NAK KABLO

The Technology Surrounding The World

www.nakkablo.com

ABOUT **NAK KABLO** COMPANY

NAK KABLO is a third-generation cable manufacturer and exporter company, which has been manufacturing cables since 1972. Company's brand is NAK KABLO. It is very famous brand with its quality certified by ISO, TSE, HAR and TUV certifications. We are located in Denizli region of Turkey.

We manufacture cable at 10.000 m2 total operations area. Our factory is very near to Izmir Port. Delivery is also easy and very comfortable with the help of high way roads and fast transportations.

We do export our goods to more than 40 countries including Africa, Middle east, Europe and Far East Asia.

NAK KABLO has got a large product list to cooperate. They are single core cables, flexible cables, NYY, NYM, Flat Cables, XLPE insulated cables, Armored cables, Halogen free cables, low smoke flame retardant insulated cables, Solar Cables and so many options for wiring and power electrical solutions.

We manufacture cables in a very Professional way with the help of experienced staff. That's why our prices are very competitive and delivery time is followed according to your demand of duration.

Our Vision is to adopt to changing and developing technology. Conditions of cable sector is very fluently changing and moderating.

The most important daily is to submit a very competitive prices to our clients.

On the other hand, the quality is our main issue which we protect our name always positively. Except all of the subject delivery comes initial solution for our clients. We offer our clients a large and a quick option.

If we support our clients, we should always support them. That's why we hold our relations between our clients at highest level.

Dünyayı Sar

The Technology Sur

60+

'dan fazla ülkeye ihracat

Exports to more than 60 countries

an Teknoloji

rounding The World

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Green Energy Cables

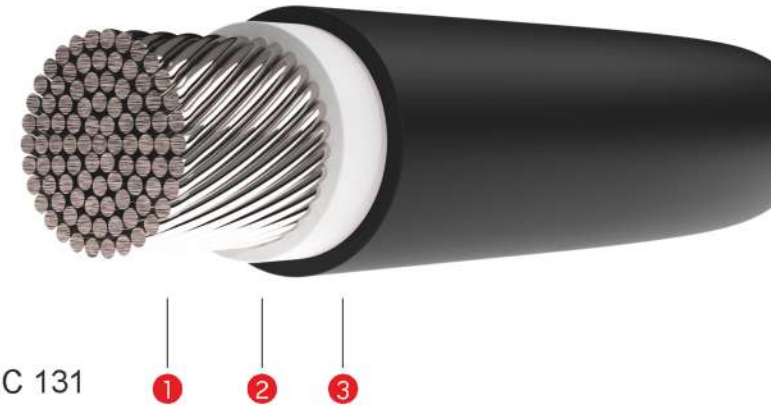
Yeşil Enerji Kabloları

H1Z2Z2-K SOLAR CABLE

HALOGEN FREE CABLE FOR USE IN PHOTOVOLTAIC SYSTEMS

APPLICATION

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 and ozone resistant flame-retardant properties. halogen-free, oilresistant, reduced diameter, and outstanding flexibility



STANDARDS EN 50618 62930 IEC 131

CONSTRUCTION

1 ***CONDUCTOR***

Material of conductor — *Fine stranded tinned copper (Class 5)*

2 ***INSULATION***

Material of insulation — *Special crosslinked compound LSOH (Halogen free)*

3 ***SHEATH***

Material of sheath — *Special crosslinked compound LSOH (Halogen free)*

TECHNICAL PROPERTIES

Maximum permissible operating voltage AC	*1,2/1,2 kV*
Maximum permissible operating voltage DC	*1,8/1,8 kV*
AC Test voltage	*6,5 kV*
Minimum operating temperature	*-40 °C*
Maximum permissible conductor operating temperature	*120 °C*
Maximum permissible conductor temperature during short circuit (max. 5 sec.)	*250 °C*
Minimum bending radius during laying (mm)	*5xCable Ø*
Flame propagation test on single cable	*EN 60332-1-2*

TECHNICAL DATA

Nominal Cross Section	*Maximum DC Resistance of the Conductor at 20 °C*	*Maximum Insulation Resistance at 20 °C*	*Maximum Insulation Resistance at 90 °C*	*Current Carrying Capacity*		
				Single cable free in air	*Single cable on surfaces*	*Two loaded cables adjacent on surfaces*
mm2	*Ω/km*	*MΩ/km*	*MΩ/km*	*A*	*A*	*A*
1x1,5	*13,7*	*860*	*0,86*	*30*	*29*	*24*
1x2,5	*8,21*	*690*	*0,69*	*41*	*39*	*33*
1x4	*5,09*	*580*	*0,58*	*55*	*52*	*44*
1x6	*3,39*	*500*	*0,50*	*70*	*67*	*57*
1x10	*1,95*	*420*	*0,42*	*98*	*93*	*79*
1x16	*1,24*	*340*	*0,34*	*132*	*125*	*107*
1x25	*0,795*	*340*	*0,34*	*176*	*167*	*142*
1x35	*0,565*	*290*	*0,29*	*218*	*207*	*176*
1x50	*0,393*	*270*	*0,27*	*276*	*262*	*221*
1x70	*0,277*	*250*	*0,25*	*347*	*330*	*278*
1x95	*0,210*	*220*	*0,22*	*416*	*395*	*333*
1x120	*0,164*	*210*	*0,21*	*488*	*464*	*390*
1x150	*0,132*	*210*	*0,21*	*566*	*538*	*453*
1x185	*0,108*	*200*	*0,20*	*644*	*612*	*515*
1x240	*0,082*	*200*	*0,20*	*775*	*736*	*620*

H1Z2Z2-K SOLAR CABLE

HALOGEN FREE CABLE FOR USE IN PHOTOVOLTAIC SYSTEMS

APPLICATION

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 and ozone resistant flame-retardant properties. halogen-free, oilresistant, reduced diameter, and outstanding flexibility

STANDARDS EN 50618 62930 IEC 131

CONSTRUCTION

1 ***CONDUCTOR***

Material of conductor — *Fine stranded tinned copper (Class 5)*

2 ***INSULATION***

Material of insulation — *Special crosslinked compound LSOH (Halogen free)*

3 ***SHEATH***

Material of sheath — *Special crosslinked compound LSOH (Halogen free)*

TECHNICAL PROPERTIES

Maximum permissible operating voltage AC	*1,2/1,2 kV*
Maximum permissible operating voltage DC	*1,8/1,8 kV*
AC Test voltage	*6,5 kV*
Minimum operating temperature	*-40 °C*
Maximum permissible conductor operating temperature	*120 °C*
Maximum permissible conductor temperature during short circuit (max. 5 sec.)	*250 °C*
Minimum bending radius during laying (mm)	*5xCable Ø*
Flame propagation test on single cable	*EN 60332-1-2*

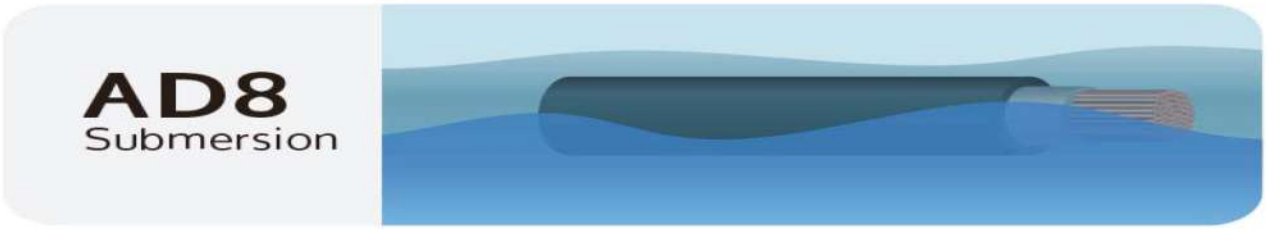
TECHNICAL DATA

Nominal Cross Section	*Maximum DC Resistance of the Conductor at 20 °C*	*Maximum Insulation Resistance at 20 °C*	*Maximum Insulation Resistance at 90 °C*	*Current Carrying Capacity*		
				Single cable free in air	*Single cable on surfaces*	*Two loaded cables adjacent on surfaces*
mm2	*Ω/km*	*MΩ/km*	*MΩ/km*	*A*	*A*	*A*
1x1,5	*13,7*	*860*	*0,86*	*30*	*29*	*24*
1x2,5	*8,21*	*690*	*0,69*	*41*	*39*	*33*
1x4	*5,09*	*580*	*0,58*	*55*	*52*	*44*
1x6	*3,39*	*500*	*0,50*	*70*	*67*	*57*
1x10	*1,95*	*420*	*0,42*	*98*	*93*	*79*
1x16	*1,24*	*340*	*0,34*	*132*	*125*	*107*
1x25	*0,795*	*340*	*0,34*	*176*	*167*	*142*
1x35	*0,565*	*290*	*0,29*	*218*	*207*	*176*
1x50	*0,393*	*270*	*0,27*	*276*	*262*	*221*
1x70	*0,277*	*250*	*0,25*	*347*	*330*	*278*
1x95	*0,210*	*220*	*0,22*	*416*	*395*	*333*
1x120	*0,164*	*210*	*0,21*	*488*	*464*	*390*
1x150	*0,132*	*210*	*0,21*	*566*	*538*	*453*
1x185	*0,108*	*200*	*0,20*	*644*	*612*	*515*
1x240	*0,082*	*200*	*0,20*	*775*	*736*	*620*

H1Z2Z2-K SOLAR CABLE

HALOGEN FREE CABLE FOR USE IN PHOTOVOLTAIC SYSTEMS

H1Z2Z2-K WATER RESISTANCE SOLAR CABLES



Immersion Water Resistance cables

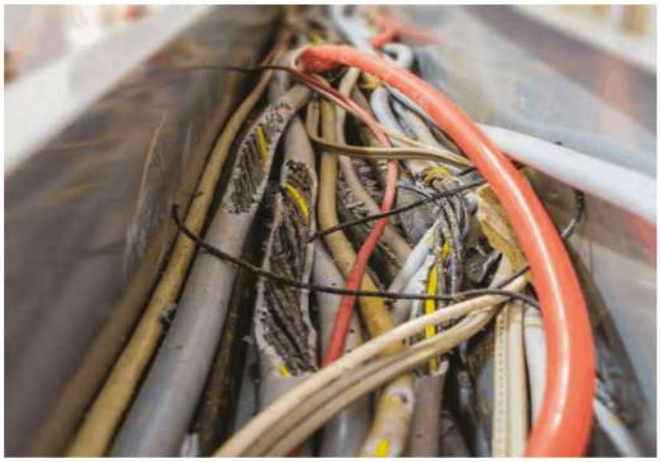
AD8 PROTECTION AGAINST WATER RESISTANT IN ELECTRIC CABLES possibility of permanent and total water flooding.

Our AD8 solar cables have high water resistance and are suitable for use in solar power plants built on lakes, seas and ponds.

H1Z2Z2-K SOLAR CABLE

HALOGEN FREE CABLE FOR USE IN PHOTOVOLTAIC SYSTEMS

H1Z2Z2-K ANTI-RODENT ANTI-TERMIT SOLAR CABLES



This Photovoltaic solar cable has been designed for protection purposes due to one of the most important causes of danger or attack is being rodent animals called " RODENTS". Rodents or rodents can severely damage the cable by biting or gnawing the outer sheath of the cable. In order to be protected from such damages by rodents, rodent-proof cable has been designed by NAK KABLO by application of irritating to rodents. This added additive protects the cable by leaving a bad taste or a rodent offensive odor when the rodent approaches or bites the cable.

EVC H07BZ5-F

Halogen Free Charging Cable ***Standard: EN 50620 - IEC 62893-3***

Application

H07BZ5-F cables are intended for charging electric vehicles on the vehicle charger connector section. Light flexible and durable compounds used for their production improve the functionality or use cables are halogen-free and flame retardant (EN 60332-1-2) (IEC 60332-1-2) as well as UV , weather ,oil ,alkali and chemical resistant.

Technical data:

Thermal parameters:

fixed installations : -40 °C to 80 °C
flexible installations : -40 °C to 80 °C
Max. power conductor operating temperature : 90 °C
Short-circuit temperature : +250 °C (max 5.sec. on conductor)

Electrical parameters:

Operating voltage : 450/750 V
Test voltage : 3500 V

Mechanical parameters:

Min. bending radius :
fixed installations : 4 x ø
flexible connections : 6.5 x ø

Design :

Power cores :

Conductors : Bare copper conductors , multi - stranded class 5 (EN 60228)

Insulation : Elastomer, Type EVI-2

Control cores :

Conductors : Bare copper conductors , multi - stranded class 5 (EN 60228)

Insulation : Elastomer, Type EVI-1

Outer Sheath : ***PUR*** Type EVM-1

Dimensional and insulation resistance values of H05BZ5-F and H07BZ5-F [a]							
	1	2	3	4	5	6	7
Rated voltage U_0/U	Number and nominal cross sectional area of conductors	Insulation thickness power core Specified value	Sheath thickness Specified value	Mean overall diameter Lower limit Informative value	Mean overall diameter Upper limit Informative value	Minimum insulation resistance at 20 °C	Minimum insulation resistance at 90 °C
V	mm^2	mm	mm	mm	mm	MΩ·km	MΩ·km
450/750	3 × 1,5	0,7	1,0	8,2	10,5	10,5	0,0105
450/750	3 × 2,5	0,7	1,0	9,3	11,9	8,6	0,0086
450/750	3 × 4	0,7	1,1	10,8	13,8	7,1	0,0071
450/750	3 × 6	0,7	1,2	12,3	15,7	6,1	0,0061
450/750	4 × 2,5	0,7	1,0	10,2	13,1	8,6	0,0086
450/750	4 × 4	0,7	1,1	11,9	15,2	7,1	0,0071
450/750	4 × 6	0,7	1,2	13,5	17,3	6,1	0,0061
450/750	5 × 2,5	0,7	1,2	11,7	15,0	8,6	0,0086
450/750	5 × 4	0,7	1,3	13,5	17,3	7,1	0,0071
450/750	5 × 6	0,7	1,4	15,4	19,7	6,1	0,0061

[a] : Mean overall dimension values in Table 4a are referring to constructions with one or two control core(s).

PVC Energy and Power Cables

PVC Enerji ve Güç Kabloları

H05V-U / H07V-U

PVC İZOLELİ, TEK DAMARLI TESİSAT KABLOLARI
PVC INSULATED, NON-SHEATHED SINGLE CORE CABLES

STANDARTLAR
STANDARDS
TS EN 50525-2-31
BS EN 50525-2-31
DIN EN 50525-2-31
IEC 60227-3

YAPISI / *CONSTRUCTION*

iletken / **conductor**

1 **Tek telli som bakır**
Solid copper (Class1)

izole / **insulation**

2 **Polivinil klorür**
Polyvinyl chloride

TEKNİK ÖZELLİKLER / *SPECIFICATIONS*

Min. bükülme yarı çapı
Min. bending radius
D<8 ise 4xD
8<D<12 ise 5xD
D>12 ise 6xD

Maks. kısa devre sıcaklığı
Max. short circuit temperature

Deney gerilimi
AC test voltage

Maks. çalışma sıcaklığı
Max. operating temperature

Beyan gerilimi Uo/U
Rated voltage Uo/U

Tek kablo düşey alev yayılma testi
Flame propagation test on single cable - **EN 60332-1**

Kurşunsuz
Lead free

UYGULAMA ALANLARI / *APPLICATIONS*

Kapalı ve kuru yerlerde, panolarda, sabit tesislerde, sıva altı ve sıva üstü tesisatlarda kullanılır.
Used in closed and dry areas, switch and distribution boards, fixed installations laying in conduit on and under plaster.

TEKNİK VERİLER / *TECHNICAL DATA* — *Cu/PVC*

Nominal Kesit mm² *Nominal Cross Section mm²*	Yaklaşık Dış Çap mm *Overall Diameter mm approximately*	Yaklaşık Net Ağırlık kg/km *Net Weight kg/km approximately*	İletken Direnci Max. ohm/km(20°C) *Conductor DC Resistance at (20°C) max. ohm/km*	Akım Taşıma Kapasitesi *Current Carrying Capacity in*	
				Boruda (A) *Conduit (A)*	Havada (A) *Air (A)*
H05V-U (300/500 V) / 2491X					
0,5	2,0	9	36	-	-
0,75	2,2	12	24,5	-	16
1	2,4	13	18,1	11	19
H07V-U (450/750V) / 6491X					
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

PVC İZOLELİ , TESİSAT KABLOLARI
PVC INSULATED, SINGLE CORE CABLES

STANDARTLAR
STANDARDS
TS EN 50525-2-31
BS EN 50525-2-31
DIN EN 50525-2-31
IEC 60227-3

YAPISI / *CONSTRUCTION*

iletken / **conductor**

1 **Örgülü bakır**
Stranded copper (Class2)

izole / **insulation**

2 **Polivinil klorür**
Polyvinyl chloride

TEKNİK ÖZELLİKLER / *SPECIFICATIONS*

Min. bükülme yarı çapı
Min. bending radius
D<8 ise 4xD
8<D<12 ise 5xD
D>12 ise 6xD

Maks. kısa devre sıcaklığı
Max. short circuit temperature

Deney gerilimi
AC test voltage

Maks. çalışma sıcaklığı
Max. operating temperature

Beyan gerilimi Uo/U
Rated voltage Uo/U

Tek kablo düşey alev yayılma testi
Flame propagation test on single cable - **EN 60332-1**

Kurşunsuz
Lead free

UYGULAMA ALANLARI / *APPLICATIONS*

Kapalı ve kuru yerlerde, panolarda, sabit tesislerde, sıva altı ve sıva üstü tesisatlarda kullanılır.
Used in closed and dry areas, switch and distribution boards, fixed installations laying in conduit on and under plaster.

TEKNİK VERİLER / *TECHNICAL DATA* — *Cu/PVC*

Nominal Kesit mm² *Nominal Cross Section mm²*	Yaklaşık Dış Çap mm *Overall Diameter mm approximately*	Yaklaşık Net Ağırlık kg/km *Net Weight kg/km approximately*	İletken Direnci Max. ohm/km(20°C) *Conductor DC Resistance at (20°C) max. ohm/km*	Akım Taşıma Kapasitesi *Current Carrying Capacity in*	
				Boruda (A) *Conduit (A)*	Havada (A) *Air (A)*
HO7V-R (450/750V) / 6491X					
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 / H07V-K

PVC İZOLELİ, BÜKÜLGEN, TEK DAMARLI TESİSAT KABLOLARI
PVC INSULATED, SINGLE CORE CABLES WITH FLEXIBLE COPPER CONDUCTOR

STANDARTLAR
STANDARDS
TS EN 50525-2-31
BS EN 50525-2-31
DIN EN 50525-2-31
IEC 60227-3

YAPISI / *CONSTRUCTION*

iletken / **conductor**

1. **İnce çok telli bakır**
   Fine-stranded copper (Class 5)

izole / **insulation**

2. **Polivinil klorür** (PVC)
   Polyvinyl chloride

TEKNİK ÖZELLİKLER / *SPECIFICATIONS*

- **Min. bükülme yarı çapı**
  Min. bending radius
  D<8 ise 4xD
  8<D<12 ise 5xD
  D>12 ise 6xD
- **Maks. kısa devre sıcaklığı** (160°)
  Max. short circuit temperature
- **Deney gerilimi** (2 kV/2,5 kV)
  AC test voltage
- **Maks. çalışma sıcaklığı** (70°)
  Max. operating temperature
- **Beyan gerilimi Uo/U** (300/500 V 450/750 V)
  Rated voltage Uo/U
- **Tek kablo düşey alev yayılma testi**
  Flame propagation test on single cable - **EN 60332-1**
- **Kurşunsuz** (Pb)
  Lead free

UYGULAMA ALANLARI / *APPLICATIONS*

Hareketli tesislerde ve cihazlarda, kapalı ve kuru yerlerde, panolarda kullanılır.
Used in closed and dry areas, switch and distribution boards, and also used for moving installations and equipments.

TEKNİK VERİLER / *TECHNICAL DATA* — *Cu/PVC*

Nominal Kesit mm² *Nominal Cross Section mm²*	Yaklaşık Dış Çap mm *Overall Diameter mm approximately*	Yaklaşık Net Ağırlık kg/km *Net Weight kg/km approximately*	İletken Direnci Max. ohm/km(20°C) *Conductor DC Resistance at (20°C) max. ohm/km*	Akım Taşıma Kapasitesi *Current Carrying Capacity in*	
				Boruda (A) *Conduit (A)*	Havada (A) *Air (A)*
H05V-K (300/500 V) / 2491X					
0,5	2,0	9	39	-	-
0,75	2,2	12	26	-	16
1	2,4	13	19,5	11	20
H07V-K (450/750 V) / 6491X					
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
300	28,8	2818	0,0641	-	689
400	32,2	3635	0,0486	-	789

H05V2-U / H07V2-U / H07V2-R

PVC İZOLELİ, ISIYA DAYANIKLI, TEK DAMARLI KABLOLAR
PVC INSULATED, HEAT RESISTING, SINGLE CORE CABLES

STANDARTLAR
STANDARDS
EN 50525-2-31

YAPISI / *CONSTRUCTION*

iletken / **conductor**

1 **Som veya örgülü bakır**
Solid or stranded copper (Class 1 or Class 2

izole / **insulation**

2 HR-PVC **Yüksek sıcaklığa dayanıklı polivinil klorür**
High temperature resistant polyvinyl chloride

TEKNİK ÖZELLİKLER / *SPECIFICATIONS*

Min. bükülme yarı çapı
Min. bending radius
D<8 ise 4xD
8<D<12 ise 5xD
D>12 ise 6xD

300/500 V
450/750 V **Beyan gerilimi Uo/U**
Rated voltage Uo/U

90° **Maks. çalışma sıcaklığı**
Max. operating temperature

2 kV/2,5 kV **Deney gerilimi**
AC test voltage

160° **Maks. kısa devre sıcaklığı**
Max. short circuit temperature

Tek kablo düşey alev yayılma testi
Flame propagation test on single cable - **EN 60332-1**

UYGULAMA ALANLARI / *APPLICATIONS*

Isıya dayanıklı, iç tesisatlarda ve panolarda kullanılır.
Heat resistant cables for internal wiring and switch, distribution boards.

TEKNİK VERİLER / TECHNICAL DATA — *Cu/HR-PVC*

Nominal Kesit mm² *Nominal Cross Section mm²*	Yaklaşık Dış Çap mm *Overall Diameter mm approximately*	Yaklaşık Net Ağırlık kg/km *Net Weight kg/km approximately*	İletken Direnci Max. ohm/km(20°C) *Conductor DC Resistance at (20°C) max. ohm/km*	Akım Taşıma Kapasitesi *Current Carrying Capacity in*	
				Boruda (A) *Conduit (A)*	Havada (A) *Air (A)*
H05V2-U (300/500 V)					
0,50	2,0	9	36,0	-	12
0,75	2,2	12	24,5	-	15
1	2,4	13	18,1	-	19
H07V2-U/H07V2-R (450/750 V)					
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

H05V2-K / H07V2-K

PVC İZOLELİ, ISIYADAYANIKLI, ESNEK, TEK DAMARLI KABLOLAR
PVC INSULATED, HEATRESISTING, FLEXIBLE, SINGLE CORE CABLES

STANDARTLAR
STANDARDS
EN 50525-2-31

YAPISI / *CONSTRUCTION*

iletken / **conductor**

1 **İnce çok telli bakır**
Fine-stranded copper (Class 5)

izole / **insulation**

2 HR-PVC **Yüksek sıcaklığa dayanıklı polivinil klorür**
High temperature resistant polyvinyl chloride

TEKNİK ÖZELLİKLER / *SPECIFICATIONS*

Min. bükülme yarı çapı
Min. bending radius
D<8 ise 4xD
8<D<12 ise 5xD
D>12 ise 6xD

300/500 V 450/750 V **Beyan gerilimi Uo/U**
Rated voltage Uo/U

90° **Maks. çalışma sıcaklığı**
Max. operating temperature

2 kV/2,5 kV **Deney gerilimi**
AC test voltage

160° **Maks. kısa devre sıcaklığı**
Max. short circuit temperature

Tek kablo düşey alev yayılma testi
Flame propagation test on single cable - **EN 60332-1**

UYGULAMA ALANLARI / *APPLICATIONS*

Isıya dayanıklı, iç tesisatlarda ve panolarda kullanılır.
Heat resistant cables for internal wiring and switch, distribution boards.

TEKNİK VERİLER / TECHNICAL DATA — *Cu/HR-PVC*

Nominal Kesit mm² *Nominal Cross Section mm²*	Yaklaşık Dış Çap mm *Overall Diameter mm approximately*	Yaklaşık Net Ağırlık kg/km *Net Weight kg/km approximately*	İletken Direnci Max. ohm/km(20°C) *Conductor DC Resistance at (20°C) max. ohm/km*	Akım Taşıma Kapasitesi *Current Carrying Capacity in*	
				Boruda (A) *Conduit (A)*	Havada (A) *Air (A)*
H05V2-K (300/500 V)					
0,50	2,0	9	39,0	-	12
0,75	2,2	12	26,0	-	15
1	2,4	13	19,5	-	19
H07V2-K (450/750 V)					
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	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	21,0	1521	0,129	240	391
185	23,3	1857	0,106	273	448
240	26,6	2443	0,0801	320	528
300	27,8	2781	0,0601	-	-

H03VH-H

YASSI KILIFSIZ KORDON
FLAT , FLEXIBLE TINSEL CORDS

STANDARTLAR
STANDARDS
TS EN 50525-2-11

YAPISI / *CONSTRUCTION*

iletken / **conductor**

1 **İnce çok telli bakır**
Flexible copper(Class 5)

izole / **insulation**

2 PVC **Polivinil klorür**
Polyvinyl chloride

TEKNİK ÖZELLİKLER / *SPECIFICATIONS*

8xD **Min. bükülme yarı çapı**
Min. bending radius

300/300 V 300/500 V **Beyan gerilimi Uo/U**
Rated voltage Uo/U

70° **Maks. çalışma sıcaklığı**
Max. operating temperature

2 kV **Deney gerilimi**
AC test voltage

160° **Maks. kısa devre sıcaklığı**
Max. short circuit temperature

Tek kablo düşey alev yayılma testi
Flame propagation test on single cable - **EN 60332-1**

UYGULAMA ALANLARI / *APPLICATIONS*

Mekanik zorlamaların olmadığı rutubetli yerlerde sıva altı ve sıva üstü tesisatlar.
Used in dry humid areas that there are no mechanical compulsion, under and on the plaster.

Pb **Kurşunsuz**
Lead free

TEKNİK VERİLER / TECHNICAL DATA — *Cu/PVC*

Nominal Kesit mm² *Nominal Cross Section mm²*	Yaklaşık Dış Çap mm *Overall Diameter mm approximately*	Yaklaşık Net Ağırlık kg/km *Net Weight kg/km approximately*	İletken Direnci Max. ohm/km(20°C) *Conductor DC Resistance at (20°C) max. ohm/km*	Akım Taşıma Kapasitesi *Current Carrying Capacity in* Havada (A) *Air (A)*
H03VH-H (300/300 V)				
2x0,50	2,50x5,55	24,4	39,0	3
2x0,75	2,70x5,60	28,0	26,0	6
2x1	2,90x6,20	33,6	19,50	10
2x1,5	3,50x7,40	49,2	13,30	16

H03VV-F

PVC İZOLELİ, ÇOK DAMARLI, BÜKÜLGEN İLETKENLİ KABLOLAR
PVC INSULATED, MULTI-CORE CABLES WITH FLEXIBLE CONDUCTOR

STANDARTLAR
STANDARDS
TS EN 50525-2-11
BS EN 50525-2-11
DIN EN 50525-2-11
IEC 60227,5

YAPISI / *CONSTRUCTION*

iletken / **conductor**

1. **İnce çok telli bakır**
   Fine-stranded copper (Class 5)

izole / **insulation**

2. PVC — **Polivinil klorür**
   Polyvinyl chloride

dış kılıf / **outer sheath**

3. PVC — **Polivinil klorür**
   Polyvinyl chloride

TEKNİK ÖZELLİKLER / *SPECIFICATIONS*

- **Min. bükülme yarı çapı**
  Min. bending radius
  D≤12 ise 5D - D>12 ise 6D
- 300/300 V — **Beyan gerilimi Uo/U**
  Rated voltage Uo/U
- 60° — **Maks. çalışma sıcaklığı**
  Max. operating temperature
- 2 kV — **Deney gerilimi**
  AC test voltage
- 150° — **Maks. kısa devre sıcaklığı**
  Max. short circuit temperature
- **Tek kablo düşey alev yayılma testi**
  Flame propagation test on single cable - **EN 60332-1**

UYGULAMA ALANLARI / *APPLICATIONS*

Az mekanik zorlamalı ve rutubetli yerlerde kullanılan ev gereçlerinde kullanılır.
Used in dry and humid areas that there are not much mechanical compulsion in which, generally used in household equipments.

Pb — **Kurşunsuz**
Lead free

TEKNİK VERİLER / *TECHNICAL DATA* — *Cu/PVC/PVC*

Nominal Kesit **mm²** *Nominal Cross Section mm²*	Yaklaşık Dış Çap **mm** *Overall Diameter mm approximately*	Yaklaşık Net Ağırlık **kg/km** *Net Weight kg/km approximately*	İletken Direnci Max. **ohm/km(20°C)** *Conductor DC Resistance at (20°C) max. ohm/km*	Akım Taşıma Kapasitesi *Current Carrying Capacity in* **Havada (A)** *Air (A)*
H03VV-F (300/300 V)				
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

PVC İZOLELİ, ÇOK DAMARLI, BÜKÜLGEN İLETKENLİ KABLOLAR
PVC INSULATED, MULTI-CORE CABLES WITH FLEXIBLE CONDUCTOR

STANDARTLAR
STANDARDS
TS EN 50525-2-11
BS EN 50525-2-11
DIN EN 50525-2-11
IEC 60227.5

YAPISI / *CONSTRUCTION*

iletken / **conductor**

1. **İnce çok telli bakır**
   Fine-stranded copper (Class 5)

izole / **insulation**

2. **Polivinil klorür**
   Polyvinyl chloride

dış kılıf / **outer sheath**

3. **Polivinil klorür**
   Polyvinyl chloride

TEKNİK ÖZELLİKLER / *SPECIFICATIONS*

- **Min. bükülme yarı çapı**
  Min. bending radius
  D≤12 ise 5D - D>12 ise 6D
- **Beyan gerilimi Uo/U**
  Rated voltage Uo/U
  300/500 V
- **Maks. çalışma sıcaklığı**
  Max. operating temperature
  60°
- **Deney gerilimi**
  AC test voltage
  2 kV
- **Maks. kısa devre sıcaklığı**
  Max. short circuit temperature
  150°
- **Tek kablo düşey alev yayılma testi**
  Flame propagation test on single cable - **EN 60332-1**

UYGULAMA ALANLARI / *APPLICATIONS*

Az mekanik zorlamalı ve rutubetli yerlerde kullanılan ev gereçlerinde kullanılır.
Used in dry and humid areas that there are not much mechanical compulsion in which, generally used in household equipments.

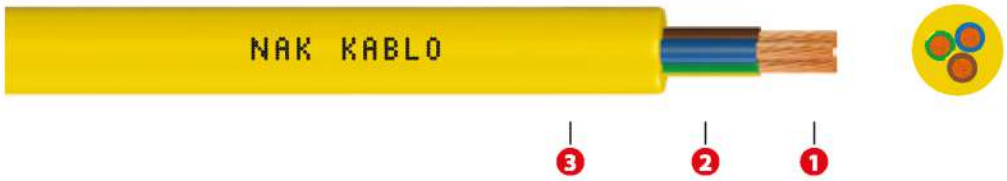
- **Kurşunsuz**
  Lead free
  Pb

TEKNİK VERİLER / *TECHNICAL DATA* — *Cu/PVC/PVC*

Nominal Kesit mm² *Nominal Cross Section mm²*	Yaklaşık Dış Çap mm *Overall Diameter mm approximately*	Yaklaşık Net Ağırlık kg/km *Net Weight kg/km approximately*	İletken Direnci Max. ohm/km(20°C) *Conductor DC Resistance at (20°C) max. ohm/km*	Akım Taşıma Kapasitesi *Current Carrying Capacity in* Havada (A) *Air (A)*
H05VV-F (300/500 V) / 318Y				
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

A05V3V3-F ARTIC GRADE

SOĞUĞA DAYANIKLI ESNEK KABLOLAR
FLEXIBLE, ARCTIC GRADE CABLES FOR COLD ENVIRONMENT



STANDARTLAR
STANDARDS
BS 6004:2012

YAPISI / *CONSTRUCTION*

iletken / **conductor**

1. **İnce çok telli bakır**
   Fine-stranded copper (Class 5)

izole / **insulation**

2. CR-PVC — **Soğuğa dayanıklı polivinil klorür**
   Cold resistant polyvinyl chloride

dış kılıf / **outer sheat**

3. CR-PVC — **Soğuğa dayanıklı polivinil klorür**
   Cold resistant polyvinyl chloride

TEKNİK ÖZELLİKLER / *SPECIFICATIONS*

- **Min. bükülme yarı çapı**
  Min. bending radius
  D ≤12 ise 5D - D>12 ise 6D
- 300/500 V — **Beyan gerilimi Uo/U**
  Rated voltage Uo/U
- 60° — **Maks. çalışma sıcaklığı**
  Max. operating temperature
- 2 kV — **Deney gerilimi**
  AC test voltage
- 160° — **Maks. kısa devre sıcaklığı**
  Max. short circuit temperature
- **Tek kablo düşey alev yayılma testi**
  Flame propagation test on single cable - **EN 60332-1**

UYGULAMA ALANLARI / *APPLICATIONS*

Düşük sıcaklıklarda ve az mekanik zorlamalı alçak gerilim ev aletlerinde kullanılır.
Low voltage household appliances under less mechanical compulsion used in low temperature applications.

TEKNİK VERİLER / *TECHNICAL DATA* — *Cu/CR-PVC/CR-PVC*

Nominal Kesit mm² *Nominal Cross Section mm²*	Yaklaşık Dış Çap mm *Overall Diameter mm approximately*	Yaklaşık Net Ağırlık kg/km *Net Weight kg/km approximately*	İletken Direnci Max. ohm/km(20°C) *Conductor DC Resistance at (20°C) max. ohm/km*	Akım Taşıma Kapasitesi *Current Carrying Capacity in* Havada (A) *Air (A)*
A05V3V3-F ARCTIC (300/500 V) / 318A				
2x0,75	6,3	57	26,0	6
2x1	6,6	65	19,5	10
2x1,50	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

H03V2V2-F / H05V2V2-F

ESNEK, ISIYA DAYANIKLI, ÇOK DAMARLI KABLOLAR
FLEXIBLE, HEAT RESISTING, MULTI-CORE CABLES

STANDARTLAR
STANDARDS
TS EN 50525-2-11
BS EN 50525-2-11
DIN EN 50525-2-11
EN 50525-2-11

YAPISI / *CONSTRUCTION*

iletken / **conductor**

1. **İnce çok telli bakır**
   Fine-stranded copper (Class 5)

izole / **insulation**

2. HR-PVC — **Yüksek sıcaklığa dayanıklı polivinil klorür**
   High temperature resistant polyvinyl chloride

dış kılıf / **outer sheath**

3. HR-PVC — **Yüksek sıcaklığa dayanıklı polivinil klorür**
   High temperature resistant polyvinyl chloride

TEKNİK ÖZELLİKLER / *SPECIFICATIONS*

- **Min. bükülme yarı çapı**
  Min. bending radius
  D≤12 ise 5xD
  D>12 ise 6xD
- 300/300 V 300/500 V — **Beyan gerilimi Uo/U**
  Rated voltage Uo/U
- 90° / 105° — **Maks. çalışma sıcaklığı**
  Max. operating temperature
- 2 kV — **Deney gerilimi**
  AC test voltage
- 150° — **Maks. kısa devre sıcaklığı**
  Max. short circuit temperature
- **Tek kablo düşey alev yayılma testi**
  Flame propagation test on single cable - **EN 60332-1**

UYGULAMA ALANLARI / *APPLICATIONS*

Yüksek sıcaklıklarda ve az mekanik zorlamalı alçak gerilim ev aletlerinde kullanılır.
Low voltage household appliances under less mechanical compulsion in high temperature environments.

TEKNİK VERİLER / *TECHNICAL DATA* — *Cu/HR-PVC/HR-PVC*

Nominal Kesit mm² *Nominal Cross Section mm²*	Yaklaşık Dış Çap mm *Overall Diameter mm approximately*	Yaklaşık Net Ağırlık kg/km *Net Weight kg/km approximately*	İletken Direnci Max. ohm/km(20°C) *Conductor DC Resistance at (20°C) max. ohm/km*	Akım Taşıma Kapasitesi *Current Carrying Capacity in* Havada (A) *Air (A)*
H03V2V2-F (300/300 V) / 209Y				
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 (300/500V) / 309Y				
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	82	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

6181 Y (BS 6004:2012)

ÇİFT PVC İZOLELİ, TEK DAMARLI KABLOLAR
PVC DOUBLE INSULATED CABLES

STANDARTLAR
STANDARDS
BS 6004:2012

YAPISI / *CONSTRUCTION*

iletken / **conductor**

1 — **Som veya örgülü bakır**
Solid or stranded copper (Class 1 or Class 2)

izole / **insulation**

2 — PVC — **Polivinil klorür**
Polyvinyl chloride

Dış kılıf / Outer Sheath

3 — PVC — **Polivinil klorür**
Polyvinyl chloride

TEKNİK ÖZELLİKLER / *SPECIFICATIONS*

6xD — **Min. bükülme yarı çapı**
Min. bending radius

300/500 V — **Beyan gerilimi Uo/U**
Rated voltage Uo/U

70° — **Maks. çalışma sıcaklığı**
Max. operating temperature

2 kV — **Deney gerilimi**
AC test voltage

160° — **Maks. kısa devre sıcaklığı**
Max. short circuit temperature

Tek kablo düşey alev yayılma testi
Flame propagation test on single cable - **EN 60332-1**

UYGULAMA ALANLARI / *APPLICATIONS*

Mekanik zorlamaların olmadığı rutubetli yerlerde sıva altı ve sıva üstü tesisatlar.
Used in dry humid areas that there are no mechanical compulsion, under and on the plaster.

Pb — **Kurşunsuz**
Lead free

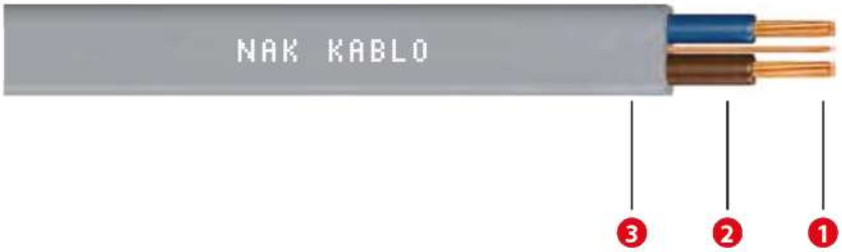
TEKNİK VERİLER / TECHNICAL DATA — *Cu/PVC/PVC*

Nominal Kesit **mm²** *Nominal Cross Section mm²*	Yaklaşık Dış Çap **mm** *Overall Diameter mm approximately*	Yaklaşık Net Ağırlık **kg/km** *Net Weight kg/km approximately*	İletken Direnci Max. **ohm/km(20°C)** *Conductor DC Resistance at (20°C) max. ohm/km*	Akım Taşıma Kapasitesi *Current Carrying Capacity in* Havada (A) *Air (A)*
6181 Y				
1	3,9	26	18,1	13,5
1,5	4,4	33	12,1	17,5
2,5	5,0	46	7,41	24
4	6,0	69	4,61	32
6	6,5	89	3,08	41
10	7,8	139	1,83	57
16	9,1	207	1,15	76
25	11,0	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

6241 Y 6242 Y 6243 Y (BS 6004:2012)

PVC İZOLELİ, PVC KILIFLI YASSI KABLOLAR
PVC INSULATED PVC SHEATED FLAT TWIN CABLES

STANDARTLAR
STANDARDS
BS 6004:2012



YAPISI / *CONSTRUCTION*

iletken / **conductor**

1 — **Som veya örgülü bakır**
Solid or stranded copper (Class 1 or Class 2)

izole / **insulation**

2 — PVC — **Polivinil klorür**
Polyvinyl chloride

Dış kılıf / Outer Sheath

3 — PVC — **Polivinil klorür**
Polyvinyl chloride

TEKNİK ÖZELLİKLER / *SPECIFICATIONS*

- 6xD — **Min. bükülme yarı çapı** *Min. bending radius*
- 300/500 V — **Beyan gerilimi Uo/U** *Rated voltage Uo/U*
- 70° — **Maks. çalışma sıcaklığı** *Max. operating temperature*
- 2 kV — **Deney gerilimi** *AC test voltage*
- 160° — **Maks. kısa devre sıcaklığı** *Max. short circuit temperature*
- **Tek kablo düşey alev yayılma testi** *Flame propagation test on single cable* - **EN 60332-1**

UYGULAMA ALANLARI / *APPLICATIONS*

Mekanik zorlamaların olmadığı rutubetli yerlerde sıva altı ve sıva üstü tesisatlar.
Used in dry humid areas that there are no mechanical compulsion, under and on the plaster.

Pb — Kurşunsuz *Lead free*

TEKNİK VERİLER / TECHNICAL DATA — *Cu/PVC/PVC*

Nominal Kesit **mm²** *Nominal Cross Section mm²*	Yaklaşık Dış Çap **mm** *Overall Diameter Min Dia. / Max Dia .*	Yaklaşık Net Ağırlık **kg/km** *Net Weight kg/km approximately*	İletken Direnci Max. **ohm/km(20°C)** *Conductor DC Resistance at (20°C) max. ohm/km*	Akım Taşıma Kapasitesi *Current Carrying Capacity in* **Havada (A)** *Air (A)*
6241 Y - 6242 Y - 6243 Y (300/500 V)				
1x1,5+1	4,4x5,4 - 5,3x6,6	48	12,1/18,1	16
2x1+1	3,9x7,2 - 4,8x8,7	67	18,10	13
2x1,5+1	4,4x8,1 - 5,3x9,7	83	12,1/18,1	16
2x2,5+1,5	5,1x9,6 - 6,2x11,7	120	7,41/12,1	21
2x4+1,5	5,7x10,8 - 6,8x13,1	172	4,61/12,1	27
2x6+2,5	6,4x12,4 - 7,8x15,0	235	3,08/7,41	34
2x10+4	7,9x15,6 - 9,5x18,9	373	1,83/4,61	45
2x16+6	8,9x18,1 - 10,8x21,9	529	1,15/3,08	57
3x1+1	3,9x9,4 - 4,8x11,4	91	18,1	13
3x1,5+1	4,4x10,7 - 5,3x12,9	117	12,1/18,1	16
3x2,5+1,5	5,1x12,6 - 6,2x15,3	172	7,41/12,1	21

NYIFY

PVC İZOLELİ, PVC KILIFLI YASSI KABLOLAR
PVC INSULATED PVC SHEATED FLAT TWIN CABLES

STANDARTLAR
STANDARDS
VDE 0250

YAPISI / *CONSTRUCTION*

iletken / **conductor**

1 **Som veya örgülü bakır**
Solid or stranded copper (Class 1 or Class 2)

izole / **insulation**

2 PVC **Polivinil klorür**
Polyvinyl chloride

Dış kılıf / Outer Sheath

3 PVC **Polivinil klorür**
Polyvinyl chloride

TEKNİK ÖZELLİKLER / *SPECIFICATIONS*

8xD **Min. bükülme yarı çapı**
Min. bending radius

300/500 V **Beyan gerilimi Uo/U**
Rated voltage Uo/U

70° **Maks. çalışma sıcaklığı**
Max. operating temperature

2 kV **Deney gerilimi**
AC test voltage

160° **Maks. kısa devre sıcaklığı**
Max. short circuit temperature

Tek kablo düşey alev yayılma testi
Flame propagation test on single cable - **EN 60332-1**

UYGULAMA ALANLARI / *APPLICATIONS*

Mekanik zorlamaların olmadığı rutubetli yerlerde sıva altı ve sıva üstü tesisatlar.
Used in dry humid areas that there are no mechanical compulsion, under and on the plaster.

Pb **Kurşunsuz**
Lead free

TEKNİK VERİLER / *TECHNICAL DATA* — *Cu/PVC/PVC*

Nominal Kesit mm² *Nominal Cross Section mm²*	Yaklaşık Dış Çap mm *Overall Diameter Min Dia. / Max Dia .*	Yaklaşık Net Ağırlık kg/km *Net Weight kg/km approximately*	İletken Direnci Max. ohm/km(20°C) *Conductor DC Resistance at (20°C) max. ohm/km*	Akım Taşıma Kapasitesi *Current Carrying Capacity in* Havada (A) *Air (A)*
NYIFY (300/500 V)				
2x1	3,6x9,2	51	18,1	13
2x1,5	3,9x10,5	79	12,10	16
2x2,5	4,7x12,0	95	7,41	21
2x4	5,3x14	144	4,61	27
3x1	3,6x14,8	76	18,1	13
3x1,5	3,85x17,5	109	12,1	16
3x2,5	4,75x19,5	141	7,41	21
3x4	5,30x23,0	197	4,61	27

FLRY-B

SPECIAL PVCINSULATED AUTOMOTİVE CABLES

STANDARTLAR
STANDARDS
DIN 72551

CONSTRUCTION

Conductor

1 — *Fine-stranded copper(Class 5)*

Insulation

PVC — *Polyvinyl chloride*

SPECIFICATIONS

Pb — *Lead free*

105° — *Max operating temp.*

-40° — *Min. Operating temp.*

60 — *Rated voltage Uo/U*

1000 — *AC test voltage*

Flame propagation test on single cable - **EN 60332-1**

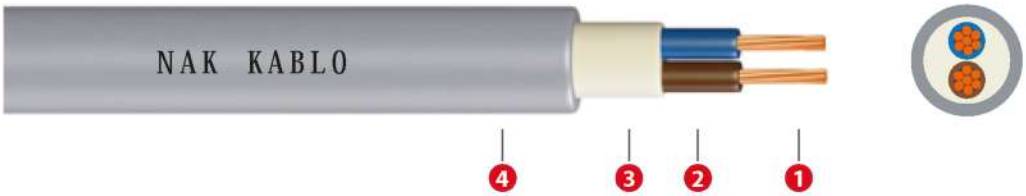
Automotive Internal Wiring

TECHNICAL DATA — Cu/PVC

Nominal CrossSection mm²	Overall Diameter Of Conductor	Net Weight kg/km approximately	Conductor DC Resistance at (20°C)max.ohm/km	Conduit (A)	Air (A)
FLRY					
0,35	0,90	4,5	52,0	19,5	32
0,50	1,10	6,6	37,1	34	54
0,75	1,30	9,0	24,7	46	73
1	1,50	11,0	18,5	61	98
1,5	1,80	16,0	12,7	80	129
2,5	2,20	26,0	7,6	99	158
4	2,80	42,0	4,7	119	198
6	3,40	61,0	3,1	151	245

(NVV) NYM

PVC İZOLELİ, ÇOK DAMARLI TESİSAT KABLOLARI
PVC INSULATED, MULTI-CORE INSTALLATION CABLES



STANDARTLAR
STANDARDS
TS 9759
VDE 0250
IEC 60227

YAPISI / *CONSTRUCTION*

iletken / **conductor**

1 **Som veya örgülü bakır**
Solid or stranded copper (Class 1 or Class 2)

izole / **insulation**

2 **Polivinil klorür**
Polyvinyl chloride

dolgu

3 **Polivinil klorür**
Polyvinyl chloride

dış kılıf / **outer sheath**

4 **Polivinil klorür**
Polyvinyl chloride

TEKNİK ÖZELLİKLER / *SPECIFICATIONS*

Min. bükülme yarı çapı
Min. bending radius

Beyan gerilimi Uo/U
Rated voltage Uo/U

Maks. çalışma sıcaklığı
Max. operating temperature

Deney gerilimi
AC test voltage

Maks. kısa devre sıcaklığı
Max. short circuit temperature

Tek kablo düşey alev yayılma testi
Flame propagation test on single cable - **EN 60332-1**

UYGULAMA ALANLARI / *APPLICATIONS*

Mekanik zorlamaların olmadığı rutubetli yerlerde sıva altı ve sıva üstü tesisatlar.
Used in dry humid areas that there are no mechanical compulsion, under and on the plaster.

Kurşunsuz
Lead free

TEKNİK VERİLER / *TECHNICAL DATA* — *Cu/PVC/PVC*

Nominal Kesit mm² *Nominal Cross Section mm²*	Yaklaşık Dış Çap mm *Overall Diameter mm approximately*	Yaklaşık Net Ağırlık kg/km *Net Weight kg/km approximately*	İletken Direnci Max. ohm/km(20°C) *Conductor DC Resistance at (20°C) max. ohm/km*	Akım Taşıma Kapasitesi *Current Carrying Capacity in* Havada (A) *Air (A)*
(NU, H05VV) NYM / H05VV-VV-R (300/500 V)				
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
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
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
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

YVV-R (NYY)
YVV-U (NYY)

NAK KABLO

PVC İZOLELİ, ALÇAK GERİLİM GÜÇ KABLOLARI
PVC INSULATED, LOW VOLTAGE POWER CABLES

STANDARTLAR
STANDARDS
TS IEC 60502-1
IEC 60502-1
DIN VDE 0276-603

YAPISI / *CONSTRUCTION*

iletken / **conductor**
1. **Som veya örgülü bakır**
Solid or stranded copper (Class 1 or Class 2)

izole / **insulation**
2. PVC — **Polivinil klorür**
Polyvinyl chloride

dolgu
3. PVC — **Polivinil klorür**
Polyvinyl chloride

dış kılıf / **outer sheath**
4. PVC — **Polivinil klorür**
Polyvinyl chloride

TEKNİK ÖZELLİKLER / *SPECIFICATIONS*

12 x D — **Min. bükülme yarı çapı**
Min. bending radius

0.6/1 kV — **Beyan gerilimi Uo/U**
Rated voltage Uo/U

70° — **Maks. çalışma sıcaklığı**
Max. operating temperature

3.5 kV — **Deney gerilimi**
AC test voltage

160° — **Maks. kısa devre sıcaklığı**
Max. short circuit temperature

Tek kablo düşey alev yayılma testi
Flame propagation test on single cable - **EN 60332-1**

UYGULAMA ALANLARI / *APPLICATIONS*

Fazla zorlamaların olmadığı toprak altında ve kablo kanallarında kullanılır.
Used in underground which there not much outer factors and inside cable conduits.

Pb — **Kurşunsuz**
Lead free

TEKNİK VERİLER / *TECHNICAL DATA* — *Cu/PVC/PVC*

Nominal Kesit mm² *Nominal Cross Section mm²*	Yaklaşık Dış Çap mm *Overall Diameter mm approximately*	Yaklaşık Net Ağırlık kg/km *Net Weight kg/km approximately*	İletken Direnci Max. ohm/km(20°C) *Conductor DC Resistance at (20°C) max. ohm/km*	Akım Taşıma Kapasitesi *Current Carrying Capacity in*	
				Toprakta (A) *Ground (A)*	Havada (A) *Air (A)*
YVV-U (NYY) , YVV-R (NYY) (0,6/1 kV)					
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
3x1,5	10,80	177	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
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
5x1,5	12,10	231	12,1	26	18,6
5x2,5	13,10	295	7,41	34	25

YXV (N2XY)

XLPE İZOLELİ, TEK DAMARLI, BAKIR İLETKENLİ KABLOLAR
XLPE INSULATED, SINGLE CORE CABLES WITH COPPER CONDUCTOR

STANDARTLAR
STANDARDS
TS IEC 60502-1
IEC 60502-1
DIN VDE 0276-603
IS 1516.1

YAPISI / *CONSTRUCTION*

iletken / **conductor**

1. **Som veya örgülü bakır**
   Solid or stranded copper (Class 1 or Class 2)

izole / **insulation**

2. XLPE — **Çapraz bağlı polietilen**
   Cross linkable polyethylene

dolgu / **filler**

3. PVC — **Polivinil klorür**
   Polyvinyl chloride

dış kılıf / **outer sheath**

4. PVC — **Polivinil klorür**
   Polyvinyl chloride

TEKNİK ÖZELLİKLER / *SPECIFICATIONS*

- 15xD — **Min. bükülme yarı çapı** *Min. bending radius*
- 250° — **Maks. kısa devre sıcaklığı** *Max. short circuit temperature*
- 3.5 kV — **Deney gerilimi** *AC test voltage*
- 90° — **Maks. çalışma sıcaklığı** *Max. operating temperature*
- 0.6/1 kV — **Beyan gerilimi Uo/U** *Rated voltage Uo/U*
- **Tek kablo düşey alev yayılma testi** *Flame propagation test on single cable* - **EN 60332-1**
- Pb — **Kurşunsuz** *Lead free*

UYGULAMA ALANLARI / *APPLICATIONS*

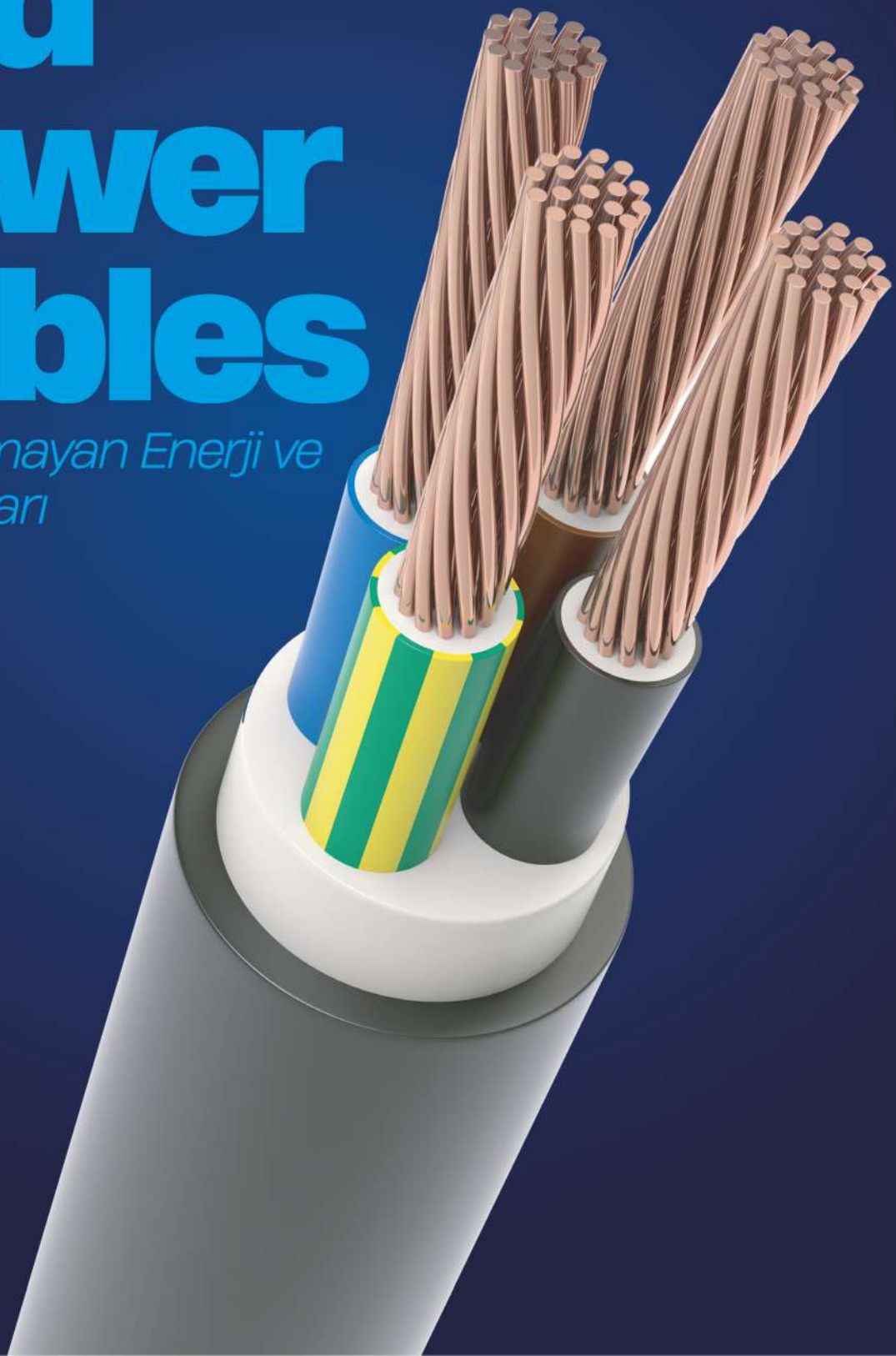
Dielektrik kaybı çok düşük olan bu kablolar bina içinde, boru içinde ve endüstri bölgelerinde ya da mekanik hasar beklenmeyen dağıtım merkezlerinde ve ani yük değişimlerinin olduğu enerji tesislerinde kullanılır. Yüksek çalışma sıcaklıklarına uyum gösterir, daha dayanıklı ve daha uzun ömürlüdür.
This cable having very low dielectric loss is used indoor, in cable ducts and in industrial plants or switching stations where mechanical damage is not anticipated. Suitable for comparatively high ambient temperature due to high maximum permissible conductor temperature.

TEKNİK VERİLER / *TECHNICAL DATA* — Cu/XLPE/PVC

Nominal Kesit mm² *Nominal Cross Section mm²*	Yaklaşık Dış Çap mm *Overall Diameter mm approximately*	Yaklaşık Net Ağırlık kg/km *Net Weight kg/km approximately*	İletken Direnci Max. ohm/km(20°C) *Conductor DC Resistance at (20°C) max. ohm/km*	Akım Taşıma Kapasitesi *Current Carrying Capacity in* Havada (A) *Air (A)*			
YXV(N2XY) (0,6/1 kV)				ooo	⁂	ooo	⁂
1x4	6,7	77	4,61	66	54	56	40
1x6	7,2	98	3,08	82	67	73	53
1x10	8,5	141	1,83	109	89	101	74
1x16	9,0	200	1,15	139	115	137	101
1x25	10,4	294	0,727	179	148	182	135
1x35	11,5	389	0,524	213	177	226	169
1x50	13,0	515	0,387	251	209	275	207
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	
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	
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	

Halogen Free Energy and Power Cables

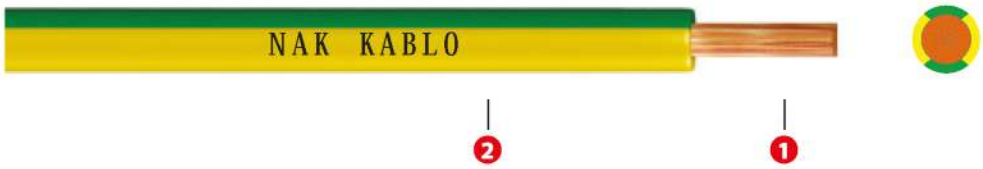
Halojen olmayan Enerji ve Güç Kabloları



H05Z1-K / H07Z1-K

TEK DAMARLI, HALOJENSİZ, ALEV GECİKTİRİCİLİ KABLOLAR
SINGLE CORE, HALOGEN FREE, FLAME RETARDANT CABLES

STANDARTLAR
STANDARDS
TS EN 50525-3-31



YAPISI / *CONSTRUCTION*

iletken / **conductor**

1 — **İnce çok telli bakır**
Fine-stranded copper (Class 5)

izole / **insulation**

2 — LSZH — **Düşük duman yoğunluklu halojen içermez**
Low smoke zero halogen

TEKNİK ÖZELLİKLER / *SPECIFICATIONS*

Min. bükülme yarı çapı
Min. bending radius
D<8 ise 4xD
8<D<12 ise 5xD
D>12 ise 6xD

300/500 V
450/750 V
Beyan gerilimi Uo/U
Rated voltage Uo/U

Düşük duman yoğunluğu
Low smoke - EN 61034

70°
Maks. çalışma sıcaklığı
Max. operating temperature

2 kV/2.5 kV
Deney gerilimi
AC test voltage

Halojensiz
Halogen free
EN 50525-1- EN 50267

160°
Maks. kısa devre sıcaklığı
Max. short circuit temperature

Tek kablo düşey alev yayılma testi
Flame propagation test on single cable - **EN 60332-1**

UYGULAMA ALANLARI / *APPLICATIONS*

Rafineriler, oteller, okullar, tüneller, yüksek binalar, hastaneler, bilgi işlem merkezleri ve insanların yoğun olarak bulunduğu iş merkezleri ile yangına hassas bölgelerde kullanılır.
Used in refineries, hotels, schools, tunnels, high constructions, hospitals, power plants, data processing centers, populated business centers where there is a risk of fire.

TEKNİK VERİLER / *TECHNICAL DATA* — *Cu/LSZH*

Nominal Kesit mm² *Nominal Cross Section mm²*	Yaklaşık Dış Çap mm *Overall Diameter mm approximately*	Yaklaşık Net Ağırlık kg/km *Net Weight kg/km approximately*	İletken Direnci Max. ohm/km(20°C) *Conductor DC Resistance at (20°C) max. ohm/km*	Akım Taşıma Kapasitesi *Current Carrying Capacity in*	
				Boruda (A) *Conduit (A)*	Havada (A) *Air (A)*
H05Z1-K (300/500 V)					
0,5	2,0	9	39,0	3	12
0,75	2,2	12	26,0	6	15
1	2,4	13	19,5	11	19
H07Z1-K (450/750 V)					
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
300	27,8	2782	0,0641	-	564

H05Z1-U/H07Z1-U/H07Z1-R

TEK DAMARLI, HALOJENSİZ, ALEV GECİKTİRİCİLİ KABLOLAR
SINGLE CORE, HALOGEN FREE, FLAME RETARDANT CABLES

STANDARTLAR
STANDARDS
TS EN 50525-3-31

YAPISI / *CONSTRUCTION*

iletken / **conductor**

1. **Som veya örgülü bakır**
   Solid or stranded copper (Class 1 or Class 2)

izole / **insulation**

2. **LSZH** — **Düşük duman yoğunluklu halojen içermez**
   Low smoke zero halogen

TEKNİK ÖZELLİKLER / *SPECIFICATIONS*

- **Min. bükülme yarı çapı**
  Min. bending radius
  D<8 ise 4xD
  8<D<12 ise 5xD
  D>12 ise 6xD
- **300/500 V 450/750 V** — **Beyan gerilimi Uo/U**
  Rated voltage Uo/U
- **Düşük duman yoğunluğu**
  Low smoke - EN 61034
- **70°** — **Maks. çalışma sıcaklığı**
  Max. operating temperature
- **2 kV/2.5 kV** — **Deney gerilimi**
  AC test voltage
- **Halojensiz**
  Halogen free
  EN 50525-1 - EN 50267
- **160°** — **Maks. kısa devre sıcaklığı**
  Max. short circuit temperature
- **Tek kablo düşey alev yayılma testi**
  Flame propagation test on single cable - **EN 60332-1**

UYGULAMA ALANLARI / *APPLICATIONS*

Rafineriler, oteller, okullar, tüneller, yüksek binalar, hastaneler, bilgi işlem merkezleri ve insanların yoğun olarak bulunduğu iş merkezleri ile yangına hassas bölgelerde kullanılır.
Used in refineries, hotels, schools, tunnels, high constructions, hospitals, power plants, data processing centers, populated business centers where there is a risk of fire.

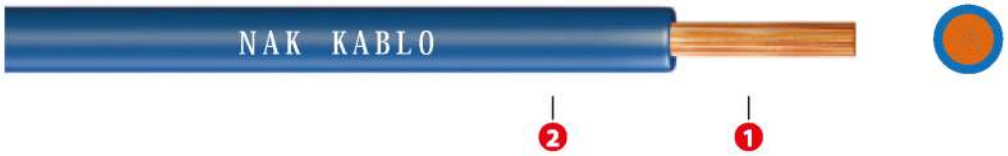
TEKNİK VERİLER / *TECHNICAL DATA* — *Cu/LSZH*

Nominal Kesit mm² *Nominal Cross Section mm²*	Yaklaşık Dış Çap mm *Overall Diameter mm approximately*	Yaklaşık Net Ağırlık kg/km *Net Weight kg/km approximately*	İletken Direnci Max. ohm/km(20°C) *Conductor DC Resistance at (20°C) max. ohm/km*	Akım Taşıma Kapasitesi *Current Carrying Capacity in*	
				Boruda (A) *Conduit (A)*	Havada (A) *Air (A)*
H05Z1-U (300/500 V)					
0,5	2	10	36,0	3	12
0,75	2,2	13	24,5	6	15
1	2,4	16	18,1	11	19
H07Z1-U / H07Z1-R (450/750 V)					
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	2295	0,0754	320	528
300	27,6	2995	0,0601	-	645
400	31,3	3900	0,0470	-	770

H05Z-K / H07Z-K

HALOJENSİZ, ALEV GECİKTİRİCİLİ, ISIYA DAYANIKLI, ESNEK, TEK DAMARLI KABLOLAR
HALOGEN FREE, FLAME RETARDANT, HEAT RESISTANT, FLEXIBLE, SINGLE CORE CABLES

STANDARTLAR
STANDARDS
TS EN 50525-3-41
BS EN 50525-3-41



YAPISI / *CONSTRUCTION*

iletken / **conductor**

1 **İnce çok telli bakır**
Fine-stranded copper
(Class 5)

izole / **insulation**

2 XL-LSZH **Düşük duman yoğunluklu halojen içermeyen çapraz bağlı**
Low smoke zero halogen cross linkable

TEKNİK ÖZELLİKLER / *SPECIFICATIONS*

Min. bükülme yarı çapı
Min. bending radius
D<8 ise 4xD
8<D<12 ise 5xD
D>12 ise 6xD

90° **Maks. çalışma sıcaklığı**
Max. operating temperature

250° **Maks. kısa devre sıcaklığı**
Max. short circuit temperature

300/500 V
450/750 V **Beyan gerilimi Uo/U**
Rated voltage Uo/U

2 kV/2.5 kV **Deney gerilimi**
AC test voltage

Düşük duman yoğunluğu
Low smoke - EN 61034

Halojensiz
Halogen free
EN 50525-1 - EN 50267

Tek kablo düşey alev yayılma testi
Flame propagation test on single cable **EN 60332-1**

UYGULAMA ALANLARI / *APPLICATIONS*

Sıva üzeri, sıva altında, kanal içinde veya benzer kapalı sistemlerde kullanılır. Yangında düşük seviyede duman ve zehirli gaz çıkartma özelliğine sahiptir.
Installation in surface mounted or embedded conduits or similar closed systems. Low level of smoke emission and corrosive gases in case of fire.

TEKNİK VERİLER / *TECHNICAL DATA* — *Cu/XL-LSZH*

Nominal Kesit mm² *Nominal Cross Section mm²*	Yaklaşık Dış Çap mm *Overall Diameter mm approximately*	Yaklaşık Net Ağırlık kg/km *Net Weight kg/km approximately*	İletken Direnci Max. ohm/km(20°C) *Conductor DC Resistance at (20°C) max. ohm/km*	Akım Taşıma Kapasitesi *Current Carrying Capacity in*	
				Boruda (A) *Conduit (A)*	Havada (A) *Air (A)*
H05Z-K (300/500 V) / 2491B					
0,50	2,1	9	39,0	-	12
0,75	2,3	12	26,0	-	15
1	2,5	13	19,5	11	19
H07Z-K (450/750 V) / 6491B					
1,5	3,0	19	13,3	14,5	24
2,5	3,7	30	7,98	19,5	32
4	4,5	44	4,95	26	42
6	5,5	61	3,30	34	54
10	6,5	105	1,91	46	73
16	7,5	158	1,21	61	98
25	10,0	253	0,780	80	129
35	11,0	345	0,554	99	158
50	13,0	495	0,386	119	198
70	15,0	670	0,272	151	245
95	17,0	905	0,206	182	292
120	19,0	1132	0,161	210	344
150	21,0	1415	0,129	240	391
185	23,3	1720	0,106	273	448
240	27,0	2255	0,0801	320	528

H07Z-U / H07Z-R

HALOJENSİZ, ALEV GECİKTİRİCİLİ, ISIYA DAYANIKLI,TEK DAMARLI KABLOLAR
HALOGEN FREE, FLAME RETARDANT, HEAT RESISTANT, SINGLE CORE CABLES

STANDARTLAR
STANDARDS
TS EN 50525-3-41
BS EN 50525-3-41

YAPISI / *CONSTRUCTION*

iletken / **conductor**

1 **Som veya örgülü bakır**
Solid or stranded copper
(Class 1 or Class 2)

izole / **insulation**

2 XL-LSZH **Düşük duman yoğunluklu halojen içermeyen çapraz bağlı**
Low smoke zero halogen cross linkable

TEKNİK ÖZELLİKLER / *SPECIFICATIONS*

Min. bükülme yarı çapı
Min. bending radius
D<8 ise 4xD
8<D<12 ise 5xD
D>12 ise 6xD

90° **Maks. çalışma sıcaklığı**
Max. operating temperature

250° **Maks. kısa devre sıcaklığı**
Max. short circuit temperature

450/750 V **Beyan gerilimi Uo/U**
Rated voltage Uo/U

2,5 kV **Deney gerilimi**
AC test voltage

Düşük duman yoğunluğu
Low smoke - EN 61034

Halojensiz
Halogen free
EN 50525-1 - EN 50267

Tek kablo düşey alev yayılma testi
Flame propagation test on single cable - **EN 60332-1**

UYGULAMA ALANLARI / *APPLICATIONS*

Sıva üzeri, sıva altında, kanal içinde veya benzer kapalı sistemlerde kullanılır. Yangında düşük seviyede duman ve zehirli gaz çıkartmama özelliğine sahiptir.
Installation in surface mounted or embedded conduits or similar closed systems. Low level of smoke emission and corrosive gases in case of fire.

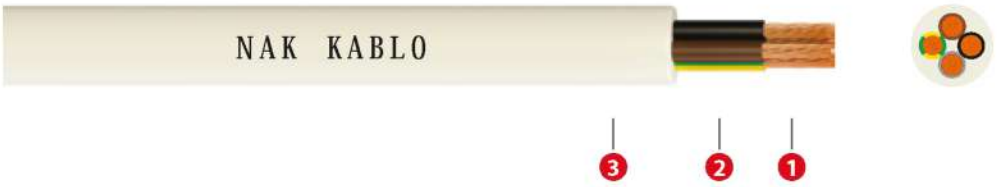
TEKNİK VERİLER / *TECHNICAL DATA* — *Cu/XL-LSZH*

Nominal Kesit mm² *Nominal Cross Section mm²*	Yaklaşık Dış Çap mm *Overall Diameter mm approximately*	Yaklaşık Net Ağırlık kg/km *Net Weight kg/km approximately*	İletken Direnci Max. ohm/km(20°C) *Conductor DC Resistance at (20°C) max. ohm/km*	Akım Taşıma Kapasitesi *Current Carrying Capacity in*	
				Boruda (A) *Conduit (A)*	Havada (A) *Air (A)*
H07Z-U / H07Z-R (450/750 V) / 6491B					
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	5,4	116	1,83	46	73
16	7,0	161	1,15	61	98
25	8,5	258	0,727	80	129
35	9,5	346	0,524	99	158
50	11,0	468	0,387	119	198
70	12,5	660	0,268	151	245
95	15,0	910	0,193	182	292
120	16,5	1140	0,153	210	344
150	18,0	1405	0,124	240	391
185	20,0	1745	0,0991	273	448
240	23,0	2295	0,0754	320	528
300	26,0	2900	0,0601	-	645
400	29,0	3700	0,0470	-	770

H03Z1Z1-F/H05Z1Z1-F

HALOJENSİZ, ALEV GECİKTİRİCİLİ, ÇOK DAMARLI BÜKÜLGEN KABLOLAR
HALOGEN FREE, FLAME RETARDANT, MULTI-CORE FLEXIBLE CABLES

STANDARTLAR
STANDARDS
TS EN 50525-3-11



YAPISI / *CONSTRUCTION*

iletken / **conductor**

1. **İnce çok telli bakır**
   Fine-stranded copper (Class 5)

izole / **insulation**

2. **LSZH** Düşük duman yoğunluklu halojen içermez
   Low smoke zero halogen

dış kılıf / **outer sheat**

3. **LSZH** Düşük duman yoğunluklu halojen içermez
   Low smoke zero halogen

TEKNİK ÖZELLİKLER / *SPECIFICATIONS*

- **Min. bükülme yarı çapı**
  Min. bending radius
  D ≤ 12 ise 5 x D
  D > 12 ise 6 X D
- **300/300 V 300/500 V** Beyan gerilimi Uo/U
  Rated voltage Uo/U
- Düşük duman yoğunluğu
  Low smoke - EN 61034
- **60°** Maks. çalışma sıcaklığı
  Max. operating temperature
- **2 kV** Deney gerilimi
  AC test voltage
- Halojensiz
  Halogen free
  EN 50525-1 EN 50267
- **150°** Maks. kısa devre sıcaklığı
  Max. short circuit temperature
- Tek kablo düşey alev yayılma testi
  Flame propagation test on single cable - **EN 60332-1**

UYGULAMA ALANLARI / *APPLICATIONS*

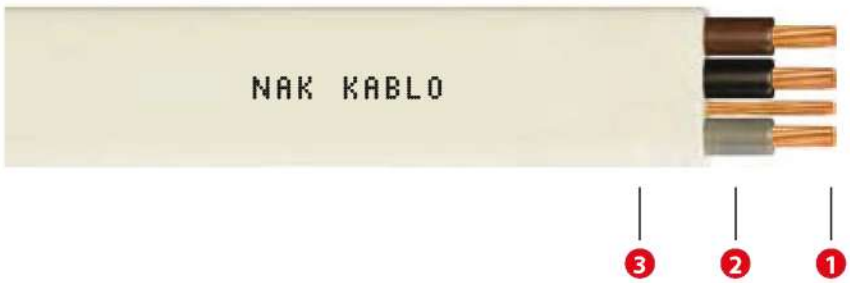
Rafineriler, oteller, okullar, tüneller, yüksek binalar, hastaneler, bilgi işlem merkezleri ve insanların yoğun olarak bulunduğu iş merkezleri ile yangına hassas bölgelerde kullanılır.
Used in refineries, hotels, schools, tunnels, high constructions, hospitals, power plants, data processing centers, populated business centers where there is a risk of fire.

TEKNİK VERİLER / *TECHNICAL DATA* — *Cu/LSZH/LSZH*

Nominal Kesit mm² *Nominal Cross Section mm²*	Yaklaşık Dış Çap mm *Overall Diameter mm approximately*	Yaklaşık Net Ağırlık kg/km *Net Weight kg/km approximately*	İletken Direnci Max. ohm/km(20°C) *Conductor DC Resistance at (20°C) max. ohm/km*	Akım Taşıma Kapasitesi *Current Carrying Capacity in* Havada (A) *Air (A)*
H03Z1Z1-F (300/300 V)				
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 (300/500V)				
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	228	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	102	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

6241 B 6242 B 6243 B (BS 7211:2012)

XLPE İZOLELİ, LSZH KILIFLI YASSI KABLOLAR
XLPE INSULATED LSZH SHEATED FLAT TWIN CABLES



STANDARTLAR
STANDARDS
BS 7211:2012

YAPISI / *CONSTRUCTION*

iletken / **conductor**

1. **Som veya örgülü bakır**
   Solid or stranded copper (Class 1 or Class 2)

izole / **insulation**

2. **Çapraz Bağlı Polietilen**
   Cross Linked Polyethylene

Dış kılıf / Outer Sheath

3. **Düşük Duman Yoğunluklu Halojen İçermeyen**
   Low Somke Zero Halogen

Halojensiz
Halogen free EN 50525-1 - EN 50267

Düşük duman yoğunluğu
Low smoke - EN 61034

TEKNİK ÖZELLİKLER / *SPECIFICATIONS*

Min. bükülme yarı çapı
Min. bending radius

Beyan gerilimi Uo/U
Rated voltage Uo/U

Maks. çalışma sıcaklığı
Max. operating temperature

Deney gerilimi
AC test voltage

Maks. kısa devre sıcaklığı
Max. short circuit temperature

Tek kablo düşey alev yayılma testi
Flame propagation test on single cable - **EN 60332-1**

UYGULAMA ALANLARI / *APPLICATIONS*

Mekanik hasar riski taşimayan bina içi tesisatlarda ,sıva üstü uygulamalarda kullanılır..

Used as surface wiring where there is little mechanical damage risk , or in conduit.

TEKNİK VERİLER / *TECHNICAL DATA* — *Cu/XLPE/LSZH*

Nominal Kesit **mm²** *Nominal Cross Section mm²*	Yaklaşık Dış Çap **mm** *Overall Diameter mm approximately*	Yaklaşık Net Ağırlık **kg/km** *Net Weight kg/km approximately*	İletken Direnci Max. **ohm/km(20°C)** *Conductor DC Resistance at (20°C) max. ohm/km*	Akım Taşıma Kapasitesi *Current Carrying Capacity in* **Havada (A)** *Air (A)*
6241 B - 6242 B - 6243 B (300/500 V)				
1x1,5+1	4,4x5,4 - 5,3x6,6	46	12,1/18,1	23
2x1+1	4,1x7,6 - 5,0X9,1	65	18,10	17
2x1,5+1	4,4x8,1 - 5,3x9,7	76	12,1/18,1	23
2x2,5+1,5	4,9x9,3 - 6,0x11,2	108	7,41/12,1	31
2x4+1,5	5,5x10,4 - 6,7x12,6	148	4,61/12,1	42
2x6+2,5	6,2x12,0 - 7,5x14,6	208	3,08/7,41	54
2x10+4	7,3x14,5 - 8,8x17,6	317	1,83/4,61	75
2x16+6	8,4x17,0 - 10,1x20,5	448	1,15/3,08	100
3x1+1	4,1x10,0 - 5,1x12,1	87	18,1	17
3x1,5+1	4,4x10,7 - 5,3x12,9	104	12,1/18,1	23
3x2,5+1,5	4,9x12,0 - 6,0x14,6	142	7,41/12,1	31

052XZ1-F

XLPE İZOLELİ, HALOJENSİZ, ÇOK DAMARLI BÜKÜLGEN KABLOLAR
XLPE INSULATION, HALOGEN FREE, MULTI-CORE FLEXIBLE CABLES

STANDARTLAR
STANDARDS
TSE K 176

YAPISI / *CONSTRUCTION*

iletken / **conductor**

1. **İnce çok telli bakır**
   Fine-stranded copper (Class 5)

izole / **insulation**

2. **XLPE** — **Çapraz bağlı polietilen**
   Cross linkable polyethylene

dış kılıf / **outer sheat**

3. **LSZH** — **Düşük duman yoğunluklu halojen içermez**
   Low smoke zero halogen

TEKNİK ÖZELLİKLER / *SPECIFICATIONS*

- **Min. bükülme yarı çapı**
  Min. bending radius
  D ≤12 ise 5D - D>12 ise 6D
- **300/500 V** — **Beyan gerilimi Uo/U**
  Rated voltage Uo/U
- **Düşük duman yoğunluğu**
  Low smoke - EN 61034
- **90°** — **Maks. çalışma sıcaklığı**
  Max. operating temperature
- **2 kV** — **Deney gerilimi**
  AC test voltage
- **Halojensiz**
  Halogen free
  EN 50525-1 - EN 50267
- **250°** — **Maks. kısa devre sıcaklığı**
  Max. short circuit temperature
- **Demet kablo düşey alev yayılma testi**
  Flame retardant test of Bunched cables
  EN 60332-3-24 Cat.C

UYGULAMA ALANLARI / *APPLICATIONS*

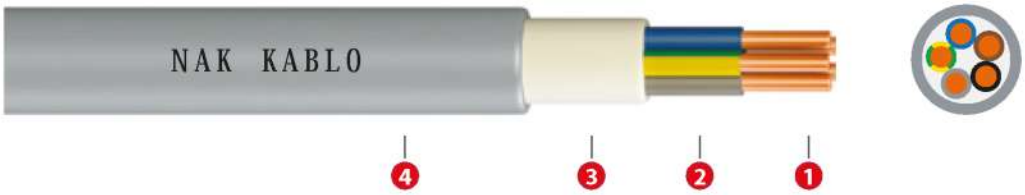
Rafineriler, oteller, okullar, tüneller, yüksek binalar, hastaneler, bilgi işlem merkezleri ve insanların yoğun olarak bulunduğu iş merkezleri ile yangına hassas bölgelerde kullanılır.
Used in refineries, hote ls, schools, tunnels, high constructions, hospitals, power plants, data processing centers, populated business centers where there is a risk of fire.

TEKNİK VERİLER / *TECHNICAL DATA* — *Cu/XLPE/LSZH*

Nominal Kesit mm² *Nominal Cross Section mm²*	Yaklaşık Dış Çap mm *Overall Diameter mm approximately*	Yaklaşık Net Ağırlık kg/km *Net Weight kg/km approximately*	İletken Direnci Max. ohm/km(20°C) *Conductor DC Resistance at (20°C) max. ohm/km*	Akım Taşıma Kapasitesi *Current Carrying Capacity in* Havada (A) *Air (A)*
052XZ1-F (300/500 V)				
2x0,75	6,1	55	26,0	6
2x1	6,4	63	19,5	10
2x1,5	8,3	103	13,3	16
2x2,5	9,1	135	7,98	25
2x4	10,3	182	4,95	32
3x0,75	6,5	63	26,0	6
3x1	6,8	74	19,5	10
3x1,5	8,4	113	13,3	16
3x2,5	9,7	156	7,98	25
3x4	11,1	224	4,95	32
4x0,75	7,3	81	26,0	6
4x1	7,7	97	19,5	10
4x1,5	9,3	141	13,3	16
4x2,5	10,6	193	7,98	25
4x4	12,2	280	4,95	32
5x0,75	7,9	99	26,0	6
5x1	8,0	117	19,5	10
5x1,5	9,6	154	13,3	16
5x2,5	10,6	209	7,98	25
5x4	13,2	332	4,95	32

NHXMH-O / NHXMH-J

HALOJENSİZ, ALEV İLETMEYEN ÇOK DAMARLI KABLOLAR
HALOGEN FREE, FLAME RETARDANT MULTI-CORE CABLES



STANDARTLAR
STANDARDS
VDE 0250-214
BS 7211:2012
TSEK

YAPISI / *CONSTRUCTION*

iletken / **conductor**

1 — **Som veya örgülü bakır**
Solid or stranded copper (Class 1 or Class 2)

izole / **insulation**

2 — XLPE — **Çapraz bağlı polietilen**
Cross linkable polyethylene

dolgu / **filler**

3 — HFFR — **Halojen içermeyen alev geciktiricili**
Halogen free flame retardant

dış kılıf / **outer sheath**

4 — HFFR — **Halojen içermeyen alev geciktiricili**
Halogen free flame retardant

TEKNİK ÖZELLİKLER / *SPECIFICATIONS*

12 x D — **Min. bükülme yarı çapı**
Min. bending radius

2 kV — **Deney gerilimi**
AC test voltage

90° — **Maks. çalışma sıcaklığı**
Max. operating temperature

Düşük duman yoğunluğu
Low smoke - EN 61034

250° — **Maks. kısa devre sıcaklığı**
Max. short circuit temperature

Halojensiz
Halogen free
EN 50525-1 - EN 50267

300/500 V — **Beyan gerilimi Uo/U**
Rated voltage Uo/U

Demet kablo düşey alev yayılma testi
Flame retardant test of bunched cables
EN 60332-3-24 Cat. C

UYGULAMA ALANLARI / *APPLICATIONS*

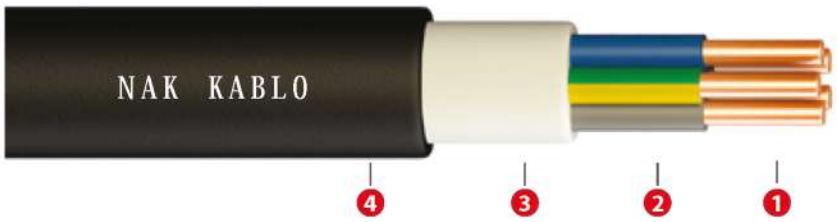
Rafineriler, oteller, okullar, tüneller, yüksek binalar, hastaneler, bilgi işlem merkezleri ve insanların yoğun olarak bulunduğu iş merkezleri ile yangına hassas bölgelerde kullanılır.
Used in refineries, hotels, schools, tunnels, high constructions, hospitals, power plants, data processing centers, populated business centers where there is a risk of fire.

TEKNİK VERİLER / *TECHNICAL DATA* — *Cu/XLPE/HFFR/HFFR*

Nominal Kesit mm² *Nominal Cross Section mm²*	Yaklaşık Dış Çap mm *Overall Diameter mm approximately*	Yaklaşık Net Ağırlık kg/km *Net Weight kg/km approximately*	İletken Direnci Max. ohm/km(20°C) *Conductor DC Resistance at (20°C) max. ohm/km*	Akım Taşıma Kapasitesi *Current Carrying Capacity in* Havada (A) *Air (A)*
NHXMH-O/NHXMH-J (300/500 V)				
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	18,5
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
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

HALOJENSİZ, ALEV YAYILMASINA DAYANIKLI ÇOK DAMARLI KABLOLAR
HALOGEN FREE, FLAME RETARDANT MULTI-CORE CABLES



STANDARTLAR
STANDARDS
VDE 0276-604
TS HD 604-S1

YAPISI / *CONSTRUCTION*

iletken / **conductor**

1 — **Som veya örgülü bakır**
Solid or stranded copper
(Class 1 or Class 2)

izole / **insulation**

2 — XLPE — **Çapraz bağlı polietilen**
Cross linkable polyethylene

dolgu / **filler**

3 — HFFR — **Halojen içermeyen alev geciktiricili**
Halogen free flame retardant

dış kılıf / **outer sheath**

4 — HFFR — **Halojen içermeyen alev geciktiricili**
Halogen free flame retardant

TEKNİK ÖZELLİKLER / *SPECIFICATIONS*

12 x D — **Min. bükülme yarı çapı**
Min. bending radius
<95 mm² ise 15xD
≥95 mm² ise 18xD

3.5 kV — **Deney gerilimi**
AC test voltage

90° — **Maks. çalışma sıcaklığı**
Max. operating temperature

Düşük duman yoğunluğu
Low smoke - EN 61034

250° — **Maks. kısa devre sıcaklığı**
Max. short circuit temperature

Halojensiz
Halogen free
EN 50525-1 - EN 50267

0.6/1 kV — **Beyan gerilimi Uo/U**
Rated voltage Uo/U

Demet kablo düşey alev yayılma testi
Flame retardant test of bunched cables
EN 60332-3-24 Cat. C

UYGULAMA ALANLARI / *APPLICATIONS*

Rafineriler, oteller, okullar, tüneller, yüksek binalar, hastaneler, bilgi işlem merkezleri ve insanların yoğun olarak bulunduğu iş merkezleri ile yangına hassas bölgelerde kullanılır.
Used in refineries, hotels, schools, tunnels, high constructions, hospitals, power plants, data processing centers, populated business centers where there is a risk of fire.

TEKNİK VERİLER / *TECHNICAL DATA*

Cu/XLPE/HFFR/HFFR

Nominal Kesit mm² *Nominal Cross Section mm²*	Yaklaşık Dış Çap mm *Overall Diameter mm approximately*	Yaklaşık Net Ağırlık kg/km *Net Weight kg/km approximately*	İletken Direnci Max. ohm/km(20°C) *Conductor DC Resistance at (20°C) max. ohm/km*	Akım Taşıma Kapasitesi *Current Carrying Capacity in*	
				Toprakta (A) *Ground (A)*	Havada (A) *Air (A)*
N2XH (0,6/1 kV)					
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
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
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
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	21,0	1052	1,15	111	96

CERTIFICATES

TÜV NORD

Zertifikat

Certificate

Registrier-Nr.

YUSUF KABUKÇU NAK KABLO ELEKTRİK MALZEMELERİ İNŞAAT İTHALAT İHRACAT SANAYİ VE TİCARET LİMİTED ŞİRKETİ

EN 50618:2014

IEC 62930:2017

Elektrokabel für Photovoltaikanlagen

TÜV NORD

Beschreibung des Produktes:

Typbezeichnung:

Beschreibung:

Allgemeine Informationen:

Elektrokabel für Photovoltaikanlagen

TÜV NORD CERT GmbH

Certification Body

Consumer Products

TÜVNORD

ATTESTATION OF CONFORMITY CERTIFICATE

Name and address of bearer / manufacturer:

YUSUF KABUKÇU NAK KABLO ELEKTRİK MALZEMELERİ İNŞAAT İTHALAT İHRACAT SANAYİ VE TİCARET LİMİTED ŞİRKETİ

Inspected according to

Description of product:

Electric Vehicle Cable

Model & Type:

Inspection date or period:

Report number:

Place of manufacture:

Inspected by:

TÜRK STANDARDLARI ENSTİTÜSÜ

TÜRK STANDARDLARINA UYGUNLUK BELGESİ

TURKISH STANDARDS INSTITUTION

CERTIFICATE OF CONFORMITY TO TURKISH STANDARDS

TÜRK STANDARDLARI ENSTİTÜSÜ

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LICENCE TO USE HARMONIZED MARKING

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TURKISH STANDARDS INSTITUTION

LICENCE TO USE HARMONIZED MARKING

DECLARATION OF PERFORMANCE
DoP No: 0001 30.05.2022
According to EU 305/2011, Annex V

1. Unique identification code of the product-type:
H1Z2Z2-K 1,5 Kv DC

2. Intended use:
Cable for general applications in construction works subject to reaction to fire requirements

3. Manufacturer:
Name : **YUSUF KABUKÇU NAK KABLO ELEKTRİK MLZ. İNŞ. İTH. İHR. SAN. VE TİC. LTD. ŞTİ.**
Address : **BOZBURUN MAH.7045 SOK NO : 9 MERKEZEFENDİ / DENİZLİ / TÜRKİYE**
Email : nak@nakkablo.com
Phone Number : **+90 530 850 93 53**

4. Authorized representative:
-

5. System of assessment and verification of constancy of performance of the product:
System 3

6. Notification body / Test report no :
1014 / 221204-01/01

7. Declared performances:

Essential characteristics	Performance	Harmonized technical specifications
Reaction to fire	Dca	EN 50575:2014 + A1:2016
Dangerous substances	NPD	

8. Scope of declaration
Number of core: **Single Core**
Min/Max cross section: **1,5 mm² to 50 mm²**
Conductor: **Class 5**

9. The performance of the product identified above is in conformity with the set of declared performances. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:
Nuri Alper KABUKCU / CEO Denizli / 30.05.2022

Bozburun Mah. 7045 Sokak No:9 DENİZLİ - TÜRKİYE
+90 258 371 43 00

ATTESTATION OF CONFORMITY CERTIFICATE

Certificate No.: CR-AOC-TUVNORD-23/01XX-R00

Name and address of bearer / manufacturer:	**YUSUF KABUKÇU NAK KABLO ELEKTRİK MALZEMELERİ İNŞAAT İTHALAT İHRACAT SANAYİ VE TİCARET LİMİTED ŞİRKETİ.** Bozburun Mahallesi 7045 Sokak No: 9 Merkezefendi / Denizli - TURKİYE

This certificate applies to the following products. This certificate is to confirm that the checked products meet the requirements specified in the contract. These checks and evaluations were made upon the request of the company.

Inspected according to	**EN 50620:2017+A1:2019, IEC 62893-3: 2017**
Description of product:	**Electric Vehicle Cable**
Model & Type:	**H07BZ5-F 450/750V EN 50620** 1.5 mm² 3 Core 1 CC core (0.5 mm² -1.0 mm²),1 CP core (0.5 mm² -1.0 mm²) 2.5 to 6 mm² -3.4.5 core 1 CC core (0.5 mm² -1.0 mm²), 1 CP Core (0.5 mm² -1.0 mm²) **IEC 123 450/750V, IEC 62893-3** 1.5 mm² 3 Core 1 CC core (0.5 mm² -1.0 mm²),1 CP core (0.5 mm² -1.0 mm²) 2.5 to 6 mm² -3.4.5 core 1 CC core (0.5 mm² -1.0 mm²), 1 CP Core (0.5 mm² -1.0 mm²)
Inspection date or period:	29.01.2024
Report number:	• SHEN50620-A0-2023-00448 • SHIEC62893-3-A0-2023-00449
Place of manufacture:	Bozburun Mahallesi 7045 Sokak No: 9 Merkezefendi / Denizli - TURKİYE
Inspected by:	**Basim BOZDAŞ**

Istanbul , Issue Date : 29.01.2024
This certificate is valid between 29.01.2024 to 28.01.2027

Certifier for Product of TÜV NORD Turkey Teknik Kontrol ve Belgelendirme A.Ş

Mr.

TÜV NORD Turkey Teknik Kontrol ve Belgelendirme A.Ş. [illegible] Tel. +90-(0) 216 [illegible] Fax +90-(0) 216 [illegible] e-mail [illegible]@tuv-turkey.com

CERTIFICATE OF CONFORMITY

SGS

Product :	Electric cables for photovoltaic systems with a voltage rating of 1,5 kV DC
Tested by request of:	Yusuf Kabukçu Nak Kablo Elektrik Malz. İnşaat İnşaat İthalat İhracat San. Tic. LTD. ŞTİ. Bozburun Mah. 7045 Sok. No:9 Merkezefendi Denizli Türkiye
Rating and principal characteristics:	1,0/1,0 kV , Rated Temperature -40°C to +90°C Maximum conductor temperature 120°C
Trade mark (If any)	NAK SOLAR CABLE
Model/Type ref:	1x1,5 mm²- 1x240 mm²

Additional information (if any)
A sample of the product has been tested and found to be in conformity with the current IEC 62930:2017 & EN 50618 :2014

This statement is the result of testing a sample of the product submitted, in accordance with the the revelant specific standard

CE

06.08.2021
S.Müge Okumuş
E&E Division Manager

Classification Report No.: 221204-01/01 CLASS

1. Introduction

This classification report defines the classification assigned to H1Z2Z2-K / 62930 IEC 131 1,5 kV DC in accordance with the procedures given in ČSN EN 13501-6: ed.2:2019 (EN 13501-6:2018)

ezū elektrotechnický zkušební ústav

CLASSIFICATION OF REACTION TO FIRE
FOR ELECTRIC CABLES
IN ACCORDANCE WITH ČSN EN 13501-6: ed.2:2019 (EN 13501-6:2018)

Sponsor:	YUSUF KABUKÇU NAK KABLO ELEKTRİK MLZ. İNŞ. İTH. İHR. SAN. TİC. LTD. ŞTİ. Address: Bozburun Mah. 7045 Sokak No:9 DENİZLİ – TÜRKİYE
Prepared by:	ELEKTROTECHNICKÝ ZKUŠEBNÍ ÚSTAV, s.p. Pod Lisem 129, 171 02, Prague 8 - Troja Czech Republic
Notified Body No.:	1014
Product name:	H1Z2Z2-K / 62930 IEC 131 1,5 kV DC
Classification report No.:	221204-01/01 CLASS
Issue number:	1
Date of issue:	31.05.2022

This classification report consists of 8 pages and may only be used or reproduced in its entirety.

Report Issue Date: 31.05.2022

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Ürün Kataloğu
Product Catalogue