

PRODUCTS CATALOGUE

POLI



COMPANY HISTORY

Founded in 1994, Policabos - Soluções Técnicas de Condutores S.A., is committed to select, import, export, stock, integrate and distribute electrical and communication cables, connectors and accessories.

For over 20 years, Policabos has developed strategic partnerships with the main national and international manufacturers, built up on many years of expertise, hard work and cooperation.

Since 1995, the LAPP Group acquired a stake in the company, and since 2016, Policabos is 100% part of the group.

In June of 2018, part of the integration in the group, Policabos added to its name LAPP, hence becoming LAPP Policabos.

LAPP Policabos has over 60 employees, divided by the headquarters in Sintra, Lisboa, and the sales office in Gaia, Oporto.

The headquarters in Sintra has a warehouse with 4500 square meters which contains more than 4000 product references.



Lapp Policabos is committed to be the supplier reference, for cable and communication solutions, connectors and accessories, in the national market, as well as the developer of the LAPP Group's business in Africa.

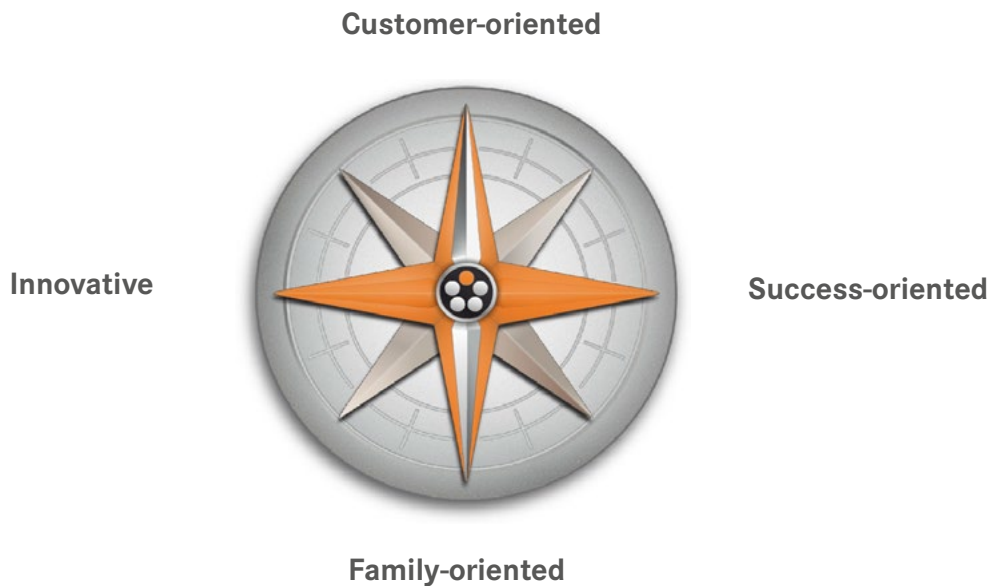
We want to be renowned for the flexibility and availability of ours products, in the infrastructure sector, but also in the field of special data cables.

We aim to guarantee that our service fulfill our customers and other stakeholders, for which the quality of products and processes, stock management and technical support should be the basis of our company.

Involvement and commitment, training and transparency to all stakeholders and especially to our employees are the roots to the success of our mission.



COMPANY VALUES



CUSTOMER-ORIENTED

We find quick and simple solutions for our customers – at a competitive price-performance ratio. We hold our customers and partners in the highest regard and guarantee them worldwide security of supply through international production sites. This enables them to be successful in their markets.

FAMILY-ORIENTED

We work together toward our goal in a spirit of trust. Respect and appreciation are just as important to us as personal responsibility and transparency. We actively train and develop our staff .

SUCCESS-ORIENTED

Our company is very versatile. It is our flexibility above all that secures profitable growth: our reaction to new challenges is quick and well-considered. Our processes are transparent, and we make sustainable, long-term-oriented decisions. We remain conscious of our risks while driving our growth. We also set standards for your benefit.

INNOVATIVE

We continuously develop our products, solutions and services. To ensure that there is no compromise when it comes to quality, we manufacture in our own plants. We pledge ourselves to ensure the well-being of our employees and the conservation of environmental resources.

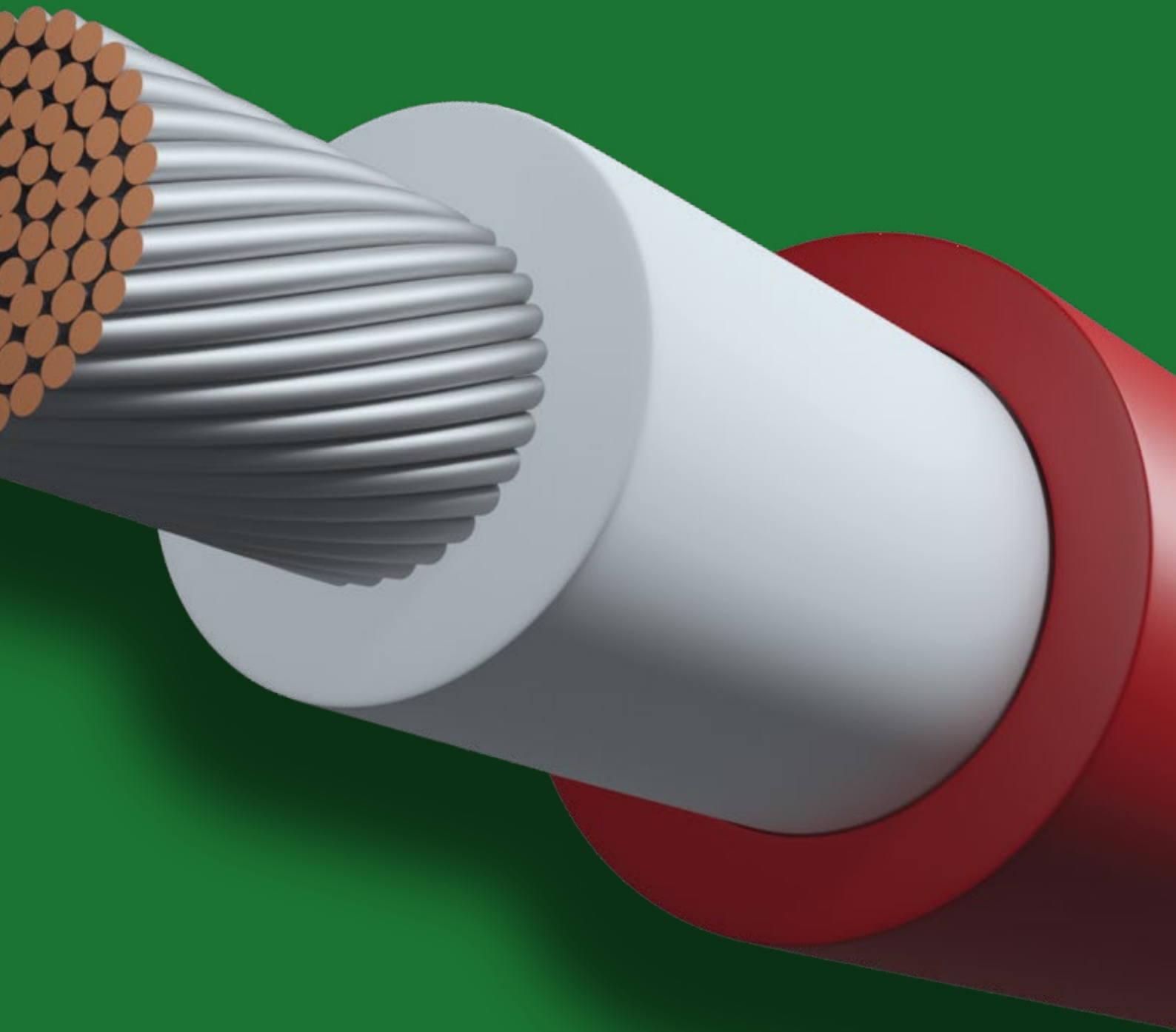
LEGEND FOR ICONS

-  Flame-retardant
-  Fire-retardant
-  Fire resistance
-  Interference signals
-  Cold-resistant
-  Oil-resistant
-  UV-resistant
-  Mechanical resistance
-  Protection against rodents
-  Hydrocarbon-resistant
-  Corrosion-resistant
-  Low Smoke Zero Halogen

-  Construction Products Regulation
-  Certification mark that indicates that the product meets EU standards for health, safety, and environmental protection.
-  Harmonised european standard cable

CONTENT

POLIEARTH®	3	POLIENERG®	53
H1Z2Z2-K	4	NYY-J / NYY-O	54
		FXZ1 (frt,zh)	58
POLICONTROL®	7	ÖLFLEX®	63
LiHH	8	RV-K	64
LiHH DALI	10		
POLISCREEN®	13	APPENDIX	69
LiYCY	14		
LiYCY (TP)	16		
LiHCH	18		
LiHCH (TP)	20		
AlarmeFlex	22		
Type 8471	24		
Type 8723	25		
Type 8760	26		
Type 8761	27		
Type 8762	28		
Type 8777	29		
Type 9841 RS 485	30		
Type 9842 RS 485	31		
POLINST®	33		
EGFA	34		
EGSF	36		
EIFA	38		
EISF	40		
POLIFLAM®	43		
LiH(St)H E30	44		
LiH(St)H E90	45		
JE-H(St)H E30	46		
JE-H(St)H E90	47		
POLIMOV®	49		
H07RN-F	50		



POLIEARTH

POLiearth®

RENEWABLE ENERGY CABLES

H1Z2Z2-K

4

POLIEARTH®

H1Z2Z2-K D_{ca}-s₂,d₂,a₁ Solar Cable



Application

Solar cables to PV installations according to HD 60364-7-712, suitable to indoor and outdoor applications.

The cables are suitable for the application in/at equipment with protective insulation (protection Class II).

Standards

- EN 50618
- EN/IEC 60754-1/-2
- EN/IEC 61034-2
- EN/IEC 60332-1-2
- EN 13506-1
- EN 50575

CPR

- Class: D_{ca}-s₂,d₂,a₁
- Range: 1x4 mm², 1x6 mm² and 1x10 mm²



Design

- Conductor: Tinned copper class 5, acc. to IEC/EN 60228
- Insulation: Special cross-linked material. Core Identification: natural
- Outer sheath: Special cross-linked material
- Outer sheath colour: Black, Blue, Red
- Outer sheath mark:
"POLIEARTH H1Z2Z2-K NxS D_{ca}-s₂,d₂,a₁, traceability batch order XXXXm"

Note: Rodent protection available by request.

Electrical properties

Voltage level (U₀/U)	1/1 kV a.c.; 1,5/1,5 kV d.c.
Max. Operating Voltage	1,8 kV d.c.
Test Voltage	6,5 kV a.c.
Current Capacity	Acc. to EN 50618, table A3 & A4



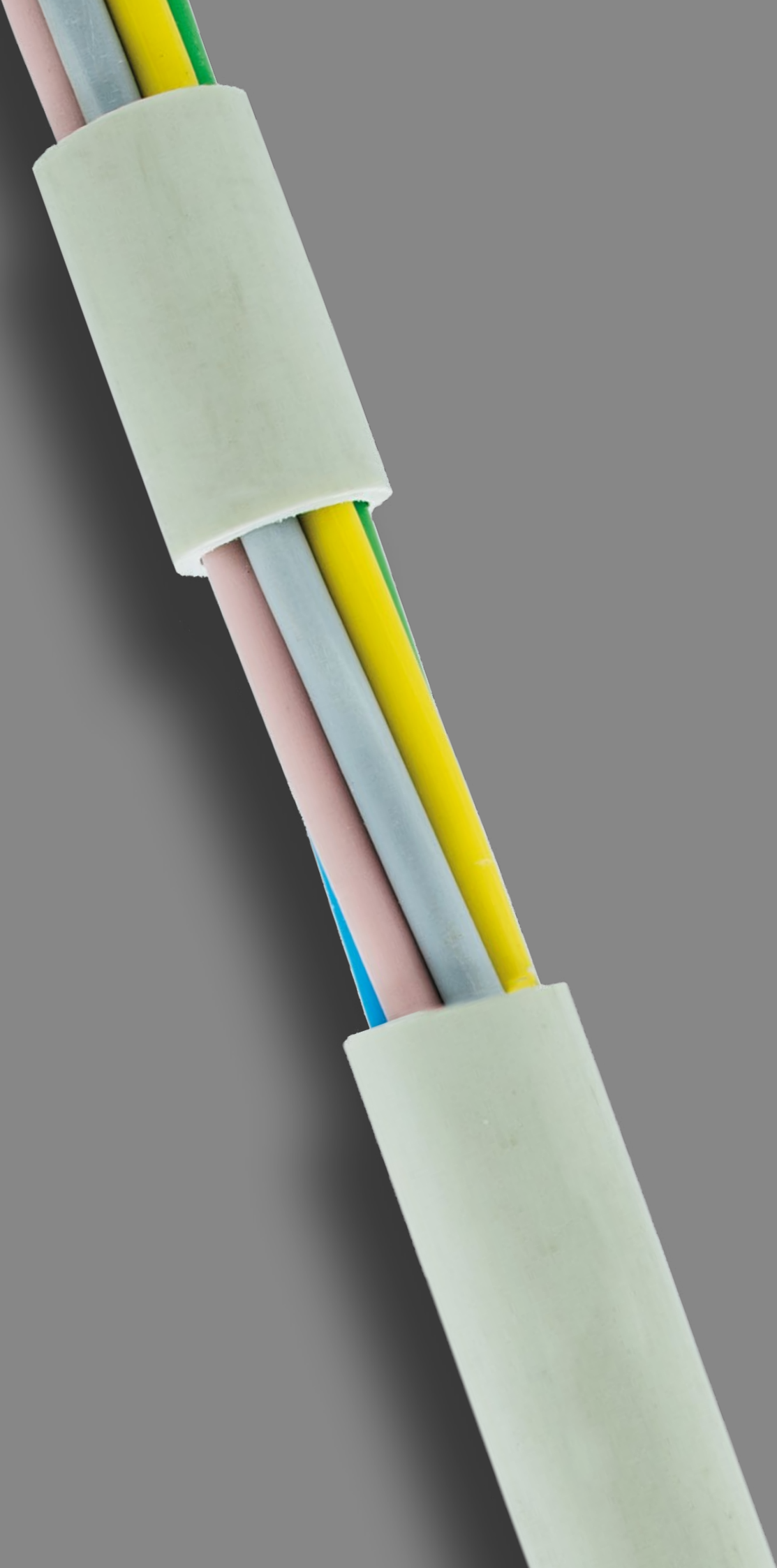
H1Z2Z2-K D_{ca}-s₂d₂a₁

Solar Cable

Mechanical and thermal properties

Temperature range	Fixed installation: -40°C up to 90°C
Min. Temperature	Installation: -25°C
Min. Bending radius	Ocasional flexing: 15 x cable diameter Fixed installation: 5 x cable diameter
Weathering / UV resistance	Acc. EN 50618 Annex E
Presence of water	AD8 acc. EN 50525-2-21 Annex D & E (immersion test)
Corrosive or polluting subst.	AF3 acc. EN 50618
Impact	AG2 acc. EN 50618
Vibration	AH3 acc. EN 50618
Outdoor use	AN3 (permanent) acc. EN 50618
Underground laying	Impact resistance UL 854.23 Crushing resistance UL 854.24
Ozone resistance	Acc. EN 50396
Halogen free	Acc. EN/IEC 60754-1/-2
Smoke density	Acc. EN/IEC 61034-2
Flame retardant	Acc. EN/IEC 60332-1-2
Acid and alkaline resistance	Acc. EN 60811-404 (oxal-acid and sodium hydroxide)

Article Number	Cond. x section (Nxmm ²)	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
2311089982 ●	1x2,5	5,1	24,0	47
2311089983 ●	1x2,5	5,1	24,0	47
2311089984 ●	1x4	5,7	39,0	62
2311089985 ●	1x4	5,7	39,0	62
2311089986 ●	1x6	6,6	57,6	78
2311089987 ●	1x6	6,6	57,6	78
2311089988 ●	1x10	7,0	96,0	125
2311089989 ●	1x10	7,0	96,0	125
2311089990 ●	1x16	8,2	153,6	184
2311089991 ●	1x16	8,2	153,6	184



POLICONTROL

POLICONTROL® CONTROL CABLES

LiHH	8
LiHH DALI	10

POLICONTROL®

LiHH C_{ca}-s_{1b},d₁,a₁

Halogen free data cable for low frequency applications.
High performance on fire reaction (C_{ca}-s_{1b},d₁,a₁).

POLICONTROL®



Application

POLICONTROL LiHH C_{ca}-s_{1b},d₁,a₁ is designed for fixed installation and for conditional flexible use. It is used for dry and damp rooms, but not appropriate for outdoors application.

Cables suitable for computer systems, instrumentation technology (HVAC, access control systems, etc) and office equipment. High fire reaction classification to security installations.

Standards

- Based on VDE 0812
- Colour code: DIN 47100 without colour repetition
- Flame-retardant: IEC/EN 60332-1-2
- Fire-retardant: IEC/EN 60332-3-24
- Halogen-free: IEC/EN 60754-1
- Corrosivity of gases: IEC/EN 60754-2
- Smoke Opacity: IEC/EN 61034
- CPR: EN 13501-6 & EN 50575

CPR

- Range: Define on DoP
- Class: C_{ca}-s_{1b},d₁,a₁



Design

- Conductor: fine wire strands of class 5 copper, acc. IEC/EN 60228
- Insulation: special polyolefin
- Stranding: cores are stranded in layers
- Wrapping: polyester tape
- Outer sheath: special halogen-free
- Outer sheath colour: grey (similar RAL 7032)
- Outer sheath mark:
"POLICONTROL LiHH NxS C_{ca}-s_{1b},d₁,a₁ traceability batch order XXXXm"

Electrical properties at 20°C

Conductor section (mm ²)	Max. conductor resistance (Ω/km)
0,5	39
0,75	26
1	19,5
1,5	13,3

Technical Data



Temperature (°C)

Flexing:
-5 up to 70
Fixed installation:
-30 up to 80



Minimum bending radius

Flexing:
10 x cable diameter
Fixed installation:
6 x cable diameter



Peak operating voltage

(not for power applications)
500 V



Voltage test (cond./cond.)

2000 V

LiHH C_{ca}-s_{1b},d₁,a₁

Halogen free data cable for low frequency applications.

High performance on fire reaction (C_{ca}-s_{1b},d₁,a₁).

Article number	Cond. x section (Nxmm ²)	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
2311004241	2x0,75	5,2	14,4	35
2311004242	2x1	5,8	19,2	44
2311004243	2x1,5	7,0	28,8	62
2311004244	3x0,75	5,5	21,6	44
2311004245	3x1	6,1	28,8	56
2311004246	3x1,5	7,0	43,2	75
2311004247	4x0,75	6,1	28,8	58
2311004248	4x1	6,6	38,4	70
2311004249	4x1,5	7,6	57,6	95
2311004250	5x0,75	6,7	36	70
2311004251	5x1	7,4	48	90
2311004252	7x0,75	7,2	50,4	89
2311004253	7x1	8,0	67,2	114
2311004254	7x1,5	9,4	100,8	158
2311004240	12x1	10,5	115,2	186

POLICONTROL®

LiHH C_{ca}-s_{1b},d₁,a₁ DALI

Halogen free data cable for low frequency applications.
High performance on fire reaction (C_{ca}-s_{1b},d₁,a₁).

POLICONTROL®



Application

POLICONTROL® LiHH DALI 2x1,5mm² are designed for fixed indoor installation and for occasional flexible use.

Low frequency cables for DALI communication system suitable for lighting devices. High Fire Reaction classification to security installations, class CPR C_{ca}-s_{1b},d₁,a₁.

Standards

- Based on VDE 0812
- Flame-retardant: IEC/EN 60332-1-2
- Fire-retardant: IEC/EN 60332-3-24
- Halogen-free: IEC/EN 60754-1
- Corrosivity of gases: IEC/EN 60754-2
- Smoke Opacity: IEC/EN 61034
- CPR: EN 13501-6 & EN 50575

CPR

- Range: Define on DoP
- Class: C_{ca}-s_{1b},d₁,a₁



Design

- Conductor: fine wire strands of class 5 copper, acc. IEC/EN 60228
- Insulation: special polyolefin
- Stranding: cores are stranded in layers
- Wrapping: polyester tape
- Outer sheath: special halogen-free
- Outer sheath colour: violet (RAL 4005)
- Outer sheath mark:
"POLICONTROL LiHH NxS C_{ca}-s_{1b},d₁,a₁ DALI traceability batch order XXXXm"



Electrical properties at 20°C

Conductor section (mm ²)	Max. conductor resistance (Ω/km)
1,5	13,3

Technical Data



Temperature (°C)

Flexing:
-5 up to 70
Fixed installation:
-30 up to 80



Minimum bending radius

Flexing:
10 x cable diameter
Fixed installation:
6 x cable diameter



Peak operating voltage
(not for power applications)
500 V



Voltage test (cond./cond.)
2000 V

LiHH C_{ca}-s_{1b},d₁,a₁ DALI

Halogen free data cable for low frequency applications.

High performance on fire reaction (C_{ca}-s_{1b},d₁,a₁).

Article number	Cond. x section (Nxmm ²)	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
2311090843	2x1.5	5,2	14,4	35



POLISCREEN

POLISCREEN® SCREENED CABLES

LiYCY	14
LiYCY (TP)	16
LiHCH	18
LiHCH (TP)	20
AlarmeFlex	22
Type 8471	24
Type 8723	25
Type 8760	26
Type 8761	27
Type 8762	28
Type 8777	29
Type 9841 RS 485	30
Type 9842 RS 485	31

POLISCREEN®

LiYCY E_{ca}

Screened data cable for low frequency applications



POLISCREEN®

Application

POLISCREEN LiYCY E_{ca} is designed for fixed installation and for occasional flexible use. It is used in dry and damp rooms, but not appropriate for outsider application. The screen provides protection against electromagnetic interferences. Cables are suitable for computer systems, instrumentation technology (HVAC, access control systems, etc) and office equipment.

Standards

- Based on VDE 0812
- Colour code: DIN 47100 without colour repetition
- Flame-retardant: IEC/EN 60332-1-2
- CPR: EN 13501-6 & EN 50575

CPR

- Range: All cables
- Class: E_{ca}



Design

- Conductor: fine wire strands of class 5 copper, acc. IEC/EN 60228
- Insulation: PVC compound
- Stranding: cores are stranded in layers
- Wrapping: polyester tape
- Screen: tinned copper wires braid
- Outer sheath: PVC compound
- Outer sheath colour: grey (similar RAL 7032)
- Outer sheath mark: "POLISCREEN LiYCY NxS E_{ca} traceability batch order XXXXm"



Electrical properties at 20°C

Conductor section (mm ²)	Max. conductor resistance (Ω/km)
0,22	78,4
0,34	52,25
0,5	39
0,75	26
1	19,5
1,5	13,3
2,5	7,98

Technical Data



Temperature (°C)

Flexing:
-5 up to 70
Fixed installation:
-15 up to 70



Minimum bending radius

Flexing:
15 x cable diameter
Fixed installation:
6 x cable diameter



Peak operating voltage
(not for power applications)
500 V



Voltage test (c/c)
2000 V

LiYCY E_{ca}

Screened data cable for low frequency applications

Article number	Cond. x section (Nxmm ²)	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
2311000143	2x0,22	4,1	8,0	21
2311004166	3x0,22	4,3	10,3	25
2311000145	4x0,22	4,8	12,7	32
2311004167	5x0,22	5,2	15,2	37
2311004168	7x0,22	5,6	19,7	45
2311004161	2x0,34	4,5	10,7	25
2311004162	3x0,34	4,7	14,1	31
2311004163	4x0,34	5,1	17,7	37
2311004164	5x0,34	5,7	21,4	46
2311004165	7x0,34	6,1	28,1	57
2311000148	2x0,5	5,0	14,1	31
2311000149	3x0,5	5,4	19,0	41
2311000150	4x0,5	6,0	24,1	51
2311000188	6x0,5	6,7	34,5	65
2311000151	7x0,5	6,7	39,0	74
2311000152	8x0,5	7,2	44,6	79
2311000153	12x0,5	8,6	64,1	114
2311000154	2x0,75	5,7	19,2	42
2311000155	3x0,75	5,9	26,4	52
2311000156	4x0,75	6,5	33,8	65
2311000157	5x0,75	6,9	41,3	74
2311000158	6x0,75	7,4	48,9	87
2311000159	7x0,75	7,4	55,6	97
2311000160	8x0,75	8,0	63,7	100
2311000161	10x0,75	9,2	78,5	129
2311000187	12x0,75	9,6	92,3	151
2311000163	2x1	6,1	24,4	49
2311000091	3x1	6,6	33,9	65
2311000162	4x1	7,4	43,6	83
2311000142	5x1	7,7	53,5	97
2311000090	6x1	8,3	63,4	114
2311000092	7x1	8,3	72,4	121
2311000093	12x1	10,8	120,8	195
2311000094	2x1,5	7,1	34,6	66
2311000168	3x1,5	7,7	48,6	88
2311000169	4x1,5	8,6	63,0	113
2311000181	5x1,5	9,1	77,6	133
2311000182	7x1,5	9,8	105,6	167
2311000095	2x2,5	8,5	54,4	97
2311000164	4x2,5	9,8	101,2	157

POLISCREEN®

LiYCY (TP) E_{ca}

Screened data cable for low frequency applications. Twisted pairs cables.



POLISCREEN®

Application

POLISCREEN LiYCY (TP) E_{ca} is designed for fixed installation and for occasional flexible use. It is used in dry and damp rooms, but not appropriate for outsider application. The screen provides protection against electromagnetic interferences and the twisted pairs with short lay lengths provides good decoupling of circuits. Cables are suitable for computer systems, instrumentation technology (HVAC, access control systems, etc) and office equipment.

Standards

- Based on VDE 0812
- Colour code: DIN 47100 for twisted pairs
- Flame-retardant: IEC/EN 60332-1-2
- CPR: EN 13501-6 & EN 50575

CPR

- Range: All cables
- Class: E_{ca}



Design

- Conductor: fine wire strands of class 5 copper, acc. IEC/EN 60228
- Insulation: PVC compound
- Stranding: twisted pairs structure
- Wrapping: polyester tape
- Screen: tinned copper wires braid
- Outer sheath: PVC compound
- Outer sheath colour: grey (similar RAL 7032)
- Outer sheath mark: "POLISCREEN LiYCY (TP) NxS E_{ca} traceability batch order XXXXm"



Electrical properties at 20°C

Conductor section (mm ²)	Max. conductor resistance (Ω/km)
0,14	122
0,22	78,40
0,34	52,25
0,5	39
0,75	26
1	19,5
1,5	13,3

Technical Data



Temperature (°C)

Flexing:
-5 up to 70
Fixed installation:
-15 up to 70



Minimum bending radius

Flexing:
15 x cable diameter
Fixed installation:
6 x cable diameter



Peak operating voltage

(not for power applications)
0,14 mm²: 350 V
≥ 0,25 mm²: 500 V



Voltage test (c/c)

1500 V

LiYCY (TP) E_{ca}

Screened data cable for low frequency applications. Twisted pairs cables.

Article number	Cond. x section (Nxmm ²)	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
2311000170	2x2x0,5	7,2	25,9	58
2311000097	2x2x0,75	8,0	35,8	73
2311000171	2x2x1	8,9	45,9	93
2311003069	2x2x1,5	10,5	65,8	126

Range of construction by request: 2Pr up to 20Pr, 0,14 mm² up to 1,5 mm².

POLISCREEN®

LiHCH C_{ca}-s_{1b},d₁,a₁

Screened halogen free data cable for low frequency applications.
High performance on fire reaction (C_{ca}-s_{1b},d₁,a₁).



POLISCREEN®

Application

POLISCREEN LiHCH C_{ca}-s_{1b},d₁,a₁ is designed for fixed installation and for conditional flexible use. It is used for dry and damp rooms, but not appropriate for outsider application.

The screen provides protection against electromagnetic interferences. Cables suitable for computer systems, instrumentation technology (HVAC, access control systems, etc) and office equipment. High fire reaction classification to security installations.

Standards

- Based on VDE 0812
- Colour code: DIN 47100 without colour repetition
- Flame-retardant: IEC/EN 60332-1-2
- Fire-retardant: IEC/EN 60332-3-24
- Halogen-free: IEC/EN 60754-1
- Corrosivity of gases: IEC/EN 60754-2
- Smoke Opacity: IEC/EN 61034
- CPR: EN 13501-6 & EN 50575

CPR

- Range: Define on DoP
- Class: C_{ca}-s_{1b},d₁,a₁



Design

- Conductor: fine wire strands of class 5 copper, acc. IEC/EN 60228
- Insulation: special polyolefin
- Stranding: cores are stranded in layers
- Wrapping: polyester tape
- Screen: tinned copper wires braid
- Outer sheath: special halogen-free
- Outer sheath colour: grey (similar RAL 7032)
- Outer sheath mark:
"POLISCREEN LiHCH NxS C_{ca}-s_{1b},d₁,a₁ traceability batch order XXXXm"

Electrical properties at 20°C

Conductor section (mm ²)	Max. conductor resistance (Ω/km)
0,5	39
0,75	26
1	19,5
1,5	13,3

Technical Data



Temperature (°C)

Flexing:
-5 up to 70
Fixed installation:
-15 up to 70



Minimum bending radius

Flexing:
15 x cable diameter
Fixed installation:
6 x cable diameter



Peak operating voltage
(not for power applications)
0,14 mm²: 350 V
≥ 0,25 mm²: 500 V



Test voltage (c/c)
2000 V

LiHCH C_{ca}-s_{1b},d₁,a₁

Screened halogen free data cable for low frequency applications.

High performance on fire reaction (C_{ca}-s_{1b},d₁,a₁).

Article number	Cond. x section (Nxmm ²)	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
2311000100	2x0,5	5,1	14	33
2311000101	4x0,5	5,8	24	49
2311000102	5x0,5	6,2	29	56
2311000103	7x0,5	6,9	39	75
2311000104	12x0,5	8,9	64	121
2311000105	2x0,75	5,7	19	42
2311000106	3x0,75	6,0	26	52
2311000107	4x0,75	6,5	34	64
2311000108	5x0,75	7,0	41	77
2311000109	7x0,75	7,5	56	96
2311000110	12x0,75	9,8	93	156
2311000111	2x1	6,3	23	52
2311000112	3x1	6,6	34	66
2311000113	4x1	7,1	44	80
2311000114	5x1	7,7	54	97
2311000167	7x1	8,3	72	121
2311000115	2x1,5	7,1	35	67
2311000172	3x1,5	7,7	49	88
2311000173	4x1,5	8,3	63	109
2311000174	5x1,5	9,0	78	133
2311000175	7x1,5	9,7	106	166

POLISCREEN®

LiHCH (TP) C_{ca}-s_{1b},d₁,a₁

Screened halogen free data cable for low frequency applications. Twisted pairs cables. High performance on fire reaction (C_{ca}-s_{1b},d₁,a₁).



POLISCREEN®

Application

POLISCREEN LiHCH (TP) C_{ca}-s_{1b},d₁,a₁ is designed for fixed installation and for conditional flexible use. It is used for dry and damp rooms, but not appropriate for outsider application.

The screen provides protection against electromagnetic interferences and the twisted pairs with short lay lengths provides good decoupling of circuits. Cables suitable for computer systems, instrumentation technology (HVAC, access control systems, etc) and office equipment. High fire reaction classification to security installations.

Standards

- Based on VDE 0812
- Colour code: DIN 47100 for twisted pairs
- Flame-retardant: IEC/EN 60332-1-2
- Fire-retardant: IEC/EN 60332-3-24
- Halogen-free: IEC/EN 60754-1
- Corrosivity of gases: IEC/EN 60754-2
- Smoke Opacity: IEC/EN 61034
- CPR: EN 13501-6 & EN 50575

CPR

- Range: Define on DoP
- Class: C_{ca}-s_{1b},d₁,a₁



Design

- Conductor: fine wire strands of class 5 copper, acc. IEC/EN 60228
- Insulation: special polyolefin
- Stranding: twisted pairs structure
- Wrapping: polyester tape
- Screen: tinned copper wires braid
- Outer sheath: special halogen-free
- Outer sheath colour: grey (similar RAL 7032)
- Outer sheath mark:
"POLISCREEN LiHCH (TP) N x S C_{ca}-s_{1b},d₁,a₁ traceability batch order XXXXm"

Electrical properties at 20°C

Conductor section (mm ²)	Max. conductor resistance (Ω/km)
0,5	39
0,75	26
1	19,5
1,5	13,3

Technical Data



Temperature (°C)

Flexing:
-5 up to 70
Fixed installation:
-15 up to 70



Minimum bending radius

Flexing:
15 x cable diameter
Fixed installation:
6 x cable diameter



Peak operating voltage

(not for power applications)
0,14 mm²: 350 V
≥ 0,25 mm²: 500 V



Voltage test (cond./cond.)

1500 V

LiHCH (TP) C_{ca}-s_{1b},d₁,a₁

Screened halogen free data cable for low frequency applications. Twisted pairs cables.
High performance on fire reaction (C_{ca}-s_{1b},d₁,a₁).

Article number	Cond. x section (Nxmm ²)	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
2311000176	2x2x0,5	7,0	26,00	91
2311000177	2x2x0,75	7,8	35,94	126
2311000116	2x2x1	8,7	45,95	161
2311000178	3x2x0,75	8,3	50,16	176
2311000117	3x2x1	9,2	64,66	226
2311000118	4x2x1	10,2	83,89	294
2311000183	6x2x0,5	9,9	57,60	127

POLISCREEN®

ALARMFLEX E_{ca}

Screened alarm cable for indoor applications



POLISCREEN®

Application

POLISCREEN ALARMFLEX E_{ca} is designed for fixed and indoor installation. The screen provides protection against electromagnetic interferences. Cables suitable alarm security and anti-intrusion systems.

Standards

- Flame-retardant: IEC/EN 60332-1-2
- Fire-retardant: IEC 60332-3-10/24
- CPR: EN 13501-6 & EN 50575

CPR

- Range: All cables
- Class: E_{ca}



Design

- Conductor: fine wire strands of class 5 copper, acc. IEC/EN 60228
- Insulation: PVC compound
- Stranding: cores are stranded in layers
- Wrapping: polyester tape
- Screen: aluminium/polyester tape and copper class 5 drain wire
- Outer sheath: PVC compound
- Outer sheath colour: white
- Outer sheath mark: "POLISCREEN ALARMFLEX CEI UNEL 36762 C-4 (U₀=400 V) NxS E_{ca} traceability batch order XXXXm"

Electrical properties at 20°C

Conductor section (mm ²)	Max. conductor resistance (Ω/km)
0,22	115
0,5	39
0,75	26

Colour code

For 0,22mm²:

White, Red, Yellow, Green, Grey, Orange, Light Blue, Brown, Violet, Black, Blue and Pink.

For 0,5mm² and 0,75mm²:

Black and Red.



Technical Data



Operating temperature (°C)
-20 up to 80



Minimum bending radius
Fixed installation:
6 x cable diameter



Peak operating voltage
(not for power purposes)
150 V



Voltage test
2000 V ac (1 min)

Co-existence with energy cables:

With cables marked 450/750 V and 0,6/1 kV used in systems with operating voltage U₀=400 V (nominal).

ALARMFLEX E_{ca}

Screened alarm cable for indoor applications

Article number	Cond. x section (Nxmm ²)	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
2311000044	2x0,5+2x0,22	4,2	13,8	30
2311000045	2x0,5+4x0,22	4,9	18,0	38
2311000046	2x0,5+6x0,22	5,4	13,8	44
2311000048	2x0,5+8x0,22	5,6	26,4	51
2311000047	2x0,5+10x0,22	6,1	30,7	58

POLISCREEN®

Type 8471 E_{ca}

Unscreened twisted pair cable for audio applications



POLISCREEN®

Application

POLISCREEN 8471 E_{ca} is designed for fixed indoor installation.

Cable is suitable for audio, data, sound, security and instrumentation applications.

Standards

- Flame-retardant: IEC/EN 60332-1-2
- CPR: EN 13501-6 & EN 50575

CPR

- Range: All cables
- Class: E_{ca}



Design

- Conductor: tinned copper, stranded, acc. IEC/EN 60228
- Core insulation: PVC T12 compound
- Core identification: White/Black
- Outer sheath: PVC TM2 compound
- Outer sheath colour: grey (similar RAL 7001)
- Outer sheath mark:
"POLISCREEN 8471 1x2xAWG16 PVC/PVC 300/500 V E_{ca} traceability batch order XXXXm"



Article number	Cond. x AWG	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
2311000054	1x2xAWG16	7,0	25,2	45,0

Technical Data



Temperature (°C)

Fixed installation:
-15 up to 70



Minimum bending radius

Fixed installation:
10 x cable diameter



Peak operating voltage

(not for power applications)
500 V



Voltage test (c/c)

1200 V

Type 8723 E_{ca} Individual screened twisted pair cable



Application

POLISCREEN 8723 E_{ca} is designed for fixed indoor installation.

Cable is suitable for audio, data, sound, security and instrumentation applications. The screen provides protection against electromagnetic interferences and the twisted pairs provides good decoupling of circuits.

Standards

- Flame-retardant: IEC/EN 60332-1-2
- CPR: EN 13501-6 & EN 50575

CPR

- Range: All cables
- Class: E_{ca}



Design

- Conductor: tinned copper, stranded, acc. IEC/EN 60228
- Core insulation: Polypropylene
- Core identification: Red/Black, White/Green
- Stranding: Twisted pairs structure
- Wrapping: Polyester tape
- Individual screen: Aluminium / PET tape
- Drain wire: Tinned copper, 0,35 mm²
- Outer sheath: PVC TM2 compound
- Outer sheath colour: grey (similar RAL 7001)
- Outer sheath mark:
"POLISCREEN 8723 2x2xAWG22 PP/IAM/PVC 300/500 V E_{ca} traceability batch order XXXXm"



POLISCREEN®

Electrical properties at 20°C

Conductor resistance (22 AWG) (Ω/km)	Screen resistance (Ω/km)	Nom. capacitance Cond/Cond (pF/m)	Nom. capacitance Cond/Screen (pF/m)	Impedance (Ω)
49,0	50,0	109	204	50

Article number	Cond. x AWG	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
2311000058	2x2xAWG22	5,0	12,6	32,0

Technical Data



Temperature (°C)

Fixed installation:
-15 up to 70



Minimum bending radius

Fixed installation:
10 x cable diameter



Peak operating voltage

(not for power applications)
500 V



Voltage test (c/c)

1200 V

POLISCREEN®

Type 8760 E_{ca}

Collective screened twisted pair cable



POLISCREEN®

Application

POLISCREEN 8760 E_{ca} is designed for fixed indoor installation.

Cable is suitable for audio, data, sound, security and instrumentation applications. The screen provides protection against electromagnetic interferences.

Standards

- Flame-retardant: IEC/EN 60332-1-2
- CPR: EN 13501-6 & EN 50575

CPR

- Range: All cables
- Class: E_{ca}



Design

- Conductor: tinned copper, stranded, acc. IEC/EN 60228
- Core insulation: Polyethylene
- Core identification: Natural / Black
- Stranding: Twisted pairs structure
- Wrapping: Polyester tape
- Screen: Aluminium / PET tape
- Drain wire: Tinned copper, 0,50 mm²
- Outer sheath: PVC TM2 compound
- Outer sheath colour: grey (similar RAL 7001)
- Outer sheath mark: "POLISCREEN 8760 1x2xAWG18 PE/CAM/PVC 300/500 V E_{ca} traceability batch order XXXXm"



Electrical properties at 20°C

Conductor resistance (18 AWG) (Ω/km)	Screen resistance (Ω/km)	Nom. Capacitance Cond/Cond (pF/m)
25,5	36,0	90

Article number	Cond. x AWG	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
2311000055	1x2xAWG18	5,7	15,7	45,0

Technical Data



Temperature (°C)

Fixed installation:
-15 up to 70



Minimum bending radius

Fixed installation:
10 x cable diameter



Peak operating voltage

(not for power applications)
500 V



Voltage test (c/c)

1200 V

Type 8761 E_{ca}

Collective screened twisted pair cable



Application

POLISCREEN 8761 E_{ca} is designed for fixed indoor installation.

Cable is suitable for audio, data, sound, security and instrumentation applications. The screen provides protection against electromagnetic interferences.

Standards

- Flame-retardant: IEC/EN 60332-1-2
- CPR: EN 13501-6 & EN 50575

CPR

- Range: All cables
- Class: E_{ca}



Design

- Conductor: tinned copper, stranded, acc. IEC/EN 60228
- Core insulation: Polyethylene
- Core identification: Natural / Black
- Stranding: Twisted pairs structure
- Wrapping: Polyester tape
- Screen: Aluminium / PET tape
- Drain wire: Tinned copper, 0,35 mm²
- Outer sheath: PVC TM2 compound
- Outer sheath colour: grey (similar RAL 7001)
- Outer sheath mark:
"POLISCREEN 8761 1x2xAWG22 PE/CAM/PVC 300/500 V E_{ca} traceability batch order XXXXm"



POLISCREEN®

Electrical properties at 20°C

Conductor resistance (22 AWG) (Ω/km)	Nom. Capacitance Cond/Cond (pF/m)
57,0	81

Article number	Cond. x AWG	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
2311000050	1x2xAWG22	4,6	6,4	27,0

Technical Data



Temperature (°C)

Fixed installation:
-15 up to 70



Minimum bending radius

Fixed installation:
10 x cable diameter



Peak operating voltage

(not for power applications)
500 V



Voltage test (c/c)

1200 V

POLISCREEN®

Type 8762 E_{ca}

Collective screened twisted pair cable



POLISCREEN®

Application

POLISCREEN 8762 E_{ca} is designed for fixed indoor installation.

Cable is suitable for audio, data, sound, security and instrumentation applications. The screen provides protection against electromagnetic interferences.

Standards

- Flame-retardant: IEC/EN 60332-1-2
- CPR: EN 13501-6 & EN 50575

CPR

- Range: All cables
- Class: E_{ca}



Design

- Conductor: tinned copper, stranded, acc. IEC/EN 60228
- Core insulation: Polyethylene
- Core identification: Natural / Black
- Stranding: Twisted pairs structure
- Wrapping: Polyester tape
- Screen: Aluminium / PET tape
- Drain wire: Tinned copper, 0,5 mm²
- Outer sheath: PVC TM2 compound
- Outer sheath colour: grey (similar RAL 7001)
- Outer sheath mark:
"POLISCREEN 8762 1x2xAWG20 PE/CAM/PVC 300/500 V E_{ca} traceability batch order XXXXm"



Electrical properties at 20°C

Conductor resistance (20 AWG) (Ω/km)	Nom. capacitance Cond/Cond (pF/m)
38,5	75

Article number	Cond. x AWG	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
2311000049	1x2xAWG20	5,2	9,9	35,0

Technical Data



Temperature (°C)

Fixed installation:
-15 up to 70



Minimum bending radius

Fixed installation:
10 x cable diameter



Peak operating voltage

(not for power applications)
500 V



Voltage test (c/c)

1200 V

Type 8777 E_{ca}

Collective screened twisted pair cable



Application

POLISCREEN 8777 E_{ca} is designed for fixed indoor installation.

Cable is suitable for audio, data, sound, security, instrumentation and RS232 applications. The screen provides protection against electromagnetic interferences.

Standards

- Flame-retardant: IEC/EN 60332-1-2
- CPR: EN 13501-6 & EN 50575

CPR

- Range: All cables
- Class: E_{ca}



Design

- Conductor: tinned copper, stranded, acc. IEC/EN 60228
- Core insulation: Polypropylene
- Core identification: Red/Black; White/Black; Green/Black
- Stranding: Twisted pairs structure
- Wrapping: Polyester tape
- Screen: Aluminium / PET tape
- Drain wire: Tinned copper, 0,35 mm²
- Outer sheath: PVC TM2 compound
- Outer sheath colour: grey (similar RAL 7001)
- Outer sheath mark:

"POLISCREEN 8777 3x2xAWG22 50 ohm PP/IAM/PVC 300/500 V E_{ca} traceability batch order XXXXm"



POLISCREEN®

Electrical properties at 20°C

Conductor resistance (22 AWG) (Ω/km)	Screen resistance (Ω/km)	Nom. capacitance Cond/Cond (pF/m)	Nom. capacitance Cond/Screen (pF/m)	Impedance (Ω)
52,5	35,0	108	191	50

Article number	Cond. x AWG	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
2311003771	3x2xAWG22	6,9	19,0	59,0

Technical Data



Temperature (°C)

Fixed installation:
-15 up to 70



Minimum bending radius

Fixed installation:
10 x cable diameter



Peak operating voltage

(not for power applications)
500 V



Voltage test (c/c)

1200 V

POLISCREEN®

Type 9841 E_{ca}

Low capacitance cable to RS 485 application



POLISCREEN®

Application

POLISCREEN 9841 E_{ca} is designed for fixed indoor installation.

Cable is suitable for computer, data, security, instrumentation and RS-485 applications. The screen provides protection against electromagnetic interferences.

Standards

- Flame-retardant: IEC/EN 60332-1-2
- CPR: EN 13501-6 & EN 50575

CPR

- Range: All cables
- Class: E_{ca}



Design

- Conductor: tinned copper, stranded, acc. IEC/EN 60228
- Core insulation: Polypropylene
- Core identification: White / Blue
- Stranding: Twisted pairs structure
- Wrapping: Polyester tape
- Screen: Aluminium / PET tape
- Braid: Tinned copper, 80% coverage
- Outer sheath: PVC TM2 compound
- Outer sheath colour: grey (similar RAL 7001)
- Outer sheath mark:
"POLISCREEN 9841 RS-485 1x2xAWG24 120 ohm PE/CAM/TCWB/PVC 300/500 V E_{ca} traceability batch order XXXXm"



Electrical properties at 20°C

Conductor resistance (24 AWG) (Ω/km)	Screen resistance (Ω/km)	Nom. capacitance Cond/Cond (pF/m)	Nom. capacitance Cond/Screen (pF/m)	Impedance (Ω)
91,0	18,0	42	76	120

Article number	Cond. x AWG	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
2311000056	1x2xAWG24	6,1	9,6	38,0

Technical Data



Temperature (°C)

Fixed installation:
-15 up to 70



Minimum bending radius

Fixed installation:
10 x cable diameter



Peak operating voltage

(not for power applications)
500 V



Voltage test (c/c)

1200 V

Type 9842 E_{ca}

Low capacitance cable to RS 485 application



Application

POLISCREEN 9842 E_{ca} is designed for fixed indoor installation.

Cable is suitable for computer, data, security, instrumentation and RS-485 applications. High level screen provides protection against electromagnetic interferences.

Standards

- Flame-retardant: IEC/EN 60332-1-2
- CPR: EN 13501-6 & EN 50575

CPR

- Range: All cables
- Class: E_{ca}



Design

- Conductor: tinned copper, stranded, acc. IEC/EN 60228
- Core insulation: Polypropylene
- Core identification: White / Blue; White / Orange
- Stranding: Twisted pairs structure
- Wrapping: Polyester tape
- Screen: Aluminium / PET tape
- Braid: Tinned copper, 80% coverage
- Outer sheath: PVC TM2 compound
- Outer sheath colour: grey (similar RAL 7001)
- Outer sheath mark:
"POLISCREEN 9842 RS-485 2x2xAWG24 120 ohm PE/CAM/TCWB/PVC 300/500 V E_{ca} traceability batch order XXXXm"



POLISCREEN®

Electrical properties at 20°C

Conductor resistance (24 AWG) (Ω/km)	Screen resistance (Ω/km)	Nom. capacitance Cond/Cond (pF/m)	Nom. capacitance Cond/Screen (pF/m)	Impedance (Ω)
91,0	10,0	42	76	120

Article number	Cond. x AWG	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
2311000057	2x2xAWG24	8,5	19,2	55,0

Technical Data



Temperature (°C)

Fixed installation:
-15 up to 70



Minimum bending radius

Fixed installation:
10 x cable diameter



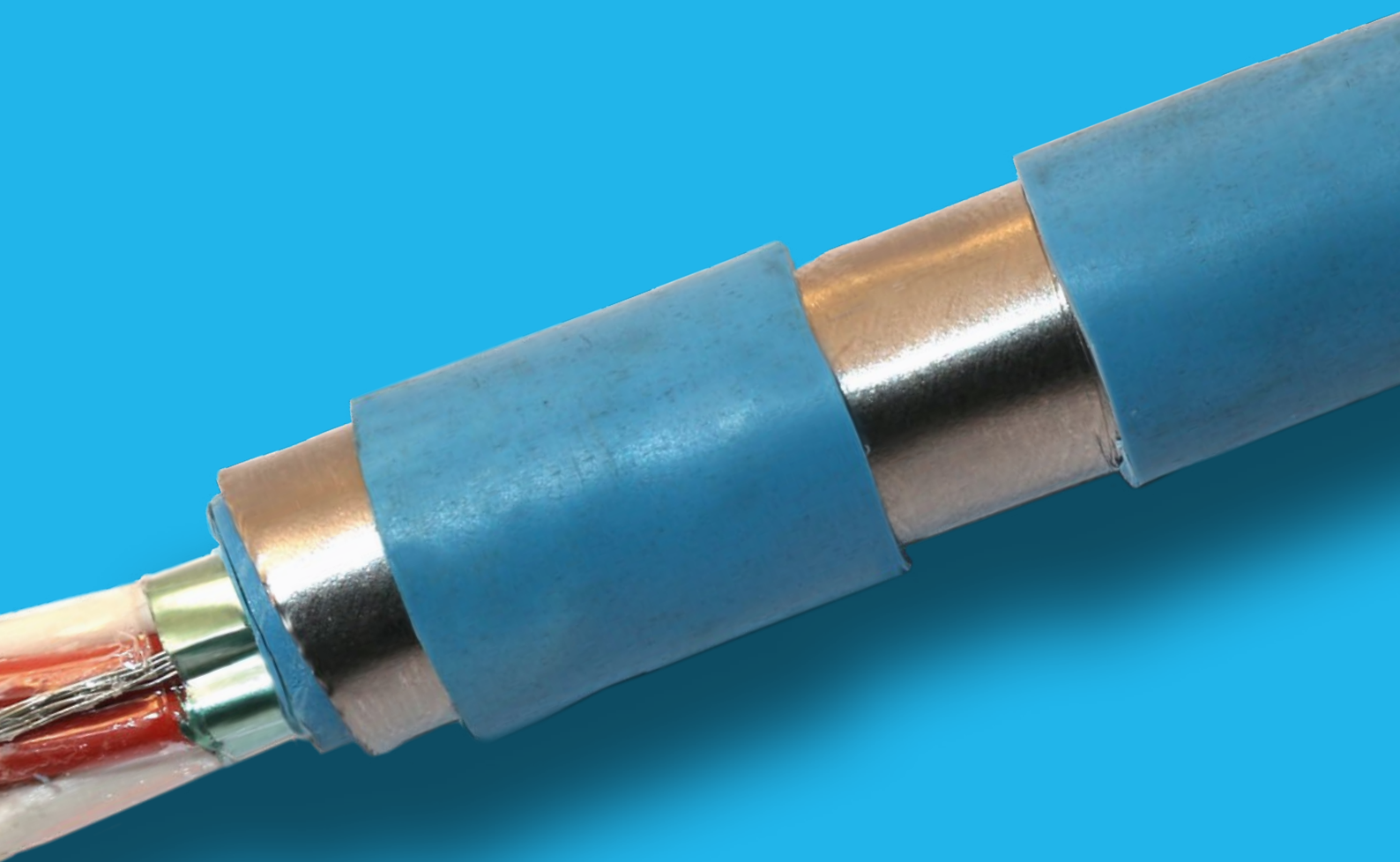
Peak operating voltage

(not for power applications)
500 V



Voltage test (c/c)

1200 V



POLINST

POLINST® INSTRUMENTATION CABLES

EGFA	34
EGSF	36
EIFA	38
EISF	40

POLINST®

NF M 87-202 EGFA E_{ca}

Instrumentation cable



Application

POLINST EGFA is designed for transmission of analogue or digital signals in measurement and control processes. For direct burial applications. Suitable to use in industrial ambients where chemical and mechanical protections are needed. Flame and fire retardant. Hydrocarbons resistant. UV resistant.

Standards

- Design: NF M 87-202
- Flame-retardant: IEC/EN 60332-1-2 & NF C 32-070 C2
- Fire-retardant: IEC/EN 60332-3-24
- CPR: EN 13501-6 & EN 50575
- Limiting Oxygen Index: LOI ≥ 30%
- Amount of Halogen Acid Gas: HCL < 20%
- Oil Resistance: NF M 87-202 Annex A or IEC 60811-404 (IRM 902, 70°C, 4h)
- Sunlight Resistance: UL 1581 Section 1200

Colour Code

- Pairs: White/Red, numbered pairs
- Triads: White/Red/Blue, numbered triads
- Quads: White/Red/Blue/Yellow, numbered quads

CPR

- Range: Define on DoP
- Class: E_{ca}



Design





- Conductor:
 - 0,5mm²: Bare copper class 1, acc. IEC/EN 60228
 - 0,88mm² and 1,5mm²: Stranded copper class 2, acc. IEC/EN 60228
- Insulation: PVC compound
- Stranding: Stranded in pairs, triads or quads
- Wrapping: Polyester tape
- Screen: Collective Aluminium / Polyester tape
- Drain wire: Tinned copper
- Inner sheath: PVC Compound
- Armour: Galvanized steel tape
- Outer sheath: PVC compound
- Outer sheath colour: Light blue
- Outer sheath mark: "POLINST <construction> EGFA E_{ca} 300/300 V NF M 87-202 <traceability> <batch order> XXXXm"

Electrical properties at 20°C

Conductor section (mm ²)	Max. conductor resistance (Ω/km)	Min. insulation resistance (MΩ/km)	Max. mutual capacitance 1kHz (nF/km)	Max. L/R ratio (μH/Ω)
0,5	37,5	500	145	20
0,88	21,4	500	160	35
1,5	12,3	500	200	60



Technical Data

- 
Temperature (°C)
 Flexing: -5 up to 70
 Fixed installation: -30 up to 50
- 
Minimum bending radius
 15 x cable diameter
- 
Voltage
 300/300 V
- 
Voltage test
 1500 V (cond./cond.)

NF M 87-202 EGFA E_{ca}

Instrumentation cable

Article number	Construction	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
2311003983	07 IP 05	13,56	67,20	341
2311003562	01 IP 09	9,50	18,07	200
2311002447	03 IP 09	13,5	50,77	280
2311002448	07 IP 09	17,0	115,85	450
2311002478	12 IP 09	21,0	197,21	672
2311003997	19 IP 09	25,5	313,06	955
2311003563	01 IQ 09	10,40	34,18	227
2311002445	01 IT 09	10,0	390	205
2311003048	01 IP 15	10,50	28,80	228

POLINST®

NF M 87-202 EGSF E_{ca}

Instrumentation cable



Application

POLINST EGSF is designed for transmission of analogue or digital signals in measurement and control processes. Suitable to use in industrial ambients where chemical protection is required. Flame and fire retardant. Hydrocarbons resistant. UV resistant.

Standards

- Design: NF M 87-202
- Flame-retardant: IEC/EN 60332-1-2 & NF C 32-070 C2
- Fire-retardant: IEC/EN 60332-3-24
- CPR: EN 13501-6 & EN 50575
- Limiting Oxygen Index: LOI ≥ 30%
- Amount of Halogen Acid Gas: HCL < 20%
- Oil Resistance: NF M 87-202 Annex A or IEC 60811-404 (IRM 902, 70°C, 4h)
- Sunlight Resistance: UL 1581 Section 1200

Colour Code

- Pairs: White/Red, numbered pairs
- Triads: White/Red/Blue, numbered triads
- Quads: White/Red/Blue/Yellow, numbered quads

CPR

- Range: Define on DoP
- Class: E_{ca}



Design

- Conductor:
 - 0,5mm²: Bare copper class 1, acc. IEC/EN 60228
 - 0,88mm²: Stranded copper class 2, acc. IEC/EN 60228
- Insulation: PVC compound
- Stranding: Stranded in pairs, triads or quads
- Wrapping: Polyester tape
- Screen: Collective Aluminium / Polyester tape
- Drain wire: Tinned copper
- Outer sheath: PVC compound
- Outer sheath colour: Light blue
- Outer sheath mark: "POLINST <construction> EGSF E_{ca} 300/300 V NF M 87-202 <traceability> <batch order> XXXXm"

Electrical properties at 20°C

Conductor section (mm ²)	Max. conductor resistance (Ω/km)	Min. insulation resistance (MΩ/km)	Max. mutual capacitance 1kHz (nF/km)	Max. L/R ratio (μH/Ω)
0,5	37,5	500	145	20
0,88	21,4	500	160	35

Technical Data



Temperature (°C)

Flexing:
-5 up to 70
Fixed installation:
-30 up to 50



Minimum bending radius

10 x cable diameter



Voltage

300/300 V



Voltage test

1500 V (cond./cond.)

NF M 87-202 EGSF E_{ca}

Instrumentation cable

Article number	Construction	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
2311002441	07 IP 05	10,56	67,2	150
2311002443	12 IP 05	13,40	118,2	239
2311002449	01 IP 09	6,70	18,0	72
2311002477	03 IP 09	10,5	50,7	130
2311002482	07 IP 09	14,00	115,8	250
2311002483	12 IP 09	18,00	197,2	420
2311003564	01 IQ 09	7,60	34,1	100
2311002487	01 IT 09	7,03	26,1	83

POLINST®

NF M 87-202 EIFA E_{ca}

Instrumentation cable



Application

POLINST EIFA is designed for transmission of analogue or digital signals in measurement and control processes. For direct burial applications. Suitable to use in industrial ambients where chemical and mechanical protections are needed. Flame and fire retardant. Hydrocarbons resistant. UV resistant.

Standards

- Design: NF M 87-202
- Flame-retardant: IEC/EN 60332-1-2 & NF C 32-070 C2
- Fire-retardant: IEC/EN 60332-3-24
- CPR: EN 13501-6 & EN 50575
- Limiting Oxygen Index: LOI ≥ 30%
- Amount of Halogen Acid Gas: HCL < 20%
- Oil Resistance: NF M 87-202 Annex A or IEC 60811-404 (IRM 902, 70°C, 4h)
- Sunlight Resistance: UL 1581 Section 1200

Colour Code

- Pairs: White/Red, numbered pairs
- Triads: White/Red/Blue, numbered triads
- Quads: White/Red/Blue/Yellow, numbered quads

CPR

- Range: Define on DoP
- Class: E_{ca}



Design

- Conductor:
 - 0,5mm²: Bare copper class 1, acc. IEC/EN 60228
 - 0,88mm² and 1,5mm²: Stranded copper class 2, acc. IEC/EN 60228
- Insulation: PVC compound
- Stranding: Stranded in pairs, triads or quads
- Wrapping: Polyester tape
- Individual screen: Aluminium / Polyester tape + Drain wire
- Pair sheath: PVC compound
- Core wrapping: Polyester tape
- Collective screen: Aluminium / Polyester tape + Drain wire
- Inner sheath: PVC compound
- Armour: Double steel tape
- Outer sheath: PVC compound
- Outer sheath colour: Light blue
- Outer sheath mark: "POLINST <construction> EIFA E_{ca} 300/300 V NF M 87-202 <traceability> <batch order> XXXXm"

Electrical properties at 20°C

Conductor section (mm ²)	Max. conductor resistance (Ω/km)	Min. insulation resistance (MΩ/km)	Max. mutual capacitance 1kHz (nF/km)	Max. L/R ratio (μH/Ω)
0,5	37,5	500	145	20
0,88	21,4	500	160	35

Technical Data



Temperature (°C)

Flexing:
-5 up to 70
Fixed installation:
-30 up to 50



Minimum bending radius

15 x cable diameter



Voltage

300/300 V



Voltage test

1500 V (cond./cond.)

NF M 87-202 EIFA E_{ca}

Instrumentation cable

Article number	Construction	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
2311003985	07 IP 05	18,7	67,2	583
2311003984	12 IP 05	24,1	118,7	875
2311003996	03 IP 09	17,4	50,7	471

POLINST®

NF M 87-202 EISF E_{ca}

Instrumentation cable



Application

POLINST EISF is designed for transmission of analogue or digital signals in measurement and control processes. Suitable to use in industrial ambients where chemical protection is required. Flame and fire retardant. Hydrocarbons resistant. UV resistant.

Standards

- Design: NF M 87-202
- Flame-retardant: IEC/EN 60332-1-2 & NF C 32-070 C2
- Fire-retardant: IEC/EN 60332-3-24
- CPR: EN 13501-6 & EN 50575
- Limiting Oxygen Index: LOI ≥ 30%
- Amount of Halogen Acid Gas: HCL < 20%
- Oil Resistance: NF M 87-202 Annex A or IEC 60811-404 (IRM 902, 70°C, 4h)
- Sunlight Resistance: UL 1581 Section 1200

Colour Code

- Pairs: White/Red, numbered pairs
- Triads: White/Red/Blue, numbered triads
- Quads: White/Red/Blue/Yellow, numbered quads

CPR

- Range: Define on DoP
- Class: E_{ca}



Design





- Conductor:
 - 0,5mm²: Bare copper class 1, acc. IEC/EN 60228
 - 0,88mm²: Stranded copper class 2, acc. IEC/EN 60228
- Insulation: PVC compound
- Stranding: Stranded in pairs, triads or quads
- Wrapping: Polyester tape
- Individual screen: Aluminium / Polyester tape + Drain wire
- Pair sheath: PVC compound
- Core wrapping: Polyester tape
- Collective screen: Aluminium / Polyester tape + Drain wire
- Outer sheath: PVC compound
- Outer sheath colour: Light blue
- Outer sheath mark: "POLINST <construction> EISF E_{ca} 300/300 V NF M 87-202 <traceability> <batch order> XXXXm"

Electrical properties at 20°C

Conductor section (mm ²)	Max. conductor resistance (Ω/km)	Min. insulation resistance (MΩ/km)	Max. mutual capacitance 1kHz (nF/km)	Max. L/R ratio (μH/Ω)
0,5	37,5	500	145	20
0,88	21,4	500	160	35



Technical Data

- 
Temperature (°C)
 Flexing: -5 up to 70
 Fixed installation: -30 up to 50
- 
Minimum bending radius
 10 x cable diameter
- 
Voltage
 300/300 V
- 
Voltage test
 1500 V (cond./cond.)

NF M 87-202 EISF E_{ca}

Instrumentation cable

Article number	Construction	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
2311002479	07 IP 09	18,1	118,2	422
2311002480	07 IT 09	20,0	177,4	529
2311002481	12 IP 09	18,4	202,8	703



POLIFLAM

POLIFLAM® SECURITY CABLES

LiH(St)H E30	44
LiH(St)H E90	45
JE-H(St)H E30	46
JE-H(St)H E90	47

POLIFLAM®

LiH(St)H FE180/E30

Fire resistant cable



Application

LiH(St)H is designed to circuit integrity systems, as fire alarm and industrial electronics.

The screen provides protection against electromagnetic interferences.

High fire behaviour classification to security installations.

Suitable to indoor applications.

Standards

- Design: based on VDE 0812
- Flame-retardant: IEC/EN 60332-1-2 & NF C 32-070 C2
- Fire-retardant: IEC/EN 60332-3-24
- Smoke density: IEC/EN 61034-2
- Corrosive gas: IEC/EN 60754-2
- Halogen-free: IEC/EN 60754-1
- Fire resistance: IEC 60331-23 (FE180), EN 50200 (PH120)
- System circuit integrity: DIN 4102-12 (E30)

Design

- Conductor: Fine wire strands of class 5 copper, acc. IEC/EN 60228
- Insulation: Cross-linked halogen-free polymer compound
- Colour code: DIN 47100
- Stranding: Cores are stranded in layers
- Wrapping: Polyester tape
- Flame barrier: Glass fibre Tape
- Collective screen: Aluminium / Polyester tape
- Drain wire: Tinned copper
- Outer sheath: HFFR Compound
- Outer sheath colour: Orange (similar to RAL 2003)
- Outer sheath mark: "POLIFLAM LiH(St)H <construction> FE180/PH120/E30 IEC 60331-23/EN 50200 CE RoHS <traceability> <batch order> XXXXm"



POLIFLAM®

Electrical properties at 20°C

Conductor (mm)	Max. conductor resistance (Ω/km)	Min. insulation resistance (MΩ/km)	Mutual capacitance 800Hz (nF/km)
1	19,5	20	120
1,5	13,3	20	120
2,5	7,98	20	120

Article number	Construction	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
2311004287	2x1	6,2	21	55
2311004288	2x1,5	7,0	29	69
2311004289	2x2,5	8,0	48	96
2311004290	4x1,5	7,8	53	99
2311004291	12x1,5	12,40	150	271

Technical Data

- Temperature (°C)**
Fixed installation:
-40 up to 70
- Minimum bending radius**
7,5 x cable diameter
- Operating voltage**
300/500 V
- Voltage test**
2000 V

LiH(St)H FE 180/E90

Fire resistant cable



Application

LiH(St)H is designed to circuit integrity systems, as fire alarm and industrial electronics.

The screen provides protection against electromagnetic interferences.

High fire behaviour classification to security installations.

Suitable to indoor applications.

Standards

- Design: based on VDE 0812
- Flame-retardant: IEC/EN 60332-1-2 & NF C 32-070 C2
- Fire-retardant: IEC/EN 60332-3-24
- Smoke density: IEC/EN 61034-2
- Corrosive gas: IEC/EN 60754-2
- Halogen-free: IEC/EN 60754-1
- Fire resistance: IEC 60331-23 (FE180), EN 50200 (PH120)
- System circuit integrity: DIN 4102-12 (E90)

Design

- Conductor: Fine wire strands of class 5 copper, acc. IEC/EN 60228
- Insulation: Cross-linked halogen-free polymer compound
- Colour code: DIN 47100
- Stranding: Cores are stranded in layers
- Wrapping: Polyester tape
- Flame barrier: Glass fibre Tape
- Collective screen: Aluminium / Polyester tape
- Drain wire: Tinned copper
- Outer sheath: HFFR Compound
- Outer sheath colour: Orange (similar to RAL 2003)
- Outer sheath mark: "POLIFLAM LiH(St)H <construction> FE180/PH120/E90 IEC 60331-23/EN 50200 CE RoHS <traceability> <batch order> XXXXm"



POLIFLAM®

Electrical properties at 20°C

Conductor (mm)	Max. conductor resistance (Ω/km)	Min. insulation resistance (MΩ/km)	Mutual capacitance 800Hz (nF/km)
1	19,5	20	120
1,5	13,3	20	120
2,5	7,98	20	120

Article number	Construction	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
2311002753	2x1	6,2	21	52
2311002754	2x1,5	7,0	29	65
2311002982	2x2,5	7,8	48	92
2311002755	4x1,5	8,0	53	99
2311002756	12x1,5	12,40	150	271

Technical Data

- Temperature (°C)**
 Fixed installation:
 -40 up to 70
- Minimum bending radius**
 7,5 x cable diameter
- Operating voltage**
 300/500 V
- Voltage test**
 2000 V

POLIFLAM®

JE-H(St)H Bd FE180/E30

Fire resistant cable



Application

JE-H(St)H is designed to circuit integrity systems, as fire alarm and industrial electronics.

The screen provides protection against electromagnetic interferences.

High fire behaviour classification to security installations.

Suitable to indoor applications.

Standards

- Design: VDE 0815
- Flame-retardant: IEC/EN 60332-1-2 & NF C 32-070 C2
- Fire-retardant: IEC/EN 60332-3-24
- Smoke density: IEC/EN 61034-2
- Corrosive gas: IEC/EN 60754-2
- Halogen-free: IEC/EN 60754-1
- Fire resistance: IEC 60331-23 (FE180), EN 50200 (PH120)
- System circuit integrity: DIN 4102-12 (E30)

Design

- Conductor: Bare copper class 1, acc. IEC/EN 60228
- Insulation: Cross-linked halogen-free polymer compound
- Colour code: VDE 0815
- Stranding: Stranded in pairs, 2 pairs star quad
- Wrapping: Polyester tape
- Flame barrier: Glass fibre Tape
- Collective screen: Aluminium / Polyester tape
- Drain wire: tinned copper 0,80mm diameter
- Outer sheath: HFFR Compound
- Outer sheath colour: Orange (similar to RAL 3000)
- Outer sheath mark: "POLIFLAM JE-H(St)H <construction> FE180/PH120/E30 IEC 60331-23/EN 50200 CE RoHS <traceability> <batch order> XXXXm"







Electrical properties at 20°C

Conductor (mm)	Max. conductor resistance (Ω/km)	Min. insulation resistance (MΩ/km)	Mutual capacitance 800Hz (nF/km)
0,8	36,6	100	100

Article number	Construction	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
2311004284	1x2x0,8	5,5	15	40
2311004285	2x2x0,8	6,0	25	59
2311004286	4x2x0,8	8,7	45	96

Technical Data

	Temperature (°C) Fixed installation: -40 up to 70
	Minimum bending radius 10 x cable diameter
	Peak operating voltage (not for power applications) 300 V
	Voltage test 800 V

JE-H(St)H Bd FE180/E90

Fire resistant cable



Application

JE-H(St)H is designed to circuit integrity systems, as fire alarm and industrial electronics.

The screen provides protection against electromagnetic interferences.

High fire behaviour classification to security installations.

Suitable to indoor applications.

Standards

- Design: VDE 0815
- Flame-retardant: IEC/EN 60332-1-2 & NF C 32-070 C2
- Fire-retardant: IEC/EN 60332-3-24
- Smoke density: IEC/EN 61034-2
- Corrosive gas: IEC/EN 60754-2
- Halogen-free: IEC/EN 60754-1
- Fire resistance: IEC 60331-23 (FE180), EN 50200 (PH120)
- System circuit integrity: DIN 4102-12 (E90)

Design

- Conductor: Bare copper class 1, acc. IEC/EN 60228
- Insulation: Cross-linked halogen-free polymer compound
- Colour code: VDE 0815
- Stranding: Stranded in pairs, 2 pairs star quad
- Wrapping: Polyester tape
- Flame barrier: Glass fibre Tape
- Collective screen: Aluminium / Polyester tape
- Drain wire: tinned copper 0,80mm diameter
- Outer sheath: HFFR Compound
- Outer sheath colour: Orange (similar to RAL 2003)
- Outer sheath mark: "POLIFLAM JE-H(St)H <construction> FE180/PH120/E90 IEC 60331-23/EN 50200 CE RoHS <traceability> <batch order> XXXXm"



POLIFLAM®

Electrical properties at 20°C

Conductor (mm)	Max. conductor resistance (Ω/km)	Min. insulation resistance (MΩ/km)	Mutual capacitance 800Hz (nF/km)
0,8	36,6	100	100

Article number	Construction	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
2311000076	1x2x0,8	6,1	15	51
2311000074	2x2x0,8	6,8	25	71
2311000077	4x2x0,8	9,4	45	118

Technical Data



Temperature (°C)

Fixed installation:
-40 up to 70



Minimum bending radius

10 x cable diameter



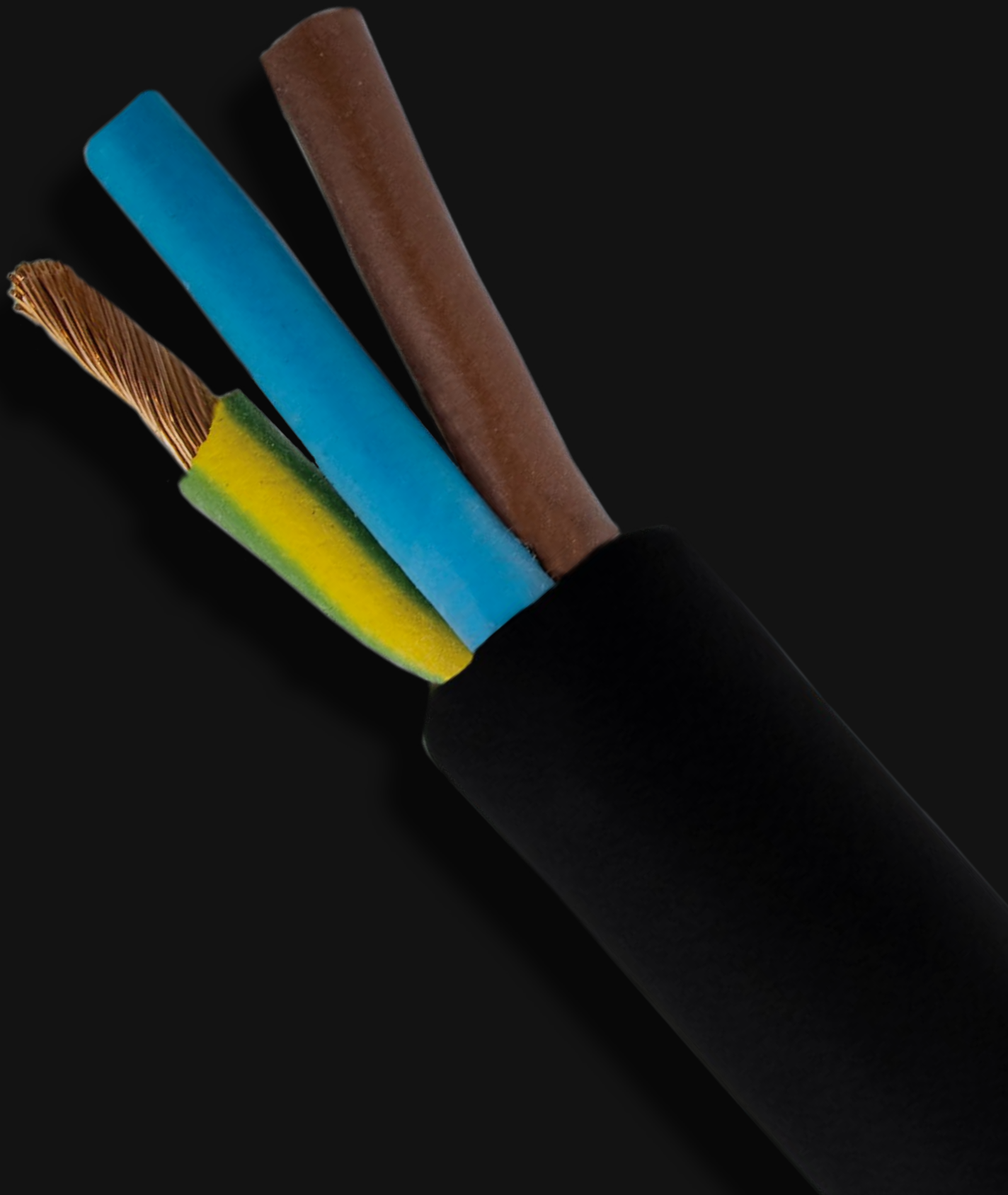
Peak operating voltage

(not for power applications)
300 V



Voltage test

800 V



POLIMOV

POLIMOV® RUBBER CABLES

H07RN-F

50

POLIMOV®

H07RN-F E_{ca}

Flexible Rubber Cables. Harsh conditions.



Application

POLIMOV H07RN-F E_{ca} rubber cables are suitable for use under medium mechanical loads, e.g. for equipment in industrial and agricultural workshops, electric tools, transportable motors, machine tools.

Cables are designed for use in dry, damp or wet rooms, and to outdoor installations.

Standards

- Design: acc. to EN 50525-2-21
- Colour code: 1 to 5 conductors according to HD 308 S2;
- ≥ 6 conductors: black with white numbers
- Oil resistance: acc. to IEC/EN 60811-404
- Flame-retardant: IEC/EN 60332-1-2
- CPR: EN 13501-6 & EN 50575

CPR

- Range: All cables
- Class: E_{ca}



Design

- Conductor: fine wire strands of class 5 copper, acc. IEC/EN 60228
- Insulation: rubber compound, type EI 4
- Outer sheath: rubber compound, type EM2
- Outer sheath colour: black
- Outer sheath mark:
"POLIMOV® H07RN-F 450/750 V N x S MIRTEC <HAR> E_{ca} <batch order> <traceability> <year> XXXXm"



Technical Data



Max. conductor temperature (°C)

+60; +200 at short-circuit

Operating temperature (°C)

-25 up to 55



Minimum bending radius

Flexing:

3 x (OD ≤ 12mm)

4 x (OD > 12mm)

Fixed installation:

4x (OD ≤ 12mm);

5x (12 < OD ≤ 20mm)

6x (OD > 20mm)



Nominal voltage

450/750 V



Voltage test

2500 V

OD - Outer diameter

H07RN-F E_{ca}

Flexible Rubber Cables. Harsh conditions.

Article number	Cond. x section (Nxmm ²)	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
2311090935	1x25	14,0	240	370
2311003959	1x35	17,0	336	660
2311090936	1x50	18,2	480	665
2311090937	1x70	20,5	672	880
2311003960	1x95	22,0	912	1.120
2311090551	1x120	26,0	1.152	1.420
2311090938	1x150	27,5	1.440	1.725
2311090939	1x185	30,5	1.776	2.095
2311003961	1x240	32,0	2.304	2.670
2311090552	1x300	38,0	2.880	3.360
2311004098	2x1,5	10,0	28,8	105
2311004483	2x2,5	12,0	48	160
2311004265	2x10	20,0	192	530
2311003943	3G1,5	10,0	43,2	140
2311004566	3G2,5	12,0	72	205
2311003944	4G1,5	11,0	57,6	170
2311003945	4G2,5	13,0	96	250
2311004267	4G4	15,0	153,6	350
2311003946	4G6	18,0	230,4	480
2311003947	4G10	23,0	384	820
2311003948	4G16	26,0	614,4	1.140
2311003949	4G25	32,0	960	1.730
2311003950	4G35	34,0	1.344	2.160
2311003951	4G50	40,0	1.920	2.990
2311003952	4G70	44,0	2.688	3.950
2311003953	4G95	52,0	3.648	5.350
2311090553	4G120	60,0	4.608	6.390
2311090554	4G185	75,0	7.104	9.510
2311090788	4x240	79,2	9.216	12.315
2311003954	5G1,5	12,0	72	210
2311003955	5G2,5	14,5	120	310
2311003956	5G4	17,0	192	430
2311003957	5G6	20,0	288	590
2311003958	5G10	25,0	480	980
2311090907	5G16	29,2	768	1.680
2311090940	5G25	35,5	1.200	2.065
2311090941	5G35	39,5	1.680	2.670
2311090942	5G50	46,6	2.400	3.705

POLIMOV®



POLIENERG

POLIENERG® ENERGY CABLES

NYJ / NY-O	54
FXZ1 (frt,zh)	58

POLIENERG®

NYY-J / NYY-O E_{ca}

PVC cable for fixed installation, direct burial.



Application

POLIENERG® NYY-J and NYY-O are cables with an insulation and an outer sheathing of PVC. They are used for fixed installation in dry or damp rooms as well as outdoors, underground and under water. Multicore cables have a common core covering over the twisted cores or a filler.

Standards

- Design: HD 603 (for 1 to 5 cores)
- Design: HD 627 (as from 7 cores)
- Colour code: acc. to HD 308 S2
- Flame-retardant: IEC/EN 60332-1-2

CPR

- Class: E_{ca}



Design

- Conductor: bare copper wire acc. IEC/EN 60228
- RE: round class 1; RM: round class 2; SM: sectorial class 2
- Insulation: PVC compound DIV4
- Core identification: up to 5 cores: acc. HD308 S2
from 6 cores: black with white numbers
- Filling: PVC compound over the core assembly
- Outer sheath: PVC compound DMV5
- Outer sheath colour: black (similar RAL 9005)
- Outer sheath mark:
"POLIENERG® NYY-J (or NYY-O) NxS 0,6/1 kV CE E_{ca} traceability (4 digits) batch order XXXXm"



Technical Data



Temperature (°C)

Fixed installation:
-40 up to 70
During installation:
-5 up to 50



Minimum bending radius

Single core: 15 x OD
Multi core: 12 x OD



Nominal voltage (U₀/U)

0,6/1 kV



Voltage test

4 kV a.c.

Protective conductor:

J = with GN-YE conductor
O = without GN-YE conductor

OD - Outer diameter

NYY-J / NYY-O E_{ca}

PVC cable for fixed installation, direct burial.

NYY-J			
Cond. x section (Nxmm²)	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
1x25rm	13	240	380
1x35rm	14	336	447
1x50rm	15	480	650
1x70rm	17	672	864
1x120rm	21	1152	1400
1x185rm	25	1776	2080
3x1,5re	12	43	223
4x1,5re	13	58	256
5x1,5re	14	72	293
7x1,5re	15	101	360
10x1,5re	18	144	520
12x1,5re	19	173	560
14x1,5re	20	202	620
16x1,5re	21	230	680
19x1,5re	22	274	760
24x1,5re	24	346	900
30x1,5re	26	432	1100
3x2,5re	13	72	272
4x2,5re	14	96	316
5x2,5re	15	120	323
7x2,5re	16	168	450
10x2,5re	20	240	630
12x2,5re	20	288	680
14x2,5re	21	336	790
19x2,5re	23	456	990
24x2,5re	26	576	1300
30x2,5re	28	720	1400
3x4re	15	115	373
4x4re	16	154	439
5x4re	17	192	510
3x6re	16	173	466
4x6re	17	230	547
5x6re	19	288	640
3x10re	18	288	629
4x10re	19	384	743
5x10re	21	480	899
3x16re	20	461	850
4x16re	22	614	1039
5x16re	23	768	1240

POLIENERG®

NYY-J / NYY-O E_{ca}

PVC cable for fixed installation, direct burial.

NYY-J			
Cond. x section (Nxmm ²)	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
3x25rm/16re	25	874	1595
4x25rm	27	960	1620
5x25rm	29,9	1200	1920
3x35sm/16re	27	1162	1718
4x35sm	27	1344	1916
4x50sm/25rm	31	1680	2383
4x50sm	31	1920	2639
3x70sm/35sm	33	2352	3196
4x70sm	35	2688	3576
3x95sm/50sm	38	3216	4271
4x95sm	40	3648	4746
3x120sm/70sm	41	4128	5281
4x120sm	43	4608	5813
3x150sm/70sm	46	4992	6408
4x150sm	48	5760	7263
3x185sm/95sm	50	6240	7909
4x185sm	53	7104	8905
3x240sm/120sm	57	8064	10162
4x240sm	60	9216	11430

NYY-J / NYY-O E_{ca}

PVC cable for fixed installation, direct burial.

NYY-O			
Cond. x section (Nxmm²)	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
1x10re	10	96	176
1x16re	11	154	239
1x25rm	13	240	380
1x35rm	14	336	447
1x50rm	15	480	650
1x70rm	17	672	864
1x95rm	19	912	1132
1x120rm	21	1152	1405
1x150rm	22	1440	1710
1x185rm	25	1776	2080
1x240rm	27	2304	2669
1x300rm	30	2880	3305
1x500rm	39	4800	5400
2x1,5re	11	29	210
2x2,5re	12	48	250
2x4re	14	77	360
2x6re	15	115	400
2x10re	17	192	500
4x16re	22	614	1039
4x25rm	27	960	1620
4x50sm	31	1920	2639
4x70sm	35	2688	3576
4x95sm	40	3648	4746

POLIENERG®

FXZ1 (frt,zh) 0,6/1 kV | RZ1-K (AS) 0,6/1 kV

Energy distribution cable, 0,6/1 kV.



Application

Power cables for buildings, with high fire safety requirements.

Suitable for the distribution of electricity in fixed indoor and outdoor installations, with support, in the air or in tubes.

Standards

- Design: UNE 21123-4
- Design: IEC 60502-1
- Flame-retardant: EN/IEC 60332-1-2
- Fire-retardant: EN/IEC 60332-3-24
- Halogen-free: EN/IEC 60754-1
- Corrosivity of gases: EN/IEC 60754-2
- Smoke opacity: EN/IEC 61034
- CPR: EN 13501-6 & EN 50575
- Colour codes: HD 308

CPR

- Range: Define on DoP
- Class: C_{ca}-S_{1b},d₁,a₁



Design

- Conductor: Flexible copper class 5, acc. to EN/IEC 60228
- Insulation: XLPE compound, type DIX 3
- Outer sheath: LSZH compound, acc. to UNE 21123-4
- Outer sheath colour: Green



Electrical properties at 20°C

Conductor section (mm ²)	Max. d.c. resistance (Ω/km)
1,5	13,3
2,5	7,98
4	4,95
6	3,30
10	1,91
16	1,21
25	0,780
35	0,554
50	0,386
70	0,272
95	0,206
120	0,161
150	0,129
185	0,106
240	0,0801
300	0,0641

Technical Data



Operating temperature (°C):
-15 up to 70



Minimum bending radius
4 x (CD* < 25 mm)
5 x (25 mm ≤ CD* ≤ 50 mm)
6 x (CD* > 50 mm)



Operating voltage
0,6/1 kV



Voltage test
3,5 kV

*CD - Cable diameter

FXZ1 (frt,zh) 0,6/1 kV | RZ1-K (AS) 0,6/1 kV

Energy distribution cable, 0,6/1 kV.

Construction (*) (Nxmm ²)	Approx. outer diameter (mm)	Nominal weight (kg/km)	Max. permanent current rating (A) (**)
1x6	7,3	104	48/58
1x10	7,9	130	64/96
1x16	8,9	189	86/125
1x25	10,9	284	120/160
1x35	12,0	371	145/190
1x50	13,8	518	180/230
1x70	15,9	708	230/280
1x95	17,5	930	285/335
1x120	19,3	1.178	335/380
1x150	21,6	1.486	385/425
1x185	24,2	1.768	450/480
1x240	26,9	2.321	535/550
1x300	30,1	2.899	615/620
2x1,5	8,8	107	25/36
2x2,5	9,7	138	33/52
2x4	10,8	182	44/67
2x6	11,9	234	58/86
2x10	14,1	351	79/115
2x16	16,1	502	103/150
2x25	19,3	735	138/190
3G1,5	9,3	124	17/28
3G2,5	10,3	163	25/40
3G4	11,5	219	34/51
3G6	12,7	285	44/66
3G10	15,0	435	61/88
3G16	17,2	635	82/115
3G25	20,0	900	110/106
3G35	24,3	1.296	135/180
4x1,5	10,1	146	17/28
4x2,5	11,2	195	25/40
4x4	12,5	264	34/51
4x6	13,8	348	44/66
4x10	16,4	536	61/88
4x16	19,1	801	82/115
4x25	23,3	1.196	110/150
4x35	26,4	1.603	135/180
4x50	31,0	2.273	165/192
4x70	32,2	2.889	210/260

(*) The values are valid for construction with or without earth conductor (...X...or ...G...).

(**) Air at 40°C, cables protected from solar radiation / Buried at 25°C, deep 0.7 m and with soil thermal resistivity of 1 k.m/W.

POLIENERG®

FXZ1 (frt,zh) 0,6/1 kV | RZ1-K (AS) 0,6/1 kV

Energy distribution cable, 0,6/1 kV.

Construction (*) (Nxmm ²)	Approx. outer diameter (mm)	Nominal weight (kg/km)	Max. permanent current rating (A) (**)
5G1,5	10,9	171	17/28
5G2,5	12,1	230	25/40
5G4	13,6	312	34/51
5G6	15,1	414	44/66
5G10	18,0	644	61/88
5G16	20,9	965	82/115
5G25	25,7	1.453	110/150
5G35	29,0	1.948	135/180
5G50	33,2	2.740	165/192
5G70	38,7	3.892	210/260

(*) The values are valid for construction with or without earth conductor (...X...or ...G...).

(**) Air at 40°C, cables protected from solar radiation / Buried at 25°C, deep 0.7 m and with soil thermal resistivity of 1 k.m/W.





ÖLFLEX

ÖLFLEX® POWER AND CONTROL CABLES

RV-K

64

RV-K 0,6/1 kV

Power and control cable for fixed installation



Application

ÖLFLEX® POWER RV-K cables are suitable as power and control cables for fixed installation subject to medium mechanical load conditions. These cables are suitable to permanent indoor and outdoor fixed installations, can be buried in tubes or conduits, and directly in ground⁽¹⁾.

As power and connecting cable for control systems in machine tools, plant engineering and construction, industrial machinery, production and assembly lines, public buildings and similar applications.

Standards

- IEC 60502-1
- UNE 21123-2
- Colour code: acc. to HD 308 S2
- Flame-retardant: IEC/EN 60332-1-2
- CPR: EN 13501-6 & EN 50575
- HD 603-3J: Cold bending and impact test

CPR

- Range: Define on DoP
- Class: E_{ca}



Design

- Conductor: fine wire strands of class 5 copper, acc. IEC/EN 60228
- Insulation: cross-linked polyethylene (XLPE)
- Stranding: cores are stranded in layers
- Outer sheath: PVC compound ST₂ acc. to IEC 60502-1
- Outer sheath colour: black (similar RAL 9005)
- Outer sheath mark:
 "LAPP KABEL STUTTGART ÖLFLEX® POWER RV-K <AZ G/X Q> 0,6/1 kV AENOR CE
 <batch order> <traceability code> XXXXm"

Technical Data



Temperature (°C)

Fixed installation:
-30 up to 70
During installation:
0 up to 70

Max. conductor temp. (°C):
90

Max. short-circuit conductor temperature (°C):
250 (5 min.)



Minimum bending radius

4 x (OD* ≤ 8 mm)
5 x (8 mm < OD* ≤ 12 mm)
6 x (OD* > 12 mm)



Nominal voltage (U₀/U)

0,6/1 kV (1,5 kV d.c.)



Voltage test

3,5 kV a.c. (5 minutes)

*OD - Outer Diameter

⁽¹⁾ Cables can be directly buried in ground, according with methods of installation are D1 or D2, of the standard IEC 60364-5-52

RV-K 0,6/1 kV

Power and control cable for fixed installation

Article number	Cond. x section (Nxmm ²)	Current free air 30°C (*) (A)	Current buried 20°C (*) (A)	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
15510001	1x6	54	44	7,3	57,6	102
15510002	1x10	75	58	8,3	96	147
15510003	1x16	100	75	9,3	154	214
15510004	1x25	135	96	11,1	240	314
15510005	1x35	169	115	12,4	336	419
15510006	1x50	207	135	14,2	480	578
15510007	1x70	268	167	16,1	672	795
15510008	1x95	328	197	17,7	912	1.046
15510009	1x120	383	223	19,1	1.152	1.320
15510010	1x150	444	251	21,4	1.440	1.687
15510011	1x185	510	281	24,0	1.776	1.985
15510012	1x240	607	324	26,7	2.304	2.596
15510013	1x300	703	365	30,3	2.880	3.183
15510014	2x4	49	43	10,6	76,8	186
15510015	3G1.5	23	21	9,2	43,2	123
15510016	3G2.5	32	28	10,1	72	169
15510017	3G4	42	36	11,3	115,2	230
15510018	3G6	54	44	12,5	172,8	301
15510019	3G10	75	58	14,3	288	456
15510020	3G16	100	75	16,7	460,8	657
15510021	3G25	127	96	20,3	720	991
15510076	3x25+16	127	96	23,0	742	874
15510077	3x35+16	158	115	25,3	985	1.161
15510078	3x50+25	195	135	30,0	1.442	1.680
15510079	3x70+35	246	167	34,3	1.956	2.352
15510080	3x95+50	298	197	37,9	2.664	3.216
15510081	3x120+50	346	223	44,0	3.350	3.936
15510084	3x120+70	346	223	45,0	4.128	4.750
15510082	3x150+70	399	251	48,2	4.090	4.992
15510083	3x185+95	456	281	53,9	5.101	6.240
15510053	3x240+1G120	538	324	58,7	8.064	9.220
15510022	4G1.5	23	21	10,7	57,6	168
15510023	4G2.5	32	28	11,8	96	223
15510024	4G4	42	36	13,1	153,6	303
15510025	4G6	54	44	14,4	230,4	399
15510026	4G10	75	58	16,8	384	595
15510027	4G16	100	75	19,3	614,4	859
15510028	4G25	127	96	23,7	960	1.318
15510029	4G35	158	115	26,8	1.344	1.771
15510030	4G50	195	135	31,4	1.920	2.482
15510031	4G70	246	167	35,7	2.688	3.630

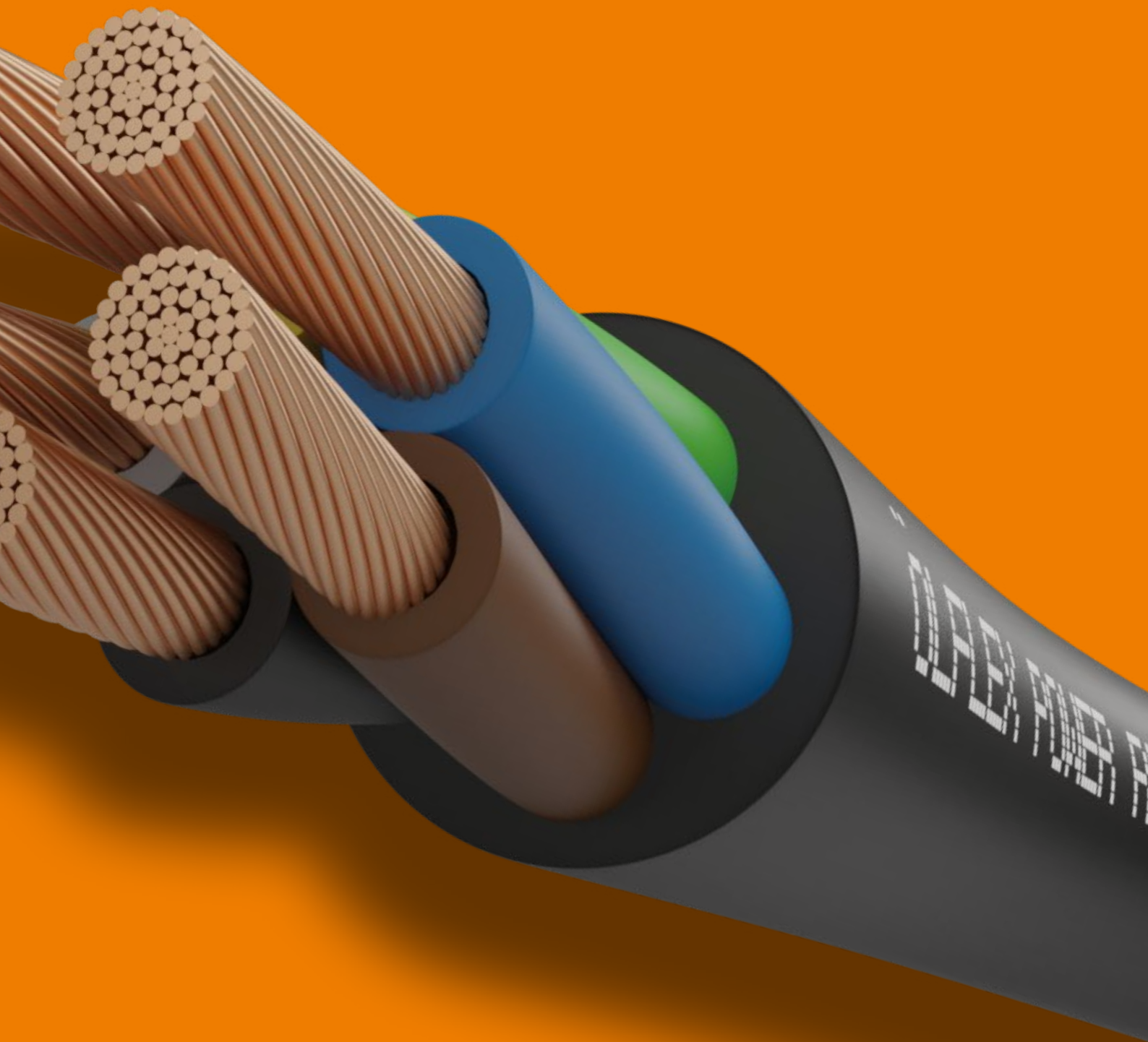
RV-K 0,6/1 kV

Power and control cable for fixed installation

Article number	Cond. x section (Nxmm ²)	Current free air 30°C (*) (A)	Current buried 20°C (*) (A)	Nominal outer diameter (mm)	Copper index (kg/km)	Nominal cable weight (kg/km)
15510032	4G95	298	197	38,2	3.648	4.170
15510049	4G120	346	223	40,5	4.608	5.328
15510050	4G150	399	251	44,6	5.760	7.560
15510051	4G185	456	281	49,3	7.104	8.114
15510052	4G240	538	324	56,6	9.216	10.656
15510033	5G1.5	23	21	11,5	72	186
15510034	5G2.5	32	28	12,7	120	253
15510035	5G4	42	36	14,2	192	350
15510036	5G6	54	44	15,7	288	468
15510037	5G10	75	58	18,4	480	705
15510038	5G16	100	75	21,1	768	1.027
15510039	5G25	127	96	26,1	1.200	1.582
15510040	5G35	158	115	29,4	1.680	2.134
15510041	7G1.5	NA	NA	13,1	100,8	260
15510042	7G2.5	NA	NA	14,5	168	335
15510043	12G1.5	NA	NA	16,2	172,8	362
15510044	12G2.5	NA	NA	18,1	288	506
15510045	19G1.5	NA	NA	18,9	273,6	523
15510046	19G2.5	NA	NA	21,2	456	743
15510047	24G1.5	NA	NA	21,5	345,6	643
15510048	24G2.5	NA	NA	24,2	576	919

(*) For single core: according to IEC 60364-5-52 table B.52.12 installation on the air and table B.52.5 buried.

For multi-core: according to IEC 60364-5-52 table B.52.12 installation on the air and table B.52.3 and B.52.5 buried.



**Declaração de Desempenho
de acordo com o Anexo III do regulamento (EU) N° 305/2011**

*Declaration of Performance
according to Annex III of Regulation (EU) no. 305/2011*

**Declaração de Desempenho
de acordo com o Anexo III do regulamento (EU) N° 305/2011**
*Declaration of Performance
according to Annex III of Regulation (EU) no. 305/2011*

Documento nº
Document-no.

PoliDoP041_V01

1. Código de identificação único do produto-tipo: **POLISCREEN LiHCH/1**
1. Unique identification code of the product type

2. Utilizações previstas
2. Usage

Fornecimento de energia e/ou comunicações em edifícios e obras de construção civil sujeitos a requisitos de reação ao fogo.
Electricity supply and or communications in buildings and other structures with the aim of limiting the generation and spread of fire and smoke.

3. Fabricante
3. Manufacturer

Policabos – Soluções Técnicas de Condutores S.A.
Pinhal dos Três Cantos, Estrada Terras de Lagoa, 43-47, 2635-595 Rio de Mouro, Portugal

4. Sistema de avaliação e verificação da regularidade do desempenho
4. System of assessment and verification of constancy of performance

Sistema 1+ / System 1+

5. Esta declaração de desempenho refere-se a um produto de construção coberto pela norma harmonizada EN 3501-6
5. This Declaration of Performance concerns a construction product which is covered by the harmonized standard EN 13501-6

6. Organismo notificado
6. Product certification body

1783

7. Desempenho declarado
7. Declared Performance

Características essenciais <i>Essential characteristics</i>	Desempenho <i>Performance</i>	Especificações técnicas harmonizadas <i>technical standard</i>
Reação ao fogo <i>Fire behaviour</i>	C _{ca} -S _{1b} , d ₁ , a ₁	EN 50575:2014 + A1:2016
Substâncias perigosas <i>Hazardous substances</i>	NPD <i>No</i>	

8. O desempenho do produto referido nos parágrafos 1 está conforme o desempenho declarado na Seção 7.
8. The performance of the referred product in paragraphs 1 is in conformity with the declared performance in Section 7.
Esta declaração de desempenho é emitida sob as responsabilidades gerais listadas na seção 3. Fabricante
This declaration of performance is issued under the general responsibilities listed in section 3. Manufacturer

Assinado por e em nome do fabricante por:
Signed for and in name of the manufacturer by:

POLICABOS Sol. Téc. Cond. S.A.
Cont. PT: 503 269 280
Pinhal dos Três Cantos
Estrada Terras de Lagoa, n.º 43, 45 e 47,
Albarraque
2635-595 RIO DE MOURO
GRUPO (0357) 9101-70-611

31/10/2022

APPENDIX

TYPE DESIGNATIONS	70
COLOUR CODE	71
CONSTRUCTION PRODUCTS REGULATION (CPR)	72

APPENDIX

TYPE DESIGNATIONS

Harmonised Cables

□ □ □ □ - □ □ □ □
1 2 3 4 5 6 7 8 9

1. Basic type

- H Harmonised type
- A National type
- X or S In the style of a harmonised type

2. Nominal voltage

- 01 100/100 volts
- 03 300/300 volts
- 05 300/500 volts
- 07 450/750 volts

3. Insulating material

- V PVC
- V2 PVC + 90°C
- V3 PVC flexible at cold temperatures
- B Ethylene propylene rubber
- E PE polyethylene
- X XPE, cross-linked PE
- R Rubber
- S Silicone rubber

4. Outer/Inner sheath material

- V PVC
- V2 PVC + 90°C
- V3 PVC flexible at cold temperatures
- V5 PVC with enhanced oil resistance
- R Rubber
- N Chloroprene based rubber
- Q Polyurethane
- J Glass fibre braiding
- T Textile braiding
- S Silicone rubber

5. Special features

- C4 Copper wire screen braiding
- H Flat cable, divisible
- H2 Flat cable, not divisible
- H6 Flat cable, not divisible, for lifts
- H8 Helical/spiral cable

6. Conductor type

- U Single-wire
- R Multi-wire
- K Fine-wire (fixed installation)
- F Fine-wire (flexible installation)
- H Extra-fine wire
- Y Tinsel wire
- D Fine-wire conductor for welding cable
- E Extra-fine wire conductor for welding cable

7. Number of cores

... number of cores

8. Protective conductor

- X Without protective conductor
- G With protective conductor

9. Conductor cross-section

Figures in mm²

Example: H07RN-F

Telecommunication Cables

□ □ - □ □ □ □ x □ x □ □ □
1 2 3 4 5 6 7 8 9 10

1. Basic type

- A- Outdoor cable
- G- Mining cable
- J- Installation cable
- Li Stranded conductor, flexible cable
- S Jumper cable

2. Additional designation

- J Induction protection
- E Electronics

3. Insulating material

- Y PVC
- 11Y PUR
- 2Y Polyethylene
- O2Y Cellular PE
- 9Y PP
- 5Y PTFE
- 6Y FEP
- 7Y ETFE
- H Halogen-free compound

4. Special features

- C Copper screen braiding
- D Copper wrapping
- (ST) Metal foil screening
- (L) Aluminium strip
- F Petroleum jelly filling
- LD Corrugated aluminium sheath
- (K) Copper strip screening
- (Z) Steel wire braiding
- W Corrugated steel sheath
- b Armouring

5. Sheathing

(see point 3. "Insulating material")

6. Number of elements

... number of stranding elements

7. Stranding element

- 1 Single core
- 2 Pair
- 3 Triple

8. Conductor diameter or cross section

... in mm or mm²

9. Stranding element

- St Star quad (phantom)
- StI Star quad (trunk cable)
- StIII Star quad (local cable)
- TF Star quad for TF
- S Signal cable (railway)
- PiMF Screened pair
- (TP) Twisted pair
- (PiD) Pairs in copper wrapping

10. Stranding type

- Lg Twisted into layers
- Bd Twisted into bundles

Example: JE-H(St)H

COLOUR CODE

HD 308 S2 - Core ID code for colour-coded low-voltage cables

For marking cores in multi- and several-core cables for use in electrical systems and distribution systems.

For the supply of permanently secured or portable supplies and for portable equipment cables. 3a and 4a: only suitable for specific applications.

Number of cores	Cables with protective conductor (code J or G)	Cables without protective conductor (code O or X)
2	-	BU/BN
3	GNYE/BN/BU	BN/BK/GY
3a	-	BU/BN/BK
4	GNYE/BN/BK/GY	BU/BN/BK/GY
4a	GNYE/BU/BN/BK	-
5	GNYE/BU/BN/BK/GY	BU/BN/BK/GY/BK
6 and above	GNYE/BK with printed numbers	BK with printed numbers

DIN 47100/January 1988 - colour code for twisted pair

Each pair has an a-core and a b-core. The marking is repeated for the first time as from 23 pairs, and for the second time as from 45 pairs. The first colour is always the basic colour of the core, and the second colour is printed in rings.

Pair no.	Colour of a-core	Colour of b-core
1	white	brown
2	green	yellow
3	grey	pink
4	blue	red
5	black	violet
6	grey/pink	red/blue
7	white/green	brown/green
8	white/yellow	yellow/brown
9	white/grey	grey/brown
10	white/pink	pink/brown
11	white/blue	brown/blue
12	white/red	brown/red

Pair no.	Colour of a-core	Colour of b-core
13	white/black	brown/black
14	grey/green	yellow/grey
15	pink/green	yellow/pink
16	green/blue	yellow/blue
17	green/red	yellow/red
18	green/black	yellow/black
19	grey/blue	pink/blue
20	grey/red	pink/red
21	grey/black	pink/black
22	blue/black	red/black
23-44	see 1 - 22	see 1 - 22
45-46	see 1 - 22	see 1 - 22

DIN 47100 colour code (but differs from DIN as the colours are not repeated after the 44th core)

Exception: 4-core line, which has a sequence of white, yellow, brown, green.

Core no.	Colour	Core no.	Colour	Core no.	Colour	Core no.	Colour	Core no.	Colour
1	white	14	brown/green	27	grey/green	40	pink/red	53	white/grey/black
2	brown	15	white/yellow	28	yellow/grey	41	grey/black	54	grey/brown/black
3	green	16	yellow/brown	29	pink/green	42	pink/black	55	white/pink/black
4	yellow	17	white/grey	30	yellow/pink	43	blue/black	56	pink/brown/black
5	grey	18	grey/brown	31	green/blue	44	red/black	57	white/blue/black
6	pink	19	white/pink	32	yellow/blue	45	white/brown/black	58	brown/blue/black
7	blue	20	pink/brown	33	green/red	46	yellow/green/black	59	white/red/black
8	red	21	white/blue	34	yellow/red	47	grey/pink/black	60	brown/red/black
9	black	22	brown/blue	35	green/black	48	red/blue/black	61	black/white
10	violet	23	white/red	36	yellow/black	49	white/green/black		
11	grey/pink	24	brown/red	37	grey/blue	50	brown/green/black		
12	red/blue	25	white/black	38	pink/blue	51	white/yellow/black		
13	white/green	26	brown/black	39	grey/red	52	yellow/brown/black		

DIN VDE 0815 - colour code for JE-Y(St)Y...Bd and JE-LiYCY...Bd

The pair cores for each bundle are identified by the base colours of the insulation sheath, which are repeated in the same sequence in each bundle:

Pair no.	Colour of a-core	Colour of b-core
1	blue	red
2	grey	yellow
3	green	brown
4	white	black

Exemption:

The twin-pair installation cable is twisted into a star quad:

	Colour of a-core	Colour of b-core
Side 1	blue	red
Side 2	grey	yellow

4 pairs are stranded into a bundle. The bundles are identified by the colours of the rings on the core insulation sheaths and the arrangement of the coloured rings in groups. The ring groups are located at intervals of approx. 60 mm.

APPENDIX

CONSTRUCTION PRODUCTS REGULATION (CPR)

The use of cables in construction works is practically as old as the transmission of electrical power itself. However, the classification of cables as a construction product only gained momentum when (CPR) Regulation (EU) no. 305/2011 came into effect in July 2013, and when the European standard EN 50575 was published in September 2014.

Date of applicability of the regulation was at 10 of June of 2016.

This refers to cables within the scope of application of a harmonised standard, namely EN 50575:2014 + A1:2016.

The Fire Behaviour is the CPR new classification for cables, this regulation establish rules for the security of products.

The cables must comply with the 7 class of CPR, the next table shows them and the tests that apply to each class:

CPR Class	Classification criteria	Additional criteria	AVCP System
A _{ca}	EN ISO 1716 Gross heat of combustion		"1+", including: • Initial type-testing and continuous surveillance • Audit & testing of samples by 3 rd party certification body
B1 _{ca}	EN 50399 Heat release	Smoke production (s1a, s1b, s2, s3) EN 50399/EN 61034-2	
B2 _{ca}	Flame spread EN 60332-3		
C _{ca}	Fire retardant EN 60332-1-2 Flame retardant	Acidity (a1, a2, a3) EN 60754-2	"3", including: • initial type-testing by 3 rd party laboratory • factory production control by manufacturer
D _{ca}	EN50399 Heat release Flame spread EN60332-1-2 Flame retardant	Flaming droplets (d0,d1,d2) EN 50399	
E _{ca}	EN 60332-1-2 Flame propagation		"4": • Initial type-testing and factory production control by manufacturer
F _{ca}	EN 60332-1-2 Flame propagation (not conform with E _{ca} Class)		

Example of a DoP:



On our website you will find detailed information about application of the CPR regarding cables: <http://policabos.pt>

All printing errors are subject to correction in subsequent releases of this document. The specifications of all products contained are subject to change without notice.

January 2024. LAPP.



POLIEARTH®
Renewable Energy Cables

POLISCREEN®
Screened Cables

POLICONTROL®
Control Cables

POLINST®
Instrumentation Cables

POLIFLAM®
Security Cables

POLIMOV®
Rubber Cables

POLIENERG®
Energy Cables

ÖLFLEX®
Power and Control Cables

Follow Lapp on



Terms of trade:
Our general conditions of sale
can be downloaded from our website
www.policabos.pt



LAPP Portugal
Pinhal dos Três Cantos, Estrada Terras de Lagoa, 43-47
2635-595 RIO DE MOURO • PORTUGAL
Phone: +351 219 178 640 • Fax: +351 219 178 649
www.policabos.pt • comercial@policabos.pt