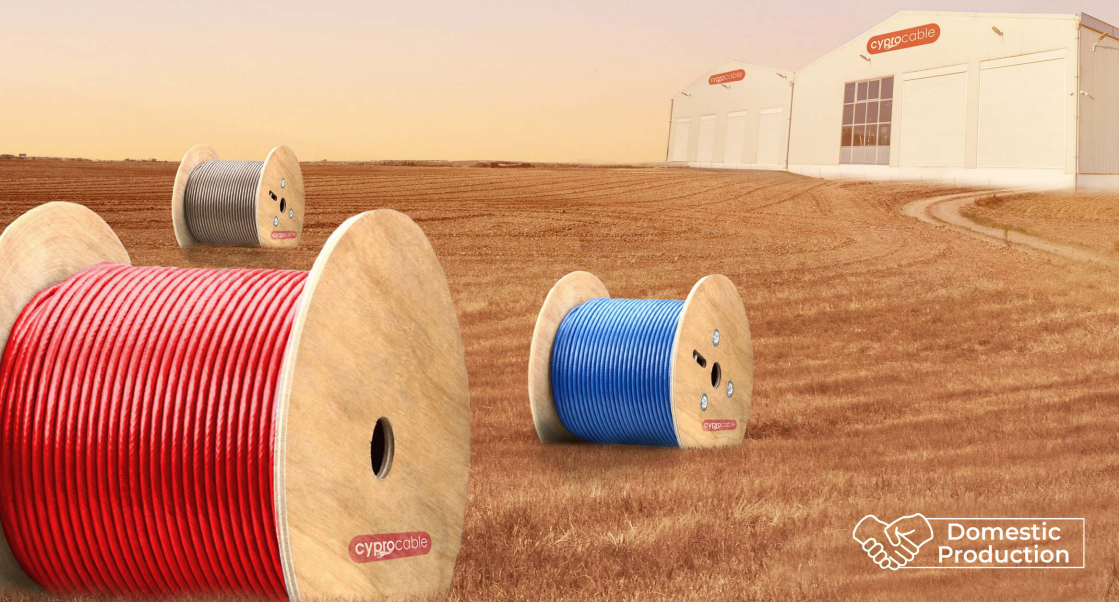




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Domestic
Production



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CABLE TECHNICAL INFORMATION

ABOUT US

Cyprocable Ltd. which was established within the body of Sanayi Holding in 1975 and joined the Near East Formation with the privatization of the company in 1988, is the only company engaged in the production of Armoured cables in Northern Cyprus.

Cyprocable has gained an important place in the sector by manufacturing installation cables, flexible multi-core cables, antigron cables, flat-twin flat cables and 0,6/1 kV low voltage Armoured-unArmoured power cables in Northern Cyprus. With its organizational CONSTRUCTION that keeps pace with the developing technology, it fulfills the requirements of ISO 9001:2015 Quality Management System standards.

Cyprocable with approximately 2000 m² closed, 3500 m² open area in Nicosia Minareliköy Industrial Zone, continues its production with modern machinery equipment and its own expert staff.

OUR QUALITY POLICY

Cyprocable is aware of quality, customer satisfaction and energy management are a teamwork. In this manner, its employees from top to bottom units and its suppliers/subcontractors adopt this mentality. According to this system, it provides services by committing to the fulfillment of the requirements of ISO 9001 Management System that we are implementing and to the continuous betterment of the effectiveness of its aims. Within this principle, our quality policies are as follows:

- To fulfill all legal requirements and legislation,
- To ensure the continuity of the training of its employees and to establish the awareness of quality responsibility,
- To evaluate its external suppliers and subcontractors as part of the quality it creates and to ensure that the requirements of this standard are complied with,
- To ensure that production is carried out in accordance with the national and international standards in force in matters regarding production activities,
- To meet customer requests and needs above expectations within the framework of customer satisfaction principle,
- To set an example for all companies within the sector,
- To carry out energy management in accordance with the standards,
- To be a leading company in the sector that has a highly competitive power and makes maximum contribution to the country's economy by closely following the developing technological conditions.

Cyprocable realizes all its production according to the ISO 9001 Management System standards.



Our Mission

In the cable sector,

- To ensure continuity in brand awareness, to protect reputation, to be a visionary company that follows sectoral developments,
- To provide reliable service and quality products, To
- provide safe and efficient working environment for its employees,
- To be involved in activities that are sensitive to the environment and that will contribute to the environmental developments, to produce social benefits and to provide benefits

Our Vision

To create differences in the circle of product, service, trust and quality, to provide permanent superiority in honest and principled competition conditions, to be an indispensable commercial stakeholder in the power cable market.

Our Values



- ✓ Customer satisfaction
- ✓ Sustainable quality and trust
- ✓ Ethical behavior, honesty and transparency
- ✓ Respect for people, nature and environment
- ✓ Happiness of employees and teamwork
- ✓ Continuous improvement

CABLES

H05V-U / 60227 IEC 05

H07V-U / 60227 IEC 01

PVC Insulated Single Core Cables

STANDARDS

TS EN 50525-2-31

BS EN 50525-2-31

IEC 60227-3

UK CODE

2491 X / 6491 X



CONSTRUCTION

- 1  **Conductor**
Solid Copper
- 2  **Insulation**
Polyvinyl Chloride

TECHNICAL SPECIFICATIONS

-  **70 °C** **Max. Operating Temperature**
-  **160 °C** **Max. Short Circuit Temperature**
-  **Test Voltage**
AC 2 kV / 2.5 kV
-  **Lead Free**
-  **Min. Bending Radius**
D < 8 4xD
8 < D < 12 5xD
D > 12 6xD
-  **Flame Propagation Test on Single Cable**
EN / IEC 60332-1-2
-  **300/500V**
450/750V **Rated Voltage U₀/U**

APPLICATION AREAS

-   It is used in fixed facilities, dry places, distribution boards and closed areas, factories, workshops and workplaces flush mounted or surface-mounted.

TECHNICAL DATA		Cu/PVC			
Nominal Cross Section (mm²)	Cable Overall Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
				In the conduit (A)	In the air (A)
H05V-U / 60227 IEC 05					
0,5	2,0	9	36	-	-
0,75	2,2	12	24,5	-	16
1	2,4	13	18,1	11	19
H07V-U / 60227 IEC 01					
1,5	2,7	21	12,1	14,5	24
2,5	3,2	34	7,41	19,5	32
4	3,7	50	4,61	26	42
6	4,2	71	3,08	34	54
10	5,4	116	1,83	46	73

H07V-R / 60227 IEC 01

PVC Insulated Single Core Cables

STANDARDS

TS EN 50525-2-31

BS EN 50525-2-31

IEC 60227-3

UK CODE

6491 X



CONSTRUCTION

- 1 **Conductor**
Stranded Copper
- 2 **Insulation**
Polyvinyl Chloride

TECHNICAL SPECIFICATIONS

- Max. Operating Temperature**
70 °C
- Max. Short Circuit Temperature**
160 °C
- Test Voltage**
AC 2.5 kV
- Lead Free**
- Min. Bending Radius**
D < 8 4xD
8 < D < 12 5xD
D > 12 6xD
- Flame Propagation Test on Single Cable**
EN / IEC 60332-1-2
- Rated Voltage U₀/U**
450/750V

APPLICATION AREAS

- It is used in fixed facilities, dry places, distribution boards and closed areas, factories, workshops and workplaces flush mounted or surface-mounted.

TECHNICAL DATA		Cu/PVC			
Nominal Cross Section (mm²)	Cable Overall Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
				In the conduit (A)	In the air (A)
H07V-R / 60227 IEC 01					
1,5	3,0	21	12,1	14,5	24
2,5	3,6	32	7,41	19,5	32
4	4,2	48	4,61	26	42
6	4,8	67	3,08	34	54
10	5,9	110	1,83	46	73
16	6,9	181	1,15	61	98
25	8,2	280	0,727	80	129
35	9,3	382	0,524	99	158
50	10,8	542	0,387	119	198
70	12,4	745	0,268	151	245
95	14,5	1010	0,193	182	292
120	15,9	1260	0,153	210	344
150	17,7	1575	0,124	240	391
185	19,8	1945	0,0991	273	448
240	22,8	2520	0,0754	320	528
300	25,2	2950	0,0601	-	-
400	31,2	3740	0,0470	-	-
500	35,6	4820	0,0366	-	-
630	37,6	6145	0,0283	-	-

H05V-K / 60227 IEC 06

H07V-K / 60227 IEC 02

PVC Insulated Flexible Single Core Cables

STANDARDS

TS EN 50525-2-31

BS EN 50525-2-31

IEC 60227-3

UK CODE

2491 X / 6491 X



CONSTRUCTION

- 1 **Conductor**
Thin Multi-Wire Copper
- 2 **Insulation**
Polyvinyl Chloride

TECHNICAL PROPERTIES

- Max. Operating Temperature**
70 °C
- Max. Short Circuit Temperature**
160 °C
- Test Voltage**
AC 2 kV / 2.5 kV
- Lead Free**
- Min. Bending Radius**
D < 8 4xD
8 < D < 12 5xD
D > 12 6xD
- Flame Propagation Test on Single Cable**
EN / IEC 60332-1-2
- Rated Voltage Uo/U**
300/500V
450/750V

APPLICATION AREAS

- It is used in fixed facilities, dry places, distribution boards and closed areas, factories, workshops and workplaces flush mounted or surface-mounted.

TECHNICAL DATA		Cu/PVC			
Nominal Cross Section (mm²)	Cable Overall Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
				In the conduit (A)	In the air (A)
H05V-K / 60227 IEC 06					
0,5	2	9	39	-	-
0,75	2,2	12	26	-	16
1	2,4	13	19,5	11	20
H07V-K / 60227 IEC 02					
1,5	2,8	19	13,3	14,5	24
2,5	3,4	30	7,98	19,5	32
4	3,9	44	4,95	26	42
6	4,4	63	3,30	34	54
10	6,1	112	1,91	46	73
16	7,4	169	1,21	61	98
25	9,0	251	0,780	80	129
35	10,9	369	0,554	99	158
50	12,7	528	0,396	119	198
70	14,7	730	0,272	151	245
95	16,9	969	0,206	182	292
120	18,8	1212	0,161	210	344
150	21	1521	0,129	240	391
185	23,3	1857	0,106	273	448
240	26,6	2443	0,0801	320	528

H05V2-U / 60227 IEC 07
H07V2-U
H07V2-R

PVC Insulated Heat Resistant Single Core Cables

STANDARDS

TS EN 50525-2-31
BS EN 50525-2-31
IEC 60227-3

UK CODE
2491 XHR / 6491 XHR



CONSTRUCTION

- 1

**Conductor**
Solid or Stranded Copper
- 2

**Insulation**
Heat Resistant Polyvinyl Chloride

TECHNICAL PROPERTIES

- **Max. Operating Temperature**

**Max. Short Circuit Temperature**
- **Test Voltage**
AC 2 kV / 2.5 kV

**Min. Bending Radius**

D < 8 4xD
8 < D < 12 5xD
D > 12 6xD
- **Flame Propagation Test on Single Cable**
EN 60332-1

**Rated Voltage Uo/U**

300/500V
450/750V

APPLICATION AREAS

- 
- It is used under conditions where the working temperature must be high (90°C), in household appliances, fixed facilities, dry places, distribution boards and closed areas, in factories, workshops and all kinds of workplaces flush mounted or surface-mounted.

TECHNICAL DATA		Cu/ HR-PVC		Current Carrying Capacity	
Nominal Cross Section (mm²)	Cable Overall Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	In the conduit (A)	In the air (A)
H05V2-U / 60227 IEC 07					
0,5	2	9	36	-	12
0,75	2,2	12	24,5	-	15
1	2,4	13	18,1	-	19
H07V2-U / H07V2-R					
1,5	2,7	21	12,1	14,5	24
2,5	3,2	34	7,41	19,5	32
4	3,7	50	4,61	26	42
6	4,2	71	3,08	34	54
10	5,4	116	1,83	46	73
16	6,9	181	1,15	61	98
25	8,2	280	0,727	80	129
35	9,3	382	0,524	99	158
50	10,8	542	0,387	119	198
70	12,4	745	0,268	151	245
95	14,5	1010	0,193	182	292
120	15,9	1260	0,153	210	344
150	17,7	1575	0,124	240	391
185	19,8	1945	0,0991	273	448
240	22,8	2520	0,0754	320	528
300	25,2	2950	0,0601	-	-
400	31,2	3740	0,0470	-	-
500	35,6	4818	0,0366	-	-
630	37,6	6143	0,0283	-	-

H05V2-K / 60227 IEC 08

H07V2-K

PVC Insulated Heat Resistant Flexible Single Core Cables

STANDARDS

TS EN 50525-2-31

BS EN 50525-2-31

IEC 60227-3

UK CODE

2491 XHR / 6491 XHR



CONSTRUCTION

- 1 **Conductor**
Thin Multi-Wire Copper
- 2 **Insulation**
Heat Resistant Polyvinyl Chloride

TECHNICAL SPECIFICATIONS

- Max. Operating Temperature**
- Max. Short Circuit Temperature**
- Test Voltage**
AC 2 kV / 2.5 kV
- Min. Bending Radius**
D<8 4xD
8<D<12 5xD
D>12 6xD
- Flame Propagation Test on Single Cable**
EN / IEC 60332-1-2
- Rated Voltage Uo/U**
300/500V
450/750V

APPLICATION AREAS

- It is used under conditions where the working temperature must be high (90°C), in household appliances, fixed facilities, dry places, distribution boards and closed areas, in factories, workshops and all kinds of workplaces flush mounted or surface-mounted.

TECHNICAL DATA		Cu/HR-PVC			
Nominal Cross Section (mm²)	Cable Overall Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
				In the conduit (A)	In the air (A)
H05V2-K / 60227 IEC 08					
0,5	2	9	39	-	12
0,75	2,2	12	26	-	15
1	2,4	13	19,5	-	19
H07V2-K					
1,5	2,8	19	13,3	14,5	24
2,5	3,4	30	7,98	19,5	32
4	3,9	44	4,95	26	42
6	4,4	63	3,30	34	54
10	6,1	112	1,91	46	73
16	7,4	169	1,21	61	98
25	9,0	251	0,780	80	129
35	10,9	369	0,554	99	158
50	12,7	528	0,386	119	198
70	14,7	730	0,272	151	245
95	16,9	969	0,206	182	292
120	18,8	1212	0,161	210	344
150	21	1521	0,129	240	391
185	23,3	1857	0,106	273	448
240	26,6	2443	0,0801	320	528

H05V3-U / H07V3-U / H07V3-R

PVC Insulated Cold Resistant Single Core Cables

STANDARDS
DIN VDE 0281-9
TS HD 21.9 S2



CONSTRUCTION

- 1  **Conductor**
Solid or Stranded Copper
- 2  **Insulation**
Cold Resistant Polyvinyl Chloride

TECHNICAL SPECIFICATIONS

-  **Max. Operating Temperature**
70 °C
-  **Max. Short Circuit Temperature**
160 °C
-  **Test Voltage**
AC 2 kV / 2.5 kV
-  **Min. Bending Radius**
D < 8 4xD
8 < D < 12 5xD
D > 12 6xD
-  **Flame Propagation Test on Single Cable**
EN 60332-1-2
-  **Rated Voltage U₀/U**
300/500V
450/750V

APPLICATION AREAS

-   It is used under low temperature in dry places, distribution boards and closed areas, in factories, workshops and all kinds of workplaces flush mounted or surface-mounted.

TECHNICAL DATA		Cu/CR-PVC			
Nominal Cross Section (mm²)	Cable Overall Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
				In the conduit (A)	In the air (A)
H05V3-U					
0,5	2	9	36	-	-
0,75	2,2	12	24,5	-	15
1	2,3	15	18,1	11	19
H07V3-U / H07V3-R					
1,5	2,8	20	12,1	16	25
2,5	3,3	30	7,41	21	34
4	3,8	45	4,61	27	45
6	4,3	65	3,08	35	57
10	6,0	115	1,83	48	78
16	7,0	170	1,15	65	104
25	8,5	260	0,727	88	137
35	9,5	360	0,524	110	168
50	11,0	480	0,387	140	210
70	13,0	670	0,268	175	260
95	15,0	930	0,193	210	310
120	16,5	1160	0,153	250	365
150	18,0	1420	0,124	-	415
185	20,0	1780	0,0991	-	475
240	23,0	2330	0,0754	-	560
300	26,0	2930	0,0601	-	645
400	29,0	3750	0,0470	-	770

H05V3-K / H07V3-K

PVC Insulated Cold Resistant Flexible Single Core Cables

STANDARDS
DIN VDE 0281-9
TS HD 21.9 S2



CONSTRUCTION

- 1 **Conductor**
Thin Multi-Wire Copper
- 2 **Insulation**
Cold Resistant Polyvinyl Chloride

TECHNICAL SPECIFICATIONS

- Max. Operating Temperature**
70°C
- Max. Short Circuit Temperature**
160°C
- Test Voltage**
AC 2 kV / 2.5 kV
- Min. Bending Radius**
D < 8 4xD
8 < D < 12 5xD
D > 12 6xD
- Flame Propagation Test on Single Cable**
EN 60332-1-2
- Rated Voltage U₀/U**
300/500V
450/750V

APPLICATION AREAS

- It is used under low temperature in dry places, distribution boards and closed areas, in factories, workshops and all kinds of workplaces flush mounted or surface-mounted.

TECHNICAL DATA		Cu/CR-PVC			
Nominal Cross Section (mm2)	Cable Overall Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
				In the conduit (A)	In the air (A)
H05V3-K					
0,5	2	9	39	-	-
0,75	2,3	12	26	-	16
1	2,5	14	19,5	12	20
H07V3-K					
1,5	3,0	20	13,3	15	24
2,5	3,7	33	7,98	20	32
4	4,5	50	4,95	25	42
6	5,5	70	3,30	33	54
10	6,5	120	1,91	45	73
16	7,5	180	1,21	61	98
25	10,0	270	0,780	83	129
35	11,0	360	0,554	103	158
50	13,0	510	0,386	132	198
70	15,0	700	0,272	165	245
95	17,0	950	0,206	197	292
120	19,0	1150	0,161	235	344
150	21,0	1450	0,129	-	391
185	23,0	1750	0,106	-	448
240	27,0	2300	0,0801	-	528

H05Z1-U / H07Z1-U / H07Z1-R

Halogen Free Flame Retardant Single Core Cables

STANDARDS

TS EN 50525-3-31

BS EN 50525-3-31



CONSTRUCTION

- 1 **Conductor**
Solid or Stranded Copper
- 2 **Insulation**
Low Smoke Zero Halogen

TECHNICAL SPECIFICATIONS

- Max. Operating Temperature**
70°C
- Test Voltage**
AC 2 kV / 2.5 kV
- Flame Propagation Test on Single Cable**
EN 60332-1-2
- Low Smoke Density**
EN 61034-2
- Max. Short Circuit Temperature**
160°C
- Min. Bending Radius**
D < 8 4xD
8 < D < 12 5xD
D > 12 6xD
- Rated Voltage U₀/U**
300/500V
450/750V
- Halogen Free**
EN 60754-1 / EN 60754-2

APPLICATION AREAS

- It is used in refineries, hotels, schools, tunnels, high buildings, hospitals, data processing centers and business centers where people are concentrated as well as in fire-sensitive areas.

TECHNICAL DATA

Cu/LSZH

Nominal Cross Section (mm ²)	Cable Overall Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
				In the conduit (A)	In the air (A)
H05ZI-U					
0,5	2	9	36	3	12
0,75	2,2	13	24,5	6	15
1	2,4	16	18,1	11	19
H07ZI-U / H07ZI-R					
1,5	2,7	21	12,1	14,5	24
2,5	3,3	34	7,41	19,5	32
4	3,7	50	4,61	26	42
6	4,2	71	3,08	34	54
10-U	5,4	116	1,83	46	73
10-R	6	116	1,83	46	73
16	7	168	1,15	61	98
25	8,8	258	0,727	80	129
35	9,5	346	0,524	99	158
50	11	468	0,387	119	198
70	12,5	660	0,268	151	245
95	15	910	0,193	172	292
120	16,5	1140	0,153	210	344
150	18	1405	0,124	240	391
185	20,0	1745	0,0991	273	448
240	23	2205	0,0754	320	528
300	27,6	2995	0,0601	-	645
400	31,3	3000	0,0470	-	770

H05Z1-K / H07Z1-K

Halogen Free Flame Retardant Flexible Single Core Cables

STANDARDS

TS EN 50525-3-31

BS EN 50525-3-31



CONSTRUCTION

- 1 **Conductor**
Thin Multi-Wire Copper
- 2 **Insulation**
Low Smoke Zero Halogen

TECHNICAL SPECIFICATIONS

- Max. Operating Temperature**
70°C
- Max. Short Circuit Temperature**
160°C
- Test Voltage**
AC 2 kV / 2.5 kV
- Min. Bending Radius**
D<8 4xD
8<D<12 5xD
D>12 6xD
- Flame Propagation**
Test on Single Cable
EN 60332-1-2
- Rated Voltage Uo/U**
300/500V
450/750V
- Low Smoke Density**
EN 61034-2
- Halogen Free**
EN 60754-1 / EN 60754-2

APPLICATION AREAS

- It is used in refineries, hotels, schools, tunnels, high buildings, hospitals, data processing centers and business centers where people are concentrated as well as in fire-sensitive areas.

TECHNICAL DATA		Cu/LSZH			
Nominal Cross Section (mm²)	Cable Overall Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
				In the conduit (A)	In the air (A)
H05Z1-K					
0,5	2	9	39	3	12
0,75	2,2	13	26	6	15
1	2,4	16	19,5	11	19
H07Z1-K					
1,5	3,0	19	13,3	14,5	24
2,5	3,5	30	7,98	19,5	32
4	4,0	44	4,95	26	42
6	4,5	61	3,30	34	54
10	6,0	105	1,91	46	73
16	7,0	158	1,21	61	98
25	9,0	253	0,780	80	129
35	10,5	345	0,554	99	158
50	12,5	495	0,386	119	198
70	14	670	0,272	151	245
95	16,0	905	0,206	182	292
120	17,5	1132	0,161	210	344
150	20	1415	0,129	240	391
185	21,5	1720	0,106	273	448
240	24	2255	0,0801	320	528

H03VV-F / 60227 IEC 52

PVC Insulated Multi-Core Flexible Cables

STANDARDS

TS EN 50525-2-11

BS EN 50525-2-11

IEC 60227-5

UK KODU

2182Y / 2183Y / 2184Y



CONSTRUCTION

- ①  **Conductor**
Thin Multi-Wire Copper
- ②  **Insulation**
Polyvinyl Chloride
- ③  **Outer Sheath**
Polyvinyl Chloride

TECHNICAL SPECIFICATIONS



Max. Operating Temperature



Max. Short Circuit Temperature



Test Voltage
AC 2 kV



Min. Bending Radius
 $D \leq 12$ 5xD
 $D > 12$ 6xD



Flame Propagation Test on Single Cable
EN / IEC 60332-1-2



Rated Voltage U_0/U



Lead Free

APPLICATION AREAS



It is used as a connecting cable in damp places with little mechanical force and generally in household appliances.

TECHNICAL DATA		Cu/PVC/PVC		
Nominal Cross Section (mm²)	Cable Overall Diameter (mm)	Approximate Net Weight(kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity
				In the air (A)
H03VV-F / 60227 IEC 52				
2x0,50	5,0	36	39,0	3
2x0,75	5,5	46	26,0	6
3x0,50	5,3	43	39,0	3
3x0,75	5,8	54	26,0	6
4x0,50	5,8	53	39,0	3
4x0,75	6,4	68	26,0	6

H05VV-F / 60227 IEC 53

PVC Insulated Multi-Core Flexible Cables

STANDARDS

TS EN 50525-2-11

BS EN 50525-2-11

IEC 60227-5

UK CODE

3182Y / 3183Y

3184Y / 3185Y



CONSTRUCTION

- 1 **Conductor**
Thin Multi-Wire Copper
- 2 **Insulation**
PVC Polyvinyl Chloride
- 3 **Outer Sheath**
PVC Polyvinyl Chloride

TECHNICAL SPECIFICATIONS

- Max. Operating Temperature** 60°C
- Max. Short Circuit Temperature** 150°C
- Test Voltage**
AC 2 kV
- Min. Bending Radius**
D ≤ 12 5xD
D > 12 6xD
- Flame Propagation**
Test on Single Cable
EN / IEC 60332-1-2
- Rated Voltage Uo/U** 300/300V
- Lead Free**

APPLICATION AREAS

- It is used as a connection cable in damp places with little mechanical force and generally in household appliances.

TECHNICAL DATA		Cu/PVC/PVC		
Nominal Cross Section (mm²)	Cable Overall Diameter (mm)	Approximate Net Weight(kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity In the air (A)
H05VV-F / 60227 IEC 53				
2x0,75	5,9	55	26,0	6
2x1	6,3	64	19,5	10
2x1,5	7,2	87	13,3	16
2x2,5	8,9	133	7,98	25
2x4	10,9	184	4,95	32
3x0,75	6,3	65	26,0	6
3x1	6,7	75	19,5	10
3x1,5	7,8	106	13,3	16
3x2,5	9,6	163	7,98	25
3x4	11,0	226	4,95	32
4x0,75	6,8	77	26,0	6
4x1	7,4	93	19,5	10
4x1,5	8,7	131	13,3	16
4x2,5	10,5	197	7,98	25
4x4	12,0	275	4,95	32
5x0,75	7,8	97	26,0	6
5x1	8,3	113	19,5	10
5x1,5	9,9	164	13,3	16
5x2,5	12,8	248	7,98	25
5x4	13,6	347	4,95	32

H03VVH2-F / 60227 IEC 52

H05VVH2-F / 60227 IEC 53

PVC Insulation Flexible Flat Cables

STANDARDS

TS EN 50525-2-11
BS EN 50525-2-11
IEC 60227-5

UK KODU
2192Y / 3192Y



CONSTRUCTION

- 1 **Conductor**
Thin Multi-Wire
Copper
- 2 **Insulation**
PVC
Polyvinyl
Chloride
- 3 **Outer Sheath**
PVC
Polyvinyl
Chloride

TECHNICAL SPECIFICATIONS

- Max. Operating Temperature**
60°C
- Max. Short Circuit Temperature**
150°C
- Test Voltage**
AC 2 kV
- Min. Bending Radius**
D≤12 5xD
D>12 6xD
- Flame Propagation Test on Single Cable**
EN / IEC 60332-1-2
- Rated Voltage Uo/U**
300/500V
300/500V
- Lead Free**
Pb

APPLICATION AREAS

- It is used as a connection cable in damp places with little mechanical force and generally in household appliances.

TECHNICAL DATA		Cu/PVC/PVC		Current Carrying Capacity In the air (A)
Nominal Cross Section (mm²)	Cable Overall Diameter (mm)	Approximate Net Weight(kg/km)	Conductor Resistance Max. ohm/km (20°C)	
H03VVH2-F / 60227 IEC 52				
2x0,50	3,1x0,50	30	39,0	3
2x0,75	3,4x5,5	37	26,0	6
H05VVH2-F / 60227 IEC 53				
2x0,75	4,0x6,3	47	26,0	6
2x1	4,1x6,6	54	19,5	10
2x1,5	4,7x7,6	73	13,3	16
2x2,5	5,6x9,1	108	7,98	25
2x4	6,3x10,4	150	4,95	32
3x0,75	4,0x8,7	66	26,0	6
3x1	4,1x9,1	76	19,5	10
3x1,5	4,7x10,5	103	13,3	16
3x2,5	5,8x12,9	158	7,98	25
3x4	6,5x14,7	220	4,95	32

A03VH-H / A05VH-H

Flat Flexible Unsheathed Cord



CONSTRUCTION

1



Conductor
Thin Multi-Wire Copper

2



Insulation
Polyvinyl Chloride

TECHNICAL SPECIFICATIONS



Max. Operating Temperature



Max. Short Circuit Temperature



Test Voltage
AC 2 kV



Min. Bending Radius
D ≤ 12 5xD
D > 12 6xD



Flame Propagation
Test on Single Cable
EN / IEC 60332-1-2



Rated Voltage U₀/U



Lead Free

APPLICATION AREAS



Devices with little mechanical force and operating in dry places.

TECHNICAL DATA		Cu/PVC		
Nominal Cross Section (mm²)	Cable Overall Diameter (mm)	Approximate Net Weight(kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity In the air (A)
A03VH-H				
2x0,50	2,5x5	22	39,0	3
2x0,75	2,7x5,5	29	26,0	6
A05VH-H				
2x1	3,1x6,4	36	19,5	10
2x1,5	3,4x7,0	46	13,3	16
2x2,5	3,8x7,8	65	7,98	25
2x4	4,5x9,2	99	4,95	32
2x6	5,3x10,8	142	3,30	40

H03V2V2-F / 60227 IEC 56

H05V2V2-F / 60227 IEC 57

PVC Insulated Heat Resistant Flexible Multi-Core Cables

STANDARDS

TS EN 50525-2-11

BS EN 50525-2-11

IEC 60227-5



CONSTRUCTION

- 1 **Conductor**
Thin Multi-Wire Copper
- 2 **Insulation**
High Temperature Resistant Polyvinyl Chloride
- 3 **Outer Sheath**
High Temperature Resistant Polyvinyl Chloride

TECHNICAL SPECIFICATIONS

- Max. Operating Temperature** 90°C
- Max. Short Circuit Temperature** 150°C
- Test Voltage** 2 kV
- Min. Bending Radius**
D≤12 5xD
D>12 6xD
- Flame Propagation Test on Single Cable**
EN / IEC 60332-1-2
- Rated Voltage Uo/U** 300/500V

APPLICATION AREAS

- It is used in low-voltage household appliances with little mechanical stress at high temperatures.

TECHNICAL DATA		Cu/HR-PVC/HR-PVC		
Nominal Cross Section (mm²)	Cable Overall Diameter (mm)	Approximate Net Weight(kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity In the air (A)
H03V2V2-F / 60227 IEC 56				
2x0,50	5,0	37	39,0	3
2x0,75	5,5	46	26,0	6
3x0,50	5,3	43	39,0	3
3x0,75	6,3	61	26,0	6
4x0,50	5,8	53	39,0	3
4x0,75	6,4	68	26,0	6
H05V2V2-F / 60227 IEC 57				
2x0,75	6,3	57	26,0	6
2x1	6,6	65	19,5	10
2x1,5	7,4	84	13,3	16
2x2,5	9,1	130	7,98	25
2x4	10,4	179	4,95	32
3x0,75	6,7	68	26,0	6
3x1	7,0	78	19,5	10
3x1,5	8,1	106	13,3	16
3x2,5	9,9	163	7,98	25
3x4	11,3	227	4,95	32
4x0,75	7,3	87	26,0	6
4x1	7,9	100	19,5	10
4x1,5	9,0	134	13,3	16
4x2,5	10,8	201	7,98	25
4x4	12,3	280	4,95	32
5x0,75	8,1	102	26,0	6
5x1	8,6	120	19,5	10
5x1,5	10,0	166	13,3	16
5x2,5	12,0	249	7,98	25
5x4	13,9	355	4,95	32

H03V2V2H2-F / 60227 IEC 56

H05V2V2H2-F / 60227 IEC 57

PVC Insulated Heat Resistant Flexible Flat Cables

STANDARDS

TS EN 50525-2-11

BS EN 50525-2-11

IEC 60227-5



CONSTRUCTION

-  **Conductor**
Thin Multi-Wire Copper
-  **Insulation**
High Temperature Resistant Polyvinyl Chloride
-  **Outer Sheath**
High Temperature Resistant Polyvinyl Chloride

TECHNICAL SPECIFICATIONS



Max. Operating Temperature



Max. Short Circuit Temperature



Test Voltage
AC 2 kV



Min. Bending Radius
D ≤ 12 5xD
D > 12 6xD



Single Cable Vertical Flame Spread Test
EN / IEC 60332-1-2



Rated Voltage U₀/U

APPLICATION AREAS



It is used in low-voltage household appliances with little mechanical stress at high temperatures.

TECHNICAL DATA		Cu/HR-PVC/HR-PVC		
Nominal Cross Section (mm ²)	Cable Overall Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity In the air (A)
H03V2V2H2-F / 60227 IEC 56				
2x0,50	3,1x5,0	30	39,0	3
2x0,75	3,4x5,5	37	26,0	6
H05V2V2H2-F / 60227 IEC 57				
2x0,75	4,0x6,3	47	26,0	6
2x1	4,1x6,6	54	19,5	10
2x1,5	4,5x7,4	70	13,3	16

A05V3V3-F

PVC Insulated Cold Resistant Flexible Cables

STANDARDS
BS 6004

3182A / 3183A
3184A / 3185A



CONSTRUCTION

- 1

**Conductor**
Thin Multi-Wire Copper
- 2

**Insulation**
Cold Resistant Polyvinyl Chloride
- 3

**Outer Sheath**
Cold Resistant Polyvinyl Chloride

TECHNICAL SPECIFICATIONS

- **60 °C**

Max. Operating Temperature
- **160 °C**

Max. Short Circuit Temperature
- **AC 2 kV**

Test Voltage
AC 2 kV
- **D ≤ 12 5xD**
D > 12 6xD

Min. Bending Radius
- **EN 60332-1-2**

Single Cable Vertical Flame Spread Test
EN 60332-1-2
- **300/500V**

Rated Voltage U₀/U

APPLICATION AREAS

- 

It is used in low-voltage household appliances with little mechanical stress at low temperatures.

TECHNICAL DATA		Cu/CR-PVC/CR-PVC		
Nominal Cross Section (mm²)	Cable Overall Diameter (mm)	Approximate Net Weight(kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity
				In the air (A)
A05V3V3-F				
2x0,75	6,3	57	26,0	6
2x1	6,6	65	19,5	10
2x1,5	7,8	91	13,3	16
2x2,5	9,1	130	7,98	25
2x4	10,6	184	4,95	32
3x0,75	6,7	68	26,0	6
3x1	7,0	78	19,5	10
3x1,5	8,1	106	13,3	16
3x2,5	9,9	163	7,98	25
3x4	11,3	227	4,95	32
4x0,75	7,3	82	26,0	6
4x1	7,9	100	19,5	10
4x1,5	9,0	134	13,3	16
4x2,5	10,8	200	7,98	25
4x4	12,3	280	4,95	32
5x0,75	8,1	102	26,0	6
5x1	8,6	120	19,5	10
5x1,5	10,0	166	13,3	16
5x2,5	12,0	249	7,98	25
5x4	13,9	355	4,95	32

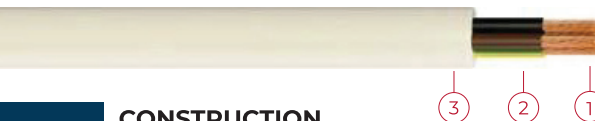
H03Z1Z1-F / 62821 IEC 101

H05Z1Z1-F / 62821 IEC 102

Halogen Free Flame Retardant Flexible Cables

STANDARDS

TS EN 50525-3-11
BS EN 50525-3-11
IEC 62821-3



CONSTRUCTION

- 1 **Conductor**
Thin Multi-Wire Copper
- 2 **Insulation**
Low Smoke Zero Halogen
- 3 **Outer Sheath**
Low Smoke Zero Halogen

TECHNICAL SPECIFICATIONS

- 60 **Max. Operating Temperature**
- 150 **Max. Short Circuit Temperature**
- Test Voltage**
AC 2 kV
- Min. Bending Radius**
D≤12 5xD
D>12 6xD
- Halogen Free**
EN / IEC 60754-1 - EN / IEC 60754-2
- Rated Voltage Uo/U**
300/300V
300/300V
- Low Smoke Density**
EN / IEC 61034-2
- Flame Propagation Test on Single Cable**
EN / IEC 60332-1-2

APPLICATION AREAS

- It is used in refineries, hotels, schools, tunnels, high buildings, hospitals, information processing centers and business centers where people are concentrated as well as in fire-sensitive areas.

TECHNICAL DATA		Cu/LSZH/LSZH		
Nominal Cross Section (mm²)	Cable Overall Diameter (mm)	Approximate Net Weight(kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity
				In the air (A)
H03Z1Z1-F / 62821 IEC 101				
2x0,50	5,0	40	39,0	3
2x0,75	5,5	50	26,0	6
3x0,50	5,3	44	39,0	3
3x0,75	5,8	54	26,0	6
4x0,50	5,8	54	39,0	3
4x0,75	6,4	68	26,0	6
H05Z1Z1-F / 62821 IEC 102				
2x0,75	6,3	57	26,0	6
2x1	6,6	65	19,5	10
2x1,5	7,4	84	13,3	16
2x2,5	9,1	130	7,98	25
2x4	10,4	180	4,95	32
3x0,75	6,7	68	26,0	6
3x1	7,0	78	19,5	10
3x1,5	8,1	107	13,3	16
3x2,5	9,9	164	7,98	25
3x4	11,3	278	4,95	32
4x0,75	7,3	83	26,0	6
4x1	7,9	101	19,5	10
4x1,5	9,0	134	13,3	16
4x2,5	10,8	201	8,0	25
4x4	12,3	281	4,95	32
5x0,75	8,1	107	26,0	6
5x1	8,6	121	19,5	10
5x1,5	10,0	166	13,3	16
5x2,5	12,0	250	7,98	25
5x4	13,9	366	4,95	32

Cu/PVC/PVC - 6181 Y

PVC Insulated PVC Sheathed Cables

STANDARDS
BS 6004
IEC 60502-1

UK CODE
6181 Y



CONSTRUCTION

- 1 **Conductor**
Solid or Stranded
Copper
- 2 **Insulation**
Polyvinyl
Chloride
- 3 **Outer Sheath**
Polyvinyl
Chloride

TECHNICAL SPECIFICATIONS

- 70 **Max. Operating Temperature**
- 160 **Max. Short Circuit Temperature**
- Test Voltage**
AC 2 kV / 3,5 kV
- Min. Bending Radius**
D ≤ 25mm² 8xD
D > 25mm² 12xD
- Flame Propagation Test
on Single Cable**
EN / IEC 60332-1-2
- Rated Voltage U₀/U**
300/500V
600/1000V
- Lead Free**

APPLICATION AREAS

- It is used in flush-mounted channels and boards.

TECHNICAL DATA Cu/PVC/PVC

Nominal Cross Section (mm²)	Cable Overall Diameter (mm)	Approximate Net Weight(kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity
				In the conduit (A)
6181Y				
1* re	3,9	26	18,1	13,5
1,5* re	4,4	33	12,1	17,5
2,5* re	5,0	46	7,41	24
4* rm	6	69	4,61	32
6* rm	6,5	89	3,08	41
10* rm	7,8	139	1,83	57
16*	9,1	207	1,15	76
25*	11	312	0,727	101
35*	12,1	410	0,524	125
50	13,8	557	0,387	151
70	15,6	761	0,268	192
95	18,2	1060	0,193	232
120	19,9	1307	0,153	269
150	21,8	1599	0,124	300
185	23,8	1977	0,0991	341
240	27,8	2608	0,0754	400
300	32,5	3355	0,0601	458

re: Solid Conductor
rm: Stranded Conductor
* 300/500 V

Cu/PVC/PVC - 6381 Y

PVC Insulated PVC Sheathed Flexible Cables

STANDARDS
Gen.to BS 6004
IEC 60502-1

UK CODE
6381 Y



CONSTRUCTION

- 1

**Conductor**
Thin Multi-Wire
Copper
- 2

**Insulation**
Polyvinyl
Chloride
- 3

**Outer Sheath**
Polyvinyl
Chloride

TECHNICAL SPECIFICATIONS

- **70**
C

Max. Operating Temperature
- **160**
C

Max. Short Circuit Temperature
- **Test Voltage**
AC 2 kV / 3,5 kV

**Min. Bending Radius**
D ≤ 25mm² 8xD
D > 25mm² 12xD
- **Flame Propagation Test
on Single Cable**
EN / IEC 60332-1-2

**300/500V**
600/1000V

Rated Voltage U_o/U

**Lead Free**
- APPLICATION AREAS
- 

It is used in flush-mounted channels and boards.
- | TECHNICAL DATA | Cu/PVC/PVC | Approximate Net Weight(kg/km) | Conductor Resistance Max. ohm/km (20°C) | Current Carrying Capacity | |
|----------------|------------|-------------------------------|---|---------------------------|--|
| | | | | In the air (A) | |
| 6381 Y | | | | | |
| 4* | 6,9 | 82 | 4,95 | 32 | |
| 6* | 7,4 | 104 | 3,30 | 41 | |
| 10* | 8,9 | 157 | 1,91 | 57 | |
| 16* | 10,0 | 220 | 1,21 | 76 | |
| 25* | 12,2 | 330 | 0,780 | 101 | |
| 35* | 13,4 | 431 | 0,554 | 125 | |
| 50 | 14,9 | 575 | 0,386 | 151 | |
| 70 | 16,6 | 764 | 0,272 | 192 | |
| 95 | 19,5 | 1033 | 0,206 | 232 | |
| 120 | 20,6 | 1265 | 0,161 | 269 | |
| 150 | 23,0 | 1572 | 0,129 | 300 | |
| 185 | 26,2 | 1931 | 0,106 | 341 | |
| 240 | 29,0 | 2470 | 0,0801 | 400 | |
| 300 | 31,8 | 3067 | 0,0641 | 458 | |
| 400 | 39,2 | 4148 | 0,0486 | 546 | |
- * 450/750 V
- 26 | cyprocable.com

Cu/XLPE/PVC - 6181 XY

XLPE Insulated PVC Sheathed Cables

STANDARDS
BS 7889
IEC 60502-1

UK CODE
6181 XY



CONSTRUCTION

- 1 **Conductor**
Solid or Stranded Copper
- 2 **Insulation**
Cross-Linked Polyethylene
- 3 **Outer Sheath**
Polyvinyl Chloride

TECHNICAL SPECIFICATIONS

- Max. Operating Temperature**
- Max. Short Circuit Temperature**
- Test Voltage**
AC 3,5 kV
- Min. Bending Radius**
D ≤ 25mm2 4xD
D > 25mm2 6xD
- Flame Propagation Test on Single Cable**
EN / IEC 60332-1-2
- Rated Voltage U₀/U**
600/1000V
- Lead Free**

APPLICATION AREAS

- It is used in flush-mounted channels and boards.

TECHNICAL DATA		Cu/XLPE/PVC			
Nominal Cross Section (mm²)	Cable Overall Diameter (mm)	Approximate Net Weight(kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
				In the conduit (A)	
6181 XY					
1,5	4,4	31	12,1	23	
2,5	4,8	42	7,41	31	
4	5,7	63	4,61	42	
6	6,2	83	3,08	54	
10	7,1	124	1,83	75	
16	8,4	188	1,15	100	
25	9,9	281	0,727	133	
35	10,9	374	0,524	164	
50	13,0	518	0,387	198	
70	14,7	723	0,268	253	
95	16,6	973	0,103	206	
120	18,5	1217	0,153	354	
150	20,4	1495	0,124	393	
185	22,2	1848	0,0991	449	
240	25,4	2404	0,0754	528	
300	28,9	3125	0,0601	603	

Cu/XLPE/PVC - 6381 XY

XLPE Insulated PVC Sheathed Flexible Cables

STANDARDS
Gen.to BS 7889
IEC 60502-1

UK CODE
6381 XY



CONSTRUCTION

- 1 **Conductor**
Thin Multi-Wire Copper
- 2 **Insulation**
XLPE Cross-Linked Polyethylene
- 3 **Outer Sheath**
PVC Polyvinyl Chloride

TECHNICAL PROPERTIES

- Max. Operating Temperature** 90°C
- Max. Short Circuit Temperature** 250°C
- Test Voltage**
AC 3,5 kV
- Min. Bending Radius**
D ≤ 25mm² 8xD
D > 25mm² 12xD
- Flame Propagation Test on Single Cable**
EN / IEC 60332-1-2
- Rated Voltage U₀/U** 600/1000V
- Lead Free**

APPLICATION AREAS

- It is used in flush-mounted channels and boards.

TECHNICAL DATA		Cu/XLPE/PVC		
Nominal Cross Section (mm ²)	Cable Overall Diameter (mm)	Approximate Net Weight(kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity In the air (A)
6381 XY				
4	6,3	69	4,95	42
6	6,8	90	3,30	54
10	8,3	140	1,91	75
16	9,5	201	1,21	100
25	11,2	292	0,780	133
35	12,3	338	0,554	164
50	14,0	531	0,386	198
70	16,0	721	0,272	253
95	18,0	959	0,206	306
120	19,8	1199	0,161	354
150	22,2	1494	0,129	393
185	25,4	1838	0,106	449
240	28,0	2350	0,0801	528
300	30,6	2918	0,0641	603
400	38,0	3951	0,0486	683

PVC FLAT TWIN CABLES 6192Y / 6193 Y

PVC Insulated PVC Sheathed Flat Cables

STANDARDS
BS 6004

UK CODE
6192 Y / 6193 Y



CONSTRUCTION

- 1 **Conductor**
Solid or Stranded Copper
- 2 **Insulation**
PVC Polyvinyl Chloride
- 3 **Outer Sheath**
PVC Polyvinyl Chloride

TECHNICAL PROPERTIES

- Max. Operating Temperature** 70°C
- Max. Short Circuit Temperature** 160°C
- Test Voltage** AC 2 kV
- Min. Bending Radius** 8xD
- Flame Propagation Test on Single Cable** EN 60332-1-2
- Rated Voltage Uo/U** 300/500V
- Lead Free**

APPLICATION AREAS

- It is used in indoor installations that do not carry the risk of mechanical damage in surface-mounted applications.

TECHNICAL DATA		Cu/PVC/PVC			
Nominal Cross Section (mm²)	Cable Overall Diameter (mm)		Approximate Net Weight(kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity
	Upper Limit				In the air (A)
BS 6004 FLAT TWIN 6192-Y / 6193-Y					
2x1re	4,8x7,4		60	18,1	13
2x1,5re	5,3x8,5		75	12,1	16
2x1,5rm	5,4x8,7		76	12,1	16
2x2,5re	6,2x10,1		112	7,41	21
2x2,5rm	6,3x10,3		113	7,41	21
2x4rm	6,9x11,5		154	4,61	27
2x6rm	7,8x13,0		203	3,08	34
2x10rm	9,5x16,2		315	1,83	45
2x16rm	10,8x18,6		448	1,15	57
3x1re	4,8x10,1		85	18,1	13
3x1,5re	5,3x11,7		106	12,1	16
3x2,5re	6,2x14,0		159	7,41	21
3x4rm	7,1x16,3		222	4,61	27
3x6rm	7,8x18,2		293	3,08	34
3x10rm	9,5x13,0		457	1,83	45
3x16rm	10,8x26,3		654	1,15	57

re: Solid Conductor
rm: Stranded Conductor

PVC FLAT TWIN CABLES - 624 Y

PVC Insulated, PVC Sheathed with Circuit Protection Conductor Flat Cables

STANDARDS
BS 6004

UK KODU
6241Y / 6242Y / 6243Y



CONSTRUCTION

- 1

**Conductor**
Solid or Stranded
Copper
- 2

**Insulation**
PVC
Polyvinyl
Chloride
- 3

**Outer Sheath**
PVC
Polyvinyl
Chloride

TECHNICAL PROPERTIES

- **70
C**

Max. Operating Temperature
- **160
C**

Max. Short Circuit Temperature
- **AC 2 kV**

Test Voltage
AC 2 kV
- **8xD**

Min. Bending Radius
8xD
- **EN 60332-1-2**

**Flame Propagation Test
on Single Cable**
EN 60332-1-2
- **300/500V**

Rated Voltage U₀/U
- **Pb**

Lead Free

APPLICATION AREAS

- 
- It is used in indoor installations that do not carry the risk of mechanical damage and in surface-mounted applications.

TECHNICAL DATA

Cu/PVC/PVC

Nominal Cross Section (mm²)	Cable Overall Diameter (mm)		Approximate Net Weight(kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity
	Upper Limit				In the air (A)
BS 6004 FLAT TWIN 624-Y					
1x1+1re	4,8x6		41	18,1/8,1	13
1x1,5+1re	5,3x6,6		48	12,1/8,1	16
1x1,5+1rm	5,4x6,7		49	12,1/8,1	16
2x1+1re	4,8x8,7		67	18,1/8,1	13
2x1,5+1re	5,3x9,7		83	12,1/8,1	16
2x1,5+1rm	5,4x10,0		84	12,1/8,1	16
2x2,5+1,5re	6,2x11,7		120	7,4/12,1	21
2x2,5+1,5rm	6,3x11,9		121	7,4/12,1	21
2x4+1,5rm	6,9x13,1		172	4,6/12,1	27
2x6+2,5rm	7,8x15,0		235	3,08/7,4	34
2x10+4rm	9,5x18,9		373	1,83/4,6	45
2x16+6rm	10,8x21,9		530	1,15/3,08	57
3x1+1re	4,8x11,4		91	18,1/8,1	13
3x1,5+1re	5,3x12,9		117	12,1/8,1	16
3x2,5+1,5re	6,2x15,3		172	7,4/12,1	21
3x4+1,5rm	7,1x17,9		243	4,6/12,1	27
3x6+2,5rm	7,8x20,2		315	3,08/7,4	34
3x10+4rm	9,5x25,7		516	1,83/4,6	45
3x16+6rm	10,8x29,7		735	1,15/3,08	57

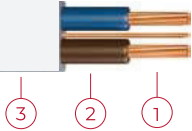
re: Solid Conductor
rm: Stranded Conductor

LSZH FLAT TWIN CABLES - 624 B

XLPE Insulated LSZH Sheathed with Circuit Protection Conductor Flat Cables

STANDARDS
BS 7211

UK KODU
6241B / 6242B / 6243B



CONSTRUCTION

- 1 **Conductor**
Solid or Stranded Copper
- 2 **Insulation**
Cross-Linked Polyethylene
- 3 **Outer Sheath**
Low Smoke Zero Halogen

TECHNICAL PROPERTIES

- Max. Operating Temperature** 90°C
- Max. Short Circuit Temperature** 250°C
- Test Voltage** AC 2 kV
- Min. Bending Radius** 8xD
- Flame Propagation Test on Single Cable** EN 60332-1-2
- Rated Voltage Uo/U** 300/500V
- Lead Free**
- Low Smoke Density** EN 61034-2
- Halogen Free** EN 60754-1 / EN 60754-2

APPLICATION AREAS

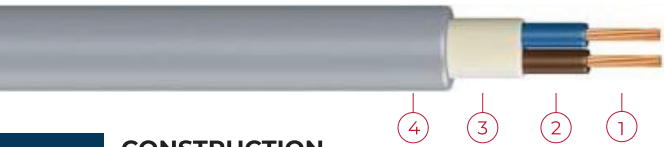
- It is used in indoor installations that do not carry the risk of mechanical damage, in surface mounted applications. It has the property of low level of smoke and toxic gas extraction in fire.

TECHNICAL DATA		Cu/XLPE/LSZH			
Nominal Cross Section (mm²)	Cable Overall Diameter (mm)		Approximate Net Weight(kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity
	Upper Limit				In the air (A)
LSZH FLAT TWIN 624-B					
1x1+1 re	5,0x6,3		42	18,1/18,1	17
1x1,5+1 re	5,3x6,6		48	12,1/18,1	23
2x1+1 re	5,0x9,1		65	18,1/18,1	17
2x1+1 rm	5,1x9,4		65	18,1/18,1	17
2x1,5+1 re	5,3x9,7		76	12,1/18,1	23
2x1,5+1 rm	5,4x10,0		76	12,1/18,1	23
2x2,5+1,5 re	6,0x11,2		108	7,4/12,1	31
2x2,5+1,5 rm	6,1x11,4		108	7,4/12,1	31
2x4+1,5 rm	6,7x12,6		148	4,6/12,1	42
2x6+2,5 rm	7,5x14,6		208	3,08/7,4	54
2x10+4 rm	8,8x17,6		317	1,83/4,6	75
2x16+6 rm	10,1x20,5		478	1,15/3,08	100
3x1+1 re	5,1x12,1		87	18,1/18,1	17
3x1,5+1 re	5,3x12,9		104	12,1/18,1	23
3x2,5+1 re	6,0x14,6		142	7,4/18,1	31
3x4+1,5 rm	6,7x16,9		207	4,6/12,1	42
3x6+2,5 rm	7,5x19,5		291	3,08/7,4	54
3x10+4 rm	8.8x23,6		442	1,83/4,6	75
3x16+6rm	10,1x27,6		671	1,15/3,08	100

re: Solid Conductor
rm: Stranded Conductor

NYM / NVV / 05VV-U / 05VV-R / 60227 IEC 10
PVC Insulated PVC Sheathed Multi-Core
Installation Cables

STANDARDS
TS HD 21.4 S2
DIN VDE 0250-204
IEC 60227-4



CONSTRUCTION

- 1 **Conductor**
Solid or Stranded Copper
- 2 **Insulation**
Polyvinyl Chloride
- 3 **Filler**
Polyvinyl Chloride
- 4 **Outer Sheath**
Polyvinyl Chloride

TECHNICAL PROPERTIES

- Max. Operating Temperature** 70°C
- Max. Short Circuit Temperature** 160°C
- Test Voltage** AC 2 kV
- Min. Bending Radius** 12xD
- Flame Propagation Test on Single Cable** EN / IEC 60332-1-2
- Rated Voltage Uo/U** 300/500V
- Lead Free**

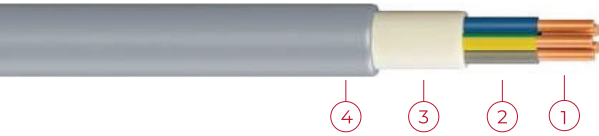
APPLICATION AREAS

- Damp places where there is no mechanical stress, flush-mounted or surface-mounted installations.

TECHNICAL DATA		Cu/PVC/PVC		
Nominal Cross Section (mm²)	Cable Overall Diameter (mm)	Approximate Net Weight(kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity In the air (A)
NYM / NVV / 60227 IEC 10				
2x1,5	8,8	121	12,1	22
2x2,5	10,0	163	7,41	30
2x4	10,9	212	4,61	40
2x6	11,8	270	3,08	51
2x10	15,7	498	1,83	70
2x16	18,4	698	1,15	94
2x25	20,8	1001	0,727	119
2x35	23,4	1320	0,524	148
3x1,5	8,9	134	12,1	16,5
3x2,5	10,5	194	7,41	23
3x4	11,4	254	4,61	30
3x6	12,9	343	3,08	38
3x10	16,4	605	1,83	52
3x16	18,7	858	1,15	69
3x25	22,2	1156	0,727	90
3x35	24,5	1500	0,524	111
4x1,5	9,9	168	12,1	16,5
4x2,5	11,3	233	7,41	23
4x4	10,3	333	4,61	30
4x6	14,2	430	3,08	38
4x10	18,2	770	1,83	52
4x16	20,9	1106	1,15	69

NYM / NVV / 05VV-U / 05VV-R / 60227 IEC 10
PVC Insulated PVC Sheathed Multi-Core
Installation Cables

STANDARDS
TS HD 21.4 S2
DIN VDE 0250-204
IEC 60227-4



CONSTRUCTION



TECHNICAL PROPERTIES

- 70 °C** Max. Operating Temperature
- 160 °C** Max. Short Circuit Temperature
- Test Voltage**
AC 2 kV
- Min. Bending Radius**
12xD
- Flame Propagation Test on Single Cable**
EN / IEC 60332-1-2
- Rated Voltage U₀/U**
300/500V
- Lead Free**

APPLICATION AREAS

- Damp places where there is no mechanical stress, flush-mounted or surface-mounted installations.

TECHNICAL DATA		Cu/PVC/PVC		
Nominal Cross Section (mm²)	Cable Overall Diameter (mm)	Approximate Net Weight(kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity In the air (A)
NYM / NVV / 60227 IEC 10				
4x25	24,5	1468	0,727	90
4x35	27,2	1921	0,524	111
5x1,5	10,9	200	12,1	16,5
5x2,5	12,5	280	7,41	23
5x4	14,1	395	4,61	30
5x6	15,5	520	3,08	38
5x10	20,5	860	1,83	52
5x16	23,8	1300	1,15	69

YVV-U / YVV-R / NYY

PVC Insulated Low Voltage Power Cables

STANDARDS
TS IEC 60502-1
DIN VDE 0276-603



CONSTRUCTION

- 1 **Conductor**
Solid or Stranded Copper
- 2 **Insulation**
PVC Polyvinyl Chloride
- 3 **Outer Sheath**
PVC Polyvinyl Chloride

TECHNICAL PROPERTIES



Max. Operating Temperature



Max. Short Circuit Temperature



Test Voltage
AC 3,5 kV



Min. Bending Radius
15 x D



Flame Propagation
Test on Single Cable
EN / IEC 60332-1-2



Rated Voltage U₀/U



Lead Free

APPLICATION AREAS



It is used under the ground and in cable ducts where there is not much stress.

TECHNICAL DATA		Cu/PVC/PVC		Current Carrying Capacity			
Nominal Cross Section (mm ²)	Cable Outer Diameter (mm)	Approximate Net Weight(kg/km)	Conductor Resistance Max. ohm/km (20°C)	In ground (A)		In the air (A)	
YVV-U / YVV-R / NYY				000	000	000	000
1x4	7,01	87	4,61	59	50	45	33
1x6	7,51	109	3,08	73	62	59	43
1x10	8,65	158	1,83	97	83	81	60
1x16	9,60	219	1,15	125	107	110	82
1x25	11,00	319	0,727	161	138	146	110
1x35	12,10	417	0,524	192	164	181	137
1x50	13,80	556	0,387	227	195	219	167
1x70	15,30	761	0,268	278	238	281	216
1x95	17,60	1033	0,193	332	286	341	264
1x120	19,50	1787	0,153	377	325	396	308
1x150	21,00	1563	0,124	423	365	456	356
1x185	23,20	1942	0,0991	478	413	501	400
1x240	26,60	2528	0,0754	555	470	615	485
1x300	29,20	3216	0,0601	627	541	709	561
1x400	35,20	1066	0,0470	725	614	852	656
1x500	39,80	5209	0,0366	818	608	982	710
1x630	46,20	6654	0,0283	-	777	1138	855

YVV-U / YVV-R / NYY

PVC Insulated Low Voltage Power Cables

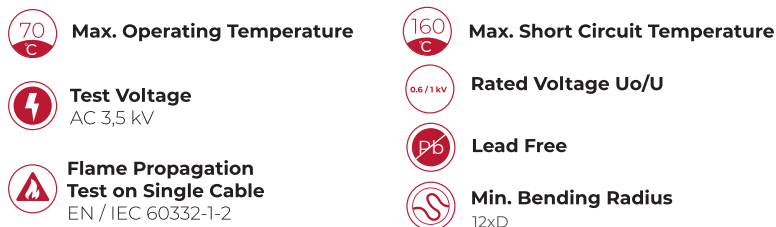
STANDARDS
TS IEEC 60502-1
DIN VDE 0276-603



CONSTRUCTION



TECHNICAL PROPERTIES



APPLICATION AREAS

It is used under the ground and in cable ducts where there is not much stress.

TECHNICAL DATA		Cu/PVC/PVC			
Nominal Cross Section (mm²)	Cable Outer Diameter (mm)	Approximate Net Weight(kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
				In ground (A)	In the air (A)
YVV-U / YVV-R / NYY					
2x1,5	10,54	161	12,1	32	22
2x2,5	11,32	196	7,41	42	30
2x4	13,02	272	4,61	54	40
2x6	14,02	334	3,08	68	51
2x10	16,30	478	1,83	90	70
2x16	18,80	675	1,15	116	94
2x25	21,20	930	0,727	150	119
2x35	23,40	1196	0,524	181	148
3x1,5	10,80	17	12,1	27	19,5
3x2,5	11,90	229	7,41	36	25
3x4	13,70	322	4,61	47	34
3x6	14,80	403	3,08	59	43
3x10	17,50	596	1,83	79	59
3x16	19,50	813	1,15	102	79
3x25	22,60	1177	0,727	133	106
3x35	24,90	1521	0,524	159	129
3x50	28,80	2054	0,387	188	157
3x70	32,30	2792	0,268	232	199
3x95	37,10	3769	0,193	280	246
3x120	41,00	4675	0,153	318	285
3x150	44,50	5676	0,124	359	326
3x185	49,20	7033	0,0991	406	374
3x240	56,70	9215	0,0754	473	445

YVV-U / YVV-R / NYY

PVC Insulated Low Voltage Power Cables

STANDARDS
TS IEC 60502-1
DIN VDE 0276-603



CONSTRUCTION

- 1 **Conductor**
Solid or Stranded Copper
- 2 **Insulation**
Polyvinyl Chloride
- 3 **Filler**
Polyvinyl Chloride
- 4 **Outer Sheath**
Polyvinyl Chloride

TECHNICAL SPECIFICATIONS

- Max. Operating Temperature** 70°C
- Max. Short Circuit Temperature** 160°C
- Test Voltage** AC 3,5 kV
- Min. Bending Radius** 12xD
- Flame Propagation Test on Single Cable** EN / IEC 60332-1-2
- Rated Voltage U₀/U** 0,6/1kV
- Lead Free**

APPLICATION AREAS

- It is used under the ground and in cable ducts where there is not much stress.

TECHNICAL DATA		Cu/PVC/PVC			
Nominal Cross Section (mm²)	Cable Outer Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
				In ground (A)	In the air (A)
YVV-U / YVV-R / NYY					
3x16+10	21,20	952	1,15/1,83	102	79
3x25+16	24,40	1363	0,727/1,115	133	106
3x35+16	26,80	1702	0,524/1,115	159	129
3x50+25	30,90	2310	0,387/0,727	188	157
3x70+35	34,40	3110	0,268/0,524	232	199
3x95+50	39,60	4209	0,193/0,387	280	246
3x120+70	43,90	5308	0,153/0,268	318	285
3x150+70	47,40	6253	0,124/0,268	359	326
3x185+95	52,40	7843	0,099/0,193	406	374
3x240+120	59,90	10132	0,153/0,0754	473	445

YVV-U / YVV-R / NYY

PVC Insulated Low Voltage Power Cables

STANDARDS
TS IEC 60502-1
DIN VDE 0276-603



CONSTRUCTION



TECHNICAL SPECIFICATIONS



Max. Operating Temperature



Max. Short Circuit Temperature



Test Voltage
AC 3,5 kV



Min. Bending Radius
12xD



Flame Propagation Test on Single Cable
EN / IEC 60332-1-2



Rated Voltage U_o/U



Lead Free

APPLICATION AREAS



It is used under the ground and in cable ducts where there is not much stress.

TECHNICAL DATA		Cu/PVC/PVC			
Nominal Cross Section [mm²]	Cable Outer Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
				In ground (A)	In the air (A)
YVV-U / YVV-R / NYY					
4x1,5	12,00	222	12,1	27	18,5
4x2,5	13,00	280	7,41	36	25
4x4	15,00	398	4,61	47	34
4x6	16,20	500	3,08	59	43
4x10	19,00	734	1,83	79	60
4x16	21,50	1026	1,15	102	80
4x25	24,90	1490	0,727	133	101
4x35	27,60	1947	0,524	159	126
4x50	31,90	2621	0,387	188	153
4x70	35,90	3586	0,268	232	199
4x95	41,20	4841	0,193	280	246
4x120	45,50	6004	0,153	318	285
4x150	50,80	7449	0,124	359	326
4x185	55,60	9186	0,0991	406	374
4x240	64,70	12147	0,0754	473	445

YVV-K / NYY-K / NYY FLEX

PVC Insulated Low Voltage Flexible Power Cables

STANDARDS
TS IEC 60502-1
DIN VDE 0276-603



CONSTRUCTION

- 1 **Conductor**
Thin Multi-Wire Copper
- 2 **Insulation**
Polyvinyl Chloride
- 3 **Outer Sheath**
Polyvinyl Chloride

TECHNICAL PROPERTIES

- Max. Operating Temperature**
70 °C
- Max. Short Circuit Temperature**
160 °C
- Test Voltage**
AC 3,5 kV
- Min. Bending Radius**
15xD
- Flame Propagation Test on Single Cable**
EN / IEC 60332-1-2
- Rated Voltage U₀/U**
0,6/1kV
- Lead Free**

APPLICATION AREAS



It is used under the ground and in cable ducts where there is not much stress.

TECHNICAL DATA	Cu/PVC/PVC			Current Carrying Capacity			
				In ground (A)		In the air (A)	
Nominal Cross Section (mm ²)	Cable Outer Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)				
YVV-K / NYY-K / NYY FLEX							
1x4	8,2	100	4,95	59	50	45	33
1x6	8,5	120	3,30	73	62	59	43
1x10	9,2	180	1,91	97	83	81	60
1x16	10,2	235	1,21	125	107	110	82
1x25	11,6	345	0,780	161	138	146	110
1x35	13,1	445	0,554	192	164	181	137
1x50	14,4	600	0,386	227	195	219	167
1x70	16,3	785	0,272	278	238	281	216
1x95	18,2	1050	0,206	332	286	341	264
1x120	20,5	1300	0,161	377	325	396	308
1x150	22,1	1570	0,129	423	365	456	356
1x185	24,6	2000	0,106	478	413	521	409
1x240	27,3	2600	0,0801	555	479	615	485
1x300	30,2	3270	0,0641	627	541	709	561
1x400	33,5	4050	0,0486	725	614	852	656
1x500	38,1	5150	0,0384	818	698	982	749

YVV-K / NYY-K / NYY FLEX

PVC Insulated Low Voltage Flexible Power Cables

STANDARDS
TS IEC 60502-1
DIN VDE 0276-603



CONSTRUCTION

- ① **Conductor**
Thin Multi-Wire Copper
- ② **Insulation**
PVC Polyvinyl Chloride
- ③ **Filler**
PVC Polyvinyl Chloride
- ④ **Outer Sheath**
PVC Polyvinyl Chloride

TECHNICAL PROPERTIES

- Max. Operating Temperature**
70 °C
- Test Voltage**
AC 3,5 kV
- Flame Propagation Test on Single Cable**
EN / IEC 60332-1-2
- Lead Free**
- Max. Short Circuit Temperature**
160 °C
- Min. Bending Radius**
12xD
- Rated Voltage U₀/U**
0,6/1kV

APPLICATION AREAS



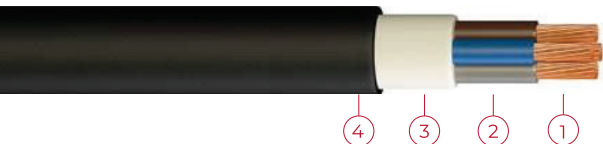
It is used under the ground and in cable ducts where there is not much stress.

TECHNICAL DATA		Cu/PVC/PVC			
Nominal Cross Section (mm²)	Cable Outer Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
				In ground (A)	In the air (A)
YVV-K (NYY FLEX)					
2x6	12,2	250	3,30	68	51
2x10	15,8	424	1,91	90	70
2x16	18,0	588	1,21	116	94
2x25	23,7	1019	0,780	150	119
2x35	25,7	1269	0,554	181	148
2x50	30,1	1777	0,386	210	153
2x70	33,7	2302	0,272	254	196
3x6	13,0	305	3,30	59	43
3x10	16,8	515	1,91	79	59
3x16	20,7	851	1,21	102	79
3x25	24,4	1221	0,780	133	106
3x35	27,1	1602	0,554	159	129
3x50	31,4	2210	0,386	188	157
3x70	35,2	2909	0,272	232	199
3x95	41,2	3932	0,206	280	246
3x120	43,6	4733	0,161	318	285
3x150	48,3	5841	0,129	359	326
3x185	55,4	7317	0,106	406	374
3x240	61,7	9340	0,0801	473	445
3x16+10	21,9	981	1,21/1,91	102	79
3x25+16	25,8	1421	0,780/1,21	133	106
3x35+16	28,1	1757	0,554/1,21	159	129
3x50+25	32,8	2493	0,386/0,780	188	157
3x70+35	36,8	3295	0,272/0,554	232	199
3x05+50	42,5	4396	0,206/0,386	280	246
3x120+70	46,2	5489	0,161/0,272	318	285
3x150+70	50,4	6583	0,129/0,272	359	326
3x185+05	58,1	8336	0,106/0,206	406	374
3x240+120	64,5	10625	0,0801/0,161	473	445

YVV-K / NYY-K / NYY FLEX

PVC Insulated Low Voltage Flexible Power Cables

STANDARDS
TS IEC 60502-1
DIN VDE 0276-603



CONSTRUCTION

- ① **Conductor Thin Multi Wire Copper**
- ② **Insulation Polyvinyl Chloride**
- ③ **Filler Polyvinyl Chloride**
- ④ **Outer Sheath Polyvinyl Chloride**

TECHNICAL PROPERTIES

- Max. Operating Temperature** 70°C
- Max. Short Circuit Temperature** 160°C
- Test Voltage** AC 3,5 kV
- Min. Bending Radius** 12xD
- Flame Propagation Test on Single Cable** EN / IEC 60332-1-2
- Rated Voltage Uo/U** 0,6/1kV
- Lead Free**

APPLICATION AREAS

- It is used under the ground and in cable ducts where there is not much stress.

TECHNICAL DATA		Cu/PVC/PVC			
Nominal Cross Section (mm²)	Cable Outer Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
				In ground (A)	In the air (A)
YVV-K / NYY-K / NYY FLEX					
4x6	15,8	423	3,30	59	43
4x10	20,0	764	1,91	79	60
4x16	22,5	1047	1,21	102	80
4x25	26,8	1526	0,780	133	101
4x35	30,1	2038	0,554	159	126
4x50	34,8	2801	0,386	188	153
4x70	39,2	3717	0,272	232	199
4x95	45,4	4967	0,206	280	246
4x120	48,3	6032	0,161	318	285
4x150	53,3	7412	0,129	359	326
5x4	16,0	469	4,95	47	34
5x6	17,4	597	3,30	59	43
5x10	20,6	890	1,91	79	60
5x16	25,2	1317	1,21	102	80

YXV / N2XY

XLPE Insulated Low Voltage Power Cables

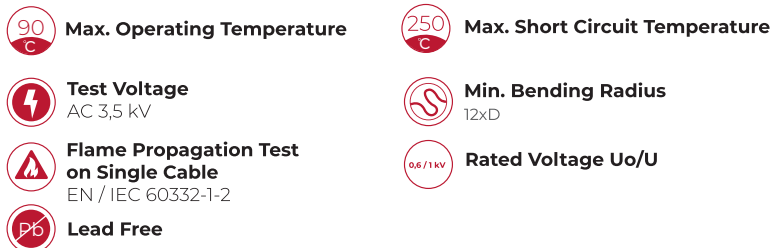
STANDARDS
TS IEC 60502-1
DIN VDE 0276-603



CONSTRUCTION



TECHNICAL PROPERTIES



APPLICATION AREAS

These cables which have very low dielectric loss are used in buildings, pipes, industrial zones, or distribution centers where mechanical damage is not expected and in power plants where sudden load changes occur. It adapts to high operating temperatures, is more durable and has a longer service life.

TECHNICAL DATA		Cu/XLPE/PVC			
Nominal Cross Section (mm²)	Cable Outer Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
				In ground (A)	In the air (A)
YXV / N2XY					
2x1,5	10,14	145	12,1	37	26
2x2,5	10,92	179	7,41	49	36
2x4	11,82	227	4,61	64	49
2x6	12,82	285	3,08	79	63
2x10	15,10	420	1,83	106	86
2x16	17,2	587	1,15	137	115
2x25	20,0	847	0,727	176	149
2x35	22,2	1102	0,524	213	185
2x50	25,4	1469	0,387	252	225
3x1,5	9,80	143	12,1	31	24
3x2,5	10,80	187	7,41	40	32
3x4	12,1	259	4,61	52	42
3x6	13,5	345	3,08	64	53
3x10	16,2	525	1,83	86	74
3x16	18,2	732	1,15	112	98
3x25	21,3	1075	0,727	145	133
3x35	23,6	1409	0,524	174	162
3x50	26,9	1874	0,387	206	107
3x70	31,0	2629	0,268	254	250
3x95	34,8	3491	0,193	305	308
3x120	39,2	4407	0,153	348	359
3x150	42,7	5368	0,124	392	412
3x185	47,5	6687	0,0991	444	475
3x240	54,4	8718	0,0754	517	564

YXV / N2XY

XLPE Insulated Low Voltage Power Cables

STANDARDS
TS IEC 60502-1
DIN VDE 0276-603



CONSTRUCTION

- 1 **Conductor**
Solid or Stranded Copper
- 2 **Insulation**
Cross-Linked Polyethylene
- 3 **Filler**
Polyvinyl Chloride
- 4 **Outer Sheath**
Polyvinyl Chloride

TECHNICAL PROPERTIES

- Max. Operating Temperature** 90°C
- Max. Short Circuit Temperature** 250°C
- Test Voltage**
AC 3,5 kV
- Min. Bending Radius**
12xD
- Flame Propagation Test on Single Cable**
EN / IEC 60332-1-2
- Rated Voltage Uo/U** 0,6/1kV
- Lead Free**

APPLICATION AREAS



These cables which have a very low dielectric loss are used in buildings, pipes, industrial zones or distribution centers where mechanical damage is not expected and in power plants where sudden load changes occur. It adapts to high operating temperatures, is more durable and has a longer service life.

TECHNICAL DATA		Cu/XLPE/PVC			
Nominal Cross Section (mm²)	Cable Outer Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
				In ground (A)	In the air (A)
YXV / N2XY					
3x16+10	19,8	858	1,15/1,83	112	98
3x25+16	23,0	1247	0,727/1,15	145	133
3x35+16	25,4	1574	0,524/1,15	174	162
3x50+25	28,9	2117	0,387/0,727	206	197
3x70+35	32,8	2912	0,268/0,524	254	250
3x95+50	37,2	3909	0,193/0,387	305	308
3x120+70	42,0	5018	0,153/0,268	348	359
3x150+70	45,2	5905	0,124/0,268	392	412
3x185+95	52,0	7677	0,0991/0,193	444	475
3x240+120	58,4	9776	0,0754/0,153	517	564
4x1,5	11,1	186	12,1	31	24
4x2,5	12,0	236	7,41	40	32
4x4	13,1	316	4,61	52	42
4x6	14,6	422	3,08	64	53
4x10	17,4	639	1,83	86	74
4x16	19,7	906	1,15	112	98
4x25	23,0	1333	0,727	145	133
4x35	26,1	1799	0,524	174	162
4x50	29,9	2404	0,387	206	197
4x70	34,4	3374	0,268	254	250
4x95	38,8	4509	0,193	305	308
4x120	44,2	5748	0,153	348	359
4x150	48,2	7013	0,124	392	412
4x185	53,6	8730	0,0991	444	475
4x240	62,3	11535	0,0754	517	564

YXV / N2XY

XLPE Insulated Low Voltage Power Cables

STANDARDS

TS IEC 60502-1
DIN VDE 0276-603
SI 1516.1



CONSTRUCTION



TECHNICAL PROPERTIES



Max. Operating Temperature



Max. Short Circuit Temperature



Test Voltage
AC 3,5 kV



Min. Bending Radius
12xD



**Flame Propagation
Test on Single Cable**
EN / IEC 60332-1-2



Rated Voltage U₀/U



Lead Free

APPLICATION AREAS



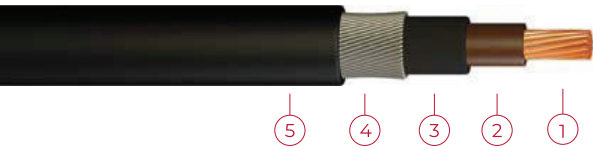
These cables which have very low dielectric loss are used in buildings, pipes, industrial zones or distribution centers where mechanical damage is not expected and in power plants where sudden load changes occur. It adapts to high operating temperatures, is more durable and has a longer service life.

TECHNICAL DATA	Cu/XLPE/PVC		Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
Nominal Cross Section (mm²)	Cable Outer Diameter (mm)	Approximate Net Weight (kg/km)		In ground (A)	In the air (A)
YXV / N2XY					
5x1,5	12,3	230	12,1	31	24
5x2,5	13,4	296	7,41	40	32
5x4	14,6	396	4,61	52	42
5x6	15,9	512	3,08	64	53
5x10	18,3	748	1,83	86	74
5x16	21,8	1125	1,15	112	98

YXZ2V / N2XRY

XLPE Insulated, Steel Wire Armoured Single Core Power Cables

STANDARDS
TS IEC 60502-1



CONSTRUCTION

- 1 **Conductor**
Stranded Copper
- 2 **Insulation**
Cross-linked Polyethylene
- 3 **Filler**
Polyvinyl Chloride
- 4 **Armour**
Galvanized Round Steel Wire
- 5 **Outer Sheath**
Polyvinyl Chloride

TECHNICAL SPECIFICATIONS

- Max. Operating Temperature** 90°C
- Max. Short Circuit Temperature** 250°C
- Test Voltage** AC 3,5 kV
- Min. Bending Radius** 15xD
- Flame Propagation Test on Single Cable** IEC 60332-1-2
- Rated Voltage U₀/U** 0,6/1 kV
- Lead Free**

APPLICATION AREAS

- It can be used under the ground as it is suitable for heavy operating conditions resistant to mechanical stresses. It adapts to high operating temperatures, is resistant to short-term temperature spikes and has a longer service life.

TECHNICAL DATA		Cu/XLPE/SWA/PVC			
Nominal Cross Section (mm²)	Cable Outer Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
				In ground (A)	In the air (A)
YXZ2V / N2XRY					
1x50	18	707	0,387	211	218
1x70	20	929	0,268	257	275
1x95	21	1194	0,193	304	336
1x120	24	1504	0,153	341	388
1x150	26	1794	0,124	377	438
1x185	28	2180	0,0991	418	501
1x240	31	2769	0,0754	469	508
1x300	33	3351	0,0601	514	654
1x400	37	4342	0,047	565	733
1x500	41	5475	0,0366	623	825
1x630	45	6937	0,0283	690	934

YXZ2V / N2XRY

XLPE Insulated, Steel Wire Armoured Multi-Core Power Cables

STANDARDS
TS IEC 60502-1



CONSTRUCTION



TECHNICAL SPECIFICATIONS



Max. Operating Temperature



Test Voltage
AC 3,5 kV



Flame Propagation Test on Single Cable
IEC 60332-1-2



Lead Free



Max. Short Circuit Temperature



Min. Bending Radius
12xD



Rated Voltage U₀/U

APPLICATION AREAS



It can be used under the ground as it is suitable for heavy operating conditions resistant to mechanical stresses. It adapts to high operating temperatures, is resistant to short-term temperature spikes and has a longer service life.

TECHNICAL DATA		Cu/XLPE/SWA/PVC			
Nominal Cross Section (mm²)	Cable Outer Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
				In ground (A)	In the air (A)
YXZ2V / N2XRY					
2x10	18	772	1,83	87	75
2x16	20	980	1,15	113	100
2x25	24,5	1530	0,727	146	136
2x35	27	1835	0,524	176	165
2x50	30	2270	0,387	208	201
2x70	33	2915	0,268	256	255
2x95	38	4025	0,193	307	314
2x120	41	4785	0,153	349	364
2x150	45	5670	0,124	391	416
2x185	50	7230	0,0991	442	480
2x240	56	9040	0,0754	509	565

YXZ2V / N2XRY

XLPE Insulated, Steel Wire Armoured Multi-Core Power Cables

STANDARDS
TS IEC 60502-1



CONSTRUCTION

- 1 **Conductor**
Stranded Copper
- 2 **XLPE**
Insulation
Cross-linked Polyethylene
- 3 **PVC**
Filler
Polyvinyl Chloride
- 4 **CSWA**
Armour
Galvanized Round Steel Wire
- 5 **PVC**
Outer Sheath
Polyvinyl Chloride

TECHNICAL SPECIFICATIONS

- Max. Operating Temperature** 90°C
- Max. Short Circuit Temperature** 250°C
- Test Voltage** AC 3,5 kV
- Min. Bending Radius** 12xD
- Flame Propagation Test on Single Cable** IEC 60332-1-2
- Rated Voltage U₀/U** 0.6/1 kV
- Lead Free**

APPLICATION AREAS

- It can be used under the ground as it is suitable for heavy operating conditions resistant to mechanical stresses. It adapts to high operating temperatures, is resistant to short-term temperature spikes and has a longer service life.

TECHNICAL DATA		Cu/XLPE/SWA/PVC			
Nominal Cross Section (mm²)	Cable Outer Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
				In ground (A)	In the air (A)
YXZ2V / N2XRY					
3x10	19	875	1,83	87	75
3x16	21	1130	1,15	113	100
3x25	26	1790	0,727	146	136
3x35	28	2190	0,524	176	165
3x50	31	2725	0,387	208	201
3x70	37	3900	0,268	256	255
3x95	40	4900	0,193	307	314
3x120	44	5910	0,153	349	364
3x150	49	7440	0,124	391	416
3x185	54	8970	0,0991	442	480
3x240	60	11200	0,0754	509	565
3x25+16	29	1985	0,727/1,15	146	136
3x35+16	30	2353	0,524/1,15	176	165
3x50+25	34	3000	0,387/0,727	208	201
3x70+35	39	4150	0,268/0,524	256	255
3x95+50	43	5260	0,193/0,387	307	314
3x120+70	48	6490	0,153/0,268	349	364
3x150+70	53	8070	0,124/0,268	391	416
3x185+95	57	9620	0,0991/0,193	442	480
3x240+120	63	12210	0,0754/0,153	509	565

YXZ2V / N2XRY

XLPE Insulated, Steel Wire Armoured Multi-Core Power Cables

STANDARDS
TS IEC 60502-1



CONSTRUCTION

- 1 **Conductor**
Stranded Copper
- 2 **Insulation**
XLPE Cross-linked Polyethylene
- 3 **Filler**
PVC Polyvinyl Chloride
- 4 **Armour**
GSAW Galvanized Round Steel Wire
- 5 **Outer Sheath**
PVC Polyvinyl Chloride

TECHNICAL SPECIFICATIONS

- Max. Operating Temperature** 90°C
- Max. Short Circuit Temperature** 250°C
- Test Voltage** AC 3,5 kV
- Min. Bending Radius** 12xD
- Flame Propagation Test on Single Cable** IEC 60332-1-2
- Rated Voltage U₀/U** 0,6/1 kV
- Lead Free**

APPLICATION AREAS

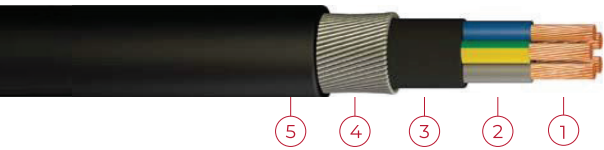
- It can be used under the ground as it is suitable for heavy operating conditions resistant to mechanical stresses. It adapts to high operating temperatures, is resistant to short-term temperature spikes and has a longer service life.

TECHNICAL DATA		Cu/XLPE/SWA/PVC			
Nominal Cross Section (mm²)	Cable Outer Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
				In ground (A)	in the air (A)
YXZ2V / N2XRY					
4x4	16	536	4,61	52	43
4x6	18	784	3,08	65	54
4x10	20	1015	1,83	87	75
4x16	23	1470	1,15	113	100
4x25	28	2125	0,727	146	165
4x35	31	2600	0,524	176	136
4x50	34	3260	0,387	208	201
4x70	40	4680	0,268	256	255
4x95	44	5920	0,193	307	314
4x120	49	7610	0,153	349	364
4x150	54	9180	0,124	391	416
4x185	59	11000	0,0991	442	480
4x240	65	13700	0,0754	509	565

YXZ2V / N2XRY

XLPE Insulated, Steel Wire Armoured
Multi-Core Power Cables

STANDARDS
TS IEC 60502-1



CONSTRUCTION

- 1  **Conductor**
Stranded Copper
- 2  **Insulation**
Cross-linked Polyethylene
- 3  **Filler**
Polyvinyl Chloride
- 4  **Armour**
Galvanized Round Steel Wire
- 5  **Outer Sheath**
Polyvinyl Chloride

TECHNICAL SPECIFICATIONS

-  **Max. Operating Temperature**
90 °C
-  **Max. Short Circuit Temperature**
250 °C
-  **Test Voltage**
AC 3,5 kV
-  **Min. Bending Radius**
12xD
-  **Flame Propagation Test on Single Cable**
IEC 60332-1-2
-  **Rated Voltage U₀/U**
0,6 / 1 kV
-  **Lead Free**

APPLICATION AREAS

-  
- It can be used under the ground as it is suitable for heavy operating conditions resistant to mechanical stresses. It adapts to high operating temperatures, is resistant to short-term temperature spikes and has a longer service life.

TECHNICAL DATA	Cu/XLPE/SWA/PVC				
	Nominal Cross Section (mm²)	Cable Outer Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity
YXZ2V / N2XRY					
					In ground (A) In the air (A)
5x6	19	880	3,08	65	51
5x10	22	1170	1,83	87	75
5x16	25	1700	1,15	113	100

YVZ2V / NYRY

PVC Insulated, Steel Wire Armoured Multi-Core Power Cables

STANDARDS
TS IEC 60502-1
DIN VDE 0276-603



CONSTRUCTION

- 1 **Conductor**
Stranded Copper
- 2 **PVC Insulation**
Polyvinyl Chloride
- 3 **PVC Filler**
Polyvinyl Chloride
- 4 **CSWA Armour**
Galvanized Round Steel Wire
- 5 **PVC Outer Sheath**
Polyvinyl Chloride

TECHNICAL SPECIFICATIONS

- Max. Operating Temperature** 70°C
- Max. Short Circuit Temperature** 160°C
- Test Voltage**
AC 3,5 kV
- Min. Bending Radius**
12xD
- Flame Propagation Test on Single Cable**
EN / IEC 60332-1-2
- Rated Voltage U₀/U**
0,6/1 kV
- Lead Free**

APPLICATION AREAS

- It can be used under the ground since it is resistant to mechanical stress and is suitable for heavy operating conditions.

TECHNICAL DATA		Cu/PVC/SWA/PVC			
Nominal Cross Section (mm²)	Cable Outer Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
				In ground (A)	In the air (A)
YVZ2V / NYRY					
2x10	20,5	900	1,83	90	66
2x16	22,5	1100	1,15	116	89
2x25	26,0	1650	0,727	150	118
2x35	28,0	1950	0,524	181	145
2x50	31,5	2500	0,387	215	176
2x70	35,5	3400	0,268	264	224
2x95	40,5	4360	0,193	317	271
3x10	21,5	1050	1,83	75	60
3x16	23,5	1300	1,15	98	80
3x25	27,5	1950	0,727	128	106
3x35	29,5	2350	0,524	157	131
3x50	33,5	3050	0,387	185	159
3x70	38,0	4200	0,268	228	202
3x95	43,0	5350	0,193	275	244
3x120	46,5	6400	0,153	313	282
3x150	52,0	8150	0,124	353	324
3x185	57,0	9750	0,0991	399	371
3x240	67,0	12250	0,0754	464	436

YVZ2V / NYRY

PVC Insulated, Steel Wire Armoured Multi-Core Power Cables

STANDARDS
TS IEC 60502-1
DIN VDE 0276-603



CONSTRUCTION

- 1 **Conductor Stranded Copper**
- 2 **Insulation Polyvinyl Chloride**
- 3 **Filler Polyvinyl Chloride**
- 4 **Armour Galvanized Round Steel Wire**
- 5 **Outer Sheath Polyvinyl Chloride**

TECHNICAL SPECIFICATIONS

- Max. Operating Temperature** 70°C
- Max. Short Circuit Temperature** 160°C
- Test Voltage** AC 3,5 kV
- Min. Bending Radius** 12xD
- Flame Propagation Test on Single Cable** EN / IEC 60332-1-2
- Rated Voltage Uo/U** 0.6/1kV
- Lead Free**

APPLICATION AREAS

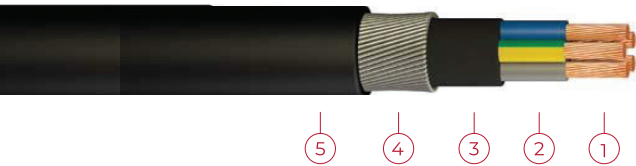
- It can be used under the ground since it is resistant to mechanical stress and is suitable for heavy operating conditions.

TECHNICAL DATA		Cu/PVC/SWA/PVC			
Nominal Cross Section (mm²)	Cable Outer Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
				In ground (A)	In the air (A)
YVZ2V / NYRY					
3x10+6	23,0	1280	1,83/3,08	75	60
3x16+10	25,5	1600	1,15/1,83	98	80
3x25+16	28,5	2150	0,727/1,15	128	106
3x35+16	30,5	2550	0,524/1,15	157	131
3x50+25	35,5	3600	0,387/0,727	185	159
3x70+35	39,5	4650	0,268/0,524	228	202
3x95+50	44,5	5950	0,193/0,387	275	244
3x120+70	50,5	7700	0,153/0,268	313	282
3x150+70	53,5	8900	0,124/0,268	353	324
3x185+95	59,0	10800	0,0991/0,193	399	371
3x240+120	66,5	13500	0,0754/0,153	464	436
4x6	20,0	900	3,08	56	43
4x10	23,0	1200	1,83	75	60
4x16	26,0	1700	1,15	98	80
4x25	29,5	2300	0,727	128	106
4x35	32,5	2870	0,524	157	131
4x50	37,5	4000	0,387	185	159
4x70	41,5	5150	0,268	228	202
4x95	48,0	7050	0,193	275	244
4x120	52,5	8450	0,153	313	282
4x150	57,0	10050	0,124	353	324
4x185	63,0	12150	0,0991	399	371
4x240	70,5	15300	0,0754	464	436

YVZ2V / NYRY

PVC Insulated, Steel Wire Armoured Multi- Core Power Cables

STANDARDS
TS IEC 60502-1
DIN VDE 0276-603



CONSTRUCTION

- 1 **Conductor**
Stranded Copper
- 2 **Insulation**
PVC Polyvinyl Chloride
- 3 **Filler**
PVC Polyvinyl Chloride
- 4 **Armour**
Galvanized Round Steel Wire
- 5 **Outer Sheath**
PVC Polyvinyl Chloride

TECHNICAL SPECIFICATIONS



Max. Operating Temperature



Max. Short Circuit Temperature



Test Voltage
AC 3,5 kV



Min. Bending Radius
12xD



Flame Propagation Test on Single Cable
EN / IEC 60332-1-2



Rated Voltage U₀/U



Lead Free

APPLICATION AREAS



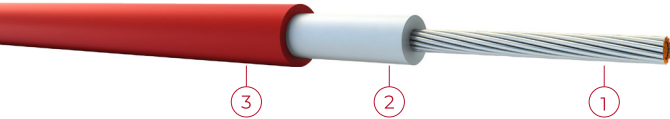
It can be used under the ground since it is resistant to mechanical stress and is suitable for heavy operating conditions.

TECHNICAL DATA		Cu/PVC/SWA/PVC			
Nominal Cross Section (mm²)	Cable Outer Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
				In ground (A)	In the air (A)
YVZ2V / NYRY					
5x6	20,8	1030	3,08	59	43
5x10	24,8	1551	1,83	79	59
5x16	27,4	1992	1,15	102	79

H1Z2Z2-K / 62930 IEC 131 SOLAR CABLES

Halogen-Free Single Core Cables for use in Photovoltaic Systems

STANDARDS
TS EN 50618
IEC 62930



CONSTRUCTION

- 1 **Conductor**
Thin Multi Wire
Tinned Copper
- 2 **Insulation**
TPE
Cross-linked
Halogen Free
- 3 **Outer Sheath**
TPE
Cross-Linked
Halogen Free

TECHNICAL SPECIFICATIONS

- 120 **Max. Operating Temperature**
for 20.000h
- 250 **Max. Short Circuit Temperature**
- Test Voltage**
AC 6,5 kV
- Min. Bending Radius**
5xD
- Flame Propagation Test on Single Cable**
EN 60332-1
- Rated Voltage Uo/U**
15 kV DC / 10/10 kV AC
- Low Smoke Density**
EN / IEC 61034-2
- Halogen Free**
EN / IEC 60754-1 - EN / IEC 60754-2

APPLICATION AREAS

- These cables are designed for connecting photovoltaic system components inside and outside of buildings and equipment with high mechanical requirements and extreme weather conditions. Especially designed to connect solar panels for permanent junction boxes and inverters. Good abrasion, ozone resistant, flameretardant halogen-free properties.

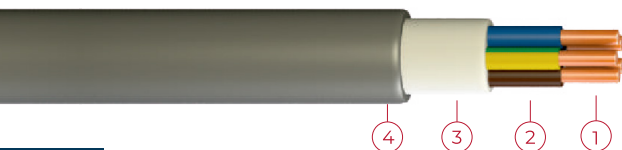
TECHNICAL DATA		Cu-Sn/TPE/TPE				
Nominal Cross Section (mm ²)	Cable Outer Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity		
				Free Single Cable in Air (A)	Single Cable on Surfaces (A)	Two Cables Adjacent on Surfaces (A)
H1Z2Z2-K / 62930 IEC 131						
1,5	4,5	36	13,7	30	29	24
2,5	5,0	47	8,21	41	39	33
4	5,5	63	5,09	55	52	44
6	6,2	85	3,39	70	67	57
10	7,0	126	1,95	98	93	79
16	8,4	191	1,24	132	125	107
25	10,2	292	0,795	176	167	142
35	11,3	382	0,565	218	207	176
50	13,1	543	0,393	276	262	221
70	15,1	741	0,277	347	330	278
95	17,0	979	0,210	416	395	333
120	19,0	1222	0,164	488	464	390
150	20,6	1475	0,132	566	538	453
185	23,4	1886	0,108	644	612	515
240	27,8	2400	0,0817	775	736	620
300*	30,2	2926	0,0654	913	866	693
400*	33,0	3813	0,0495	1098	1041	825

* Scope of IEC 62930

NHXMH-O / NHXMH-J (052XZ1-U / 052XZ1-R)

Halogen Free, Flame Retardant,
XLPE Insulated, Multi-core Cables

STANDARDS
DIN VDE 0250-214
TSE K 328



CONSTRUCTION

- 1 **Conductor**
Solid or Stranded Copper
- 2 **Insulation**
Cross-linked Polyethylene
- 3 **Filler**
Halogen Free Flame Retardant
- 4 **Outer Sheath**
Halogen Free Flame Retardant

TECHNICAL SPECIFICATIONS

- Max. Operating Temperature** 90°C
- Max. Short Circuit Temperature** 250°C
- Test Voltage** AC 2 kV
- Min. Bending Radius** 12xD
- Lead Free**
- Rated Voltage Uo/U** 300 / 500V
- Halogen Free** EN 60754-1 / EN 60754-2
- Flame Retardant Test of Bunched Cable** EN IEC 60332-3-24 Cat. C
- Low Smoke Density** EN 61034-2

APPLICATION AREAS

- It is used in refineries, hotels, schools, tunnels, high buildings, hospitals, data processing centers and people-intensive business centers and fire-sensitive regions.

TECHNICAL DATA		Cu/XLPE/HFFR		
Nominal Cross Section (mm²)	Cable Outer Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity
				In the air (A)
NHXMH-O / NHXMH-J				
2x1,5	8,3	101	12,1	22
2x2,5	9,1	130	7,41	30
2x4	10,4	182	4,61	40
2x6	11,4	235	3,08	51
2x10	14,2	379	1,83	70
2x16	16,8	548	1,15	98
3x1,5	8,7	118	12,1	22
3x2,5	9,6	157	7,41	30
3x4	11,0	224	4,61	40
3x6	12,4	303	3,08	51
3x10	15,0	475	1,83	70
3x16	18,2	711	1,15	98
4x1,5	9,3	140	12,1	18
4x2,5	10,3	189	7,41	25
4x4	12,3	286	4,61	34
4x6	13,9	389	3,08	43
4x10	16,2	589	1,83	60
4x16	19,8	888	1,15	80
4x25	24,0	1359	0,727	127
4x35	26,7	1794	0,524	158

NHXMH-O / NHXMH-J (052XZ1-U / 052XZ1-R)

Halogen Free, Flame Retardant,
XLPE Insulated, Multi-core Cables

STANDARDS
DIN VDE 0250-214
TSE K 328



CONSTRUCTION

-  **Conductor**
Solid or Stranded Copper
-  **Insulation**
Cross-linked Polyethylene
-  **Filler**
Halogen Free Flame Retardant
-  **Outer Sheath**
Halogen Free Flame Retardant

TECHNICAL SPECIFICATIONS

-  **Max. Operating Temperature**
90 °C
-  **Max. Short Circuit Temperature**
250 °C
-  **Test Voltage**
AC 2 kV
-  **Min. Bending Radius**
12xD
-  **Lead Free**
Pb
-  **Rated Voltage U₀/U**
300 / 500V
-  **Halogen Free**
EN 60754-1 / EN 60754-2
-  **Flame Retardant Test of Bunched Cable**
EN IEC 60332-3-24 Cat. C
-  **Low Smoke Density**
EN 61034-2

APPLICATION AREAS

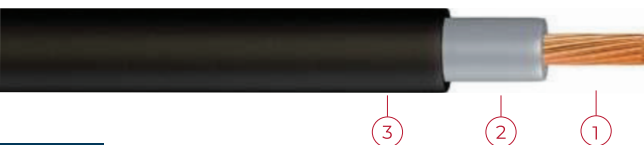
-   It is used in refineries, hotels, schools, tunnels, high buildings, hospitals, data processing centers and people-intensive business centers and fire-sensitive regions.

TECHNICAL DATA		Cu/XLPE/HFFR		
Nominal Cross Section (mm²)	Cable Outer Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity
				In the air (A)
NHXMH-O / NHXMH-J				
5x1,5	10,0	165	12,1	18,5
5x2,5	11,1	224	7,41	25
5x4	13,6	353	4,61	34
5x6	15,0	467	3,08	43
5x10	17,6	714	1,83	60
5x16	21,9	1098	1,15	80
5x25	26,1	1652	0,727	127
7x1,5	10,7	201	12,1	15,5
7x2,5	12,3	289	7,41	21

N2XH / YXZI

Halogen Free, Flame Retardant, XLPE Insulated, Single Core Cables

STANDARDS
DIN VDE 0276-604
TS HD 604 S1
TS IEC 60502-1



CONSTRUCTION

- 1 **Conductor**
Single or Stranded Copper
- 2 **Insulation**
Cross-linked Polyethylene
- 3 **Outer Sheath**
Halogen Free Flame Retardant

TECHNICAL SPECIFICATIONS

- Max. Operating Temperature**
- Max. Short Circuit Temperature**
- Test Voltage**
AC 3,5 kV
- Min. Bending Radius**
18xD
- Lead Free**
- Rated Voltage Uo/U**
- Halogen Free**
EN / IEC 60754-1 - EN / IEC 60754-2
- Flame Retardant Test of Bunched Cable**
EN IEC 60332-3-24 Cat. C
- Low Smoke Density**
EN / IEC 61034-2

APPLICATION AREAS

- It is used in refineries, hotels, schools, tunnels, high buildings, hospitals, data processing centers and people-intensive business centers and fire-sensitive regions.

TECHNICAL DATA	Cu/XLPE/HFFR						
Nominal Cross Section (mm²)	Cable Outer Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity			
				In ground (A)		In the air (A)	
N2XH / YXZI				Ⓐ	Ⓑ	Ⓐ	Ⓑ
1x4	6,7	77	4,61	66	55	56	44
1x6	7,2	98	3,08	82	68	71	57
1x10	8,1	142	1,83	109	90	96	77
1x16	9,0	200	1,15	139	115	128	102
1x25	10,4	294	0,727	179	149	173	139
1x35	11,5	389	0,524	213	178	212	170
1x50	13,0	516	0,387	251	211	258	208
1x70	14,7	720	0,268	307	259	328	265
1x95	16,4	962	0,193	366	310	404	329
1x120	18,3	1205	0,153	416	352	471	381
1x150	20,2	1488	0,124	465	396	541	438
1x185	22,4	1852	0,0991	526	449	626	507
1x240	25,6	2409	0,0754	610	521	749	606
1x300	28,9	3072	0,0601	689	587	864	697
1x400	34,0	3874	0,0470	788	669	1018	816
1x500	39,2	5023	0,0366	889	748	1173	933

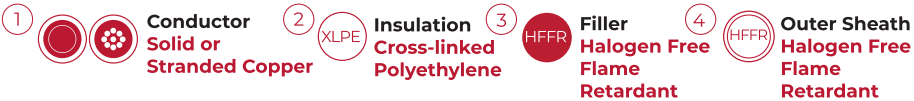
N2XH / YXZ1

Halogen Free, Flame Retardant XLPE Insulated, Multi-core Cables

STANDARDS
DIN VDE 0276-604
TS HD 604 S1
TS IEC 60502-1



CONSTRUCTION



TECHNICAL SPECIFICATIONS

- 90 °C** Max. Operating Temperature
- 250 °C** Max. Short Circuit Temperature
- Test Voltage** AC 3,5 kV
- Min. Bending Radius** 12xD
- Lead Free**
- 0,6/1 kV** Rated Voltage Uo/U
- Halogen Free** EN / IEC 60754-1 - EN / IEC 60754-2
- Flame Retardant Test of Bunched Cable** EN IEC 60332-3-24 Cat. C
- Low Smoke Density** EN / IEC 61034-2

APPLICATION AREAS

- It is used in refineries, hotels, schools, tunnels, high buildings, hospitals, data processing centers and people-intensive business centers and fire-sensitive regions.

TECHNICAL DATA		Cu/XLPE/HFFR				
Nominal Cross Section (mm²)	Cable Outer Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity		
				In ground (A)	In the air (A)	
N2XH / YXZ1						
2x1,5	9,1	117	12,1	30	24	
2x2,5	9,9	147	7,41	40	32	
2x4	10,4	179	4,61	52	42	
2x6	11,9	248	3,08	64	53	
2x10	14,3	358	1,83	86	73	
2x16	16,4	532	1,15	111	96	
2x25	19,2	776	0,727	143	130	
2x35	21,6	1029	0,524	173	160	
2x50	25,0	1388	0,387	205	195	

N2XH / YXZ1

Halogen Free, Flame Retardant XLPE Insulated, Multi-core Cables

STANDARDS
DIN VDE 0276-604
TS HD 604 S1
TS IEC 60502-1



CONSTRUCTION



TECHNICAL SPECIFICATIONS

- Max. Operating Temperature**
- Max. Short Circuit Temperature**
- Test Voltage**
AC 3,5 kV
- Min. Bending Radius**
12xD
- Lead Free**
- Rated Voltage U₀/U**
- Halogen Free**
EN / IEC 60754-1 - EN / IEC 60754-2
- Flame Retardant Test of Bunched Cable**
EN IEC 60332-3-24 Cat. C
- Low Smoke Density**
EN / IEC 61034-2

APPLICATION AREAS

- It is used in refineries, hotels, schools, tunnels, high buildings, hospitals, data processing centers and people-intensive business centers and fire-sensitive regions.

TECHNICAL DATA		Cu/XLPE/HFFR			
Nominal Cross Section (mm²)	Cable Outer Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
				In ground (A)	In the air (A)
N2XH / YXZ1					
3x1,5	9,6	135	12,1	30	24
3x2,5	10,5	175	7,41	40	32
3x4	11,4	232	4,61	52	42
3x6	12,5	303	3,08	64	53
3x10	15,7	490	1,83	86	73
3x16	17,3	673	1,15	111	96
3x25	20,5	1005	0,727	143	130
3x35	22,8	1328	0,524	173	160
3x50	26,5	1799	0,387	205	195
3x70	30,3	2510	0,268	252	247
3x95	34,3	3366	0,193	303	305
3x120	38,8	4263	0,153	346	355
3x150	42,2	5190	0,124	390	407
3x185	46,7	6440	0,0991	441	469
3x240	53,5	8397	0,0754	511	551

N2XH / YXZ1

Halogen Free, Flame Retardant XLPE Insulated, Multi-core Cables

STANDARDS
DIN VDE 0276-604
TS HD 604 S1
TS IEC 60502-1



CONSTRUCTION

- 1 **Conductor Solid and Stranded Copper**
- 2 **Insulation Cross-linked Polyethylene**
- 3 **Filler Halogen Free Flame Retardant**
- 4 **Outer Sheath Halogen Free Flame Retardant**

TECHNICAL SPECIFICATIONS

- Max. Operating Temperature** 90 °C
- Max. Short Circuit Temperature** 250 °C
- Test Voltage** AC 3,5 kV
- Min. Bending Radius** 12xD
- Lead Free** Pb
- Rated Voltage Uo/U** 0,6/1 kV
- Halogen Free** EN / IEC 60754-1 - EN / IEC 60754-2
- Flame Retardant Test of Bunched Cable** EN IEC 60332-3-24 Cat. C
- Low Smoke Density** EN / IEC 61034-2

APPLICATION AREAS

- It is used in refineries, hotels, schools, tunnels, high buildings, hospitals, data processing centers and people-intensive business centers and fire-sensitive regions.

TECHNICAL DATA		Cu/XLPE/HFFR			
Nominal Cross Section (mm²)	Cable Outer Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
				In ground (A)	In the air (A)
N2XH / YXZ1					
3x16+10	19,7	840	1,15/1,83	111	96
3x25+16	22,9	1230	0,727/1,15	143	130
3x35+16	25,1	1542	0,524/1,15	173	160
3x50+25	28,7	2086	0,387/0,727	205	195
3x70+35	32,5	2874	0,268/0,524	252	247
3x95+50	36,8	3850	0,193/0,387	303	305
3x120+70	41,5	4932	0,153/0,268	346	355
3x150+70	44,8	5813	0,124/0,268	390	407
3x185+95	48,8	7212	0,0991/0,193	441	469
3x240+120	56,9	9526	0,0754/0,153	511	551
4x1,5	10,4	162	12,1	30	24
4x2,5	11,3	210	7,41	40	32
4x4	12,6	292	4,61	52	42
4x6	13,9	386	3,08	64	53
4x10	16,8	598	1,83	86	73
4x16	19,2	860	1,15	111	96
4x25	22,5	1275	0,727	143	130

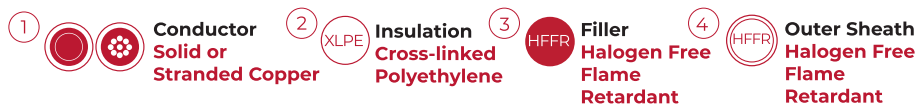
N2XH / YXZ1

Halogen Free, Flame Retardant, XLPE Insulated, Multi-Core Cables

STANDARDS
DIN VDE 0276-604
TS HD 604 S1
TS IEC 60502-1



CONSTRUCTION



TECHNICAL SPECIFICATIONS

- Max. Operating Temperature** 90°C
- Max. Short Circuit Temperature** 250°C
- Test Voltage** AC 3,5 kV
- Min. Bending Radius** 12xD
- Lead Free**
- Rated Voltage Uo/U** 0,6/1 kV
- Halogen Free** EN / IEC 60754-1 - EN / IEC 60754-2
- Flame Retardant Test of Bunched Cable** EN IEC 60332-3-24 Cat. C
- Low Smoke Density** EN / IEC 61034-2

APPLICATION AREAS

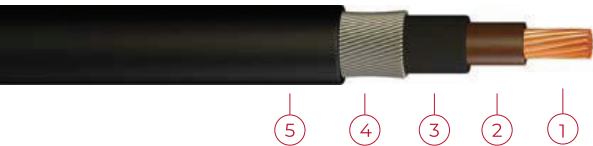
- It is used in refineries, hotels, schools, tunnels, high buildings, hospitals, data processing centers and people-intensive business centers and fire-sensitive regions.

TECHNICAL DATA		Cu/XLPE/HFFR				
Nominal Cross Section (mm²)	Cable Outer Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity		
				In ground (A)	In the air (A)	
N2XH / YXZ1						
4x35	25,5	1719	0,524	173	160	
4x50	29,1	2292	0,387	205	195	
4x70	33,6	3233	0,268	252	247	
4x95	37,8	4321	0,193	303	305	
4x120	42,8	5473	0,153	346	355	
4x150	46,8	6699	0,124	390	407	
4x185	52	8341	0,0991	441	469	
4x240	60,9	11067	0,0754	511	551	
5x1,5	10,9	183	12,1	30	24	
5x2,5	12,2	250	7,41	40	32	
5x4	13,6	349	4,61	52	42	
5x6	14,9	460	3,08	64	53	
5x10	18,2	722	1,83	86	73	
5x16	21	1052	1,15	111	96	
5x25	25	1585	0,727	143	130	
5x35	28,1	2121	0,524	173	160	

N2XRH / YXZ2Z1

Halogen Free, Flame Retardant, XLPE Insulated, Single Core Armoured Cables

STANDARDS
DIN VDE 0276-604
TS HD 604 S1
TS IEC 60502-1
TSE K 339



CONSTRUCTION

- 1 **Conductor**
Solid or Stranded Copper
- 2 **Insulation**
XLPE Cross-linked Polyethylene
- 3 **Filler**
HFFR Halogen Free Flame Retardant
- 4 **Armour**
CSWA Galvanized Round Steel Wire
- 5 **Outer Sheath**
HFFR Halogen Free Flame Retardant

TECHNICAL SPECIFICATIONS

- Max. Operating Temperature** 90°C
- Max. Short Circuit Temperature** 250°C
- Test Voltage** AC 3,5 kV
- Min. Bending Radius** 15xD
- Lead Free**
- Rated Voltage Uo/U** 0,6/1 kV
- Halogen Free**
EN / IEC 60754-1 - EN / IEC 60754-2
- Flame Retardant Test of Bunched Cable**
EN IEC 60332-3-24 Cat. C
- Low Smoke Density**
EN / IEC 61034-2

APPLICATION AREAS

- It is used in refineries, hotels, schools, tunnels, high buildings, hospitals, data processing centers and people-intensive business centers and fire-sensitive regions.

TECHNICAL DATA		Cu/XLPE/SWA/HFFR		Current Carrying Capacity			
Nominal Cross Section (mm²)	Cable Outer Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	In ground (A)		In the air (A)	
N2XRH / YXZ2Z1				000	00	000	00
1x4	11,5	219	4,61	66	55	56	44
1x6	12,0	256	3,08	82	68	71	57
1x10	13,0	313	1,83	109	90	96	77
1x16	14,0	394	1,15	139	115	128	102
1x25	15,5	522	0,727	179	149	173	139
1x35	17,5	644	0,524	213	178	212	170
1x50	19,0	884	0,387	251	211	258	208
1x70	20,5	1141	0,268	307	259	328	265
1x95	23,0	1436	0,193	366	310	404	329
1x120	25,0	1726	0,153	416	352	471	381
1x150	26,5	2158	0,124	465	396	541	438
1x185	28,5	2628	0,0991	526	449	626	507
1x240	32,0	3464	0,0754	610	521	749	606
1x300	36,0	4204	0,0601	689	587	864	697
1x400	40,5	5036	0,0470	788	669	1018	816
1x500	45,5	5893	0,0366	889	748	1173	933
1x630	49,9	7267	0,0283	935	861	1266	1032

N2XRH / YXZZZ1

Halogen Free, Flame Retardant,
XLPE Insulated, Multi-core Armoured Cables

STANDARDS
DIN VDE 0276-604
TS HD 604 S1
TS IEC 60502-1
TSE K 339



CONSTRUCTION

- 1 Conductor Stranded Copper
- 2 XLPE Insulation Cross-linked Polyethylene
- 3 HFFR Filler Halogen Free Flame Retardant
- 4 CSWA Armour Galvanized Round Steel Wire
- 5 HFFR Outer Sheath Halogen Free Flame Retardant

TECHNICAL SPECIFICATIONS

- 90°C Max. Operating Temperature
- 250°C Max. Short Circuit Temperature
- Test Voltage AC 3,5 kV
- Min. Bending Radius 12xD
- Lead Free
- Rated Voltage Uo/U 0,6/1 kV
- Halogen Free EN / IEC 60754-1 - EN / IEC 60754-2
- Flame Retardant Test of Bunched Cable EN IEC 60332-3-24 Cat. C
- Low Smoke Density EN / IEC 61034-2

APPLICATION AREAS

It is used in refineries, hotels, schools, tunnels, high buildings, hospitals, data processing centers and people-intensive business centers and fire-sensitive regions.

TECHNICAL DATA		Cu/XLPE/SWA/HFFR			
Nominal Cross Section (mm²)	Cable Outer Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
				In ground (A)	In the air (A)
N2XRH / YXZZ1					
2x1,5	14,0	342	12,1	31	24
2x2,5	14,5	390	7,41	40	31
2x4	15,5	458	4,61	52	41
2x6	17,0	546	3,08	65	53
2x10	19,5	788	1,83	87	72
2x16	21,5	1012	1,15	113	96
2x25	26,0	1544	0,727	146	130
2x35	28,0	1836	0,524	176	160
2x50	30,5	2244	0,387	208	195
2x70	34,5	2896	0,268	256	247
2x95	38,5	3870	0,193	307	305
2x120	42,0	4626	0,153	349	355
2x150	45,5	5512	0,124	391	407
2x185	51,0	6990	0,0991	442	469
2x240	56,5	8716	0,0754	509	551

N2XRH / YXZ2Z1

Halogen Free, Flame Retardant, XLPE Insulated, Multi-core Armoured Cables

STANDARDS
DIN VDE 0276-604
TS HD 604 S1
TS IEC 60502-1
TSE K 339



CONSTRUCTION

- 1 **Conductor**
Stranded Copper
- 2 **Insulation**
XLPE Cross-linked Polyethylene
- 3 **Filler**
HFFR Halogen Free Flame Retardant
- 4 **Armour**
GSWA Galvanized Round Steel Wire
- 5 **Outer Sheath**
HFFR Halogen Free Flame Retardant

TECHNICAL SPECIFICATIONS

- Max. Operating Temperature** 90°C
- Max. Short Circuit Temperature** 250°C
- Test Voltage** AC 3,5 kV
- Min. Bending Radius** 12xD
- Lead Free**
- Rated Voltage Uo/U** 0,6/1 kV
- Halogen Free**
EN / IEC 60754-1 - EN / IEC 60754-2
- Flame Retardant Test of Bunched Cable**
EN IEC 60332-3-24 Cat. C
- Low Smoke Density**
EN / IEC 61034-2

APPLICATION AREAS

- It is used in refineries, hotels, schools, tunnels, high buildings, hospitals, data processing centers and people-intensive business centers and fire-sensitive regions.

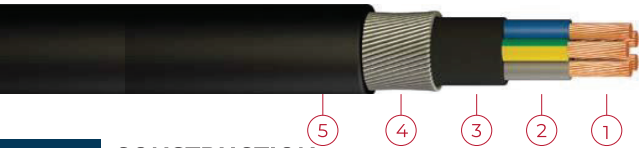
TECHNICAL DATA Cu/XLPE/SWA/HFFR

Nominal Cross Section (mm²)	Cable Outer Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
				In ground (A)	In the air (A)
N2XRH / YXZ2Z1					
3x1,5	14,5	366	12,1	31	24
3x2,5	15,0	426	7,41	40	31
3x4	16,5	508	4,61	52	41
3x6	17,5	614	3,08	65	53
3x10	20,0	898	1,83	87	72
3x16	22,5	1172	1,15	113	96
3x25	27,0	1794	0,727	146	130
3x35	29,0	2162	0,524	176	160
3x50	32,0	2684	0,387	208	195
3x70	37,0	3722	0,268	256	247
3x95	40,5	4712	0,193	307	305
3x120	44,5	5692	0,153	349	355
3x150	49,5	7202	0,124	391	407
3x185	54,0	8598	0,0991	442	469
3x240	60,0	10812	0,0754	509	551
3x25+16	30,0	2100	0,727/1,15	146	130
3x35+16	31,0	2440	0,524/1,15	176	160
3x50+25	35,0	3100	0,387/0,727	208	195
3x70+35	40,0	4230	0,268/0,524	256	247
3x95+50	44,0	5340	0,193/0,387	307	305

N2XRH / YXZ2Z1

Halogen Free, Flame Retardant,
XLPE Insulated, Multi-core Armoured Cables

STANDARDS
DIN VDE 0276-604
TS HD 604 S1
TS IEC 60502-1
TSE K 339



CONSTRUCTION

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- 2 **Insulation**
XLPE Cross-linked Polyethylene
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HFFR Halogen Free Flame Retardant
- 4 **Armour**
CSWA Galvanized Round Steel Wire
- 5 **Outer Sheath**
HFFR Halogen Free Flame Retardant

TECHNICAL SPECIFICATIONS

- Max. Operating Temperature**
90 °C
- Test Voltage**
AC 3,5 kV
- Lead Free**
Pb
- Halogen Free**
EN / IEC 60754-1 - EN / IEC 60754-2
- Low Smoke Density**
EN / IEC 61034-2
- Max. Short Circuit Temperature**
250 °C
- Min. Bending Radius**
12xD
- Rated Voltage Uo/U**
0,6/1 kV
- Flame Retardant Test of Bunched Cable**
EN IEC 60332-3-24 Cat. C

APPLICATION AREAS

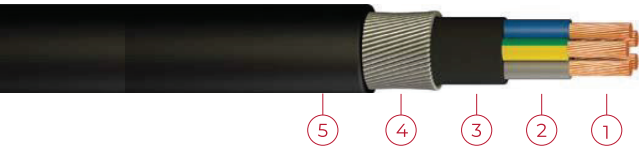
- It is used in refineries, hotels, schools, tunnels, high buildings, hospitals, data processing centers and people-intensive business centers and fire-sensitive regions.

TECHNICAL DATA		Cu/XLPE/SWA/HFFR			
Nominal Cross Section (mm²)	Cable Outer Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
				In ground (A)	In the air (A)
N2XRH / YXZ2Z1					
3x120+70	49,0	6600	0,153/0,268	349	355
3x150+70	53,0	8100	0,124/0,268	391	407
3x185+95	59,0	9800	0,0991/0,193	442	469
3x240+120	65,0	12250	0,0754/0,153	509	551
4x1,5	15,0	404	12,1	31	24
4x2,5	16,0	476	7,41	40	31
4x4	17,0	578	4,61	52	41
4x6	19,5	792	3,08	65	53
4x10	21,5	1042	1,83	87	72
4x16	24,5	1506	1,15	113	96
4x25	29,0	2128	0,727	146	130
4x35	31,5	2598	0,524	176	160
4x50	34,5	3242	0,387	208	195
4x70	40,0	4520	0,268	256	247
4x95	44,0	5780	0,193	307	305
4x120	49,5	7426	0,153	349	355
4x150	54,0	8840	0,124	391	407
4x185	59,0	10708	0,0991	442	469
4x240	66,0	13490	0,0754	509	551

N2XRH / YXZ2Z1

Halogen Free, Flame Retardant,
XLPE Insulated, Multi-core Armoured Cables

STANDARDS
DIN VDE 0276-604
TS HD 604 S1
TS IEC 60502-1
TSE K 339



CONSTRUCTION

- 1 **Conductor**
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XLPE Cross-linked Polyethylene
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HFFR Halogen Free Flame Retardant
- 4 **Armour**
CSWA Galvanized Round Steel Wire
- 5 **Outer Sheath**
HFFR Halogen Free Flame Retardant

TECHNICAL SPECIFICATIONS

- Max. Operating Temperature** 90°C
- Max. Short Circuit Temperature** 250°C
- Test Voltage** AC 3,5 kV
- Min. Bending Radius** 12xD
- Lead Free**
- Rated Voltage Uo/U** 0,6/1 kV
- Halogen Free**
EN / IEC 60754-1 - EN / IEC 60754-2
- Flame Retardant Test of Bunched Cable**
EN IEC 60332-3-24 Cat. C
- Low Smoke Density**
EN / IEC 61034-2

APPLICATION AREAS

- It is used in refineries, hotels, schools, tunnels, high buildings, hospitals, data processing centers and people-intensive business centers and fire-sensitive regions.

TECHNICAL DATA		Cu/XLPE/SWA/HFFR			
Nominal Cross Section (mm²)	Cable Outer Diameter (mm)	Approximate Net Weight (kg/km)	Conductor Resistance Max. ohm/km (20°C)	Current Carrying Capacity	
				In ground (A)	In the air (A)
N2XRH / YXZ2Z1					
5x1,5	16,0	448	12,1	31	24
5x2,5	17,0	532	7,41	40	31
5x4	19,0	742	4,61	52	41
5x6	20,5	900	3,08	65	53
5x10	23,0	1192	1,83	87	72
5x16	26,5	1756	1,15	113	96
5x25	31,5	2500	0,727	146	130
5x35	34,0	3068	0,524	176	160
7x1,5	16,0	448	12,1	16	15,6
7x2,5	18,0	634	7,41	21	20,8

CABLE TECHNICAL INFORMATION

Stranded and Thin Multi-Wire Copper Conductor

STANDARDS
EN 60228
IEC 60228

Stranded Copper Conductor Class 2

TECHNICAL DATA					Cu		
Nominal Cross Section (mm2)	Number of Wires	Single Wire Diameter mm	Conductor Diameter mm	Approximate Net Weight kg/km	Conductor Resistance Max. Ohm/km(20°C)	Mechanical (Single Wire) properties of copper conductor	
						Min. Lying Down	Min. Strength
COPPER CONDUCTORS							
1,5	7	0,53	1,59	13	12,1	24	200
2,5	7	0,67	2,01	21	7,41	24	200
4	7	0,85	2,55	35	4,61	24	200
6	7	1,05	3,15	52	3,08	26	200
10	7	1,35	3,85	87	1,83	26	200
16	7	1,74	4,80	137	1,15	28	200
25	7	2,19	5,80	215	0,727	28	200
35	7	2,62	6,90	300	0,524	28	200
50	10	2,62	8,20	410	0,387	28	200
70	14	2,62	9,70	595	0,268	28	200
95	19	2,62	11,40	820	0,193	28	200
120	24	2,62	13,10	1040	0,153	28	200
150	30	2,62	14,20	1280	0,124	28	200
185	37	2,62	15,80	1600	0,0991	28	200
240	48	2,62	18,60	2100	0,0754	28	200
300	58	2,62	20,40	2700	0,0601	28	200
400	55	3,00	23,00	3400	0,0470	33	200
500	70	3,00	26,00	4400	0,0366	33	200

Thin Multi-Wire Copper Conductor Class 5

TECHNICAL DATA		Cu					
Nominal Cross Section (mm2)	Number of Wires	Single Wire Diameter mm	Conductor Diameter mm	Approximate Net Weight kg/km	Conductor Resistance Max. Ohm/km(20°C)	Mechanical (Single Wire) properties of copper conductor	
						Min. Lying Down	Min. Strength
COPPER CONDUCTORS							
0,5	16	0,19	0,95	4,3	39,0	21	200
0,75	24	0,19	1,15	6,3	26,0	21	200
1,0	32	0,19	1,30	8,5	19,5	21	200
1,5	30	0,24	1,50	12	13,3	21	200
2,5	45	0,25	1,95	20	7,98	21	200
4	50	0,30	2,50	33	4,95	21	200
6	75	0,30	3,10	49	3,30	21	200
10	74	0,40	4,10	83	1,91	22	200
16	116	0,40	5,25	133	1,21	22	200
25	224	0,35	6,60	204	0,780	22	200
35	329	0,35	7,75	290	0,554	22	200
50	470	0,35	9,25	414	0,386	22	200
70	658	0,35	11,00	580	0,272	22	200
95	893	0,35	13,10	785	0,206	22	200
120	1128	0,35	14,20	1000	0,161	22	200
150	1410	0,35	15,80	1240	0,129	22	200
185	1739	0,35	18,60	1530	0,106	22	200
240	2256	0,35	21,00	2000	0,0801	22	200
300	2820	0,35	23,00	2500	0,0541	22	200

Harmonize Tip / Harmonized Type	H	
Ulusal Tip / National Type	A	
Anma Gerilimi / Rated Voltage U₀/U		
100 / 100 V	01	
300 / 300 V	03	
300 / 500 V	05	
450 / 750 V	07	
Yalıtkan (Insulation) / Dış Kılıf (Outer Sheath)		
Etilen Propilen Kauçuk / Ethylene Propylene Rubber (EPR)	B	
Etilen Vinil Asetat / Ethylene Vinyl Acetate (EVA)	G	
Cam Elyaf Örgü / Glass Fibre Braiding	J	
Mineral / Mineral	M	
Polikloropren / Poly Chloro Pren (PCP)	N	
Polikloropren Özel Bileşik (HD 22.6)	N2	
Polychloroprene Special Compound (HD 22.6)		
Klorosülfenated Polietilen (CSP)	N4	
Chlorosulphanated Polyethylene (CSP)		
Suya Dayanıklı Özel Polikloropren (PCP)	N8	
Water-resistant Special Polyahloroprene (PCP)		
Poliüretan / Polyamide	Q	
Polyamid / Polyamide	Q4	
Doğal Kauçuk / Natural Rubber	R	
Silikon Kauçuk / Silicone Rubber	S	
Tekstil Örgü / Textile Braiding	T	
Polivinilklorür / Polyvinilchloride (PVC)	V	
90°C Çalışma Sıcaklığına Dayanıklı Polivinilklorür (PVC)	V2	
90 °C Ambient Temperature-resistant Polyvinilchloride (PVC)		
Düşük Sıcaklıklara Dayanıklı Polivinilklorür (PVC)	V3	
Low-temperature Resistant Polyvinilchloride (PVC)		
Çapraz Bağlı (Vulkanize) Polivinilklorür (XLPVC)	V4	
Cross-Linked (Vulcanized) Polyvinilchloride (XLPVC)		
Yağa Dayanıklı Polivinilklorür (PVC)	V5	
Oil-Resistant Polyvinilchloride (PVC)		
Polietilen Bazlı Yancılığında Korozyif Gaz Çıkarmayan	Z	
Düşük Duman Yoğunluklu Çapraz Bağlı (Vulkanize) Bileşik		
Polyethylene Based, No Corrosive Gas Creating While		
Burning, Low Smoke Density Cross Linked (Vulcanized)		
Polietilen Bazlı Yancılığında Korozyif Gaz Çıkarmayan	Z1	
Düşük Duman Yoğunluklu Termoplastik Bileşik		
Polyethylene Based, No Corrosive Gas Creating While		
Burnin, Low Smoke Density Thermoplastic Compound		
Metalik Ekran / Metallic Screen		
Konsantrik Bakır Tel / Concentric Copper Wire	C	
Bakır Tellere Çorap Örgü / Copper Wire Braiding	C4	
Yapısal Özellikler / Constructional Features		
Ayrılabilir Yassı Kablolar (Kılıflı veya Kılıfsız)	H	
Divisible Flat Cables (Sheathed or unsheathed)		
Ayrılmayan Yassı Kablolar (Kılıflı)	H2	
Undivisible Flat Cables (Sheathed)		
Üç veya Daha Fazla Damarlı Olan Yassı Kablolar	H6	
Three or More Cored Sheathed Flat Cables		
İletken Yapısı / Conductor Structure		
Tek Tellli (Klas 1) / Solid (Class 1)	U	
Çok Tellli (Klas 2) / Stranded (Class 2)	R	
Sabit Tesis İçin İnce Çok Tellli Bükülgen (Klas 5)	K	
Fine-stranded Flexible for Fixed Installations (Class 5)		
Hareketli Tesis İçin İnce Çok Tellli Bükülgen (Klas 5)	F	
Fine-stranded Flexible for Mobile Installations (Class 5)		
Yüksek Derecede Bükülgenlik Gerektiren Bükülgen (Klas 6)	H	
High Twistable Flexible (Class 6)		
Gelin Tellli Biçiminde İletken	Y	
Tinsel Conductor		
Damar Sayısı / No of Cores		
Yeşil / Sarı Damar Yok / Without Green / Yellow Core	X	
Yeşil / Sarı Damarlı / With Green / Yellow Core	G	
İletken Kesiti / Rated Cross-section of Conductor (mm²)		

IDENTIFICATION OF CORES IN CABLES AND CORDS

Yeşil ve Sarı Damar Olan Kablo ve Kordonlar / Cables and Cords with a Green and Yellow Core					
Damarların Sayısı Number of Cores	Damarların Renkleri / Color of Cores				
	Koruyucu / Protective	Enerjili / Live			
* 3	Yeşil ve Sarı Green/Yellow	Mavi Blue	Kahverengi Brown		
* 4	Yeşil ve Sarı Green/Yellow	-	Kahverengi Brown	Siyah Black	Gri Grey
* 4 _a	Yeşil ve Sarı Green/Yellow	Mavi Blue	Kahverengi Brown	Siyah Black	
* 5	Yeşil ve Sarı Green/Yellow	Mavi Blue	Kahverengi Brown	Siyah Black	Gri Grey
› 5	Yeşil ve Sarı Green/Yellow	Siyah üzerine beyaz numara baskılı Black cores with white number			
› 5	Yeşil ve Sarı Green/Yellow	Siyah üzerine beyaz numara baskılı Black cores with white number			
a Sadece belirli uygulamalar için b Metalik kılıf, zırh veya ekran telleri gibi yalıtılmamış eşmerkezli iletken, bu çizelgede bir damar olarak dikkate alınmamıştır. Bir eşmerkezli iletken kendi konumuyla tanımlanır ve bu nedenle renkle tanıtılmasına gerek yoktur. * HD 308 S2 standardına uygun a For certain applications only. b In this table an uninsulated concentric conductor, such as a metallic sheath, armour or screen wires, is not regarded as a core. A concentric conductor is identified by its position and therefore, need not be identified by colour. * Based on HD 308 S2 standard					

Yeşil ve Sarı Damar Olmayan Kablo ve Kordonlar / Cables and Cords without a Green and Yellow Core					
Damarların Sayısı Number of Cores	Damarların Renkleri / Color of Cores				
	Koruyucu / Protective	Enerjili / Live			
* 2	Mavi Blue	Kahverengi Brown			
* 3	-	Kahverengi Brown	Siyah Black	Gri Grey	
* 3a	Mavi Blue	Kahverengi Brown	Siyah Black		
* 4	Mavi Blue	Kahverengi Brown	Siyah Black	Gri Grey	
* 5	Mavi Blue	Kahverengi Brown	Siyah Black	Gri Grey	Siyah Black
> 5		Bütün damarlar siyah üzerine beyaz numara baskılı All cores are black color with white number			
> 5		Bütün damarlar siyah üzerine beyaz numara baskılı All cores are black color with white number			
a Sadece belirli uygulamalar için b Metalik kılıf, zırh veya ekran telleri gibi yalıtılmamış eşmerkezli iletken, bu çizelgede bir damar olarak dikkate alınmamıştır. Bir eşmerkezli iletken kendi konumuyla tanımlanır ve bu nedenle renkle tanıtılmasına gerek yoktur. * HD 308 S2 standardına uygun a For certain applications only. b In this table an uninsulated concentric conductor, such as a metallic sheath, armour or screen wires, is not regarded as a core. A concentric conductor is identified by its position and therefore, need not be identified by colour. * Based on HD 308 S2 standard					

GÜÇ POWER	0.6/1 kV YALITKANLI KABLOLARIN STANDART GÜÇLERİ TAŞIYABİLECEKLERİ MAX. UZAKLIK (m) The Maximum Range of 0.6-1 kV Insulated cables carrying standard powers															
	1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240	300
2.5	103	169	271	404	675	1063										
3	87	142	227	339	567	892	1291									
3.5	73	120	192	287	480	756	1180									
4	65	106	169	253	423	666	1038									
4.5	58	94	51	226	378	595	927	1266								
5	51	84	135	202	337	531	828	1130								
6	43	70	112	168	280	442	689	940	1247							
7	36	60	96	143	240	378	590	805	1067							
8	32	52	84	125	210	330	515	703	932	1301						
9	28	46	74	111	186	293	457	625	828	1155						
10	25	42	67	101	168	265	414	565	750	1045						
12	21	35	56	84	141	223	347	474	630	878	1168					
14	18	30	49	73	123	194	302	413	547	764	1014					
16		26	42	62	105	165	257	351	466	650	863	1053	1119			
18		23	37	56	94	148	231	316	419	858	111	948	1017			
20		21	34	51	85	135	210	287	381	532	706	862	907	1072		
22			30	45	76	120	288	256	340	475	630	769	799	944	1156	
25			27	40	67	106	165	226	299	418	555	677	671	793	971	1124
30				33	56	89	139	189	251	351	466	569	569	672	823	952
35					48	75	117	161	213	297	395	482	501	592	425	838
40					42	66	103	141	187	262	348	425	442	522	639	739
45						58	91	124	165	231	306	374	400	472	578	669
50						53	82	113	149	209	277	338	361	426	522	604
55						48	74	102	135	188	250	305	332	392	481	556
60							68	94	124	173	230	281	284	336	411	476
70							58	80	106	148	197	241	266	314	385	446
75							55	75	99	139	185	225	248	293	360	416
80								70	93	130	172	210	220	261	319	369
90								62	82	115	153	187	198	234	287	332
100									74	103	138	168	181	214	262	303
110									68	94	126	153	153	181	221	256
130										80	106	129	149	177	216	250
133										78	104	127	132	156	192	222
150											92	112	124	146	179	208
160											86	105	110	130	160	185
180												93	99	117	144	166
200													97	114	140	162
205														102	125	145
230															106	123
270																119
280																114
290																111
300																109
305																

SOIL THERMAL RESISTANCES

Toprak Termik Direnci Thermal Resistance of Earth	Toprak Şartları Earth Conditions	Hava Şartları Air Conditions
0.7	Çok Nemli / Very humid	Sürekli nemli / Continuous humid
1	Nemli / Humid	Düzenli yağmurlu / Regular rainy
2	Kuru / Dry	Seyrek yağmurlu / Rarely rainy
3	Çok kuru / Very dry	Çok az yağmurlu veya kurak / Seldom rainy or dry

CORRECTION FACTORS FOR DIFFERENT AIR TEMPERATURES

Toprak Termik Direnci Thermal Resistance of Earth	Müsade Edilen İşletme Sıcaklığı Permissible Operating Temperature	Müsade Edilen İşletme Sıcaklığı Permissible Operating Temperature	Hava Sıcaklıkları 0C'a Bağlı Olarak Düzeltme Faktörleri Correction Factory for the Air Temperature Depending °C									
	°C	K	10	15	20	25	30	35	40	45	50	
PVC	70	-	1.22	1.17	1.12	1.07	1.00	0.94	0.87	0.79	0.71	
XLPE	90	-	1.15	1.12	1.08	1.04	1.00	0.96	0.91	0.87	0.82	

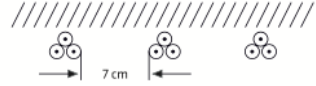
CORRECTION FACTORS FOR DIFFERENT AIR TEMPERATURES

İşletme Sıcaklığı Operating Temperature	Toprağın Sıcaklığı Permissible Operating Temperature	Özgül Termik Toprak Direnci Specific Thermal Resistivity of Earth K.m/W															
		0.7					1.0					1.5					2.5
		Yükleme / Loading					Yükleme / Loading					Yükleme / Loading					Yükleme Loading
°C	°C	0.50	0.60	0.70	0.85	1.00	0.50	0.60	0.70	0.85	1.00	0.50	0.60	0.70	0.85	1.00	0.50-1.00
70° PVC Kablolar PVC Cables	5	1.29	1.26	1.22	1.15	1.09	1.13	1.11	1.08	1.04	1.00	0.99	0.98	0.97	0.95	0.93	0.86
	10	1.27	1.23	1.19	1.13	1.06	1.11	1.08	1.06	1.01	0.97	0.96	0.95	0.94	0.92	0.89	0.83
	15	1.25	1.21	1.17	1.10	1.03	1.08	1.06	1.03	0.99	0.94	0.93	0.92	0.91	0.88	0.86	0.79
	20	1.23	1.28	1.14	1.08	1.01	1.06	1.03	1.00	0.96	0.91	0.90	0.89	0.87	0.85	0.83	0.76
	25						1.03	1.00	0.97	0.93	0.88	0.87	0.85	0.84	0.82	0.79	0.72
	30								0.94	0.89	0.84	0.84	0.82	0.80	0.78	0.76	0.68
	35													0.77	0.74	0.72	0.63
	40																0.59
90° XLPE Kablolar XLPE Cables	5	1.24	1.21	1.18	1.13	1.07	1.11	1.09	1.07	1.03	1.03	0.99	0.98	0.97	0.96	0.94	0.89
	10	1.23	1.19	1.16	1.11	1.05	1.09	1.07	1.05	1.01	1.01	0.97	0.96	0.95	0.93	0.91	0.86
	15	1.21	1.17	1.14	1.08	1.03	1.07	1.05	1.02	0.99	0.99	0.95	0.93	0.92	0.91	0.89	0.84
	20	1.19	1.15	1.12	1.06	1.00	1.05	1.02	1.00	0.96	0.96	0.92	0.91	0.90	0.88	0.86	0.81
	25						1.02	1.00	0.98	0.94	0.94	0.90	0.88	0.87	0.85	0.84	0.78
	30								0.95	0.91	0.91	0.87	0.86	0.84	0.83	0.81	0.75
	35													0.85	0.80	0.78	0.72
	40																0.68

TEMPERATURE CONVERSION FACTORS FOR CONDUCTOR RESISTANCE

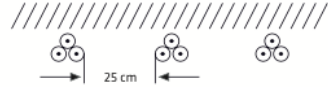
Temperature of conductor (°C)	Factor to convert to 20°C	Reciprocal to convert from 20°C
5	1,064	0,940
6	1,059	0,944
7	1,055	0,948
8	1,050	0,952
9	1,046	0,956
10	1,042	0,960
11	1,037	0,964
12	1,033	0,968
13	1,029	0,972
14	1,025	0,976
15	1,020	0,980
16	1,016	0,984
17	1,012	0,988
18	1,008	0,992
19	1,004	0,996
20	1,000	1,000
21	0,996	1,004
22	0,992	1,008
23	0,988	1,012
24	0,984	1,016
25	0,980	1,020
26	0,977	1,024
27	0,973	1,028
28	0,969	1,032
29	0,965	1,036
30	0,962	1,040
31	0,958	1,044
32	0,954	1,048
33	0,951	1,052
34	0,947	1,056
35	0,943	1,060
40	0,926	1,080
45	0,909	1,100
50	0,893	1,120
55	0,877	1,140
60	0,862	1,160
65	0,847	1,180
70	0,833	1,200
75	0,820	1,220
80	0,806	1,240
85	0,794	1,260
90	0,781	1,280

Correction factors for cables in multiple cable systems
laid in the ground with a distance of more than 7 cm (f_2)



1	2	3	4	5	6														
Cinsi Type	Sistem sayısı Number of systems	Özgül termik toprak direnci / Thermal resistivity of ground K.m / W																	
		0,7			1,0			1,5			2,5								
XLPE Kablolar XLPE Cables 0,6/1kV- 20,3/35kV	1 2 3 4 5 6 8 10	Yükleme Loading			Yükleme Loading			Yükleme Loading			Yükleme Loading								
		0,5	0,6	0,7	0,5	0,6	0,7	0,5	0,6	0,7	0,5	0,6	0,7						
		1,09	1,04	0,99	1,11	1,05	1,00	1,13	1,07	1,01	1,17	1,09	1,03						
		0,97	0,90	0,84	0,98	0,91	0,85	1,00	0,92	0,86	1,02	0,94	0,87						
		0,88	0,80	0,74	0,89	0,82	0,75	0,90	0,82	0,76	0,92	0,83	0,76						
		0,83	0,75	0,69	0,84	0,76	0,70	0,85	0,77	0,70	0,86	0,78	0,71						
		0,79	0,71	0,65	0,80	0,72	0,66	0,80	0,73	0,66	0,82	0,73	0,67						
		0,76	0,68	0,62	0,77	0,69	0,63	0,77	0,70	0,63	0,78	0,70	0,64						
		0,72	0,64	0,58	0,72	0,65	0,59	0,73	0,65	0,59	0,74	0,66	0,59						
		0,69	0,61	0,56	0,69	0,62	0,56	0,70	0,62	0,56	0,70	0,63	0,57						
PVC Kablolar PVC Cables 0,6/1 kV	1 2 3 4 5 6 8 10	0,7			1,0			1,5			2,5								
		Yükleme Loading			Yükleme Loading			Yükleme Loading			Yükleme Loading								
		0,5	0,6	0,7	0,5	0,6	0,7	0,5	0,6	0,7	0,5	0,6	0,7						
		1,01	1,02	0,99	1,04	1,05	1,00	1,07	1,06	1,01	1,11	1,08	1,01						
		0,94	0,89	0,84	0,97	0,91	0,85	0,99	0,92	0,86	1,01	0,93	0,87						
		0,86	0,79	0,74	0,89	0,81	0,75	0,90	0,83	0,76	0,91	0,83	0,77						
		0,82	0,75	0,69	0,84	0,76	0,70	0,85	0,77	0,71	0,86	0,78	0,71						
		0,78	0,71	0,65	0,80	0,72	0,66	0,80	0,73	0,66	0,81	0,73	0,67						
		0,75	0,68	0,62	0,77	0,69	0,63	0,77	0,70	0,64	0,78	0,70	0,64						
		0,71	0,64	0,58	0,72	0,65	0,59	0,73	0,65	0,59	0,73	0,66	0,60						
0,68	0,61	0,55	0,69	0,62	0,56	0,69	0,62	0,56	0,70	0,63	0,57								

Correction factors for cables in multiple cable systems
laid in the ground with a distance of more than
25 cm (f_2)

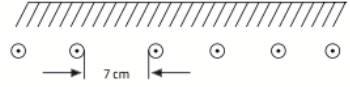


1	2	3											4	5											6
Cinsi Type	Sistem sayısı Number of systems	Özgül termik toprak direnci / Thermal resistivity of ground K.m / W																							
		0.7			1.0			1.5			2.5														
		Yükleme Loading			Yükleme Loading			Yükleme Loading			Yükleme Loading														
		0.5	0.6	0.7	0.5	0.6	0.7	0.5	0.6	0.7	0.5	0.6	0.7	0.5	0.6	0.7									
XLPE Kablolar XLPE Cables 0.6/1 kV- 20.3/35kV	1	1.09	1.04	0.99	1.11	1.05	1.00	1.13	1.07	1.01	1.17	1.09	1.03												
	2	1.01	0.94	0.89	1.02	0.95	0.89	1.04	0.97	0.90	1.06	0.98	0.91												
	3	0.94	0.87	0.81	0.95	0.88	0.82	0.97	0.89	0.82	0.99	0.90	0.83												
	4	0.91	0.84	0.78	0.92	0.84	0.78	0.93	0.85	0.79	0.95	0.86	0.79												
	5	0.88	0.80	0.74	0.89	0.81	0.75	0.90	0.82	0.75	0.91	0.83	0.76												
	6	0.86	0.79	0.72	0.87	0.79	0.73	0.88	0.80	0.73	0.89	0.81	0.74												
	8	0.83	0.76	0.70	0.84	0.76	0.70	0.85	0.77	0.70	0.86	0.78	0.71												
	10	0.81	0.74	0.68	0.82	0.74	0.68	0.83	0.75	0.68	0.84	0.76	0.69												
			0.7			1.0			1.5			2.5													
PVC Kablolar PVC Cables 0.6/1 kV		Yükleme Loading			Yükleme Loading			Yükleme Loading			Yükleme Loading														
		0.5	0.6	0.7	0.5	0.6	0.7	0.5	0.6	0.7	0.5	0.6	0.7												
	1	1.01	1.02	0.99	1.04	1.05	1.00	1.07	1.05	1.01	1.11	1.08	1.01												
	2	0.97	0.95	0.89	1.00	0.96	0.90	1.03	0.97	0.91	1.06	0.98	0.92												
	3	0.94	0.88	0.82	0.97	0.88	0.82	0.97	0.89	0.83	0.98	0.90	0.84												
	4	0.91	0.84	0.78	0.92	0.85	0.79	0.93	0.86	0.79	0.95	0.87	0.80												
	5	0.88	0.81	0.75	0.89	0.82	0.76	0.90	0.82	0.76	0.91	0.83	0.77												
	6	0.86	0.79	0.73	0.87	0.80	0.74	0.88	0.81	0.74	0.89	0.81	0.75												
	8	0.83	0.76	0.70	0.84	0.77	0.71	0.85	0.78	0.71	0.86	0.78	0.72												
	10	0.82	0.75	0.69	0.82	0.75	0.69	0.83	0.76	0.69	0.84	0.76	0.70												

AWG RETURN RULER

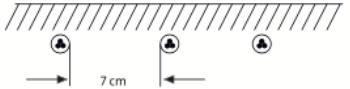
AMERIKAN STANDARDI US WIRE GAUGE			METRİK SİSTEM METRIC SYSTEM
AWG veya / or MCM	mm ²	mm ²	mm ²
1300 MCM	659,00	28,97	625
1000 MCM	506,71	25,40	500
800 MCM	405,35	22,72	
700 MCM	354,71	21,25	
600 MCM	304,00	19,67	300
500 MCM	253,35	17,96	240
400 MCM	202,71	16,06	
350 MCM	177,00	15,01	185
300 MCM	154,00	14,00	150
250 MCM	126,64	12,70	120
4/0	107,2	11,68	95
3/0	85,03	10,04	
2/0	67,43	9,26	70
1/0	53,48	8,25	50
1	42,41	7,34	
2	33,63	6,55	35
3	26,67	5,83	
4	21,15	5,19	25
5	16,77	4,60	
6	13,3	4,11	16
7	10,55	3,67	
8	8,37	3,26	10
9	6,63	2,91	
10	5,26	2,59	6
11	4,17	2,31	
12	3,31	2,05	4
13	2,62	1,83	2,5
14	2,08	1,63	
15	1,65	1,45	
16	1,31	1,29	1,5
17	1,03	1,15	1,0
18	0,823	1,00	0,75
19	0,653	0,91	
20	0,51	0,81	0,50
21	0,41	0,72	
22	0,32	0,64	0,40
23	0,25	0,57	

Correction factors for cables in multiple cable systems laid in the ground with a distance of more than 7 cm (f_2)



1	2	3			4			5			6		
Cinsi Type	Sistem sayısı Number of systems	Özgül termik toprak direnci / Thermal resistivity of ground K.m / W											
		0.7			1.0			1.5			2.5		
XLPE Kablo XLPE Cables 0.6/1 kV- 20.3/35kV	1 2 3 4 5 6 8 10	Yükleme Loading			Yükleme Loading			Yükleme Loading			Yükleme Loading		
		0.5	0.6	0.7	0.5	0.6	0.7	0.5	0.6	0.7	0.5	0.6	0.7
		1.08	1.05	0.99	1.13	1.07	1.00	1.18	1.09	1.01	1.19	1.11	1.03
		0.93	0.93	0.86	1.03	0.94	0.87	1.05	0.95	0.88	1.06	0.96	0.88
		0.92	0.84	0.77	0.93	0.85	0.77	0.95	0.86	0.78	0.96	0.85	0.79
		0.88	0.80	0.73	0.89	0.80	0.73	0.90	0.81	0.74	0.91	0.82	0.74
		0.84	0.76	0.69	0.85	0.77	0.70	0.87	0.78	0.70	0.87	0.78	0.71
		0.82	0.74	0.67	0.83	0.75	0.68	0.84	0.75	0.68	0.85	0.76	0.69
		0.79	0.71	0.64	0.80	0.71	0.65	0.81	0.72	0.65	0.81	0.72	0.65
		0.77	0.69	0.62	0.78	0.69	0.63	0.78	0.70	0.63	0.79	0.70	0.63
PVC Kablo PVC Cables 0.6/1 kV	1 2 3 4 5 6 8 10	0.7			1.0			1.5			2.5		
		Yükleme Loading			Yükleme Loading			Yükleme Loading			Yükleme Loading		
		0.5	0.6	0.7	0.5	0.6	0.7	0.5	0.6	0.7	0.5	0.6	0.7
		0.96	0.97	0.98	1.01	1.01	1.00	1.07	1.05	1.01	1.16	1.10	1.02
		0.92	0.89	0.86	0.96	0.94	0.87	1.00	0.95	0.88	1.05	0.97	0.89
		0.88	0.84	0.77	0.91	0.85	0.78	0.95	0.86	0.79	0.96	0.87	0.79
		0.86	0.80	0.73	0.89	0.81	0.74	0.90	0.82	0.74	0.91	0.82	0.75
		0.84	0.76	0.70	0.85	0.77	0.70	0.87	0.78	0.71	0.87	0.79	0.71
		0.82	0.74	0.68	0.83	0.75	0.68	0.84	0.76	0.69	0.85	0.76	0.69
		0.79	0.71	0.65	0.80	0.72	0.65	0.81	0.72	0.65	0.81	0.73	0.66
0.77	0.69	0.63	0.78	0.70	0.63	0.79	0.70	0.63	0.79	0.71	0.64		

Correction factors for cables in multiple cable systems laid in the ground with a distance of more than 25 cm (f_2)



1	2	3						4						5						6					
Cinsi Type	Sistem sayısı Number of systems	Özgül termik toprak direnci / Thermal resistivity of ground K.m / W																							
XLPE Kablo lar XLPE Cables 0,6/1 kV- 6/10 kV	1 2 3 4 5 6 8 10	0,7						1,0						1,5						2,5					
		Yükleme Loading						Yükleme Loading						Yükleme Loading						Yükleme Loading					
		0,5	0,6	0,7	0,5	0,6	0,7	0,5	0,6	0,7	0,5	0,6	0,7	0,5	0,6	0,7	0,5	0,6	0,7						
		1,02	1,03	0,99	1,06	1,05	1,00	1,09	1,06	1,01	1,11	1,07	1,02	1,02	1,03	0,99	1,06	1,05	1,00	1,09	1,06	1,01	1,11	1,07	1,02
		0,95	0,89	0,84	0,98	0,91	0,85	0,99	0,92	0,86	1,01	0,94	0,87	0,87	0,88	0,84	0,91	0,84	0,78	0,95	0,88	0,81	0,94	0,87	0,80
		0,86	0,80	0,74	0,89	0,81	0,75	0,90	0,83	0,77	0,92	0,84	0,77	0,77	0,78	0,73	0,84	0,77	0,71	0,86	0,78	0,72	0,84	0,77	0,70
		0,82	0,75	0,69	0,84	0,76	0,70	0,85	0,78	0,71	0,86	0,78	0,72	0,72	0,73	0,68	0,79	0,72	0,66	0,81	0,73	0,67	0,82	0,74	0,67
		0,78	0,71	0,65	0,80	0,72	0,66	0,81	0,73	0,67	0,82	0,74	0,67	0,67	0,68	0,63	0,74	0,67	0,61	0,76	0,68	0,61	0,76	0,68	0,61
		0,75	0,68	0,63	0,77	0,69	0,63	0,78	0,70	0,64	0,79	0,71	0,65	0,65	0,66	0,61	0,72	0,65	0,59	0,73	0,66	0,60	0,74	0,66	0,60
		0,71	0,64	0,59	0,72	0,65	0,59	0,73	0,66	0,60	0,74	0,66	0,60	0,60	0,61	0,56	0,67	0,60	0,54	0,66	0,59	0,71	0,63	0,57	0,50
0,68	0,61	0,56	0,69	0,62	0,56	0,70	0,63	0,57	0,71	0,63	0,57	0,57	0,58	0,53	0,64	0,57	0,51	0,62	0,55	0,66	0,58	0,51	0,44		
PVC Kablo lar PVC Cables 0,6/1 kV	1 2 3 4 5 6 8 10	0,7						1,0						1,5						2,5					
		Yükleme Loading						Yükleme Loading						Yükleme Loading						Yükleme Loading					
		0,5	0,6	0,7	0,5	0,6	0,7	0,5	0,6	0,7	0,5	0,6	0,7	0,5	0,6	0,7	0,5	0,6	0,7						
		0,91	0,92	0,94	0,98	0,99	1,00	1,04	1,03	1,01	1,13	1,07	1,02	1,02	1,03	0,99	1,06	1,05	1,00	1,09	1,06	1,01	1,11	1,07	1,02
		0,86	0,87	0,85	0,91	0,90	0,86	0,97	0,93	0,87	1,01	0,94	0,88	0,87	0,88	0,84	0,91	0,84	0,78	0,95	0,88	0,81	0,94	0,87	0,80
		0,82	0,80	0,75	0,86	0,82	0,76	0,91	0,84	0,77	0,92	0,84	0,78	0,77	0,78	0,73	0,84	0,77	0,71	0,86	0,78	0,72	0,84	0,77	0,70
		0,80	0,76	0,70	0,84	0,77	0,71	0,86	0,78	0,72	0,87	0,79	0,73	0,72	0,73	0,68	0,79	0,72	0,66	0,81	0,73	0,67	0,82	0,74	0,67
		0,78	0,72	0,66	0,81	0,73	0,67	0,81	0,74	0,68	0,82	0,74	0,67	0,67	0,68	0,63	0,74	0,67	0,61	0,76	0,68	0,61	0,76	0,68	0,61
		0,76	0,69	0,64	0,77	0,70	0,64	0,78	0,71	0,65	0,79	0,71	0,65	0,65	0,66	0,61	0,72	0,65	0,59	0,73	0,66	0,60	0,74	0,66	0,60
		0,72	0,65	0,59	0,73	0,66	0,60	0,74	0,67	0,61	0,75	0,67	0,61	0,61	0,62	0,57	0,68	0,61	0,55	0,66	0,59	0,71	0,63	0,57	0,50
0,69	0,62	0,57	0,70	0,63	0,57	0,71	0,64	0,58	0,71	0,64	0,58	0,58	0,59	0,54	0,64	0,57	0,51	0,62	0,55	0,66	0,58	0,51	0,44		

CORRECTION FACTORS FOR OUTDOOR MULTI-CORE CABLES AND SINGLE CORE DIRECT-CURRENT CABLES

Kabloların d�şenme �ekli Application		- Kablolar arası mesafe = kablo �apı. - Distance between the cables = cable diameter				
Kablo sayısı Number of cables		1	2	3	4	6
Topra�a yatırılmı� kablo Installation in Earth		0,97	0,96	0,94	0,93	0,90
Kablo kanalı iyi havalandırılmamı� In the cable channels with poor air circulation	Ta�ıyıcı sayısı Number of shelves					
	1	0,97	0,96	0,94	0,93	0,90
	2	0,97	0,95	0,92	0,90	0,86
	3	0,97	0,94	0,91	0,89	0,84
Kablo kanalı iyi havalandırılmı� In the cable channels with good air circulation	Ta�ıyıcı sayısı Number of shelves					
	1	1,00	1,00	1,00	1,00	1,00
	2	1,00	0,99	0,98	0,97	0,96
	3	1,00	0,98	0,97	0,96	0,93
Raflara dizili� veya duvara monte edilmi� Application either shelves or on the wall		1,00	0,91	0,89	0,88	0,87
Red�ksiyon fakt�r� kullanılmasına ihtiya� olmayan d��eme �ekli Installation systems that need no adjustment factor		�st �ste monte edilmi� herhangi bir sayıda kablo Randomly selected number of cables				
Kabloların d��enme �ekli Application		- Duvardan ba�layıp yan yana dizime sistemi. - Systems installed side by side starting from the wall.				
Kablo sayısı Number of cables		1	2	3	4	6
Topra�a yatırılmı� kablo Installation in Earth		0,97	0,85	0,78	0,75	0,71
Kablo kanalı k�t� havalandırılmı� In cable channels with poor air circulation	Ta�ıyıcı sayısı Number of shelves					
	1	0,97	0,85	0,78	0,75	0,71
	2	0,97	0,84	0,76	0,73	0,68
	3	0,97	0,83	0,75	0,72	0,66
Kablolar arası iyi hava sirk�lasyonu Between cables air circulation is good	Ta�ıyıcı sayısı Number of shelves					
	1	1,00	0,87	0,82	0,80	0,79
	2	1,00	0,86	0,80	0,78	0,76
	3	1,00	0,85	0,79	0,76	0,73
Raflara veya do�rudan duvara montaj �ekli Application on either shelves or the wall.		0,95	0,78	0,73	0,72	0,68
Red�ksiyon fakt�r� kullanılmasına ihtiya� olmayan d��eme �ekli Installation systems that need no adjustment factor		Yan yana d��enmi� herhangi bir sayıda kablo Randomly selected number of cables				

Correction factors for multi-core cables with cross sections from 1.5 mm² to 10 mm², buried in the ground or in open air.

1	2	3
Yük altındaki damar sayısı Number of loaded cores	Toprağa yatırılmış Laid in ground	Havada In air
5	0,70	0,75
7	0,60	0,65
10	0,50	0,55
14	0,45	0,50
19	0,40	0,45
24	0,35	0,40
40	0,30	0,35
61	0,25	0,30

For cables with copper conductors, permitted operating temperatures, short-circuit temperatures and short-circuit currents.

1	2	3	4	5	6	7	8	9	10	11	12
Cinsi Type	Müsaade edilen işletme sıcaklığı Permissible operating temperature	Müsaade edilen kısa devre sıcaklığı Permissible short-circuit temperature	Kısa devre başladığında iletken sıcaklığı Conductor temperature at the beginning of short-circuit								
			90	80	70	65	60	50	40	30	20
	°C	°C	1s. için kısa devre akımları / Short-circuit current for 1s A/mm ²								
XLPE Kablo XLPE Cable	90	250	143	148	154	157	159	165	170	176	181
PVC Kablolar PVC Cables ≤ 300 mm ² > 300 mm ²	70 70	160 140	- -	- -	115 103	119 107	122 111	129 118	136 126	143 133	150 140
EPR Kablolar EPR Cables	90	200	-	122	127	130	132	138	143	150	157

Correction factors for different air temperatures

1	2	3	4	5	6	7	8	9	10	11
Yalıtkan Tipi Insulation Type	Müsaade edilen işletme sıcaklığı Permissible operating temp.	Hava sıcaklığına bağlı olarak düzeltme faktörleri Correction factors according to the ambient temperature								
		°C								
	°C	10	15	20	25	30	35	40	45	50
XLPE	90	1,15	1,12	1,08	1,04	1,00	0,96	0,91	0,87	0,82
PVC	70	1,22	1,17	1,12	1,06	1,00	0,94	0,87	0,79	0,71
EPR	90	1,18	1,14	1,10	1,05	1,00	0,95	0,89	0,84	0,71

CORRECTION FACTORS FOR OUTDOOR SINGLE CORE CABLES

Kabloların döşeme şekli Application		- Kablo arasında kablo çapı kadar mesafe olması halinde-duvardan uzaklığı ≥ 2 cm - Distance between two cables=cable diameter-from the wall ≥ 2 cm			
Yanyana kablo sistemi sayısı Number of cable systems		1	2	3	
Toprağa yatırılmış Laid in Earth		0,92	0,89	0,88	
Kablo kanalında kötü havalandırma In the cable channels with poor air circulation	Taşıyıcı sayısı Number of shelves				
	1	0,92	0,89	0,88	
	2	0,87	0,84	0,83	
	3	0,84	0,82	0,81	
Kablo kanalında iyi havalandırma In the cable channels with good air circulation	Taşıyıcı sayısı Number of shelves				
	1	1,00	0,97	0,96	
	2	0,97	0,94	0,93	
	3	0,96	0,93	0,92	
Duvara üst üste kablo döşenmesi halinde Cables vertically arranged on wall One on top of the other		1	2	3	
		0,94	0,91	0,89	

Kabloların döşeme şekli Application		- Kablo arası mesafe = 2d. Duvarдан uzaklığı ≥ 2 cm - Distance between two cables = 2d from the wall ≥ 2 cm			
Yanyana kablo sistemi sayısı Number of cable systems		1	2	3	
Toprağa yatırılmış Laid in Earth		0,98	0,96	0,94	
Kablo kanalında kötü havalandırma In the cable channels with poor air circulation	Taşıyıcı sayısı Number of shelves				
	1	0,98	0,96	0,94	
	2	0,95	0,91	0,87	
	3	0,94	0,90	0,85	
Kablo kanalında iyi havalandırma In the cable channels with good air circulation	Taşıyıcı sayısı Number of shelves				
	1	1,00	1,00	1,00	
	2	0,97	0,95	0,93	
	3	0,96	0,94	0,90	
Duvara üst üste kablo döşenmesi halinde Cables vertically arranged on wall One on top of the other		1	2	3	
		0,89	0,86	0,84	
Redüksiyon faktörüne ihtiyaç olmayan döşeme şekli Installation systems that need no Adjustment factor					

ALLOWED SHORT CIRCUIT CURRENTS (CU) OF PVC INSULATED COPPER CONDUCTOR CABLES

Kesit (Cross Section)	t / sn (Kısa Devre Süresi) t/sn (Short Circuit Time)														
mm ²	0,1	0,2	0,3	0,4	0,5	0,6	0,7	0,8	0,9	1	1,5	2	3	4	5
1,5	0,53	0,38	0,31	0,27	0,24	0,22	0,20	0,19	0,18	0,17	0,14	0,12	0,10	0,08	0,08
2,5	0,89	0,63	0,51	0,44	0,40	0,36	0,34	0,31	0,30	0,28	0,23	0,20	0,16	0,14	0,13
4	1,42	1,01	0,82	0,71	0,64	0,58	0,54	0,50	0,47	0,45	0,37	0,32	0,26	0,22	0,20
6	2,13	1,51	1,23	1,07	0,95	0,87	0,81	0,75	0,71	0,67	0,55	0,48	0,39	0,34	0,30
10	3,56	2,51	2,05	1,78	1,59	1,45	1,34	1,26	1,19	1,12	0,92	0,80	0,65	0,56	0,50
16	5,69	4,02	3,28	2,84	2,54	2,32	2,15	2,01	1,90	1,80	1,47	1,27	1,04	0,90	0,80
25	8,89	6,29	5,13	4,44	3,98	3,63	3,36	3,14	2,96	2,81	2,30	1,99	1,62	1,41	1,26
35	12,45	8,80	7,19	6,22	5,57	5,08	4,70	4,40	4,15	3,94	3,21	2,78	2,27	1,97	1,76
50	17,78	12,57	10,27	8,89	7,95	7,26	6,72	6,29	5,93	5,62	4,59	3,98	3,25	2,81	2,51
70	24,89	17,60	14,37	12,45	11,13	10,16	9,41	8,80	8,30	7,87	6,43	5,57	4,54	3,94	3,52
95	33,78	23,89	19,50	16,89	15,11	13,79	12,77	11,94	11,26	10,68	8,72	7,55	6,17	5,34	4,78
120	42,67	30,17	24,64	21,34	19,08	17,42	16,13	15,09	14,72	13,49	11,02	9,54	7,79	6,75	6,03
150	53,34	37,72	30,80	26,67	23,85	21,78	20,16	18,86	17,78	16,87	13,77	11,93	9,74	8,43	7,54
185	65,78	46,52	37,98	32,89	29,42	26,86	24,86	23,26	21,93	20,80	16,99	14,71	12,01	10,40	9,30
240	85,34	60,35	49,27	42,67	38,17	34,84	32,26	30,17	28,45	26,09	22,04	19,08	15,58	13,79	12,07
300	106,68	75,43	61,59	53,34	47,71	43,55	40,32	37,72	35,56	33,73	27,54	23,85	19,48	16,87	15,09
400	127,15	89,91	73,41	63,58	56,86	51,91	48,06	44,96	42,38	40,21	32,83	28,43	23,21	20,10	17,98
500	158,94	112,39	91,76	79,47	71,08	64,89	60,07	56,19	52,98	50,26	41,04	35,54	29,02	25,13	22,48

Not: Kısa devre başlangıç sıcaklığı 70 °C, nihai sıcaklık 160 °C'dir. 400 ve 500 mm² kesitler için nihai sıcaklık 140 °C'dir. Kısa devre akımları kA'dır.

Note: Short-circuit starts at 70 °C, final temperature is 160 °C final temperature for 400 and 500 mm² is 140 °C.
Short-circuit current as kA.

ALLOWED SHORT CIRCUIT CURRENTS (CU) OF XLPE INSULATED COPPER CONDUCTOR CABLES

Kesit (Cross Section)	t / sn (Kısa Devre Süresi) t/sn (Short Circuit Time)														
mm ²	0,1	0,2	0,3	0,4	0,5	0,6	0,7	0,8	0,9	1	1,5	2	3	4	5
1,5	0,68	0,48	0,39	0,34	0,30	0,28	0,26	0,24	0,23	0,21	0,18	0,15	0,12	0,11	0,10
2,5	1,13	0,80	0,65	0,57	0,51	0,46	0,43	0,40	0,38	0,36	0,29	0,25	0,21	0,18	0,16
4	1,81	1,28	1,04	0,90	0,81	0,74	0,68	0,64	0,60	0,57	0,47	0,40	0,33	0,29	0,28
6	2,71	1,92	1,57	1,36	1,21	1,11	1,03	0,95	0,90	0,86	0,70	0,61	0,50	0,43	0,38
10	4,52	3,20	2,61	2,26	2,02	1,85	1,71	1,60	1,51	1,43	1,17	1,01	0,83	0,72	0,64
16	7,24	5,12	4,18	3,62	3,24	2,95	2,73	2,56	2,41	2,29	1,87	1,62	1,32	1,14	1,02
25	11,31	7,99	5,53	5,65	5,06	4,62	4,27	4,00	3,77	3,58	2,92	2,53	2,06	1,79	1,60
35	15,83	11,19	9,14	7,91	7,08	6,46	5,96	5,60	5,28	5,01	4,09	3,54	2,89	2,50	2,24
50	22,61	15,99	13,05	11,31	10,11	9,23	8,55	7,99	7,54	7,15	5,84	5,06	4,13	3,58	3,20
70	31,65	22,38	18,28	15,83	14,16	12,92	11,96	11,19	10,55	10,01	8,17	7,08	5,78	5,01	4,48
95	42,96	30,38	24,80	21,48	19,21	17,54	16,24	15,19	14,32	13,59	11,09	7,61	7,84	6,79	6,08
120	54,26	38,37	31,33	27,13	24,27	22,15	20,51	19,19	18,09	17,16	14,01	12,13	9,91	8,50	7,67
150	67,83	47,96	39,16	33,92	30,33	27,69	25,64	23,98	22,61	21,45	17,51	15,17	12,38	10,73	9,59
185	83,66	59,16	48,30	41,83	37,41	34,15	31,62	29,58	27,89	26,46	21,60	16,71	15,27	13,23	11,83
240	108,53	76,74	62,66	54,26	48,54	44,31	41,02	38,37	36,18	34,32	28,02	24,27	19,81	17,16	15,35
300	135,66	95,93	70,32	67,83	60,67	55,38	51,28	47,96	45,22	42,90	35,03	30,33	24,77	21,45	19,19
400	180,88	127,90	104,43	90,44	80,89	73,84	68,37	63,95	60,29	57,20	46,70	40,45	33,02	28,60	25,58
500	226,10	159,88	130,54	113,05	101,12	92,31	85,46	79,94	75,37	71,50	56,38	56,56	41,28	35,75	31,98
630	284,89	201,45	164,48	142,44	127,41	116,31	107,68	100,72	94,96	90,09	73,56	63,70	52,01	45,05	40,29
800	361,76	255,61	208,87	180,88	161,79	147,69	136,73	127,90	120,59	114,40	93,41	80,89	66,05	47,20	50,16

Not: Kısa devre başlangıç sıcaklığı 90 °C, nihai sıcaklık 250 °C'dir. Kısa devre akımları kA'dır.

Note: Short-circuit starts at 90 °C, final temperature is 250 °C. Short-circuit current as kA.

ELECTRICAL TECHNICAL INFORMATION CABLE PARAMETERS CALCULATION GUIDE

1. NOMINAL VOLTAGE

The Nominal voltage is to be expressed with two values of alternative current U_0/U in V (volt)

U_0/U : Phase to earth voltage

U_0 : Voltage between conductor and earth

U : Voltage between phases (conductors)

2. RESISTANCE

The Values of conductor DC resistance are dependent on temperature as given by:

$$R_t = R_{20} \times [1 + \alpha (t - 20)] \quad \Omega/\text{km}$$

R_t : Conductor DC resistance at t °C Ω/km

R_{20} : Conductor DC resistance at 20°C Ω/km

t : Operating temperature

α : resistance temperature coefficient

= 0,00393 for copper

= 0,00403 for aluminium

Generally DC resistance is based on IEC 60228 to calculate AC resistance of the conductor at the operating temperature as the following:

$$R_{AC} = R_t \times [1 + y_s + y_p]$$

y_s : skin effect factor

y_p : proximity effect

Generally AC resistance is based on IEC 60287

3. CAPACITANCE

$$C = \frac{\epsilon_r}{18 \ln \frac{D}{d}} \quad \mu\text{F}/\text{km}$$

C : Operating capacitance $\mu\text{F}/\text{km}$

D : Diameter over insulation mm

d : Conductor diameter mm

ϵ_r : Relative permittivity of insulation material

$\epsilon_r = 4.8$ for PVC

$\epsilon_r = 2.3$ for XLPE

4. INDUCTANCE

$$L = K + 0.2 \ln (2S/d) \quad \text{mH}/\text{km}$$

L : Inductance mH/km

K : Constant depends on number of wires of conductor

d : Conductor diameter

S : Axial spacing between cables (Trefoil formation)

S : 1.26 x axial spacing between cables (Flat formation)

5. REACTANCE

The inductive reactance per phase of a cable may be obtained by the formula:

$$X = 2 \pi f L \times 10^3 \quad \Omega/\text{km}$$

X : Reactance Ω/km

f : Frequency Hz

L : Inductance mH/km

ELECTRICAL TECHNICAL INFORMATION CABLE PARAMETERS CALCULATION GUIDE

6. IMPEDANCE

The Nominal voltage is to be expressed with two values of alternative current U_0/U in V (volt)

$$Z = \sqrt{R_{ac} + X^2} \quad \Omega/\text{km}$$

Z: Phase impedance of cable Ω/km

R_{ac} : AC resistance at operating temperature Ω/km

X: Reactance Ω/km

7. INSULATION RESISTANCE

$$R_i = \frac{1000}{2 \cdot \pi} \cdot \ln(D/d)$$

R: Insulation resistance at 20°C $M \Omega \cdot \text{km}$

D: Insulated conductor diameter mm

d: Conductor diameter mm

8. CHARGING CURRENT

$$I_c = \omega_0 \cdot C_x \cdot U_0 \cdot 10^{-3}$$

I: Charging current A/km

U_0 : Voltage between phase and earth V

C: Capacitance to neutral $\mu\text{F}/\text{km}$

9. DIELECTRIC LOSSES

$$D = \omega_0 \cdot C_x \cdot U_0^2 \cdot \tan \delta \cdot 10^{-3} \quad \text{watt}/\text{km}/\text{phase}$$

D: Dielectric losses $\text{watt}/\text{km}/\text{phase}$

U_0 : Voltage between phase and earth V

C: Capacitance to neutral $\mu\text{F}/\text{km}$

$\tan \delta$: Dielectric power factor

10. CABLE SHORT CIRCUIT CAPACITY

$$I_{sc}(t) = I_{sc}(1) / \sqrt{t} \quad \text{kA}$$

$I_{sc}(t)$: Short circuit for t second kA

$I_{sc}(1)$: Short circuit for 1 second kA

Data about short circuit are tabulated in construction tables.

11. VOLTAGE DROP

When the current flows in conductor, there is a voltage drop between the ends of the conductor. For low voltage cable network of normal operation, it is advisable of a voltage drop 3-5 %. To calculate voltage drop as the following:

1- for single phase circuit:

$$V_d = 2 \cdot I \cdot L \cdot (R \cos \varphi + X \sin \varphi)$$

2- for three phase circuit:

$$V_d = \sqrt{3} \cdot I \cdot L \cdot (R \cos \varphi + X \sin \varphi)$$

V_d : Voltage drop V

I: Load current A

R: AC resistance Ω/km

X: Reactance Ω/km

L: Length km

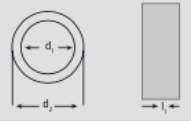
$\cos \varphi$: Power factor

FORMULAS - CONVERSION FACTORS

Ohms low	$U = I \times R$	U I R	Rated voltage Current Resistance		
Energy (heat)	$W = I^2 \times R \times t$	W t	Energy (heat) Time in seconds		
Resistance of a line (Feed and return)	$R = \frac{2 \times l}{\chi \times S}$	l u	length of cable (m) Voltage drop in V from sending to receiving end of line		
DC Power	$P = U \times I$	χ	Conductivity for copper 58)		
Single-Phase Power	$P = U \times I \times \cos \phi$	S	Rated cross-section (mm2)		
Three-Phase Power	$P = 1.73 \cdot U \cdot I \cdot \cos \phi$	cos φ	Power factor		
Efficiency	$\eta = \frac{P_{\text{output}}}{P_{\text{input}}}$	P	Power in watts (W)		
		η	Efficiency		
Voltage drop	In single-phase A.C. and D.C. systems	In three A.C. and D.C. systems.			
If current is known	$u = \frac{2 \times l \times I}{\chi \times S} \text{ (V)}$	$u = \frac{1.73 \times l \times I \times \cos \phi}{\chi \times S} \text{ (V)}$			
If power is known	$u = \frac{2 \times l \times P}{\chi \times S \times U} \text{ (V)}$	$u = \frac{l \times P}{\chi \times S \times U} \text{ (V)}$			
Conductor section					
If current is known	$S = \frac{2 \times l \times I}{\chi \times u} \text{ (mm}^2\text{)}$	$S = \frac{1.73 \times l \times I \times \cos \phi}{\chi \times U} \text{ (mm}^2\text{)}$			
If power is known $\chi \times S \times U$	$S = \frac{2 \times l \times P}{\chi \times u \times U^2} \text{ (mm}^2\text{)}$	$S = \frac{l \times P}{\chi \times u \times U^2} \text{ (mm}^2\text{)}$			
Length					
	meters (m)	inches (in)	feet (ft)	yards (yd)	miles (mil)
1 m	1.0	39.37	3.28	1.0936	0.621371×10^3
1 in	0.0254	1.0	0.0833	0.0277	0.0158×10^3
1 ft	0.3048	12.00	1.0	0.333	0.189×10^3
1 yd	0.9144	36.00	3.0	1.0	0.568×10^3
1 mile	1609.344	63360.0	5280.0	1760.0	1.0×10^3
Area					
	m ²	in ²	ft ²		
1 m ²	1.0	1550.0	10.7639		
1 in ²	0.64516×10^{-3}	1.0	6.944×10^{-3}		
1 ft ²	0.0929	144.0	1.0		

CABLE WINDING CAPACITIES OF BRANDS

Kablo/ Cable Ø	SM 4	SM 5	SM 6	SM 7	SM 8	SM 9	SM 10	SM 12	SM 14	SM 16	SM 18	SM 20	SM 22	SM 24	SM 26	SM 28	SM 30	SM 32
mm	Maksimum kablo uzunluğu (m) / Maximum length of cables (m)																	
6	390	770	1050															
7	280	510	750	1500														
8	250	450	680	1100														
10	135	255	370	720	1000	1800												
11	115	210	310	600	870	1500												
12	80	180	260	500	700	1250												
13	150	220	430	590	1050													
14	125	190	310	500	800	1150												
15	110	165	270	440	700	1075												
16	100	145	280	395	710	980	1650											
17	130	150	345	440	800	1300												
18	115	220	310	520	710	1300												
19	100	200	270	500	640	1075												
20		175	250	450	580	1050												
21			165	225	410	530	960	1350										
22			145	200	375	480	870	1250										
23			130	185	360	435	790	1135										
24			125	170	315	405	730	1040	1790									
25			110	155	290	375	640	910	1650									
26					145	240	615	870	1520									
27					130	230	570	800	1400									
28					120	210	520	725	1310									
29					115	200	500	700	1225									
30					100	200	460	645	1100									
31					180	240	440	600	1050									
32					170	225	425	570	980	1550								
33					160	215	380	535	925	1505	1195							
34					150	200	360	500	880	1070	1110							
35					140	185	340	470	870	960	1000	3500						
36					130	175	320	450	780	900	1050	1450						
37					120	170	300	425	725	830	980	1420						
38						115	240	600	700	870	925	1150						
39						145	270	385	670	780	880	1270	1600					
40						135	260	360	640	720	820	1200	1550					
41						130	250	340	600	700	800	1150	1450					
42						120	230	320	570	660	750	1100	1370					
43						115	215	310	550	640	730	1050	1325					
44						110	205	300	530	620	700	1000	1280					
45						100	190	280	480	570	660	950	1200					
46						270	470	550	640	730	820	1130						
47						250	450	535	630	720	810	1100	1350					
48						240	430	510	580	670	760	1050	1300					
49						220	410	490	560	650	740	1000	1250					
50						210	400	470	540	630	720	970	1170					
51						200	380	450	510	590	670	930	1125					
52						190	360	430	490	570	650	900	1075					
53							350	410	470	530	590	840	1025					
54							340	400	455	520	580	800	1000	1350				
55							380	440	500	560	620	860	1050					
56							370	430	490	550	610	840	1040					
57							350	410	470	530	590	800	1000					
58							340	390	450	510	570	780	980	1200				
59							330	380	440	500	560	760	960	1150				
60							315	360	420	480	540	740	940	1120				
61							300	350	410	470	530	720	920	1100				
62							290	340	400	460	520	700	900	1080				
63							280	325	390	450	510	690	890	1060				
64							270	315	380	440	500	680	880	1040				
65							260	305	370	430	490	670	870	1020				
66							250	290	360	420	480	660	860	1000				
67							240	280	350	410	470	650	850	980				
68							230	270	340	400	460	640	840	960				
69							220	260	330	390	450	630	830	950				
70							210	250	320	380	440	620	820	940				
71							200	240	310	370	430	610	810	930				
72							210	230	300	360	420	600	800	920				
73							200	220	290	350	410	590	790	910				
74							210	210	280	340	400	580	780	900				
75							200	200	270	330	390	570	770	890				
76							190	190	260	320	380	560	760	880				
77							180	180	250	310	370	550	750	870				
78							190	170	240	300	360	540	740	860				
79							180	160	230	290	350	530	730	850				
80							175	150	220	280	340	520	720	840				
81								240	300	370	440	620	820					
82								230	290	360	430	610	810					
83								220	280	350	420	600	800					
84								210	270	340	410	590	790					
85								200	260	330	400	580	780					
86								190	250	320	390	570	770					
87								180	240	310	380	560	760					
88								170	230	300	370	550	750					
89								160	220	290	360	540	740					
90								150	210	280	350	530	730					
91								140	200	270	340	520	720					
92								130	190	260	330	510	710					
93								120	180	250	320	500	700					
94								110	170	240	310	490	690					
95								100	160	230	300	480	680					
96								90	150	220	290	470	670					
97								80	140	210	280	460	660					
98								70	130	200	270	450	650					
99								60	120	190	260	440	640					
100								50	110	180	250	430	630					
101								40	100	170	240	420	620					
102								30	90	160	230	410	610					
103								20	80	150	220	400	600					
104								10	70	140	210	390	590					
105								0	60	130	200	380	580					
106								0	50	120	190	370	570					
107								0	40	110	180	360	560					
108								0	30	100	170	350	550					
109								0	20	90	160	340	540					
110								0	10	80	150	330	530					





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