5	16.7	19.6	20	140
32x1	1.25	0.6	2.4	2.8	1.6	18.5	21.7	20	140
37x1	1.25	0.6	2.4	2.8	1.6	19.2	22.4	20	140
40x1	1.25	0.6	2.4	2.8	1.6	19.9	23.3	20	140
4x1.5	1.5	0.7	2.8	3.3	1.4	9.2	10.8	13.7	120
7x1.5	1.5	0.7	2.8	3.3	1.4	10.9	12.8	13.7	120
9x1.5	1.5	0.7	2.8	3.3	1.4	13.1	15.3	13.7	120
12x1.5	1.5	0.7	2.8	3.3	1.4	14	16.4	13.7	120
19x1.5	1.5	0.7	2.8	3.3	1.4	16.5	19.4	13.7	120
24x1.5	1.5	0.7	2.8	3.3	1.5	19.5	22.8	13.7	120
32x1.5	1.5	0.7	2.8	3.3	1.6	21.5	25.2	13.7	120
37x1.5	1.5	0.7	2.8	3.3	1.7	22.4	26.2	13.7	120
4x2.5	1.95	0.8	3.4	4	1.4	10.7	12.5	8.21	90
7x2.5	1.95	0.8	3.4	4	1.4	12.7	14.9	8.21	90
9x2.5	1.95	0.8	3.4	4	1.5	15.6	18.3	8.21	90
12x2.5	1.95	0.8	3.4	4	1.5	16.7	19.6	8.21	90
19x2.5	1.95	0.8	3.4	4	1.6	19.7	23.1	8.21	90
24x2.5	1.95	0.8	3.4	4	1.8	23.5	27.5	8.21	90

MULTICORE SCRENEED CABLES 300/500 V - EN 50264-2-2

characteristics
*see table 1

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper class 5 according to EN 60228
Separator	Eventual polyester colored tape
Insulation	Type crosslinked LSZH see table 1
Core identification	Black numbered if not elsewhere specified
Assembling	N° conductors + eventual filler and tape are assembled together
Screen	Tinned copper braid
Sheath	Type crosslinked LSZH see table 1 Black if not elsewhere specified

TECHNICAL DATA

Operating voltage	300/500 V
Operating temperature	-40°C ÷ +90°C SEE TABLE 1 -25°C ÷ +90°C SEE TABLE 1
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2 EN 50266-2-5 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES										
Nominal cross-sectional area nxmm²	Conductor diameter Ø mm	Mean thickness of insulation mm	Core diameter Ø mm		Wire diameter of screen mm	Mean thickness of sheath mm	Overall diameter Ø		Resistance of conductor @20°C Ω/km	Insulation resistance @20°C MΩ×km
			MIN.	MAX.	MAX.		MIN.	MAX.	MAX.	MIN.
2x1	1.25	0.6	2.4	2.8	0.16	1.4	8.1	9.5	20	140
4x1	1.25	0.6	2.4	2.8	0.16	1.4	9	10.6	20	140
7x1	1.25	0.6	2.4	2.8	0.16	1.4	10.4	12.2	20	140
9x1	1.25	0.6	2.4	2.8	0.21	1.4	12.5	14.6	20	140
12x1	1.25	0.6	2.4	2.8	0.21	1.4	13.3	15.6	20	140
19x1	1.25	0.6	2.4	2.8	0.26	1.4	15.7	18.4	20	140
24x1	1.25	0.6	2.4	2.8	0.26	1.5	18.1	21.2	20	140
32x1	1.25	0.6	2.4	2.8	0.26	1.6	19.7	23.1	20	140
37x1	1.25	0.6	2.4	2.8	0.26	1.7	20.7	24.2	20	140
40x1	1.25	0.6	2.4	2.8	0.26	1.7	21.4	25.1	20	140
4x1.5	1.5	0.7	2.8	3.3	0.16	1.4	10.1	11.8	13.7	120
7x1.5	1.5	0.7	2.8	3.3	0.21	1.4	11.9	14	13.7	120
9x1.5	1.5	0.7	2.8	3.3	0.21	1.4	14.1	16.5	13.7	120
12x1.5	1.5	0.7	2.8	3.3	0.21	1.8	15.8	18.5	13.7	120
19x1.5	1.5	0.7	2.8	3.3	0.26	1.5	17.8	20.8	13.7	120
24x1.5	1.5	0.7	2.8	3.3	0.26	1.6	20.7	24.2	13.7	120
32x1.5	1.5	0.7	2.8	3.3	0.26	1.7	22.7	26.6	13.7	120
37x1.5	1.5	0.7	2.8	3.3	0.26	1.7	23.6	27.6	13.7	120
4x2.5	1.95	0.8	3.4	4	0.21	1.4	11.8	13	8.21	90
7x2.5	1.95	0.8	3.4	4	0.21	1.4	13.7	16.1	8.21	90
9x2.5	1.95	0.8	3.4	4	0.26	1.5	16.8	19.7	8.21	90
12x2.5	1.95	0.8	3.4	4	0.26	1.5	18	21.1	8.21	90
19x2.5	1.95	0.8	3.4	4	0.26	1.6	21.1	24.6	8.21	90
24x2.5	1.95	0.8	3.4	4	0.26	1.8	24.7	28.9	8.21	90

MULTICORE UNSCRENEED CABLES 0.6/1 kV - EN 50264-2-2

characteristics
*see table 1

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper class 5 according to EN 60228
Separator	Eventual polyester colored tape
Insulation	Type crosslinked LSZH see table 1
Core identification	Black numbered if not elsewhere specified
Assembling	N° conductors + eventual filler and tape are assembled together
Sheath	Type crosslinked LSZH see table 1 Black if not elsewhere specified

TECHNICAL DATA

Operating voltage	0.6/1 kV
Operating temperature	-40°C ÷ +90°C SEE TABLE 1 -25°C ÷ +90°C SEE TABLE 1
Minimum bending radius	5 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2 EN 50266-2-5 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES									
Nominal cross-sectional area nxmm²	Conductor diameter Ø mm	Mean thickness of insulation mm	Core diameter Ø mm		Mean thickness of sheath mm	Overall diameter Ø		Resistance of conductor @20°C Ω/km	Insulation resistance @20°C MΩxkm
			MIN.	MAX.		MIN.	MAX.	MAX	MIN.
2x1.5	1.5	0.8	3	3.5	1.4	8.5	9.9	13.7	150
3x1.5	1.5	0.8	3	3.5	1.4	8.9	10.5	13.7	150
4x1.5	1.5	0.8	3	3.5	1.4	9.7	11.3	13.7	150
2x2.5	1.95	0.8	3.4	3.9	1.4	9.3	10.9	8.21	130
3x2.5	1.95	0.8	3.4	3.9	1.4	9.9	11.6	8.21	130
4x2.5	1.95	0.8	3.4	3.9	1.4	10.7	12.5	8.21	130
2x4	2.5	0.8	3.9	4.6	1.4	10.3	12.1	5.09	110
3x4	2.5	0.8	3.9	4.6	1.4	11	12.9	5.09	110
3x4	2.5	0.8	3.9	4.6	1.4	11.9	14	5.09	110
2x6	3	0.9	4.6	5.4	1.4	11.8	13.9	3.99	90
3x6	3	0.9	4.6	5.4	1.4	12.5	14.6	3.99	90
4x6	3	0.9	4.6	5.4	1.4	13.7	16.1	3.99	90
2x10	3.9	1.1	5.8	6.8	1.4	14.3	16.7	1.95	85
3x10	3.9	1.1	5.8	6.8	1.5	15.3	17.9	1.95	85
4x10	3.9	1.1	5.8	6.8	1.5	16.9	19.8	1.95	85
2x16	5	1.1	7.2	8.5	1.5	16.5	19.4	1.24	70
3x16	5	1.1	7.2	8.5	1.6	17.8	20.8	1.24	70
4x16	5	1.1	7.2	8.5	1.6	19.6	22.9	1.24	70
2x25	6.4	1.3	8.6	10	1.6	20.1	23.5	0.795	65
3x25	6.4	1.3	8.6	10	1.7	21.6	25.3	0.795	65
4x25	6.4	1.3	8.6	10	1.8	24.1	28.2	0.795	65
2x35	7.7	1.3	10.2	11.5	1.7	22.7	26.6	0.565	60
3x35	7.7	1.3	10.2	11.5	1.8	24.4	28.6	0.565	60
3x35+1x25	7.7	1.3	10.2	11.5	1.9	28.5	34.2	0.565	60
2x50	9.2	1.5	11.6	13.5	1.9	26.7	31.2	0.393	55
3x50	9.2	1.5	11.6	13.5	1.9	28.2	33.3	0.393	55
3x50+1x25	9.2	1.5	11.6	13.5	2	33.4	40	0.393	55

MULTICORE SCRENEED CABLES 0.6/1 kV - EN 50264-2-2

characteristics
*see table 1

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper class 5 according to EN 60228
Separator	Eventual polyester colored tape
Insulation	Type crosslinked LSZH see table 1
Core identification	Black numbered if not elsewhere specified
Assembling	N° conductors + eventual filler and tape are assembled together
Screen	Tinned copper braid
Sheath	Type crosslinked LSZH see table 1 Black if not elsewhere specified

TECHNICAL DATA

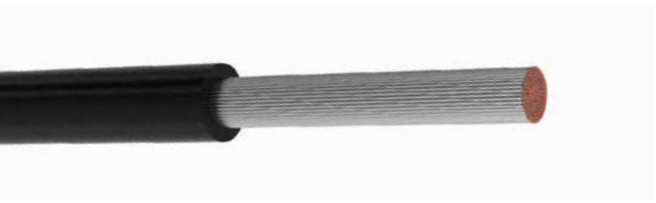
Operating voltage	0.6/1 kV
Operating temperature	-40°C ÷ +90°C SEE TABLE 1 -25°C ÷ +90°C SEE TABLE 1
Minimum bending radius	5 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2 EN 50266-2-5 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES										
Nominal cross-sectional area nxmm²	Conductor diameter Ø mm	Mean thickness of insulation mm	Core diameter Ø mm		Wire diameter of screen mm	Mean thickness of sheath mm	Overall diameter Ø		Resistance of conductor @20°C Ω/km	Insulation resistance @20°C MΩ×km
			MIN.	MAX.	MAX.		MIN.	MAX.	MAX.	MIN.
2x1.5	1.5	0.8	3	3.5	0.16	1.4	9.3	10.9	13.7	150
3x1.5	1.5	0.8	3	3.5	0.16	1.4	9.8	11.4	13.7	150
4x1.5	1.5	0.8	3	3.5	0.16	1.4	10.5	12.3	13.7	150
2x2.5	1.95	0.8	3.4	3.9	0.16	1.4	10.2	11.9	8.2	130
3x2.5	1.95	0.8	3.4	3.9	0.16	1.4	10.7	12.5	8.2	130
4x2.5	1.95	0.8	3.4	3.9	0.21	1.4	11.8	13.9	8.2	130
2x4	2.5	0.8	3.9	4.6	0.21	1.4	11.5	13.4	5.1	110
3x4	2.5	0.8	3.9	4.6	0.21	1.4	12	14.1	5.1	110
3x4	2.5	0.8	3.9	4.6	0.21	1.4	13.1	15.3	5.1	110
2x6	3	0.9	4.6	5.4	0.21	1.4	12.9	15.1	4	90
3x6	3	0.9	4.6	5.4	0.21	1.4	13.6	16	4	90
4x6	3	0.9	4.6	5.4	0.21	1.4	14.9	17.4	4	90
2x10	3.9	1.1	5.8	6.8	0.21	1.5	15.5	18.2	2	85
3x10	3.9	1.1	5.8	6.8	0.26	1.5	16.7	19.6	2	85
4x10	3.9	1.1	5.8	6.8	0.26	1.6	18.4	21.6	2	85
2x16	5	1.1	7.2	8.5	0.26	1.5	17.9	20.9	1.2	70
3x16	5	1.1	7.2	8.5	0.26	1.6	19.1	22.3	1.2	70
4x16	5	1.1	7.2	8.5	0.26	1.7	21.1	24.6	1.2	70
2x25	6.4	1.3	8.6	10	0.26	1.7	21.6	25.3	0.8	65
3x25	6.4	1.3	8.6	10	0.26	1.7	22.9	26.8	0.8	65
4x25	6.4	1.3	8.6	10	0.31	1.8	25.6	29.9	0.8	65
2x35	7.7	1.3	10.2	11.5	0.31	1.8	24.4	28.6	0.6	60
3x35	7.7	1.3	10.2	11.5	0.31	1.8	26	30.5	0.6	60
3x35+1x25	7.7	1.3	10.2	11.5	0.31	1.9	30	35.1	0.6	60
2x50	9.2	1.5	11.6	13.5	0.31	1.9	28.2	33	0.4	55
3x50	9.2	1.5	11.6	13.5	0.31	2	30.3	35.4	0.4	55
3x50+1x25	9.2	1.5	11.6	13.5	0.31	2.1	34.9	40.8	0.4	55

SINGLE CORE CABLES UNSHEATHED 0.6/1 kV - EN 50264-3-1



characteristics
*see table 1

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper class 5 according to EN 60228
Separator	Eventual polyester colored tape
Insulation	Type crosslinked LSZH see table 1
Core identification	Black if not elsewhere specified

TECHNICAL DATA

Operating voltage	0.6/1 kV
Operating temperature	-40°C ÷ +90°C SEE TABLE 1 -25°C ÷ +90°C SEE TABLE 1
Minimum bending radius	5 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2 EN 50266-2-5 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES						
Nominal cross-sectional area mm²	Conductor diameter Ø mm	Mean thickness of insulation mm	Overall diameter Ø mm		Resistance of conductor @20°C Ω/km	Insulation resistance @20°C MΩ×km
			MIN.	MAX.	MAX.	MIN.
1	1.25	0.6	2.4	2.8	20	11.4
1.5	1.5	0.7	2.8	3.3	13.7	11
2.5	1.95	0.7	3.2	3.8	8.21	9.1
4	2.5	0.7	3.8	4.4	5.09	7.5
6	3	0.7	4.2	5	3.39	6.5
10	3.9	0.7	5.1	5.9	1.95	5.2
16	5	0.7	6.1	7.2	1.24	4.2
25	6.4	0.9	7.8	9.1	0.795	4.1
35	7.7	0.9	9	10.6	0.565	3.5
50	9.2	1	10.6	12.4	0.393	3.3
70	11	1.1	12.5	14.6	0.277	3
95	12.5	1.1	13.9	16.3	0.210	2.7
120	14.2	1.2	15.7	18.4	0.164	2.7
150	15.8	1.4	17.6	20.6	0.132	2.7
185	17.5	1.6	19.6	22.9	0.108	2.6
240	20.1	1.7	22.2	26	0.0817	2.6
300	22.5	1.8	24.6	28.8	0.0654	2.4
400	25.8	2	28.1	32.9	0.0495	2.4

SINGLE CORE CABLES UNSHEATHED 1.8/3 kV - EN 50264-3-1

characteristics
*see table 1

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper class 5 according to EN 60228
Separator	Eventual polyester colored tape
Insulation	Type crosslinked LSZH see table 1
Core identification	Black if not elsewhere specified

TECHNICAL DATA

Operating voltage	1.8/3 kV
Operating temperature	-40°C ÷ +90°C SEE TABLE 1 -25°C ÷ +90°C SEE TABLE 1
Minimum bending radius	5 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2 EN 50266-2-5 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES						
Nominal cross-sectional area mm²	Conductor diameter Ø mm	Mean thickness of insulation mm	Overall diameter Ø mm		Resistance of conductor @20°C Ω/km	Insulation resistance @20°C MΩ×km
			MIN.	MAX.	MAX.	MIN.
1.5	1.5	2	5.3	6.2	13.7	21
2.5	1.95	2	5.7	6.7	8.21	18
4	2.5	2	6.2	7.3	5.09	15.5
6	3	2	6.7	7.8	3.39	13.7
10	3.9	2	7.5	8.8	1.95	11.5
16	5	2	8.6	10	1.24	9.5
25	6.4	2	9.9	11.6	0.795	7.9
35	7.7	2	11.1	13	0.565	6.8
50	9.2	2	12.5	14.6	0.393	5.9
70	11	2	14.2	16.6	0.277	5
95	12.5	2.2	16	18.7	0.210	4.5
120	14.2	2.2	17.6	20.6	0.164	4
150	15.8	2.2	19.1	22.3	0.132	3.7
185	17.5	2.4	20.9	24.4	0.108	3.4
240	20.1	2.4	23.7	27.5	0.0817	3
300	22.5	2.4	25.6	30.1	0.0654	2.7
400	25.8	2.6	29.2	34.2	0.0495	2.4

SINGLE CORE CABLES SHEATHED 1.8/3 kV - EN 50264-3-1

characteristics
*see table 1

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper class 5 according to EN 60228
Separator	Eventual polyester colored tape
Insulation	Type crosslinked LSZH see table 1
Core identification	Black if not elsewhere specified
Sheath	Type crosslinked LSZH see table 1 Black if not elsewhere specified

TECHNICAL DATA

Operating voltage	1.8/3 kV
Operating temperature	-40°C ÷ +90°C SEE TABLE 1 -25°C ÷ +90°C SEE TABLE 1
Minimum bending radius	5 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2 EN 50266-2-5 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES							
Nominal cross-sectional area mm²	Conductor diameter Ø mm	Mean thickness of insulation mm	Mean thickness of sheath mm	Overall diameter Ø mm		Resistance of conductor @20°C Ω/km	Insulation resistance @20°C MΩ×km
				MIN.	MAX.	MAX.	MIN.
1.5	1.5	1.3	0.8	5.7	6.7	13.7	21.8
2.5	1.95	1.3	0.8	6	7	8.21	18.8
4	2.5	1.3	0.8	6.5	7.6	5.09	16.2
6	3	1.3	0.8	7	8.1	3.39	14.4
10	3.9	1.5	0.8	8.2	9.6	1.95	12.8
16	5	1.5	0.8	9.2	10.8	1.24	10.7
25	6.4	1.8	1	11.5	13.4	0.795	10.3
35	7.7	1.8	1	12.7	14.9	0.565	8.9
50	9.2	1.8	1	14.1	16.5	0.393	7.8
70	11	1.8	1	15.8	18.5	0.277	6.7
95	12.5	2.2	1	18	21	0.210	6.5
120	14.2	2.2	1	19.6	22.9	0.164	6.1
150	15.8	2.2	1.2	21.4	25.1	0.132	5.8
185	17.5	2.4	1.2	23.4	27.4	0.108	5.6
240	20.1	2.4	1.2	25.9	30.3	0.0817	5
300	22.5	2.4	1.2	28.1	32.9	0.0654	4.5
400	25.8	2.6	1.4	32	37.4	0.0495	4.4

SINGLE CORE CABLES SHEATHED 3.6/6 kV - EN 50264-3-1

characteristics
*see table 1

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper class 5 according to EN 60228
Separator	Semiconductor black tape
Insulation	Type crosslinked LSZH see table 1
Core identification	Black if not elsewhere specified
Sheath	Type crosslinked LSZH see table 1 Black if not elsewhere specified

TECHNICAL DATA

Operating voltage	3.6/6 kV
Operating temperature	-40°C ÷ +90°C SEE TABLE 1 -25°C ÷ +90°C SEE TABLE 1
Minimum bending radius	5 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2 EN 50266-2-5 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES							
Nominal cross-sectional area mm²	Conductor diameter Ø mm	Mean thickness of insulation mm	Mean thickness of sheath mm	Overall diameter Ø mm		Resistance of conductor @20°C Ω/km	Insulation resistance @20°C MΩ×km
				MIN.	MAX.	MAX.	MIN.
2.5	1.95	2.6	0.8	8.6	10.1	8.21	24.6
4	2.5	2.6	0.8	9.1	10.7	5.09	21.6
6	3	2.6	0.8	9.6	11.2	3.39	19.5
10	3.9	2.6	0.8	10.4	12.2	1.95	16.7
16	5	2.6	0.8	11.5	13.4	1.24	14.2
25	6.4	2.9	1	13.7	16.4	0.795	13.1
35	7.7	2.9	1	14.9	17.5	0.565	11.6
50	9.2	2.9	1	16.4	19.1	0.393	10.2
70	11	2.9	1	18	21.1	0.277	8.9
95	12.5	2.9	1	19.5	22.8	0.210	8
120	14.2	2.9	1	21.4	25.1	0.164	7.5
150	15.8	2.9	1.2	22.9	26.8	0.132	6.9
185	17.5	3.2	1.2	25.1	29.4	0.108	6.7
240	20.1	3.4	1.2	28.3	33.1	0.0817	6.4
300	22.5	3.4	1.2	30.6	35.8	0.0654	5.9
400	25.8	3.4	1.4	33.7	39.4	0.0495	5.2

MULTICORE UNSCRENEED CABLES 300/500 V - EN 50264-3-2

characteristics
*see table 1

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper class 5 according to EN 60228
Separator	Eventual polyester color tape
Insulation	Type crosslinked LSZH see table 1
Core identification	Black numbered if not elsewhere specified
Assembling	N° conductors + eventual filler and tape are assembled together
Sheath	Type crosslinked LSZH see table 1 Black if not elsewhere specified

TECHNICAL DATA

Operating voltage	300/500 V
Operating temperature	-40°C ÷ +90°C SEE TABLE 1 -25°C ÷ +90°C SEE TABLE 1
Minimum bending radius	5 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2 EN 50266-2-5 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES									
Nominal cross-sectional area nxmm²	Conductor diameter Ø mm	Mean thickness of insulation mm	Core diameter Ø mm		Mean thickness of sheath mm	Overall diameter Ø		Resistance of conductor @20°C Ω/km	Insulation resistance @20°C MΩ×km
			MIN.	MAX.		MIN.	MAX.	MAX	MIN.
2x1	1.25	0.4	2	2.4	0.6	5.3	6.2	20	15
4x1	1.25	0.4	2	2.4	0.6	6.1	7.2	20	15
7x1	1.25	0.4	2	2.4	0.7	7.5	8.7	20	15
9x1	1.25	0.4	2	2.4	0.7	9.1	10.6	20	15
12x1	1.25	0.4	2	2.4	0.7	9.8	11.5	20	15
19x1	1.25	0.4	2	2.4	0.8	11.7	13.7	20	15
24x1	1.25	0.4	2	2.4	1	14.1	16.5	20	15
32x1	1.25	0.4	2	2.4	1	15.5	18.2	20	15
37x1	1.25	0.4	2	2.4	1	16.1	18.9	20	15
40x1	1.25	0.4	2	2.4	1	16.7	16.9	20	15
4x1.5	1.5	0.5	2.4	2.9	0.7	7.3	8.6	13.7	14
7x1.5	1.5	0.5	2.4	2.9	0.7	8.7	10.2	13.7	14
9x1.5	1.5	0.5	2.4	2.9	0.8	10.9	12.7	13.7	14
12x1.5	1.5	0.5	2.4	2.9	0.8	11.8	13.8	13.7	14
19x1.5	1.5	0.5	2.4	2.9	1	14.2	16.6	13.7	14
24x1.5	1.5	0.5	2.4	2.9	1	16.6	19.5	13.7	14
32x1.5	1.5	0.5	2.4	2.9	1.2	18.7	21.9	13.7	14
37x1.5	1.5	0.5	2.4	2.9	1.2	19.5	22.8	13.7	14
4x2.5	1.95	0.5	2.9	3.4	0.7	8.3	9.8	8.21	13
7x2.5	1.95	0.5	2.9	3.4	0.8	10.2	11.9	8.21	13
9x2.5	1.95	0.5	2.9	3.4	1	12.9	15.1	8.21	13
12x2.5	1.95	0.5	2.9	3.4	1	13.9	16.3	8.21	13
19x2.5	1.95	0.5	2.9	3.4	1	16.3	19.1	8.21	13
24x2.5	1.95	0.5	2.9	3.4	1.2	19.6	22.9	8.21	13

MULTICORE UNSCRENEED CABLES 300/500 V - EN 50264-3-2

characteristics
*see table 1

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper class 5 according to EN 60228
Separator	Eventual polyester color tape
Insulation	Type crosslinked LSZH see table 1
Core identification	Black numbered if not elsewhere specified
Assembling	N° conductors + eventual filler and tape are assembled together
Sheath	Type crosslinked LSZH see table 1 Black if not elsewhere specified

TECHNICAL DATA

Operating voltage	300/500 V
Operating temperature	-40°C ÷ +90°C SEE TABLE 1 -25°C ÷ +90°C SEE TABLE 1
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2 EN 50266-2-5 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES										
Nominal cross-sectional area nxmm²	Conductor diameter Ø mm	Mean thickness of insulation mm	Core diameter Ø mm		Wire diameter of screen mm	Mean thickness of sheath mm	Overall diameter Ø		Resistance of conductor @20°C Ω/km	Insulation resistance @20°C MΩ×km
			MIN.	MAX.	MAX.		MIN.	MAX.	MAX.	MIN.
2x1	1.25	0.4	2	2.4	0.16	0.6	6	7.1	20	15
4x1	1.25	0.4	2	2.4	0.16	0.7	7	8.2	20	15
7x1	1.25	0.4	2	2.4	0.16	0.7	8.2	9.6	20	15
9x1	1.25	0.4	2	2.4	0.21	0.8	10.2	11.9	20	15
12x1	1.25	0.4	2	2.4	0.21	0.8	10.9	12.7	20	15
19x1	1.25	0.4	2	2.4	0.26	1	13.2	15.4	20	15
24x1	1.25	0.4	2	2.4	0.26	1	15.2	17.8	20	15
32x1	1.25	0.4	2	2.4	0.26	1	16.6	19.4	20	15
37x1	1.25	0.4	2	2.4	0.26	1	17.2	20.1	20	15
40x1	1.25	0.4	2	2.4	0.26	1.2	18.2	21.3	20	15
4x1.5	1.5	0.5	2.4	2.9	0.16	0.7	8	9.4	13.7	14
7x1.5	1.5	0.5	2.4	2.9	0.21	0.7	9.6	11.3	13.7	14
9x1.5	1.5	0.5	2.4	2.9	0.21	1	12.1	14.2	13.7	14
12x1.5	1.5	0.5	2.4	2.9	0.21	1	13	15.2	13.7	14
19x1.5	1.5	0.5	2.4	2.9	0.26	1	15.3	17.9	13.7	14
24x1.5	1.5	0.5	2.4	2.9	0.26	1.2	18.1	21.2	13.7	14
32x1.5	1.5	0.5	2.4	2.9	0.26	1.2	19.8	23.2	13.7	14
37x1.5	1.5	0.5	2.4	2.9	0.26	1.2	20.5	24	13.7	14
4x2.5	1.95	0.5	2.9	3.4	0.21	0.7	9.2	10.8	8.21	13
7x2.5	1.95	0.5	2.9	3.4	0.21	0.8	11.1	13	8.21	13
9x2.5	1.95	0.5	2.9	3.4	0.26	1	13.9	16.3	8.21	13
12x2.5	1.95	0.5	2.9	3.4	0.26	1	15	17.5	8.21	13
19x2.5	1.95	0.5	2.9	3.4	0.26	1.2	17.8	20.8	8.21	13
24x2.5	1.95	0.5	2.9	3.4	0.26	1.2	20.6	24.1	8.21	13

MULTICORE UNSCRENEED CABLES 0.6/1 kV - EN 50264-3-2

characteristics
*see table 1

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper class 5 according to EN 60228
Separator	Eventual polyester colored tape
Insulation	Type crosslinked LSZH see table 1
Core identification	Black numbered if not elsewhere specified
Assembling	N° conductors + eventual filler and tape are assembled together
Sheath	Type crosslinked LSZH see table 1 Black if not elsewhere specified

TECHNICAL DATA

Operating voltage	0.6/1 kV
Operating temperature	-40°C ÷ +90°C SEE TABLE 1 -25°C ÷ +90°C SEE TABLE 1
Minimum bending radius	5 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2 EN 50266-2-5 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES									
Nominal cross-sectional area nxmm²	Conductor diameter Ø mm	Mean thickness of insulation mm	Core diameter Ø mm		Mean thickness of sheath mm	Overall diameter Ø		Resistance of conductor @20°C Ω/km	Insulation resistance @20°C MΩxkm
			MIN.	MAX.		MIN.	MAX.	MAX	MIN.
2x1.5	1.5	0.7	2.8	3.3	0.7	7.2	9	13.7	21
3x1.5	1.5	0.7	2.8	3.3	0.7	7.7	9.5	13.7	21
4x1.5	1.5	0.7	2.8	3.3	0.7	8.5	10.5	13.7	21
2x2.5	1.95	0.7	3.2	3.8	0.7	8	10	8.21	17.2
3x2.5	1.95	0.7	3.2	3.8	0.7	8.5	10.5	8.21	17.2
4x2.5	1.95	0.7	3.2	3.8	0.7	9.4	11.6	8.21	17.2
2x4	2.5	0.7	3.8	4.4	0.7	9.1	11.3	5.09	14.2
3x4	2.5	0.7	3.8	4.4	0.7	9.7	12	5.09	14.2
4x4	2.5	0.7	3.8	4.4	0.8	10.9	13.4	5.09	14.2
2x6	3	0.7	4.2	5	0.8	10.1	12.4	3.39	12.2
3x6	3	0.7	4.2	5	0.8	10.7	13.2	3.39	12.2
4x6	3	0.7	4.2	5	1	12.2	14.9	3.39	12.2
2x10	3.9	0.7	5.1	5.9	1	12.5	15.4	1.95	9.8
3x10	3.9	0.7	5.1	5.9	1	13.3	16.5	1.95	9.8
4x10	3.9	0.7	5.1	5.9	1	14.7	18.2	1.95	9.8
2x16	5	0.7	6.1	7.2	1	14.9	18.4	1.24	7.9
3x16	5	0.7	6.1	7.2	1	16	19.6	1.24	7.9
4x16	5	0.7	6.1	7.2	1.2	18	22.1	1.24	7.9
2x25	6.4	0.9	7.8	9.1	1.2	18.7	23	0.795	7.3
3x25	6.4	0.9	7.8	9.1	1.2	20	24.7	0.795	7.3
4x25	6.4	0.9	7.8	9.1	1.4	22.6	27.6	0.795	7.3
2x35	7.7	0.9	9	10.6	1.2	21.2	25.9	0.565	6.7
3x35	7.7	0.9	9	10.6	1.2	23	28.2	0.565	6.7
3x35+1x25	7.7	0.9	9	10.6	1.4	25.7	31.2	0.565	6.7
2x50	9.2	1	10.6	12.4	1.4	25.1	30.7	0.393	6.3
3x50	9.2	1	10.6	12.4	1.4	26.3	32.2	0.393	6.3
3x50+1x25	9.2	1	10.6	12.4	1.6	30	36.5	0.393	6.3

MULTICORE SCRENEED CABLES 0.6/1 kV - EN 50264-3-2

characteristics
*see table 1

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper class 5 according to EN 60228
Separator	Eventual polyester colored tape
Insulation	Type crosslinked LSZH see table 1
Core identification	Black numbered if not elsewhere specified
Assembling	N° conductors + eventual filler and tape are assembled together
Sheath	Type crosslinked LSZH see table 1 Black if not elsewhere specified

TECHNICAL DATA

Operating voltage	0.6/1 kV
Operating temperature	-40°C ÷ +90°C SEE TABLE 1 -25°C ÷ +90°C SEE TABLE 1
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2 EN 50266-2-5 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES										
Nominal cross-sectional area nxmm²	Conductor diameter Ø mm	Mean thickness of insulation mm	Core diameter Ø mm		Wire diameter of screen mm	Mean thickness of sheath mm	Overall diameter Ø		Resistance of conductor @20°C Ω/km	Insulation resistance @20°C MΩ×km
			MIN.	MAX.	MAX.		MIN.	MAX.	MAX.	MIN.
2x1.5	1.5	0.7	2.8	3.3	0.16	0.7	7.9	9.9	13.7	21
3x1.5	1.5	0.7	2.8	3.3	0.16	0.7	8.4	10.4	13.7	21
4x1.5	1.5	0.7	2.8	3.3	0.16	0.7	9.1	11.3	13.7	21
2x2.5	1.95	0.7	3.2	3.8	0.16	0.7	8.7	10.7	8.21	17.2
3x2.5	1.95	0.7	3.2	3.8	0.16	0.7	9.2	11.4	8.21	17.2
4x2.5	1.95	0.7	3.2	3.8	0.21	0.8	10.4	12.9	8.21	17.2
2x4	2.5	0.7	3.8	4.4	0.21	0.8	10.2	12.7	5.09	14.2
3x4	2.5	0.7	3.8	4.4	0.21	0.8	10.8	13.3	5.09	14.2
4x4	2.5	0.7	3.8	4.4	0.21	0.8	11.8	14.5	5.09	14.2
2x6	3	0.7	4.2	5	0.21	0.8	10.9	13.6	3.39	12.2
3x6	3	0.7	4.2	5	0.21	0.8	11.6	14.3	3.39	12.2
4x6	3	0.7	4.2	5	0.21	1	13.1	3.39	12.2	12.2
2x10	3.9	0.7	5.1	5.9	0.21	1	13.4	16.6	1.95	9.8
3x10	3.9	0.7	5.1	5.9	0.26	1	14.4	18	1.95	9.8
4x10	3.9	0.7	5.1	5.9	0.26	1	15.9	19.5	1.95	9.8
2x16	5	0.7	6.1	7.2	0.26	1	16	19.8	1.24	7.9
3x16	5	0.7	6.1	7.2	0.26	1.2	17.4	21.3	1.24	7.9
4x16	5	0.7	6.1	7.2	0.26	1.2	19.3	23.6	1.24	7.9
2x25	6.4	0.9	7.8	9.1	0.26	1.2	19.8	24.6	0.795	7.3
3x25	6.4	0.9	7.8	9.1	0.26	1.2	21.3	26.1	0.795	7.3
4x25	6.4	0.9	7.8	9.1	0.31	1.4	24	29.3	0.795	7.3
2x35	7.7	0.9	9	10.6	0.31	1.4	22.8	27.9	0.565	6.7
3x35	7.7	0.9	9	10.6	0.31	1.4	24.5	29.8	0.565	6.7
4x35	7.7	0.9	9	10.6	0.31	1.4	26.9	32.9	0.565	6.7
2x50	9.2	1	10.6	12.4	0.31	1.4	26.4	32.3	0.393	6.3
3x50	9.2	1	10.6	12.4	0.31	1.6	28.3	34.6	0.393	6.3
3x50+1x25	9.2	1	10.6	12.4	0.31	1.6	31.5	38.2	0.393	6.3

These images are for illustrative purposes.

FIRE RESISTANT POWER AND CONTROL CABLES EN 50200/EN 50362

TABLE 2_ POWER AND CONTROL CABLES

HAVING SPECIAL FIRE PERFORMANCE

STANDARD REFERENCE

EN 50200; EN 50362; EN 50264; EN 50305; EN 50355; EN 50343; EN 45545-2 HL3; UNI CEI 11170-3 LR4; DIN 5510-2; BS 6853; NFPA 130

CODE DESIGNATIONS

Insulation System (EN 50264-2-1 and 2-2)

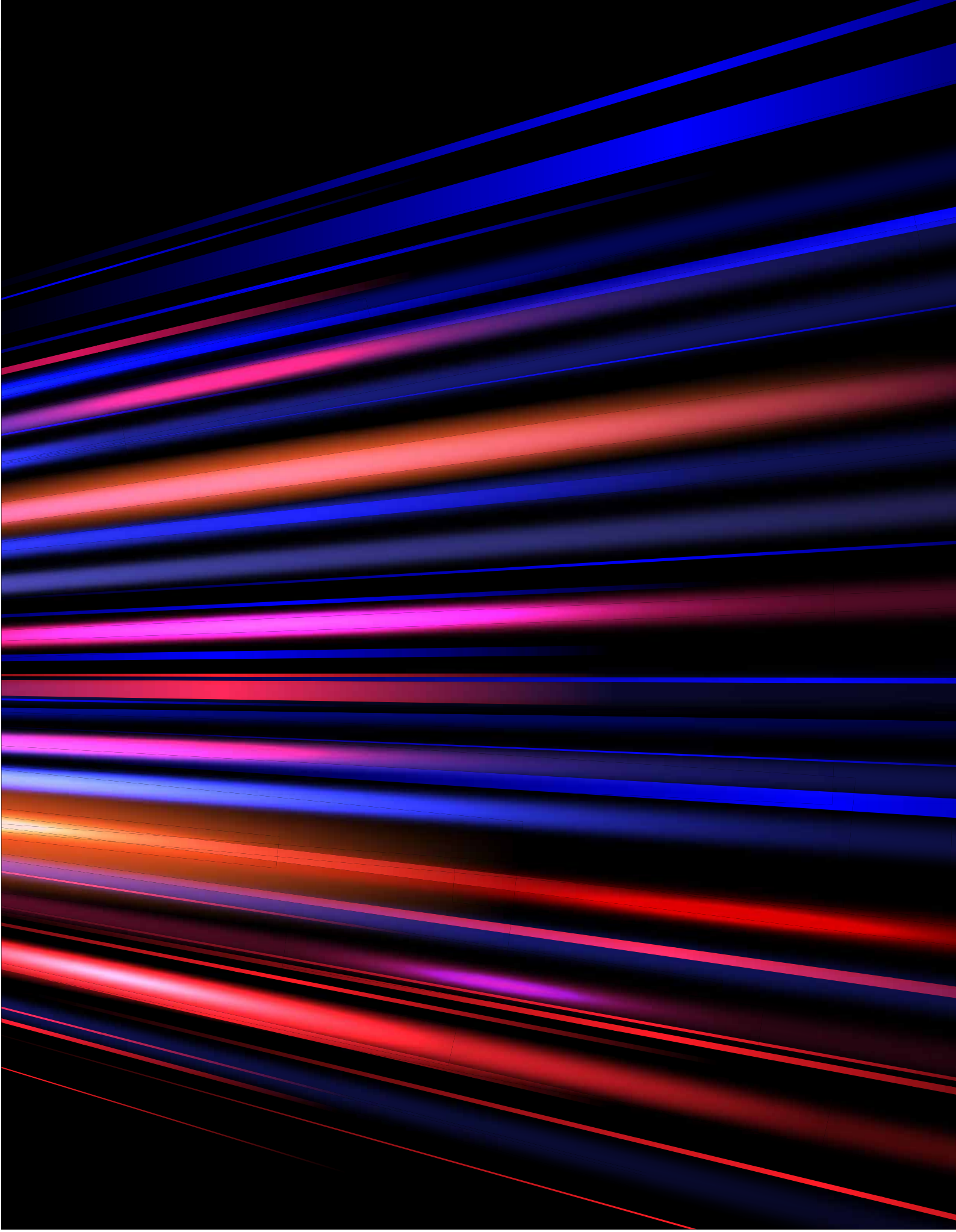
EI 101 Low Temperature Resistant, Oil Resistant ..... Code Designation C
EI 102 Extra Low Temperature Resistant, Oil Resistant ..... Code Designation F
EI 103 Low Temperature Resistant, Extra Oil and Fuel Resistant ..... Code Designation J
EI 104 Extra Low Temperature Resistant, Extra Oil and Fuel Resistant ..... Code Designation M
EI 105 Extra Low Temperature Resistant, Non Oil Resistant ..... Code Designation O

Insulation System (EN 50264-3-1 and 3-2)

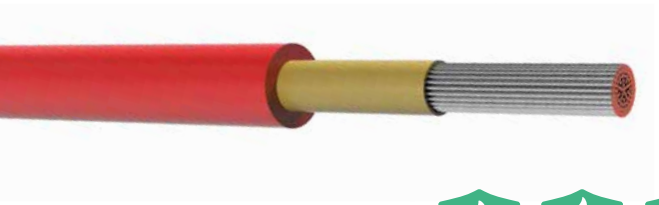
EI 106 Low Temperature Resistant, Oil Resistant ..... Code Designation C
EI 107 Extra Low Temperature Resistant, Oil Resistant ..... Code Designation F
EI 108 Low Temperature Resistant, Extra Oil and Fuel Resistant ..... Code Designation J
EI 109 Extra Low Temperature Resistant, Extra Oil and Fuel Resistant ..... Code Designation M
EI 110 Extra Low Temperature Resistant, Non Oil Resistant ..... Code Designation O

Sheath Type (EN 50264-2-1, EN 50264-2-2, EN 50264-3-1 and EN 50264-3-2)

EM 101 Low Temperature Resistant, Oil Resistant ..... Code Designation C
EM 102 Extra Low Temperature Resistant, Oil Resistant ..... Code Designation F
EM 103 Low Temperature Resistant, Extra Oil and Fuel Resistant ..... Code Designation J
EM 104 Extra Low Temperature Resistant, Extra Oil and Fuel Resistant ..... Code Designation M



SINGLE CORE CABLES UNSHEATHED 0.6/1 kV - EN 50200/EN 50362



characteristics
*see table 2

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper class 5 according to EN 60228
Fire protection	Glass-mica tape
Insulation	Type crosslinked LSZH see table 2
Core identification	Red if not elsewhere specified

TECHNICAL DATA

Operating voltage	0.6/1 kV
Operating temperature	-40°C ÷ +90°C SEE TABLE 2 -25°C ÷ +90°C SEE TABLE 2
Minimum bending radius	6 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2 EN 50266-2-5 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES					
Nominal cross-sectional area mm²	Conductor diameter Ø mm	Mean thickness of insulation mm	External diameter Ø mm	Resistance of conductor @20°C Ω/km	Insulation resistance @20°C MΩ×km
			MAX.	MAX.	MIN.
1	1.25	0.8	3.5	20	65
1.5	1.5	0.8	3.8	13.7	55
2.5	1.95	0.8	4.2	8.21	50
4	2.5	0.8	4.9	5.09	40
6	3	0.9	5.7	3.39	35
10	3.9	1.1	7.1	1.95	30
16	5	1.1	8.8	1.24	30
25	6.4	1.3	10.3	0.795	30
35	7.7	1.3	11.8	0.565	25
50	9.2	1.5	13.8	0.393	25
70	11	1.5	15.8	0.277	20
95	12.5	1.6	17.7	0.210	20
120	14.2	1.6	19.6	0.164	20
150	15.8	1.9	22	0.132	15
185	17.5	1.9	24	0.108	15

MULTICORE UNSCREENED CABLES 300/500 V EN 50200 / EN 50362

characteristics
*see table 2

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper class 5 according to EN 60228
Fire protection	Glass-mica tape
Insulation	Type crosslinked LSZH see table 2
Core identification	Black numbered if not elsewhere specified
Assembling	N° conductors + eventual filler and tape are assembled together
Sheath	Type crosslinked LSZH see table 2 Red if not elsewhere specified

TECHNICAL DATA

Operating voltage	300/500 V
Operating temperature	-40°C ÷ +90°C SEE TABLE 2 -25°C ÷ +90°C SEE TABLE 2
Minimum bending radius	5 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2 EN 50266-2-5 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES						
Nominal cross-sectional area nxmm²	Conductor diameter Ø mm	Mean thickness of insulation mm	Mean thickness of sheath mm	External diameter Ø mm	Resistance of conductor @20°C Ω/km	Insulation resistance @20°C MΩ×km
				MAX.	MAX.	MIN.
2x1	1.25	0.6	1.4	9.5	20	140
2x1.5	1.5	0.7	1.4	10.3	13.7	120
2x2.5	1.95	0.8	1.4	11.7	8.21	90
2x4	2.5	0.8	1.4	12.7	5.09	80
3x1	1.25	0.6	1.4	9.9	20	140
3x1.5	1.5	0.7	1.4	10.8	13.7	120
3x2.5	1.95	0.8	1.4	12.4	8.21	90
3x4	2.5	0.8	1.4	13.6	5.09	80
4x1	1.25	0.6	1.4	10.7	20	140
4x1.5	1.5	0.7	1.4	11.9	13.7	120
4x2.5	1.95	0.8	1.4	13.6	8.21	90
4x4	2.5	0.8	1.4	15	5.09	80

SINGLE AND MULTICORE SCREENED CABLES WITH SHEATH 300/500 V - EN 50200 / EN 50362

characteristics
*see table 2

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper class 5 according to EN 60228
Fire protection	Glass-mica tape
Insulation	Type crosslinked LSZH see table 2
Core identification	Black numbered if not elsewhere specified
Assembling	N° conductors + eventual filler and tape are assembled together
Screen	Tinned copper braid
Sheath	Type crosslinked LSZH see table 2 Red if not elsewhere specified

TECHNICAL DATA

Operating voltage	300/500 V
Operating temperature	-40°C ÷ +90°C SEE TABLE 2 -25°C ÷ +90°C SEE TABLE 2
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2 EN 50266-2-5 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES							
Nominal cross-sectional area nxmm²	Conductor diameter Ø mm	Mean thickness of insulation mm	Wire diameter of screen mm	Mean thickness of sheath mm	External diameter Ø mm	Resistance of conductor @20°C Ωxkm	Insulation resistance @20°C MΩxkm
			MAX.		MAX.	MAX.	MIN.
1x1	1.25	0.6	0.16	1.4	7.0	20.0	140
1x1.5	1.5	0.7	0.16	1.4	7.6	13.7	120
1x2.5	1.95	0.8	0.21	1.4	8.4	8.21	90
1x4	2.5	0.8	0.21	1.4	9.0	5.09	80
2x0.75	1.15	0.6	0.16	1.4	8.9	26.7	150
2x1	1.25	0.6	0.16	1.4	10.5	20.0	140
2x1.5	1.5	0.7	0.16	1.4	11.3	13.7	120
2x2.5	1.95	0.8	0.21	1.4	12.9	8.21	90
2x4	2.5	0.8	0.21	1.4	14.0	5.09	80
3x1	1.25	0.6	0.16	1.4	10.9	20.0	140
3x1.5	1.5	0.7	0.16	1.4	11.8	13.7	120
3x2.5	1.95	0.8	0.21	1.4	13.7	8.21	90
3x4	2.5	0.8	0.21	1.4	15.0	5.09	80
4x1	1.25	0.6	0.16	1.4	11.7	20.0	140
4x1.5	1.5	0.7	0.16	1.4	12.9	13.7	120
4x2.5	1.95	0.8	0.21	1.4	15.0	8.21	90
4x4	2.5	0.8	0.21	1.4	16.5	5.09	80
6x1	1.25	0.6	0.16	1.4	13.3	20.0	140
6x1.5	1.5	0.7	0.16	1.4	14.6	13.7	120
6x2.5	1.95	0.8	0.21	1.4	17.0	8.21	90
6x4	2.5	0.8	0.21	1.4	18.6	5.09	80

These images are for illustrative purposes.

MINIATURIZED CABLES

TABLE 3_ MINIATURIZED CABLES

HAVING SPECIAL FIRE PERFORMANCE
THIN WALL

STANDARD REFERENCE

EN 50306; EN 50264; EN 50305; EN 50355; EN 50343; EN 45545-2 HL3; UNI CEI 11170-3 LR4; DIN 5510-2; BS 6853; NFPA 130

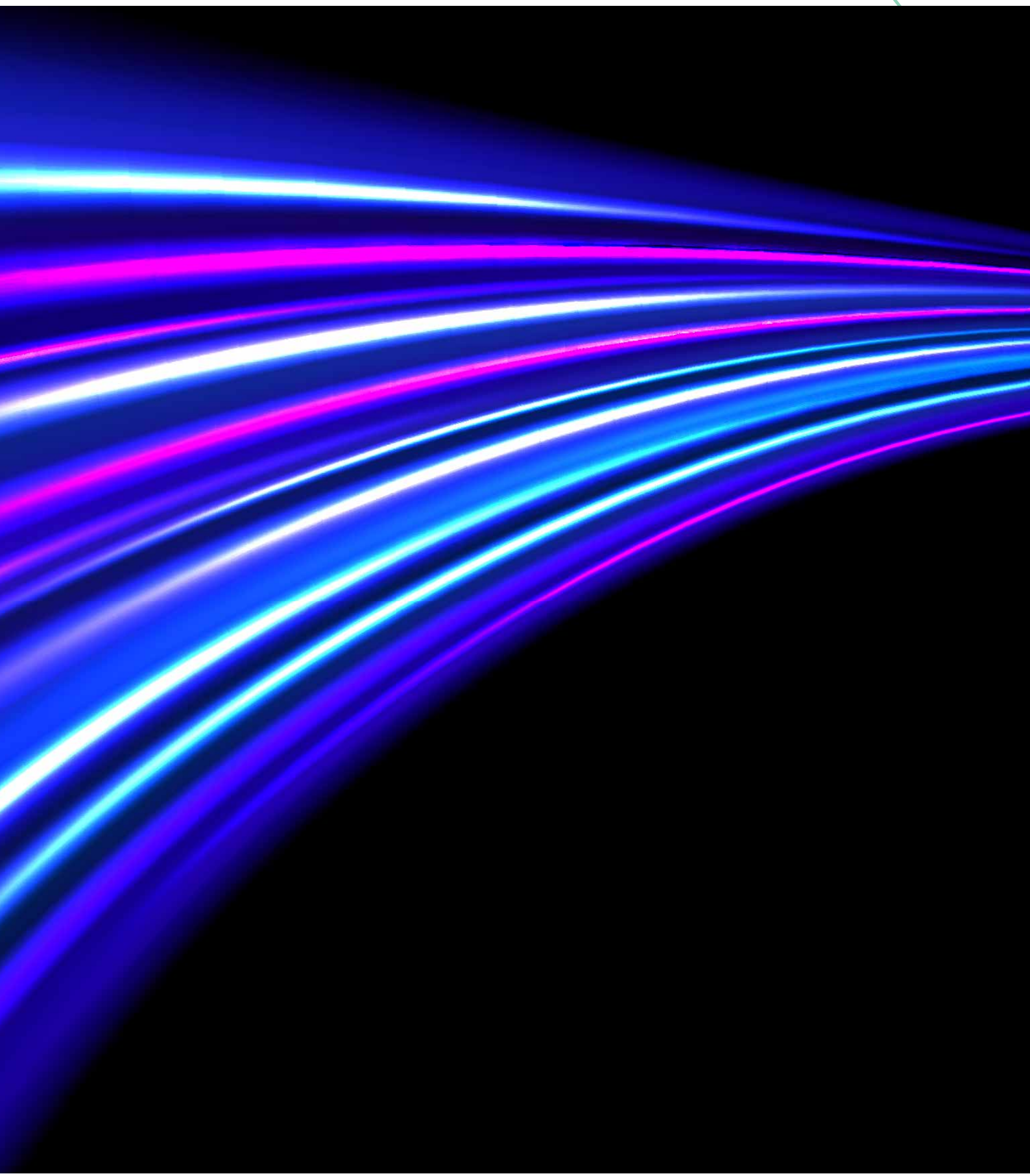
CODE DESIGNATIONS

Insulation System (EN 50306-1, EN 50306-2)

Low Temperature Resistant, Oil Resistant ..... Code Designation C
Extra Low Temperature Resistant, Oil Resistant ..... Code Designation F
Low Temperature Resistant, Extra Oil and Fuel Resistant ..... Code Designation J
Extra Low Temperature Resistant, Extra Oil and Fuel Resistant ..... Code Designation M

Sheath Type (EN 50264-1, EN 50306-3, EN 50306-4)

EM 101 Low Temperature Resistant, Oil Resistant..... Code Designation C
EM 102 Extra Low Temperature Resistant, Oil Resistant..... Code Designation F
EM 103 Low Temperature Resistant, Extra Oil and Fuel Resistant..... Code Designation J
EM 104 Extra Low Temperature Resistant, Extra Oil and Fuel Resistant..... Code Designation M



SINGLE CORE CABLES UNSHEATHED 300/500 V - EN 50306-2

characteristics
*see table 3

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper according to EN 60228 configuration according to table A
Insulation	Double layer of olefinic thermoplastic mixture
Core identification	White if not elsewhere specified

TECHNICAL DATA

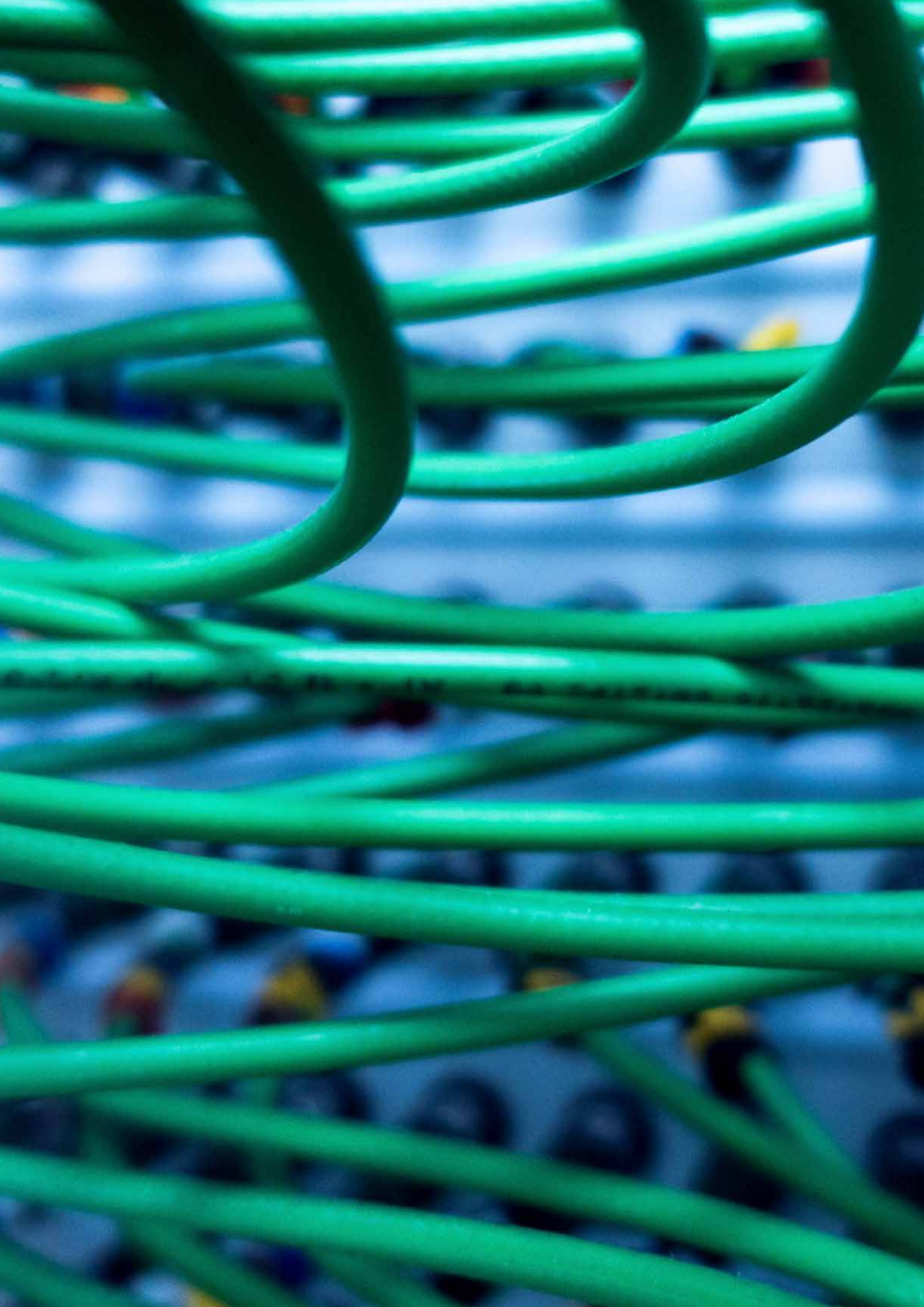
Operating voltage	300/500 V
Operating temperature	-40°C ÷ +105°C SEE TABLE 3 -25°C ÷ +105°C SEE TABLE 3
Minimum bending radius	4 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2 EN 50266-2-5 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES									
Nominal cross-sectional area mm²	Conductor diameter Ø mm	Mean thickness of insulation mm	Core diameter mm		Number and diameter of strands mm	Overall diameter Ø mm		Resistance of conductor @20°C Ω/km	Insulation resistance @20°C MΩxkm
			MIN.	MAX.		MIN.	MAX.	MAX.	MIN.
0.5	0.85	0.18	0.8	0.95	19x0.18	1.15	1.45	40.1	600
0.75	1.05	0.18	1.0	1.15	37x0.16 (a)	1.35	1.65	26.7	500
1.0	1.2	0.18	1.1	1.3	37x0.18 (a)	1.45	1.8	20.0	500
1.5	1.55	0.22	1.45	1.65	37x0.23 (a)	1.95	2.3	13.7	400
2.5	2.0	0.28	2.25	2.15	37x0.30 (a)	2.5	2.85	8.21	400

(a) Also formation with 19 strands is possible



SINGLE AND MULTICORE SCREENED CABLES 300/500 V - EN 50306-3

characteristics
*see table 3

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper according to EN 60228 configuration according to single core unsheathed
Insulation	Double layer of olefinic thermoplastic mixture
Core identification	White if not elsewhere specified
Assembling	N° conductors + eventual filler and tape are assembled together
Screen	Tinned copper braid
Sheath	Type crosslinked LSZH see table 3 Black if not elsewhere specified Thickness and outer diameter according to cable class. E exposed. P protected: See table E

TECHNICAL DATA

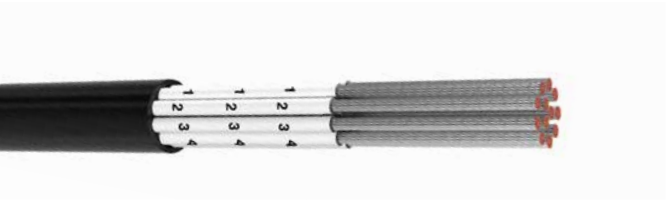
Operating voltage	300/500 V
Operating temperature	-25°C ÷ +105°C SEE TABLE 3 (SINGLE CORE) -40°C ÷ +105°C SEE TABLE 3 (SINGLE CORE) -25°C ÷ +90°C SEE TABLE 3 (MULTICORE) -40°C ÷ +90°C SEE TABLE 3 (MULTICORE)
Minimum bending radius	5 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2 EN 50266-2-5 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES									
Nominal cross-sectional area nxmm²	Conductor diameter Ø mm	Minimum thickness of insulation mm	Core diameter mm		Minimum thickness of sheath mm	Overall diameter Ø mm		Resistance of conductor @20°C Ω/km	Insulation resistance @20°C MΩxkm
			MIN.	MAX.		MIN.	MAX.	MAX.	MIN.
1x0.5	0.85	0.18	1.15	1.45	0.2	2.3	2.8	40.1	600
2x0.5	0.85	0.18	1.15	1.45	0.2	3.5	4.3	40.1	600
3x0.5	0.85	0.18	1.15	1.45	0.2	3.7	4.5	40.1	600
4x0.5	0.85	0.18	1.15	1.45	0.2	4	5	40.1	600
1x0.75	1.05	0.18	1.35	1.65	0.2	2.5	3	26.7	500
2x0.75	1.05	0.18	1.35	1.65	0.2	3.9	4.7	26.7	500
3x0.75	1.05	0.18	1.35	1.65	0.2	4	5	26.7	500
4x0.75	1.05	0.18	1.35	1.65	0.2	4.5	5.5	26.7	500
1x1.0	1.2	0.18	1.45	1.8	0.2	2.7	3.2	20	500
2x1.0	1.2	0.18	1.45	1.8	0.2	4.2	5.2	20	500
3x1.0	1.2	0.18	1.45	1.8	0.2	4.5	5.5	20	500
4x1.0	1.2	0.18	1.45	1.8	0.2	5	6	20	500
1x1.5	1.55	0.22	1.95	2.3	0.2	3.1	3.6	13.7	400
2x1.5	1.55	0.22	1.95	2.3	0.2	5.1	6.1	13.7	400
3x1.5	1.55	0.22	1.95	2.3	0.2	5.4	6.4	13.7	400
4x1.5	1.55	0.22	1.95	2.3	0.2	6	7	13.7	400
1x2.5	2	0.28	2.5	2.85	0.2	3.6	4.4	13.7	400
2x2.5	2	0.28	2.5	2.85	0.2	6.4	7.4	13.7	400
3x2.5	2	0.28	2.5	2.85	0.2	6.8	7.8	13.7	400
4x2.5	2	0.28	2.5	2.85	0.2	7.5	8.5	13.7	400

MULTICORE UNSCREENED CABLES 300/500 V - EN 50306-4 1E/1P



characteristics
*see table 3

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper according to EN 60228 configuration according to single core unsheathed
Insulation	Double layer of olefinic thermoplastic mixture. Thickness and outer diameter according to single core unsheathed
Core identification	White numbered if not elsewhere specified
Assembling	N° conductors + eventual filler and tape are assembled together
Sheath	Type crosslinked LSZH see table 3. Black if not elsewhere specified. Thickness and outer diameter according to cable class. *E exposed. *P protected

*situations

TECHNICAL DATA

Operating voltage	300/500 V
Operating temperature	-40°C ÷ +90°C SEE TABLE 3 -25°C ÷ +105°C SEE TABLE 3
Minimum bending radius	4 × Ø

FIRE PERFORMANCE

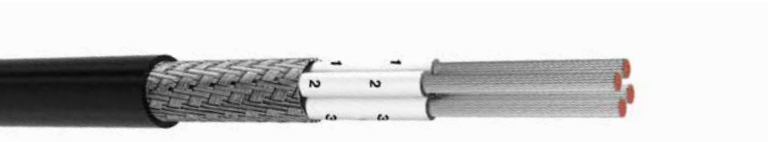
Fire propagation	EN 60332-1-2 EN 50305 9.1.2 EN 50266-2-5 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MULTICORE UNSCREENED CABLES 300/500 V - EN 50306-4 1E									
MAIN FEATURES CLASS									
Nominal cross-sectional area nxmm²	Conductor diameter Ø mm	Minimum thickness of insulation mm	Core diameter mm		Minimum thickness of sheath mm	Overall diameter Ø mm		Resistance of conductor @20°C Ω/km	Insulation resistance @20°C MΩxkm
			MIN.	MAX.		MIN.	MAX.	MAX.	MIN.
4x0.5	0.85	0.18	1.15	1.45	1	5.5	6.5	40.1	600
5x0.5	0.85	0.18	1.15	1.45	1	5.8	6.9	40.1	600
7x0.5	0.85	0.18	1.15	1.45	1	6.3	7.3	40.1	600
9x0.5	0.85	0.18	1.15	1.45	1	6.3	7.3	40.1	600
13x0.5	0.85	0.18	1.15	1.45	1	8.3	9.3	40.1	600
19x0.5	0.85	0.18	1.15	1.45	1	9	10.2	40.1	600
37x0.5	0.85	0.18	1.15	1.45	1	12.3	13.5	40.1	600
4x0.75	1.05	0.18	1.35	1.65	1	6	7	26.7	500
7x0.75	1.05	0.18	1.35	1.65	1	6.9	7.9	26.7	500
13x0.75	1.05	0.18	1.35	1.65	1	9.1	10.3	26.7	500
19x0.75	1.05	0.18	1.35	1.65	1	10	11.2	26.7	500
37x0.75	1.05	0.18	1.35	1.65	1	13.2	14.4	26.7	500
48x0.75	1.05	0.18	1.35	1.65	1	14.8	16.4	26.7	500
4x1.0	1.2	0.18	1.45	1.8	1	6.3	7.3	20	500
7x1.0	1.2	0.18	1.45	1.8	1	7.3	8.3	20	500
13x1.0	1.2	0.18	1.45	1.8	1	9.7	10.9	20	500
19x1.0	1.2	0.18	1.45	1.8	1	10.7	11.9	20	500
37x1.0	1.2	0.18	1.45	1.8	1	14	15.6	20	500
4x1.5	1.55	0.22	1.95	2.3	1	7.4	8.4	13.7	400
7x1.5	1.55	0.22	1.95	2.3	1	8.6	9.8	13.7	400
13x1.5	1.55	0.22	1.95	2.3	1	11.7	12.9	13.7	400
19x1.5	1.55	0.22	1.95	2.3	1	13	14.2	13.7	400
37x1.5	1.55	0.22	1.95	2.3	1	17.2	18.8	13.7	400
2x2.5	2	0.28	2.5	2.85	1	7.7	8.7	8.21	400
3x2.5	2	0.28	2.5	2.85	1	8.1	9.1	8.21	400
4x2.5	2	0.28	2.5	2.85	1	8.8	10	8.21	400

MULTICORE UNSCREENED CABLES 300/500 V - EN 50306-4 1E/1P

MULTICORE UNSCREENED CABLES 300/500 V - EN 50306-4 1P									
MAIN FEATURES CLASS									
Nominal cross-sectional area nxmm²	Conductor diameter Ø mm	Minimum thickness of insulation mm	Core diameter mm		Minimum thickness of sheath mm	Overall diameter Ø mm		Resistance of conductor @20°C Ω/km	Insulation resistance @20°C MΩxkm
			MIN.	MAX.		MIN.	MAX.	MAX.	MIN.
4x0.5	0.85	0.18	1.15	1.45	0.42	4.1	5.1	40.1	600
5x0.5	0.85	0.18	1.15	1.45	0.42	4.4	5.5	40.1	600
7x0.5	0.85	0.18	1.15	1.45	0.42	4.9	5.9	40.1	600
9x0.5	0.85	0.18	1.15	1.45	0.42	4.9	5.9	40.1	600
13x0.5	0.85	0.18	1.15	1.45	0.56	7.3	8.3	40.1	600
19x0.5	0.85	0.18	1.15	1.45	0.56	8.1	9.1	40.1	600
37x0.5	0.85	0.18	1.15	1.45	0.56	10.8	12	40.1	600
4x0.75	1.05	0.18	1.35	1.65	0.42	4.6	5.6	26.7	500
7x0.75	1.05	0.18	1.35	1.65	0.42	5.5	6.5	26.7	500
13x0.75	1.05	0.18	1.35	1.65	0.56	8.2	9.2	26.7	500
19x0.75	1.05	0.18	1.35	1.65	0.56	9	10.2	26.7	500
37x0.75	1.05	0.18	1.35	1.65	0.56	12.2	13.4	26.7	500
48x0.75	1.05	0.18	1.35	1.65	0.56	13.9	15.5	26.7	500
4x1.0	1.2	0.18	1.45	1.8	0.42	4.9	5.9	20	500
7x1.0	1.2	0.18	1.45	1.8	0.42	6	7	20	500
13x1.0	1.2	0.18	1.45	1.8	0.56	8.7	9.9	20	500
19x1.0	1.2	0.18	1.45	1.8	0.56	9.8	11	20	500
37x1.0	1.2	0.18	1.45	1.8	0.56	13.3	14.5	20	500
4x1.5	1.55	0.22	1.95	2.3	0.42	6	7	13.7	400
7x1.5	1.55	0.22	1.95	2.3	0.56	7.7	8.7	13.7	400
13x1.5	1.55	0.22	1.95	2.3	0.56	10.7	11.9	13.7	400
19x1.5	1.55	0.22	1.95	2.3	0.56	12	13.2	13.7	400
37x1.5	1.55	0.22	1.95	2.3	0.56	16.2	17.8	13.7	400
2x2.5	2	0.28	2.5	2.85	0.56	6.7	7.7	8.21	400
3x2.5	2	0.28	2.5	2.85	0.56	7.7	8.1	8.21	400
4x2.5	2	0.28	2.5	2.85	0.56	7.9	8.9	8.21	400

SINGLE AND MULTICORE SCRENEED CABLES 300/500 V - EN 50306-4 3P/3E



characteristics
*see table 3

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper according to EN 60228 configuration according to single core unsheathed
Insulation	Double layer of olefinic thermoplastic mixture. Thickness and outer diameter: see single core
Core identification	White numbered if not elsewhere specified
Assembling	N° conductors + eventual filler and tape are assembled together
Sheath	Type crosslinked LSZH see table 3. Black if not elsewhere specified. Thickness and outer diameter according to cable class. *E exposed. *P protected

*situations

TECHNICAL DATA

Operating voltage	300/500 V
Operating temperature	-40°C ÷ +90°C SEE TABLE 3 -25°C ÷ +105°C SEE TABLE 3
Minimum bending radius	5 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2 EN 50266-2-5 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

SINGLE AND MULTICORE SCRENEED CABLES 300/500 V - EN 50306-4 3P/3E

SINGLE AND MULTICORE SCRENEED CABLES 300/500 V - EN 50306-4 3E MAIN FEATURES CLASS E									
Nominal cross-sectional area nxmm²	Conductor diameter Ø mm	Minimum thickness of insulation mm	Core diameter mm		Minimum thickness of sheath mm	Overall diameter Ø mm		Resistance of conductor @20°C Ω/km	Insulation resistance @20°C MΩxkm
			MIN.	MAX.		MIN.	MAX.	MAX.	MIN.
1x0.5	0.85	0.18	1.15	1.45	1	3.6	4.6	40.1	600
2x0.5	0.85	0.18	1.15	1.45	1	5.5	6.5	40.1	600
3x0.5	0.85	0.18	1.15	1.45	1	5.7	6.7	40.1	600
4x0.5	0.85	0.18	1.15	1.45	1	6.1	7.1	40.1	600
6x0.5	0.85	0.18	1.15	1.45	1	6.9	7.9	40.1	600
8x0.5	0.85	0.18	1.15	1.45	1	7.5	8.5	40.1	600
1x0.75	1.05	0.18	1.35	1.65	1	3.8	4.8	26.7	500
2x0.75	1.05	0.18	1.35	1.65	1	5.9	6.9	26.7	500
3x0.75	1.05	0.18	1.35	1.65	1	6.2	7.2	26.7	500
4x0.75	1.05	0.18	1.35	1.65	1	6.5	7.5	26.7	500
6x0.75	1.05	0.18	1.35	1.65	1	7.5	8.5	26.7	500
8x0.75	1.05	0.18	1.35	1.65	1	8.2	9.2	26.7	500
1x1.0	1.2	0.18	1.45	1.8	1	3.8	4.8	20	500
2x1.0	1.2	0.18	1.45	1.8	1	6.2	7.2	20	500
3x1.0	1.2	0.18	1.45	1.8	1	6.5	7.5	20	500
4x1.0	1.2	0.18	1.45	1.8	1	6.9	7.9	20	500
6x1.0	1.2	0.18	1.45	1.8	1	8	9	20	500
8x1.0	1.2	0.18	1.45	1.8	1	8.6	9.8	20	500
1x1.5	1.55	0.22	1.95	2.3	1	4.4	5.4	13.7	400
2x1.5	1.55	0.22	1.95	2.3	1	7.1	8.1	13.7	400
3x1.5	1.55	0.22	1.95	2.3	1	7.4	8.4	13.7	400
4x1.5	1.55	0.22	1.95	2.3	1	8	9	13.7	400
6x1.5	1.55	0.22	1.95	2.3	1	9.2	10.4	13.7	400
8x1.5	1.55	0.22	1.95	2.3	1	10.2	11.4	13.7	400
1x2.5	2	0.28	2.5	2.85	1	5	6	8.21	400
2x2.5	2	0.28	2.5	2.85	1	8.3	9.3	8.21	400
3x2.5	2	0.28	2.5	2.85	1	8.6	9.8	8.21	400
4x2.5	2	0.28	2.5	2.85	1	9.4	10.6	8.21	400

SINGLE AND MULTICORE SCRENEED CABLES 300/500 V - EN 50306-4 3P/3E

SINGLE AND MULTICORE SCRENEED CABLES 300/500 V - EN 50306-4 3P MAIN FEATURES CLASS P									
Nominal cross-sectional area nxmm²	Conductor diameter Ø mm	Minimum thickness of insulation mm	Core diameter mm		Minimum thickness of sheath mm	Overall diameter Ø mm		Resistance of conductor @20°C Ω/km	Insulation resistance @20°C MΩxkm
			MIN.	MAX.		MIN.	MAX.	MAX.	MIN.
1x0.5	0.85	0.18	1.15	1.45	0.28	2.2	2.6	40.1	600
2x0.5	0.85	0.18	1.15	1.45	0.42	4.1	5.1	40.1	600
3x0.5	0.85	0.18	1.15	1.45	0.42	4.3	5.3	40.1	600
4x0.5	0.85	0.18	1.15	1.45	0.42	4.7	5.7	40.1	600
6x0.5	0.85	0.18	1.15	1.45	0.42	5.5	6.5	40.1	600
8x0.5	0.85	0.18	1.15	1.45	0.42	6	7	40.1	600
1x0.75	1.05	0.18	1.35	1.65	0.28	2.5	3.1	26.7	500
2x0.75	1.05	0.18	1.35	1.65	0.42	4.5	5.5	26.7	500
3x0.75	1.05	0.18	1.35	1.65	0.42	4.7	5.7	26.7	500
4x0.75	1.05	0.18	1.35	1.65	0.42	5.2	6.2	26.7	500
6x0.75	1.05	0.18	1.35	1.65	0.42	6.1	7.1	26.7	500
8x0.75	1.05	0.18	1.35	1.65	0.42	6.6	7.6	26.7	500
1x1.0	1.2	0.18	1.45	1.8	0.28	2.8	3.3	20	500
2x1.0	1.2	0.18	1.45	1.8	0.42	4.7	5.7	20	500
3x1.0	1.2	0.18	1.45	1.8	0.42	5.1	6	20	500
4x1.0	1.2	0.18	1.45	1.8	0.42	5.5	6.5	20	500
6x1.0	1.2	0.18	1.45	1.8	0.42	6.6	7.6	20	500
8x1.0	1.2	0.18	1.45	1.8	0.56	7.7	8.7	20	500
1x1.5	1.55	0.22	1.95	2.3	0.28	3.1	3.7	13.7	400
2x1.5	1.55	0.22	1.95	2.3	0.42	5.7	6.7	13.7	400
3x1.5	1.55	0.22	1.95	2.3	0.42	5	7	13.7	400
4x1.5	1.55	0.22	1.95	2.3	0.42	6.6	7.6	13.7	400
6x1.5	1.55	0.22	1.95	2.3	0.56	8.3	9.3	13.7	400
8x1.5	1.55	0.22	1.95	2.3	0.56	8.9	10.1	13.7	400
1x2.5	2	0.28	2.5	2.85	0.56	4	4.4	8.21	400
2x2.5	2	0.28	2.5	2.85	0.56	7.3	8.3	8.21	400
3x2.5	2	0.28	2.5	2.85	0.56	7.7	8.7	8.21	400
4x2.5	2	0.28	2.5	2.85	0.56	8.4	9.6	8.21	400

MULTIPAIRS CABLES INDIVIDUALLY SCREENED AND SHEATHED WITH AN OVERALL SHEATH 300/500 V - EN 50306-4 5E/5P

characteristics
*see table 1

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper according to EN 60228 configuration according to single core
Insulation	Double layer of olefinic thermoplastic mixture Thickness and outer diameter according to single core
Core identification	White numbered if not elsewhere specified
Assembling	2 conductors + eventual filler and tape are twisted together
Pair	Each pair screened and sheathed
Assembling	N° pairs + eventual filler and tape are assembled together
Sheath	Type crosslinked LSZH see table 3 Black if not elsewhere specified Thickness and outer diameter according to cable class. *E exposed. *P protected

*situations

TECHNICAL DATA

Operating voltage	300/500 V
Operating temperature	-40°C ÷ +90°C SEE TABLE 3 -25°C ÷ +90°C SEE TABLE 3
Minimum bending radius	5 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2 EN 50266-2-5 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MULTIPAIRS CABLES INDIVIDUALLY SCREENED AND SHEATHED WITH AN OVERALL SHEATH 300/500 V - EN 50306-4 5E									
MAIN FEATURES CLASS									
Nominal cross-sectional area nxmm²	Conductor diameter Ø mm	Minimum thickness of insulation mm	Core diameter mm		Minimum thickness of sheath mm	Overall diameter Ø mm		Resistance of conductor @20°C Ωxkm	Insulation resistance @20°C MΩxkm
			MIN.	MAX.		MIN.	MAX.	MAX.	MIN.
2x2x0.5	0.85	0.18	1.15	1.45	1	10.1	11.3	40.1	600
3x2x0.5	0.85	0.18	1.15	1.45	1	10.8	12	40.1	600
4x2x0.5	0.85	0.18	1.15	1.45	1	11.8	13	40.1	600
7x2x0.5	0.85	0.18	1.15	1.45	1	13.9	15.5	40.1	600
2x2x0.75	1.05	0.18	1.35	1.65	1	10.9	12.1	26.7	500
3x2x0.75	1.05	0.18	1.35	1.65	1	11.6	12.8	26.7	500
4x2x0.75	1.05	0.18	1.35	1.65	1	12.8	14	26.7	500
7x2x0.75	1.05	0.18	1.35	1.65	1	15.1	16.7	26.7	500
2x2x1.0	1.2	0.18	1.45	1.8	1	11.3	12.5	20	500
3x2x1.0	1.2	0.18	1.45	1.8	1	12	13.2	20	500
4x2x1.0	1.2	0.18	1.45	1.8	1	13.2	14.4	20	500
7x2x1.0	1.2	0.18	1.45	1.8	1	15.7	17.3	20	500
2x2x1.5	1.55	0.22	1.95	2.3	1	13.3	14.5	13.7	400
3x2x1.5	1.55	0.22	1.95	2.3	1	14	15.6	13.7	400
4x2x1.5	1.55	0.22	1.95	2.3	1	15.5	17.1	13.7	400
7x2x1.5	1.55	0.22	1.95	2.3	1	18.7	20.3	13.7	400

MULTIPAIRS CABLES INDIVIDUALLY SCREENED AND SHEATHED WITH AN OVERALL SHEATH 300/500 V - EN 50306-4 5E/5P

MULTIPAIRS CABLES INDIVIDUALLY SCREENED AND SHEATHED WITH AN OVERALL SHEATH 300/500 V - EN 50306-4 5P									
MAIN FEATURES CLASS									
Nominal cross-sectional area nxmm²	Conductor diameter Ø mm	Minimum thickness of insulation mm	Core diameter Ø mm		Minimum thickness of sheath mm	Overall diameter Ø mm		Resistance of conductor @20°C Ω/km	Insulation resistance @20°C MΩxkm
			MIN.	MAX.		MIN.	MAX.	MAX.	MIN.
2x2x0.5	0.85	0.18	1.15	1.45	0.56	9	10.2	40.1	600
3x2x0.5	0.85	0.18	1.15	1.45	0.56	9.6	10.8	40.1	600
4x2x0.5	0.85	0.18	1.15	1.45	0.56	10.7	11.9	40.1	600
7x2x0.5	0.85	0.18	1.15	1.45	0.56	13	14.2	40.1	600
2x2x0.75	1.05	0.18	1.35	1.65	0.56	9.8	11	26.7	500
3x2x0.75	1.05	0.18	1.35	1.65	0.56	10.5	11.7	26.7	500
4x2x0.75	1.05	0.18	1.35	1.65	0.56	11.6	12.8	26.7	500
7x2x0.75	1.05	0.18	1.35	1.65	0.56	14	15.6	26.7	500
2x2x1.0	1.2	0.18	1.45	1.8	0.56	10.2	11.6	20	500
3x2x1.0	1.2	0.18	1.45	1.8	0.56	10.9	12.1	20	500
4x2x1.0	1.2	0.18	1.45	1.8	0.56	12.1	13.3	20	500
7x2x1.0	1.2	0.18	1.45	1.8	0.56	14.6	16.2	20	500
2x2x1.5	1.55	0.22	1.95	2.3	0.56	12.2	13.4	13.7	400
3x2x1.5	1.55	0.22	1.95	2.3	0.56	13.1	14.3	13.7	400
4x2x1.5	1.55	0.22	1.95	2.3	0.56	14.3	15.9	13.7	400
7x2x1.5	1.55	0.22	1.95	2.3	0.56	17.6	19.2	13.7	400

MULTIPAIRS CABLES GENERAL SCREENED AND SHEATHED 300/500 V - EN 50306-4 7E/7P

characteristics
*see table 3

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper according to EN 60228 configuration according to single core
Insulation	Double layer of olefinic thermoplastic mixture. Thickness and outer diameter according to single core
Core identification	White numbered if not elsewhere specified
Assembling	2 conductors + eventual filler and tape are twisted together
Assembling	N° pairs + eventual filler and tape are assembled together
Sheath	Type crosslinked LSZH see table 3 Black if not elsewhere specified. Thickness and outer diameter according to cable class. *E exposed. *P protected.

*situations

TECHNICAL DATA

Operating voltage	300/500 V
Operating temperature	-40°C ÷ +90°C SEE TABLE 3 -25°C ÷ +90°C SEE TABLE 3
Minimum bending radius	5 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2 EN 50266-2-5 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MULTIPAIRS CABLES GENERAL SCREENED AND SHEATHED 300/500 V - EN 50306-4 7E/7P

MULTIPAIRS CABLES General SCREENED AND SHEATHED 300/500 V - EN 50306-4 7E									
MAIN FEATURES CLASS									
Nominal cross-sectional area nxmm²	Conductor diameter Ø mm	Minimum thickness of insulation mm	Core diameter Ø mm		Minimum thickness of sheath mm	Overall diameter Ø mm		Resistance of conductor @20°C Ω/km	Insulation resistance @20°C MΩxkm
			MIN.	MAX.		MIN.	MAX.	MAX.	MIN.
2x2x0.5	0.85	0.18	1.15	1.45	1	7.1	8.9	40.1	600
3x2x0.5	0.85	0.18	1.15	1.45	1	7.5	9.1	40.1	600
4x2x0.5	0.85	0.18	1.15	1.45	1	8.3	9.7	40.1	600
7x2x0.5	0.85	0.18	1.15	1.45	1	9.6	11.6	40.1	600
2x2x0.75	1.05	0.18	1.35	1.65	1	7.6	10.0	26.7	500
3x2x0.75	1.05	0.18	1.35	1.65	1	8.2	10.2	26.7	500
4x2x0.75	1.05	0.18	1.35	1.65	1	9.5	10.8	26.7	500
7x2x0.75	1.05	0.18	1.35	1.65	1	11.4	12.4	26.7	500
2x2x1.0	1.2	0.18	1.45	1.8	1	8.3	10.5	20	500
3x2x1.0	1.2	0.18	1.45	1.8	1	8.8	10.7	20	500
4x2x1.0	1.2	0.18	1.45	1.8	1	9.6	11.3	20	500
7x2x1.0	1.2	0.18	1.45	1.8	1	11.6	13.4	20	500
2x2x1.5	1.55	0.22	1.95	2.3	1	10.3	12.2	13.7	400
3x2x1.5	1.55	0.22	1.95	2.3	1	11.0	12.4	13.7	400
4x2x1.5	1.55	0.22	1.95	2.3	1	12.1	13.1	13.7	400
7x2x1.5	1.55	0.22	1.95	2.3	1	14.5	16.3	13.7	400

MULTIPAIRS CABLES GENERAL SCREENED AND SHEATHED 300/500 V - EN 50306-4 7P									
MAIN FEATURES CLASS									
Nominal cross-sectional area nxmm²	Conductor diameter Ø mm	Minimum thickness of insulation mm	Core diameter Ø mm		Minimum thickness of sheath mm	Overall diameter Ø mm		Resistance of conductor @20°C Ωx/m	Insulation resistance @20°C MΩxkm
			MIN.	MAX.		MIN.	MAX.	MAX.	MIN.
2x2x0.5	0.85	0.18	1.15	1.45	0.56	6.6	7.9	40.1	600
3x2x0.5	0.85	0.18	1.15	1.45	0.56	7	8.1	40.1	600
4x2x0.5	0.85	0.18	1.15	1.45	0.56	7.7	8.7	40.1	600
7x2x0.5	0.85	0.18	1.15	1.45	0.56	9	10.6	40.1	600
2x2x0.75	1.05	0.18	1.35	1.65	0.56	7.1	9	26.7	500
3x2x0.75	1.05	0.18	1.35	1.65	0.56	7.7	9.2	26.7	500
4x2x0.75	1.05	0.18	1.35	1.65	0.56	9	10	26.7	500
7x2x0.75	1.05	0.18	1.35	1.65	0.56	10.8	11.8	26.7	500
2x2x1.0	1.2	0.18	1.45	1.8	0.56	7.8	9.5	20	500
3x2x1.0	1.2	0.18	1.45	1.8	0.56	8.3	9.7	20	500
4x2x1.0	1.2	0.18	1.45	1.8	0.56	9.1	10.3	20	500
7x2x1.0	1.2	0.18	1.45	1.8	0.56	11	12.4	20	500
2x2x1.5	1.55	0.22	1.95	2.3	0.56	9.8	11.2	13.7	400
3x2x1.5	1.55	0.22	1.95	2.3	0.56	10.4	11.4	13.7	400
4x2x1.5	1.55	0.22	1.95	2.3	0.56	11.6	12.6	13.7	400
7x2x1.5	1.55	0.22	1.95	2.3	0.56	14	15.3	13.7	400

These images are for illustrative purposes.

TRANSMISSION CABLES

TK-MVB 2X0.50 OR 4X0.50 / 2X0.50 FR OR 4X0.50 FR (MULTIFUNCTION VEHICLE BUS)

characteristics

*Only for FR version

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper 0.50 mm²
Insulation	Special thermoplastic polymer
Core identification	White-Red-Black-Blue for 4x0.50 White-Black for 2x0.50
Protection	Flame barrier tape (*)
Assembling	2 or 4 conductors + eventual filler and tape are assembled together
Screen	Aluminium/Mylar tape + tinned copper braid
Sheath	Crosslinked material type EM 104, flame retardant, halogen free, black or green

TECHNICAL DATA

Operating voltage	300/500 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

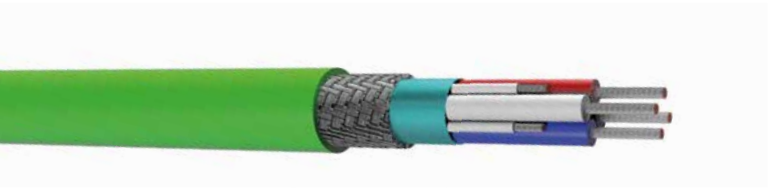
FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2 EN 50266-2-5 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES

	TK-MVB 2x0.50	TK-MVB 4x0.50	TK-MVB 2x0.50 FR	TK-MVB 4x0.50 FR
Conductor resistance	≤ 40.1 Ω/km	≤ 40.1 Ω/km	≤ 40.1 Ω/km	≤ 40.1 Ω/km
Insulation resistance	≥ 500 MΩ·km	≥ 500 MΩ·km	≥ 500 MΩ·km	≥ 500 MΩ·km
Test voltage	2000 V	2000 V	2000 V	2000 V
Characteristic impedance @0.5–3 MHz	120 ± 12 Ω	120 ± 12 Ω	120 ± 12 Ω	120 ± 12 Ω
Characteristic impedance @1.5 MHz	120 ± 6 Ω	120 ± 6 Ω	120 ± 6 Ω	120 ± 6 Ω
Transfer impedance ≤20 MHz	≤ 1 MΩ/m	≤ 1 MΩ/m	≤ 1 MΩ/m	≤ 1 MΩ/m
Mutual capacitance	≤ 46 pF/m	≤ 46 pF/m	≤ 46 pF/m	≤ 46 pF/m
Nominal velocity of propagation	78%	78%	78%	78%
NEXT @0.75–3 MHz	≥ 55 dB	≥ 55 dB	≥ 55 dB	≥ 55 dB
Attenuation @1.5 MHz	≤ 15 dB/km	≤ 15 dB/km	≤ 15 dB/km	≤ 15 dB/km
Attenuation @3 MHz	≤ 20 dB/km	≤ 20 dB/km	≤ 20 dB/km	≤ 20 dB/km
Nominal weight	65 kg/km	90 kg/km	85 kg/km	100 kg/km
Nominal diameter	6.8 mm	7.4 mm	7.5 mm	8.0 mm

TK-MVB 4X0.50+4X0.25 (MULTIFUNCTION VEHICLE BUS)



on request

characteristics

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper 0.50 mm²
Insulation	Special thermoplastic polymer
Core identification	White-Red-Black-Blue
Conductor	Stranded tinned copper 0.25 mm²
Insulation	Tecnopolymer compounds (double layer) compliant to EN 50306-1
Core identification	White numbered
Total assembling	4x0.50 mm² + 4x0.25 mm² with eventual filler and synthetic tape
Total Screen	Tinned Copper Braid
Total Sheath	Crosslinked material type EM 104, flame retardant, halogen free Black or Green

TECHNICAL DATA

Operating voltage	300/500 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	6 × Ø

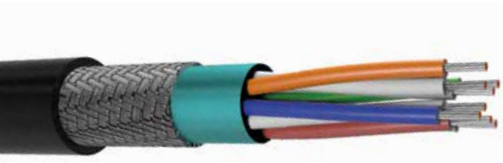
FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2 EN 50266-2-5 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES

	TK-MVB 4x0.50+4x0.25
Conductor resistance	≤ 40.1 Ω/km (0.50mm²) ≤ 90.1 Ω/km (0.25mm²)
Insulation resistance	≥ 250 MΩ×km
Test voltage	2000 V
Characteristic Impedance @ 0.5 ÷ 3 MHz	120 ± 12 Ω
Characteristic Impedance @ 1.5 MHz	120 ± 6 Ω
Mutual capacitance	≤ 46 pF/m
Nominal velocity of propagation	78%
Attenuation @ 1.5 MHz	≤ 17 dB/km
Attenuation @ 3 MHz	≤ 25 dB/km
Nominal weight	95 kg/km
Nominal diameter	7.4 mm

TK-RS485 2X2X0.50 OR 4X2X0.50



on request

characteristics

CABLE SPECIFICATIONS

Conductors	Stranded tinned copper 0.50 mm²
Insulation	Special thermoplastic polymer
Core identification	White/Red - Black/Blue for 2 pairs White/Blue - White/Orange White/Green - White- Brown for 4 pairs
Pair	Two conductors twisted together
Assembling	2 or 4 pairs + eventual filler and tape are assembled together
Screen	Aluminium/Mylar tape + tinned copper braid
Sheath	Crosslinked material type EM 104, flame retardant, halogen free black or green

TECHNICAL DATA

Operating voltage	300/500 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2 EN 50266-2-5 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES

	TK-RS485 2x2x0.50	TK-RS485 4x2x0.50
Conductor resistance	≤ 40.1 Ω/km	≤ 40.1 Ω/km
Insulation resistance	≥ 500 MΩ×km	≥ 500 MΩ×km
Test voltage	2000 V	2000 V
Characteristic Impedance @ 0.75 ÷ 3 MHz	120 ± 12 Ω	120 ± 12 Ω
Transfer Impedance @ ≤ 30 MHz	≤ 30 mxΩ/m	≤ 30 mΩ/m
Mutual capacitance	≤ 46 pF/m	≤ 46 pF/m
Nominal velocity of propagation	78%	78%
Attenuation **@ 1 MHz** **@ 2 MHz** **@ 3 MHz**	 ≤ 12.5 dB/km ≤ 18 dB/km ≤ 22.5 dB/km	 ≤ 12.5 dB/km ≤ 18 dB/km ≤ 22.5 dB/km
Nominal weight	165 kg/km	180 kg/km
Nominal diameter	10.2 mm	11.0 mm

TK-RS485 2X0.50+1X0.50

characteristics

CABLE SPECIFICATIONS

	PAIR 2X0.5 WITH CONTROLLED IMPEDANCE
Conductors	Stranded tinned copper 0.50 mm²
Insulation	Special thermoplastic polymer
Pair colour	White-Red
	SINGLE CORE
Conductors	Stranded tinned copper 0.50 mm²
Insulation	Special double layers of olefinic
Core identification	Black
Total assembling	1 pair and single core + eventual filler and tape are assembled together
Total Screen	Aluminium/Mylar tape + tinned copper braid
Total Sheath	Crosslinked material type EM 104, flame retardant, halogen free Black

TECHNICAL DATA

Operating voltage	300/500 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50266-2-5
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES

	TK-RS485 2x0.50+1x0.50
Conductor resistance	≤ 40.1 Ω/km
Insulation resistance	≥ 500 MΩ×km
Test voltage	2000 V
Characteristic Impedance **@ 0.75 ÷ 3 MHz** **@ 1 MHz**	 120 ± 12 Ω 120 ± 6 Ω
Transfer Impedance @ ≤ 30 MHz	≤ 30 mΩ/m
Mutual capacitance	≤ 46 pF/m
Nominal velocity of propagation	78%
Attenuation **@ 1 MHz** **@ 2 MHz** **@ 3 MHz**	 ≤ 12.5 dB/km ≤ 18 dB/km ≤ 22.5 dB/km
Nominal weight	70 kg/km
Nominal diameter	6.8 mm

TK-RS485 2X0.60

characteristics

CABLE SPECIFICATIONS

Conductors	Stranded tinned copper 0.60 mm²
Insulation	Special thermoplastic polymer
Pair colour	White-Red
First screen	Tinned copper braid
Inner sheath	Crosslinked material type EM 104, flame retardant, halogen free Black
Second screen	Tinned copper braid
Outer Sheath	Crosslinked material type EM 104, flame retardant, halogen free Black

TECHNICAL DATA

Operating voltage	300/500 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	5 × Ø

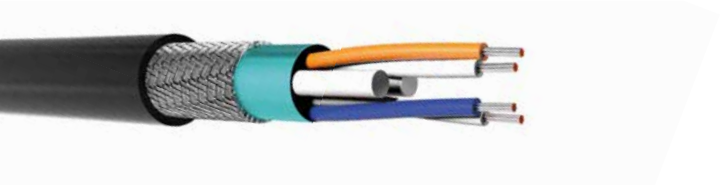
FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50266-2-5
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES

	TK-RS485 2x0.60
Conductor resistance	≤ 32.2 Ω/km
Insulation resistance	≥ 3000 MΩxkm
Test voltage	2000 V
Characteristic Impedance @ 1 MHz	120 ± 6 Ω
Transfer Impedance @ ≤ 30 MHz	≤ 10 mΩ/m
Mutual capacitance	≤ 50 pF/m
Nominal velocity of propagation	78%
Attenuation @ 200 KHz	≤ 6 dB/km
Nominal weight	125 kg/km
Nominal diameter	8.8 mm

TK-RS485 2X2XAWG22



characteristics

CABLE SPECIFICATIONS

Conductors	Stranded tinned copper AWG22
Insulation	Special thermoplastic polymer
Pair colour	White-Blue White-Orange
First screen	Alu/Poliester or Alu/Poliester Alu
Second screen	Tinned copper braid
Sheath	Crosslinked material type EM 104, flame retardant, halogen free Black

TECHNICAL DATA

Operating voltage	300 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50266-2-5
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES

	TK-RS485 2x2xAWG22
Conductor resistance	≤ 55 Ω/km
Insulation resistance	≥ 250 MΩ×km
Test voltage	1000 V
Characteristic Impedance @ 1÷100 MHz	120 ± 15 Ω
Mutual capacitance	≤ 45 pF/m
Nominal velocity of propagation	78%
Attenuation @ 1 MHz	≤ 1.8 dB/100m
Nominal weight	125 kg/km
Nominal diameter	8.5 mm

TK-CAN BUS 2X(2X0.25) OR 2X(2X0.50)

characteristics

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper 0.25 mm² or 0.50 mm²
Insulation	Special thermoplastic polymer
Colours	White-Red-Black-Blue
Pair screen	Aluminium/Mylar tape + tinned copper braid
Pair sheath	Crosslinked material type EM 104, flame retardant, halogen free Black
Overall screen	Tinned copper braid
Overall sheath	Crosslinked material type EM 104, flame retardant, halogen free Black

TECHNICAL DATA

Operating voltage	300/500 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES

	TK-CAN BUS 2x2x0.25	TK-CAN BUS 2x2x0.50
Conductor resistance	≤ 40.1 Ω/km	≤ 40.1 Ω/km
Insulation resistance	≥ 500 MΩ×km	≥ 500 MΩ×km
Test voltage	2000 V	2000 V
Characteristic Impedance @ 0.75 ÷ 3 MHz	120 ± 12 Ω	120 ± 12 Ω
Transfer Impedance @ ≤ 30 MHz	≤ 30 mΩ/m	≤ 30 mΩ/m
Mutual capacitance	≤ 46 pF/m	≤ 46 pF/m
Nominal velocity of propagation	78%	78%
Attenuation **@ 1 MHz** **@ 2 MHz** **@ 3 MHz**	 ≤ 22.8 dB/km ≤ 33.7 dB/km ≤ 43.5 dB/km	 ≤ 12.5 dB/km ≤ 18 dB/km ≤ 22.5 dB/km
Nominal weight	180 kg/km	365 kg/km
Nominal diameter	11.8 mm	16.5 mm

TK-UIC WTB 2X0.50 OR 2X0.75 / 2X0.50 FR OR 2X0.75 FR (WIRED TRAIN BUS)

characteristics

*Only for FR version

CABLE SPECIFICATIONS

Conductors	Stranded tinned copper 0.50 mm² or 0.75 mm²
Insulation	Special thermoplastic polymer
Pair Colour	White - Black
Protection	Flame barrier tape (*)
Screen	Tinned copper braid Aluminium/Mylar tape + tinned copper braid
Sheath	Crosslinked material type EM 104, flame retardant, halogen free Black or Blue

TECHNICAL DATA

Operating voltage	300/500 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50266-2-5
Fire resistant	EN 50200 PH 15 (*)
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES

	TK-WTB 2x0.50	TK-WTB 2x0.75	TK-WTB 2x0.50 FR	TK-WTB 2x0.75 FR
Conductor resistance	≤ 40.1 Ω/km	≤ 26.0 Ω/km	≤ 40.1 Ω/km	≤ 26.0 Ω/km
Insulation resistance	≥ 500 MΩ×km	≥ 500 MΩ×km	≥ 500 MΩ×km	≥ 500 MΩ×km
Test voltage	1500 V	1500 V	1500 V	1500 V
Characteristic Impedance **@ 0.5 ÷ 2 MHz** **1 MHz**	 120 ± 12 Ω 120 ± 6 Ω	 120 ± 12 Ω 120 ± 6 Ω	 120 ± 12 Ω 120 ± 6 Ω	 120 ± 12 Ω 120 ± 6 Ω
Transfer Impedance **@ ≤ 20 MHz**	≤ 20 mΩ/m	≤ 20 mΩ/m	≤ 20 mΩ/m	≤ 20 mΩ/m
Mutual capacitance	≤ 65 pF/m	≤ 65 pF/m	≤ 65 pF/m	≤ 65 pF/m
Attenuation **@ 1 MHz** **@ 2 MHz**	 ≤ 11 dB/km ≤ 17 dB/km	 ≤ 10 dB/km ≤ 12 dB/km	 ≤ 13 dB/km ≤ 19 dB/km	 ≤ 12 dB/km ≤ 14 dB/km
Nominal weight	90 kg/km	100 kg/km	95 kg/km	105 kg/km
Nominal diameter	8.0 mm	8.0 mm	8.5 mm	8.5 mm

TK-UIC 9 CORE / 9 CORE FR

characteristics

*Only for FR version

CABLE SPECIFICATIONS

	PAIR 2X0.75 WITH CONTROLLED IMPEDANCE
Conductors	Stranded tinned copper 0.75 mm²
Insulation	Special thermoplastic polymer
Pair Colour	White - Black
Protection	Flame barrier tape (*)
Pair Screen	Aluminium/Mylar tape + tinned copper braid
Pair Sheath	Crosslinked material type EM 104, flame retardant, halogen free Black
	SIGNAL / POWER ELEMENTS
Conductors	Stranded tinned copper 10 mm²
Protection	Flame barrier tape (*)
Insulation	Cross-linked Material type EI105
Colours	White numbered
Conductors	Stranded tinned copper 6 mm²
Protection	Flame barrier tape (*)
Insulation	Cross-linked Polymer type EI105
Colours	White numbered
Conductors	Stranded tinned copper 2.5 mm²
Protection	Flame barrier tape (*)
Insulation	Cross-linked Material type EI105
Colours	White numbered
Total assembling	1 Pair with controlled impedance + 4x10mm² + 2x6mm² + 1x2.5mm² + eventually filler and tape are assembled together
Total Sheath	Crosslinked material type EM 104 flame retardant, halogen free Black

TECHNICAL DATA

Operating voltage	300/500 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50266-2-4
Fire resistant	EN 50200 PH 15 (*)
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES

	TK-UIC 9 CORE	TK-UIC 9 CORE FR
Conductor resistance	≤ 26.0 Ω/Km (0.75mm²) ≤ 1.95 Ω/Km (10mm²) ≤ 3.39 Ω/Km (6mm²) ≤ 8.21 Ω/Km (2.5mm²)	≤ 26.0 Ω/Km (0.75mm²) ≤ 1.95 Ω/Km (10mm²) ≤ 3.39 Ω/Km (6mm²) ≤ 8.21 Ω/Km (2.5mm²)
Insulation resistance	≥ 500 MΩ×km	≥ 500 MΩ×km
Test voltage	1500 V	1500 V
Characteristic Impedance **@ 0.5 ÷ 2 MHz** **@ 1 MHz**	 120 ± 12 Ω* 120 ± 6 Ω*	 120 ± 12 Ω* 120 ± 6Ω*
Transfer Impedance **@ ≤ 30 MHz**	≤ 30 mΩ/m*	≤ 30 mΩ/m*
Mutual capacitance	≤ 65 pF/m*	≤ 65 pF/m*
Attenuation **@ 1 MHz** **@ 2 MHz**	 ≤ 10 dB/km* ≤ 12 dB/km*	 ≤ 12 dB/km* ≤ 14 dB/km*
Nominal weight	1050 kg/km	1150 kg/km
Nominal diameter	26.5 mm	28 mm

* Only for pair 0.75mm²

TK-UIC 12 CORE / 12 CORE FR

characteristics

*Only for FR version

CABLE SPECIFICATIONS

Conductors	Stranded tinned copper 0.5 mm²
Insulation	Cross-linked Halogen free
Quad colour	Red, Black, White and Yellow
Protection	Flame barrier tape (*)
Assembling	3 quads + eventually filler and tape are assembled together
Screen	Tinned copper braid
Sheath	Crosslinked material type EM104, flame retardant, halogen free Black

TECHNICAL DATA

Operating voltage	300 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	6 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50266-2-4
Fire resistant	EN 50200 PH 15 (*)
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES

	TK-UIC 12 CORE	TK-UIC 12 CORE FR
Conductor resistance	≤ 40.1 Ω/Km	≤ 40.1 Ω/Km
Insulation resistance	≥ 400 MΩ×km	≥ 400 MΩ×km
Test voltage	1500 V	1500 V
Transfer Impedance @ ≤ 30 MHz	≤ 20 mΩ/m	≤ 20 mΩ/m
Mutual capacitance	≤ 65 pF/m	≤ 65 pF/m
Nominal weight	180 kg/km	200 kg/km
Nominal diameter	11.2 mm	12.0 mm

TK-UIC 16 CORE / 16 CORE FR

characteristics

*Only for FR version

CABLE SPECIFICATIONS

	QUAD 4X1 WITH CONTROLLED IMPEDANCE
Conductors	Stranded tinned copper 1 mm²
Insulation	Special thermoplastic polymer
Colours	White numbered
Protection	Flame barrier tape (*)
	SIGNAL QUAD 3X4X1
Conductors	Stranded tinned copper 1 mm²
Insulation	Double layers of olefinic insulation according to EN50306
Colours	White numbered
Protection	Flame barrier tape (*)
Total assembling	1 quad with controlled impedance + 3 signal quads + eventually filler and tape are assembled together
Total Screen	Tinned copper braid
Total Sheath	Crosslinked material flame retardant, halogen free Black

TECHNICAL DATA

Operating voltage	300/500 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

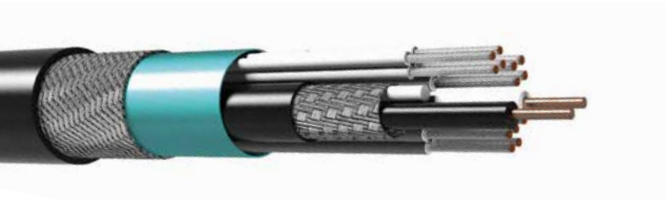
Fire propagation	EN 60332-1-2 EN 50266-2-4
Fire resistant	EN 50200 PH 15 (*)
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES

	TK-UIC 16 CORE	TK-UIC 16 CORE FR
Conductor resistance	≤ 20.0 Ω/Km	≤ 20.0 Ω/Km
Insulation resistance	≥ 400 MΩ×km	≥ 500 MΩ×km
Test voltage	1500 V	1500 V
Characteristic Impedance @ 0.5 MHz	120 ± 6 Ω*	120 ± 6 Ω*
Transfer Impedance @ ≤ 20 MHz	≤ 50 mΩ/m	≤ 50 mΩ/m
Mutual capacitance	≤ 65 pF/m*	≤ 65 pF/m*
Nominal weight	360 kg/km	430 kg/km
Nominal diameter	16.0 mm	18.0 mm

* Only for quad 1mm² with controlled impedance

TK-UIC 18 CORE / 18 CORE FR



characteristics

*Only for FR version

CABLE SPECIFICATIONS

	PAIR 2X0.75 WITH CONTROLLED IMPEDANCE
Conductors	Stranded tinned copper 0.75 mm²
Insulation	Special thermoplastic polymer
Pair Colours	White-Black
Protection	Flame barrier tape (*)
Pair Screen	Tinned copper braid
Sheath	Cross-linked Material, Flame Retardant, Halogen Free Black
	QUAD 4X1 WITH CONTROLLED IMPEDANCE
Conductors	Stranded tinned copper 1 mm²
Insulation	Special thermoplastic polymer
Pair Colours	White-numbered
Protection	Flame barrier tape (*)
	SIGNAL QUAD 4X1
Conductors	Stranded tinned copper 1 mm²
Insulation	Double layers of olefinic insulation according to EN50306
Pair Colours	White-numbered
Protection	Flame barrier tape (*)
Total assembling	1 quad with controlled impedance + 3 signal quads + 1 pair with controlled impedance + eventually filler and tape are assembled together
Total Screen	Tinned copper braid
Total Sheath	Cross-linked Material, Flame Retardant, Halogen Free Black

TECHNICAL DATA

Operating voltage	300/500 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50266-2-4
Fire resistant	EN 50200 PH 15 (*)
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES

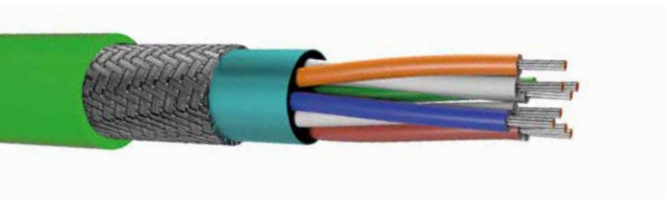
	TK-UIC 9 CORE	TK-UIC 9 CORE FR
Conductor resistance	≤26.7 Ω/Km (0.75mm²) ≤20.0 Ω/Km (1mm²)	≤26.7 Ω/Km (0.75mm²) ≤20.0 Ω/Km (1mm²)
Insulation resistance	≥ 500 MΩ×km	≥ 500 MΩ×km
Test voltage	1500 V	1500 V
Characteristic Impedance **@ 0.5 ÷ 2 MHz** **@ 1 MHz** **@ 0.5 MHz**	 120 ± 12 Ω* 120 ± 6 Ω* 120 ± 6 Ω**	 120 ± 12 Ω* 120 ± 6 Ω* 120 ± 6 Ω**
Transfer Impedance @ ≤ 20 MHz	≤ 50 mΩ/m*	≤ 50 mΩ/m*
Mutual capacitance	≤ 65 pF/m* **	≤ 65 pF/m* **
Attenuation **@ 1 MHz** **@ 2 MHz**	 ≤ 10 dB/km* ≤ 12 dB/km*	 ≤ 12 dB/km* ≤ 14 dB/km*
Nominal weight	515 kg/km	600 kg/km
Nominal diameter	18.0 mm	20.5 mm

*only for pair 0.75 mm²
**Only for quad 1mm² with controlled impedance

These images are for illustrative purposes.

ETHERNET CABLES

TK-SF/UTP 2X2XAWG22 CAT.5E OR 4X2XAWG22 CAT.5E



characteristics

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper AWG22
Insulation	Special thermoplastic polymer
Pair Colours	White/Blue; Yellow/Orange for 2 pair; White/Blue; White/Orange; White/Green; White/Brown for 4 pair
Assembling	2 or 4 pairs + eventual filler and tape are assembled together
Screen	Aluminium/Mylar tape + tinned copper braid
Sheath	Crosslinked material type EM 104 flame retardant, halogen free green

TECHNICAL DATA

Operating voltage	300 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

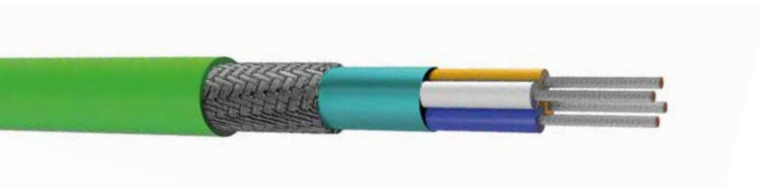
MAIN FEATURES

	TK-SF/UTP 2xAWG22 CAT.5E	TK-SF/UTP 4xAWG22 CAT.5E
Conductor resistance	≤ 60.0 Ω/km	≤ 60.0 Ω/km
Insulation resistance	≥ 500 MΩxkm	≥ 500 MΩxkm
Test voltage	700 V	700 V
Characteristic Impedance @ 1÷ 100 MHz	100 ± 15 Ω	100 ± 15 Ω
Transfer Impedance **@ ≤ 1 MHz** **@ ≤ 10 MHz** **@ ≤ 30 MHz**	 ≤ 50 mΩ/m ≤ 100 mΩ/m ≤ 200 mΩ/m	 ≤ 50 mΩ/m ≤ 100 mΩ/m ≤ 200 mΩ/m
Mutual capacitance	≤ 46 pF/m	≤ 52 pF/m
Nominal velocity of propagation	78%	78%
Nominal weight	65 kg/km	115 kg/km
Nominal diameter	8.0 mm	8.5 mm

MAIN FEATURES

		TK-SF/UTP 2x2xAWG22 CAT.5E	TK-SF/UTP 4x2xAWG22 CAT.5E
Attenuation	1 MHz	≤ 3.2 dB/100m	≤ 3.2 dB/100m
	4 MHz	≤ 6.0 dB/100m	≤ 6.0 dB/100m
	10 MHz	≤ 9.5 dB/100m	≤ 9.5 dB/100m
	16 MHz	≤ 12.1 dB/100m	≤ 12.1 dB/100m
	20 MHz	≤ 13.6 dB/100m	≤ 13.6 dB/100m
	31.25 MHz	≤ 17.1 dB/100m	≤ 17.1 dB/100m
	62.5 MHz	≤ 24.1 dB/100m	≤ 24.1 dB/100m
	100 MHz	≤ 32.0 dB/100m	≤ 32.0 dB/100m
Next	1 MHz	≥ 65.3 dB	≥ 65.3 dB
	4 MHz	≥ 56.3 dB	≥ 56.3 dB
	10 MHz	≥ 50.3 dB	≥ 50.3 dB
	16 MHz	≥ 47.2 dB	≥ 47.2 dB
	20 MHz	≥ 45.8 dB	≥ 45.8 dB
	31.25 MHz	≥ 42.9 dB	≥ 42.9 dB
	62.5 MHz	≥ 38.4 dB	≥ 38.4 dB
	100 MHz	≥ 35.3 dB	≥ 35.3 dB
PSNext	1 MHz	≥ 63.8 dB	≥ 63.8 dB
	4 MHz	≥ 51.8 dB	≥ 51.8 dB
	10 MHz	≥ 43.8 dB	≥ 43.8 dB
	16 MHz	≥ 39.7 dB	≥ 39.7 dB
	20 MHz	≥ 37.8 dB	≥ 37.8 dB
	31.25 MHz	≥ 33.9 dB	≥ 33.9 dB
	62.5 MHz	≥ 27.9 dB	≥ 27.9 dB
	100 MHz	≥ 23.8 dB	≥ 23.8 dB
Return Loss	1 MHz	≥ 23.0 dB	≥ 23.0 dB
	4 MHz	≥ 24.1 dB	≥ 24.1 dB
	10 MHz	≥ 25.0 dB	≥ 25.0 dB
	16 MHz	≥ 25.0 dB	≥ 25.0 dB
	20 MHz	≥ 25.0 dB	≥ 25.0 dB
	31.25 MHz	≥ 23.6 dB	≥ 23.6 dB
	62.5 MHz	≥ 21.5 dB	≥ 21.5 dB
	100 MHz	≥ 20.1 dB	≥ 20.1 dB

TK-SF/UTP 4XAWG22 CAT.5E / 4XAWG22 FR CAT.5E



characteristics

*Only for FR version

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper AWG22
Insulation	Special thermoplastic polymer
Pair Colours	White-Blue; Yellow-Orange
Protection	Flame barrier tape (*)
Assembling	4 conductors + eventual filler and tape are assembled together
Inner Sheath	Halogen free material
Screen	Aluminium/Mylar tape + tinned copper braid
Outer Sheath	Crosslinked material type EM 104. flame retardant. halogen free gree

TECHNICAL DATA

Operating voltage	300 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50266-2-5
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

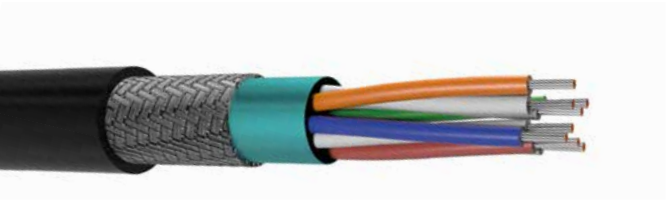
MAIN FEATURES

	TK-SF/UTP 4xAWG22 CAT.5E	TK-SF/UTP 4xAWG22 FR CAT.5E
Conductor resistance	≤ 60.0 Ω/km	≤ 60.0 Ω/km
Insulation resistance	≥ 500 MΩxkm	≥ 500 MΩxkm
Test voltage	1000 V	1000 V
Characteristic Impedance @ 1÷ 100 MHz	100 ± 15 Ω	100 ± 15 Ω
Transfer Impedance **@ ≤ 1 MHz** **@ ≤ 10 MHz** **@ ≤ 30 MHz**	 ≤ 50 mΩ/m ≤ 100 mΩ/m ≤ 200 mΩ/m	 ≤ 50 mΩ/m ≤ 100 mΩ/m ≤ 200 mΩ/m
Mutual capacitance	≤ 46 pF/m	≤ 46 pF/m
Nominal velocity of propagation	78%	78%
Nominal weight	65 kg/km	115 kg/km
Nominal diameter	6.5 mm	7.0 mm

MAIN FEATURES

		TK-SF/UTP 4xAWG22 CAT.5E	TK-SF/UTP 4xAWG22 FR CAT.5E
Attenuation	1 MHz	≤ 3.2 dB/100m	≤ 2.4 dB/100m
	4 MHz	≤ 6.0 dB/100m	≤ 4.9 dB/100m
	10 MHz	≤ 9.5 dB/100m	≤ 7.8 dB/100m
	16 MHz	≤ 12.1 dB/100m	≤ 9.8 dB/100m
	20 MHz	≤ 13.6 dB/100m	≤ 11.1 dB/100m
	31.25 MHz	≤ 17.1 dB/100m	≤ 14.0 dB/100m
	62.5 MHz	≤ 24.1 dB/100m	≤ 20.4 dB/100m
	100 MHz	≤ 32.0 dB/100m	≤ 26.4 dB/100m
Next	1 MHz	≥ 65.3 dB	≥ 65.3 dB
	4 MHz	≥ 56.3 dB	≥ 56.3 dB
	10 MHz	≥ 50.3 dB	≥ 50.3 dB
	16 MHz	≥ 47.2 dB	≥ 47.3 dB
	20 MHz	≥ 45.8 dB	≥ 45.8 dB
	31.25 MHz	≥ 42.9 dB	≥ 42.9 dB
	62.5 MHz	≥ 38.4 dB	≥ 38.4 dB
	100 MHz	≥ 35.3 dB	≥ 35.0 dB
PSNext	1 MHz	≥ 63.8 dB	
	4 MHz	≥ 51.8 dB	
	10 MHz	≥ 43.8 dB	
	16 MHz	≥ 39.7 dB	
	20 MHz	≥ 37.8 dB	
	31.25 MHz	≥ 33.9 dB	
	62.5 MHz	≥ 27.9 dB	
	100 MHz	≥ 23.8 dB	
Return Loss	1 MHz	≥ 23.0 dB	
	4 MHz	≥ 24.1 dB	
	10 MHz	≥ 25.0 dB	
	16 MHz	≥ 25.0 dB	
	20 MHz	≥ 25.0 dB	
	31.25 MHz	≥ 23.6 dB	
	62.5 MHz	≥ 21.5 dB	
	100 MHz	≥ 20.1 dB	

TK-SF/UTP 4X2XAWG26 CAT.5E



characteristics

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper AWG26
Insulation	Polyethylene
Pair Colours	White/Blue-Blue White/Orange-Orange White/Green-Green White/Brown-Brown
Assembling	4 pairs + eventual filler and tape are assembled together
Screen	Aluminium/Mylar tape + tinned copper braid
Sheath	Crosslinked material type EM 104, flame retardant, halogen free black

TECHNICAL DATA

Operating voltage	230 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50266-2-5
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

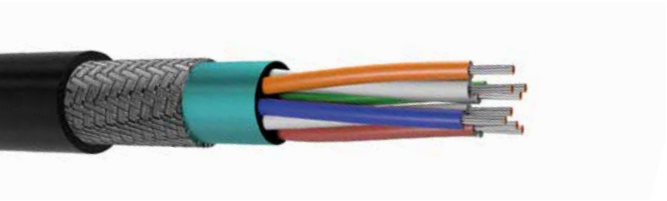
MAIN FEATURES

	TK-SF/UTP 4x2xAWG26 CAT.5E
Conductor resistance	≤ 170.0 Ω/km
Insulation resistance	≥ 500 MΩxkm
Test voltage	700 V
Characteristic Impedance @ 1÷100 MHz	100 ± 12 Ω
Mutual capacitance	≤ 55 pF/m
Nominal velocity of propagation	66%
Nominal weight	65 kg/km
Nominal diameter	6.2 mm

MAIN FEATURES

		TK-SF/UTP 4xAWG26 CAT.5E
Attenuation	1 MHz	≤ 3.2 dB/100m
	4 MHz	≤ 6.0 dB/100m
	10 MHz	≤ 9.5 dB/100m
	16 MHz	≤ 12.1 dB/100m
	20 MHz	≤ 13.6 dB/100m
	31.25 MHz	≤ 17.1 dB/100m
	62.5 MHz	≤ 24.1 dB/100m
	100 MHz	≤ 32.0 dB/100m
Next	1 MHz	≥ 65.3 dB
	4 MHz	≥ 56.3 dB
	10 MHz	≥ 50.3 dB
	16 MHz	≥ 47.2 dB
	20 MHz	≥ 45.8 dB
	31.25 MHz	≥ 42.9 dB
	62.5 MHz	≥ 38.4 dB
	100 MHz	≥ 35.3 dB
PSNext	1 MHz	≥ 63.8 dB
	4 MHz	≥ 51.8 dB
	10 MHz	≥ 43.8 dB
	16 MHz	≥ 39.7 dB
	20 MHz	≥ 37.8 dB
	31.25 MHz	≥ 33.9 dB
	62.5 MHz	≥ 27.9 dB
	100 MHz	≥ 23.8 dB
Return Loss	1 MHz	≥ 23.0 dB
	4 MHz	≥ 24.1 dB
	10 MHz	≥ 25.0 dB
	16 MHz	≥ 25.0 dB
	20 MHz	≥ 25.0 dB
	31.25 MHz	≥ 23.6 dB
	62.5 MHz	≥ 21.5 dB
	100 MHz	≥ 20.1 dB

TK-SF/UTP 4X2XAWG24 CAT.5E



characteristics

CABLE SPECIFICATIONS

Conductor	Stranded bare copper AWG24
Insulation	Polyethylene
Pair Colours	White/Blue; White/Orange; White/Green; White/Brown;
Assembling	2 or 4 pairs + eventual filler and tape are assembled together
Screen	Aluminium/Mylar tape + tinned copper braid
Sheath	Crosslinked material type EM 104, flame retardant, halogen free black

TECHNICAL DATA

Operating voltage	230 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50266-2-5
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES

	TK-SF/UTP 4x2xAWG24 CAT.5E
Conductor resistance	≤ 88.0 Ω/km
Insulation resistance	≥ 500 MΩxkm
Test voltage	700 V
Characteristic Impedance @ 1÷100 MHz	100 ± 15 Ω
Transfer Impedance **@ ≤ 1 MHz** **@ ≤ 10 MHz**	 ≤ 100 mΩ/m ≤ 100 mΩ
Mutual capacitance	≤ 52 pF/m
Nominal velocity of propagation	66%
Nominal weight	70 kg/km
Nominal diameter	7.0 mm

MAIN FEATURES

		TK-SF/UTP 4x2xAWG22 CAT.5E
Attenuation	1 MHz	≤ 3.2 dB/100m
	4 MHz	≤ 6.0 dB/100m
	10 MHz	≤ 9.5 dB/100m
	16 MHz	≤ 12.1 dB/100m
	20 MHz	≤ 13.6 dB/100m
	31.25 MHz	≤ 17.1 dB/100m
	62.5 MHz	≤ 24.1 dB/100m
	100 MHz	≤ 32.0 dB/100m
Next	1 MHz	≥ 65.3 dB
	4 MHz	≥ 56.3 dB
	10 MHz	≥ 50.3 dB
	16 MHz	≥ 47.2 dB
	20 MHz	≥ 45.8 dB
	31.25 MHz	≥ 42.9 dB
	62.5 MHz	≥ 38.4 dB
	100 MHz	≥ 35.3 dB
PSNext	1 MHz	≥ 63.8 dB
	4 MHz	≥ 51.8 dB
	10 MHz	≥ 43.8 dB
	16 MHz	≥ 39.7 dB
	20 MHz	≥ 37.8 dB
	31.25 MHz	≥ 33.9 dB
	62.5 MHz	≥ 27.9 dB
	100 MHz	≥ 23.8 dB
Return Loss	1 MHz	≥ 23.0 dB
	4 MHz	≥ 24.1 dB
	10 MHz	≥ 25.0 dB
	16 MHz	≥ 25.0 dB
	20 MHz	≥ 25.0 dB
	31.25 MHz	≥ 23.6 dB
	62.5 MHz	≥ 21.5 dB
	100 MHz	≥ 20.1 dB

TK-S/FTP 4X2XAWG24 CAT.7

characteristics

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper AWG26
Insulation	Foam Polyolefin
Pair Colours	White-Blue White-Orange White-Green White-Brown
Pair Screen	Aluminium/Mylar tape
Assembling	4 pairs + eventual filler and tape are assembled together
Overall Screen	Tinned copper braid
Sheath	Crosslinked material type EM 104, flame retardant, halogen free Black

TECHNICAL DATA

Operating voltage	125 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50266-2-5
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES

	TK-S/FTP 4X2XAWG24 CAT.7
Conductor resistance	≤ 88.0 Ω/km
Insulation resistance	≥ 500 MΩxkm
Test voltage	700 V
Characteristic Impedance @ 1÷100 MHz	100 ± 15 Ω
Transfer Impedance **@ ≤ 1 MHz** **@ ≤ 30 MHz**	 ≤ 10 mΩ/m ≤ 30 mΩ
Mutual capacitance	≤ 43 pF/m
Nominal Velocity of Propagation	78%
Nominal weight	97 kg/km
Nominal diameter	8.8 mm

MAIN FEATURES

		TK-S/FTP 4X2XAWG24 CAT.7
Attenuation	1 MHz	≤ 2.9 dB/100m
	4 MHz	≤ 5.5 dB/100m
	10 MHz	≤ 8.5 dB/100m
	16 MHz	≤ 10.8 dB/100m
	20 MHz	≤ 12.1 dB/100m
	31.25 MHz	≤ 15.2 dB/100m
	62.5 MHz	≤ 21.7 dB/100m
	100 MHz	≤ 27.8 dB/100m
	155 MHz	≤ 35 dB/100m
	200 MHz	≤ 40.1 dB/100m
	300 MHz	≤ 50 dB/100m
	600 MHz	≤ 73.3 dB/100m
Next	1 MHz	≥ 80 dB
	4 MHz	≥ 80 dB
	10 MHz	≥ 80 dB
	16 MHz	≥ 80 dB
	20 MHz	≥ 80 dB
	31.25 MHz	≥ 80 dB
	62.5 MHz	≥ 75.1 dB
	100 MHz	≥ 72.4 dB
	155 MHz	≥ 69.6 dB
	200 MHz	≥ 67.9 dB
	300 MHz	≥ 65.3 dB
	600 MHz	≥ 60.8 dB
PSNext	1 MHz	≥ 80 dB
	4 MHz	≥ 80 dB
	10 MHz	≥ 74 dB
	16 MHz	≥ 69.6 dB
	20 MHz	≥ 68 dB
	31.25 MHz	≥ 64.1 dB
	62.5 MHz	≥ 58.1 dB
	100 MHz	≥ 54 dB
	155 MHz	≥ 50.2 dB
	200 MHz	≥ 48 dB
	300 MHz	≥ 44.5 dB
	600 MHz	≥ 38.4 dB
Return Loss	1 MHz	≤ 20 dB/100m
	4 MHz	≤ 23.1 dB/100m
	10 MHz	≤ 25.0 dB/100m
	16 MHz	≤ 25.0 dB/100m
	20 MHz	≤ 25.0 dB/100m
	31.25 MHz	≤ 23.6 dB/100m
	62.5 MHz	≤ 21.5 dB/100m
	100 MHz	≤ 20.1 dB/100m
	155 MHz	≤ 18.8 dB/100m
	200 MHz	≤ 17.3 dB/100m
	300 MHz	≤ 17.3 dB/100m
	600 MHz	≤ 17.3 dB/100m

TK-S/FTP 4X2XAWG23 CAT.7

characteristics

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper AWG23
Insulation	Foam Polyolefin
Pair Colours	White-Blue White-Orange White-Green White-Brown
Pair Screen	Aluminium/Mylar tape
Assembling	4 pairs + eventual filler and tape are assembled together
Overall Screen	Tinned copper braid
Sheath	Crosslinked material type EM 104, flame retardant, halogen free Black

TECHNICAL DATA

Operating voltage	125 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50266-2-5
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES

	TK-S/FTP 4X2XAWG23 CAT.7
Conductor resistance	≤ 69.5 Ω/km
Insulation resistance	≥ 500 MΩxkm
Test voltage	700 V
Characteristic Impedance @ 1÷100 MHz	100 ± 15 Ω
Transfer Impedance **@ ≤ 1 MHz** **@ ≤ 10 MHz** **@ ≤ 30 MHz**	 ≤ 10 mΩ/m ≤ 15 mΩ/m ≤ 30 mΩ
Mutual capacitance	≤ 43 pF/m
Nominal Velocity of Propagation	78%
Nominal weight	91 kg/km
Nominal diameter	8.8 mm

MAIN FEATURES

		TK-S/FTP 4X2XAWG23 CAT.7
Attenuation	1 MHz	≤ 2.9 dB/100m
	4 MHz	≤ 5.5 dB/100m
	10 MHz	≤ 8.5 dB/100m
	16 MHz	≤ 10.8 dB/100m
	20 MHz	≤ 12.1 dB/100m
	31.25 MHz	≤ 15.2 dB/100m
	62.5 MHz	≤ 21.7 dB/100m
	100 MHz	≤ 27.8 dB/100m
	155 MHz	≤ 35 dB/100m
	200 MHz	≤ 40.1 dB/100m
	300 MHz	≤ 50 dB/100m
	600 MHz	≤ 73.3 dB/100m
Next	1 MHz	≥ 80 dB
	4 MHz	≥ 80 dB
	10 MHz	≥ 80 dB
	16 MHz	≥ 80 dB
	20 MHz	≥ 80 dB
	31.25 MHz	≥ 80 dB
	62.5 MHz	≥ 75.1 dB
	100 MHz	≥ 72.4 dB
	155 MHz	≥ 69.6 dB
	200 MHz	≥ 67.9 dB
	300 MHz	≥ 65.3 dB
	600 MHz	≥ 60.8 dB
PSNext	1 MHz	≥ 80 dB
	4 MHz	≥ 80 dB
	10 MHz	≥ 74 dB
	16 MHz	≥ 69.6 dB
	20 MHz	≥ 68 dB
	31.25 MHz	≥ 64.1 dB
	62.5 MHz	≥ 58.1 dB
	100 MHz	≥ 54 dB
	155 MHz	≥ 50.2 dB
	200 MHz	≥ 48 dB
	300 MHz	≥ 44.5 dB
	600 MHz	≥ 38.4 dB
Return Loss	1 MHz	≤ 20 dB/100m
	4 MHz	≤ 23.1 dB/100m
	10 MHz	≤ 25.0 dB/100m
	16 MHz	≤ 25.0 dB/100m
	20 MHz	≤ 25.0 dB/100m
	31.25 MHz	≤ 23.6 dB/100m
	62.5 MHz	≤ 21.5 dB/100m
	100 MHz	≤ 20.1 dB/100m
	155 MHz	≤ 18.8 dB/100m
	200 MHz	≤ 17.3 dB/100m
	300 MHz	≤ 17.3 dB/100m
	600 MHz	≤ 17.3 dB/100m

TK-S/FTP 4X2XAWG23 CAT.7A

characteristics

CABLE SPECIFICATIONS

Conductor	Stranded bare copper AWG23
Insulation	Foam Polyolefin
Pair Colours	White-Blue White-Orange White-Green White-Brown
Pair Screen	Aluminium/Mylar tape
Assembling	4 pairs + eventual filler and tape are assembled together
Overall Screen	Tinned copper braid
Sheath	Crosslinked material type EM 104, fame retardant, halogen free Black

TECHNICAL DATA

Operating voltage	125 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	7 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50266-2-5
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

Also available for jumper version

MAIN FEATURES

	TK-S/FTP 4X2XAWG23 CAT.7A
Conductor resistance	≤ 69.5 Ω/km
Insulation resistance	≥ 500 MΩxkm
Test voltage	700 V
Characteristic Impedance @ 1÷100 MHz	100 ± 10 Ω
Transfer Impedance **@ ≤ 1 MHz** **@ ≤ 10 MHz** **@ ≤ 30 MHz** **@ ≤ 100 MHz**	 ≤ 10 mΩ/m ≤ 10 mΩ/m ≤ 30 mΩ ≤ 100 mΩ/m
Mutual capacitance	≤ 43 pF/m
Nominal velocity of propagation	78%
Nominal weight	105 kg/km
Nominal diameter	9.2 mm

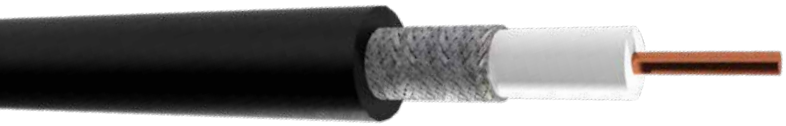
MAIN FEATURES

		TK-S/FTP 4X2XAWG23 CAT.7A
Attenuation	1 MHz	≤ 3.01 dB/100m
	4 MHz	≤ 5.38 dB/100m
	10 MHz	≤ 8.71 dB/100m
	16 MHz	≤ 11.0 dB/100m
	20 MHz	≤ 12.29 dB/100m
	62.5 MHz	≤ 21.785 dB/100m
	100 MHz	≤ 27.78 dB/100m
	200 MHz	≤ 39.70 dB/100m
	300 MHz	≤ 49.03 dB/100m
	600 MHz	≤ 70.65 dB/100m
	800 MHz	≤ 82.38 dB/100m
	1000 MHz	≤ 92.89 dB/100m
Next	1 MHz	≥ 78 dB
	4 MHz	≥ 78 dB
	10 MHz	≥ 78 dB
	16 MHz	≥ 78 dB
	20 MHz	≥ 78 dB
	62.5 MHz	≥ 78 dB
	100 MHz	≥ 78 dB
	200 MHz	≥ 73.88 dB
	300 MHz	≥ 71.24 dB
	600 MHz	≥ 66.73 dB
	800 MHz	≥ 64.85 dB
	1000 MHz	≥ 63.40 dB
PSNext	1 MHz	≥ 75 dB
	4 MHz	≥ 75 dB
	10 MHz	≥ 75 dB
	16 MHz	≥ 75 dB
	20 MHz	≥ 75 dB
	62.5 MHz	≥ 75 dB
	100 MHz	≥ 75 dB
	200 MHz	≥ 70.88 dB
	300 MHz	≥ 68.24 dB
	600 MHz	≥ 63.73 dB
	800 MHz	≥ 61.85 dB
	1000 MHz	≥ 60.40 dB
Return Loss	1 MHz	≤ 20 dB/100m
	4 MHz	≤ 23.1 dB/100m
	10 MHz	≤ 25.0 dB/100m
	16 MHz	≤ 25.0 dB/100m
	20 MHz	≤ 25.0 dB/100m
	62.5 MHz	≤ 20.74 dB/100m
	100 MHz	≤ 18.99 dB/100m
	200 MHz	≤ 16.4 dB/100m
	300 MHz	≤ 15.6 dB/100m
	600 MHz	≤ 15.6 dB/100m
	800 MHz	≤ 15.6 dB/100m
	1000 MHz	≤ 15.6 dB/100m

These images are for illustrative purposes.

COAXIAL CABLES

TK-COAXIAL RG213



characteristics

CABLE SPECIFICATIONS

Conductor	Stranded bare copper 7x0.75 mm
Insulation	Polyetylene
Screen	Copper braid (with eventual tape)
Sheath	Cross-linked Material type EM104, Flame Retardant, Halogen Free Black

TECHNICAL DATA

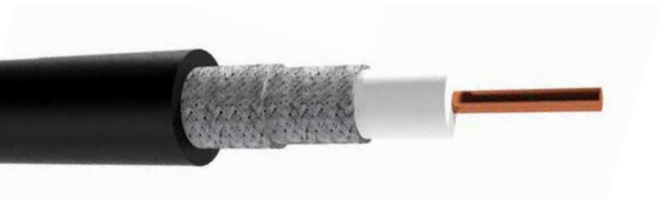
Operating voltage	3700 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50266-2-5
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES	
Conductor resistance	≤ 5.77 Ω/km
Test voltage	10000 V
Characteristic Impedance	50 ± 2 Ω
Mutual capacitance	≤ 105 pF/m
Nominal velocity of propagation	66%
Attenuation **@ ≤ 10 MHz** **@ ≤ 200 MHz** **@ ≤ 400 MHz** **@ ≤ 3000 MHz**	 ≤ 1.80 dB/100m ≤ 8.86 dB/100m ≤ 13.5 dB/100m ≤ 52.5 dB/100m
Nominal weight	160 kg/km
Nominal diameter	10.30 mm

TK-COAXIAL RG223



characteristics

CABLE SPECIFICATIONS

Conductor	Silver copper 0.9 mm
Insulation	Polyetylene
First Screen	Copper braid
Second Screen	Copper braid (with eventual tape)
Sheath	Cross-linked Material type EM104, Flame Retardant, Halogen Free Black

TECHNICAL DATA

Operating voltage	1900 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50266-2-5
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES	
Conductor resistance	≤ 29.43 Ω/km
Test voltage	5000 V
Characteristic Impedance	50 ± 2 Ω
Mutual capacitance	≤ 105 pF/m
Nominal velocity of propagation	66%
Attenuation **@ 10 MHz** **@ 50 MHz** **@ 100 MHz** **@ 400 MHz** **@ 1000 MHz**	 ≤ 7 dB/100m ≤ 15.7 dB/100m ≤ 27 dB/100m ≤ 39 dB/100m ≤ 68.9 dB/100m
Nominal weight	55 kg/km
Nominal diameter	5.4 mm

TK-COAXIAL RG316

characteristics

CABLE SPECIFICATIONS

Conductor	Stranded bare copper 7x0.75 mm
Insulation	Special thermoplastic polymer
Screen	Silver Copper braid (with eventual tape)
Sheath	Cross-linked Material type EM104, Flame Retardant, Halogen Free Black

TECHNICAL DATA

Operating voltage	500 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES	
Conductor resistance	≤ 276.0 Ω/km
Test voltage	2000 V
Characteristic Impedance	50 ± 2 Ω
Mutual capacitance	≤ 95 pF/m
Nominal velocity of propagation	70%
Attenuation **@ 10 MHz** **@ 50 MHz** **@ 100 MHz** **@ 400 MHz** **@ 1000 MHz** **@ 3000 MHz**	 ≤ 19.7 dB/100m ≤ 24.6 dB/100m ≤ 36 dB/100m ≤ 68.9 dB/100m ≤ 102 dB/100m ≤ 205 dB/100m
Nominal weight	15 kg/km
Nominal diameter	3.1 mm

TK-COAXIAL RG400

characteristics

CABLE SPECIFICATIONS

Conductor	Stranded Silver copper 19x0.20 mm
Insulation	Special thermoplastic polymer
First Screen	Tinned Copper braid
Second Screen	Tinned Copper braid (with eventual tape)
Sheath	Cross-linked Material type EM104, Flame Retardant, Halogen Free Black

TECHNICAL DATA

Operating voltage	750 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES	
Conductor resistance	≤ 30.0 Ω/km
Test voltage	2000 V
Characteristic Impedance	50 ± 2 Ω
Mutual capacitance	≤ 100 pF/m
Nominal velocity of propagation	71%
Attenuation **@ ≤ 400 MHz** **@ ≤ 3000 MHz**	 ≤ 31.3 dB/100m ≤ 100.7 dB/100m
Nominal weight	50 kg/km
Nominal diameter	4.95 mm

TK-COAXIAL RG58

characteristics

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper 19x0.18 mm
Insulation	Polyetylene
Screen	Tinned Copper braid (with eventual tape)
Sheath	Cross-linked Material type EM104, Flame Retardant, Halogen Free Black

TECHNICAL DATA

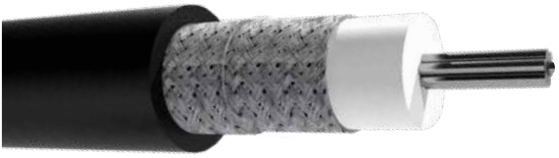
Operating voltage	2000 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES	
Conductor resistance	≤ 48.0 Ω/km
Test voltage	5000 V
Characteristic Impedance	50 ± 2 Ω
Mutual capacitance	≤ 100 pF/m
Nominal velocity of propagation	66%
Attenuation **@ 50 MHz** **@ 100 MHz** **@ 200 MHz** **@ 400 MHz** **@ 1000 MHz**	 ≤ 11.5 dB/100m ≤ 20 dB/100m ≤ 24.3 dB/100m ≤ 62 dB/100m ≤ 39.4 dB/100m
Nominal weight	40 kg/km
Nominal diameter	4.95 mm

TK-COAXIAL RG214



characteristics

CABLE SPECIFICATIONS

Conductor	Stranded Silver copper 7x0.75 mm
Insulation	XLPE
First Screen	Silver Copper braid
Second Screen	Sillevr Copper braid (with eventual tape)
Sheath	Cross-linked Material type EM104, Flame Retardant, Halogen Free Black

TECHNICAL DATA

Operating voltage	1400 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50266-2-5
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES	
Conductor resistance	≤ 6.0 Ω/km
Test voltage	10000 V
Characteristic Impedance	50 ± 2 Ω
Mutual capacitance	≤ 100 pF/m
Nominal velocity of propagation	66%
Attenuation **@ ≤ 50 MHz** **@ ≤ 100 MHz** **@ ≤ 200 MHz** **@ ≤ 500 MHz** **@ ≤ 1000 MHz** **@ ≤ 3000 MHz**	 ≤ 4.7 dB/100m ≤ 7.1 dB/100m ≤ 10.4 dB/100m ≤ 17.4 dB/100m ≤ 26.2 dB/100m ≤ 55 dB/100m
Nominal weight	205 kg/km
Nominal diameter	10.8 mm

TK-COAXIAL RG142

characteristics

CABLE SPECIFICATIONS

Conductor	Silver copperweld 0.95 mm
Insulation	Special thermoplastic polymer
First Screen	Silver Copper braid
Second Screen	Silver Copper braid (with eventual tape)
Sheath	Cross-linked Material type EM104, Flame Retardant, Halogen Free Black

TECHNICAL DATA

Operating voltage	2500 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES	
Conductor resistance	≤ 63.97 Ω/km
Test voltage	5000 V
Characteristic Impedance	50 ± 2 Ω
Mutual capacitance	≤ 100 pF/m
Nominal velocity of propagation	72%
Attenuation **@ 300 MHz** **@ 600 MHz** **@ 900 MHz** **@ 1200 MHz** **@ 1500 MHz** **@ 3000 MHz**	 ≤ 27 dB/100m ≤ 40 dB/100m ≤ 51 dB/100m ≤ 61 dB/100m ≤ 69 dB/100m ≤ 107 dB/100m
Nominal weight	60 kg/km
Nominal diameter	5 mm

TK-COAXIAL RG174

characteristics

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper 7x0.16 mm
Insulation	Polyetylene
Screen	Tinned Copper braid (with eventual tape)
Sheath	Cross-linked Material type EM104, Flame Retardant, Halogen Free Blac

TECHNICAL DATA

Operating voltage	750 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES	
Conductor resistance	≤ 290.0 Ω/km
Test voltage	2000 V
Characteristic Impedance	50 ± 2 Ω
Mutual capacitance	≤ 100 pF/m
Nominal velocity of propagation	66%
Attenuation **@ 50 MHz** **@ 100 MHz** **@ 200 MHz** **@ 400 MHz** **@ 600 MHz** **@ 860 MHz** **@ 1000 MHz**	 ≤ 17.5 dB/100m ≤ 25.8 dB/100m ≤ 38.2 dB/100m ≤ 54.9 dB/100m ≤ 68.6 dB/100m ≤ 81.2 dB/100m ≤ 87.5 dB/100m
Nominal weight	12.5 kg/km
Nominal diameter	2.80 mm

TK-COAXIAL AERIAL

characteristics

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper 19x0.30 mm
Insulation	Special thermoplastic polymer
Screen	Aluminium/ Mylar / Aluminium tape
Second Screen	Tinned Copper braid (with eventual tape)
Sheath	Cross-linked Material type EM104, Flame Retardant, Halogen Free Black

TECHNICAL DATA

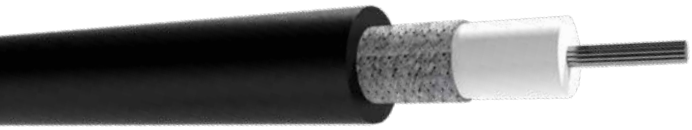
Operating voltage	750 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES	
Conductor resistance	≤ 30.0 Ω/km
Test voltage	2000 V
Characteristic Impedance	50 ± 2 Ω
Mutual capacitance	≤ 82 pF/m
Nominal velocity of propagation	81%
Attenuation	
@ 50 MHz	≤ 6.5 dB/100m
@ 100 MHz	≤ 9.3 dB/100m
@ 300 MHz	≤ 16.3 dB/100m
@ 400 MHz	≤ 19.0 dB/100m
@ 860 MHz	≤ 28.5 dB/100m
@ 1000 MHz	≤ 30.9 dB/100m
Nominal weight	50 kg/km
Nominal diameter	5.4 mm

TK-COAXIAL RG59



characteristics

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper 19x0.20 mm
Insulation	Foam Polyolefin
Screen	Tinned Copper braid (with eventual tape)
Sheath	Cross-linked Material type EM104, Flame Retardant, Halogen Free Black

TECHNICAL DATA

Operating voltage	500 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50266-2-5
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES	
Conductor resistance	≤ 33.2 Ω/km
Test voltage	2000 V
Characteristic Impedance	75 ± 3 Ω
Mutual capacitance	≤ 75 pF/m
Nominal velocity of propagation	78%
Attenuation **@ 5 MHz** **@ 10 MHz** **@ 100 MHz** **@ 200 MHz** **@ 400 MHz** **@ 1000 MHz**	 ≤ 2.20 dB/100m ≤ 3.20 dB/100m ≤ 7.90 dB/100m ≤ 11.20 dB/100m ≤ 16.10 dB/100m ≤ 23.30 dB/100m ≤ 39.40 dB/100m
Nominal weight	65 kg/km
Nominal diameter	6.5 mm

CCTV / VGA / AUDIO CABLES

These images are for illustrative purposes.

TK-CCTV / VGA 3 COAX 75 Ω+3XAWG26

characteristics

CABLE SPECIFICATIONS

	COAX
Conductors	Stranded tinned copper AWG28 (7x0.127) mm
Insulation	Special thermoplastic polymer
Screen	Tinner copper braid
Sheath	Crosslinked material type EM 104, fl ame retardant, halogen free Red-Green-Blue
	AWG26
Conductors	Stranded tinned copper AWG26 (7x0.16) mm
Insulation	Cross-linked Material type EI105
Colours	White-Orange-Brown
Total assembling	3 coax + 3 xA26WG + eventual fi ller and tape are assembled together
Total Screen	Tinned copper braid
Total Sheath	Crosslinked material type EM 104. fl ame retardant. halogen free Grey

TECHNICAL DATA

Operating voltage	30 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

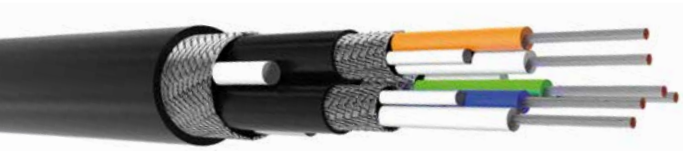
Fire propagation	EN 60332-1-2 EN 50266-2-5
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES

	TK-CCTV / VGA 3 COAX 75 Ω+3xAWG26
Conductor resistance	≤ 230.0 Ω/km (AWG28) ≤ 140.0 Ω/km (AWG26)
Insulation resistance	≥ 500 MΩxkm
Test voltage	1000 V
Characteristic Impedance @ 1 MHz	75 ± 10 Ω*
Mutual capacitance	≤ 56 pF/m
Nominal velocity of propagation	80%
Nominal weight	115 kg/km
Nominal diameter	8.8 mm

*only for coax

TK-AUDIO 3X(2X0.60)



characteristics

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper 0.60 mm²
Insulation	Special thermoplastic polymer
Pair Colours	White-Blue White-Orange White-Green White-Brown
Pair screen	Tinned copper braid
Pair sheath	Crosslinked material type EM 104, fl ame retardant, halogen free Black
Assembling	3 elements + eventual filler and tape are assembled together
Screen	Tinner copper braid
Sheath	Crosslinked material type EM 104, flame retardant, halogen free Black

TECHNICAL DATA

Operating voltage	300/500 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50266-2-4
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES

	TK-AUDIO 3x(2x0.60)
Conductor resistance	≤ 37.0 Ω/km
Insulation resistance	≥ 2500 MΩxkm
Test voltage	2000 V
Characteristic Impedance @ 1 MHz	110 ± 10 Ω
Mutual capacitance	≤ 50 pF/m
Nominal velocity of propagation	78%
Nominal weight	335 kg/km
Nominal diameter	15.5 mm

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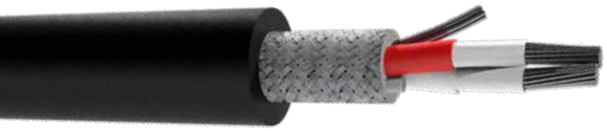
RF VALIDATION TICKET CABLES

TK-RF VALIDATION TICKET 2XAWG22



characteristics

CABLE SPECIFICATIONS

Conductor	Stranded tinned copper AWG22
Insulation	Special double layer of oleolefi nic insulation according to EN50306
Colours	White-Red
Assembling	2 conductors + eventual fi ller and tape are assembled togetherr
Screen	Tinner copper braid + drain wire
Sheath	Crosslinked material type EM 104. fl ame retardant. halogen free Black

TECHNICAL DATA

Operating voltage	300/500 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES

	TK-RF VALIDATION TICKET 2xAWG22
Conductor resistance	≤ 55.0 Ω/km
Insulation resistance	≥ 250.0 MΩxkm
Test voltage	2000 V
Nominal weight	40 kg/km
Nominal diameter	5 mm

TK-RF VALIDATION TICKET 4XAWG22+2XAWG22

characteristics

CABLE SPECIFICATIONS

	SINGLE PAIR SCREENED
Conductors	Stranded tinned copper AWG22
Insulation	Special double layer of oleolefi nic insulation according to EN50306
Pair Colors	White-Red
Pair Screen	Tinned copper braid + drain wire
Pair Protection	Syntetic tape
	OTHER ELEMENTS
Conductors	Stranded tinned copper AWG22
Insulation	Special double layer of oleolefi nic insulation according to EN50306
Colours	Black-Orange-Blue-Brown
Total assembling	1 pair and 4 conductors + eventually fi ller and tape are assembled together
Total Screen	Tinner copper braid + drain wire
Total Sheath	Crosslinked material type EM 104, flame retardant, halogen free Black

TECHNICAL DATA

Operating voltage	300/500 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

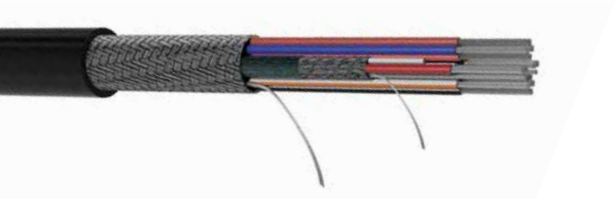
FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50266-2-5
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES

	TK-RF VALIDATION TICKET 4xAWG22+2xAWG22
Conductor resistance	≤ 55.0 Ω/km
Insulation resistance	≥ 250.0 MΩxkm
Test voltage	2000 V
Nominal weight	90 kg/km
Nominal diameter	7 mm

TK-RF VALIDATION TICKET 8XAWG22+2X(2XAWG22)



characteristics

CABLE SPECIFICATIONS

	SINGLE PAIR SCREENED
Conductors	Stranded tinned copper AWG22
Insulation	Special double layer of oleolefi nic insulation according to EN50306
Pair Colors	White-Red; Black-Orange
Pair Screen	Tinned copper braid + drain wire
Pair Protection	Syntetic tape
	OTHER ELEMENTS
Conductors	Stranded tinned copper AWG22
Insulation	Special double layer of oleolefinic insulation according to EN50306
Quad Colours	(Blue-Brown-Green-Pink)-(Violet-White/Red-White/Black-White/Orange)
Total assembling	2 pair and 2 quad + eventually filler and tape are assembled together
Total Screen	Tinner copper braid + drain wire
Total Sheath	Crosslinked material type EM 104. flame retardant. halogen free Black

TECHNICAL DATA

Operating voltage	300/500 V
Operating temperature	-40°C ÷ +90°C
Minimum bending radius	10 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50266-2-5
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES

	TK-RF VALIDATION TICKET 8xAWG22+2x(2xAWG22)
Conductor resistance	≤ 55.0 Ω/km
Insulation resistance	≥ 250.0 MΩxkm
Test voltage	2000 V
Nominal weight	170 kg/km
Nominal diameter	10.4 mm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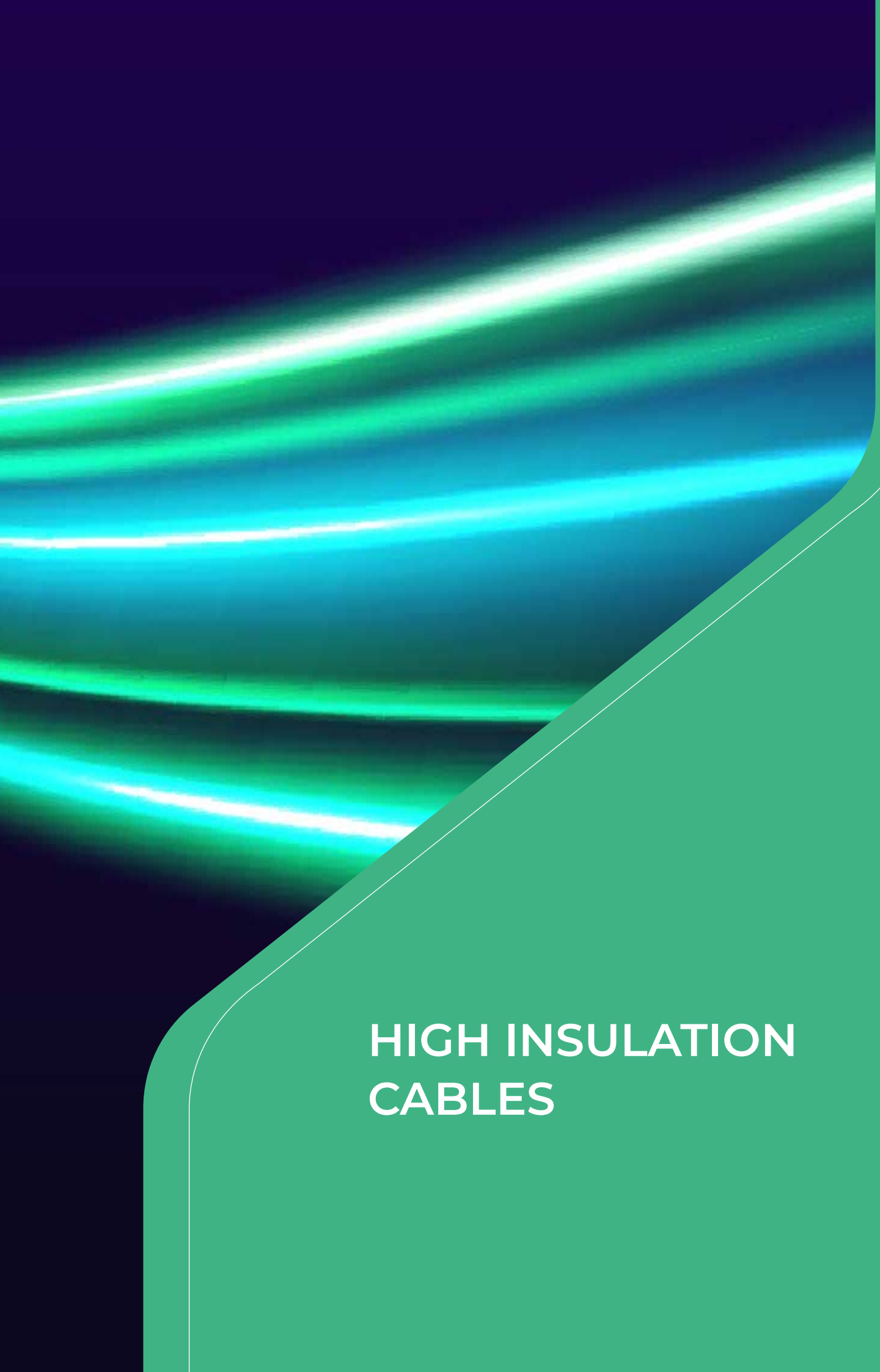

HIGH INSULATION CABLES

These images are for illustrative purposes.

TK-HIGH INSULATION

characteristics

CABLE SPECIFICATIONS

Conductors	Stranded tinned copper 19x0.25 mm (1x1 mm²) Stranded tinned copper 37x0.23 mm (1x1.5 mm²) Stranded tinned copper 37x0.30 mm (1x2.5 mm²)
Insulation	Special oleolefi nic insulation according to EN50306

TECHNICAL DATA

Operating voltage	1.8/3 kV
Operating temperature	-40°C ÷ +105°C
Minimum bending radius	4 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES

	TK-HIGH INSULATION		
	1x1 mm²	**1x1.5 mm²**	**1x2.5 mm²**
Voltage rating	1.8/3 kV	1.8/3 kV	1.8/3 kV
Test voltage	6500 V	6500 V	6500 V
Nominal weight	12 kg/km	17 kg/km	28 kg/km
Nominal diameter	2.1 mm	2.45 mm	2.95 mm
Minimum bending radius	4xØ	4xØ	4xØ

TK-MULTICORE HIGH INSULATION

characteristics

CABLE SPECIFICATIONS

Conductors	Stranded tinned copper 19x0.20mm (2xAWG20) Stranded tinned copper 19x0.127mm (2xAWG24) Stranded tinned copper 19x0.20mm (3xAWG20) Stranded tinned copper 19x0.127mm (3xAWG24)
Insulation	Special oleolefi nic insulation according to EN50306
Assembling	Twisted conductors

TECHNICAL DATA

Operating voltage	1.8/3 kV
Operating temperature	-40°C ÷ +105°C
Minimum bending radius	4 × Ø

FIRE PERFORMANCE

Fire propagation	EN 60332-1-2 EN 50305 9.1.2
Smoke density	EN 61034-1/2
Halogen-free	EN 50267-2-1/2
Fumes	No corrosive and toxic fumes

MAIN FEATURES

	TK-MULTICORE HIGH INSULATION			
	2xAWG20	**2xAWG24**	**3xAWG20**	**3xAWG24**
Voltage rating	1.8/3 kV	1.8/3 kV	1.8/3 kV	1.8/3 kV
Test voltage	6500 V	6500 V	6500 V	6500 V
Nominal weight	15 kg/km	8 kg/km	23 kg/km	11 kg/km
Nominal diameter	3.8 mm	2.4 mm	4.1 mm	2.7 mm
Minimum bending radius	4xØ	4xØ	4xØ	4xØ


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50

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