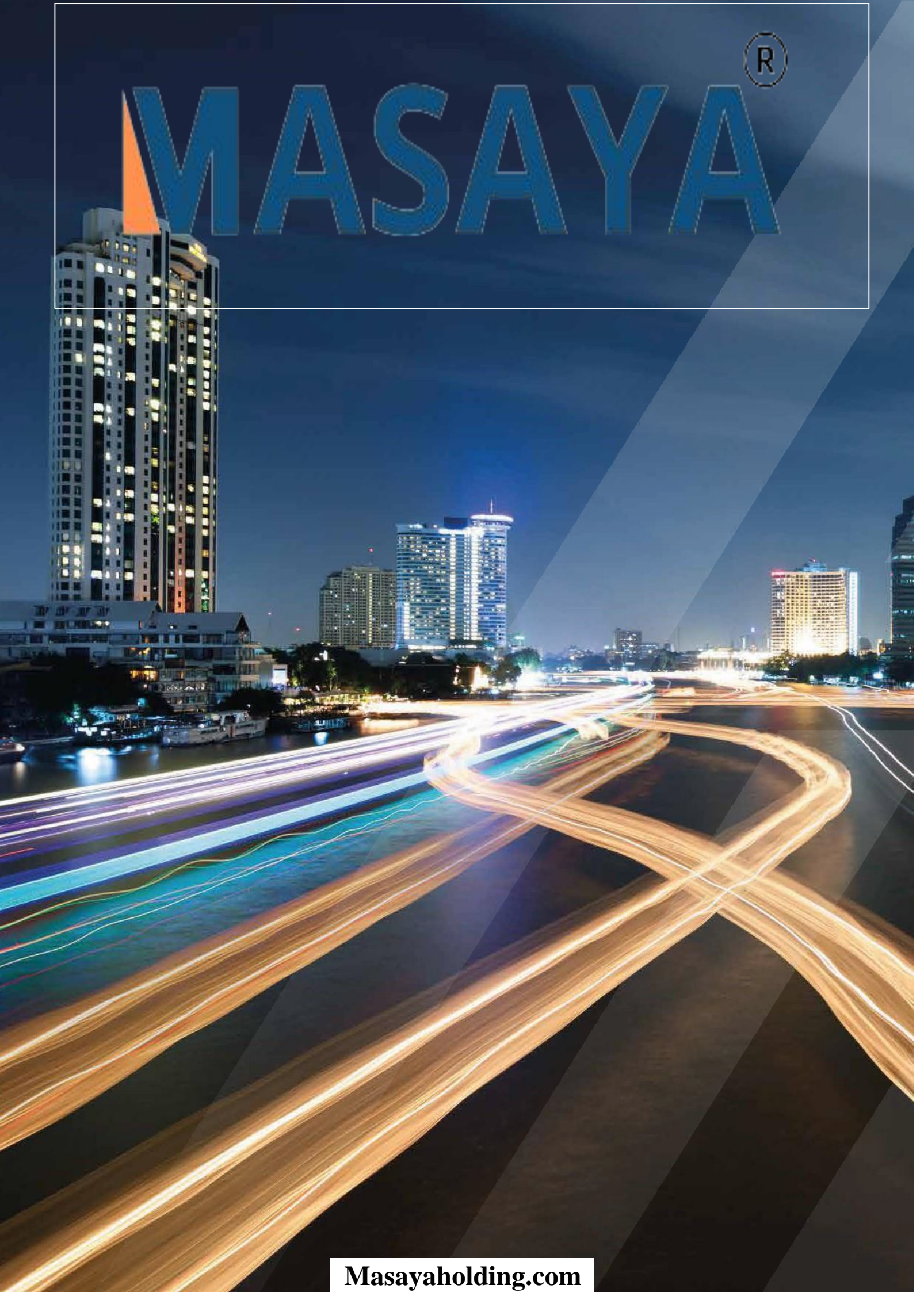


# MASAYA<sup>®</sup> CABLES



[Masayaholding.com](http://Masayaholding.com)

# MASAYA<sup>®</sup>



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COAXIAL CABLES

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PAGES 68 > 79 **COMMUNICATION CABLES**



PAGES 80 > 87 **VOCALIZATION CABLES**



PAGES 88 > 101 **FIRE RESISTANT CABLES**



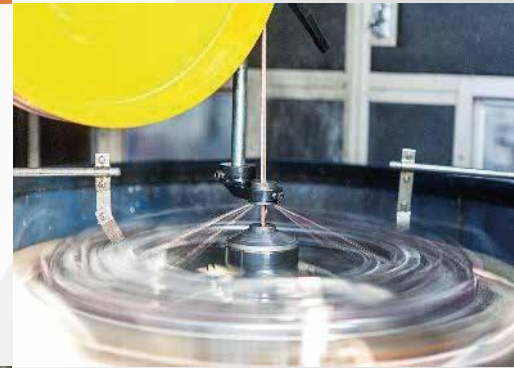
PAGES 102 > 123 **SIGNAL AND CONTROL CABLES**



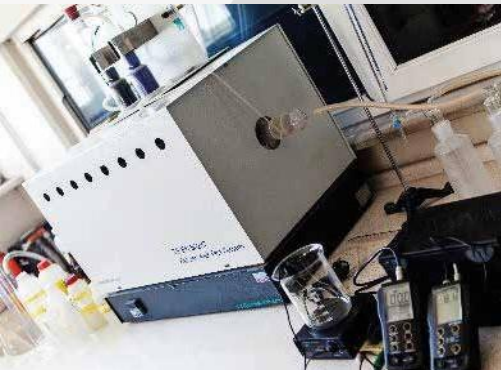
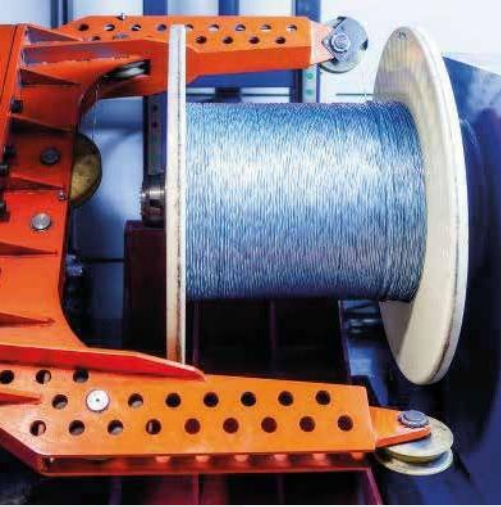
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**ENERGY CABLES**















## COAXIAL CABLES

75 OHM Koaksiyel Kablolar - PVC  
75 OHM Coaxial Cables - PVC

12. RG59 Mini
13. RG59 U/2
14. RG59 U/4
15. RG59 U/6
16. RG6 U/4
17. RG6 U/4 Trishield
18. RG6 U/6
19. RG6 U/6 Trishield
20. RG6 U/4 CCS
21. RG6 U/6 CCS
22. RG11 U/4
23. RG11 U/4 Trishield
24. RG11 U/6
25. RG11 U/6 Trishield

75 OHM Koaksiyel Kablolar - HFFR  
75 OHM Coaxial Cables - HFFR

26. RG59 U/4
27. RG59 U/6
28. RG6 U/4
29. RG6 U/6
30. RG11U/4
31. RG11 U/6

75 OHM Koaksiyel Kablolar - PE  
75 OHM Coaxial Cables - PE

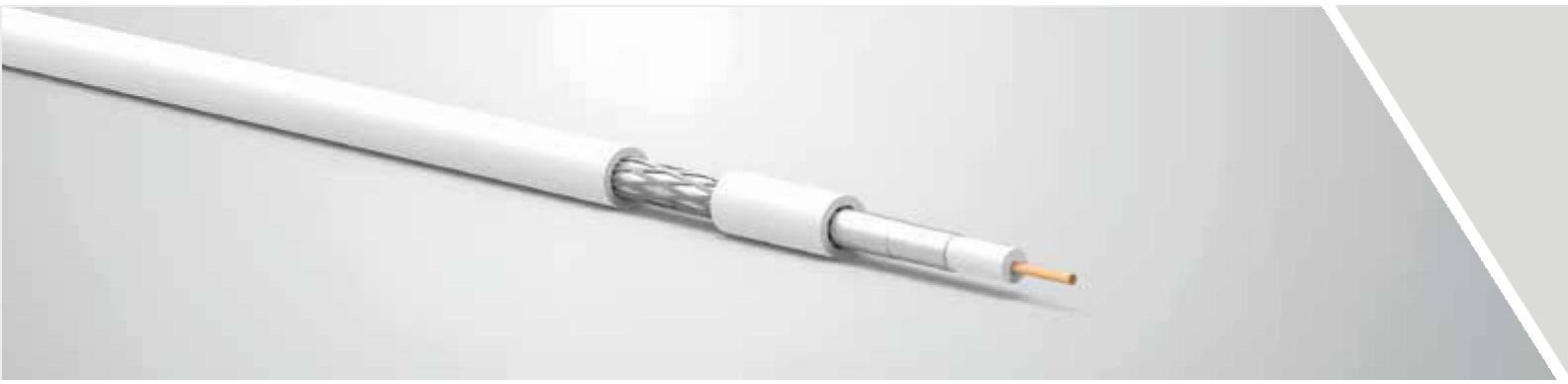
32. RG6 U/4 PE
33. RG6 U/6 PE
34. RG11 U/4 PE
35. RG11 U/4 AP
36. RG11 U/6 PE
37. RG11 U/6 AP

50 OHM Koaksiyel Kablolar  
50 OHM Coaxial Cables

38. RG58 C/U
39. RG213  
/U
40. RG174  
/U







This type of cables are used for CATV indoor distributions and connections of systems need low attenuations.

### Kablo Yapısı / Cable Construction

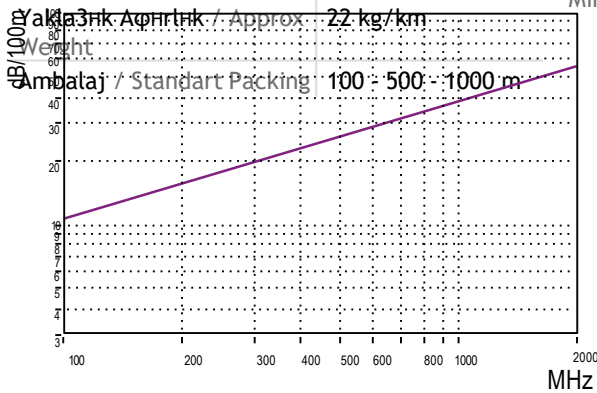
İç İletken / Inner Conductor	Cu
İletken (aφH / Conductor Diameter)	1 x 0,60 mm
İzolasYon / Insulation	FPE
İzolasYon (aφH / Insulation Diameter)	3,10 mm
Ekran Bant / Screen Tape	ALPET 100%
Örçü / Braid	Al 50%
Dış Kılıf / Outer Sheath	PVC
Kılıf (aφH / Sheath Diameter)	4.50 mm
Kılıf Renği / Colour of Sheath	BeYaz / White

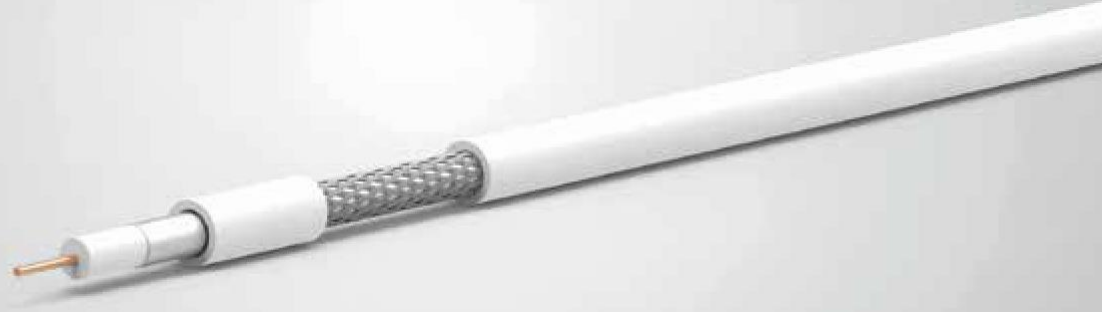
### Elektriksel Ölçümler / Electrical Parameters

Kapasitans / Capacitance	57.00 pF/m
Empedans / Impedance	75±3 Ohm
YaYılma HızH / Velocity of Propagation	0,82
İzolasYon Direnci / Insulation Resistance	>2000 MOhm.km
(aH3ma SıcaklıH / Temperature Range	-40 °C + 70 °C
(aH3ma Cerilimi / Operating Voltage	1,1 kV
Test Gerilimi / Test Voltage	2,5 kV
Min. Bükülme YarçapH / Min. Bending Radius	10 x D

### Zayıflama / Attenuation

100 MHz	10,60 dB/100 m
00 MHz	15,30 dB/100 m
400 MHz	21,50 dB/100 m
600 MHz	27,00 dB/100 m
800 MHz	33,00 dB/100 m
1000 MHz	37,00 dB/100 m

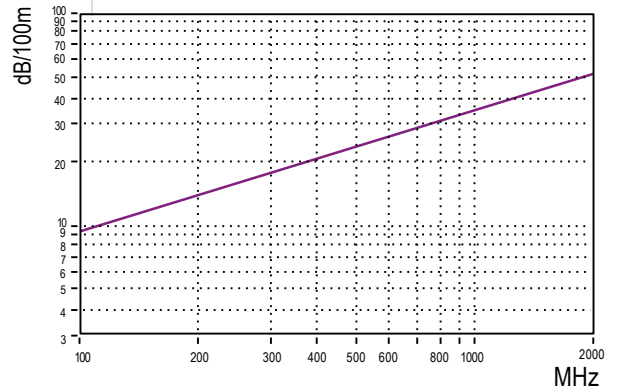




Used in low attenuation required systems such as indoor CATV, CCTV distribution and satellite systems as connection cable.



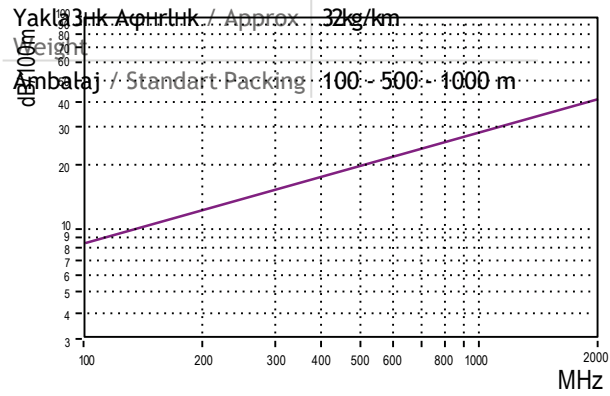
Kablo Yapısı / Cable Construction		Elektriksel Ölçümler / Electrical Parameters		Zayıflama / Attenuation	
İç İletken / Inner Conductor	Cu	Kapasitans / Capacitance	53 pF/m	100 MHz	9,20 dB/100 m
İletken (aPH / Conductor Diameter)	1 x 0,60 mm	Empedans / Impedance	75±3 Ohm	200 MHz	14,00 dB/100 m
İzolasYon / Insulation	FPE	YaYıHlma HızH / Velocity of Propagation	0,78	400 MHz	21,00 dB/100 m
İzolasYon (aPH / Insulation Diameter)	3,70 mm	İzolasYon Direnci / Insulation Resistance	>2000 MOhm.km	600 MHz	25,20 dB/100 m
Ekran Bant / Screen Tape	ALPET	(aH3ma SHcaklHφH / Temperature Range	-40° C + 70° C	1000 MHz	35,30 dB/100 m
Örφü / Braid	Al 60%	(aH3ma Cerilimi / Operating Voltage	1,1 kV		
DH3 KHlf / Outer Sheath	PVC	Test Gerilimi / Test Voltage	2,5 kV		
KHlf (aPH / Sheath Diameter)	5,8 mm	Min. Bükülme YarHçapH / Min.Bending Radius	10 x D		
KHlf Rençfi / Colour of Sheath	BeYaz / White				
Yakla3Hk AçHrlHk / Approx Weight	37 kg/km				
Ambalaj / Standart Packing	100 - 500 - 1000 m				





This type of cables are used for CATV indoor distributions and connections of systems need low attenuations.

Kablo Yapısı / Cable Construction		Elektriksel Ölçümler / Electrical Parameters		Zayıflama / Attenuation	
İç İletken / Inner Conductor	Cu	Kapasitans / Capacitance	53 pF/m	100 MHz	8,50 dB/100 m
İletken (aφ) / Conductor Diameter	1 x 0,80 mm	Empedans / Impedance	75±3 Ohm	00 MHz	12,00 dB/100 m
İzolasYon / Insulation	FFPE	YaYılma Hızı / Velocity of Propagation	0,82	400 MHz	17,10 dB/100 m
İzolasYon (aφ) / Insulation Diameter	3,70 mm	İzolasYon Direnci / Insulation Resistance	>2000 MOhm.km	600 MHz	21,20 dB/100 m
Ekran Bant / Screen Tape	ALPET 100%	(alışma Sıcaklığı) / Temperature Range	-40°C + 70°C	800 MHz	24,60 dB/100 m
Örçü / Braid	Al 60%	(alışma Gerilimi) / Operating Voltage	11kV	1000 MHz	29,00 dB/100 m
DH3 KHLHf / Outer Sheath	PVC	Test Gerilimi / Test Voltage	2,5 kV		
KHLHf (aφ) / Sheath Diameter	5,8 mm	Min. Bükülme Yarıçapı / Min. Bending Radius	5 x D		
KHLHf Rençi / Colour of Sheath	BeYaz / White				

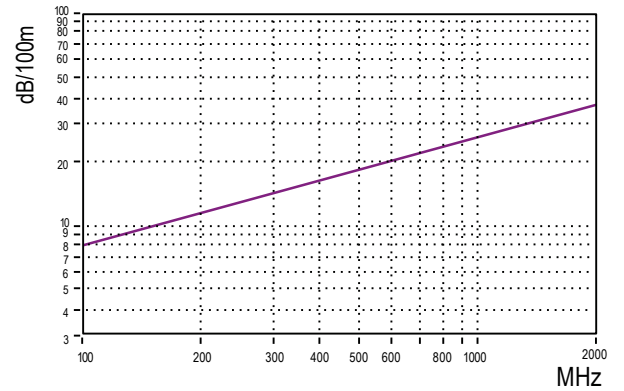




Used in low attenuation required systems such as indoor CATV, CCTV distribution and satellite systems as connection cable.



Kablo Yapısı / Cable Construction		Elektriksel Ölçümler / Electrical Parameters		Zayıflama / Attenuation	
İç İletken / Inner Conductor	Cu	Kapasitans / Capacitance	53 pF/m	100 MHz	7,90 dB/100 m
İletken (aφH / Conductor Diameter)	1 x 0,80 mm	Empedans / Impedance	75±3 Ohm	200 MHz	11,30 dB/100 m
İzolasYon / Insulation	FFPE	YaYnlma HHzH / Velocity of Propagation	0,82	400 MHz	16,80 dB/100 m
İzolasYon (aφH / Insulation Diameter)	3,70 mm	İzolasYon Direnci / Insulation Resistance	>2000 MOhm.km	600 MHz	20,80 dB/100 m
Ekran Bant / Screen Tape	CUPET 100%	(aH3ma SHcaklHφH / Temperature Range	-40 °C + 70 °C	800 MHz	23,20 dB/100 m
Örφü / Braid	Cu 60%	(aH3ma Cerilimi / Operating Voltage	1,1 kV	1000 MHz	26,10 dB/100 m
DH3 KHlHf / Outer Sheath	PVC	Test Gerilimi / Test Voltage	2,5 kV		
KHlHf (aφH / Sheath Diameter)	5,8 mm	Min. Bükülme YarçapH / Min. Bending Radius	15 x D		
KHlHf Renφi / Colour of Sheath	Siyah-Ye3il / Black-Green				
Yakla3Hk AφHrlHk / Approx Weight	42 kg/km				
Ambalaj / Standart Packing	100 - 500 - 1000 m				

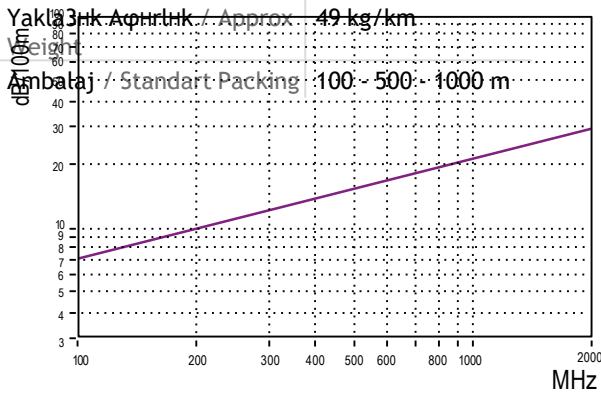


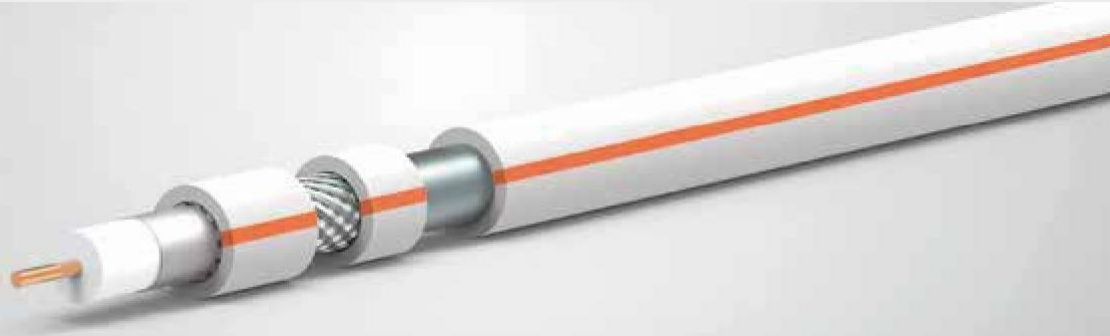




Used in low attenuation required systems such as indoor CATV, CCTV distribution and SATV satellite systems as connection cable.

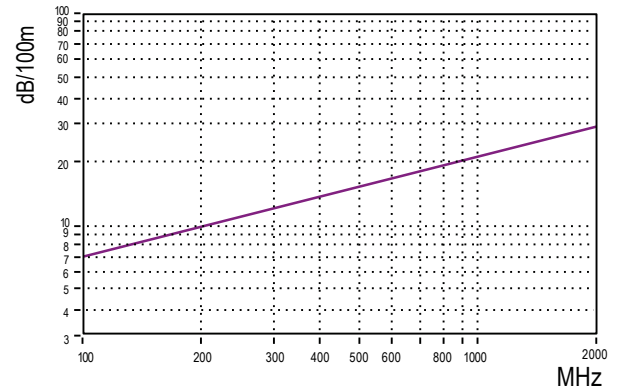
Kablo Yapısı / Cable Construction		Elektriksel Ölçümler / Electrical Parameters		Zayıflama / Attenuation	
İç İletken / Inner Conductor	Cu	Kapasitans / Capacitance	53 pF/m	100 MHz	7,00 dB/100 m
İletken (aPH / Conductor Diameter)	1 x 1,02 mm	Empedans / Impedance	75±3 Ohm	200 MHz	9,70 dB/100 m
İzolasYon / Insulation	FFPE	YaYnlma HHzH / Velocity of Propagation	0,82	400 MHz	14,10 dB/100 m
İzolasYon (aPH / Insulation Diameter)	4,57 mm	İzolasYon Direnci / Insulation Resistance	>2000 MOhm.km	600 MHz	16,90 dB/100 m
Ekran Bant / Screen Tape	ALPET 100%	(aH3ma SncaklHçH / Temperature Range	-40 °C + 70 °C	800 MHz	19,60 dB/100 m
Örçü / Braid	Al 60%	(aH3ma Cerilimi / Operating Voltage	1,3 kV	1000 MHz	22,40 dB/100 m
DH3 KHlHf / Outer Sheath	PVC	Test Gerilimi / Test Voltage	3,0 kV		
KHlHf (aPH / Sheath Diameter)	6,8 mm	Min. Bükülme YarçapH / Min. Bending Radius	20 x D		
KHlHf Rençi / Colour of Sheath	BeYaz-Turuncu/White-Orange				





Used in low attenuation required systems such as indoor CATV, CCTV distribution and SATV satellite systems as connection cable.

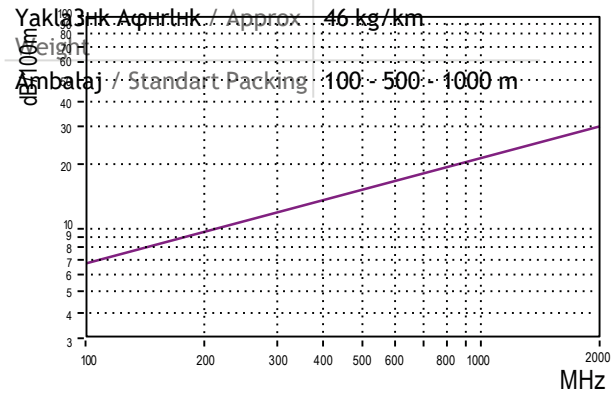
Kablo Yapısı / Cable Construction		Elektriksel Ölçümler / Electrical Parameters		Zayıflama / Attenuation	
iç iletken / Inner Conductor	Cu	Kapasitans / Capacitance	53 pf/m	100 MHz	7,00 dB/100 m
iletken (aφn / Conductor Diameter	1 x 1,02 mm	Empedans / Impedance	75±3 Ohm	00 MHz	9,80 dB/100 m
izolasYon / Insulation	FFPE	YaYnlma HHzH / Velocity of Propagation	0,82	400 MHz	13,70 dB/100 m
izolasYon (aφn / Insulation Diameter	4,57 mm	izolasYon Direnci / Insulation Resistance	>2000 MOhm.km	600 MHz	16,70 dB/100 m
1. Ekran Banth / 1. Screen Tape	ALPET 100%	(aH3ma SHcaklHφH / Temperature Range	-40° C + 70° C	800 MHz	19,10 dB/100 m
Örφü / Braid	Al 60%	(aH3ma Cerilimi / Operating Voltage	1,3 kV	1000 MHz	23,50 dB/100 m
2. Ekran Banth / 2. Screen Tape	ALPET 100%	Test Gerilimi / Test Voltage	3,0 kV		
DH3 KHlf / Outer Sheath	PVC	Min. Bükülme YarhçapH / Min. Bending Radius	20 x D		
KHlf (aφn / Sheath Diameter	6,9 mm				
KHlf Renφi / Colour of Sheath	BeYaz-Turuncu/White-Orange				
Yakla3Hk AφHrlHk / Approx Weight	53 kg/km				
Ambalaj / Standart Packing	100 - 500 - 1000 m				





Used in low attenuation required systems such as indoor CATV, CCTV distribution and SATV satellite systems as connection cable.

Kablo Yapısı / Cable Construction		Elektriksel Ölçümler / Electrical Parameters		Zayıflama / Attenuation	
İç İletken / Inner Conductor	Cu	Kapasitans / Capacitance	53 pF/m	100 MHz	6,80 dB/100 m
İletken (aφ) / Conductor Diameter	1 x 1,02 mm	Empedans / Impedance	75±3 Ohm	200 MHz	9,50 dB/100 m
İzolasYon / Insulation	FFPE	YaYnlma HHzH / Velocity of Propagation	0,82	400 MHz	13,80 dB/100 m
İzolasYon (aφ) / Insulation Diameter	4,57 mm	İzolasYon Direnci / Insulation Resistance	>2000 MOhm.km	600 MHz	16,70 dB/100 m
Ekran Bant / Screen Tape	CUPET 100%	(aH3ma SncaklHçH / Temperature Range	-40 °C + 70 °C	800 MHz	18,90 dB/100 m
Örçü / Braid	Cu 60%	(aH3ma Cerilimi / Operating Voltage	1,3 kV	1000 MHz	21,90 dB/100 m
DH3 KHlHf / Outer Sheath	PVC	Test Gerilimi / Test Voltage	3,0 kV		
KHlHf (aφ) / Sheath Diameter	6,8 mm	Min. Bükülme YarçapH / Min. Bending Radius	20 x D		
KHlHf Rençi / Colour of Sheath	Siyah-Turuncu / Black-Orange				

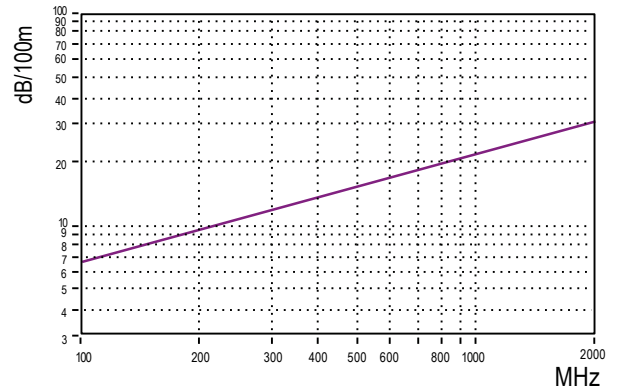




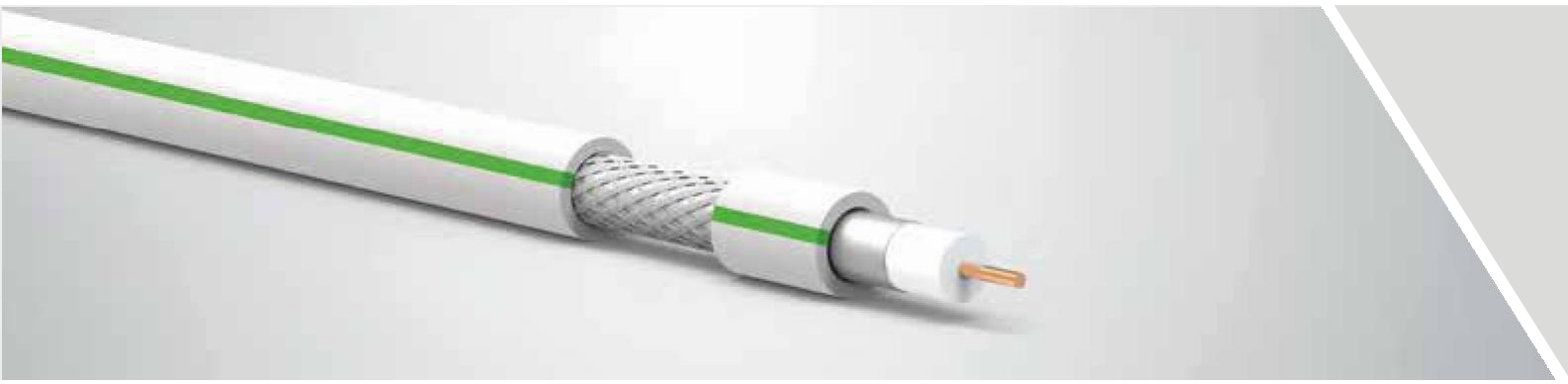
Used in low attenuation required systems such as indoor CATV, CCTV distribution and SATV satellite systems as connection cable.



Kablo Yapısı / Cable Construction		Elektriksel Ölçümler / Electrical Parameters		Zayıflama / Attenuation	
iç iletken / Inner Conductor	Cu	Kapasitans / Capacitance	53 pF/m	100 MHz	6,60 dB/100 m
iletken (aφH / Conductor Diameter)	1 x 1,02 mm	Empedans / Impedance	75±3 Ohm	00 MHz	9,20 dB/100 m
izolasYon / Insulation	FFPE	YaYnlma HHzH / Velocity of Propagation	0,82	400 MHz	13,70 dB/100 m
izolasYon (aφH / Insulation Diameter)	4,57 mm	izolasYon Direnci / Insulation Resistance	>2000 MOhm.km	800 MHz	18,50 dB/100 m
1. Ekran Bant / 1. Screen Tape	CUPET 100%	(aH3ma SHcaklHφH / Temperature Range	-40 °C + 70 °C	1000 MHz	21,80 dB/100 m
Örφü / Braid	Cu 60%	(aH3ma Cerilimi / Operating Voltage	1,3 kV		
2. Ekran Bant / 2. Screen Tape	CUPET 100%	Test Gerilimi / Test Voltage	3,0 kV		
DH3 KHlf / Outer Sheath	PVC	Min. Bükülme YarçapH / Min. Bending Radius	10 x D		
KHlf (aφH / Sheath Diameter)	6,9 mm				
KHlf Rençi / Colour of Sheath	Siyah-Turuncu / Black-Orange				
Yakla3Hk AφHrlHk / Approx Weight	56 kg/km				
Ambalaj / Standart Packing	100 - 500 - 1000 m				







Used in low attenuation required systems such as indoor CATV, CCTV distribution and SATV satellite systems as connection cable.

Kablo Yapısı / Cable Construction

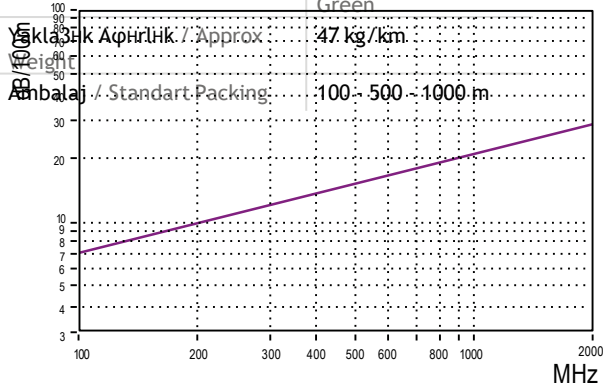
İç İletken / Inner Conductor	CCS (Bakır Kaplı (elik Tel) CCS (Copper Clad Steel)
İletken (a <sub>ph</sub> ) / Conductor Diameter	1 x 1,02 mm
İzolasYon / Insulation	FFPE
İzolasYon (a <sub>ph</sub> ) / Insulation Diameter	4,57 mm
Ekran Bant / Screen Tape	ALPET 100%
Örçü / Braid	Al 60%
Dış Kılıf / Outer Sheath	PVC
Kılıf (a <sub>ph</sub> ) / Sheath Diameter	6,8 mm
Kılıf Rençi / Colour of Sheath	BeYaz-Ye3il / White-Green

Elektriksel Ölçümler / Electrical Parameters

Kapasitans / Capacitance	54 pF/m
Empedans / Impedance	75±3 Ohm
YaYnlma HHzH / Velocity of Propagation	0,82
izolasYon Direnci / Insulation Resistance	>2000 MOhm.km
(aH3ma SncaklHçH / Temperature Range	-40 °C + 70 °C
(aH3ma Cerilimi / Operating Voltage	1,3 kV
Test Gerilimi / Test Voltage	3,0 kV
Min. Bükölme YarçapH / Min. Bending Radius	10 x D

Zayıflama / Attenuation

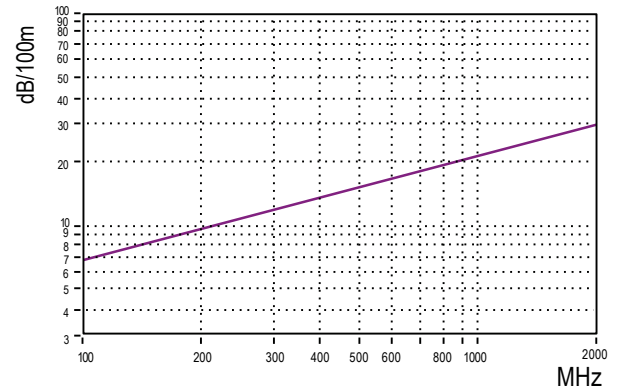
100 MHz	7,00 dB/100 m
200 MHz	9,70 dB/100 m
400 MHz	14,10 dB/100 m
600 MHz	16,90 dB/100 m
800 MHz	19,60 dB/100 m
1000 MHz	22,40 dB/100 m





Used in low attenuation required systems such as indoor CATV, CCTV distribution and SATV satellite systems as connection cable.

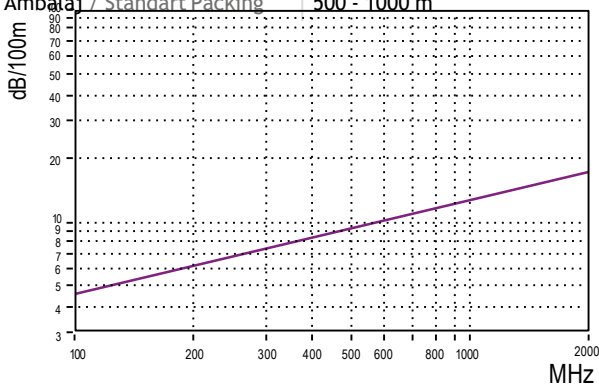
Kablo Yapısı / Cable Construction		Elektriksel Ölçümler / Electrical Parameters		Zayıflama / Attenuation	
İç İletken / Inner Conductor	CCS (Bakır Kaplı Tel) / CCS (Copper Clad Steel)	Kapasitans / Capacitance	54 pF/m	100 MHz	6,80 dB/100 m
İletken (a) / Conductor Diameter	1 x 1,02 mm	Empedans / Impedance	75±3 Ohm	200 MHz	9,50 dB/100 m
İzolasyon / Insulation	FFPE	Yayılma Hızı / Velocity of Propagation	0,82	400 MHz	13,80 dB/100 m
İzolasyon (a) / Insulation Diameter	4,57 mm	İzolasyon Direnci / Insulation Resistance	>2000 MOhm.km	600 MHz	16,70 dB/100 m
Ekran Bant / Screen Tape	CUPET 100%	(a) Sıcaklık / Temperature Range	-40 °C + 70 °C	800 MHz	18,90 dB/100 m
Örme / Braid	CCA 60%	(a) Çalışma Gerilimi / Operating Voltage	1,3 kV	1000 MHz	21,90 dB/100 m
Dış Kılıf / Outer Sheath	PVC	Test Gerilimi / Test Voltage	3,0 kV		
Kılıf (a) / Sheath Diameter	6,8 mm	Min. Bükülme Yarıçapı / Min. Bending Radius	10 x D		
Kılıf Renği / Colour of Sheath	Siyah-Yeşil / Black-Geen				
Yaklaşık Ağırlık / Approx Weight	53 kg/km				
Ambalaj / Standart Packing	100 - 500 - 1000 m				





Used in low attenuation required systems such as indoor CATV, CCTV distribution and SATV satellite systems as connection cable.

Kablo Yapısı / Cable Construction		Elektriksel Ölçümler / Electrical Parameters		Zayıflama / Attenuation	
iç iletken / Inner Conductor	Cu	Kapasitans / Capacitance	53 pF/m	100 MHz	4,60 dB/100 m
iletken (aφn) / Conductor Diameter	1 x 1,63 mm	Empedans / Impedance	75±3 Ohm	00 MHz	6,10 dB/100 m
izolasYon / Insulation	FFPE	YaYnlma HHzH / Velocity of Propagation	0,82	400 MHz	8,70 dB/100 m
izolasYon (aφn) / Insulation Diameter	7,10 mm	izolasYon Direnci / Insulation Resistance	>2000 MOhm.km	600 MHz	11,20 dB/100 m
Ekran Bant / Screen Tape	ALPET 100%	(aH3ma SHcaklHφH / Temperature Range	-40° C + 70° C	800 MHz	13,30 dB/100 m
Örφü / Braid	Al 60%	(aH3ma Cerilimi / Operating Voltage	2,0 kV	1000 MHz	14,60 dB/100 m
DH3 KHlf / Outer Sheath	PVC	Test Gerilimi / Test Voltage	5,0 kV		
KHlf (aφn) / Sheath Diameter	10,10 mm	Min. Bükülme YarçapH / Min. Bending Radius	20 x D		
KHlf Renφi / Colour of Sheath	BeYaz / White				
Yakla3nK Aφnrlnk / Approx Weight	92 kg/km				
Ambalaj / Standart Packing	500 - 1000 m				

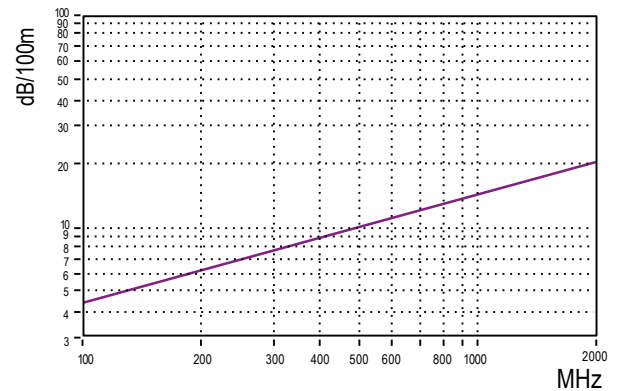




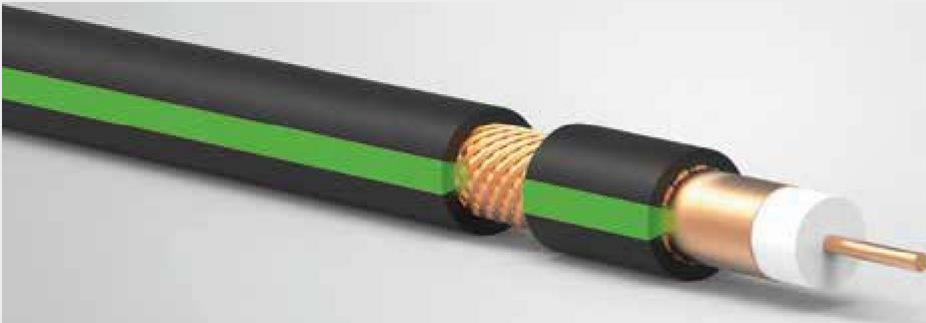
Used in low attenuation required systems such as indoor CATV, CCTV distribution and SATV satellite systems as connection cable.



Kablo Yapısı / Cable Construction		Elektriksel Ölçümler / Electrical Parameters		Zayıflama / Attenuation	
iç iletken / Inner Conductor	Cu	Kapasitans / Capacitance	54 pF/m	100 MHz	4,50 dB/100 m
iletken (aφH / Conductor Diameter)	1 x 1,63 mm	Empedans / Impedance	75±3 Ohm	00 MHz	6,40 dB/100 m
izolasYon / Insulation	FFPE	YaYnlma HHzH / Velocity of Propagation	0,82	400 MHz	8,70 dB/100 m
izolasYon (aφH / Insulation Diameter)	7,10 mm	izolasYon Direnci / Insulation Resistance	>2000 MOhm.km	600 MHz	11,20 dB/100 m
1. Ekran Bant / 1. Screen Tape	ALPET 100%	(aH3ma SHcaklHφH / Temperature Range	-40 °C + 70 °C	800 MHz	13,70 dB/100 m
Örφü / Braid	Al 60%	(aH3ma Cerilimi / Operating Voltage	2,0 kV	1000 MHz	14,80 dB/100 m
2. Ekran Bant / 2. Screen Tape	ALPET 100%	Test Gerilimi / Test Voltage	5,0 kV		
DH3 KHlf / Outer Sheath	PVC	Min. Bükülme YarçapH / Min. Bending Radius	10 x D		
KHlf (aφH / Sheath Diameter)	10,30 mm				
KHlf Rençfi / Colour of Sheath	BeYaz / White				
Yakla3Hk AφHrlHk / Approx Weight	95 kg/km				
Ambalaj / Standart Packing	500 - 1000 m				







Used in low attenuation required systems such as indoor CATV, CCTV distribution and SATV satellite systems as connection cable.

**Kablo Yapısı / Cable Construction**

İç İletken / Inner Conductor	Cu
İletken (aφ) / Conductor Diameter	1 x 1,63 mm
İzolasYon / Insulation	FFPE
İzolasYon (aφ) / Insulation Diameter	7,10 mm
Ekran Bant / Screen Tape	CUPET 100%
Örçü / Braid	Cu 60%
Dış Kılıf / Outer Sheath	PVC
Kılıf (aφ) / Sheath Diameter	10,10 mm
Kılıf Renęi / Colour of Sheath	Siyah-Yeşil / Black-Green

**Elektriksel Ölçümler / Electrical Parameters**

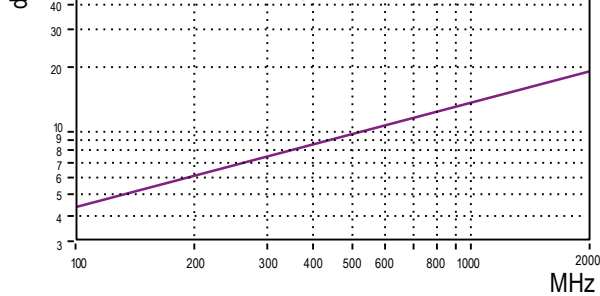
Kapasitans / Capacitance	53 pF/m
Empedans / Impedance	75±3 Ohm
Yayılma Hızı / Velocity of Propagation	0,84
İzolasYon Direnci / Insulation Resistance	>2000 MOhm.km
(alışma Sıcaklığı / Temperature Range	-40 °C + 70 °C
(alışma Gerilimi / Operating Voltage	2,0 kV
Test Gerilimi / Test Voltage	5,0 kV
Min. Bükülme Yarıçapı / Min. Bending Radius	20 x D

**Zayıflama / Attenuation**

100 MHz	4,40 dB/100 m
200 MHz	6,40 dB/100 m
400 MHz	8,50 dB/100 m
600 MHz	11,00 dB/100 m
800 MHz	12,80 dB/100 m
1000 MHz	14,30 dB/100 m

Yaklaşık Ağırlık / Approx. Weight: 105 kg/km

Standart Ambalaj / Standart Packing: 500 - 1000 m

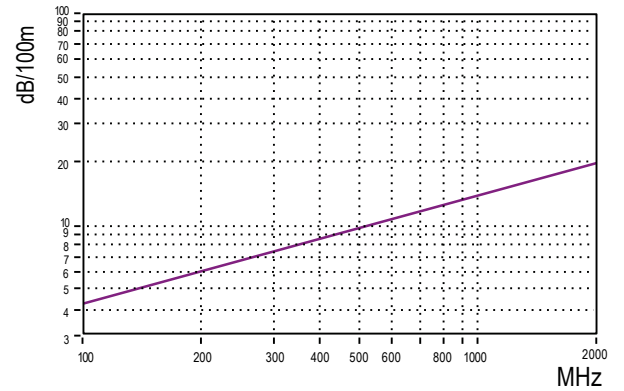


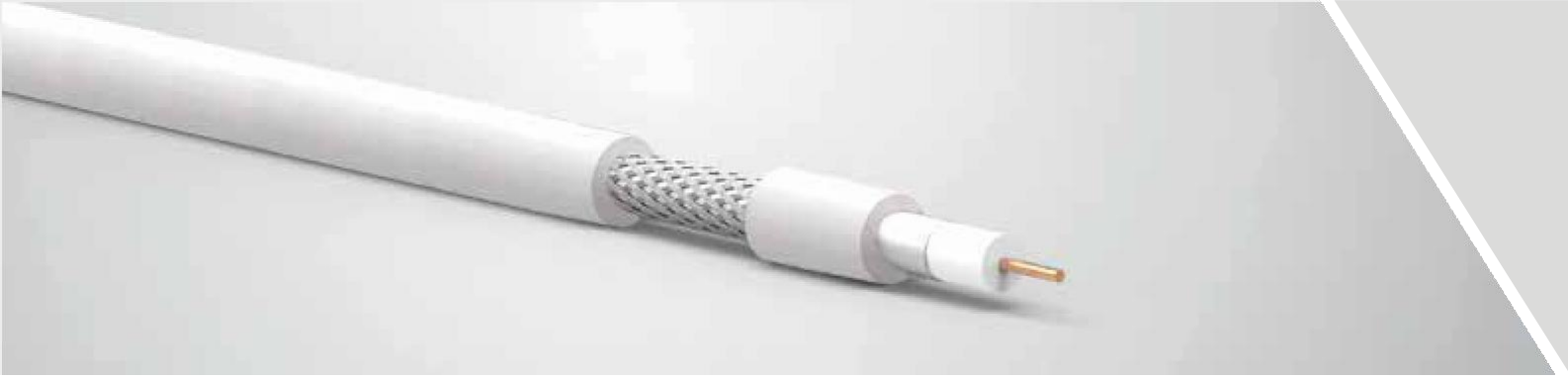


Used in low attenuation required systems such as indoor CATV, CCTV distribution and SATV satellite systems as connection cable.



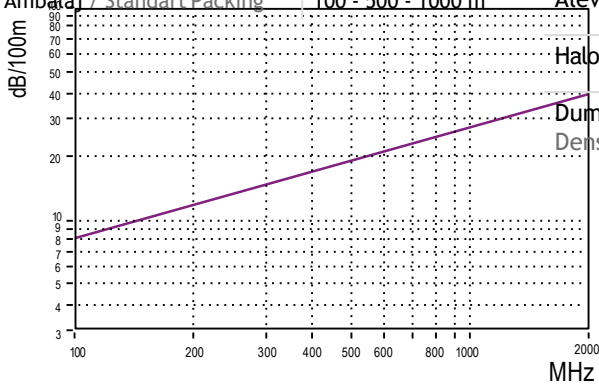
Kablo Yapısı / Cable Construction		Elektriksel Ölçümler / Electrical Parameters		Zayıflama / Attenuation	
iç iletken / Inner Conductor	Cu	Kapasitans / Capacitance	53 pF/m	100 MHz	4,20 dB/100 m
iletken (apH / Conductor Diameter)	1 x 1,63 mm	Empedans / Impedance	75±3 Ohm	00 MHz	6,10 dB/100 m
izolasYon / Insulation	FFPE	YaYnlma HHzH / Velocity of Propagation	0,84	400 MHz	8,20 dB/100 m
izolasYon (apH / Insulation Diameter)	7,10 mm	izolasYon Direnci / Insulation Resistance	>2000 MOhm.km	600 MHz	10,70 dB/100 m
1. Ekran Bant / 1. Screen Tape	CUPET 100%	(aH3ma SHcaklHçH / Temperature Range	-40 °C + 70 °C	800 MHz	12,70 dB/100 m
Örçü / Braid	Cu 60%	(aH3ma Cerilimi / Operating Voltage	2,0 kV	1000 MHz	14,30 dB/100 m
2. Ekran Bant / 2. Screen Tape	CUPET 100%	Test Gerilimi / Test Voltage	5,0 kV		
DH3 KHlf / Outer Sheath	PVC	Min. Bükülme YarçapH / Min. Bending Radius	15 x D		
KHlf (apH / Sheath Diameter)	10,30 mm				
KHlf Rençi / Colour of Sheath	Siyah-Turuncu / Black-Orange				
Yakla3Hk AçHrlHk / Approx Weight	108 kg/km				
Ambalaj / Standart Packing	100 - 500 - 1000 m				





This type of cables are used for CATV indoor distributions and connections of systems need low attenuations. These cables inhibit the propagation of the flames whereby the development of smoke is extremely low. No corrosive gases are emitted in the event of fire.

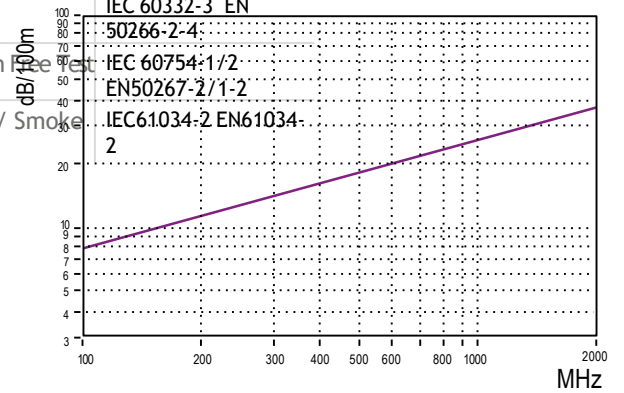
Kablo Yapısı / Cable Construction		Elektriksel Ölçümler / Electrical Parameters		Zayıflama / Attenuation	
İç İletken / Inner Conductor	Cu	Kapasitans / Capacitance	54 pF/m	100 MHz	8,00 dB/100 m
İletken (aφn) / Conductor Diameter	1 x 0,80 mm	Empedans / Impedance	75±3 Ohm	00 MHz	11,50 dB/100 m
İzolasYon / Insulation	FFPE	YaYnlma HHzH / Velocity of Propagation	0,82	400 MHz	17,10 dB/100 m
İzolasYon (aφn) / Insulation Diameter	3,70 mm	İzolasYon Direnci / Insulation Resistance	>2000 MOhm.km	600 MHz	21,20 dB/100 m
Ekran Bant / Screen Tape	ALPET 100%	(aH3ma SncaklHφH / Temperature Range	-40 °C + 70 °C	800 MHz	23,60 dB/100 m
Örφü / Braid	Al 60%	(aH3ma Cerilimi / Operating Voltage	1,1 kV	1000 MHz	26,60 dB/100 m
DH3 KHnf / Outer Sheath	HFFR	Test Gerilimi / Test Voltage	2,5 kV		
KHnf (aφn) / Sheath Diameter	5,8 mm	Min. Bükülme YarhçapH / Min. Bending Radius	10 x D		
KHnf Renφi / Colour of Sheath	BeYaz / White	Alev Testi / Flame Test	IEC 60332-3 EN50266-2-4		
Yakla3nK Aφnrlnk / Approx Weight	32 kg/km	Halogen Free Testi / Halogen Free Test	IEC 60754-1/2 EN50267-2/1-2		
Ambalaj / Standart Packing	100 - 500 - 1000 m	Duman Yoφunluφu Testi / Smoke Density	IEC 61034-2 EN61034-2		





This type of cables are used for CATV indoor distributions and connections of systems need low attenuations. These cables inhibit the propagation of the flames whereby the development of smoke is extremely low. No corrosive gases are emitted in the event of fire.

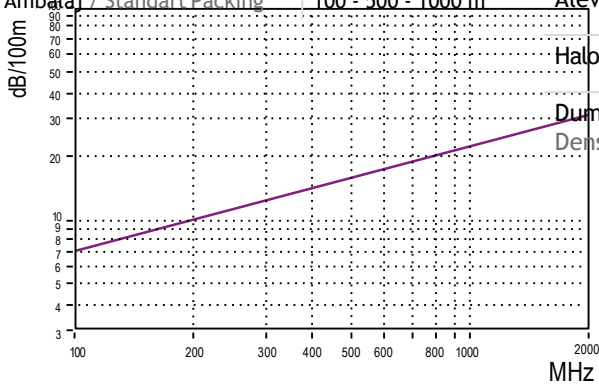
Kablo Yapısı / Cable Construction		Elektriksel Ölçümler / Electrical Parameters		Zayıflama / Attenuation	
iç iletken / Inner Conductor	Cu	Kapasitans / Capacitance	53 pF/m	100 MHz	7,90 dB/100 m
iletken (aφH / Conductor Diameter)	1 x 0,80 mm	Empedans / Impedance	75±3 Ohm	00 MHz	11,30 dB/100 m
izolasYon / Insulation	FFPE	YaYnlma HHzH / Velocity of Propagation	0,82	400 MHz	16,80 dB/100 m
izolasYon (aφH / Insulation Diameter)	3,70 mm	izolasYon Direnci / Insulation Resistance	>2000 MOhm.km	600 MHz	20,80 dB/100 m
Ekran Bant / Screen Tape	CUPET 100%	(aH3ma SHcaklHφH / Temperature Range	-40 °C + 70 °C	800 MHz	23,20 dB/100 m
Örφü / Braid	Cu 60%	(aH3ma Cerilimi / Operating Voltage	1,1 kV	1000 MHz	26,10 dB/100 m
DH3 KHlf / Outer Sheath	HFFR	Test Gerilimi / Test Voltage	2,5 kV		
KHlf (aφH / Sheath Diameter)	5,8 mm	Min. Bükülme YarçapH / Min. Bending Radius	10 x D		
KHlf Rençfi / Colour of Sheath	BeYaz / White	Alev Testi / Flame Test	IEC 60332-3 EN		
Yakla3Hk AçHrlHk / Approx Weight	45 kg/km	Halogen Free Testi / Halogen Free Test	IEC 60754-1/2 EN50267-2/1-2		
Ambalaj / Standart Packing	100 - 500 - 1000 m	Duman Yoçunluçu Testi / Smoke Density	IEC61034-2 EN61034-2		





Used in low attenuation required systems such as indoor CATV, CCTV distribution and SATV satellite systems as connection cable. These cables inhibit the propagation of the flames whereby the development of smoke is extremely low. No corrosive gases are emitted in the event of fire.

Kablo Yapısı / Cable Construction		Elektriksel Ölçümler / Electrical Parameters		Zayıflama / Attenuation	
İç İletken / Inner Conductor	Cu	Kapasitans / Capacitance	53 pF/m	100 MHz	7,00 dB/100 m
İletken (aRN / Conductor Diameter	1 x 1,02 mm	Empedans / Impedance	75±3 Ohm	00 MHz	9,70 dB/100 m
İzolasYon / Insulation	FFPE	YaYnlma HHzH / Velocity of Propagation	0,82	400 MHz	14,10 dB/100 m
İzolasYon (aRN / Insulation Diameter	4,57 mm	İzolasYon Direnci / Insulation Resistance	>2000 MOhm.km	600 MHz	16,90 dB/100 m
Ekran Bant / Screen Tape	ALPET 100%	(aH3ma SncaklHçH / Temperature Range	-40 °C + 70 °C	800 MHz	19,60 dB/100 m
Örçü / Braid	Al 60%	(aH3ma Cerilimi / Operating Voltage	1,3 kV	1000 MHz	22,40 dB/100 m
DH3 KHnf / Outer Sheath	HFFR	Test Gerilimi / Test Voltage	3,0 kV		
KHnf (aRN / Sheath Diameter	6,8 mm	Min. Bükülme YarçapH / Min. Bending Radius	10 x D		
KHnf Rençfi / Colour of Sheath	BeYaz / White	Alev Testi / Flame Test	IEC 60332-2 EN50266-2-4		
Yakla3nk AqHnlk / Approx Weight	49 kg/km	Halogen Free Testi / Halogen Free Test	IEC 60754-1/2 EN50267-2/1-2		
Ambalaj / Standart Packing	100 - 500 - 1000 m	Duman Yoçunluçu Testi / Smoke Density	IEC61034-2 EN61034-2		





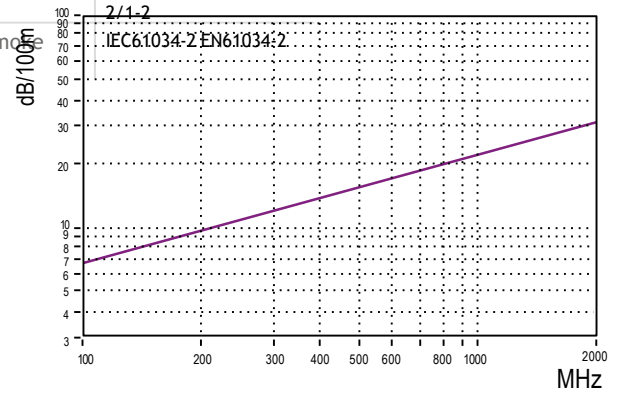


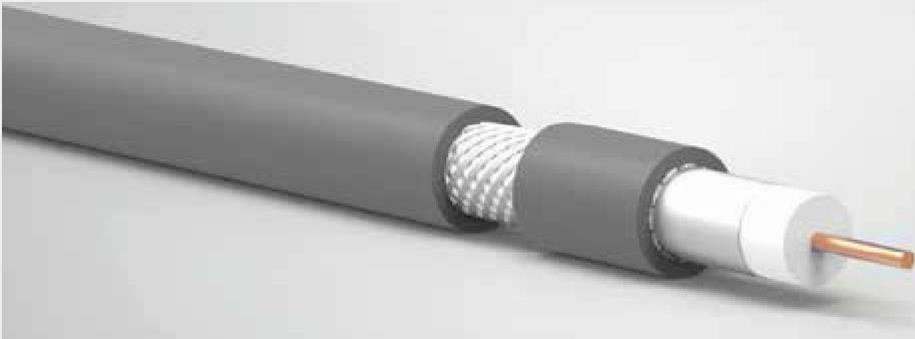
Bina içi CATV,CCTV sistemlerinde dağıtım kablosu olarak ve SATV uydu sistemlerinde düşük zayıflama gerektiren yangın sırasında siyah duman, zehirleyici ve korozif gazların istenmediği ortamlarda bağlantı kablosu olarak kullanılır.

Used in low attenuation required systems such as indoor CATV, CCTV distribution and SATV satellite systems as connection cable. These cables inhibit the propagation of the flames whereby the development of smoke is extremely low. No corrosive gases are emitted in the event of fire.



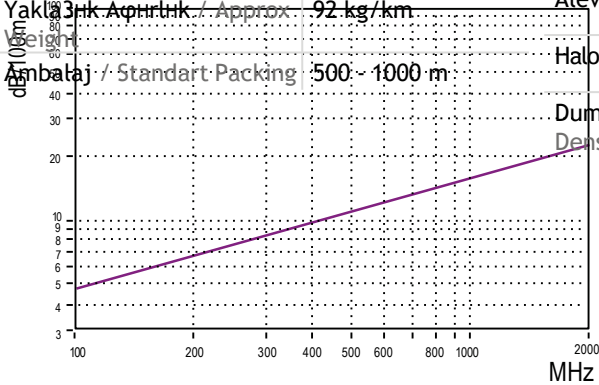
Kablo Yapısı / Cable Construction		Elektriksel Ölçümler / Electrical Parameters		Zayıflama / Attenuation	
İç İletken / Inner Conductor	Cu	Kapasitans / Capacitance	53 pf/m	100 MHz	6,80 dB/100 m
iletken (aφH / Conductor Diameter	1 x 1,02 mm	Empedans / Impedance	75±3 Ohm	00 MHz	9,50 dB/100 m
izolasYon / Insulation	FFPE	YaYHlma HHzH / Velocity of Propagation	0,82	400 MHz	13,80 dB/100 m
izolasYon (aφH / Insulation Diameter	4,57 mm	izolasYon Direnci / Insulation Resistance	>2000 MOhm.km	600 MHz	16,70 dB/100 m
Ekran Bant / Screen Tape	CUPET 100%	(aH3ma SHcaklHφH / Temperature Range	-40° C + 70° C	800 MHz	19,90 dB/100 m
Örφü / Braid	Cu 60%	(aH3ma Cerilimi / Working Voltage	1,3 kV	1000 MHz	21,90 dB/100 m
DH3 KHlf / Outer Sheath	HFFR	Test Gerilimi / Test Voltage	3,0 kV		
KHlf (aφH / Sheath Diameter	6,8 mm	Min. Bükülme YarhçapH / Min. Bending Radius	10 x D		
KHlf Rençfi / Colour of Sheath	BeYaz / White	Alev Testi / Flame Test	IEC 60332-3 EN 50266-2-4		
Yakla3Hk AφHrlHk / Approx Weight	56 kg/km	Halogen Free Testi / Halogen Free Test	IEC 60754-1/2 EN50267-2/1-2		
Ambalaj / Standart Packing	100 - 500 - 1000 m	Duman Yoçunluçu Testi / Smoke Density	IEC61034-2 EN61034-2		





Used in low attenuation required systems such as indoor CATV, CCTV distribution and SATV satellite systems as connection cable. These cables inhibit the propagation of the flames whereby the development of smoke is extremely low. No corrosive gases are emitted in the event of fire.

Kablo Yapısı / Cable Construction		Elektriksel Ölçümler / Electrical Parameters		Zayıflama / Attenuation	
İç İletken / Inner Conductor	Cu	Kapasitans / Capacitance	53 pF/m	100 MHz	4,60 dB/100 m
İletken (aφ) / Conductor Diameter	1 x 1,63 mm	Empedans / Impedance	75±3 Ohm	00 MHz	6,70 dB/100 m
İzolasYon / Insulation	FFPE	YaYnlma HHzH / Velocity of Propagation	0,82	400 MHz	9,50 dB/100 m
İzolasYon (aφ) / Insulation Diameter	7,10 mm	İzolasYon Direnci / Insulation Resistance	>2000 MOhm.km	600 MHz	11,20 dB/100 m
Ekran Bant / Screen Tape	ALPET 100%	(aH3ma SncaklHçH / Temperature Range	-40 °C + 70 °C	800 MHz	13,30 dB/100 m
Örçü / Braid	Al 60%	(aH3ma Cerilimi / Operating Voltage	2,0 kV	1000 MHz	14,60 dB/100 m
DH3 KHlf / Outer Sheath	HFFR	Test Gerilimi / Test Voltage	5,0 kV		
KHlf (aφ) / Sheath Diameter	10,10 mm	Min. Bükülme YarçapH / Min. Bending Radius	15 x D		
KHlf Rençi / Colour of Sheath	BeYaz / White	Alev Testi / Flame Test	IEC 60332-3 EN 50266-2-4		
Yaklaşık Ağırlık / Approx. Weight	92 kg/km	Halogen Free Testi / Halogen Free Test	IEC 60754-1/2 EN50267-2/1-2		
AmBalaj / Standart Packing	500 - 1000 m	Duman Yoçunluçu Testi / Smoke Density	IEC61034-2 EN61034-2		

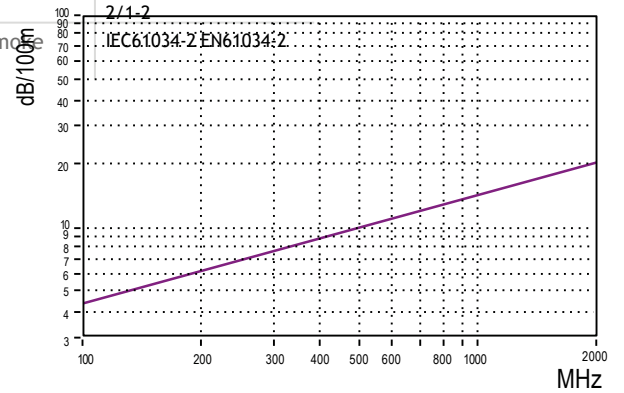




Used in low attenuation required systems such as indoor CATV, CCTV distribution and SATV satellite systems as connection cable. These cables inhibit the propagation of the flames whereby the development of smoke is extremely low. No corrosive gases are emitted in the event of fire.



Kablo Yapısı / Cable Construction		Elektriksel Ölçümler / Electrical Parameters		Zayıflama / Attenuation	
iç iletken / Inner Conductor	Cu	Kapasitans / Capacitance	53 pF/m	100 MHz	4,40 dB/100 m
iletken (aφH / Conductor Diameter)	1 x 1,63 mm	Empedans / Impedance	75±3 Ohm	00 MHz	6,40 dB/100 m
izolasYon / Insulation	FFPE	YaYHlma HHzH / Velocity of Propagation	0,84	400 MHz	8,50 dB/100 m
izolasYon (aφH / Insulation Diameter)	7,10 mm	izolasYon Direnci / Insulation Resistance	>2000 MOhm.km	600 MHz	11,00 dB/100 m
Ekran Bant / Screen Tape	CUPET 100%	(aH3ma SHcaklHφH / Temperature Range	-40° C + 70° C	800 MHz	12,80 dB/100 m
Örφü / Braid	Cu 60%	(aH3ma Cerilimi / Operating Voltage	2,0 kV	1000 MHz	14,30 dB/100 m
DH3 KHlHf / Outer Sheath	HFFR	Test Gerilimi / Test Voltage	5,0 kV		
KHlHf (aφH / Sheath Diameter)	10,10 mm	Min. Bükülme YarçapH / Min. Bending Radius	15 x D		
KHlHf Renφi / Colour of Sheath	BeYaz / White	Alev Testi / Flame Test	EC 60332-3 EN 50266-2-4		
Yakla3Hk AφHrlHk / Approx Weight	105 kg/km	Halogen Free Testi / Halogen Free Test	IEC 60754-1/2 EN50267-2/1-2		
Ambalaj / Standart Packing	500 - 1000 m	Duman Yoçunluçu Testi / Smoke Density	IEC61034-2 EN61034-2		

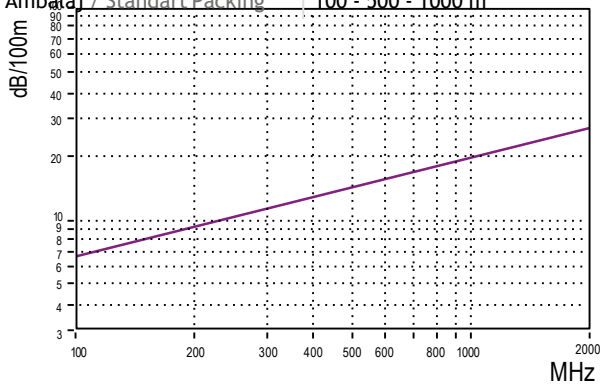




Used in low attenuation required systems such as indoor CATV, CCTV distribution and SATV satellite systems as connection cable. These PE sheathed cables can be used at outdoor applications.

Kablo Yapısı / Cable Construction		Elektriksel Ölçümler / Electrical Parameters		Zayıflama / Attenuation	
iç iletken / Inner Conductor	Cu	Kapasitans / Capacitance	53 pF/m	100 MHz	6,60 dB/100 m
iletken (aφn) / Conductor Diameter	1 x 1,02 mm	Empedans / Impedance	75±3 Ohm	00 MHz	9,60 dB/100 m
izolasYon / Insulation	FFPE	YaYnlma HHzH / Velocity of Propagation	0,82	400 MHz	13,70 dB/100 m
izolasYon (aφn) / Insulation Diameter	4,57 mm	izolasYon Direnci / Insulation Resistance	>2000 MOhm.km	600 MHz	16,50 dB/100 m
Ekran Bant / Screen Tape	ALPET 100%	(aH3ma SHcaklHφH / Temperature Range	-40 °C + 70 °C	800 MHz	19,10 dB/100 m
Örφü / Braid	Al 60%	(aH3ma Cerilimi / Operating Voltage	1,3 kV	1000 MHz	20,90 dB/100 m
DH3 KHlf / Outer Sheath	PE	Test Gerilimi / Test Voltage	3,0 kV		
KHlf (aφn) / Sheath Diameter	6,8 mm	Min. Bükülme YarçapH / Min. Bending Radius	20 x D		
KHlf Rençfi / Colour of Sheath	Siyah / Black				
Yakla3nK Aφnrlnk / Approx Weight	40 kg/km				

Ambalaj / Standart Packing 100 - 500 - 1000 m

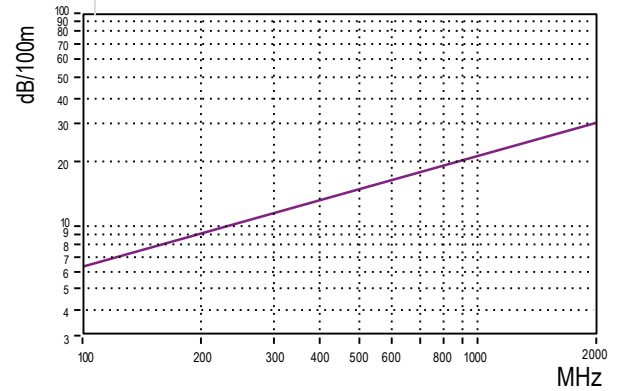




Used in low attenuation required systems such as indoor CATV, CCTV distribution and SATV satellite systems as connection cable. These PE sheathed cables can be used at outdoor applications.



Kablo Yapısı / Cable Construction		Elektriksel Ölçümler / Electrical Parameters		Zayıflama / Attenuation	
iç iletken / Inner Conductor	Cu	Kapasitans / Capacitance	53 pF/m	100 MHz	6,40 dB/100 m
iletken (aφH / Conductor Diameter	1 x 1,02 mm	Empedans / Impedance	75±3 Ohm	00 MHz	9,10 dB/100 m
izolasYon / Insulation	FFPE	YaYıHlma HızH / Velocity of Propagation	0,82	400 MHz	13,40 dB/100 m
izolasYon (aφH / Insulation Diameter	4,57 mm	izolasYon Direnci / Insulation Resistance	>2000 MOhm.km	600 MHz	16,30 dB/100 m
Ekran Bant / Screen Tape	CUPET 100%	(aH3ma SHcaklıφH / Temperature Range	-40° C + 70° C	800 MHz	19,10 dB/100 m
Örφü / Braid	Cu 60%	(aH3ma Cerilimi / Operating Voltage	1,3 kV	1000 MHz	21,50 dB/100 m
DH3 KHlf / Outer Sheath	PE	Test Gerilimi / Test Voltage	3,0 kV		
KHlf (aφH / Sheath Diameter	6,8 mm	Min. Bükülme YarçapH / Min.Bending Radius	20 x D		
KHlf RençH / Colour of Sheath	Siyah / Black				
Yakla3Hk AφHrlHk / Approx Weight	50 kg/km				
Ambalaj / Standart Packing	100 - 500 - 1000 m				







Used in low attenuation required systems such as indoor CATV, CCTV distribution and SATV satellite systems as connection cable. These PE sheathed cables can be used at outdoor applications.

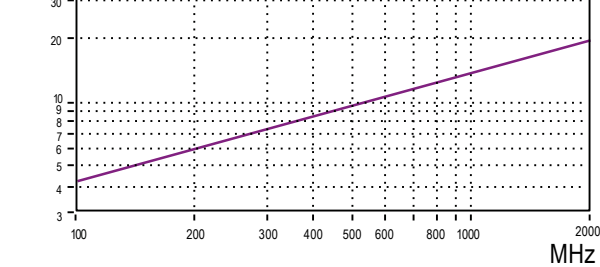
Kablo Yapısı / Cable Construction		Elektriksel Ölçümler / Electrical Parameters		Zayıflama / Attenuation	
İç İletken / Inner Conductor	Cu	Kapasitans / Capacitance	53 pF/m	100 MHz	4,20 dB/100 m
İletken (aφ) / Conductor Diameter	1 x 1,63 mm	Empedans / Impedance	75±3 Ohm	00 MHz	6,30 dB/100 m
İzolasYon / Insulation	FPE	YaYıHma HHzH / Velocity of Propagation	0,82	400 MHz	8,30 dB/100 m
İzolasYon (aφ) / Insulation Diameter	7,10 mm	İzolasYon Direnci / Insulation Resistance	>2000 MOhm.km	600 MHz	10,90 dB/100 m
Ekran Bant / Screen Tape	ALPET 100%	(aH3ma SHcaklHφH / Temperature Range	-40° C + 70° C	800 MHz	12,90 dB/100 m
Örçü / Braid	Al 60%	(aH3ma Cerilimi / Operating Voltage	2,0 kV	1000 MHz	14,20 dB/100 m
DH3 KHlHf / Outer Sheath	PE	Test Gerilimi / Test Voltage	5,0 kV		
KHlHf (aφ) / Sheath Diameter	10,10 mm	Min. Bükülme YarHçapH / Min.Bending Radius	20 x D		
KHlHf Rençi / Colour of Sheath	Siyah / Black				

Yakl3k Ayrılık / Approx. Weight

70 kg/km

Ambalaj / Standart Packing

500 - 1000 m

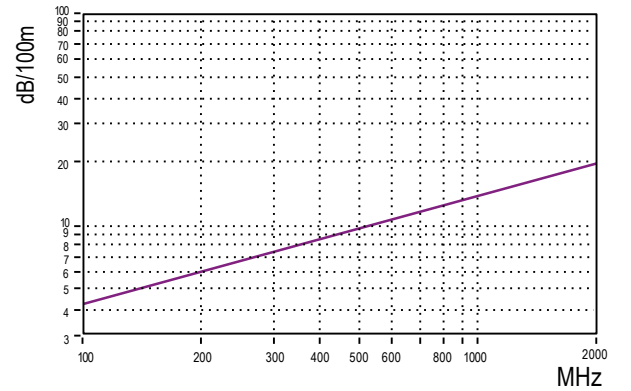




These types of cables are used for outdoor and aerial distributions of CATV networks and connections of SMATV systems which require low attenuations.



Kablo Yapısı / Cable Construction		Elektriksel Ölçümler / Electrical Parameters		Zayıflama / Attenuation	
iç iletken / Inner Conductor	Cu	Kapasitans / Capacitance	54 pF/m	100 MHz	4,20 dB/100 m
iletken (aPH / Conductor Diameter	1 x 1,63 mm	Empedans / Impedance	75±3 Ohm	00 MHz	6,30 dB/100 m
izolasYon / Insulation	FFPE	YaYnlma HHzH / Velocity of Propagation	0,82	400 MHz	8,30 dB/100 m
izolasYon (aPH / Insulation Diameter	7,10 mm	izolasYon Direnci / Insulation Resistance	>2000 MOhm.km	600 MHz	10,90 dB/100 m
Ekran Bant / Screen Tape	ALPET 100%	(aH3ma SHcaklHçH / Temperature Range	-40° C + 70° C	800 MHz	12,90 dB/100 m
Örçü / Braid	Al 60%	(aH3ma Cerilimi / Operating Voltage	2,0 kV	1000 MHz	14,20 dB/100 m
AskHlH Tel / Suspension Wire	7 x 0.70 mm Galvanizli (elik Tel / Galvanized Steel Wire	Test Gerilimi / Test Voltage	5,0 kV		
DH3 KHlH / Outer Sheath	PE	Min. Bükülme YarçapH / Min. Bending Radius	10 x D		
KHlH (aPH / Sheath Diameter	10,10 x 15,50 mm				
KHlH Rençi / Colour of Sheath	Siyah / Black				
Yakla3Hk AçHrlHk / Approx Weight	106 kg/km				
Ambalaj / Standart Packing	500 - 1000 m				

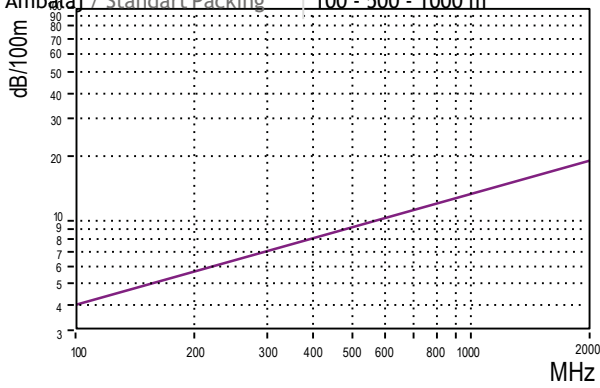




Used in low attenuation required systems such as indoor CATV, CCTV distribution and SATV satellite systems as connection cable. These PE sheathed cables can be used at outdoor applications.

Kablo Yapısı / Cable Construction		Elektriksel Ölçümler / Electrical Parameters		Zayıflama / Attenuation	
iç iletken / Inner Conductor	Cu	Kapasitans / Capacitance	53 pF/m	100 MHz	4,00 dB/100 m
iletken (aφn) / Conductor Diameter	1 x 1,63 mm	Empedans / Impedance	75±3 Ohm	00 MHz	5,80 dB/100 m
izolasYon / Insulation	FFPE	YaYnlma HHzH / Velocity of Propagation	0,84	400 MHz	8,10 dB/100 m
izolasYon (aφn) / Insulation Diameter	7,10 mm	izolasYon Direnci / Insulation Resistance	>2000 MOhm.km	600 MHz	10,60 dB/100 m
Ekran Bant / Screen Tape	CUPET 100%	(aH3ma SHcaklHφH / Temperature Range	-40 °C + 70 °C	800 MHz	12,40 dB/100 m
Örφü / Braid	Cu 60%	(aH3ma Cerilimi / Operating Voltage	2,0 kV	1000 MHz	13,90 dB/100 m
DH3 KHlf / Outer Sheath	PE	Test Gerilimi / Test Voltage	5,0 kV		
KHlf (aφn) / Sheath Diameter	10,10 mm	Min. Bükülme Yarçapı / Min. Bending Radius	15 x D		
KHlf Renφi / Colour of Sheath	Siyah / Black				
Yakla3nK AφnrlK / Approx Weight	82 kg/km				

Ambalaj / Standart Packing 100 - 500 - 1000 m

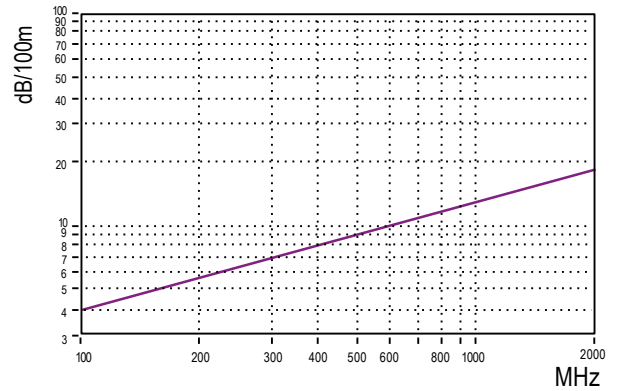




These types of cables are used for outdoor and aerial distributions of CATV networks and connections of SMATV systems which require low attenuations.



Kablo Yapısı / Cable Construction		Elektriksel Ölçümler / Electrical Parameters		Zayıflama / Attenuation	
iç iletken / Inner Conductor	Cu	Kapasitans / Capacitance	53 pF/m	100 MHz	4,00 dB/100 m
iletken (aφn / Conductor Diameter)	1 x 1,63 mm	Empedans / Impedance	75±3 Ohm	00 MHz	5,80 dB/100 m
izolasYon / Insulation	FFPE	YaYnlma HHzH / Velocity of Propagation	0,84	400 MHz	8,10 dB/100 m
izolasYon (aφn / Insulation Diameter)	7,10 mm	izolasYon Direnci / Insulation Resistance	>2000 MOhm.km	600 MHz	10,60 dB/100 m
Ekran Bant / Screen Tape	CUPET 100%	(aH3ma SHcaklHφH / Temperature Range	-40 °C + 70 °C	800 MHz	12,40 dB/100 m
Örφü / Braid	Cu 60%	(aH3ma Cerilimi / Operating Voltage	2,0 kV	1000 MHz	13,90 dB/100 m
AskHlH Tel / Suspension Wire	7 x 0.70 mm Galvanizli (elik Tel / Galvanized Steel Wire	Test Gerilimi / Test Voltage	5,0 kV		
DH3 KHlHf / Outer Sheath	PE	Min. Bükülme YarçapH / Min. Bending Radius	10 x D		
KHlHf (aφn / Sheath Diameter)	10,10 x 15,50 mm				
KHlHf Rençfi / Colour of Sheath	Siyah / Black				
Yakla3Hk AφHrlHk / Approx Weight	111 kg/km				
Ambalaj / Standart Packing	500 - 1000 m				

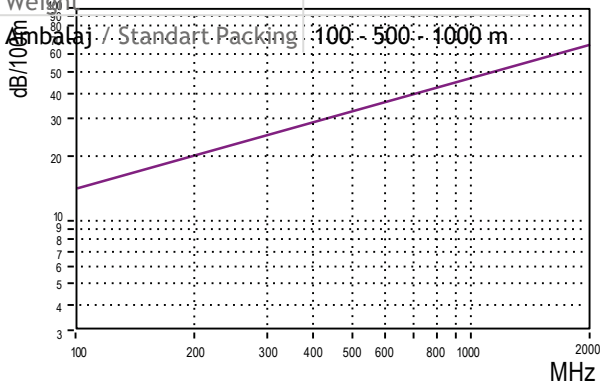






These cables used as a connection cable in data transmission and radio communication systems.

Kablo Yapısı / Cable Construction		Elektriksel Ölçümler / Electrical Parameters		Zayıflama / Attenuation	
İç İletken / Inner Conductor	SnCu	Kapasitans / Capacitance	101 pF/m	100 MHz	15,10 dB/100 m
İletken (aφH / Conductor Diameter)	19 x 0,18 mm	Empedans / Impedance	50±2 Ohm	00 MHz	21,90 dB/100 m
İzolasYon / Insulation	Solid PE	YaYıHlma HızH / Velocity of Propagation	0,66	400 MHz	29,20 dB/100 m
İzolasYon (aφH / Insulation Diameter)	2,95 mm	(aH3ma SHcaklıHφH / Temperature Range	-40° C + 70° C	600 MHz	37,00 dB/100 m
Örφü / Braid	SnCu 93%	(aH3ma Cerilimi / Operating Voltage	2,5 kV	800 MHz	48,00 dB/100 m
DH3 KHlHf / Outer Sheath	PVC	Test Gerilimi / Test Voltage	5,0 kV		
KHlHf (aφH / Sheath Diameter)	5,00 mm	Min. Bükülme YarçapH / Min.Bending Radius	10 x D		
KHlHf Rençi / Colour of Sheath	Siyah / Black				
Yakla3Hk AφHrlHk / Approx Weight	38 kg/km				

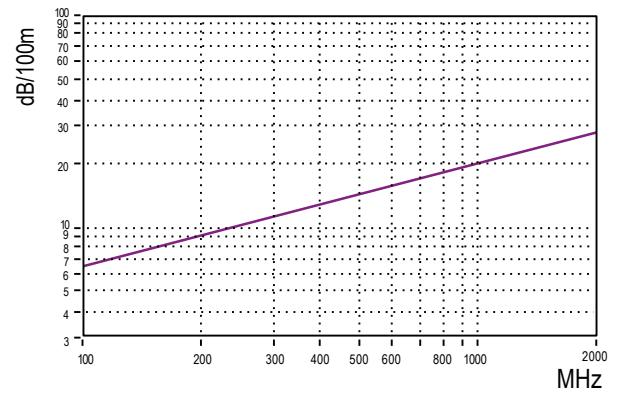




These cables used as a connection cable in data transmission and radio communication systems.



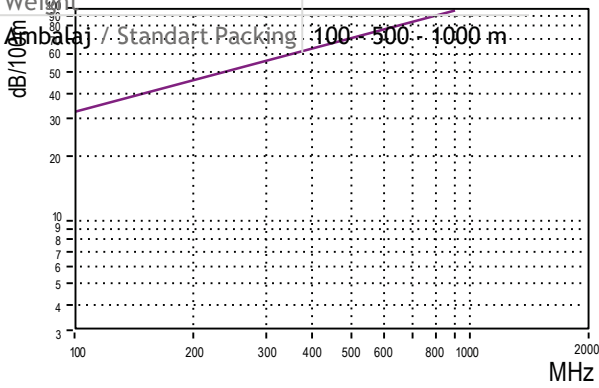
Kablo Yapısı / Cable Construction		Elektriksel Ölçümler / Electrical Parameters		Zayıflama / Attenuation	
iç iletken / Inner Conductor	Cu	Kapasitans / Capacitance	101 pF/m	100 MHz	6,50 dB/100 m
iletken (aφH / Conductor Diameter	7 x 0,75 mm	Empedans / Impedance	50±3 Ohm	00 MHz	9,20 dB/100 m
izolasYon / Insulation	Solid PE	YaYıHlma HHzH / Velocity of Propagation	0,66	400 MHz	14,80 dB/100 m
izolasYon (aφH / Insulation Diameter	7,24 mm	(aH3ma SHcaklıHφH / Temperature Range	-30° C + 70° C	600 MHz	17,20 dB/100 m
Örφü / Braid	Cu 95%	(aH3ma Cerilimi / Operating Voltage	5,0 kV	800 MHz	20,00 dB/100 m
DH3 KHıHf / Outer Sheath	PVC	Test Gerilimi / Test Voltage	10,0 kV		
KHıHf (aφH / Sheath Diameter	10,30 mm	Min. Bükülme YarçapıH / Min.Bending Radius	10 x D		
KHıHf Rençi / Colour of Sheath	Siyah / Black				
Yakla3Hk AφHrlHk / Approx Weight	155 kg/km				
Ambalaj / Standart Packing	500 - 1000 m				

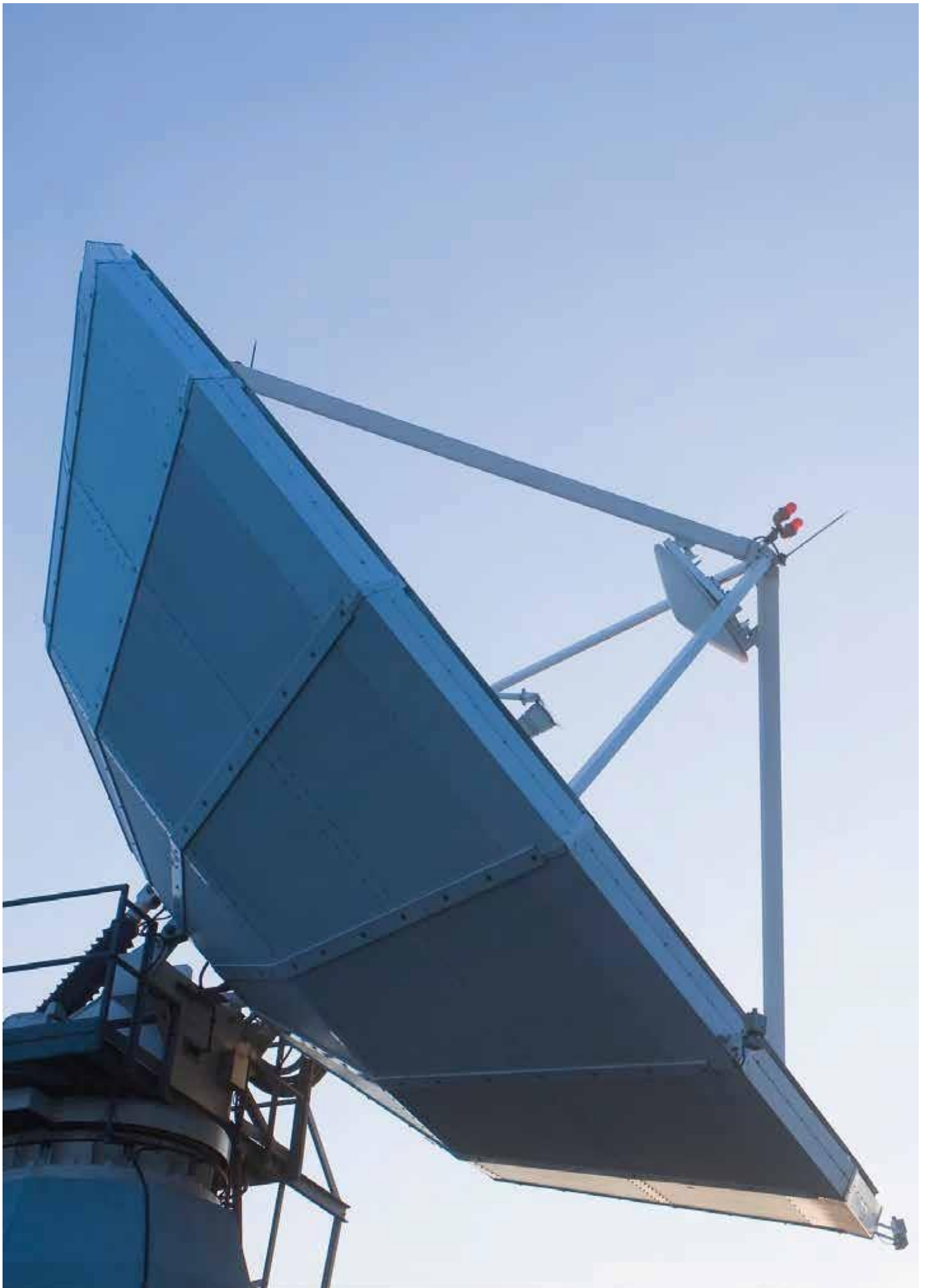




These cables used as a connection cable in data transmission and radio communication systems.

Kablo Yapısı / Cable Construction		Elektriksel Ölçümler / Electrical Parameters		Zayıflama / Attenuation	
iç iletken / Inner Conductor	Cu	Kapasitans / Capacitance	101 pF/m	100 MHz	30,90 dB/100 m
iletken (aφH / Conductor Diameter)	7 x 0,16 mm	Empedans / Impedance	50±3 Ohm	00 MHz	44,40 dB/100 m
izolasyon / Insulation	Solid PE	YaYılma HızH / Velocity	0,66	400 MHz	63,00 dB/100 m
izolasyon (aφH / Insulation Diameter)	1,52 mm	(aH3ma SıcaklıkH / Temperature Range)	-40°C + 70°C	600 MHz	76,00 dB/100 m
Örφü / Braid	SnCu 90%	(aH3ma Cerilimi / Operating Voltage)	1,5 kV	800 MHz	93,30 dB/100 m
DH3 KHlf / Outer Sheath	PVC	Test Gerilimi / Test Voltage	3,0 kV		
KHlf (aφH / Sheath Diameter)	2,80 mm	Min. Bükülme YarıçapH / Min. Bending Radius	15 x D		
KHlf Renęi / Colour of Sheath	BeYaz / White				
Yaklaşık Ağırlık / Approx Weight	11 kg/km				
Ambalaj / Standard Packing	100 - 500 - 1000 m				









## SECURITY CAMERA AND AUDIO CABLES

CCTV Kabloları  
CCTV Cables

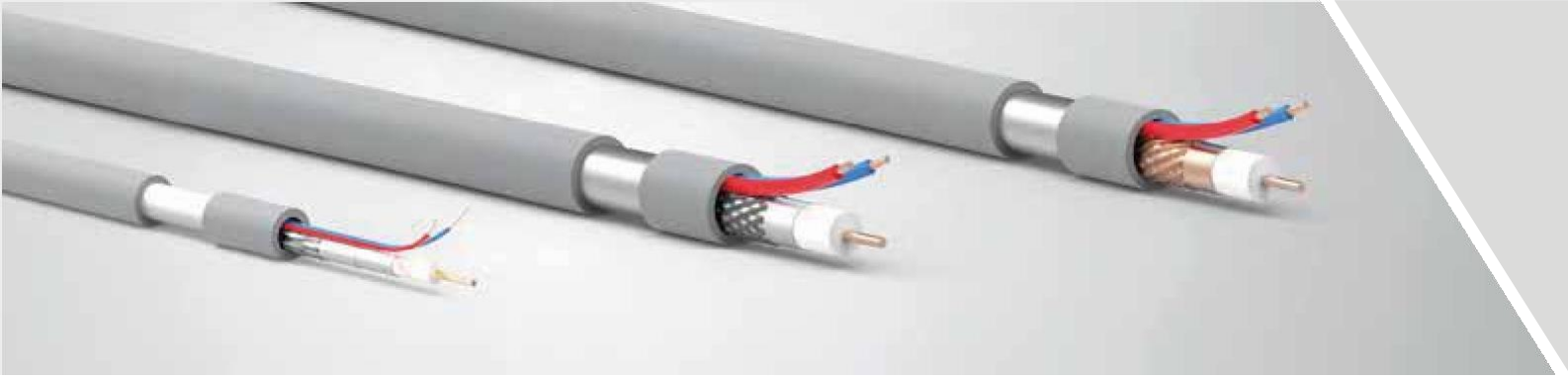
CCTV 12+1 Serisi  
CCTV 1 +1 Series

Diafon Kabloları  
Entryphone Cables

44. CCTV +1 PVC/PE )  
45. CCTV +1 HFFR  
46. CCTV 4+1 PVC/PE  
47. CCTV 4+1 HFFR

49. DT8





PVC/PE

CCTV cables are composite cables which provide simultaneous transmission of image, voice, alarm and power signals in application of closed circuit camera systems.

Kablo Yapısı / Cable Construction

Koaksiyel / Coaxial	Mini Coax'dan RC 1 serisine kadar 75OHM Koaksiyel Kablo / 75OHM Coaxial Cables From mini Coax to RG 1 series
iç iletken / Inner Conductor	Bükülü ve Ya Mono Tavlı Bakır / Stranded or Solid Annealed Copper
izolasyon / Insulation	FPE veya Solid PE / FPE or Solid PE
1. Ekran / 1. Screen	ALPET veya CUPET 100% / AL-Pes or Cu-Pes 100%
Örme / Braid	Al ve Ya Cu Örme 74% / Al or Cu Braid 74%
Dış Kılıf / Outer Sheath	PVC Kompaund / PVC Compound

Sinyal ve Kontrol Damarları / Signal and Control Cables

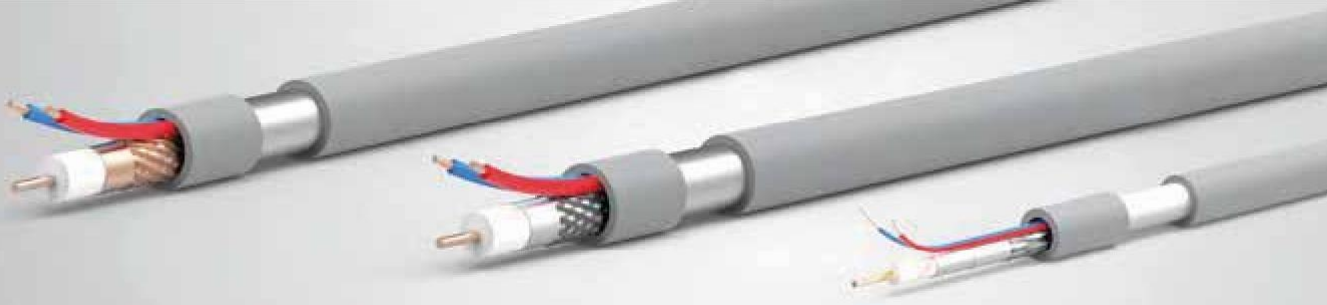
iletken / Conductor	IEC 8 / DIN VDE 0 95 / TS EN 60 8 Şnhf 5 Elektrolitik Bükülü Tavlı Bakır Electrolytic Stranded Annealed Copper as per Class 5, IEC 228/DIN VDE 0295/TS EN 60228
izolasyon / Insulation	PVC Kompaund / PVC Compound
Yalıtım Renkleri / Insulation Colour	DIN 47100 Standardına Uygun Renklerde / Suitable Colour with DIN 47100 Standard
Genel Ekran / General Screen	AL-Pes Bant 100% / AL-Pes Tape 100%
Dış Kılıf / Outer Sheath	PVC/PE Kompaund / PVC/PE Compound
Kılıf Renği / Colour of Sheath	RAL 7001 Gri / RAL 7001 Grey
Ambalaj / Standard Length	100 - 250 - 500 - 1000 m

Elektriksel Ölçümler / Electrical Parameters

izolasyon Direnci / Insulation Resistance	>2000 Mohm.km
Kapasitans / Capacitance	57 pF/m
Yayılma Hızı / Velocity of Propagation	0,82
(alışma Gerilimi / Operating Voltage	0,14mm <sup>2</sup> ..0,5 mm <sup>2</sup> = 50 V - / 0,34 mm <sup>2</sup> ..1,5 mm <sup>2</sup> = 500 V -
Test Gerilimi / Test Voltage	0,14mm <sup>2</sup> ..0,5 mm <sup>2</sup> = 1 00 V - / 0,34 mm <sup>2</sup> ..1,5 mm <sup>2</sup> = 500 V -
Min. Bükülme Yarıçapı / Min. Bending Radius	10 x D
(alışma Sıcaklığı / Temperature Range	-30°C +70°C
Empedans / Impedance	75 ± 3 OHM

Kesitler / Cross Section

Kesitler / Cross Section	Kablo (ap) / Sheath Diameter (mm)	Bakır Ağırlığı / Copper Weight (kg/km)	Kablo Ağırlığı / Cable Weight (kg/km)	Ambalaj / Standard Length
1 Coax + x0, mm <sup>2</sup>	5,2	11	32	100 / 250 / 500 / 1000
1 Coax + x0,50 mm <sup>2</sup>	5,8	15	42	100 / 250 / 500 / 1000
RC 59/U-4 Coax + x0,50 mm <sup>2</sup>	8,7	20	75	500 / 1000
RC 59/U-6 Coax + x0,50 mm <sup>2</sup>	8,8	28	76	500 / 1000
RC 6/U-4 Coax + x0,75 mm <sup>2</sup>	9,2	26	94	500 / 1000
RC 6/U-6 Coax + x0,75 mm <sup>2</sup>	9,3	34	95	500 / 1000
1 Coax + 2x0,22 mm <sup>2</sup>	3,9 x 7,5	11	42	250 / 500 / 1000
1 Coax + 2x0,50 mm <sup>2</sup>	4,7 x 9,1	15	50	250 / 500 / 1000
1 Coax + 2x0,75 mm <sup>2</sup>	5,3 x 10,9	20	60	500 / 1000



Halogen Free Cables are especially used in crowded common areas like shopping centers, hospitals, schools, cinema, theater, airports, public buildings and this kind of places. CCTV cables are composite cables which provide simultaneous transmission of image, voice, alarm and power signals in application of closed circuit camera systems



**Kablo Yapısı / Cable Construction**

Koaksiyel / Coaxial	Mini Coax'dan RC 11serisine kadar 75OHM Koaksiyel Kablo / 75OHM Coaxial Cables From mini Coax to RG 11series
iç iletken / Inner Conductor	Bükülü veYa Mono Tavlı Bakır / Stranded or Solid Annealed Copper
izolasyon / Insulation	FPE veya Solid PE / FPE or Solid PE
1. Ekran / 1. Screen	ALPET veya CUPET 100% / Al-Pes or Cu-Pes 100%
Örme / Braid	Al veYa Cu Örme 74% / Al or Cu Braid 74%
DN3 Kılıf / Outer Sheath	HFFR Kompaund / HFFR Compound

**Sinyal ve Kontrol Damarları / Signal and Control Cables**

iletken / Conductor	IEC 8 / DIN VDE 0 95 / TS EN 60 8 Şnhf 5 Elektrolitik Bükülü Tavlı Bakır Electrolytic Stranded Annealed Copper as per Class 5, IEC 228/DIN VDE 0295/TS EN 60228
izolasyon / Insulation	HFFR Kompaund / HFFR Compound
Yalıtım Renkleri / Insulation Colour	DIN 47100 Standardına Uygun Renklerde / Suitable Colour with DIN 47100 Standard
Genel Ekran / General Screen	Al-Pes Bant 100% / Al-Pes Tape 100%
DN3 Kılıf / Outer Sheath	HFFR Kompaund / HFFR Compound
Kılıf Renği / Colour of Sheath	RAL 7001 Gri / RAL 7001 Grey
Ambalaj / Standard Length	100 - 250 - 500 - 1000 m

**Elektriksel Ölçümler / Electrical Parameters**

izolasyon Direnci / Insulation Resistane	>2000 Mohm.km
Kapasitans / Capacitance	57 pF/m
Yayılma Hızı / Velocity of Propagation	0,82
(alıma Gerilimi / Operating Voltage	0,14mm <sup>2</sup> ...0,5 mm <sup>2</sup> = 50 V - / 0,34 mm <sup>2</sup> ...1,5 mm <sup>2</sup> = 500 V -
Test Gerilimi / Test Voltage	0,14mm <sup>2</sup> ...0,5 mm <sup>2</sup> = 1 00 V - / 0,34 mm <sup>2</sup> ...1,5 mm <sup>2</sup> = 500 V -
Min. Bükülme Yarıçapı / Min. Bending Radius	10 x D
(alıma Sıcaklığı / Temperature Range	-30°C +70°C
Empedans / Impedance	75 ± 3 Ohm
Asidik (Korotif) Gaz Testi / Acidic (Corrosive) Gas Test	IEC 60754-2 EN50267-2-2
Duman Yoğunluğu Testi / Smoke Densitiy Test	IEC 61034-2 EN 61034-2
Halojen Asit Gaz Miktarı / Halogen Acid Gas Amount	IEC 60754-1 EN50267-2-1

**Kesitler / Cross Section**

Kesitler / Cross Section	Kablo (apı / Sheath Diameter (mm)	Bakır Ağırlığı / Copper Weight (kg/km)	Kablo Ağırlığı / Cable Weight (kg/km)	Ambalaj / Standard Length
1 Coax + x0, mm <sup>2</sup>	5,2	11	32	100 / 250 / 500 / 1000
1 Coax + x0,50 mm <sup>2</sup>	5,8	15	42	100 / 250 / 500 / 1000
RC 59/U-6 Coax + x0,50 mm <sup>2</sup>	8,8	28	76	500 / 1000
RC 6/U-6 Coax + x0.75	9.3	34	95	500 / 1000



CCTV cables are composite cables which provide simultaneous transmission of image, voice, alarm and power signals in application of closed circuit camera systems.

**Kablo Yapısı / Cable Construction**

Koaksiyel / Coaxial	Mini Coax'dan RC 11serisine kadar 75OHM Koaksiyel Kablo / 75OHM Coaxial Cables From mini Coax to RG 11series
iç iletken / Inner Conductor	Bükülü veYa Mono Tavlı Bakır / Stranded or Solid Annealed Copper
izolasyon / Insulation	FPE veya Solid PE / FPE or Solid PE
1. Ekran / 1. Screen	ALPET veya CUPET 100% / Al-Pes or Cu-Pes 100%
Örme / Braid	Al veYa Cu Örme 74% / Al or Cu Braid 74%
Dış Kılıf / Outer Sheath	PVC Kompaund / PVC Compound

**Sinyal ve Kontrol Damarları / Signal and Control Cables**

iletken / Conductor	IEC 8 / DIN VDE 0 95 / TS EN 60 8 Şnnef 5 Elektrolitik Bükülü Tavlı Bakır Electrolytic Stranded Annealed Copper as per Class 5, IEC 228/DIN VDE 0295/TS EN 60228
izolasyon / Insulation	PVC Kompaund / PVC Compound
Yalıtım Renkleri / Insulation Colour	DIN 47100 StandardHna Uygun Renklerde / Suitable Colour with DIN 47100 Standard
Genel Ekran / General Screen	Al-Pes Bant 100% / Al-Pes Tape 100%
Dış Kılıf / Outer Sheath	PVC/PE Kompaund / PVC/PE Compound
Kılıf Renği / Colour of Sheath	RAL 7001 Gri / RAL 7001 Grey
Ambalaj / Standard Length	100 - 250 - 500 - 1000 m

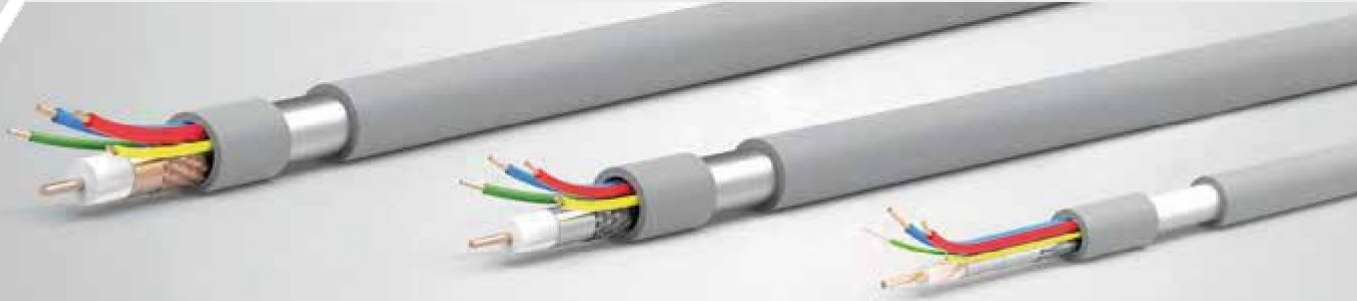
**Elektriksel Ölçümler / Electrical Parameters**

izolasyon Direnci / Insulation Resistane	>2000 Mohm.km
Kapasitans / Capacitance	53,67 pF/m
Yayılma Hızı / Velocity of Propagation	0,82
(alıma Gerilimi / Operating Voltage	0,14mm <sup>2</sup> ...0,5 mm <sup>2</sup> = 50 V ~ / 0,34 mm <sup>2</sup> ...1,5 mm <sup>2</sup> = 500 V ~
Test Gerilimi / Test Voltage	0,14mm <sup>2</sup> ...0,5 mm <sup>2</sup> = 1 00 V ~ / 0,34 mm <sup>2</sup> ...1,5 mm <sup>2</sup> = 500 V ~
Min. Bükülme Yarıçapı / Min. Bending Radius	10 x D
(alıma Sıcaklığı / Temperature Range	-30°C +70°C
Empedans / Impedance	75 ± 3 Ohm
Asidik (Korotif) Gaz Testi / Acidic (Corrosive) Gas Test	IEC 60754-2 EN50267-2-2
Duman Yoğunluğu Testi / Smoke Densitiy Test	IEC61034-2 EN61034-2
Halojen Asit Gaz Miktarı / Halogen Acid Gas Amount	IEC 60754-1 EN50267-2-1

**Kesitler / Cross Section**

Kesitler / Cross Section	Kablo (apı / Sheath Diameter (mm)	Bakır Ağırlığı / Copper Weight (kg/km)	Kablo Ağırlığı / Cable Weight (kg/km)	Ambalaj / Standard Length
1 Coax + 4x0, mm <sup>2</sup>	5,8	14	42	100 / 250 / 500 / 1000
1 Coax + x0, + x0,50 mm <sup>2</sup>	6,6	19	57	100 / 250 / 500 / 1000
RG 59/U-6 Coax + 2x0,50 + 2x0,75 mm <sup>2</sup>	9,8	35	103	500 / 1000
RG 6/U-6 Coax + 2x0,50 + 2x0,75	10,5	39	116	500 / 1000





Kapalı devre kamera sistemlerinde; görüntü, ses, alarm ve güç sinyallerinin iletimini sağlayan kompozit kablolardır. Yangını itibarıyla yangın esnasında duman ve zehirli korozif gazlar çıkarmama özelliğinden dolayı, insanların ortak kullanım alanları olan yoğun yerlerde tercih edilir.

Halogen Free Cables are especially used in crowded common areas like shopping centers, hospitals, schools, cinema, theater, airports, public buildings and this kind of places. CCTV cables are composite cables which provide simultaneous transmission of image, voice, alarm and power signals in application of closed circuit camera systems



**Kablo Yapısı / Cable Construction**

Koaksiyel / Coaxial	Mini Coax'dan RC 11serisine kadar 75OHM Koaksiyel Kablo / 75OHM Coaxial Cables From mini Coax to RG 11series
iç iletken / Inner Conductor	Bükülü veYa Mono Tavlı Bakır / Stranded or Solid Annealed Copper
izolasyon / Insulation	FPE veya Solid PE / FPE or Solid PE
1. Ekran / 1. Screen	ALPET veya CUPET 100% / Al-Pes or Cu-Pes 100%
Örme / Braid	Al veYa Cu Örme 74% / Al or Cu Braid 74%
DN3 Kılıf / Outer Sheath	HFFR Kompaund / HFFR Compound

**Sinyal ve Kontrol Damarları / Signal and Control Cables**

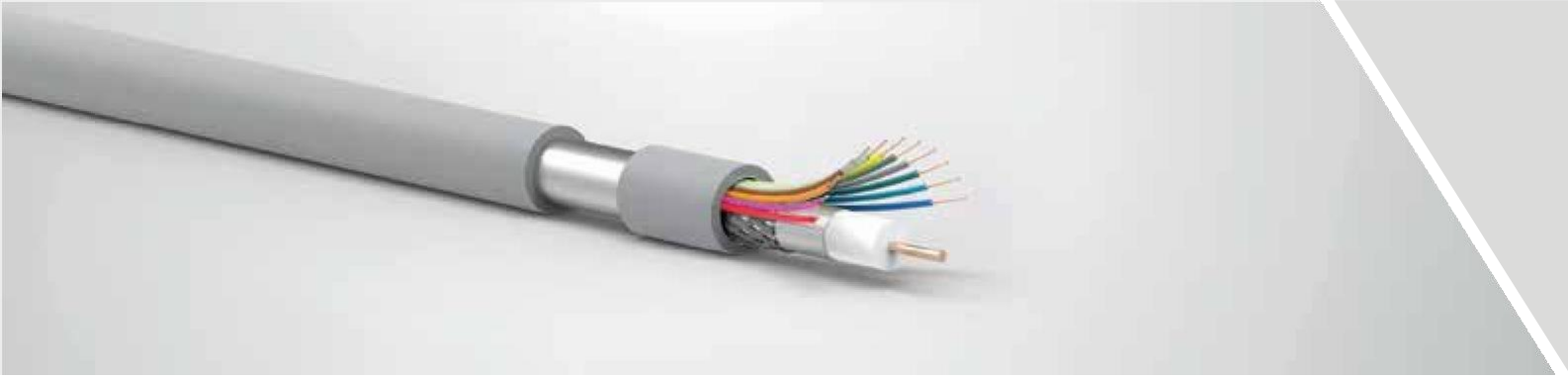
iletken / Conductor	IEC 8 / DIN VDE 0 95 / TS EN 60 8 Şnhf 5 Elektrolitik Bükülü Tavlı Bakır Electrolytic Stranded Annealed Copper as per Class 5, IEC 228/DIN VDE 0295/TS EN 60228
izolasyon / Insulation	HFFR Kompaund / HFFR Compound
Yalıtım Renkleri / Insulation Colour	DIN 47100 Standardına Uygun Renklerde / Suitable Colour with DIN 47100 Standard
Genel Ekran / General Screen	Al-Pes Bant 100% / Al-Pes Tape 100%
DN3 Kılıf / Outer Sheath	HFFR Kompaund / HFFR Compound
Kılıf Renği / Colour of Sheath	RAL 7001 Gri / RAL 7001 Grey
Ambalaj / Standard Length	100 - 250 - 500 - 1000 m

**Elektriksel Ölçümler / Electrical Parameters**

izolasyon Direnci / Insulation Resistance	>2000 Mohm.km
Kapasitans / Capacitance	53,67 pF/m
Yayılma Hızı / Velocity of Propagation	0,82
(alışma Gerilimi / Operating Voltage	0,14mm <sup>2</sup> ...0,5 mm <sup>2</sup> = 50 V - / 0,34 mm <sup>2</sup> ...1,5 mm <sup>2</sup> = 500 V -
Test Gerilimi / Test Voltage	0,14mm <sup>2</sup> ...0,5 mm <sup>2</sup> = 1 00 V - / 0,34 mm <sup>2</sup> ...1,5 mm <sup>2</sup> = 500 V -
Min. Bükülme Yarıçapı / Min. Bending Radius	10 x D
(alışma Sıcaklığı / Temperature Range	-30°C +70°C
Empedans / Impedance	75 ± 3 Ohm

**Kesitler / Cross Section**

Kesitler / Cross Section	Kablo (apı / Sheath Diameter (mm)	Bakır Ağırlığı / Copper Weight (kg/km)	Kablo Ağırlığı / Cable Weight (kg/km)	Ambalaj / Standard Length
1 Coax + 4x0, mm <sup>2</sup>	5,8	14	42	100 / 250 / 500 / 1000
1 Coax + x0, + x0,50 mm <sup>2</sup>	6,6	19	57	100 / 250 / 500 / 1000
RG 59/U-4 Coax + 2x0,50 + 2x0,75 mm <sup>2</sup>	9,7	31	102	500 / 1000
RG 59/U-6 Coax + 2x0,50 + 2x0,75 mm <sup>2</sup>	9,8	35	103	500 / 1000
RG 6/U-4 Coax + 2x0,50 + 2x0,75 mm <sup>2</sup>	10,4	34	114	500 / 1000
RG 6/U-6 Coax + 2x0,50 + 2x0,75	10,5	39	116	500 / 1000



CCTV cables are composit cables which provide simultaneous transmission of image, voice, alarm and power signals in application of closed circuit camera systems.

**Kablo Yapısı / Cable Construction**

Koaksiyel / Coaxial	RG59 U/2 Mini
iç iletken / Inner Conductor	Bükülü veYa Mono Tavlı Bakır / Stranded or Solid Annealed Copper
izolasyon / Insulation	FPE
1. Ekran / 1. Screen	ALPET veya CUPET100% / Al-Pes or Cu-Pes 100%
Örücü / Braid	Al veya Cu 74% / Al or Cu 74%
ДНЗ КИЛНФ / Outer Sheath	PVC Kompaund / PVC Compound

**Sinyal ve Kontrol Damarları / Signal and Control Cables**

iletken / Conductor	IEC 8 / DIN VDE 0 95 / TS EN 60 8 ШННФ 5 Elektrolitik Bükülü Tavlı Bakır Electrolytic Stranded Annealed Copper as per Class 5, IEC 228/DIN VDE 0295/TS EN 60228
izolasyon / Insulation	PVC Kompaund / PVC Compound
Yalıtkan Renkleri / Insulation Colour	DIN 47100 Standardна UYğun Renklerde / Suitable Colour with DIN 47100 Standard
Genel Ekran / General Screen	Al-Pes Bant 100% / Al-Pes Tape 100%
ДНЗ КИЛНФ / Outer Sheath	PVC/PE Kompaund / PVC/PE Compound
КИЛНФ Renği / Colour of Sheath	RAL 7001 Gri / RAL 7001 Grey
Ambalaj / Standard Length	100 - 250 - 500 - 1000 m

**Elektriksel Ölçümler / Electrical Parameters**

izolasyon Direnci / Insulation Resistane	>2000 Mohm.km
Kapasitans / Capacitance	57 pF/m
YaYnlma Hızı / Velocity of Propagation	0,82
(alıma Gerilimi / Operating Voltage	0,14mm²...0,5mm²= 50 V ~ / 0,34mm²...1,5mm²= 500 V ~
Test Gerilimi / Test Voltage	0,14mm²...0,5mm²= 1 00 V ~ / 0,34mm²...1,5mm²= 500 V ~
Min. Bükülme Yarıçapı / Min. Bending Radius	10 x D
(alıma Sıcaklığı / Temperature Range	-30°C +70°C
Empedans / Impedance	75 + 3.0hm

**Kesitler / Cross Section**

Kesitler / Cross Section	Kablo (apı / Sheath Diameter (mm)	Bakır Ağırlığı / Copper Weight (kg/km)	Kablo Ağırlığı / Cable Weight (kg/km)	Ambalaj / Standard Length
1 Coax + 1 x0, mm²	7,7	27	86	100 / 250 / 500 / 1000



These cables are used indoor applications as inner telecommunication and voice systems. With screened type; screen above the lay-up provides protection against external pulses.

1r.



**Kablo Yapısı / Cable Construction**

iletken / Conductor	7x0,20mm-14x0,15mm Cu
izolasYon / Insulation	PVC Kompaund / PVC Compound
Damar Tanımlama / Core Identification	Renk Kodlu
Büküm / Lay-Up	(iftler Sabit Adımda Katlar Halinde Bükülür / Pairs Laid Up In Layers of Optimum Pitch
Dış Kılıf / Outer Sheath	PVC Kompaund / PVC Compound
Kılıf Renği / Colour of Sheath	BeYaz / White

**Elektriksel Ölçümler / Electrical Parameters**

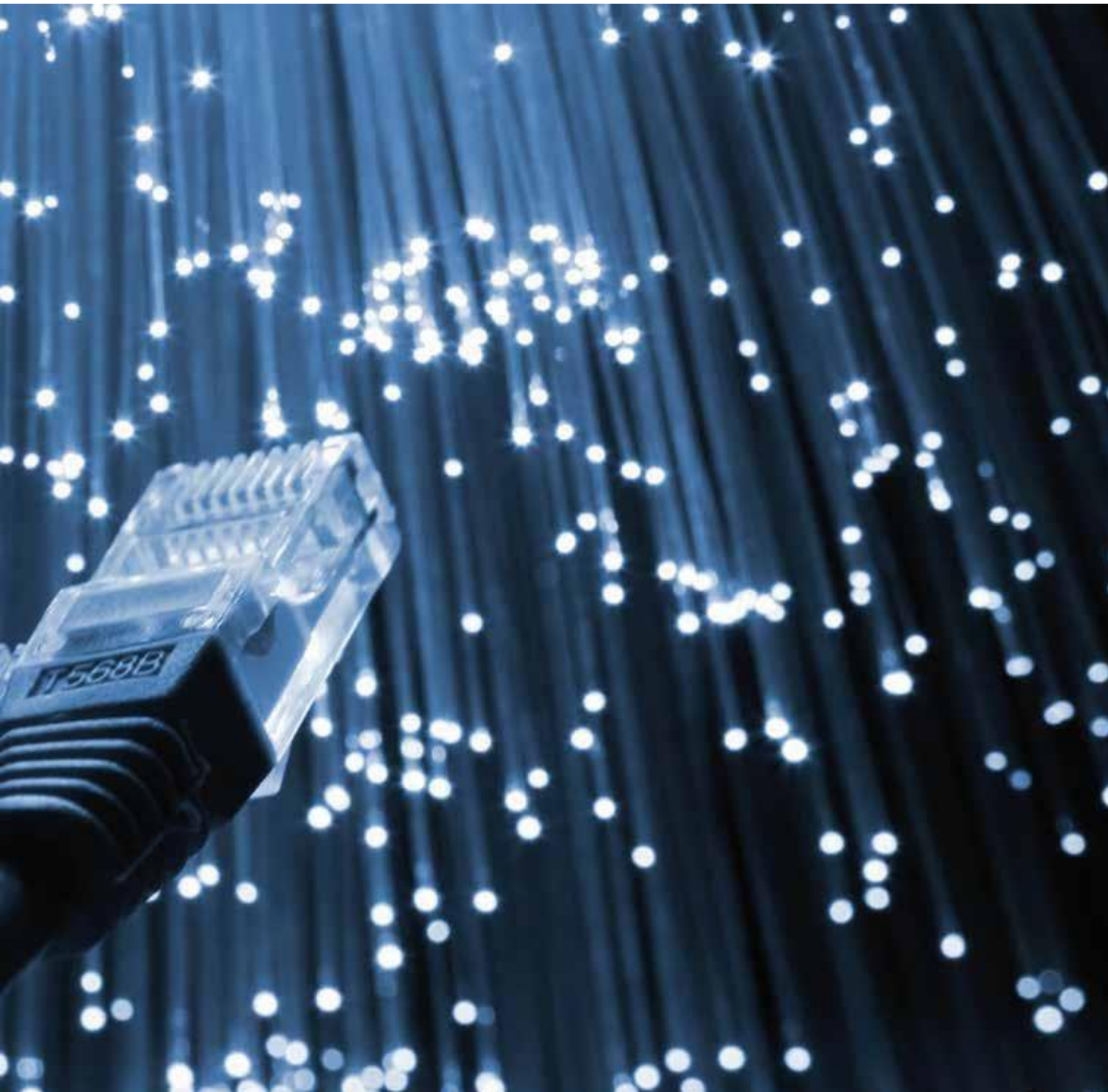
Test Gerilimi / Test Voltage	1,2 kV
(alışma Sıcaklığı / Temperature Range	-30°C +70°C
Min. Bükülme Yarıçapı / Min. Bending Radius	10 x D
Standart / Standards	VDE 081 Ye uYarı / According to VDE 0812
izolasYon Direnci / Insulation Resistance	> 2000 Mohm.km
Kapasitans / Capacitance	100 nF/km
(alışma Gerilimi / Operating Voltage	250 V

**Kesitler / Cross Section**

Damar Sayısı x Kesit (mm <sup>2</sup> ) No of Cores x Cross Section	Yaklaşık Dış (ap (mm) Approx. Outer Diameter	Bakır Ağırlığı (kg/km) Copper Weight	Yaklaşık Kablo Ağırlığı (kg/km) Approx. Cable Weight
4 x 0,22	3,6	7,7	21
6 x 0,22	4,6	11,33	33,1
8 x 0,22	5,2	15,23	40,5
10 x 0,22	6	19,05	48,7
12 x 0,22	6,3	22,85	57
4 x 0,25	4	8,92	23,6
6 x 0,25	5	13,38	33,5
8 x 0,25	5,4	17,84	43,9
10 x 0,25	6,2	22,36	53,6
12 x 0,25	6,5	22,76	63,3







## DATA LAN CABLES

- Data Lan Cables
- 52. CAT3 U/UTP 24AWG
  - 53. CAT3 F/UTP 24AWG
  - 54. CAT5e U/UTP 24AWG
  - 55. CAT5e F/UTP 24AWG
  - 56. CAT5e SF/UTP 25AWG
  - 57. CAT6 U/UTP 24AWG
  - 58. CAT6 F/UTP 24AWG
  - 59. CAT6 SF/UTP 24AWG
  - 60. CAT6A U/UTP 23AWG
  - 61. CAT6A F/UTP 23AWG
  - 62. CAT6A SF/UTP 23AWG
  - 63. CAT7 S/FTP 23AWG







These cables are used for transmitting signal in internal building installations which need 16 MHz bandwidth and transport data with 10 Mbit/s.

Kablo Yapısı / Cable Construction

İç İletken / Inner Conductor	Elektrolitik Bakır / Electrolytic Copper
İletken (aφ) / Connector Diameter	0.51 mm ( 24AWG )
İzolasYon / Insulation	Solid PE
İzolasYon (aφ) / Insulation Diameter	1.00
Dış Kılıf / Outer Sheath	PVC Kompaund / PVC Compound
Kılıf Renği / Colour of Sheath	RAL 7032 Gri / RAL 7032 Grey
Ambalaj / Standart Packing	305 - 500 - 1000 m

Elektriksel Ölçümler / Electrical Parameters

İletken Direnci / Conductor Resistance	94 Ohm/km	İzolasYon Direnci / Insulation Resistance	>5000 Mohm.km
Direnç Denğesizliđi / Resistance Unbalanced	3% (500V)	(alıđma Cerilimi / Operating Voltage	250 V
Test Gerilimi / Test Voltage	1200 V	(alıđma Sıcaklıđı / Temperature Range	- 0°C + 60°C
Min. Bükölme Yarğapı / Min. Bending Radius	8 x D	YaYılma Hızı / Velocity of Propagation	0.67
Kapasitans / Capacitance	52 pF/m		

Elektriksel Ölçüm Tablosu / Electrical Measurements

Frekans / Frequency (MHz)	Zayıflama / Max. Attenuations (dB/100m)	Yakın Uç Diafonisi / Min. Near and Crosstalk (dB Min.)	Ceri Dönüş KaYbı / Min. Return Loss (dB Min.)
0,772	2,2	43	40
1	2,6	41	38
4	5,6	32	26
8	8,5	28	19
10	9,8	26	16
16	13,1	23	10



These cables are used for transmitting signal in internal building installations which need 16 MHz bandwidth and transport data with 10 Mbit/s.



**Kablo Yapısı / Cable Construction**

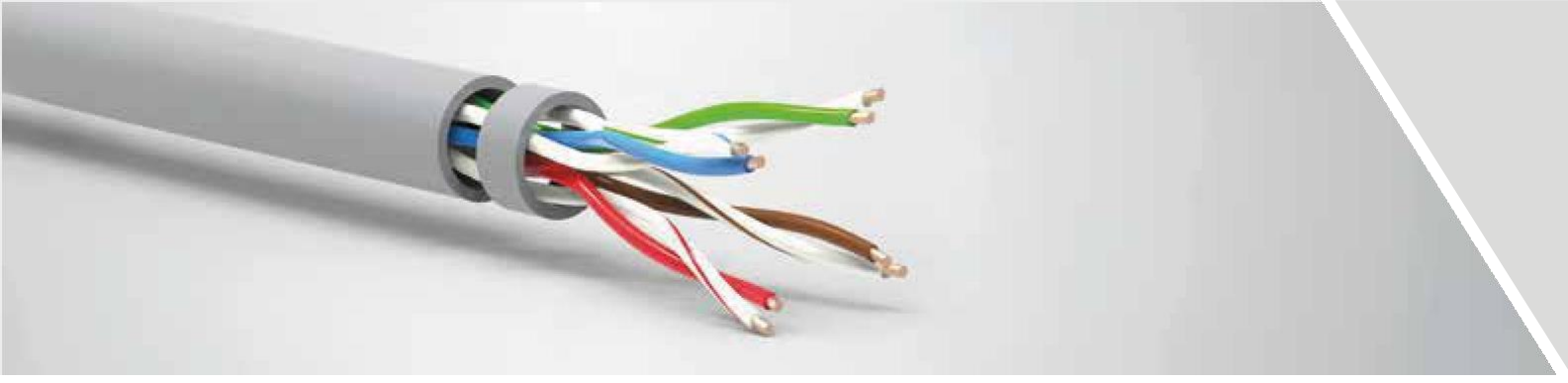
İç İletken / Inner Conductor	Elektrolitik Bakır / Electrolytic Copper
İletken (aPH / Connector Diameter	0.51 mm ( 24AWG )
İzolasYon / Insulation	Solid PE
İzolasYon (aPH / Insulation Diameter	1.00
Ekran / Screen	Al-Pes Bant ve 0,50mm Kalaylı Bakır Topral Teli / Al-Pes Tape and 0,50mm SnCu Ground Wire
Dış Kılıf / Outer Sheath	PVC Kompaund / PVC Compound
Kılıf Renği / Colour of Sheath	RAL 7032 Gri / RAL 7032 Grey
Ambalaj / Standart Packing	305 - 500 - 1000 m

**Elektriksel Ölçümler / Electrical Parameters**

İletken Direnci / Conductor Resistance	94 Ohm/km	İzolasYon Direnci / Insulation Resistance	>2000 Mohm.km
Direnç Denğesizliđi / Resistance Unbalanced	3% (500V)	(alıma Cerilimi / Operating Voltage	250 V
Test Gerilimi / Test Voltage	1,2 kV	(alıma Sıcaklıđı / Temperature Range	- 0°C + 70°C
Min. Bükölme Yarđıçapı / Min.Bending Radius	8 x D	Yayıma Hızı / Velocity of Propagation	0,67
Kapasitans / Capacitance	59 pF/m		

**Elektriksel Ölçüm Tablosu / Electical Measurements**

Frekans / Frequency (MHz)	Zayıflama / Max. Attenuations (dB/100m)	Yakın Uç Diafonisi / Min. Near and Crosstalk (dB Min.)	Ceri Dönüş Kaybı / Min. Return Loss (dB Min.)
0,772	2,2	43	40
1	2,6	41	38
4	5,6	32	26
8	8,5	28	19
10	9,8	26	16
16	13,1	23	10



These cables used in data transmission systems that work up to 155 Mbit/s. These cables are particularly preferred in the offices, buildings where many terminals are found. The outer sheath material of CAT 5e U/UTP cable is PVC for indoor application; black PE is for outdoor application and HFFR is free flame retardant compound which has low smoke density and no toxic/corrosive gases during a fire.

### Kablo Yapısı / Cable Construction

İç İletken / Inner Conductor	Elektrolitik Bakır / Electrolytic Copper
İletken (aRH / Conductor Diameter	0,51 mm ( 24AWG )
İzolasYon / Insulation	1,00 mm Solid PE
Büküm / Lay-up	Damarlar çiftler halinde ve tüm çiftler birlikte bükülür / Cores twisted together in pairs and all pairs
DH3 KHlf / Outer Sheath	PVC Gri (EN 50290-2, HD 21.1S4, VDE 0281TM1) / PVC Grey (EN 50290-2, HD 21.1S4, VDE 0281TM1) PE Siyah (EN 50290 -2 -24) / PE Black (EN 50290 -2 -24) HFFR Gri (EN 50290-2, VDE 0207, HD624.7 S1 HM2) / HFFR Grey (EN 50290-2, VDE 0207, HD624.7 S1 HM2)
KHlf (aRH / Sheath Diameter	5,2 mm
Bakır Ağırlığı (kg/km) / Copper Weight	16
Kablo Ağırlığı (kg/km) / Cable Weight	30

### Elektriksel Ölçümler / Electrical Parameters

İletken Direnci / Conductor Resistance	94 Ohm/km	İzolasYon Direnci / Insulation Resistance	>5000 Mohm.km
Direnç Dengesizliği / Resistance Unbalanced	3% (500V)	(aH3ma Cerilimi / Working Voltage	250 V
Test Gerilimi / Test Voltage	1,2 kV	(aH3ma Sıcaklık / Temperature Range	- 0°C + 60°C
Min. Bükülme Yarıçapı / Min. Bending Radius	8 x D	Yayılma Hızı / Velocity of Propagation	0,67
Kapasitans / Capacitance	52 pF/m		

### Empedans Ölçüm Tablosu / Electrical Measurements

Frekans / Frequency (MHz)	Zayıflama / Max. Attenuations (dB/100m)	Yakın Uç Diafonisi / Min. Near and Crosstalk (dB Min.)	Ceri Dönüş Kaybı / Min. Return Loss (dB Min.)
1	2	65,3	20
4	41	56,3	23
8	5,8	51,8	24,5
10	6,5	50,3	25
16	8,2	47,2	25
20	8,2	45,8	25
25	10,4	44,3	24,3
31,25	11,7	42,9	23,6
62,5	17	38,4	21,5
100	22	38,4	20,1

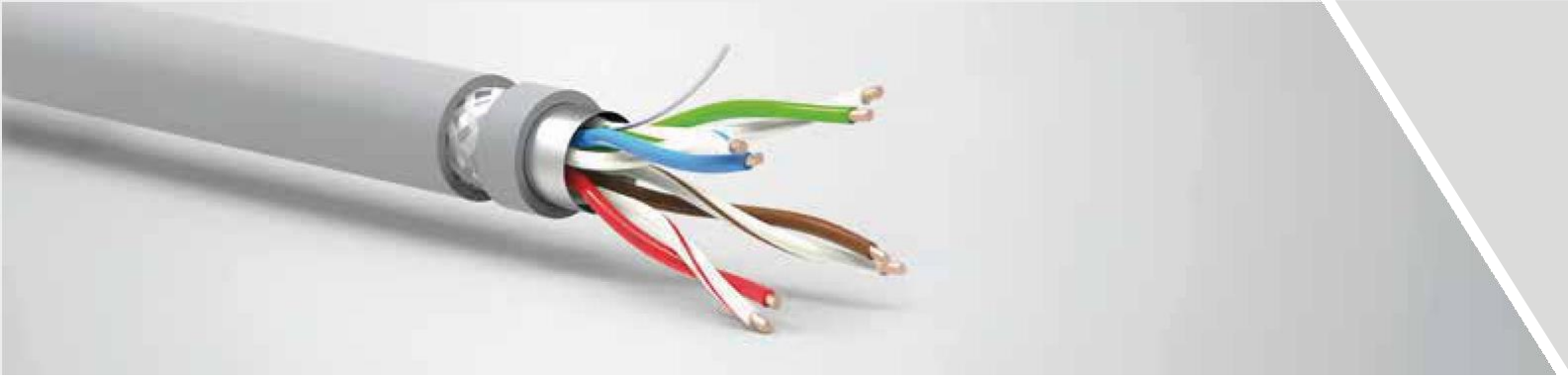


These cables used in data transmission systems that work up to 155 Mbit/s. These cables are particularly preferred in the offices, buildings where many terminals are found. The outer sheath material of CAT 5e F/UTP cable is PVC for indoor application; black PE is for outdoor application and HFFR is free flame retardant compound which has low smoke density and no toxic/corrosive gases during a fire.



Kablo Yapısı / Cable Construction			
İç İletken / Inner Conductor	Elektrolitik Bakır / Electrolytic Copper		
İletken (aφ) / Conductor Diameter	0,51 mm ( 24AWG )		
İzolasYon / Insulation	1,00 mm Solid PE		
Büküm / Lay-up	Damartar çiftler halinde ve tüm çiftler birlikte bükülür / Cores twisted together in pairs and all pairs		
Dış Kılıf / Outer Sheath	PVC Gri (EN 50290-2, HD 21.1S4, VDE 0281TM1) / PVC Grey (EN 50290-2, HD 21.1S4, VDE 0281TM1) PE Siyah (EN 50290 -2 -24) / PE Black (EN 50290 -2 -24) HFFR Gri (EN 50290-2, VDE 0207, HD624.7 S1HM2) / HFFR Grey (EN 50290-2, VDE 0207, HD624.7 S1HM2)		
Ekran / Screen	Al-Pes Bant ve 0,50mm Kalaylı Bakır Toprak Teli / Al-Pes Tape and 0,50mm SnCu Ground Wire		
Kılıf (aφ) / Sheath Diameter	6,3 mm		
Bakır Ağırlığı (kg/km) / Copper Weight	16		
Kablo Ağırlığı (kg/km) / Cable Weight	37		
Uzunluk / Length	305, 500, 1000 m		
Elektriksel Ölçümler / Electrical Parameters			
İletken Direnci / Conductor Resistance	94 Ohm/km	İzolasYon Direnci / Insulation Resistance	5000 Mohm.km
Direnç Dengesizliği / Resistance Unbalanced	5% (500V)	(alışma Gerilimi / Operating Voltage	250 V
Test Gerilimi / Test Voltage	1,2 kV	(alışma Sıcaklığı / Temperature Range	- 0 °C + 60 °C
Min. Bükülme Yarıçapı / Min. Bending Radius	8 x D	Yayılma Hızı / Velocity of Propagation	0,67
Kapasitans / Capacitance	56 pF/m		
Empedans / Impedance	100 ± 5 Ohm		

Frekans / Frequency (MHz)	Zayıflama / Max. Attenuations (dB/100m)	Yakın Uç Diafonisi / Min. Near and Crosstalk (dB Min.)	Ceri Dönüş Kaybı / Min. Return Loss (dB Min.)
1	2	65,3	20
4	41	56,3	23
8	5,8	51,8	24,5
10	6,5	50,3	25
16	8,2	47,2	25
20	8,2	45,8	25
25	10,4	44,3	24,3
31,25	11,7	42,9	23,6
62,5	17	38,4	21,5
100	22	38,4	20,1



These cables used in data transmission systems that work up to 155 Mbit/s. These cables are particularly preferred in the offices, buildings where many terminals are found. The outer sheath material of CAT 5e SF/UTP cable is PVC for indoor application; black PE is for outdoor application and HFFR is free flame retardant compound which has low smoke density and no toxic/corrosive gases during a fire.

Kablo Yapısı / Cable Construction

İç İletken / Inner Conductor	Elektrolitik Bakır / Electrolytic Copper
İletken (aφ) / Conductor Diameter	0.51 mm ( 24 AWG )
İzolasYon / Insulation	1,00 mm Solid PE
Büküm / Lay-up	Damarlar çiftler halinde ve tüm çiftler birlikte bükülür / Cores twisted together in pairs and all pairs
Dış Kılıf / Outer Sheath	PVC Gri (EN 50290-2, HD 21.1S4, VDE 0281TM1) / PVC Grey (EN 50290-2, HD 21.1S4, VDE 0281TM1) PE Siyah (EN 50290 -2 -24) / PE Black (EN 50290 -2 -24) HFFR Gri (EN 50290-2, VDE 0207, HD624.7 S1 HM2) / HFFR Grey (EN 50290-2, VDE 0207, HD624.7 S1 HM2)
Ekran / Screen	Al-Pes Bant ve 0,50mm Kalaylı Bakır Toprak Teli / Al-Pes Tape and 0,50mm SnCu Ground Wire
Örme Kaplama / Braid Coverage	Al. 65%
Kılıf (aφ) / Sheath Diameter	6.3 mm
Bakır Ağırlığı (kg/km) / Copper Weight	16
Kablo Ağırlığı (kg/km) / Cable Weight	46
Ambalaj / Standart Packing	305 - 500 - 1000 m

Elektriksel Ölçümler / Electrical Parameters

İletken Direnci / Conductor Resistance	94 Ohm/km	İzolasYon Direnci / Insulation Resistance	>5000 Mohm.km
Direnç Dengesizliği / Resistance Unbalanced	5% (500V)	(alışma Gerilimi / Operating Voltage	250 V
Test Gerilimi / Test Voltage	1,2 kV	(alışma Sıcaklığı / Temperature Range	- 0°C + 60°C
Min. Bükülme Yarıçapı / Min. Bending Radius	8 x D	Yayılma Hızı / Velocity of Propagation	0,67
Kapasitans / Capacitance	56 pF/m		

Elektriksel Ölçüm Tablosu / Electrical Measurements

Frekans / Frequency (MHz)	Zayıflama / Max. Attenuations (dB/100m)	Yakın Uç Diafonisi / Min. Near and Crosstalk (dB Min.)	Ceri Dönüş Kaybı / Min. Return Loss (dB Min.)
1	2	65,3	20
4	4,1	56,3	23
8	5,8	51,8	24,5
10	6,5	50,3	25
16	8,2	47,2	25
20	8,2	45,8	25
25	10,4	44,3	24,3
31,25	11,7	42,9	23,6
62,5	17	38,4	21,5
100	22	38,4	20,1





These cables used in data transmission systems that work up to 200 Mbit/s. These cables are particularly preferred in the offices, buildings where many terminals are found. The outer sheath material of CAT6 U/UTP cable is PVC for indoor application; black PE is for outdoor application and HFFR is free flame retardant compound which has low smoke density and no toxic/corrosive gases during a fire.



**Kablo Yapısı / Cable Construction**

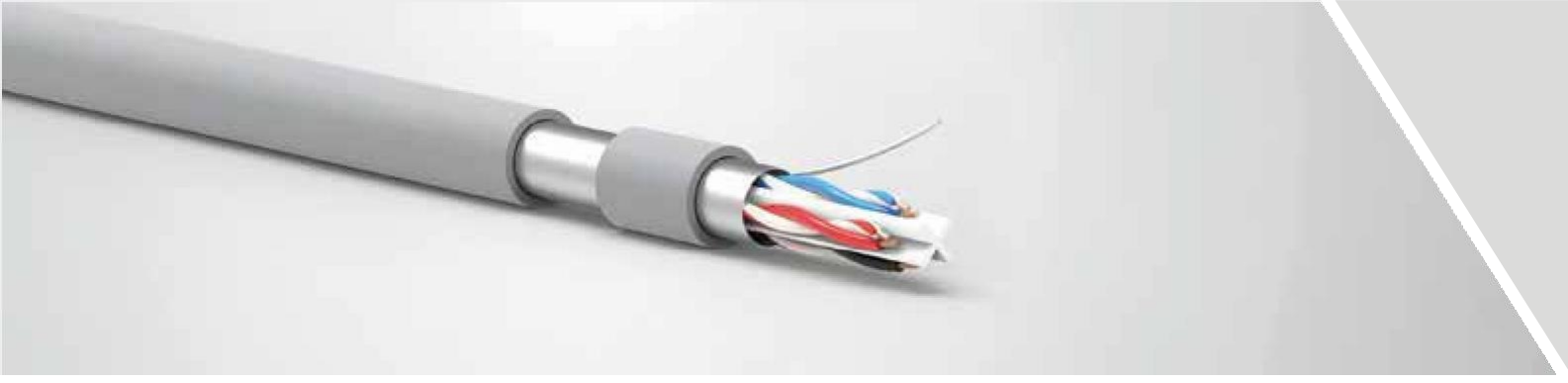
İç İletken / Inner Conductor	Elektrolitik Bakır / Electrolytic Copper
İletken (aφ) / Conductor Diameter	0.51 mm ( 24 AWG )
İzolasYon / Insulation	1,00 mm Solid PE
Yalıtkan Renk / Insulation Colour	IEC 708-1
Büküm / Lay-up	Damarlar çiftler halinde ve tüm çiftler birlikte bükülür / Cores twisted together in pairs and all pairs
DN3 Kılıf / Outer Sheath	PVC Gri (EN 50290-2, HD 21.1S4, VDE 0281TM1) / PVC Grey (EN 50290-2, HD 21.1S4, VDE 0281TM1) PE Siyah (EN 50290 -2 -24) / PE Black (EN 50290 -2 -24) HFFR Gri (EN 50290-2, VDE 0207, HD624.7 S1 HM2) / HFFR Grey (EN 50290-2, VDE 0207, HD624.7 S1 HM2)
Kılıf (aφ) / Sheath Diameter	6.8 mm
Bakır Ağırlığı (kg/km) / Copper Weight	16
Kablo Ağırlığı (kg/km) / Cable Weight	41
Ambalaj / Standart Packing	305 - 500 - 1000 m

**Elektriksel Ölçümler / Electrical Parameters**

İletken Direnci / Conductor Resistance	94 Ohm/km	İzolasYon Direnci / Insulation Resistance	>5000 Mohm.km
Direnç Dengesizliği / Resistance Unbalanced	5% (500V)	(aİzma Cerilimi / Operating Voltage	250 V
Test Gerilimi / Test Voltage	1,2 kV	(aİzma Sıcaklığı / Temperature Range	- 0 °C + 60 °C
Min. Bükülme Yarıçapı / Min. Bending Radius	8 x D	Yayılma Hızı / Velocity of Propagation	0,67
Kapasitans / Capacitance	56 pF/m		

**Empedans Ölçüm Tablosu / Electrical Measurements**

Frekans / Frequency (MHz)	Zayıflama / Max. Attenuations (dB/100m)	Yakın Uç Diafonisi / Min. Near and Crosstalk (dB Min.)	Ceri Dönüş Kaybı / Min. Return Loss (dB Min.)
1	2	65,3	20
4	3,8	63	23
10	6,5	50,3	25
16	7,6	54	25
20	8,5	53	25
31	10,8	50	23,6
62	15,5	45	21,5
100	15,5	42	20,1
155	23,1	41	19
250	33	36	18



These cables used in data transmission systems that work up to 200 Mbit/s. These cables are particularly preferred in the offices, buildings where many terminals are found. The outer sheath material of CAT6 F/UTP cable is PVC for indoor application; black PE is for outdoor application and HFFR is free flame retardant compound which has low smoke density and no toxic/corrosive gases during a fire.

Kablo Yapısı / Cable Construction

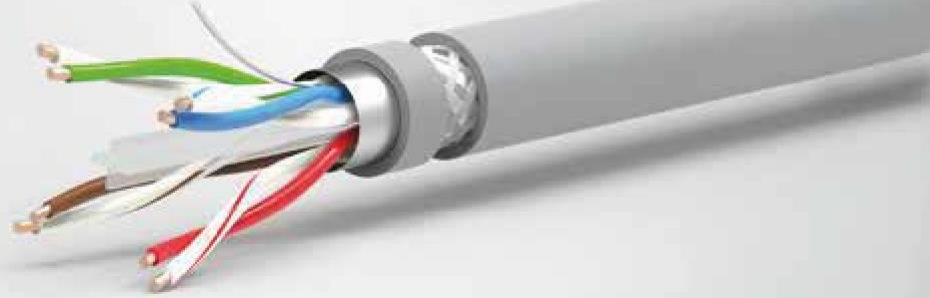
İç İletken / Inner Conductor	Elektrolitik Bakır / Electrolytic Copper
İzolasYon / Insulation	1,00 mm Solid PE
Yalıtkan Renk / Insulation Colour	IEC 708-1
Büküm / Lay-up	Damarlar çiftler halinde ve tüm çiftler birlikte bükülür / Cores twisted together in pairs and all pairs
Dış Kılıf / Outer Sheath	PVC Gri (EN 50290-2, HD 21.1S4, VDE 0281TM1) / PVC Grey (EN 50290-2, HD 21.1S4, VDE 0281TM1) PE Siyah (EN 50290 -2 -24) / PE Black (EN 50290 -2 -24) HFFR Gri (EN 50290-2, VDE 0207, HD624.7 S1 HM2) / HFFR Grey (EN 50290-2, VDE 0207, HD624.7 S1 HM2)
Kılıf (aφ) / Sheath Diameter	7.00 mm
Ekran / Screen	Al-Pes FolYo, 0,50mm Kalaylı Bakır Toprak Teli ile / Al-Pes Foil with 0,50mm SnCu Ground Wire
Bakır Ağırlığı (kg/km) / Copper Weight	16
Kablo Ağırlığı (kg/km) / Cable Weight	42
Ambalaj / Standart Packing	305 - 500 - 1000 m

Elektriksel Ölçümler / Electrical Parameters

İletken Direnci / Conductor Resistance	94 Ohm/km	İzolasYon Direnci / Insulation Resistance	>5000 Mohm.km
Direnç DengeSizliĐi / Resistance Unbalanced	5% (500V)	(aİn3ma Cerilimi / Working Voltage	250 V
Test Gerilimi / Test Voltage	1,2 kV	(aİn3ma Sıcaklık / Temperature Range	- 0°C + 60°C
Min. Bükümle Yarlıçap / Min. Bending Radius	8 x D	Yayılma Hızı / Velocity of Propagation	0,67

Kapasitans / Capacitance

Empedans / Impedance (MHz)	100 ± 5 Ohm Zayıflama / Max. Attenuations (dB/100m)	Yakın Uç Diafonisi / Min. Near and Crosstalk (dB Min.)	Ceri Dönüş KaYB / Min. Return Loss (dB Min.)
1	2	65,3	20
4	3,8	63	23
10	6,5	50,3	25
16	7,6	54	25
20	8,5	53	25
31	10,8	50	23,6
62	15,5	45	21,5
100	15,5	42	20,1
155	23,1	41	19
250	33	36	18



These cables used in data transmission systems that work up to 1Gbit/sn. These cables are particularly preferred in the offices, buildings where many terminals are found. The outer sheath material of CAT6 SF/UTP cable is PVC for indoor application; black PE is for outdoor application and HFFR is free flame retardant compound which has low smoke density and no toxic/corrosive gases during a fire.



Kablo Yapısı / Cable Construction

İç İletken / Inner Conductor	Elektrolitik Bakır / Electrolytic Copper
İzolasYon / Insulation	1,00 mm Solid PE
Yalıtıkan Renk / Insulation Colour	IEC 708-1
Büküm / Lay-up	Damarlar çiftler halinde ve tüm çiftler birlikte bükülür / Cores twisted together in pairs and all pairs
DN3 Kılıf / Outer Sheath	PVC Gri (EN 50290-2, HD 21.1S4, VDE 0281TM1) / PVC Grey (EN 50290-2, HD 21.1S4, VDE 0281TM1) PE Siyah (EN 50290 -2 -24) / PE Black (EN 50290 -2 -24) HFFR Gri (EN 50290-2, VDE 0207, HD624.7 S1 HM2) / HFFR Grey (EN 50290-2, VDE 0207, HD624.7 S1 HM2)
Kılıf (aφ) / Sheath Diameter	7.00 mm
Ekran / Screen	Al-Pes FolYo, 0,50mm Kalaylı Bakır Toprak Teli ile / Al-Pes Foil with 0,50mm SnCu Ground Wire
ÖrPü / Braid	Al. 65%
Bakır Aφnrlıφn (kφ/km) / Copper Weight	16
Kablo Aφnrlıφn (kφ/km) / Cable Weight	44
Ambalaj / Standart Packing	305 - 500 - 1000 m

Elektriksel Ölçümler / Electrical Parameters

İletken Direnci / Conductor Resistance	94 Ohm/km	İzolasYon Direnci / Insulation Resistance	>5000 Mohm.km
Direnç Dengesizliđi / Resistance Unbalanced	5% (500V)	(aİn3ma Cerilimi / Operating Voltage	250 V
Test Gerilimi / Test Voltage	1,2 kV	(aİn3ma Sıcaklıđın / Temperature Range	- 0°C + 60°C
Min. Bükülme Yarıçapı / Min. Bending Radius	8 x D	YaYınlma Hızın / Velocity of Propagation	0,67

Elektriksel Ölçüm Tablosu / Electrical Measurements

Empedans Frekansı (MHz)	100 + 5 Ohm Zayıflama / Max. Attenuations (dB/100m)	Yakın Uç Diafonisi / Min. Near and Crosstalk (dB Min.)	Ceri Dönüş KaYbın / Min. Return Loss (dB Min.)
1	2	65,3	20
4	3,8	63	23
10	6,5	50,3	25
16	7,6	54	25
20	8,5	53	25
31	10,8	50	23,6
62	15,5	45	21,5
100	15,5	42	20,1
155	23,1	41	19
250	33	36	18



These cables used in data transmission systems that work up to 10 Gbit/s. These cables are particularly preferred in the offices, buildings where many terminals are found. The outer sheath material of CAT6 U/UTP cable is PVC for indoor application; black PE is for outdoor application and HFFR is free flame retardant compound which has low smoke density and no toxic/corrosive gases during a fire.

Kablo Yapısı / Cable Construction

İç İletken / Inner Conductor	Elektrolitik Bakır / Electrolytic Copper
İletken (aφ) / Conductor Diameter	0.56 mm ( 23 AWG )
İzolasYon / Insulation	1,30 mm Solid PE
Yalıtkan Renk / Insulation Colour	IEC 708-1
Büküm / Lay-up	Damarlar çiftler halinde ve tüm çiftler birlikte bükülür / Cores twisted together in pairs and all pairs
DN3 Kılıf / Outer Sheath	PVC Gri (EN 50290-2, HD 21.1S4, VDE 0281TM1) / PVC Grey (EN 50290-2, HD 21.1S4, VDE 0281TM1) PE Siyah (EN 50290 -2 -24) / PE Black (EN 50290 -2 -24) HFFR Gri (EN 50290-2, VDE 0207, HD624.7 SI HM2) / HFFR Grey (EN 50290-2, VDE 0207, HD624.7 SI HM2)
Kılıf (aφ) / Sheath Diameter	7.80 mm
Bakır Ağırlığı (kg/km) / Copper Weight	19
Kablo Ağırlığı (kg/km) / Cable Weight	58
Ambalaj / Standart Packing	305 - 500 - 1000 m

Elektriksel Ölçümler / Electrical Parameters

İletken Direnci / Conductor Resistance	72 Ohm/km	İzolasYon Direnci / Insulation Resistance	>5000 Mohm.km
Direnç DengeSizliĐi / Resistance Unbalanced	5% (500V)	(aİ3ma Cerilimi / Working Voltage	250 V
Test Gerilimi / Test Voltage	1,2 kV	(aİ3ma Sıcaklık / Temperature Range	- 0°C + 60°C
Min. Bükümle Yarçap / Min. Bending Radius	8 x D	YaYılma Hızı / Velocity of Propagation	0,67

Kapasitans / Capacitance

Empedans / Impedance (MHz)	Zayıflama / Max. Attenuations (dB/100m)	Yakın Uç Diafonisi / Min. Near and Crosstalk (dB Min.)	Ceri Dönüş KaYbı / Min. Return Loss (dB Min.)
1	1,8	100	-
4	3,8	100	27
10	6,5	100	27
16	7,6	100	27
20	8,5	100	27
31	10,8	100	27
62	15,5	100	27
100	15,5	100	27
155	23,1	94	26
250	33	90	24
500	38,6	87	23



These cables used in data transmission systems that work up to 10 Gbit/s. These cables are particularly preferred in the offices, buildings where many terminals are found. The outer sheath material of CAT6 F/UTP cable is PVC for indoor application; black PE is for outdoor application and HFFR is free flame retardant compound which has low smoke density and no toxic/corrosive gases during a fire.



Kablo Yapısı / Cable Construction

İç İletken / Inner Conductor	Elektrolitik Bakır / Electrolytic Copper
İletken (aφ) / Conductor Diameter	0,56 mm ( 23 AWG )
İzolasYon / Insulation	1,30 mm Solid PE
Yalıtkan Renk / Insulation Colour	IEC 708-1
Büküm / Lay-up	Damarlar çiftler halinde ve tüm çiftler birlikte bükülür / Cores twisted together in pairs and all pairs
Dış Kılıf / Outer Sheath	PVC Gri (EN 50290-2, HD 21.1.S4, VDE 0281TM1) / PVC Grey (EN 50290-2, HD 21.1.S4, VDE 0281TM1) PE Siyah (EN 50290 -2 -24) / PE Black (EN 50290 -2 -24) HFFR Gri (EN 50290-2, VDE 0207, HD624.7 SI HM2) / HFFR Grey (EN 50290-2, VDE 0207, HD624.7 SI HM2)
Kılıf (aφ) / Sheath Diameter	8,00 mm
Ekran / Screen	Al-Pes FolYo, 0,50mm Kalaylı Bakır Toprak Teli ile / Al-Pes Foil with 0,50mm SnCu Ground Wire
Bakır Ağırlığı (kg/km) / Copper Weight	19
Kablo Ağırlığı (kg/km) / Cable Weight	60
Ambalaj / Standart Packing	305 - 500 - 1000 m

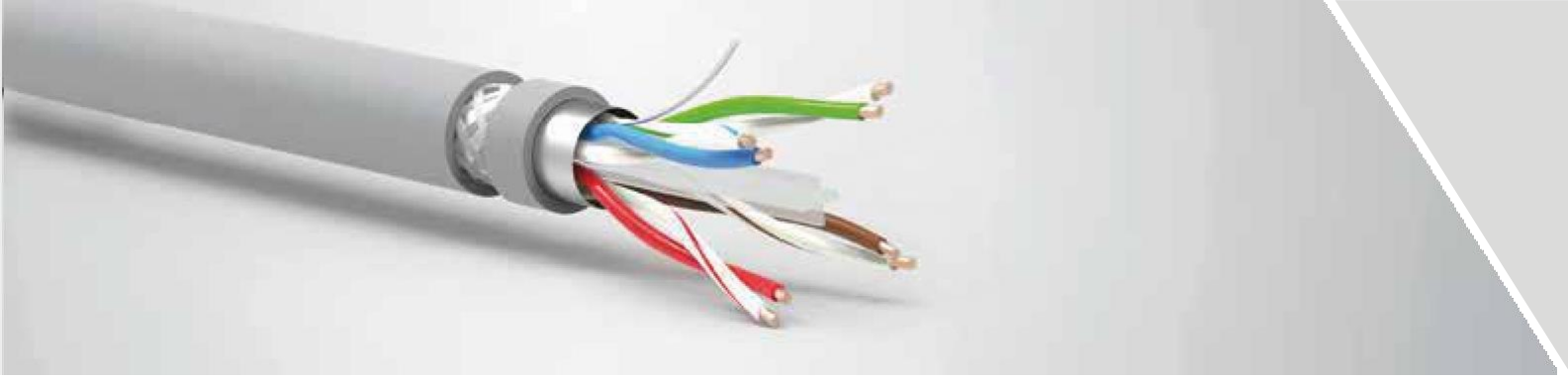
Elektriksel Ölçümler / Electrical Parameters

İletken Direnci / Conductor Resistance	72 Ohm/km	İzolasYon Direnci / Insulation Resistance	>5000 Mohm.km
Direnç Dengesizliği / Resistance Unbalanced	5% (500V)	(a) Çalışma Gerilimi / Operating Voltage	250 V
Test Gerilimi / Test Voltage	1,2 kV	(a) Çalışma Sıcaklığı / Temperature Range	- 0°C + 60°C
Min. Bükülme Yarıçapı / Min. Bending Radius	8 x D	Yayılma Hızı / Velocity of Propagation	0,67

Kapasite Ölçüm Tablosu / Electrical Measurements

Empedans / Impedance (MHz)	Yüksek Frekans / Max. Attenuations (dB/100m)	Yakın Uç Diafonisi / Min. Near and Crosstalk (dB Min.)	Ceri Dönüş KaYB / Min. Return Loss (dB Min.)
1	18	100	-
4	3,4	100	27
10	5,4	100	27
16	6,8	100	27
20	7,7	100	27
31	9,6	100	27
62	13,7	100	27
100	17,4	100	27
155	21,9	94	26
250	28,1	90	24
500	38,6	87	23





These cables used in data transmission systems that work up to 10 Gbit/s. These cables are particularly preferred in the offices, buildings where many terminals are found. The outer sheath material of CAT6 SF/UTP cable is PVC for indoor application; black PE is for outdoor application and HFFR is free flame retardant compound which has low smoke density and no toxic/corrosive gases during a fire.

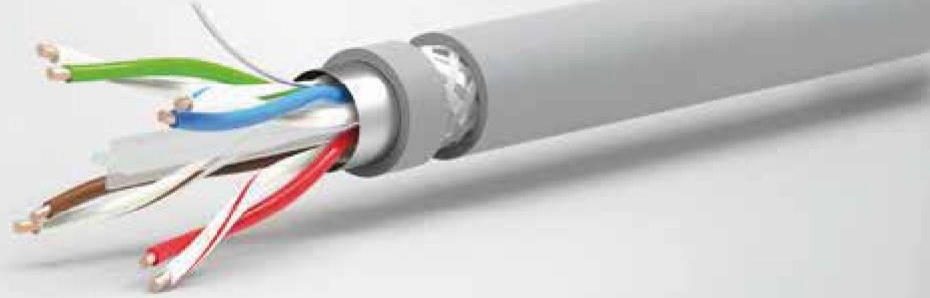
Kablo Yapısı / Cable Construction

İç İletken / Inner Conductor	Elektrolitik Bakır / Electrolytic Copper
İletken (aφ) / Conductor Diameter	0.56 mm ( 23 AWG )
İzolasYon / Insulation	1,30 mm Solid PE
Yalıtkan Renk / Insulation Colour	IEC 708-1
Büküm / Lay-up	Damarlar çiftler halinde ve tüm çiftler birlikte bükülür / Cores twisted together in pairs and all pairs
Dış Kılıf / Outer Sheath	PVC Gri (EN 50290-2, HD 21.1S4, VDE 0281TM1) / PVC Grey (EN 50290-2, HD 21.1S4, VDE 0281TM1) PE Siyah (EN 50290 -2 -24) / PE Black (EN 50290 -2 -24) HFFR Gri (EN 50290-2, VDE 0207, HD624.7 SI HM2) / HFFR Grey (EN 50290-2, VDE 0207, HD624.7 SI HM2)
Kılıf (aφ) / Sheath Diameter	8,10 mm
Ekran / Screen	Al-Pes FolYo, 0,50mm Kalaylı Bakır Toprak Teli ile / Al-Pes Foil with 0,50mm SnCu Ground Wire
Örme / Braid	Al 65%
Bakır Ağırlığı (kg/km) / Copper Weight	19
Kablo Ağırlığı (kg/km) / Cable Weight	64
Ambalaj / Standart Packing	305 - 500 - 1000 m

Elektriksel Ölçümler / Electrical Parameters

İletken Direnci / Conductor Resistance	72 Ohm/km	İzolasYon Direnci / Insulation Resistance	>5000 Mohm.km
Direnç Dengesizliği / Resistance Unbalanced	5% (500V)	(alışma Gerilimi / Working Voltage)	250 V
Test Gerilimi / Test Voltage	1,2 kV	(alışma Sıcaklığı / Temperature Range)	- 0°C + 60°C
Min. Bükülme Yarıçapı / Min. Bending Radius	8 x D	Yayıma Hızı / Velocity of Propagation	0,67

Frekans / Frequency (MHz)	Zayıflama / Max. Attenuations (dB/100m)	Yakın Uç Diyafozisi / Min. Near and Crosstalk (dB Min.)	Ceri Donuş Kaybı / Min. Return Loss (dB Min.)
1	1,8	100	-
4	3,4	100	27
10	5,4	100	27
16	6,8	100	27
20	7,7	100	27
31	9,6	100	27
62	13,7	100	27
100	17,4	100	27
155	21,9	94	26
250	28,1	90	24
500	38,6	87	23



These cables used in data transmission systems that work up to 10 Gbit/s. These cables are particularly preferred in the offices, buildings where many terminals are found. The outer sheath material of CA7 S/FTP cable is PVC for indoor application; black PE is for outdoor application and HFFR is free flame retardant compound which has low smoke density and no toxic/corrosive gases during a fire.



Kablo Yapısı / Cable Construction

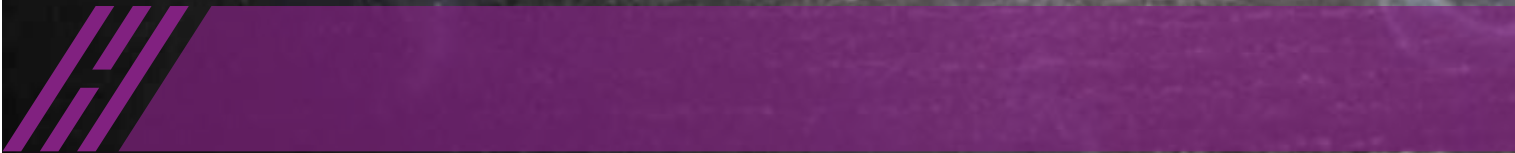
İç İletken / Inner Conductor	Elektrolitik Bakır / Electrolytic Copper
İletken (aφn) / Conductor Diameter	0,56 mm ( 23 AWG )
İzolasYon / Insulation	1,42 mm FPE
Yalıtıkan Renk / Insulation Colour	IEC 708-1
Büküm / Lay-up	Damarlar çiftler halinde ve tüm çiftler birlikte bükülür / Cores twisted together in pairs and all pairs
DH3 KHİHf / Outer Sheath	PVC Gri (EN 50290-2, HD 21.1S4, VDE 0281TM1) / PVC Grey (EN 50290-2, HD 21.1S4, VDE 0281TM1) PE Siyah (EN 50290 -2 -24) / PE Black (EN 50290 -2 -24) HFFR Gri (EN 50290-2, VDE 0207, HD624.7 S1 HM2) / HFFR Grey (EN 50290-2, VDE 0207, HD624.7 S1 HM2)
KHİHf (aφn) / Sheath Diameter	8,20 mm
Ekran / Screen	Bireysel ve ortak Al-Pes FolYo, 0,50mm Kalaylın Bakır Toprak Teli ile / Individual and overall Al-PET Foil with 0,50mm SnCu Ground Wire
Örçü / Braid	Al 80%
Bakır AφnrlıHφn (kφ/km) / Copper Weight	19
Kablo AφnrlıHφn (kφ/km) / Cable Weight	60
Ambalaj / Standart Packing	305 - 500 - 1000 m

Elektriksel Ölçümler / Electrical Parameters

İletken Direnci / Conductor Resistance	72 Ohm/km	İzolasYon Direnci / Insulation Resistance	>5000 Mohm.km
Direnç Denφesizliφi / Resistance Unbalanced	5% (500V)	(aH3ma Cerilimi / Working Voltage	250 V
Test Gerilimi / Test Voltage	1,2 kV	(aH3ma SHcaklıHφn / Temperature Range	- 0°C + 60°C
Min. Bükölme Yarhçapı / Min. Bending Radius	8 x D	YaYHlma HHzH / Velocity of Propagation	0,67
Kapasitans / Capacitance	56 pF/m		
Empedans / Impedance	100 + 5 Ohm		

Elektriksel Ölçüm Tablosu / Electrical Measurements

Frekans / Frequency (MHz)	ZaYHflama / Max. Attenuations (dB/100m)	Yakın Uç Diafonisi / Min. Near and Crosstalk (dB Min.)	Ceri Dönü3 KaYbı / Min. Return Loss (dB Min.)
1	1,8	100	-
4	3,4	100	27
10	5,4	100	27
16	6,8	100	27
20	7,7	100	27
31	9,6	100	27
62	13,7	100	27
100	17,4	100	27
155	21,9	94	26
250	28,1	90	24
500	38,6	87	23
600	44,8	85	22







## FIRE ALARM CABLES

PVC Kılıflı Yangın Alarm Kabloları  
PVC Sheathed Fire Alarm Cables

- 66. JYY
- 67. JY(St)Y..Lp
- 68. JE-Y(St)Y..Bd

HFFR Kılıflı Yangın Alarm Kabloları  
HFFR Sheathed Fire Alarm Cables

- 69. JHH
- 70. JH(St)H..Lp
- 71. JE-H(St)H..Bd





These cables are used for indoor signal and data transfer installations as well as operator and subscriber distributions. They are easily applied in confined spaces due to their low bending radius.

Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bakır iletken / Electrolytic Copper Conductor IEC60 8 Class1
izolasyon / Insulation	PVC Kompaund / PVC Compound
izolasyon Renği / Insulation Colour	VDE 0815
(ift / Pair	iki Damarlı Bir (ift Oluşturacak Şekilde Bükülür / 2 Pairs Twisted as Star-Quad
Büküm / Lay-up	(iftler Sabit Adımda Katlar Halinde Bükülür / Pairs Laid Up In Layers of Optimum Pitch
Ayrıştırıcı / Separator	PES Bant / PES Tape
Dış Kılıf / Outer Sheath	PVC Kompaund / PVC Compound
Kılıf Renği / Colour of Sheath	RAL 3000 Kırmızı / Red

Elektriksel Ölçümler / Electrical Parameters

iletken (evrim Direnci / Loop Resistance	0,60mm : 130 Ohm/km, 0,80mm : 73,2 Ohm/km		
Test Gerilimi / Test Voltage	800 V		
Etkili Kapasitans / Mutual Capacitance	100 nF/km	Kapasitans Dengesizliği / Capacitance Unbalance	Max. 300 pF/100m
Min. Bükülme Yarıçapı / Min. Bending Radius	10 x D	(alışma Sıcaklığı / Temperature Range	-30°C +70°C
(alışma Gerilimi / Operating Voltage	300 V	Yayılma Hızı / Velocity of Propagation	0,67
izolasyon Direnci / Insulation Resistance	>100 MOhm.km		

Damar Sayısı x Kesit No of Cores x Cross Section (mm)	Yaklaşık Dış (ap Approx. Outer Diameter (mm)	Bakır Ağırlığı Copper Weight (kg/km)	Yaklaşık Kablo Ağırlığı Cable Weight (kg/km)
2 x 2 x 0,60	4,5	110	34
4 x 2 x 0,60	6,5	23,0	59
6 x 2 x 0,60	7,0	34,0	74
10 x 2 x 0,60	8,5	56,0	111
20 x 2 x 0,60	110	1130	200
30 x 2 x 0,60	135	170,0	284
2 x 2 x 0,80	6,6	9,6	52
4 x 2 x 0,80	8,3	39	87
6 x 2 x 0,80	10,2	58	126
10 x 2 x 0,80	11,3	96	186
20 x 2 x 0,80	15,7	192	361
30 x 2 x 0,80	19,3	288	531





These cables are used as fire alarm cables as an fixed indoor installations. Screen provides protection against electromagnetic interferences. Additionally these cables are suitable for applications at small bending radius.



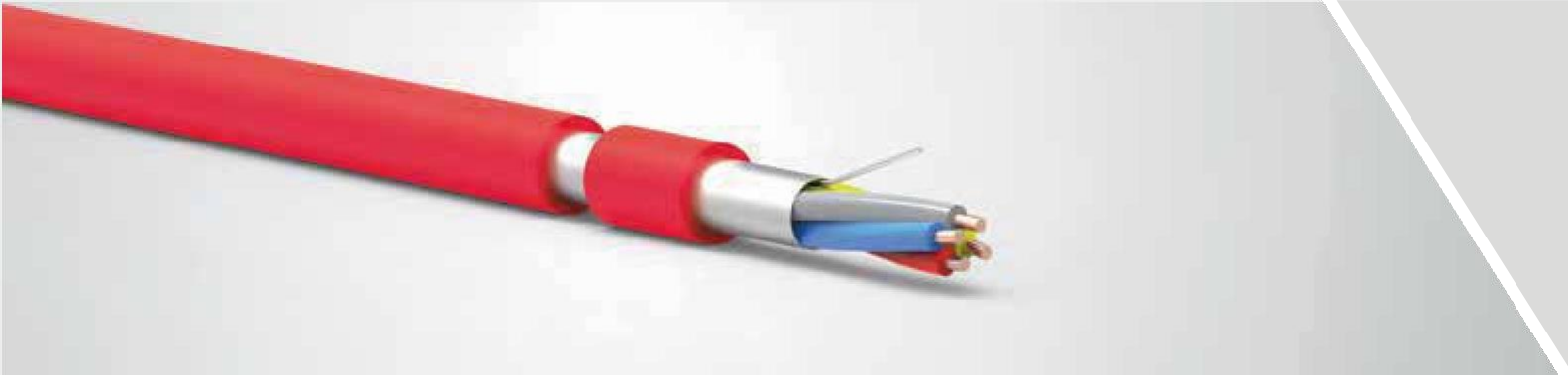
Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bakır iletken / Electrolytic Copper Conductor IEC60 8 Class1
izolasyon / Insulation	PVC Kompaund / PVC Compound
Damar Tanımlama / Core Identification	VDE 0815
(ift / Pair	iki Damarlı Bir (ift Oluşturacak Şekilde Bükülür / 2 Pairs Twisted as Star-Quad
Büküm / Lay-up	(iftler Sabit Adımda Katlar Halinde Bükülür / Pairs Laid Up In Layers of Optimum Pitch
Ayrıştırıcı / Separator	PES Bant / PES Tape
Ekran / Screen	Kalaylı Bakır Toprak Teliyle Birlikte Al-Pes Bant - Toprak Teli; phi : 0,40mm ≤ 10 (ift phi : 0,60 > 10 (ift Tinned Cu Drain Wire Under the Al-Pes Tape - Ground Wire; phi : 0,40mm ≤ 10 Pairs phi : 0,60 > 10 Pairs
Dış Kılıf / Outer Sheath	PVC Kompaund / PVC Compound

Elektriksel Ölçümler / Electrical Parameters

iletken (evrim Direnci) / Loop Resistance	0,60mm : 130,0 Ohm/km, 0,80mm : 73,2 Ohm/km		
Test Gerilimi / Test Voltage	800 V		
Etkili Kapasite / Mutual Capacitance	100 nF/km	Kapasite Dengesizliği / Capacitance Unbalance	Max. 300 pF / 100mt
Min. Bükülme Yarıçapı / Min. Bending Radius	10 x D	(alışma Sıcaklığı / Temperature Range	-30°C +70°C
(alışma Gerilimi / Operating Voltage	300 V	Yayılma Hızı / Velocity of Propagation	0,67
izolasyon Direnci / Insulation Resistance	>100 MOhm.km		

Damar Sayısı x Kesit No of Cores x Cross Section (mm)	Yaklaşık Dış (ap Approx. Outer Diameter (mm)	Bakır Ağırlığı Copper Weight (kg/km)	Yaklaşık Kablo Ağırlığı Approx. Cable Weight (kg/km)
1 x 0,60 + 0,40	5,0	6,9	30
x 0,60 + 0,40	5,5	13,0	40
3 x 2 x 0,60 + 0,40	6,3	18,0	50
4 x 2 x 0,60 + 0,40	6,8	24,0	60
5 x 2 x 0,60 + 0,40	7,2	30,0	70
1 x 2 x 0,80 + 0,40	6,0	11,0	40
2 x 2 x 0,80 + 0,40	7,0	21,0	60
3 x 0,80 + 0,40	8,5	31,0	80
4 x 0,80 + 0,40	9,0	41,0	100
5 x 0,80 + 0,40	9,5	52,0	120



This type of cable are use fixed indoor installations and signal communicaiton. The screen protects the cable core against electrical noises and interferences.

Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bakır iletken / Electrolytic Copper Conductor IEC60 8 Class1
izolasYon / Insulation	PVC Kompaund / PVC Compound
Damar Tanımlama / Core Identification	VDE 0815
(ift / Pair	iki Damarlı Bir (ift Oluşturacak Şekilde Bükülür / 2 Pairs Twisted as Star-Quad
Büküm / Lay-up	4 (ift Bükülerek Bir Grup Olur / 4th Units are Twisted in Layers and Fixed With PES Tapes
Ayrıştırıcı / Separator	PES Bant / PES Tape
Ekran / Screen	Kalaylı Bakır Toprak Teliyle Birlikte Al-Pes Bant - Toprak Teli; phi : 0,80mm Tinned Cu Drain Wire Under the Al-Pes Tape - Ground Wire; phi : 0,80mm
Dış Kılıf / Outer Sheath	PVC Kompaund / PVC Compound

Elektriksel Ölçümler / Electrical Parameters

iletken (evrim Direnci / Loop Resistance	0,80mm : 73,2 Ohm/km, 1,0mm : 43,8 Ohm/km, 1,50mm : 24,2 Ohm/km, 2,50mm : 14,5 Ohm/km		
Test Gerilimi / Test Voltage	800 V		
Etkili Kapasitans / Mutual Capacitance	130 nF/km	Kapasitans Dengesizliği / Capacitance Unbalance	Max. 300 pF / 100mt
Min. Bükülme Yarıçapı / Min. Bending Radius	10 x D	(alışma Sıcaklığı / Temperature Range	-30°C +70°C
(alışma Gerilimi / Operating Voltage	Max. 225 V		
izolasYon Direnci / Insulation Resistance	>100 MOhm.km		

Damar Sayısı x Kesit No of Cores x Cross Section (mm)	Yaklaşık Dış (ap Approx. Outer Diameter (mm)	Bakır Ağırlığı Copper Weight (kg/km)	Yaklaşık Kablo Ağırlığı Approx. Cable Weight (kg/km)
1 x 0,80 + 0,80	5,5	11	35
x 0,80 + 0,80	6,6	21	54
4 x 0,80 + 0,80	8,6	41	90
1 x 2 x 1,00 + 0,80	6,5	19	51
2 x 2 x 1,00 + 0,80	8,0	34	82
1 x x 1,50 + 1,50	7,4	34	76
x x 1,50 + 1,50	8,6	63	125
1 x x ,50 + 1,50	8,3	53	99
x x ,50 + 1,50	10,2	101	165



These cables are used for indoor signal and data transfer installations as well as operator and subscriber distributions. They are easily applied in confined spaces due to their low bending radius. These halogen free cables are flame retardant.



Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bakır iletken / Electrolytic Copper Conductor IEC60 8 Class1
izolasyon / Insulation	HFFR Kompaund / HFFR Compound
izolasyon Renği / Insulation Colour	VDE 0815
(ift / Pair	iki Damarlı Bir (ift Oluşturacak Şekilde Bükülür / 2 Pairs Twisted as Star-Quad
Büküm / Lay-up	(iftler Sabit Adımda Katlar Halinde Bükülür / Pairs Laid Up In Layers of Optimum Pitch
Ayrıştırıcı / Separator	PES Bant / PES Tape
Dış Kılıf / Outer Sheath	HFFR Kompaund / HFFR Compound
Kılıf Renği / Colour of Sheath	RAL 3000 Kırmızı ve ya RAL 7001 Gri / RAL 3000 Red or RAL 7001 Grey

Elektriksel Ölçümler / Electrical Parameters

iletken (evrim Direnci / Loop Resistance	0,60mm : 130 Ohm/km, 0,80mm : 73,2 Ohm/km		
Test Gerilimi / Test Voltage	800 V		
Etkili Kapasitans / Mutual Capacitance	120 nF/km	Kapasitans Dengesizliği / Capacitance Unbalance	Max. 300 pF / 100mt
Min. Bükülme Yarıçapı / Min. Bending Radius	10 x D	(alışma Sıcaklığı / Temperature Range	-30°C +70°C
(alışma Gerilimi / Operating Voltage	300 V	Alev Testi / Flame Test	IEC 60332-3-24 & EN 60332-3-24
izolasyon Direnci / Insulation	>100 MOhm.km	Korozif Gaz Testi / Corrosive Gas Test	IEC 60754-1/2 & EN 50267-2

Dış Yoğunluk Testi / Smoke Density Test	Damar Sayısı x Kesit / No of Cores x Cross Section (mm)	IEC 61034-2 & EN 61034-2 Yaklaşık Dış (aprox. Outer Diameter (mm)	Bakır Ağırlığı / Copper Weight (kg/km)	Yaklaşık Kablo Ağırlığı / Approx. Cable Weight (kg/km)
	2 x 2 x 0,60	4,5	11,0	34
	4 x 2 x 0,60	6,5	23,0	59
	6 x 2 x 0,60	7,0	34,0	74
	10 x 2 x 0,60	8,5	56,0	111
	20 x 2 x 0,60	11,0	113,0	200
	30 x 2 x 0,60	13,5	170,0	284
	2 x 2 x 0,80	6,6	9,6	52
	4 x 2 x 0,80	8,3	39	87
	6 x 2 x 0,80	10,2	58	126
	10 x 2 x 0,80	11,3	96	186
	20 x 2 x 0,80	15,7	192	361
	30 x 2 x 0,80	19,3	288	531



These cables are used as fire alarm cables as an fixed indoor installations. Screen provides protection against electromagnetic interferences. Additionally these cables are suitable for applications at small bending radius. These halogen free cables are flame retardant.

### Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bakır iletken / Electrolytic Copper Conductor IEC60 8 Class1		
izolasyon / Insulation	HFFR Kompaund / HFFR Compound		
Damar Tanımlama / Core Identification	VDE 0815		
(ift / Pair	iki Damarlı Bir (ift Oluşturacak Şekilde Bükülür / 2 Pairs Twisted as Star-Quad		
Büküm / Lay-up	(iftler Sabit Adımda Katlar Halinde Bükülür / Pairs Laid Up In Layers of Optimum Pitch		
Ayrıştırıcı / Separator	PES Bant / PES Tape		
Ekran / Screen	Kalaylı Bakır Toprak Teliyle Birlikte Al-Pes Bant - Toprak Teli; phi : 0,40mm ≤ 10 (ift phi : 0,60 > 10 (ift Tinned Cu Drain Wire Under the Al-Pes Tape - Ground Wire; phi : 0,40mm ≤ 10 Pairs phi : 0,60 > 10 Pairs		
Dış Kılıf / Outer Sheath	HFFR Kompaund / HFFR Compound		
Renk Kodları / Electrical Parameters	RAL 3000 Kırmızı veya RAL 7001 Gri / RAL 3000 Red or RAL 7001 Grey		
iletken (evrim) Direnci / Loop Resistance	0,60mm : 65 Ohm/km, 0,80mm : 36 Ohm/km		
Test Gerilimi / Test Voltage	800 V		
Elektrik Kapasitans / Mutual Capacitance	120 nF/km	Kapasitans Dengesizliği / Capacitance Unbalance	Max. 300 pF / 100mt
Min. Bükülme Yarıçapı / Min. Bending Radius	10 x D	(alışma Sıcaklığı / Temperature Range	-30°C +70°C
(alışma Gerilimi / Operating Voltage	300 V	Alev Testi / Flame Test	IEC 60332-3-24 & EN 60332-3-24
izolasyon Direnci / Insulation Resistance	>100 MOhm.km	Korozif Gaz Testi / Corrosive Gas Test	IEC 60754-1/2 & EN 50267-2
Duman Yoğunluğu Testi / Smoke Density Test	IEC 61034-2 & EN 61034-2		

Damar Sayısı x Kesit No of Cores x Cross Section (mm)	Yaklaşık Dış (ap Approx. Outer Diameter (mm)	Bakır Ağırlığı Copper Weight (kg/km)	Yaklaşık Kablo Ağırlığı Approx. Cable Weight (kg/km)
1 x 0,60 + 0,40	5,0	6,9	30
x 0,60 + 0,40	5,5	13,0	40
3 x 2 x 0,60 + 0,40	6,3	18,0	50
4 x 2 x 0,60 + 0,40	6,8	24,0	60
5 x 2 x 0,60 + 0,40	7,2	30,0	70
1 x 2 x 0,80 + 0,40	6,0	11,0	40
2 x 2 x 0,80 + 0,40	7,0	21,0	60
3 x 0,80 + 0,40	8,5	31,0	80
4 x 0,80 + 0,40	9,0	41,0	100
5 x 0,80 + 0,40	9,5	52,0	120



These cables are used fixed indoor installation and signal transmission. The screen protects the cable core against electrical noises and interferences. Halogen free cables are flame retardent features and low smoke density.



Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bakır iletken / ElectroLYtic Copper Conductor IEC60 8 Class1
izolasYon / Insulation	HFFR Kompaund / HFFR Compound
Damar Tanımlama / Core Identification	VDE 0815
(ift / Pair	iki Damarlı Bir (ift Oluşturacak Şekilde Bükülür / 2 Pairs Twisted as Star-Quad
Büküm / Lay-up	4 (ift Bükülerek Bir Grup Olur / 4th Units are Twisted in Layers and Fixed With PES Tapes
Ayrıştırıcı / Separator	PES Bant / PES Tape
Ekran / Screen	Kalaylı Bakır Toprak Teliyle Birlikte Al-Pes Bant - Toprak Teli; phi : 0,80mm Tinned Cu Drain Wire Under the Al-Pes Tape - Ground Wire; phi : 0,80mm
Dış Kılıf / Outer Sheath	HFFR Kompaund / HFFR Compound
Kılıf Renği / Colour of Sheath	RAL 3000 Kırmızı ve ya RAL 7001 Gri / RAL3000 Red or RAL 7001 Grey

Elektriksel Ölçümler / Electrical Parameters

iletken (evrim Direnci / Loop Resistance	0,80mm :73,2 Ohm/km, 1,0mm: 43,8 Ohm/km, 1,50mm :24,2 Ohm/km, 2,50mm : 14,5 Ohm/km		
Test Gerilimi / Test Voltage	Damar/Damar: 500V & Damar/Ekran : 2000 V / Core/Core: 500V & Core/Screen : 2000 V		
Etkili Kapasitans / Mutual Capacitance	100 nF/km	Kapasitans Dengesizliği / Capacitance Unbalance	Max. 200 pF / 100mt
Min. Bükülme Yarıçapı / Min. Bending Radius	7,5 x D	(alışma Sıcaklığı / Temperature Range	-30°C +70°C
(alışma Gerilimi / Operating Voltage	225 V	Alev Testi / Flame Test	IEC 60332-3-24 & EN 60332-3-24
izolasYon Direnci / Insulation Resistance	IEC 61034-2 & EN 61034-2 >100 MOhm.km	Halogenizik Özellik Testi / Halogen-Free Properties Test	IEC 60754-1/2 & EN 50267-2

Density Test Damar Sayısı x Kesit No of Cores x Cross Section (mm)	Yaklaşık Dış (ap Approx. Outer Diameter (mm)	Bakır Ağırlığı Copper Weight (kg/km)	Yaklaşık Kablo Ağırlığı Cable Weight (kg/km)
1 x 0,80 + 0,80	5,5	11	35
x 0,80 + 0,80	6,6	21	54
4 x 0,80 + 0,80	8,6	41	90
1 x 2 x 1,00 + 0,80	6,5	19	51
2 x 2 x 1,00 + 0,80	8,0	34	82
1 x x 1,50 + 1,50	7,4	34	76
x x 1,50 + 1,50	8,6	63	125
1 x x ,50 + 1,50	8,3	53	99
x x ,50 + 1,50	10,2	101	165





## COMMUNICATION CABLES

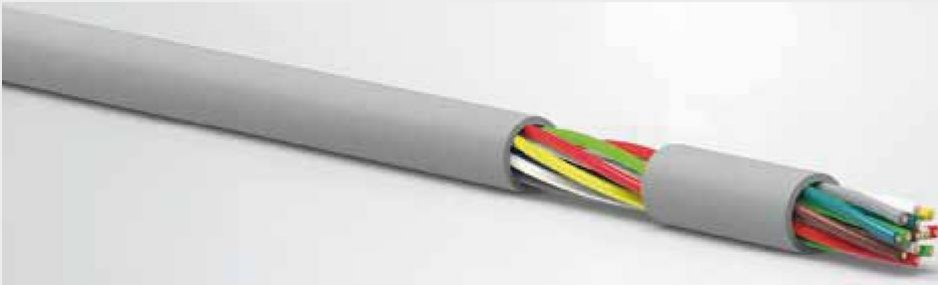
### Dahili Telefon Kabloları Internal Telephone Cables

- 74. VBV / VBV-K
- 75. HBH & HBH-K
- 76. PDV / PDV-K
- 77. VBAPV & VBAPV-K
- 78. HBAPH & HBAPH-K
- 79. BVCT ( Camper Teti )

### Harici Telefon Kabloları External Telephone Cables

- 80. KPD-PAP / PD-PAP
- 81. KPD-AP-A / PD-AP-A
- 82. BPDT
- 83. BAPDT





These cables are used as telephone cables inside the buildings for signal transmission and subscriber distribution purposes. PDV-K has tinned Copper Conductor which this cable is used especially at humidity places.

### Kablo Yapısı / Cable Construction

iletken / Conductor	Cu, Mono; VBV - CuSn Mono; VBV-K
izolasYon / Insulation	PVC Kompaund / PVC Compound
Büküm / Lay-up	ikili Bükülmü3 Damarlar, 0 (ifte Kadar Katlar Şeklinde, 30-100 (ift Arash 10 (iftli Cruplar Şeklinde Bükülür. Bending of the Cores Twisted in Pairs is Conducted as LaYers up to 0 Pairs, in Croup of 10-pairs Between 30 - 100 Pairs
Toprak Teli / Drain Wire	BeYaz renkli PVC üzerine kırmızı ile kodlanmı3 tek damar kullanılır. / Single core is used on white PVC, as coded with red color
DH3 Kılıf / Outer Sheath	PVC Kompaund / PVC Compound
Kılıf Renği / Colour of Sheath	RAL 7032 Gri / RAL 7032 Grey

### Elektriksel Ölçümler / Electrical Parameters

iletken Direnci / Conductor Resistance	97,8 Ohm/km	(alı3ma Cerilimi / Working Voltage	250 V
Test Gerilimi / Test Voltage	1500 V	izolasYon Direnci / Insulation Resistance	>500 MOhm.km
Kapasitans Denşesizliđi / Capacitance Unbalance	400 pF/ 500m	Efektif Kapasitans / Mutual Capacitance	Max. 120 nF/km
Min. Bükölme Yarđıçarı / Min. Bending Radius	7,5 x D	(alı3ma Sıcaklıđı / Temperature Range	-30 °C +70 °C

Kablo Türü / Cable Type VBV / VBVK (mm)	Et Kalınlıđı / Min. Wall Thickness (mm)	Kablo DH3 (ap / App. Overall Diameter (mm)	Yakla3ık Kablo Ağırlıđı / Approx. Cable Weight (kg/km)	Kanđal BoYu / Coil Length (m)
1 x x 0,40 + 0,40	0,9	3,2	15,68	100
x x 0,40 + 0,40	0,9	3,8	18,90	100
3 x x 0,40 + 0,40	1,0	4,4	25,53	100
4 x x 0,40 + 0,40	1,0	4,8	30,08	100
6 x x 0,40 + 0,40	1,0	5,4	38,62	100
10 x x 0,40 + 0,40	1,1	6,6	57,50	100
15 x x 0,40 + 0,40	1,1	7,6	76,68	100
0 x x 0,40 + 0,40	1,2	8,6	98,98	100
30 x x 0,40 + 0,40	1,3	10,2	139,71	100
1 x x 0,50 + 0,50	0,9	3,4	16,50	100
x x 0,50 + 0,50	0,9	4,0	23,40	100
3 x x 0,50 + 0,50	1,0	4,7	31,78	100
4 x x 0,50 + 0,50	1,0	5,2	37,93	100
6 x x 0,50 + 0,50	1,0	5,9	49,59	100
10 x x 0,50 + 0,50	1,1	7,2	74,80	100
15 x x 0,50 + 0,50	1,1	8,3	101,49	100
0 x x 0,50 + 0,50	1,2	9,5	131,57	100
30 x x 0,50 + 0,50	1,3	11,3	187,46	100



These cables used as telephone cables inside the buildings for signal transmission and subscriber distribution purposes. HBH-K has tinned Copper Conductor which this cable is used especially at humidity places. These cables environments which have no corrosive gases are emitted in the event of fire.



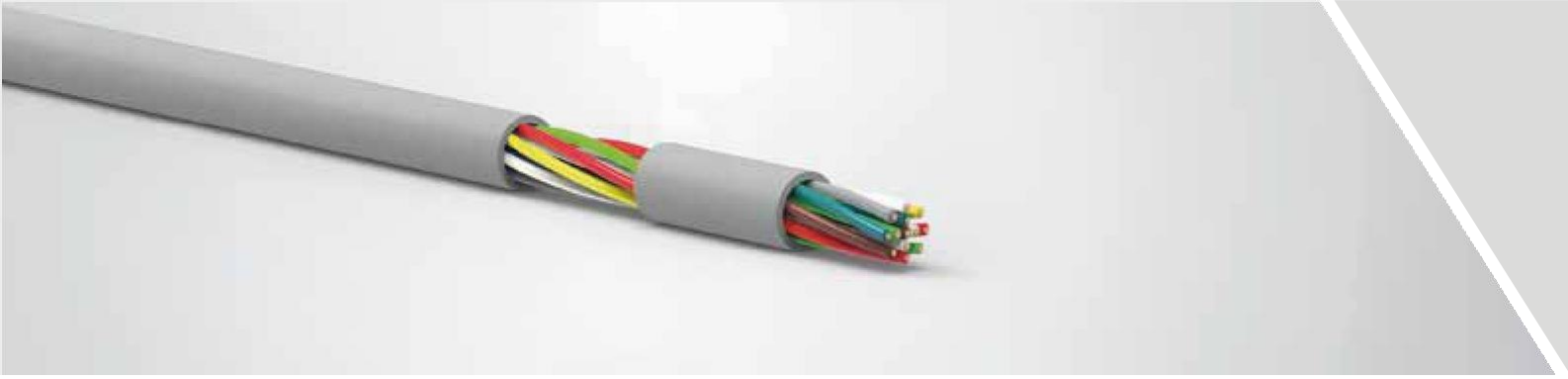
**Kablo Yapısı / Cable Construction**

iletken / Conductor	Cu, Mono; HBH - CuSn Mono; HBH-K
izolasyon / Insulation	HFFR Kompound / HFFR Compound
Büküm / Lay-up	ikili Bükülmü3 Damarlar, 0 (ifte Kadar Katlar Şeklinde, 30-100 (ift Arası 10 (iftli Çuplar Şeklinde Bükülür. Bending of the Cores Twisted in Pairs is Conducted as Layers up to 0 Pairs, in Group of 10-pairs Between 30 - 100 Pairs
Toprak Teli / Drain Wire	BeYaz renkli PVC üzerine kırmızı ile kodlanmı3 tek damar kullanılır. / Single core is used on white PVC, as coded with red color
Dış Kılıf / Outer Sheath	HFFR Kompound / HFFR Compound
Kılıf Renği / Colour of Sheath	RAL 7032 Gri / RAL 7032 Grey

**Elektriksel Ölçümler / Electrical Parameters**

iletken Direnci / Conductor Resistance	97,8 Ohm/km	(alışma Gerilimi / Working Voltage	250 V
Kapasitans Dengesizliği / Capacitance Unbalance	400 pF/ 500m	izolasyon Direnci / Insulation Resistance	>500 MOhm.km
Alev Testi / Flame Test	IEC 60332-3-24 & EN 60332-3-24	Etkili Kapasitans / Mutual Capacitance	Max. 120 nF/km
Duman Yoğunluğu Testi / Smoke density test	IEC 61034-2 & TS/DIN EN 61034-2	(alışma Sıcaklığı / Temperature Range	-30° C +70° C
Halogen Özgünlük Testi / Halogen-Free Properties Test	IEC60754-1/2 & TS/DIN EN 50267-2	Min. Bükülme Yarıçapı / Min.Bending Radius	7,5 x D
		Test Gerilimi / Test Voltage	1500 V

Kablo Türü / Cable Type HBH / HBH-K (mm)	Et Kalınlığı / Min. Wall Thickness (mm)	Kablo Dış (ap / App. Overall Diameter (mm)	Kablo Ağırlığı / App. Net Weight (kg/km)	Kanıl BoYu / Coil Length (m)
1 x x 0,40 + 0,40	0,9	3,2	15,68	100
x x 0,40 + 0,40	0,9	3,8	18,90	100
3 x x 0,40 + 0,40	1,0	4,4	25,53	100
4 x x 0,40 + 0,40	1,0	4,8	30,08	100
6 x x 0,40 + 0,40	1,0	5,4	38,62	100
10 x x 0,40 + 0,40	1,1	6,6	57,50	100
15 x x 0,40 + 0,40	1,1	7,6	76,68	100
0 x x 0,40 + 0,40	1,2	8,6	98,98	100
30 x x 0,40 + 0,40	1,3	10,2	139,71	100
1 x x 0,50 + 0,50	0,9	3,4	16,50	100
x x 0,50 + 0,50	0,9	4,0	23,40	100
3 x x 0,50 + 0,50	1,0	4,7	31,78	100
4 x x 0,50 + 0,50	1,0	5,2	37,93	100
6 x x 0,50 + 0,50	1,0	5,9	49,59	100
10 x x 0,50 + 0,50	1,1	7,2	74,80	100
15 x x 0,50 + 0,50	1,1	8,3	101,49	100



These cables are used as telephone cables inside the buildings for signal transmission and subscriber distribution purposes. PDV-K has tinned Copper Conductor which this cable is used especially at humidity places.

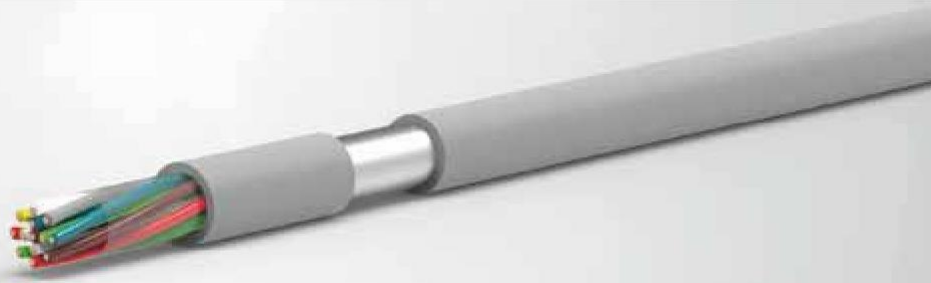
Kablo Yapısı / Cable Construction

iletken / Conductor	Cu, Mono; PDV - CuSn Mono; PDV-K
izolasYon / Insulation	PE
Büküm / Lay-up	(iftler ve Onlu Cruplar Halinde Bükülür. / Cables up to (included) 10Pairs Laid up in Layers.
Toprak Teli / Drain Wire	BeYaz renkli PVC üzerine kırmızı ile kodlanm3 tek damar kullanılır. / Single core is used on white PVC, as coded with red color
Dış Kılıf / Outer Sheath	PVC Kompaund / PVC Compound
Kılıf Renği / Colour of Sheath	RAL 7032 Gri / RAL 7032 Grey

Elektriksel Ölçümler / Electrical Parameters

iletken Direnci / Conductor Resistance	97,8 Ohm/km	(alışma Gerilimi / Working Voltage)	250 V
Test Gerilimi / Test Voltage	1500 V	izolasYon Direnci / Insulation Resistance	>500 MOhm.km
Kapasitans Dengesizliği / Capacitance Unbalance	400 pF/ 500m	Etkif Kapasitans / Mutual Capacitance	Max. 56 nF/km
Min. Bükülme Yarçapı / Min.Bending Radius	2r	(alışma Sıcaklığı / Temperature Range	-30 °C +70 °C

Kablo Türü / Cable Type PDV / PDV-K (mm)	Yaklaşık Dış (ap Approx. Outer Diameter (mm)	Yaklaşık Kablo Ağırlığı / Approx. Cable Weight (kg/km)
2 x 2 x 0,50	3,6	22
4 x 2 x 0,50	4,5	36
6 x 2 x 0,50	5,6	51
10 x 2 x 0,50	6,7	75
20 x 2 x 0,50	9,2	145
30 x 2 x 0,50	10,6	210
50 x 2 x 0,50	12,8	330
100 x 2 x 0,50	18,9	630
150 x 2 x 0,50	22,5	965
200 x 2 x 0,50	25,0	1285



These indoor telephone cables used in switchboard and subscriber distribution systems. The screen layer protects the cable against electromagnetic interference.



Kablo Yapısı / Cable Construction

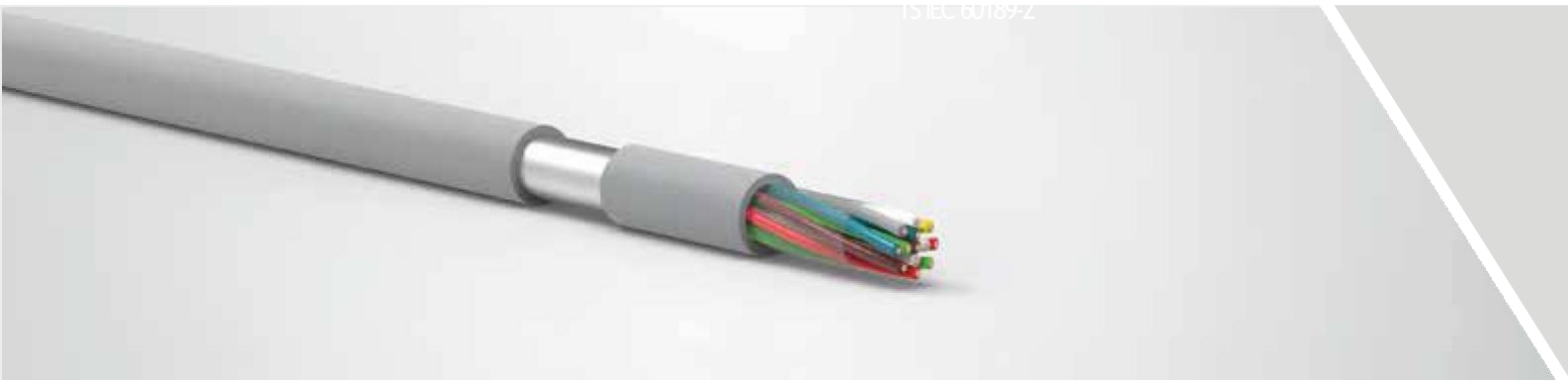
iletken / Conductor	Cu, Mono; VBAPV - CuSn Mono; VBAPV-K
izolasYon / Insulation	PVC Kompaund / PVC Compound
Büküm / Lay-up	ikili Bükülmü3 Damarlar, 0 (ifte Kadar Katlar Şeklinde, 30-100 (ift Arash 10 (iftli Cruplar Şeklinde Bükülür ve PES Bant ile sabitlenir. Twisted Pairs Cores are, up to 20 Pairs in Layers, Between 30-100 Pairs, 10 Pairs in Groups With PES Tape.
Ekran / Screen	Kalaylı Bakır Toprak Teliyle Birlikte Al-Pes Bant - Toprak Teli; phi : 0,50mm Tinned Cu Drain Wire Under the Al-Pes Tape - Ground Wire; phi : 0,50mm
DN3 Kılıf / Outer Sheath	PVC Kompaund / PVC Compound
Kılıf Renği / Colour of Sheath	RAL 7032 Gri / RAL 7032 Grey

Elektriksel Ölçümler / Electrical Parameters

iletken Direnci / Conductor Resistance	97,8 Ohm/km	(alışma Gerilimi / Working Voltage	250 V
Test Gerilimi / Test Voltage	1500 V	izolasYon Direnci / Insulation Resistance	>500 MOhm.km
Kapasitans Dengesizliđi / Capacitance Unbalance	400 pF/500m	Etkif Kapasitans / Mutual Capacitance	Max. 120 nF/km
Min. Bükölme Yarlıçarı / Min.Bending Radius	7,5 x D Range	(alışma Sıcaklıđı / Temperature	-30°C +70°C

Kablo Türü / Cable Type VBAPV / VBAPV-K (mm)	Yaklaşık DN3 (ap Approx. Outer Diameter (mm)	Bakır Ağırlığı Copper Weight (kg/km)	Yaklaşık Kablo Ağırlığı Cable Weight (kg/km)
1 x x 0,50 + 0,50	3,7	7,4	21
x x 0,50 + 0,50	4,6	11	29
3 x x 0,50 + 0,50	4,9	14,8	35
4 x x 0,50 + 0,50	5,4	18,5	45
5 x x 0,50 + 0,50	5,8	22,2	51
6 x x 0,50 + 0,50	6,5	26,0	60
10 x x 0,50 + 0,50	7,6	41,0	90
0 x x 0,50 + 0,50	10,4	78,0	160
30 x x 0,50 + 0,50	12,3	115,0	225
50 x x 0,50 + 0,50	15,6	189,0	350
100 x x 0,50 + 0,50	21,8	379,0	660
150 x x 0,50 + 0,50	25,3	568,0	1000
00 x x 0,50 + 0,50	30,4	757,0	1350





These indoor telephone cables used in switchboard and subscriber distribution systems. The screen layer protects the cable against electromagnetic interference. These cables with halogenfree flame retardant characteristic due to their structures are used in buildings, where there is crowded places. They have low smoke density and they don't emit poisonous and corrosive gases during a fire.

**Kablo Yapısı / Cable Construction**

iletken / Conductor	Cu, Mono; HBAPH - CuSn Mono; HBAPH-K
izolasyon / Insulation	HFFR Kompaund / HFFR Compound
Büküm / Lay-up	ikili Bükülmü3 Damarlar, 0 (ifte Kadar Katlar Şeklinde, 30-100 (ift Arash 10 (iftli Cruplar Şeklinde Bükülür ve PES Bant ile sabitlenir. Twisted Pairs Cores are, up to 20 Pairs in Layers, Between 30-100 Pairs, 10 Pairs in Groups With PES Tape.
Ekran / Screen	Kalaylı Bakır Toprak Teliyle Birlikte Al-Pes Bant - Toprak Teli; phi : 0,50mm Tinned Cu Drain Wire Under the Al-Pes Tape - Ground Wire; phi : 0,50mm
DH3 Kılıf / Outer Sheath	HFFR Kompaund / HFFR Compound

**Elektrik Parametreleri / Electrical Parameters**

RAL 7032 Gri / RAL 7032 Grey

iletken Direnci / Conductor Resistance	97,8 Ohm/km	(alı3ma Cerilimi / Working Voltage	250 V
Kapasitans Dengesizliđi / Capacitance Unbalance	400 pF/ 500m	izolasyon Direnci / Insulation Resistance	>500 MOhm.km
Alev Testi / Flame Test	IEC 60332-3-24 & EN 60332-3-24	Etkif Kapasitans / Mutual Capacitance	Max. 120 nF/km
Duman Yođunluđu Testi / Smoke density test	IEC 61034-2, EN 61034-2	(alı3ma Sıcaklıđın / Temperature Range	-30° C +70° C
Halojen Gazı Tayini / Corrosive Gas Test	IEC 60754-1, EN 50267-2	Min. Bükülme Yarıđıçapı / Min.Bending Radius	7,5 x D
Test Gerilimi / Test Voltage			1500 V

Kablo Türü / Cable Type HBAPH/HBAPH-K (mm)	Yakla3ık DH3 (ap Approx. Outer Diameter (mm)	Bakır Ađırlıđı Copper Weight (kg/km)	Yakla3ık Kablo Ađırlıđı Cable Weight (kg/km)
1 x x 0,50 + 0,50	3,7	7,4	21
x x 0,50 + 0,50	4,6	11,1	29
3 x x 0,50 + 0,50	4,9	14,8	35
4 x x 0,50 + 0,50	5,4	18,5	45
5 x x 0,50 + 0,50	5,8	22,2	51
6 x x 0,50 + 0,50	6,5	26,0	60
10 x x 0,50 + 0,50	7,6	41,0	90
0 x x 0,50 + 0,50	10,4	78,0	160
30 x x 0,50 + 0,50	12,3	115,0	225
50 x x 0,50 + 0,50	15,6	189,0	350
100 x x 0,50 + 0,50	21,8	379,0	660
150 x x 0,50 + 0,50	25,3	568,0	1000
00 x x 0,50 + 0,50	30,4	757,0	1350



These cables are used in telephone stations and bogger as coonection cables.



Kablo Yapısı / Cable Construction

0,60 mm iletken / Conductor	KalaYlı Solid Elektrolitik Bakır Tel / Tinned Solid ElectroLYtic Copper Wire
.00 mm izolasYon / Insulation	PVC, Sarh-Siyah ve Mavi-BeYaz / PVC, Yellow-Black & Blue-White
Büküm / Lay-up	izole Edilmİ3 iki iletken Beraber Bükülür / Two Cores Twisted Together to Form a Pair

Elektriksel Ölçümler / Electrical Parameters

iletken Direnci / Conductor Resistance	66 Ohm/km	izolasYon Direnci / Insulation Resistance	>200 MOhm.km
Test Gerilimi / Test Voltage	2100 V DC - 1000 V AC		

Grup içindeki dörtlülerin yalıtkan renkleri / Insulation colours of quads in Sub unit

Dörlü No / Nr. Of Quads	A Teli / A Wire	B Teli / A Wire	C Teli / A Wire	D Teli / A Wire
1	BeYaz / White	Mavi / Blue	Kırmızı / Red	Siyah / Black
2		Turuncu / Orange		
3		Ye3il / Geen		
4		Kahverengi/ Brown		
5		Gri / Grey		

Grup ve paketlerin bağ şeridi renkleri / Colours of binding tapes for Sub units and units

Grup/Pk.No. / Grup-Pk.No.	Renk Kodu / Colour Code	Grup/Pk.No. / Grup-Pk.No.	Renk Kodu / Colour Code
1	Mavi / Blue	10	BeYaz - Cri / White - Grey
2	Turuncu / Orange	11	Sarh - Mavi / Yellow - Blue
3	Ye3il / Geen	12	Sarh - Turuncu / Yellow - Orange
4	Kahverengi/ Brown	13	Sarh - Ye3il / Yellow - Green
5	Gri / Grey	14	Sarh -Kahverengi / Yellow -Brown
6	BeYaz - Mavi / White - Blue	15	Sarh - Cri / Yellow - Grey
7	BeYaz - Turuncu / White - Orange	16	Menek3e - Mavi / Violet - Blue
8	BeYaz - Ye3il / White - Green	17	Menek3e - Turuncu / Violet - Orange
9	BeYaz - Kahverengi / White - Brown	18	Menek3e - Ye3il / Violet - Green



They are used in the connection and distribution networks of the telephone switchboards, subscribers distribution networks and signal and control circuits. They are installed either in trenches, PVC or concrete conduits or buried directly in the soil.

Kablo Yapısı / Cable Construction

iletken / Conductor	Tavlın Bakır iletken, Mono: IEC 600 8 / Annealed Copper Conductor, Solid: IEC 60028
izolasYon / Insulation	PE Kompaund / PE Compound
Damar Tanımlama / Core Identification	IEC 708'e göre / According to IEC 708
Büküm / Lay-up	10 (ifte Kadar Yıldız Dörtlü Büküm, 10 (iftten Sonra 5 Yıldız Dörtlü Büküm Bir Grup ve 5 YeYa 10 Grup Bükümü Bir Paket) Up to 10 pairs Laid Up as Star-Quads After 10 Pair, 5 Star Quads Laid Up to a Sub unit and 5 or 10 Sub Unit Laid Up to a Unit
Ayrıştırıcı / Separator	PES Bant / PES Tape
iç Kılıf / Inner Sheath	PE Kompaund / PE Compound
Ekran / Screen	Lamineli Alüminyum FolYo / Laminated Aluminium Foil
Dış Kılıf / Outer Sheath	PE Kompaund / PE Compound

Elektriksel Ölçümler / Electrical Parameters

iletken Direnci / Conductor Resistance	144 (0,4mm) -93 (0,5mm) -64,6 (0,6mm)
izolasYon Direnci / Insulation Resistance	>10000 MOhm.km (0,4mm & 0,5mm) ->15000 MOhm.km (0,6mm)
Kapasitans Dengesizliği / Capacitance Unbalance	150 pF / 500 mt
Etkili Kapasitans / Mutual Capacitance	55 nF/km
Perler Arası / Between Quads	Max Ortalama / Max Average
(alışma Gerilimi / Working Voltage	300 V
(alışma Sıcaklığı / Temperature Range	-30°C +70°C
Test Gerilimi / Test Voltage	1200V (0,4mm) -1200 V (0,5mm) -2000V (0,6mm)
Min. Bükülme Yarıçapı / Min. Bending Radius	15 x D

Kablo Türü / Cable Type KPD-PAP / PD-PAP (mm)	Yaklaşık Dış (ap Approx. Outer Diameter (mm)	Bakır Ağırlığı Copper Weight (kg/km)	Yaklaşık Kablo Ağırlığı Approx. Cable Weight (kg/km)
10 x 2 x 0,40	9,9	25	95
20 x 2 x 0,40	11,5	50	141
30 x 2 x 0,40	13,1	72	182
50 x 2 x 0,40	15,0	120	250
10 x 2 x 0,50	10,8	39	120
20 x 2 x 0,50	12,9	76	180
30 x 2 x 0,50	14,8	113	240
10 x 2 x 0,60	11,9	55	150
20 x 2 x 0,60	14,4	108	230
30 x 2 x 0,60	16,8	160	315



These cables are used external local networks between poles. 0,50 mm cables are used for short distances while, 0,60 mm and 0,90 mm cables are used for long distance.



Kablo Yapısı / Cable Construction

iletken / Conductor	Tavlın Bakır iletken, Mono: IEC 600 8 / Annealed Copper Conductor, Solid: IEC 60028
izolasyon / Insulation	PE Kompaund / PE Compound
Damar Tanımlama / Core Identification	IEC 708'e göre / According to IEC 708
Büküm / Lay-up	10 (ifte Kadar Yıldız Dörtlü Büküm, 10 (iftten Sonra 5 Yıldız Dörtlü Büküm Bir Grup ve 5 VeYa 10 Grup Bükümü Bir Paket Up to 10 pairs Laid Up as Star-Quads After 10 Pair, 5 Star Quads Laid Up to a Sub unit and 5 or 10 Sub Unit Laid Up to a Unit
Ayrıştırıcı / Separator	PES Bant / PES Tape
iç Kılıf / Inner Sheath	PE Kompaund / PE Compound
Ekran / Screen	Lamineli Alüminyum Folyo / Laminated Aluminium Foil
Askı Teli / Suspension Wire	Galvanizli Bükülü (elik Tel) / Galvanised Stranded Steel Wire
Dış Kılıf / Outer Sheath	PE Kompaund / PE Compound

Elektriksel Ölçümler / Electrical Parameters

iletken Direnci / Conductor Resistance	144 (0,4mm) -93 (0,5mm) -64,6 (0,6mm)
izolasyon Direnci / Insulation Resistance	>10000 MOhm.km KM (0,4mm & 0,5mm) ->15000 MOhm.km (0,6mm)
Kapasitans Dengelessness / Capacitance Unbalance	150 pF/500 mt
Etkili Kapasitans / Mutual Capacitance	55 nF/km
Perler Arası / Between Quads	Max Ortalama / Max Average
(alışma Gerilimi / Working Voltage	300 V
(alışma Sıcaklığı / Working Temperature	-30° C +70° C
Test Gerilimi / Test Voltage	1200V (0,4mm) -1200 V (0,5mm) -2000V (0,6mm)

Kablo Türü / Cable Type KPD-AP-A / PD-AP-A (mm)	Geniçlik x Yükseklik Width x Height (mm)	Bakır Ağırlığı Copper Weight (kg/km)	Yaklaşık Kablo Ağırlığı Approx. Cable Weight (kg/km)
10 x 2 x 0,40	8,2 x 17,0	25	145
20 x 2 x 0,40	9,9 x 18,7	50	184
30 x 2 x 0,40	11,4 x 20,3	72	220
10 x 2 x 0,50	9,2 x 18,7	39	190
20 x 2 x 0,50	11,2 x 20,7	76	245
30 x 2 x 0,50	13,2 x 22,7	113	300
10 x 2 x 0,60	10,3 x 19,7	55	215
20 x 2 x 0,60	12,7 x 22,2	108	290
30 x 2 x 0,60	15,1 x 25,2	160	390

EXTERNAL TELEPHONE CABLES

KABLO TİPİ / CABLE TYPE  
BPDT



These cables are used for connecting subscribers premises with distribution poles.

Kablo Yapısı / Cable Construction

iletken / Conductor	Sert Kalaylı Solid Elektrolitik Bakır / Tinned Solid Copper
izolasyon / Insulation	PE
izolasyon Renği / Colour of Insulation	Siyah / Black

Elektriksel Ölçümler / Electrical Parameters

iletken Direnci / Conductor Resistance	0,80 mm 36.8 OHM/KM (max.) - 1,00 mm 23.4 Ohm/km (max.)
izolasyon Direnci / Insulation Resistance	>10000 MOhm.km
Test Gerilimi / Test Voltage	4000 V

Kablo Türü / Cable Type BP- DT (mm)	Yaklaşık DH3 (ap Approx. Outer Diameter (mm)	Bakır Ağırlığı Copper Weight (kg/km)	Yaklaşık Kablo Ağırlığı Approx. Cable Weight (kg/km)
2 x 0,80	2 x 2,80	17	21
2 x 1,00	2 x 3,00	23	27





These cables are used for telephone distribution networks, diaphone installation and inside building communication applications.



**Kablo Yapısı / Cable Construction**

iletken / Conductor	Sert Kalaylı Solid Elektrolitik Bakır / Tinned Solid Copper
izolasyon / Insulation	PE
Askı Teli / Suspension Wire	Galvanizli (elik Tel / Galvanised Steel Wire
izolasyon Rengi / Colour of Insulation	Siyah / Black

**Elektriksel Ölçümler / Electrical Parameters**

iletken Direnci / Conductor Resistance	0,80 mm 36.8 Ohm/km (max.) - 1,00 mm 23.4 Ohm/km (max.)
izolasyon Direnci / Insulation Resistance	>10000 MOhm.km
Test Gerilimi / Test Voltage	5600 V

Kablo Türü / Cable Type BP-DT (mm)	Yaklaşık Dış (ap Approx. Outer Diameter (mm)	Bakır Ağırlığı (kg/km) Copper Weight (kg/km)	Yaklaşık Kablo Ağırlığı (kg/km) Approx. Cable Weight (kg/km)
2 x 0,80	x ,80 + 3, 0	17	36
2 x 1,00	x 3,00 + 3,40	23	46



## VOCALIZATION CABLES

Hoparlör Kabloları  
Speaker Cables

- 86. Twinaxial Kablolar / Twinaxial Cables
- 87. (ok Damarlı Hoparlör Kabloları / Multi-Core Speaker Cables
- 88. Standart Yassı Kablolar / Standard Flat Cables
- 89. Profesyonel Yassı Kablolar / Professional Flat Cables

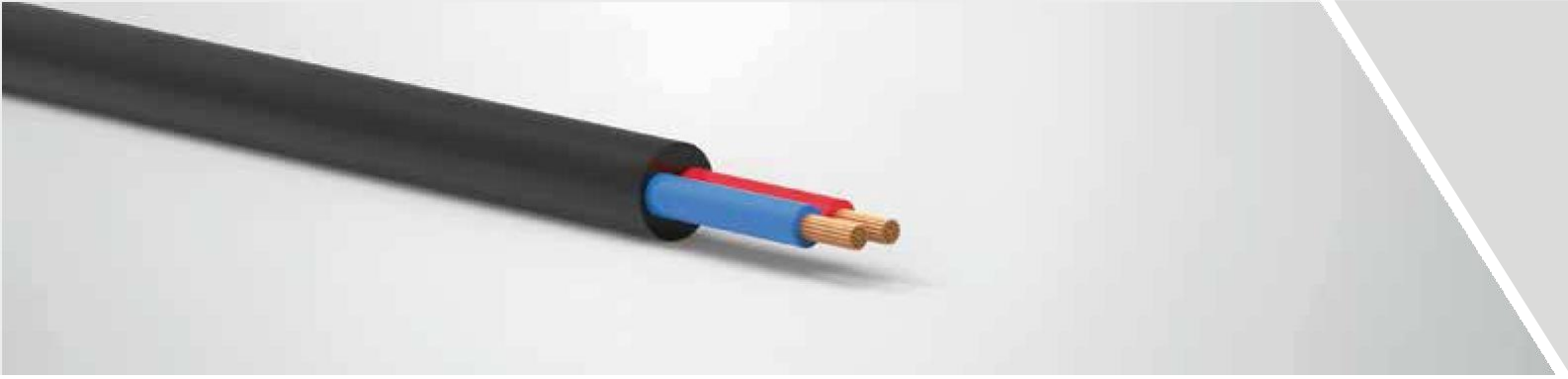
Mikrofon Kabloları  
Microphone Cables

- 90. Mono (Denksiz) Mikrofon Kabloları / Mono (Unbalanced) Microphone Cable
- 91. Stereo (Denkeli) Mikrofon Kabloları / Stereo (Balanced) Microphone Cable



SPEAKER CABLES

/ CABLE TYPE  
Twinaxial Cables



These cables are highly flexible and unbalanced cables used in flexible application.

Kablo Yapısı / Cable Construction

İç İletken / Inner Conductor	TS EN 60 8 S1Hf 6 Elektrolitik - ince (ok Telli Tavlı Bakır / TS EN 60228 Class 6 Electrolytic - Stranded Annealed Copper		
izolasyon / Insulation	Esnek PVC Kompaund / Flexible PVC Compound		
izolasyon Renği / Insulation Colours	Mavi, Kırmızı / Blue, Red		
Kılıf / Sheath	Esnek PVC Kompaund / Flexible PVC Compound		
Kılıf Renği / Sheath Colours	Siyah, Gri / Black, Grey		
Standart Uzunluk / Standart Packing	100 - 500 - 1000 m		

Elektriksel Ölçümler / Electrical Parameters

izolasyon Direnci / Insulation Resistance	>100 MOhm.km	Test Gerilimi / Test Voltage	2000 V
(alışma Sıcaklığı / Temperature Range	-30°C +70 °C	(alışma Gerilimi / Operating Voltage	300 V
Min. Bükülme Yarıçapı / Min. Bending Radius	5 x D		

Kesit / Cross Section	Kablo (apı / Sheath Diameter (mm)	Bakır Ağırlığı / Cable Weight (kg/km )	Kablo Ağırlığı / App. Net Weight (kg/km)	Standart Uzunluk / Standard Packing
2 x 1,5 mm <sup>2</sup>	7,20	26	80	100 / 500 / 1000
x ,5 mm <sup>2</sup>	8,00	45	96	100 / 500 / 1000
x 4,0 mm <sup>2</sup>	9,60	72	145	100 / 500 / 1000



These cables are used in telephone stations and bogger as coonection cables.



Kablo Yapısı / Cable Construction

İç İletken / Inner Conductor	TS EN 60 8 Snnhf 6 Elektrolitik - ince (ok Telli Tavlı Bakır / TS EN 60 8 Class 6 Electrolytic - Stranded Annealed Copper		
İzolasYon / Insulation	Esnek PVC Kompaund / Flexible PVC Compound		
İzolasYon Renği / Insulation Colours	Mavi, Kırmızı, Mavi-BeYaz, Kırmızı-BeYaz / Blue, Red, Blue-White, Red-White		
Kılıf / Sheath	Esnek PVC Kompaund / Flexible PVC Compound		
Kılıf Renği / Sheath Colours	Siyah, Fıme / Black, Grey		
Standart Uzunluk / Standart Packing	100 - 500 - 1000 m		

Elektriksel Ölçümler / Electrical Parameters

İzolasYon Direnci / Insulation Resistance	>200 MOhm.km	Test Gerilimi / Test Voltage	2000 V
(аһ3ма Sнсаклһфн / Temperature Range	-30°C +70 °C	(аһ3ма Cerilimi / Operating Voltage	300 V
Min. Bükülme Yarçapı / Min. Bending Radius	5 x D		

Kesit / Cross Section	Kablo (арн / Sheath Diameter (mm)	Ваһнр Афнрлһфн / Cable Weight (kg/km )	Kablo Афнрлһфн / App. Net Weight (kg/km )	Standart Uzunluk / Standard Packing
4 x 1,5 mm <sup>2</sup>	8,50	52	128	100 / 500 / 1000
4 x ,5 mm <sup>2</sup>	9,90	90	178	100 / 500 / 1000
6 x ,5 mm <sup>2</sup>	11,60	135	275	100 / 500 / 1000
8 x ,5 mm <sup>2</sup>	13,00	180	360	100 / 500 / 1000
4 x 4,0 mm <sup>2</sup>	11,50	144	277	100 / 500 / 1000



The conductor size of this type cable changes between 0.5mm<sup>2</sup> and 4.00 mm<sup>2</sup>. They show high performance in audio band.

**Kablo Yapısı / Cable Construction**

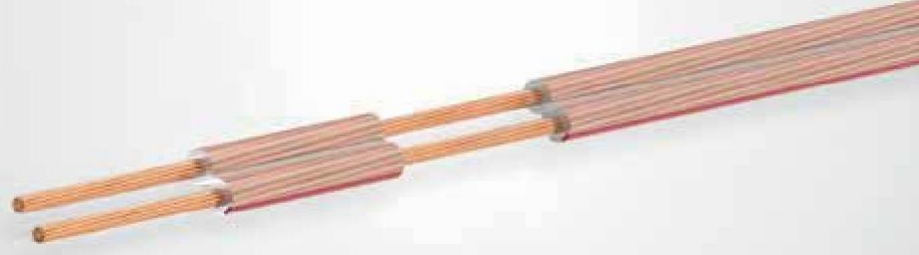
İç İletken / Inner Conductor	TS EN 60 8 Sınıf 6 Elektrolitik - ince (ok Tellî Tavlı Bakır / TS EN 60 8 Class 6 Electrolytic - Stranded Annealed Copper
İzolasYon / Insulation	PVC Kompaund / PVC Compound
Kılıf Renği / Sheath Colours	Siyah-Kırmızı / Black-Red
Standart Uzunluk / Standart Packing	100 - 500 - 1000 m

**Elektriksel Ölçümler / Electrical Parameters**

İzolasYon Direnci / Insulation Resistance	>100 MOhm.km	Test Gerilimi / Test Voltage	1000 V
(alışma Sıcaklığı / Temperature Range	-30 °C +70 °C	(alışma Gerilimi / Operating Voltage	300 V
Min. Bükülme Yarıçapı / Min. Bending Radius	10 x D		

Kesit / Cross Section	Kablo (apı / Sheath Diameter (mm)	Bakır Ağırlığı / Cable Weight (kg/km)	Kablo Ağırlığı / App. Net Weight (kg/km)	Standart Uzunluk / Standard Packing
2 x 1,5mm <sup>2</sup>	3,4 x 7,2	27	50	100 / 500 / 1000
x 4,0mm <sup>2</sup>	3,8 x 8,0	72	98	100 / 500 / 1000





This type of high performance cable are designed for use on studio monitor and hi-fi systems. The outer sheath is made from PVC and core conductor material is finely stranded oxygen free copper.



Kablo Yapısı / Cable Construction

İç İletken / Inner Conductor	TS EN 60 8 Sınıf 6 Elektrolitik - ince (ok Telli Tavlı Bakır / TS EN 60 8 Class 6 Electrolytic - Stranded Annealed Copper		
İzolasyon / Insulation	PVC Kompaund / PVC Compound		
Kılıf Renği / Sheath Colours	Şeffaf-Kırmızı Kodlu / Transparent-Red Striped		
Standart Uzunluk / Standart Packing	100 - 500 - 1000 m		

Elektriksel Ölçümler / Electrical Parameters

İzolasyon Direnci / Insulation Resistance	>100 MOhm.km	Test Gerilimi / Test Voltage	1000 V
(alıñma Sıcaklıđı / Temperature Range	-30 °C +70 °C	(alıñma Cerilimi / Operating Voltage	300 V
Min. Bükölme Yarđıçapı / Min. Bending Radius	10 x D		

Kesit / Cross Section	Kesit Alanı / Cross Area (mm)	Bakır Ağırlığı / Cable Weight (kg/km)	Kablo Ağırlığı / App. Net Weight (kg/km)	Standart Uzunluk / Standard Packing
x 0,75mm <sup>2</sup>	42 x 0,15	14	25	100 / 500 / 1000
2 x 1,50mm <sup>2</sup>	84 x 0,15	28	44	100 / 500 / 1000
x ,50mm <sup>2</sup>	140 x 0,15	46	67	100 / 500 / 1000
x 4,00mm <sup>2</sup>	224 x 0,15	74	106	100 / 500 / 1000
x 6,00mm <sup>2</sup>	343 x 0,15	112	164	100 / 500 / 1000

MICROPHONE CABLES

Mono (Unbalanced) Microphone Cable



Used for low level microphone and musical instrument connections. They have low impedances, are resistant to mechanical impact and are flexible. These cables, which are protected against interference, are ideal for use in stage applications, where mechanic noise is high.

Kablo Yapısı / Cable Construction

iletken / Conductor	0, mm <sup>2</sup> ( 7 x 0, 0 mm ),
izolasyon 1 / Insulation 1	PE
izolasyon (aφn / Insulation Diameter	1,50 mm
Ekran / Screen	Bakır Tellerden Sarma Ekran 100% / Screen of Copper Wire Wrapping 100%
Kablo Dış (aφn / External Diameter	0, mm <sup>2</sup> : 6, 0 mm,
Kılıf / Sheath	PVC
Yaklaşık Ağırlık / Approx. Weight	45 kg
Ambalaj / Standard Length	100 m

Elektriksel Ölçümler / Electrical Parameters

iletken Direnci / Conductor Resistance	<85 Ohm/km
izolasyon Direnci / Insulation Resistance	> 3200 Ohm.km
Kapasitans / Capacitance	<115 nF/km
(alışma Sıcaklığı / Temperature Range	-30 °C +70 °C
(alışma Gerilimi / Operating Voltage	1100 V
Test Gerilimi / Test Voltage	2500 V
Min. Bükülme (aφn (Sabit) / Min. Bending Radius (Fixed Laying)	5 x D
Min. Bükülme (aφn (Hareketi) / Min. Bending Radius (Flexible)	10 x D



Used for low level microphone and musical instrument connections. They have low impedances, are resistant to mechanical impact and are flexible. These cables, which are protected against interference, are ideal for use in stage applications, where mechanic noise is high.



#### Kablo Yapısı / Cable Construction

iletken / Conductor	0, mm <sup>2</sup> ( 8 x 0,10 mm ), 0,34 mm <sup>2</sup> ( 4 x 0,10 mm )
izolasYon 1 / Insulation 1	PE
izolasYon (arH / Insulation Diameter	0, mm <sup>2</sup> : 1,45 mm, 0,34 mm <sup>2</sup> : 1,55 mm
izolasYon Renkleri / Insulation Colours	Mavi, KHRmhZH / Blue, Red
Büküm / Stranding	Damarlar, Pamuk iplerle Birlikte / Cores are Together With Cotton Rope
Ekran / Screen	Bakır Tellerden Sarma Ekran 100% / Screen of Copper Wire Wrapping 100%
Kablo Dış (arH / External Diameter	0, mm <sup>2</sup> : 6,40 mm, 0,34 mm <sup>2</sup> : 6,60 mm
Kılıf / Sheath	PVC
Yaklaşık Ağırlık / Approx. Weight	0, mm <sup>2</sup> : 53 kφ, 0,34 mm <sup>2</sup> : 57 kφ
Ambalaj / Standard Length	100 - 250 - 500 m

#### Elektriksel Ölçümler / Electrical Parameters

iletken Direnci / Conductor Resistance	0, mm <sup>2</sup> : <90 Ohm/km, 0,34 mm <sup>2</sup> : <57 Ohm/km
izolasYon Direnci / Insulation Resistance	> 5000 Ohm.km
Kapasitans ( Damar / Damar ) / Capacitance ( Core/Core )	0, mm <sup>2</sup> : <68 nf/km, 0,34 mm <sup>2</sup> : <58 nF/km
(alışma Sıcaklık / Temperature Range	-30 °C +70 °C
(alışma Gerilimi / Operating Voltage	300 V
Test Gerilimi / Test Voltage	2000 V
Min. Bükülme (arH (Sabit) / Min. Bending Radius (Fixed Laying)	5 x D
Min. Bükülme (arH (Hareketi) / Min. Bending Radius (Flexible)	10 x D



## FIRE RESISTANT CABLES

FE180 Tipi Kablolar  
FE180 Type Cables

94. LIHH FE180 PH120 E90
95. LIHH-TP FE180 PH120 E90
96. LIHCH FE180 PH120 E90
97. LIHCH-TP FE180 PH120 E90
98. LIH(St)H FE180 PH120 E90
99. LIH(St)H-TP FE180 PH120 E90
100. LIH(St)CH FE180 PH120 E90
101. LIH(St)CH-TP FE180 PH120 E90
102. JE-H(St)h..Bd FE180 PH1 0 E90
103. NHXH FE180 PH120 E90
104. NHXCH FE180 PH120 E90





These cables can function in case of fire Halogen Free, Halogen Free, flame retardant, low smoke density, Acidic (Corrosive) Gas Test, air ports, hospitals, metro, subway stations, shopping centers, high rise buildings, hotels, industrial plants and so on. signal and communication cables are used as an emergency circuits.

## Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bükülü Bakır / Stranded Electrolytic Copper IEC60228 Class5
izolasYon / Insulation	Silikon / Silicon
izolasYon Renęi / Insulation Colour	DIN 47100
Büküm / Stranding	UYfun Adımda Katlar Halinde / In Layers of Optimum Pitch
AYnrhcH Bant / Seperator	PES Bant + Cam ELYaf Bant / PES Tape + Class Fibre Tape
DH3 KHlf / Outer Sheath	HFFR Kompaund / HFFR Compound
KHlf Renęi / Colour of Sheath	RAL 2003 Turuncu / RAL2003 Orange

## Elektriksel Ölçümler / Electrical Parameters

iletken Direnci / Conductor Resistance	0,22 mm: 79 Ohm/km, 0,34 mm: 56 Ohm/km, 0,50 mm: 39 Ohm/km, 0,75 mm: 26,0 Ohm/km 1,00 mm: 19,5 Ohm/km, 1,50 mm: 13,3 Ohm/km, 2,50 mm: 7,98 Ohm/km
izolasYon Direnci / Insulation Resistance	0.22 ve 0.34 mm <sup>2</sup> = 00 MOhm.km ->0.50 mm <sup>2</sup> = 0 MOhm.km
Efektif Kapasitans / Mutual Capacitance	Max. 120 nF/km
Akım Taşıma Kapasitansı / Current Load	0,22 mm: 2,5 A, 0,34 mm: 4,5 A, 0,50 mm: 6 A, 0,75 mm: 13 A 1,00 mm: 16 A, 1,50 mm: 20 A, 2,50 mm: 25 A
(alıŞma Sıcaklıęı / Temperature Range	-40°C + 90°C
(alıŞma Voltajı / Operating Voltage	0.22 ve 0.34 mm <sup>2</sup> = 50 V ->0.50 mm <sup>2</sup> = 300/500 V.
Test Voltajı / Test Voltage	0.22 ve 0.34 mm <sup>2</sup> = 1500 V ->0.50 mm <sup>2</sup> = 000 V
Bükülme (arı / Bending Radius	7,5 x D

## Mekanik Özellikler / Mechanical Data

Alev Geciktiricilik / Flame Retardant	IEC 60332-1-2;VDE 0482-332-1-2 -EN 60332-1-2, BS EN 60332-1-2
Alev Yaşınması / Flame Propagation	IEC 60332-3-24/VDE 0482-266-2-4 -EN 50266-2-4 BS EN 50266-2-4
Duman Yoęunluęu / Smoke Density	IEC 61034-2 VDE 0482-1034-2 -EN 61034-2 BS EN 61034-2
Korozif Gaz Testi / Corrosive Gas Test	IEC 60754-2;VDE 0482-267-2-2 EN 50267-2-2 BS EN 50267 -2-2
Halojensizlik Testi / Halogen-Free Test	IEC60754-1;VDE 0482-267-2-1 -EN 50267-2-1 BS EN 50267-2-1
Akım Süreklilięi (FE180) / Circuit Integrity (FE180)	IEC 60331-23
Mekanik (oklu Akım Süreklilięi / Circuit Integrity with Shock (PH120)	EN 50200;VDE 0482-200 -BS EN 50200/BS 8434-1
Akım Süreklilięi / Circuit Integrity (E90)	DIN4102-12





These cables can function in case of fire Halogen Free, flame retardant, low smoke density, Acidic (Corrosive) Gas Test, air ports, hospitals, metro, subway stations, shopping centers, high rise buildings, hotels, industrial plants and so on. signal and communication cables are used as an emergency circuits.



Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bükülü Bakır / Stranded Electrolytic Copper IEC60228 Class5
izolasyon / Insulation	Silikon / Silicon
izolasyon Renği / Insulation Colour	DIN 47100
Büküm / Stranding	iki Bükümlü Damarlar Katlar Halinde Bükülür / Cores are Twisted in Pair and Bend in the Layers
Ayrıştırıcı Bant / Separator	PES Bant + Cam Elyaf Bant / PES Tape + Glass Fibre Tape
Dış Kılıf / Outer Sheath	HFFR Kompaund / HFFR Compound
Kılıf Renği / Colour of Sheath	RAL 2003 Turuncu / RAL2003 Orange

Elektriksel Ölçümler / Electrical Parameters

iletken Direnci / Conductor Resistance	0,22 mm: 79 Ohm/km, 0,34 mm: 56 Ohm/km, 0,50 mm: 39 Ohm/km, 0,75 mm: 26,0 Ohm/km 1,00 mm: 19,5 Ohm/km, 1,50 mm: 13,3 Ohm/km, 2,50 mm: 7,98 Ohm/km
izolasyon Direnci / Insulation Resistance	0.22 ve 0.34 mm <sup>2</sup> = 00 MOhm.km.km - >0.50 mm <sup>2</sup> = 0 MOhm.km.km
Etkin Kapasite / Mutual Capacitance	Max. 120 nF/km
Akım Taahhüt Kapasitesi / Current Load	0,22 mm: 2,5 A, 0,34 mm: 4,5 A, 0,50 mm: 6 A, 0,75 mm: 13 A 1,00 mm: 16 A, 1,50 mm: 20 A, 2,50 mm: 25 A
(alışma Sıcaklığı / Temperature Range	-40°C + 90°C
(alışma Voltajı / Operating Voltage	0.22 ve 0.34 mm <sup>2</sup> = 50 V - >0.50 mm <sup>2</sup> = 300/500 V.
Test Voltajı / Test Voltage	0.22 ve 0.34 mm <sup>2</sup> = 1500 V - >0.50 mm <sup>2</sup> = 000 V
Bükülme (arı / Bending Radius	7,5 x D

Mekanik Özellikler / Mechanical Data

Alev Geciktiricilik / Flame Retardant	IEC 60332-1-2;VDE 0482-332-1-2 -EN 60332-1-2, BS EN 60332-1-2
Alev Yayılması / Flame Propagation	IEC 60332-3-24/VDE 0482-266-2-4 -EN 50266-2-4 BS EN 50266-2-4
Duman Yoğunluğu / Smoke Density	IEC 61034-2 VDE 0482-1034-2 -EN 61034-2 BS EN 61034-2
Korozif Gaz Testi / Corrosive Gas Test	IEC 60754-2;VDE 0482-267-2-2 EN 50267-2-2 BS EN 50267 -2-2
Halojenizlik Testi / Halogen-Free Test	IEC60754-1;VDE 0482-267-2-1 -EN 50267-2-1 BS EN 50267-2-1
Akım Sürekliliği (FE180) / Circuit Integrity (FE180)	IEC 60331-23
Mekanik (oklu Akım Sürekliliği / Circuit Integrity with Shock (PH120)	EN 50200;VDE 0482-200 -BS EN 50200/BS 8434-1
Akım Sürekliliği / Circuit Integrity (E90)	DIN4102-12



These cables can function in case of fire Halogen Free, flame retardant, low smoke density, Acidic (Corrosive) Gas Test, air ports, hospitals, metro, subway stations, shopping centers, high rise buildings, hotels, industrial plants and especially where there is electromagnetic interference.. Signal and communication cables are used as an emergency circuits.

### Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bükülü Bakır / Stranded Electrolytic Copper IEC60228 Class5
izolasYon / Insulation	Silikon / Silicon
izolasYon Renęi / Insulation Colour	DIN 47100
Büküm / Stranding	UYşun Adımda Katlar Halinde / In Layers of Optimum Pitch
AYırıcH Bant / Separator	PES Bant + Cam ELYaf Bant / PES Tape + Glass Fibre Tape
Örşü / Braid	SnCU 50%
DH3 KHlf / Outer Sheath	HFFR Kompaund / HFFR Compound
KHlf Renęi / Colour of Sheath	RAL 2003 Turuncu / RAL2003 Orange

### Elektriksel Ölçümler / Electrical Parameters

iletken Direnci / Conductor Resistance	0,22 mm: 79 Ohm/km, 0,34 mm: 56 Ohm/km, 0,50 mm: 39 Ohm/km, 0,75 mm: 26,0 Ohm/km 1,00 mm: 19,5Ohm/km, 1,50 mm: 13,3Ohm/km, 2,50 mm: 7,98 Ohm/km
izolasYon Direnci / Insulation Resistance	0.22 ve 0.34 mm <sup>2</sup> = 00 MOhm.km ->0.50 mm <sup>2</sup> = 0 MOhm.km
Efektif Kapasitans / Mutual Capacitance	Max. 120 nF/km
Akım Taşınma Kapasitansı / Current Load	0,22 mm: 2,5 A, 0,34 mm: 4,5 A, 0,50 mm: 6 A, 0,75 mm: 13 A 1,00 mm: 16 A, 1,50 mm: 20 A, 2,50 mm: 25 A
(alıŞma SıcaklıęH / Temperature Range	-40°C + 90°C
(alıŞma VoltajH / Operating Voltage	0.22 ve 0.34 mm <sup>2</sup> = 50 V ->0.50 mm <sup>2</sup> = 300/500 V.
Test VoltajH / Test Voltage	0.22 ve 0.34 mm <sup>2</sup> = 1500 V ->0.50 mm <sup>2</sup> = 000 V
Bükölme (ařH / Bending Radius	7,5 x D

### Mekanik Özellikler / Mechanical Data

Alev Geciktiricilik / Flame Retardant	IEC 60332-1-2;VDE 0482-332-1-2 -EN 60332-1-2, BS EN 60332-1-2
Alev Yayılmaş / Flame Propagation	IEC 60332-3-24/VDE 0482-266-2-4 -EN 50266-2-4 BS EN 50266-2-4
Duman Yoęunluęu / Smoke Density	IEC 61034-2 VDE 0482-1034-2 -EN 61034-2 BS EN 61034-2
Korozif Gaz Testi / Corrosive Gas Test	IEC 60754-2;VDE 0482-267-2-2 EN 50267-2-2 BS EN 50267 -2-2
Halojenizlik Testi / Halogen-Free Test	IEC60754-1;VDE 0482-267-2-1 -EN 50267-2-1 BS EN 50267-2-1
Akım Süreklilięi (FE180) / Circuit Integrity (FE180)	IEC 60331-23
Mekanik (oklu Akım Süreklilięi / Circuit Integrity with Shock (PH120)	EN 50200;VDE 0482-200 -BS EN 50200/BS 8434-1
Akım Süreklilięi / Circuit Integrity (E90)	DIN4102-12



These cables can function in case of fire Halogen Free, flame retardant, low smoke density, Acidic (Corrosive) Gas Test, air ports, hospitals, metro, subway stations, shopping centers, high rise buildings, hotels, industrial plants and especially where there is electromagnetic interference.. Signal and communication cables are used as an emergency circuits.



Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bükülü Bakır / Stranded Electrolytic Copper IEC60228 Class5
izolasYon / Insulation	Silikon / Silicon
izolasYon Renęi / Insulation Colour	DIN 47100
Büküm / Stranding	iki Bükülmüş Damarlar Katlar Halinde Bükülür / Cores are Twisted in Pair and Bend in the Layers
AYırıcı Bant / Separator	PES Bant + Cam Elyaf Bant / PES Tape + Glass Fibre Tape
Öręü / Braid	SnCU 50%
Dış Kılıf / Outer Sheath	HFFR Kompaund / HFFR Compound
Kılıf Renęi / Colour of Sheath	RAL 2003 Turuncu / RAL2003 Orange

Elektriksel Ölçümler / Electrical Parameters

iletken Direnci / Conductor Resistance	0,22 mm: 79 Ohm/km, 0,34 mm: 56 Ohm/km, 0,50 mm: 39 Ohm/km, 0,75 mm: 26,0 Ohm/km, 1,00 mm: 19,5 Ohm/km, 1,50 mm: 13,3 Ohm/km, 2,50 mm: 7,98 Ohm/km
izolasYon Direnci / Insulation Resistance	0.22 ve 0.34 mm² = 00 MOhm.km ->0.50 mm² = 0 MOhm.km
Etkif Kapasitans / Mutual Capacitance	Max. 120 nF/km
Akım Taşıma Kapasitansı / Current Load	0,22 mm: 2,5 A, 0,34 mm: 4,5 A, 0,50 mm: 6 A, 0,75 mm: 13 A, 1,00 mm: 16 A, 1,50 mm: 20 A, 2,50 mm: 25 A
(alışma Sıcaklığı / Temperature Range	-40°C + 90°C
(alışma Voltajı / Operating Voltage	0.22 ve 0.34 mm² = 50 V ->0.50 mm² = 300/500 V.
Test Voltajı / Test Voltage	0.22 ve 0.34 mm² = 1500 V ->0.50 mm² = 000 V
Bükülme (arı / Bending Radius	7,5 x D

Mekanik Özellikler / Mechanical Data

Alev Geciktiricilik / Flame Retardant	IEC 60332-1-2;VDE 0482-332-1-2 -EN 60332-1-2, BS EN 60332-1-2
Alev Yayılması / Flame Propagation	IEC 60332-3-24/VDE 0482-266-2-4 -EN 50266-2-4 BS EN 50266-2-4
Duman Yoęunluęu / Smoke Density	IEC 61034-2 VDE 0482-1034-2 -EN 61034-2 BS EN 61034-2
Korozif Gaz Testi / Corrosive Gas Test	IEC 60754-2;VDE 0482-267-2-2 EN 50267-2-2 BS EN 50267 -2-2
Halogenizlik Testi / Halogen-Free Test	IEC60754-1;VDE 0482-267-2-1 -EN 50267-2-1 BS EN 50267-2-1
Akım Süreklilięi (FE180) / Circuit Integrity (FE180)	IEC 60331-23
Mekanik (oklu Akım Süreklilięi / Circuit Integrity with Shock (PH120)	EN 50200;VDE 0482-200 -BS EN 50200/BS 8434-1
Akım Süreklilięi / Circuit Integrity (E90)	DIN4102-12



These cables can function in case of fire Halogen Free, flame retardant, low smoke density, Acidic (Corrosive) Gas Test, air ports, hospitals, metro, subway stations, shopping centers, high rise buildings, hotels, industrial plants and especially where there's electromagnetic interference.. Signal and communication cables are used as an emergency circuits.

**Kablo Yapısı / Cable Construction**

iletken / Conductor	Elektrolitik Bükülü Bakır / Stranded Electrolytic Copper IEC60228 Class5
izolasYon / Insulation	Silikon / Silicon
izolasYon Renęi / Insulation Colour	DIN 47100
Büküm / Stranding	UYğun Adımda Katlar Halinde / In Layers of Optimum Pitch
AYırıcı Bant / Separator	PES Bant + Cam ElYaf Bant / PES Tape + Class Fibre Tape
Ekran / Screen	Al-Pes 100% Kalaylı Bakır Toprak Teli ile / Al-Pes 100% with SnCu Drain Wire
Dış Kılıf / Outer Sheath	HFFR Kompaund / HFFR Compound
Kılıf Renęi / Colour of Sheath	RAL 2003 Turuncu / RAL2003 Orange

**Elektriksel Ölçümler / Electrical Parameters**

iletken Direnci / Conductor Resistance	0,22 mm: 79 Ohm/km, 0,34 mm: 56 Ohm/km, 0,50 mm: 39 Ohm/km, 0,75 mm: 26,0 Ohm/km 1,00 mm: 19,5 Ohm/km, 1,50 mm: 13,3 Ohm/km, 2,50 mm: 7,98 Ohm/km
izolasYon Direnci / Insulation Resistance	0.22 ve 0.34 mm <sup>2</sup> = 00 MOhm.km ->0.50 mm <sup>2</sup> = 0 MOhm.km
Efektif Kapasitans / Mutual Capacitance	Max. 120 nF/km
Akım Taşıma Kapasitansı / Current Load	0,22 mm: 2,5 A, 0,34 mm: 4,5 A, 0,50 mm: 6 A, 0,75 mm: 13 A 1,00 mm: 16 A, 1,50 mm: 20 A, 2,50 mm: 25 A
(alışma Sıcaklığı / Temperature Range	-40°C + 90°C
(alışma Voltajı / Operating Voltage	0.22 ve 0.34 mm <sup>2</sup> = 50 V ->0.50 mm <sup>2</sup> = 300/500 V.
Test Voltajı / Test Voltage	0.22 ve 0.34 mm <sup>2</sup> = 1500 V - >0.50 mm <sup>2</sup> = 000 V
Bükülme (arı / Bending Radius	7,5 x D

**Mekanik Özellikler / Mechanical Data**

Alev Geciktiricilik / Flame Retardant	IEC 60332-1-2;VDE 0482-332-1-2 -EN 60332-1-2, BS EN 60332-1-2
Alev Yayılması / Flame Propagation	IEC 60332-3-24/VDE 0482-266-2-4 -EN 50266-2-4 BS EN 50266-2-4
Duman Yoğunluğu / Smoke Density	IEC 61034-2 VDE 0482-1034-2 -EN 61034-2 BS EN 61034-2
Korozif Gaz Testi / Corrosive Gas Test	IEC 60754-2;VDE 0482-267-2-2 EN 50267-2-2 BS EN 50267 -2-2
Halojensizlik Testi / Halogen-Free Test	IEC60754-1;VDE 0482-267-2-1 -EN 50267-2-1 BS EN 50267-2-1
Akım Süreklilięi (FE180) / Circuit Integrity (FE180)	IEC 60331-23
Mekanik (oklu Akım Süreklilięi / Circuit Integrity with Shock (PH120)	EN 50200;VDE 0482-200 -BS EN 50200/BS 8434-1
Akım Süreklilięi / Circuit Integrity (E90)	DIN4102-12



These cables can function in case of fire Halogen Free, flame retardant, low smoke density, Acidic (Corrosive) Gas Test, air ports, hospitals, metro, subway stations, shopping centers, high rise buildings, hotels, industrial plants and especially where there's electromagnetic interference.. Signal and communication cables are used as an emergency circuits.



Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bükülü Bakır / Stranded Electrolytic Copper IEC60228 Class5
izolasYon / Insulation	Silikon / Silicon
izolasYon Renği / Insulation Colour	DIN 47100
Büküm / Stranding	iki Bükümlü3 Damartlar Katlar Halinde Bükülür / Cores are Twisted in Pair and Bend in the Layers
AYırıcı Bant / Separator	PES Bant + Cam Elyaf Bant / PES Tape + Glass Fibre Tape
Ekran / Screen	Al-Pes 100% Kalaylı Bakır Toprak Teli ile / Al-Pes 100% with SnCu Drain Wire
Dış Kılıf / Outer Sheath	HFFR Kompaund / HFFR Compound
Kılıf Renği / Colour of Sheath	RAL 2003 Turuncu / RAL2003 Orange

Elektriksel Ölçümler / Electrical Parameters

iletken Direnci / Conductor Resistance	0,22 mm: 79 Ohm/km, 0,34 mm: 56 Ohm/km, 0,50 mm: 39 Ohm/km, 0,75 mm: 26,0 Ohm/km 1,00 mm: 19,5 Ohm/km, 1,50 mm: 13,3 Ohm/km, 2,50 mm: 7,98 Ohm/km
izolasYon Direnci / Insulation Resistance	0.22 ve 0.34 mm <sup>2</sup> = 00 MOhm.km ->0.50 mm <sup>2</sup> = 0 MOhm.km
Efektif Kapasitans / Mutual Capacitance	Max. 120 nF/km
Akım Taahhüt Kapasitansı / Current Load	0,22 mm: 2,5 A, 0,34 mm: 4,5 A, 0,50 mm: 6 A, 0,75 mm: 13 A 1,00 mm: 16 A, 1,50 mm: 20 A, 2,50 mm: 25 A
(alışma Sıcaklığı / Temperature Range	-40°C + 90°C
(alışma Voltajı / Operating Voltage	0.22 ve 0.34 mm <sup>2</sup> = 50 V ->0.50 mm <sup>2</sup> = 300/500 V.
Test Voltajı / Test Voltage	0.22 ve 0.34 mm <sup>2</sup> = 1500 V ->0.50 mm <sup>2</sup> = 000 V
Bükülme (arı / Bending Radius	7,5 x D

Mekanik Özellikler / Mechanical Data

Alev Geciktiricilik / Flame Retardant	IEC 60332-1-2;VDE 0482-332-1-2 -EN 60332-1-2, BS EN 60332-1-2
Alev Yayılması / Flame Propagation	IEC 60332-3-24/VDE 0482-266-2-4 -EN 50266-2-4 BS EN 50266-2-4
Duman Yoğunluğu / Smoke Density	IEC 61034-2 VDE 0482-1034-2 -EN 61034-2 BS EN 61034-2
Korozif Gaz Testi / Corrosive Gas Test	IEC 60754-2;VDE 0482-267-2-2 EN 50267-2-2 BS EN 50267 -2-2
Halojensizlik Testi / Halogen-Free Test	IEC60754-1;VDE 0482-267-2-1 -EN 50267-2-1 BS EN 50267-2-1
Akım Sürekliliği (FE180) / Circuit Integrity (FE180)	IEC 60331-23
Mekanik (oklu Akım Sürekliliği / Circuit Integrity with Shock (PH120)	EN 50200;VDE 0482-200 -BS EN 50200/BS 8434-1
Akım Sürekliliği / Circuit Integrity (E90)	DIN4102-12





These cables can function in case of fire Halogen Free, flame retardant, low smoke density, Acidic (Corrosive) Gas Test, air ports, hospitals, metro, subway stations, shopping centers, high rise buildings, hotels, industrials plants and especially where there's electromagnetic interference.. Signal and communication cables are used as an emergency circuits.

### Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bükülü Bakır / Stranded Electrolytic Copper IEC60228 Class5
izolasYon / Insulation	Silikon / Silicon
izolasYon Renęi / Insulation Colour	DIN 47100
Büküm / Stranding	UYqun AAdımda Katlar Halinde / In Layers of Optimum Pitch
AYırıcH Bant / Seperator	PES Bant + Cam EYaf Bant / PES Tape + Glass Fibre Tape
Ekran / Screen	Al-Pes 100% Kalaylı Bakır Toprak Teli ile / Al-Pes 100% with SnCu Drain Wire
Öręü / Braid	SnCu 50%
Dıř Kılıf / Outer Sheath	HFFR Kompaund / HFFR Compound
Kılıf Renęi / Colour of Sheath	RAL 2003 Turuncu / RAL2003 Orange

### Elektriksel Öęümler / Electrical Parameters

iletken Direnci / Conductor Resistance	0,22 mm: 79 Ohm/km, 0,34 mm: 56 Ohm/km, 0,50 mm: 39 Ohm/km, 0,75 mm: 26,0 Ohm/km 1,00 mm: 19,5 Ohm/km, 1,50 mm: 13,3 Ohm/km, 2,50 mm: 7,98 Ohm/km
izolasYon Direnci / Insulation Resistance	0.22 ve 0.34 mm <sup>2</sup> = 00 MOhm.km ->0.50 mm <sup>2</sup> = 0 MOhm.km
Efektif Kapasitans / Mutual Capacitance	Max. 120 nF/km
Akıım Tařıma Kapasitansi / Current Load	0,22 mm: 2,5 A, 0,34 mm: 4,5 A, 0,50 mm: 6 A, 0,75 mm: 13 A 1,00 mm: 16 A, 1,50 mm: 20 A, 2,50 mm: 25 A
(alıřma Sıcaklıęı / Temperature Range	-40°C + 90°C
(alıřma Voltajı / Operating Voltage	0.22 ve 0.34 mm <sup>2</sup> = 50 V ->0.50 mm <sup>2</sup> = 300/500 V.
Test Voltajı / Test Voltage	0.22 ve 0.34 mm <sup>2</sup> = 1500 V ->0.50 mm <sup>2</sup> = 000 V
Bükölme (arı / Bending Radius	7,5 x D

### Mekanik Özellikler / Mechanical Data

Alev Geciktiricilik / Flame Retardant	IEC 60332-1-2;VDE 0482-332-1-2 -EN 60332-1-2, BS EN 60332-1-2
Alev Yayılması / Flame Propagation	IEC 60332-3-24/VDE 0482-266-2-4 -EN 50266-2-4 BS EN 50266-2-4
Duman Yoęunluęu / Smoke Density	IEC 61034-2 VDE 0482-1034-2 -EN 61034-2 BS EN 61034-2
Korozif Gaz Testi / Corrosive Gas Test	IEC 60754-2;VDE 0482-267-2-2 EN 50267-2-2 BS EN 50267 -2-2
Halojensizlik Testi / Halogen-Free Test	IEC60754-1;VDE 0482-267-2-1 -EN 50267-2-1 BS EN 50267-2-1
Akıım Süreklilięi (FE180) / Circuit Integrity (FE180)	IEC 60331-23
Mekanik (oklu Akım Süreklilięi / Circuit Integrity with Shock (PH120)	EN 50200;VDE 0482-200 -BS EN 50200/BS 8434-1
Akıım Süreklilięi / Circuit Integrity (E90)	DIN4102-12



These cables can function in case of fire Halogen Free, flame retardant, low smoke density, Acidic (Corrosive) Gas Test, air ports, hospitals, metro, subway stations, shopping centers, high rise buildings, hotels, industrials plants and especially where theres eectromagnetic interference.. Signal and communication cables are used as an emergency circuits.



Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bükülü Bakır / Stranded Electrolytic Copper IEC60228 Class5
izolasYon / Insulation	Silikon / Silicon
izolasYon Renęi / Insulation Colour	DIN 47100
Büküm / Stranding	iki Bükümlü Damarlar Katlar Halinde Bükülür / Cores are Twisted in Pair and Bend in the Layers
AYırıcı Bant / Seperator	PES Bant + Cam Elyaf Bant / PES Tape + Class Fibre Tape
Ekran / Screen	Al-Pes 100% Kalaylı Bakır Toprak Teli ile / Al-Pes 100% with SnCu Drain Wire
Öręü / Braid	SnCU 50%
Dış Kılıf / Outer Sheath	HFFR Kompaund / HFFR Compound
Kılıf Renęi / Colour of Sheath	RAL 2003 Turuncu / RAL 2003 Orange
Elektriksel Ölçümler / Electrical Parameters	

iletken Direnci / Conductor Resistance	0,22 mm: 79 Ohm/km, 0,34 mm: 56 Ohm/km, 0,50 mm: 39 Ohm/km, 0,75 mm: 26,0 Ohm/km 1,00 mm: 19,5 Ohm/km, 1,50 mm: 13,3 Ohm/km, 2,50 mm: 7,98 Ohm/km
izolasYon Direnci / Insulation Resistance	0.22 ve 0.34 mm <sup>2</sup> = 00 MOhm.km ->0.50 mm <sup>2</sup> = 0 MOhm.km
Efektif Kapasitans / Mutual Capacitance	Max. 120 nF/km
Akım Taşıma Kapasitansı / Current Load	0,22 mm: 2,5 A, 0,34 mm: 4,5 A, 0,50 mm: 6 A, 0,75 mm: 13 A 1,00 mm: 16 A, 1,50 mm: 20 A, 2,50 mm: 25 A
(alışma Sıcaklığı / Temperature Range	-40°C + 90°C
(alışma Voltajı / Operating Voltage	0.22 ve 0.34 mm <sup>2</sup> = 50 V ->0.50 mm <sup>2</sup> = 300/500 V.
Test Voltajı / Test Voltage	0.22 ve 0.34 mm <sup>2</sup> = 1500 V ->0.50 mm <sup>2</sup> = 000 V
Bükülme (arı / Bending Radius	7,5 x D

Mekanik Özellikler / Mechanical Data

Alev Geciktiricilik / Flame Retardant	IEC 60332-1-2;VDE 0482-332-1-2 -EN 60332-1-2, BS EN 60332-1-2
Alev Yayılması / Flame Propagation	IEC 60332-3-24/VDE 0482-266-2-4 -EN 50266-2-4 BS EN 50266-2-4
Duman Yoğunluğu / Smoke Density	IEC 61034-2 VDE 0482-1034-2 -EN 61034-2 BS EN 61034-2
Korozif Gaz Testi / Corrosive Gas Test	IEC 60754-2;VDE 0482-267-2-2 EN 50267-2-2 BS EN 50267 -2-2
Halojensizlik Testi / Halogen-Free Test	IEC60754-1;VDE 0482-267-2-1 -EN 50267-2-1 BS EN 50267-2-1
Akım Süreklilięi (FE180) / Circuit Integrity (FE180)	IEC 60331-23
Mekanik (oklu Akım Süreklilięi / Circuit Integrity with Shock (PH120)	EN 50200;VDE 0482-200 -BS EN 50200/BS 8434-1
Akım Süreklilięi / Circuit Integrity (E90)	DIN4102-12



These cables can function in case of fire Halogen Free, flame retardant, low smoke density, Acidic (Corrosive) Gas Test, air ports, hospitals, metro, subway stations, shopping centers, high rise buildings, hotels, industrial plants and especially where there's electromagnetic interference.. Signal and communication cables are used as an emergency circuits.

## Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bakır iletken / Electrolytic Copper Conductor IEC60228 Class1
izolasyon / Insulation	Silikon / Silicon
izolasyon Renği / Insulation Colour	VDE 0293: HD 308 S2
Büküm / Stranding	UYğun Adımda Katlar Halinde / In Layers of Optimum Pitch
Sarım / Wrap	PES Bant + Cam ElYaf / PES Tape + Class Fibre Tape
Ekran / Screen	Al-Pes 100% Kalaylı Bakır Toprak Teli ile / Al-Pes 100% with SnCu Drain Wire
iç Kılıf / Sheath	HFFR Kompaund / HFFR Compound
Dış Kılıf / Outer Sheath	HFFR Kompaund / HFFR Compound
Kılıf Renği / Colour of Sheath	RAL 2003 Turuncu / RAL2003 Orange

## Elektriksel Ölçümler / Electrical Parameters

(alışma Sıcaklığı / Temperature Range	-40°C +90°C
(alışma Voltajı / Operating Voltage	225 V
Test Voltajı / Test Voltage	5000 V
Bükülme (arı / Bending Radius	12 x D

## Mekanik Özellikler / Mechanical Data

Alev Geciktiricilik / Flame Retardant	IEC 60332-1-2;VDE 0482-332-1-2 -EN 60332-1-2, BS EN 60332-1-2
Alev Yayılımı / Flame Propagation	IEC 60332-3-24/VDE 0482-266-2-4 -EN 50266-2-4 BS EN 50266-2-4
Duman Yoğunluğu / Smoke Density	IEC 61034-2 VDE 0482-1034-2 -EN 61034-2 BS EN 61034-2
Korozif Gaz Testi / Corrosive Gas Test	IEC 60754-2;VDE 0482-267-2-2 EN 50267-2-2 BS EN 50267 -2-2
Halojensizlik Testi / Halogen-Free Test	IEC60754-1;VDE 0482-267-2-1 -EN 50267-2-1 BS EN 50267-2-1
Akım Sürekliliği (FE180) / Circuit Integrity (FE180)	IEC 60331-23
Mekanik (oklu Akım Sürekliliği / Circuit Integrity with Shock (PH120)	EN 50200;VDE 0482-200 -BS EN 50200/BS 8434-1
Akım Sürekliliği / Circuit Integrity (E90)	DIN4102-12



These cables can function in case of fire Halogen Free, flame retardant, low smoke density, Acidic (Corrosive) Gas Test, air ports, hospitals, metro, subway stations, shopping centers, high rise buildings, hotels, industrial plants and especially where there's electromagnetic interference.. Signal and communication cables are used as an emergency circuits.



Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bakır iletken / Electrolytic Copper Conductor IEC60228 Class1
izolasyon / Insulation	Mika Bant+(apraz Baqlı Seramik Formunda Polimer Kompaund / Mica Tape + Cross-Linked Ceramic Forming Polymer Compound
izolasyon Renęi / Insulation Colour	VDE 0293: HD 308 S2
Büküm / Stranding	UYfun Adımında Katlar Halinde / In Layers of Optimum Pitch
Sarfl / Wrap	Cam Elyaf / Glass Fibre Tape
iç Kılıf / Sheath	HFFR Kompaund / HFFR Compound
Dış Kılıf / Outer Sheath	HFFR Kompaund / HFFR Compound
Kılıf Renęi / Colour of Sheath	RAL 2003 Turuncu / RAL2003 Orange

Elektriksel Ölçümler / Electrical Parameters

(alışma Sıcaklığı / Temperature Range	-40°C +90°C
(alışma Voltajı / Operating Voltage	0,6/1 kV
Test Voltajı / Test Voltage	4000 V
Bükülme (arı / Bending Radius	12 x D

Mekanik Özellikler / Mechanical Data

Alev Geciktiricilik / Flame Retardant	IEC 60332-1-2;VDE 0482-332-1-2 - EN 60332-1-2, BS EN 60332-1-2
Alev Yayılması / Flame Propagation	IEC 60332-3-24/VDE 0482-266-2-4 - EN 50266-2-4 BS EN 50266-2-4
Duman Yoęunluğu / Smoke Density	IEC 61034-2 VDE 0482-1034-2 - EN 61034-2 BS EN 61034-2
Korozif Gaz Testi / Corrosive Gas Test	IEC 60754-2;VDE 0482-267-2-2 EN 50267-2-2 BS EN 50267 -2-2
Halojenizlik Testi / Halogen-Free Test	IEC60754-1;VDE 0482-267-2-1 - EN 50267-2-1 BS EN 50267-2-1
Akım Süreklilięi (FE180) / Circuit Integrity (FE180)	IEC 60331-23
Mekanik (oklu Akım Süreklilięi / Circuit Integrity with Shock (PH120)	EN 50200;VDE 0482-200 -BS EN 50200/BS 8434-1
Akım Süreklilięi / Circuit Integrity (E90)	DIN4102-12



These cables can function in case of fire Halogen Free, flame retardant, low smoke density, Acidic (Corrosive) Gas Test, air ports, hospitals, metro, subway stations, shopping centers, high rise buildings, hotels, industrials plants and especially where theres electromagnetic interference.. Signal and communication cables are used as an emergency circuits.

**Kablo Yapısı / Cable Construction**

iletken / Conductor	Elektrolitik Bakır iletken / Electrolytic Copper Conductor IEC60228 Class1
izolasyon / Insulation	Mika Bant+(apraz Baφlı Seramik Formunda Polimer Kompaund / Mica Tape + Cross-Linked Ceramic Forming PolYmer Compound
izolasyon Renφi / Insulation Colour	VDE 0293: HD 308 S2
Büküm / Stranding	UYφun Adımda Katlar Halinde / In Layers of Optimum Pitch
Sarφlı / Wrap	Cam Elyaf / Glass Fibre Tape
Ekran / Screen	Bakır Tellerin Üzerine Sarılı Bakır Helis Bant / Plain Copper wires with a traverse spiral of Copper tape
Örφü / Braid	SnCU 50%
iç Kılıf / Sheath	HFFR Kompaund / HFFR Compound
Dış Kılıf / Outer Sheath	HFFR Kompaund / HFFR Compound
Kılıf Renφi / Colour of Sheath	RAL 2003 Turuncu / RAL2003 Orange

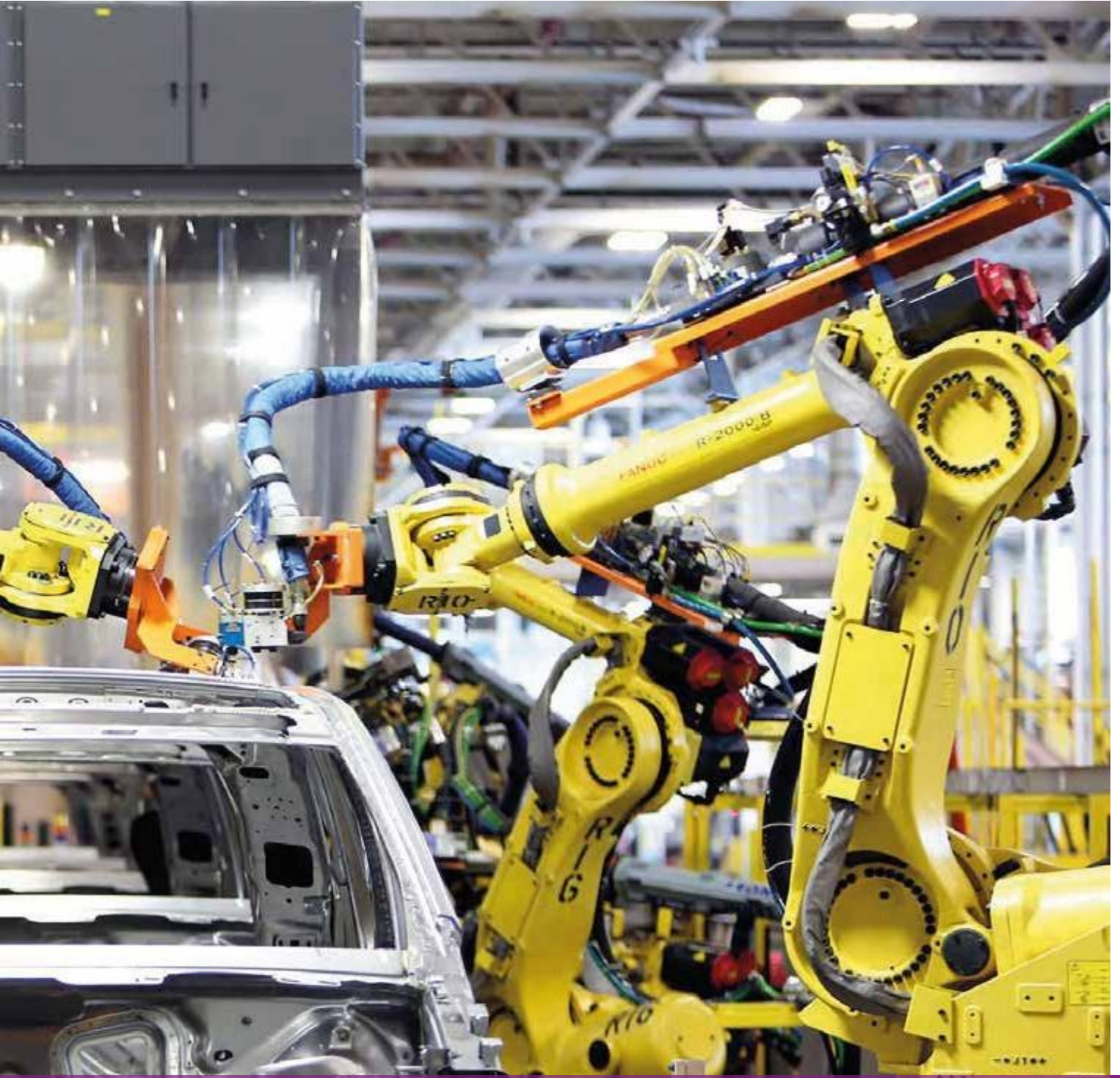
**Elektriksel Ölçümler / Electrical Parameters**

(alıma Sıcaklıφı / Temperature Range	-40°C +90°C
(alıma Voltajı / Operating Voltage	0,6/1 kV
Test Voltajı / Test Voltage	4000 V
Bükölme (arı / Bending Radius	12 x D

**Mekanik Özellikler / Mechanical Data**

Alev Geciktiricilik / Flame Retardant	IEC 60332-1-2;VDE 0482-332-1-2 -EN 60332-1-2, BS EN 60332-1-2
Alev Yayılmama / Flame Propagation	IEC 60332-3-24/VDE 0482-266-2-4 -EN 50266-2-4 BS EN 50266-2-4
Duman Yoφunluφu / Smoke Density	IEC 61034-2 VDE 0482-1034-2 -EN 61034-2 BS EN 61034-2
Korozif Gaz Testi / Corrosive Gas Test	IEC 60754-2;VDE 0482-267-2-2 EN 50267-2-2 BS EN 50267 -2-2
Halojenizlik Testi / Halogen-Free Test	IEC60754-1;VDE 0482-267-2-1 -EN 50267-2-1 BS EN 50267-2-1
Akım Sürekliliφi (FE180) / Circuit Integrity (FE180)	IEC 60331-23
Mekanik (oklu Akım Sürekliliφi / Circuit Integrity with Shock (PH120)	EN 50200;VDE 0482-200 -BS EN 50200/BS 8434-1
Akım Sürekliliφi / Circuit Integrity (E90)	DIN4102-12





## SIGNAL AND CONTROL CABLES

Sinyal ve Kontrol Kabloları  
Signal and Control Cables

- 108. LYY
- 109. LYY-TP
- 110. LYCY
- 111. LYCY-TP
- 112. LY(S)Y
- 113. LY(S)Y-TP
- 114. LY(S)CY
- 115. LY(S)CY-TP

HFFR Sinyal ve Kontrol Kabloları  
HFFR Signal and Control Cables

- 116. LIHH
- 117. LIHH-TP
- 118. LIHCH
- 119. LIHCH-TP
- 120. LIH(S)H
- 121. LIH(S)H-TP
- 122. LIH(S)CH
- 123. LIH(S)CH-TP

Kumanda Kabloları  
Control Cables

- 124. YSLY-JZ / HSLH-JZ
- 125. YSLCY-JZ
- 126. H05VV5-F (NYSLYÖ-JZ)
- 127. H05VVC4V5  
(NYSLYCYÖ-JZ)





For installation of electronic devices where short distances and small bending radius are necessary factors. Used for signal and data transmission and voice frequency transmission.

### Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bükülü Bakır iletken / Electrolytic Stranded Copper Conductor IEC60228 Class5		
izolasyon / Insulation	PVC Kompaund / PVC Compound		
Damar Tanımlama / Core Identity	DIN 47100 Renkli Damar / According to DIN 47100		
Büküm / Stranding	Damarlar sabit adımda katlar halinde / Cores Laid up Layers of Optimum Pitch		
Dış Kılıf / Outer Sheath	PVC Kompaund / PVC Compound	Kılıf Renği / Colour of Sheath	RAL 7001,

### Elektriksel Ölçümler / Electrical Parameters

izolasyon Direnci / Insulation Resistance	>200 MOhm.km	Etkif Kapasitans / Mutual Capacitance	Max. 120 nF/km
(alıma Gerilimi / Operating Voltage	Max. 750V	Test Gerilimi / Test Voltage	Max. 2500 V
(alıma Sıcaklık / Temperature Range	-5 °C +70 °C		
Bükölme (arı / Bending Radius	15 x D		

Damar SaYnş x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 0,22	3 x 0,22	4 x 0,22	5 x 0,22	6 x 0,22	7 x 0,22	8 x 0,22	10 x 0,22	12 x 0,22	14 x 0,22
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	3,4	3,6	4,0	4,4	4,7	4,7	5,4	6,1	6,4	6,9
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	17	20	25	31	36	38	46	55	65	74
Damar SaYnş x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 0,50	3 x 0,50	4 x 0,50	5 x 0,50	6 x 0,50	7 x 0,50	8 x 0,50	10 x 0,50	12 x 0,50	14 x 0,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	4,6	5,0	5,4	5,8	6,5	6,5	7,3	8,0	8,2	8,5
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	32	40	47	56	68	70	86	112	120	129
Damar SaYnş x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 0,75	3 x 0,75	4 x 0,75	5 x 0,75	6 x 0,75	7 x 0,75	8 x 0,75	10 x 0,75	12 x 0,75	14 x 0,75
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	5,2	5,5	6,0	6,5	7,3	7,3	8,1	9,0	9,4	9,9
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	40	49	60	69	78	90	110	135	150	168
Damar SaYnş x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 1,00	3 x 1,00	4 x 1,00	5 x 1,00	6 x 1,00	7 x 1,00	8 x 1,00	10 x 1,00	12 x 1,00	14 x 1,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	5,4	5,8	6,3	7,1	7,8	7,8	8,7	10,0	10,4	10,7
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	48	57	71	88	105	111	130	165	190	212
Damar SaYnş x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 1,50	3 x 1,50	4 x 1,50	5 x 1,50	6 x 1,50	7 x 1,50	8 x 1,50	10 x 1,50	12 x 1,50	14 x 1,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	6,2	6,8	7,4	8,0	8,8	8,8	10,2	115	12,6	13,4
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	61	79	100	120	142	151	190	230	280	312
Damar SaYnş x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 2,50	3 x 2,50	4 x 2,50	5 x 2,50	6 x 2,50	7 x 2,50	8 x 2,50	10 x 2,50	12 x 2,50	14 x 2,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	7,5	7,9	8,8	9,8	10,6	10,6	11,9	13,3	14,4	15,4
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	77	107	137	170	201	227	264	324	382	335



For installation of electronic devices where short distances and small bending radius are necessary factors. Used for signal and data transmission and voice frequency transmission.



Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bükülü Bakır iletken / Electrolytic Stranded Copper Conductor IEC60228 Class5		
izolasyon / Insulation	PVC Kompaund / PVC Compound		
Damar Tanımlama / Core Identification	DIN 47100 Renkli Damar / According to DIN 47100		
Büküm / Stranding	İkili Bükümlü Damarlar Katlar Halinde Bükülür / Cores are Twisted in Pair and Bend in the Layers		
Dış Kılıf / Outer Sheath	PVC Kompaund / PVC Compound	Kılıf Renği / Colour of Sheath	RAL 7001,

Elektriksel Ölçümler / Electrical Parameters

izolasyon Direnci / Insulation Resistance	>200 MOhm.km	Etkif Kapasitans / Mutual Capacitance	Max. 120 nF/km
(alıma Gerilimi / Operating Voltage	Max. 750V	Test Gerilimi / Test Voltage	Max. 2500 V
(alıma Sıcaklık / Temperature Range	-5 °C +70 °C		
Bükülme (arı / Bending Radius	15 x D		

Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2 x 2x0,22	3 x3x 0,22	4 x 2x0,22	5 x2x 0,22	6 x2x 0,22	7 x7x 0,22	8 x2x 0,22	10 x 2x0,22	12 x2x 0,22
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	4,0	5,6	6,1	6,8	7,1	7,1	8,0	9,2	9,7
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	28	36	45	58	66	73	83	105	121
Damar SaYnş x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2x2x0,50	3x2x0,50	4x2x0,50	5x2x0,50	6x2x0,50	7x2x0,50	8x2x0,50	10x2x 0,50	12x2x0,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	5,1	7,2	8,2	9,6	9,9	9,9	11	13,1	13,6
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	45	67	86	107	122	136	161	196	234
Damar SaYnş x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2x2x0,75	3x2x0,75	4x2x0,75	5x2x0,75	6x2x0,75	7x2x0,75	8x2x0,75	10x2x0,75	12x2x0,75
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	5,7	8,3	9,4	10,7	11	11	12,6	14,1	15,1
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	58	91	110	144	165	180	219	273	310
Damar SaYnş x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2x2x1,00	3x2x1,00	4x2x1,00	5x2x1,00	6x2x1,00	7x2x1,00	8x2x1,00	10x2x1,00	12x2x1,00
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	5,9	8,8	9,6	11,6	11,9	11,9	13,3	15,5	16,1
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	65	105	130	170	200	220	255	334	380
Damar SaYnş x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2x2x1,50	3x2x1,50	4x2x1,50	5x2x1,50	6x2x1,50	7x2x1,50	8x2x1,50	10x2x1,50	12x2x1,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	7,0	10,9	12	14,1	14,6	14,6	16,3	18,6	19,4
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	92	145	185	230	274	302	337	425	486
Damar SaYnş x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2x2x2,50	3x2x2,50	4x2x2,50	5x2x2,50	6x2x2,50	7x2x2,50	8x2x2,50	10x2x2,50	12x2x2,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	8,6	13	14,8	16,8	17,6	17,6	19,4	22,3	23,1
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	140	233	291	361	433	484	542	665	798





These cable are used to electronic control systems connection, voice frequency transmission, signal and communication cables

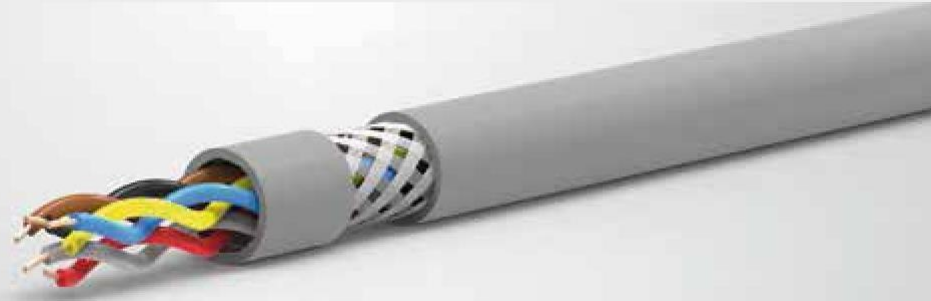
Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bükülü Bakır iletken / Electrolytic Stranded Copper Conductor IEC60228 Class5		
izolasyon / Insulation	PVC Kompaund / PVC Compound		
Damar Tanımlama / Core Identifi Cation	DIN 47100 Renkli Damar / According to DIN 47100		
Büküm / Stranding	Damarlar sabit adımda katlar halinde / Cores Laid up Layers of Optimum Pitch		
Örçü / Braid	SnCU / Al 50%		
DN3 Kılıf / Outer Sheath	PVC Kompaund / PVC Compound	Kılıf Renöi / Colour of Sheath	RAL 7001.

Elektriksel Ölçümler / Electrical Parameters

izolasyon Direnci / Insulation Resistance	>200 MOhm.km	Efektif Kapasitans / Mutual Capacitance	Max. 120 nF/km
(alıma Cerilimi / Operating Voltage	Max. 750V	Test Gerilimi / Test Voltage	Max. 2500 V
(alıma Sıcaklıfı / Temperature Range	-5 °C +70 °C		
Bükölme (arı / Bending Radius	15 x D		

Per SaYnşn x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2 x 0,22	3 x 0,22	4 x 0,22	5 x 0,22	6 x 0,22	7 x 0,22	8 x 0,22	10 x 0,22	12 x 0,22	14 x 0,22
Yaklaşık DN3 (arı / Approx. Outer Diameter (mm)	4,4	4,6	5,2	5,5	5,6	5,9	6,3	7,1	7,5	8,5
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	26	30	37	43	47	52	58	71	86	98
Per SaYnşn x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2 x 0,50	3 x 0,50	4 x 0,50	5 x 0,50	6 x 0,50	7 x 0,50	8 x 0,50	10 x 0,50	12 x 0,50	14 x 0,50
Yaklaşık DN3 (arı / Approx. Outer Diameter (mm)	5,8	6,0	6,4	7,2	7,3	7,6	8,4	9,2	10,0	11,2
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	40	48	58	71	80	89	103	122	147	152
Per SaYnşn x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2 x 0,75	3 x 0,75	4 x 0,75	5 x 0,75	6 x 0,75	7 x 0,75	8 x 0,75	10 x 0,75	12 x 0,75	14 x 0,75
Yaklaşık DN3 (arı / Approx. Outer Diameter (mm)	6,1	6,6	7,1	7,8	8,0	8,4	9,2	10,2	10,9	12,3
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	47	62	74	92	103	115	134	159	184	198
Per SaYnşn x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2 x 1,00	3 x 1,00	4 x 1,00	5 x 1,00	6 x 1,00	7 x 1,00	8 x 1,00	10 x 1,00	12 x 1,00	14 x 1,50
Yaklaşık DN3 (arı / Approx. Outer Diameter (mm)	6,7	6,9	7,6	8,4	9,6	9,8	9,9	11,0	11,8	14,0
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	59	73	89	109	123	138	145	192	224	290
Per SaYnşn x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2 x 1,50	3 x 1,50	4 x 1,50	5 x 1,50	6 x 1,50	7 x 1,50	8 x 1,50	10 x 1,50	12 x 1,50	14 x 1,50
Yaklaşık DN3 (arı / Approx. Outer Diameter (mm)	7,7	8,1	8,8	9,8	10,0	10,6	11,6	12,9	13,9	15,5
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	77	98	120	148	168	189	221	269	314	390
Per SaYnşn x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2 x 2,50	3 x 2,50	4 x 2,50	5 x 2,50	6 x 2,50	7 x 2,50	8 x 2,50	10 x 2,50	12 x 2,50	14 x 2,50
Yaklaşık DN3 (arı / Approx. Outer Diameter (mm)	8,5	9,0	10,0	11,1	11,4	12,0	13,2	14,7	15,7	16,8
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	99	131	167	210	240	271	313	379	444	516



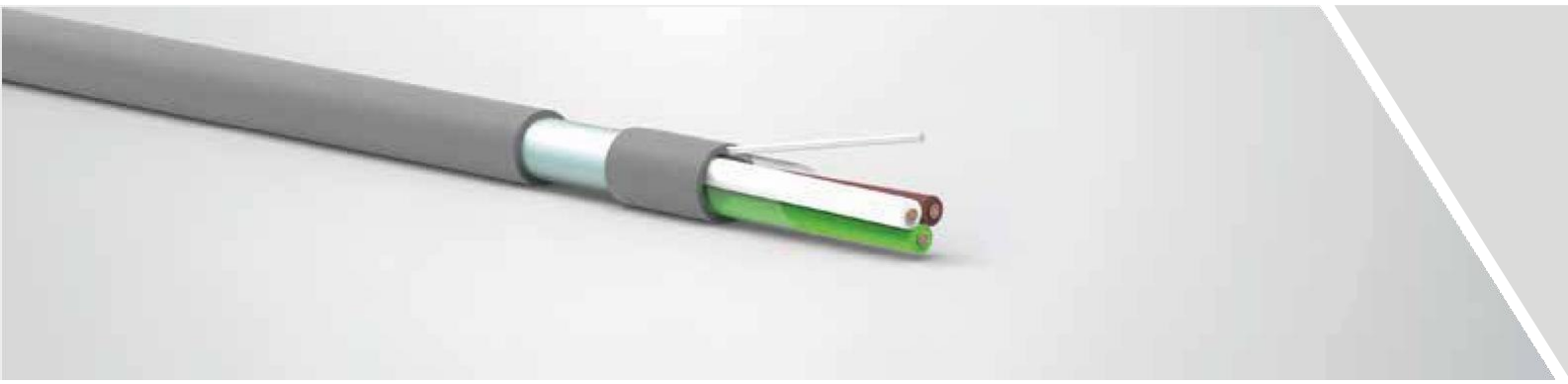
. These cable are used to electronic control systems connection, voice frequency transmission, signal and communication cables



Kablo Yapısı / Cable Construction			
iletken / Conductor	Elektrolitik Bükülü Bakır iletken / Electrolytic Stranded Copper Conductor IEC60228 Class5		
izolasyon / Insulation	PVC Kompaund / PVC Compound		
Damar Tanımlama / Core Identification	DIN 47100 Renkli Damar / According to DIN 47100		
Büküm / Stranding	İkili Bükümlü Damarlar Katlar Halinde Bükülür / Cores are Twisted in Pair and Bend in the Layers		
Örçü / Braid	SnCU / Al 50%		
Dış Kılıf / Outer Sheath	PVC Kompaund / PVC Compound	Kılıf Renği / Colour of Sheath	RAL 7001.
Elektriksel Ölçümler / Electrical Parameters			
izolasyon Direnci / Insulation Resistance	>200 MOhm.km	Efektif Kapasitans / Mutual Capacitance	Max. 120 nF/km
(alıma Gerilimi / Operating Voltage	Max. 750V	Test Gerilimi / Test Voltage	Max. 2500 V
(alıma Sıcaklık / Temperature Range	-5 °C +70 °C		
Bükülme (arı / Bending Radius	15 x D		

Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x0,22	3x2x0,22	4x2x0,22	5x2x0,22	6x2x0,22	7x2x0,22	8x2x0,22	10x2x0,22	12x2x0,22
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	4,6	6,2	6,7	7,4	7,7	7,7	8,6	9,9	10,3
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	30	43	52	61	69	76	88	112	128
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x0,50	3x2x0,50	4x2x0,50	5x2x0,50	6x2x0,50	7x2x0,50	8x2x0,50	10x2x0,50	12x2x0,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	5,7	7,8	9,0	10,2	10,5	10,5	11,7	13,7	14,2
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	48	70	92	115	130	142	170	215	245
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x0,75	3x2x0,75	4x2x0,75	5x2x0,75	6x2x0,75	7x2x0,75	8x2x0,75	10x2x0,75	12x2x0,75
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	6,3	8,9	10,0	11,3	11,7	11,7	13,2	15,1	15,7
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	60	93	115	150	170	185	224	275	317
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x1,00	3x2x1,00	4x2x1,00	5x2x1,00	6x2x1,00	7x2x1,00	8x2x1,00	10x2x1,00	12x2x1,00
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	6,5	9,4	10,5	11,7	12,5	12,5	13,9	16,1	16,7
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	70	110	137	176	203	225	260	332	385
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x1,50	3x2x1,50	4x2x1,50	5x2x1,50	6x2x1,50	7x2x1,50	8x2x1,50	10x2x1,50	12x2x1,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	7,6	11,5	12,8	14,7	15,1	15,1	16,8	19,2	20,0
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	96	156	202	257	295	325	375	470	538
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x2,50	3x2x2,50	4x2x2,50	5x2x2,50	6x2x2,50	7x2x2,50	8x2x2,50	10x2x2,50	12x2x2,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	9,1	13,9	15,4	17,1	18,2	18,2	20,0	22,9	23,7
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	145	238	310	380	445	500	558	705	810





These cables are used for connections in the electronic control technology, signal and data transmission cables for voice frequency transmissions.

Kablo Yapısı / Cable Construction			
iletken / Conductor	Elektrolitik Bükülü Bakır iletken / Electrolytic Stranded Copper Conductor IEC60228 Class5		
izolasyon / Insulation	PVC Kompaund / PVC Compound		
Damar Tanımlama / Core Identity	DİN 47100 Renkli Damar / According to DIN 47100		
Büküm / Stranding	Damarlar sabit adımda katlar halinde / Cores Laid up Layers of Optimum Pitch		
Ekran / Screen	Al-Pes 100% Kalaylı Bakır Toprak Teli ile / Al-Pes 100% with SnCu Drain Wire		
Dış Kılıf / Outer Sheath	PVC Kompaund / PVC Compound	Kılıf Renği / Colour of Sheath	RAL 7001,
Elektriksel Ölçümler / Electrical Parameters			
izolasyon Direnci / Insulation Resistance	>200 MOhm.km	Etkif Kapasitans / Mutual Capacitance	Max. 120 nF/km
(alıma Gerilimi / Operating Voltage	Max. 750V	Test Gerilimi / Test Voltage	Max. 2500 V
(alıma Sıcaklık / Temperature Range	-5 °C +70 °C		
Bükülme (arı / Bending Radius	15 x D		

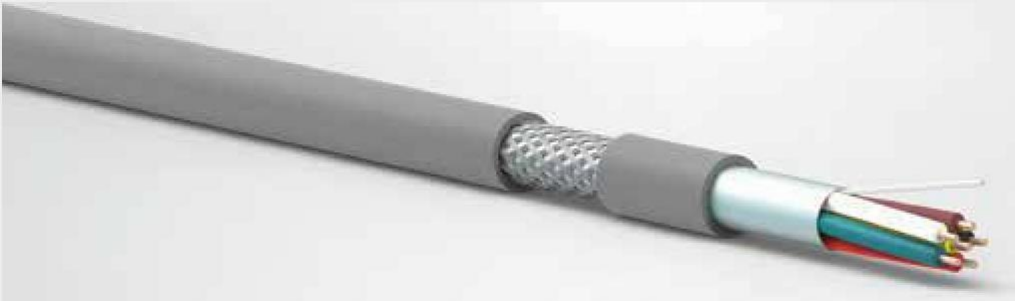
Damar SaYnı x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 0,22	3 x 0,22	4 x 0,22	5 x 0,22	6 x 0,22	7 x 0,22	8 x 0,22	10 x 0,22	12 x 0,22	14 x 0,22
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	4,1	4,3	4,9	5,2	5,3	5,6	5,9	6,8	7,2	7,8
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	21	25	31	36	40	45	50	62	71	79
Damar SaYnı x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 0,50	3 x 0,50	4 x 0,50	5 x 0,50	6 x 0,50	7 x 0,50	8 x 0,50	10 x 0,50	12 x 0,50	14 x 0,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	5,4	5,6	6,1	6,8	7,0	7,3	8,0	8,9	9,7	12,4
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	33	41	50	62	70	79	92	111	133	145
Damar SaYnı x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 0,75	3 x 0,75	4 x 0,75	5 x 0,75	6 x 0,75	7 x 0,75	8 x 0,75	10 x 0,75	12 x 0,75	14 x 0,75
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	5,8	6,3	6,8	7,5	7,7	8,1	8,9	9,9	10,6	13,0
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	40	54	66	82	92	104	121	146	169	183
Damar SaYnı x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 1,00	3 x 1,00	4 x 1,00	5 x 1,00	6 x 1,00	7 x 1,00	8 x 1,00	10 x 1,00	12 x 1,00	14 x 1,00
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	6,4	6,7	7,3	8,1	8,3	8,7	9,6	10,6	11,5	13,8
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	50	64	78	98	111	126	146	177	207	233
Damar SaYnı x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 1,50	3 x 1,50	4 x 1,50	5 x 1,50	6 x 1,50	7 x 1,50	8 x 1,50	10 x 1,50	12 x 1,50	14 x 1,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	7,4	7,8	8,5	9,5	9,7	10,3	11,3	12,6	13,6	14,6
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	67	88	109	136	156	177	206	250	293	322
Damar SaYnı x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 2,50	3 x 2,50	4 x 2,50	5 x 2,50	6 x 2,50	7 x 2,50	8 x 2,50	10 x 2,50	12 x 2,50	14 x 2,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	8,2	8,7	9,7	10,8	11,1	11,7	12,9	14,4	15,5	16,9
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	89	119	154	193	223	253	293	358	420	490



These cables are used for connections in the electronic control technology, signal and data transmission cables for voice frequency transmissions.

Kablo Yapısı / Cable Construction			
iletken / Conductor	Elektrolitik Bükülü Bakır iletken / Electrolytic Stranded Copper Conductor IEC60228 Class5		
izolasyon / Insulation	PVC Kompaund / PVC Compound		
Damar Tanımlama / Core Identification	DIN 47100 Renkli Damar / According to DIN 47100		
Büküm / Stranding	İkili Bükümlü Damarlar Katlar Halinde Bükülür / Cores are Twisted in Pair and Bend in the Layers		
Ekran / Screen	Al-Pes 100% Kalaylı Bakır Toprak Teli ile / Al-Pes 100% with SnCu Drain Wire		
Dış Kılıf / Outer Sheath	PVC Kompaund / PVC Compound	Kılıf Renği / Colour of Sheath	RAL 7001,
Elektriksel Ölçümler / Electrical Parameters			
izolasyon Direnci / Insulation Resistance	>200 MOhm.km	Etkif Kapasitans / Mutual Capacitance	Max. 120 nF/km
(alıma Gerilimi / Operating Voltage	Max. 750V	Test Gerilimi / Test Voltage	Max. 2500 V
(alıma Sıcaklık / Temperature Range	-5 °C +70 °C		
Bükülme (arı / Bending Radius	15 x D		

Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x0,22	3x2x0,22	4x2x0,22	5x2x0,22	6x2x0,22	7x2x0,22	8x2x0,22	10x2x0,22	12x2x0,22
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	4,4	6,0	6,5	7,2	7,5	7,7	8,4	9,7	10,1
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	28	41	50	57	69	74	85	108	122
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x0,50	3x2x0,50	4x2x0,50	5x2x0,50	6x2x0,50	7x2x0,50	8x2x0,50	10x2x0,50	12x2x0,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	5,5	7,6	8,8	10,0	10,3	10,3	11	13,5	14,0
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	44	65	88	110	126	138	165	210	240
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x0,75	3x2x0,75	4x2x0,75	5x2x0,75	6x2x0,75	7x2x0,75	8x2x0,75	10x2x0,75	12x2x0,75
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	6,1	8,7	9,8	11,1	11	11	13,0	14,9	15,5
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	58	90	110	145	165	180	220	270	312
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x1,00	3x2x1,00	4x2x1,00	5x2x1,00	6x2x1,00	7x2x1,00	8x2x1,00	10x2x1,00	12x2x1,00
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	6,3	9,2	10,3	11,9	12,3	12,3	13,7	15,9	16,5
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	68	104	132	173	200	220	255	328	380
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x1,50	3x2x1,50	4x2x1,50	5x2x1,50	6x2x1,50	7x2x1,50	8x2x1,50	10x2x1,50	12x2x1,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	7,4	11,3	12,6	14,5	14,9	14,9	16,6	19,20	19,8
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	94	153	200	253	290	320	370	472	536
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x2,50	3x2x2,50	4x2x2,50	5x2x2,50	6x2x2,50	7x2x2,50	8x2x2,50	10x2x2,50	12x2x2,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	8,9	13,7	15,2	16,9	18,0	18,0	19,8	22,7	23,5
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	143	233	305	375	440	495	553	700	805



Used in electronic control systems in voice frequency, signal and data transmission, in office machinery and measurement devices as connection cable. And also also consisting of tinned Copper wires and aluminium tape as screen provides more protection against external pulses. These cables are not intended for outdoor or underground installation.

Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bükülü Bakır iletken / Electrolytic Stranded Copper Conductor IEC60228 Class5		
izolasYon / Insulation	PVC Kompaund / PVC Compound		
Damar Tanımlama / Core Identifi Cation	DIN 47100 Renkli Damar / According to DIN 47100		
Büküm / Stranding	Damarlar sabit adında katlar halinde / Cores Laid up Layers of Optimum Pitch		
Ekran / Screen	Al-Pes 100% Kalaylın Bakır Toprak Teli ile / Al-Pes 100% with SnCu Drain Wire		
Örçü / Braid	SnCu / Al 50%		
DN3 Kılıf / Outer Sheath	PVC Kompaund / PVC Compound	Kılıf Renği / Colour of Sheath	RAL 7001,

Elektriksel Ölçümler / Electrical Parameters

izolasYon Direnci / Insulation Resistance	>200 MOhm.km	Efektif Kapasitans / Mutual Capacitance	Max. 120 nF/km
(alıñma Serilimi / Operating Voltage	Max. 750V	Test Gerilimi / Test Voltage	Max. 2500 V
(alıñma Sıcaklık / Temperature Range	-5 °C +70 °C		
Bükülme (arı / Bending Radius	15 x D		

Damar SaYnşn x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 0,22	3 x 0,22	4 x 0,22	5 x 0,22	6 x 0,22	7 x 0,22	8 x 0,22	10 x 0,22	12 x 0,22	14 x 0,22
Yaklaşık DN3 (arı / Approx. Outer Diameter (mm)	4,5	4,7	5,3	5,6	5,7	6,0	6,4	7,2	7,6	8,6
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	28	32	39	45	49	54	60	73	88	100
Damar SaYnşn x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 0,50	3 x 0,50	4 x 0,50	5 x 0,50	6 x 0,50	7 x 0,50	8 x 0,50	10 x 0,50	12 x 0,50	14 x 0,50
Yaklaşık DN3 (arı / Approx. Outer Diameter (mm)	5,9	6,1	6,5	7,3	7,4	7,7	8,5	9,3	10,1	11,4
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	42	50	60	73	82	91	105	124	149	154
Damar SaYnşn x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 0,75	3 x 0,75	4 x 0,75	5 x 0,75	6 x 0,75	7 x 0,75	8 x 0,75	10 x 0,75	12 x 0,75	14 x 0,75
Yaklaşık DN3 (arı / Approx. Outer Diameter (mm)	6,2	6,7	7,2	7,9	8,1	8,5	9,3	10,3	11,0	12,4
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	49	64	76	94	105	117	136	161	186	200
Damar SaYnşn x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 1,00	3 x 1,00	4 x 1,00	5 x 1,00	6 x 1,00	7 x 1,00	8 x 1,00	10 x 1,00	12 x 1,00	14 x 1,00
Yaklaşık DN3 (arı / Approx. Outer Diameter (mm)	6,8	7,1	7,7	8,5	9,7	9,1	10,0	11,1	11,9	14,1
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	61	75	91	111	125	140	161	194	226	292
Damar SaYnşn x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 1,50	3 x 1,50	4 x 1,50	5 x 1,50	6 x 1,50	7 x 1,50	8 x 1,50	10 x 1,50	12 x 1,50	14 x 1,50
Yaklaşık DN3 (arı / Approx. Outer Diameter (mm)	7,8	8,2	8,9	9,9	10,1	10,7	11,7	13,0	14,0	15,6
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	79	100	122	150	170	191	223	271	316	392
Damar SaYnşn x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 2,50	3 x 2,50	4 x 2,50	5 x 2,50	6 x 2,50	7 x 2,50	8 x 2,50	10 x 2,50	12 x 2,50	14 x 2,50
Yaklaşık DN3 (arı / Approx. Outer Diameter (mm)	8,6	9,1	10,1	11,2	11,5	12,1	13,3	14,8	15,8	16,9
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	101	133	169	212	242	273	315	381	446	518



Used in electronic control systems in voice frequency, signal and data transmission, in office machinery and measurement devices as connection cable. And also also consisting of tinned Copper wires and aluminium tape as screen provides more protection against external pulses. These cables are not intended for outdoor or underground installation.



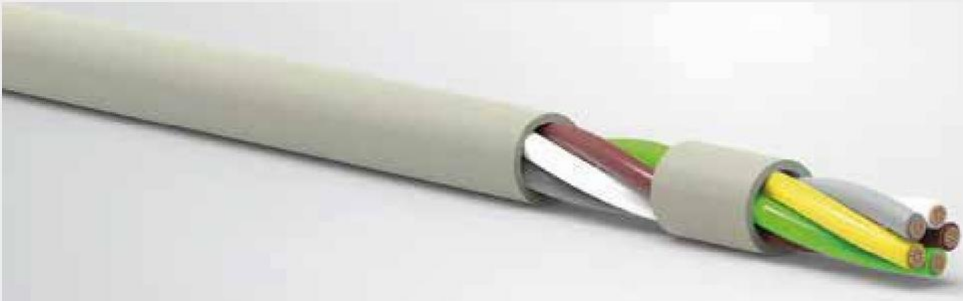
Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bükülü Bakır iletken / Electrolytic Stranded Copper Conductor IEC60228 Class5		
izolasyon / Insulation	PVC Kompaund / PVC Compound		
Damar Tanımlama / Core Identification	DIN 47100 Renkli Damar / According to DIN 47100		
Büküm / Stranding	İkili Bükümlü Damarlar Katlar Halinde Bükülür / Cores are Twisted in Pair and Bend in the Layers		
Ekran / Screen	Al-Pes 100% Kalaylı Bakır Toprak Teli ile / Al-Pes 100% with SnCu Drain Wire		
Örçü / Braid	SnCu / Al 50%		
Dış Kılıf / Outer Sheath	PVC Kompaund / PVC Compound	Kılıf Renği / Colour of Sheath	RAL 7001,

Elektriksel Ölçümler / Electrical Parameters

izolasyon Direnci / Insulation Resistance	>200 MOhm.km	Etkili Kapasitans / Mutual Capacitance	Max. 120 nF/km
(alıma Gerilimi / Operating Voltage	Max. 750V	Test Gerilimi / Test Voltage	Max. 2500 V
(alıma Sıcaklık / Temperature Range	-5 °C +70 °C		
Bükülme (arı / Bending Radius	15 x D		

Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x0,22	3x2x0,22	4x2x0,22	5x2x0,22	6x2x0,22	7x2x0,22	8x2x0,22	10x2x0,22	12x2x0,22
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	4,7	6,3	6,8	7,5	7,8	7,8	8,7	10,0	10,4
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	32	45	54	63	71	78	90	114	130
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x0,50	3x2x0,50	4x2x0,50	5x2x0,50	6x2x0,50	7x2x0,50	8x2x0,50	10x2x0,50	12x2x0,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	5,8	7,9	9,1	10,3	10,6	10,6	11,8	13,8	14,3
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	50	72	94	116	132	144	172	217	247
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x0,75	3x2x0,75	4x2x0,75	5x2x0,75	6x2x0,75	7x2x0,75	8x2x0,75	10x2x0,75	12x2x0,75
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	6,4	9,0	10,1	11,4	11,8	11,8	13,3	15,2	15,8
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	62	95	117	152	172	187	226	277	319
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x1,00	3x2x1,00	4x2x1,00	5x2x1,00	6x2x1,00	7x2x1,00	8x2x1,00	10x2x1,00	12x2x1,00
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	6,6	9,5	10,6	12,2	12,6	12,6	14,0	16,2	16,8
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	72	112	139	178	205	227	262	334	387
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x1,50	3x2x1,50	4x2x1,50	5x2x1,50	6x2x1,50	7x2x1,50	8x2x1,50	10x2x1,50	12x2x1,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	7,7	11,6	12,9	14,8	15,2	15,2	17,0	19,3	20,1
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	98	158	204	259	297	327	377	472	540
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x2,50	3x2x2,50	4x2x2,50	5x2x2,50	6x2x2,50	7x2x2,50	8x2x2,50	10x2x2,50	12x2x2,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	9,2	14,1	15,5	17,2	18,3	18,3	20,1	23,0	23,8
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	147	240	312	382	447	502	560	707	812



For installation of electronic devices where short distances and small bending radius are necessary factors. Used for signal and data transmission and voice frequency transmission. These cables are used at which have no corrosive gases are emitted in the event of fire. In case of fire, these cables inhibit the propagation of the flames whereby the development of smoke is extremely low. These cables are not intended for outdoor or underground installation.

Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bükülü Bakır iletken / Electrolytic Stranded Copper Conductor IEC60228 Class5		
izolasyon / Insulation	HFFR Kompaund / HFFR Compound		
Damar Tanımlama / Core Identification	DIN 47100 Renkli Damar / According to DIN 47100		
Büküm / Stranding	Damarlar sabit adımda katlar halinde / Cores Laid up Layers of Optimum Pitch		
Dış Kılıf / Outer Sheath	HFFR Kompaund / HFFR Compound	Kılıf Renği / Colour of Sheath	RAL 7001,

Elektriksel Ölçümler / Electrical Parameters

izolasyon Direnci / Insulation Resistance	>200 MOhm.km	Etkif Kapasitans / Mutual Capacitance	Max. 120 nF/km
(alıma Cerilimi / Operating Voltage	Max. 750V	Test Gerilimi / Test Voltage	Max. 2500 V
(alıma Sıcaklık / Temperature Range	-5 °C +70 °C		
Bükme (arı / Bending Radius	15 x D		
Alev Testi / Flame Test	IEC 60332-3 & TS/DIN EN 50266-2-4	Duman Yoğunluğu Testi / Smoke Density Test & TS/DIN EN 61034-2	IEC 61034-2
Halojenizlik Testi / Halogen-Free Properties Test	IEC60754-1/2 & TS/DIN EN 50267-2		

Damar SaYı x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 0,22	3 x 0,22	4 x 0,22	5 x 0,22	6 x 0,22	7 x 0,22	8 x 0,22	10 x 0,22	12 x 0,22	14 x 0,22
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	3,4	3,6	4,0	4,4	4,7	4,7	5,4	6,1	6,4	6,9
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	17	20	25	31	36	38	46	55	65	74
Damar SaYı x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 0,50	3 x 0,50	4 x 0,50	5 x 0,50	6 x 0,50	7 x 0,50	8 x 0,50	10 x 0,50	12 x 0,50	14 x 0,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	4,6	5,0	5,4	5,8	6,5	6,5	7,3	8,0	8,2	8,5
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	32	40	47	56	68	70	86	112	120	129
Damar SaYı x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 0,75	3 x 0,75	4 x 0,75	5 x 0,75	6 x 0,75	7 x 0,75	8 x 0,75	10 x 0,75	12 x 0,75	14 x 0,75
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	5,2	5,5	6,0	6,5	7,3	7,3	8,1	9,0	9,4	9,9
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	40	49	60	69	103	90	110	135	150	168
Damar SaYı x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 1,00	3 x 1,00	4 x 1,00	5 x 1,00	6 x 1,00	7 x 1,00	8 x 1,00	10 x 1,00	12 x 1,00	14 x 1,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	5,4	5,8	6,3	7,1	7,8	7,8	8,7	10,0	10,4	10,7
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	48	57	71	88	105	111	130	165	190	212
Damar SaYı x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 1,50	3 x 1,50	4 x 1,50	5 x 1,50	6 x 1,50	7 x 1,50	8 x 1,50	10 x 1,50	12 x 1,50	14 x 1,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	6,2	6,8	7,4	8,0	8,8	8,8	10,2	115	12,6	13,4
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	61	79	100	120	142	151	190	230	280	312
Damar SaYı x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 2,50	3 x 2,50	4 x 2,50	5 x 2,50	6 x 2,50	7 x 2,50	8 x 2,50	10 x 2,50	12 x 2,50	14 x 2,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	7,5	7,9	8,8	9,8	10,6	10,6	11,9	13,3	14,4	15,4
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	77	107	137	170	201	227	264	324	382	335





For installation of electronic devices where short distances and small bending radius are necessary factors. Used for signal and data transmission and voice frequency transmission. These cables are used at which have no corrosive gases are emitted in the event of fire. In case of fire, these cables inhibit the propagation of the flames whereby the development of smoke is extremely low. These cables are not intended for outdoor or underground installation.



**Kablo Yapısı / Cable Construction**

iletken / Conductor	Elektrolitik Bükülü Bakır iletken / Electrolytic Stranded Copper Conductor IEC60228 Class5		
izolasyon / Insulation	HFFR Kompaund / HFFR Compound		
Damar Tanımlama / Core Identification	DIN 47100 Renkli Damar / According to DIN 47100		
Büküm / Stranding	İkili Bükümlü Damarlar Katlar Halinde Bükülür / Cores are Twisted in Pair and Bend in the Layers		
Dış Kılıf / Outer Sheath	HFFR Kompaund / HFFR Compound	Kılıf Renği / Colour of Sheath	RAL 7001,

**Elektriksel Ölçümler / Electrical Parameters**

izolasyon Direnci / Insulation Resistance	>200 MOhm.km	Etkif Kapasitans / Mutual Capacitance	Max. 120 nF/km
(alıma Cerilimi / Operating Voltage	Max. 750V	Test Gerilimi / Test Voltage	Max. 2500 V
(alıma Sıcaklık / Temperature Range	-5 °C +70 °C		
Bükülme (arı / Bending Radius	15 x D		
Alev Testi / Flame Test	IEC 60332-3 & TS/DIN EN 50266-2-4	Duman Yoğunluğu Testi / Smoke Density Test & TS/DIN EN 61034-2	IEC 61034-2
Halojenizlik Testi / Halogen-Free Properties Test	IEC60754-1/2 & TS/DIN EN 50267-2		

Per SaYnşn x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x0,22	3x2x0,22	4x2x0,22	5x2x0,22	6x2x0,22	7x2x0,22	8x2x0,22	10x2x0,22	12x2x0,22
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	4,0	5,6	6,1	6,8	7,1	7,1	8,0	9,2	9,7
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	28	36	45	58	66	73	83	105	121
Per SaYnşn x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x0,50	3x2x0,50	4x2x0,50	5x2x0,50	6x2x0,50	7x2x0,50	8x2x0,50	10x2x0,50	12x2x0,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	5,1	7,2	8,2	9,6	9,9	9,9	11	13,1	13,6
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	45	67	86	107	122	136	161	196	234
Per SaYnşn x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x0,75	3x2x0,75	4x2x0,75	5x2x0,75	6x2x0,75	7x2x0,75	8x2x0,75	10x2x0,75	12x2x0,75
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	5,7	8,3	9,4	10,7	11	11	12,6	14,5	15,1
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	58	91	110	144	165	180	219	273	310
Per SaYnşn x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x1,00	3x2x1,00	4x2x1,00	5x2x1,00	6x2x1,00	7x2x1,00	8x2x1,00	10x2x1,00	12x2x1,00
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	5,9	8,8	9,6	11,6	11,9	11,9	13,3	15,5	16,1
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	65	110	130	170	200	220	255	334	380
Per SaYnşn x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x1,50	3x2x1,50	4x2x1,50	5x2x1,50	6x2x1,50	7x2x1,50	8x2x1,50	10x2x1,50	12x2x1,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	7,0	10,9	12	14,1	14,6	14,6	16,3	18,6	19,4
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	98	145	185	230	274	302	337	425	486
Per SaYnşn x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x2,50	3x2x2,50	4x2x2,50	5x2x2,50	6x2x2,50	7x2x2,50	8x2x2,50	10x2x2,50	12x2x2,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	8,6	13,3	14,8	16,8	17,6	17,6	19,4	23,3	23,1
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	140	233	291	361	433	484	542	665	798



Used in electronic control systems in voice frequency, signal and data transmission, in office machinery and measurement devices as connection cable. Because of having a screen reflecting the electrical effects coming from outside, it obtains sensitive signal transmission. These cables are used at which have no corrosive gases are emitted in the event of fire. In case of fire, these cables inhibit the propagation of the flames whereby the development of smoke is extremely low.

Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bükülü Bakır iletken / Electrolytic Stranded Copper Conductor IEC60228 Class5		
izolasyon / Insulation	HFFR Kompaund / HFFR Compound		
Damar Tanımlama / Core Identification	DIN 47100 Renkli Damar / According to DIN 47100		
Büküm / Stranding	Damarlar sabit adımda katlar halinde / Cores Laid up Layers of Optimum Pitch		
Örçü / Braid	SnCU / Al 50%		
DN3 Kılıf / Outer Sheath	HFFR Kompaund / HFFR Compound	Kılıf Renği / Colour of Sheath	RAL 7001,

Elektriksel Ölçümler / Electrical Parameters

izolasyon Direnci / Insulation Resistance	>200 MOhm.km	Etkif Kapasitans / Mutual Capacitance	Max. 120 nF/km
(alıma Gerilimi / Operating Voltage	Max. 750V	Test Gerilimi / Test Voltage	Max. 2500 V
(alıma Sıcaklık / Temperature Range	-5 °C +70 °C		
Bükülme (arı / Bending Radius	15 x D		
Alev Testi / Flame Test	IEC 60332-3 & TS/DIN EN 50266-2-4	Duman Yoğunluğu Testi / Smoke Density Test	IEC 61034-2 & TS/DIN EN 61034-2
Halojenizlik Testi / Halogen-Free Properties Test	IEC60754-1/2 & TS/DIN EN 50267-2		

Per SaYnşn x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2 x 0,22	3 x 0,22	4 x 0,22	5 x 0,22	6 x 0,22	7 x 0,22	8 x 0,22	10 x 0,22	12 x 0,22	14 x 0,22
Yaklaşık DN3 (arı / Approx. Outer Diameter (mm)	4,4	4,6	5,2	5,5	5,6	5,9	6,3	7,1	7,5	8,5
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	26	30	37	43	47	52	58	71	86	98
Per SaYnşn x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2 x 0,50	3 x 0,50	4 x 0,50	5 x 0,50	6 x 0,50	7 x 0,50	8 x 0,50	10 x 0,50	12 x 0,50	14 x 0,50
Yaklaşık DN3 (arı / Approx. Outer Diameter (mm)	5,8	6,0	6,4	7,2	7,3	7,6	8,4	9,2	10,0	11,2
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	40	48	58	71	80	89	103	122	147	152
Per SaYnşn x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2 x 0,75	3 x 0,75	4 x 0,75	5 x 0,75	6 x 0,75	7 x 0,75	8 x 0,75	10 x 0,75	12 x 0,75	14 x 0,75
Yaklaşık DN3 (arı / Approx. Outer Diameter (mm)	6,1	6,6	7,1	7,8	8,0	8,4	9,2	10,2	10,9	12,3
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	47	62	74	92	103	115	134	159	184	198
Per SaYnşn x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2 x 1,00	3 x 1,00	4 x 1,00	5 x 1,00	6 x 1,00	7 x 1,00	8 x 1,00	10 x 1,00	12 x 1,00	14 x 1,00
Yaklaşık DN3 (arı / Approx. Outer Diameter (mm)	6,7	6,9	7,6	8,4	9,6	9,8	9,9	11,0	11,8	14,0
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	59	73	89	109	123	138	159	192	224	290
Per SaYnşn x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2 x 1,50	3 x 1,50	4 x 1,50	5 x 1,50	6 x 1,50	7 x 1,50	8 x 1,50	10 x 1,50	12 x 1,50	14 x 1,50
Yaklaşık DN3 (arı / Approx. Outer Diameter (mm)	7,7	8,1	8,8	9,8	10,0	10,6	11,6	12,9	13,9	15,5
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	77	98	120	148	168	189	221	269	314	390
Per SaYnşn x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2 x 2,50	3 x 2,50	4 x 2,50	5 x 2,50	6 x 2,50	7 x 2,50	8 x 2,50	10 x 2,50	12 x 2,50	14 x 2,50
Yaklaşık DN3 (arı / Approx. Outer Diameter (mm)	8,5	9,0	10,0	11,1	11,4	12,0	13,2	14,7	15,7	16,8
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	99	131	167	210	240	271	313	379	44	516



Used in electronic control systems in voice frequency, signal and data transmission, in office machinery and measurement devices as connection cable. Because of having a screen reflecting the electrical effects coming from outside, it obtains sensitive signal transmission. These cables are used at which have no corrosive gases are emitted in the event of fire. In case of fire, these cables inhibit the propagation of the flames whereby the development of smoke is extremely low.



**Kablo Yapısı / Cable Construction**

iletken / Conductor	Elektrolitik Bükülü Bakır iletken / Electrolytic Stranded Copper Conductor IEC60228 Class5		
izolasyon / Insulation	HFFR Kompaund / HFFR Compound		
Damar Tanımlama / Core Identification	DIN 47100 Renkli Damar / According to DIN 47100		
Büküm / Stranding	İkili Bükümlü Damarlar Katlar Halinde Bükülür / Cores are Twisted in Pair and Bend in the Layers		
Örçü / Braid	SnCu / Al 50%		
Dış Kılıf / Outer Sheath	HFFR Kompaund / HFFR Compound	Kılıf Renği / Colour of Sheath	RAL 7001,
<b>Elektriksel Ölçümler / Electrical Parameters</b>			
izolasyon Direnci / Insulation Resistance	>200 MOhm.km	Etkili Kapasitans / Mutual Capacitance	Max. 120 nF/km
(alıma Gerilimi / Operating Voltage	Max. 750V	Test Gerilimi / Test Voltage	Max. 2500 V
(alıma Sıcaklık / Temperature Range	-5 °C +70 °C		
Bükülme (arı / Bending Radius	15 x D		
Alev Testi / Flame Test	IEC 60332-3 & TS/DIN EN 50266-2-4	Duman Yoğunluğu Testi / Smoke Density Test & TS/DIN EN 61034-2	IEC 61034-2
Halojensizlik Testi / Halogen-Free Properties Test	IEC60754-1/2 & TS/DIN EN 50267-2		

Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x0,22	3x2x0,22	4x2x0,22	5x2x0,22	6x2x0,22	7x2x0,22	8x2x0,22	10x2x0,22	12x2x0,22
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	4,6	6,2	6,7	7,4	7,7	7,7	8,6	9,9	10,3
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	30	43	52	61	69	76	88	112	128
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x0,50	3x2x0,50	4x2x0,50	5x2x0,50	6x2x0,50	7x2x0,50	8x2x0,50	10x2x0,50	12x2x0,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	5,7	7,8	9,0	10,2	10,5	10,5	11,7	13,7	14,2
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	48	70	92	115	130	142	170	215	245
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x0,75	3x2x0,75	4x2x0,75	5x2x0,75	6x2x0,75	7x2x0,75	8x2x0,75	10x2x0,75	12x2x0,75
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	6,3	8,9	10,0	11,3	11,7	11,7	13,2	15,1	15,7
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	60	93	115	150	170	185	224	275	317
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x1,00	3x2x1,00	4x2x1,00	5x2x1,00	6x2x1,00	7x2x1,00	8x2x1,00	10x2x1,00	12x2x1,00
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	6,5	9,4	10,5	11,7	12,5	12,5	13,9	16,1	16,7
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	70	110	137	176	203	225	260	332	385
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x1,50	3x2x1,50	4x2x1,50	5x2x1,50	6x2x1,50	7x2x1,50	8x2x1,50	10x2x1,50	12x2x1,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	7,6	11,5	12,8	14,7	15,1	15,1	16,8	19,2	20,0
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	96	156	202	257	295	325	375	470	538
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x2,50	3x2x2,50	4x2x2,50	5x2x2,50	6x2x2,50	7x2x2,50	8x2x2,50	10x2x2,50	12x2x2,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	9,1	13,9	15,4	17,1	18,2	18,2	20,0	22,9	23,7
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	145	238	310	380	445	500	558	705	810



These cables are used for connections in the electronic control technology, signal and data transmission cables for voice frequency transmissions. These cables are used at which have no corrosive gases are emitted in the event of fire. In case of fire, these cables inhibit the propagation of the flames whereby the development of smoke is extremely low. These cables are not intended for outdoor or underground installation.

Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bükülü Bakır iletken / Electrolytic Stranded Copper Conductor IEC60228 Class5		
izolasyon / Insulation	HFFR Kompaund / HFFR Compound		
Damar Tanımlama / Core Identity	DIN 47100 Renkli Damar / According to DIN 47100		
Büküm / Stranding	Damarlar sabit adımda katlar halinde / Cores Laid up Layers of Optimum Pitch		
Ekran / Screen	Al-Pes 100% Kalaylı Bakır Toprak Teli ile / Al-Pes 100% with SnCu Drain Wire		
Dış Kılıf / Outer Sheath	HFFR Kompaund / HFFR Compound	Kılıf Renği / Colour of Sheath	RAL 7001,

Elektriksel Ölçümler / Electrical Parameters

izolasyon Direnci / Insulation Resistance	>200 MOhm.km	Etkif Kapasitans / Mutual Capacitance	Max. 120 nF/km
(alıma Cerilimi / Operating Voltage	Max. 750V	Test Gerilimi / Test Voltage	Max. 2500 V
(alıma Sıcaklık / Temperature Range	-5 °C +70 °C		
Bükülme (arı / Bending Radius	15 x D		
Alev Testi / Flame Test	IEC 60332-3 & TS/DIN EN 50266-2-4	Duman Yoğunluğu Testi / Smoke Density Test & TS/DIN EN 61034-2	IEC 61034-2
Halojensizlik Testi / Halogen-Free Properties Test	IEC60754-1/2 & TS/DIN EN 50267-2		

Damar SaYnı x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 0,22	3 x 0,22	4 x 0,22	5 x 0,22	6 x 0,22	7 x 0,22	8 x 0,22	10 x 0,22	12 x 0,22	14 x 0,22
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	4,1	4,3	4,9	5,2	5,3	5,6	5,9	6,8	7,2	7,8
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	21	25	31	36	40	45	50	62	71	79
Damar SaYnı x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 0,50	3 x 0,50	4 x 0,50	5 x 0,50	6 x 0,50	7 x 0,50	8 x 0,50	10 x 0,50	12 x 0,50	14 x 0,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	5,4	5,6	6,1	6,8	7,0	7,3	8,0	8,9	9,7	12,4
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	33	41	50	62	70	79	92	111	133	145
Damar SaYnı x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 0,75	3 x 0,75	4 x 0,75	5 x 0,75	6 x 0,75	7 x 0,75	8 x 0,75	10 x 0,75	12 x 0,75	14 x 0,75
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	5,8	6,3	6,8	7,5	7,7	8,1	8,9	9,9	10,6	13,0
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	40	54	66	82	92	104	121	146	169	183
Damar SaYnı x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 1,00	3 x 1,00	4 x 1,00	5 x 1,00	6 x 1,00	7 x 1,00	8 x 1,00	10 x 1,00	12 x 1,00	14 x 1,00
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	6,4	6,7	7,3	8,1	8,3	8,7	9,6	10,6	11,5	13,8
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	50	64	78	98	111	126	146	177	207	233
Damar SaYnı x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 1,50	3 x 1,50	4 x 1,50	5 x 1,50	6 x 1,50	7 x 1,50	8 x 1,50	10 x 1,50	12 x 1,50	14 x 1,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	7,4	7,8	8,5	9,5	9,7	10,3	11,3	12,6	13,6	14,6
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	67	88	109	136	156	177	206	250	293	322
Damar SaYnı x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 2,50	3 x 2,50	4 x 2,50	5 x 2,50	6 x 2,50	7 x 2,50	8 x 2,50	10 x 2,50	12 x 2,50	14 x 2,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	8,2	8,7	9,7	10,8	11,1	11,7	12,9	14,4	15,5	16,9
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	89	119	154	193	223	253	293	358	420	490



These cables are used for connections in the electronic control technology, signal and data transmission cables for voice frequency transmissions. These cables are used at which have no corrosive gases are emitted in the event of fire. In case of fire, these cables inhibit the propagation of the flames whereby the development of smoke is extremely low. These cables are not intended for outdoor or underground installation.



Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bükülü Bakır iletken / Electrolytic Stranded Copper Conductor IEC60228 Class5		
izolasyon / Insulation	HFFR Kompaund / HFFR Compound		
Damar Tanımlama / Core Identifi- cation	DIN 47100 Renkli Damar / According to DIN 47100		
Büküm / Stranding	iki Bükümlü Damarlar Katlar Halinde Bükülür / Cores are Twisted in Pair and Bend in the Layers		
Ekran / Screen	Al-Pes 100% Kalaylı Bakır Toprak Teli ile / Al-Pes 100% with SnCu Drain Wire		
Dış Kılıf / Outer Sheath	HFFR Kompaund / HFFR Compound	Kılıf Renği / Colour of Sheath	RAL 7001,

Elektriksel Ölçümler / Electrical Parameters

izolasyon Direnci / Insulation Resistance	>200 MOhm.km	Etkili Kapasitans / Mutual Capacitance	Max. 120 nF/km
(alıma Gerilimi / Operating Voltage	Max. 750V	Test Gerilimi / Test Voltage	Max. 2500 V
(alıma Sıcaklık / Temperature Range	-5 °C +70 °C		
Bükülme (arı / Bending Radius	15 x D		
Alev Testi / Flame Test	IEC 60332-3 & TS/DIN EN 50266-2-4	Duman Yoğunluğu Testi / Smoke Density Test & TS/DIN EN 61034-2	IEC 61034-2
Halojenizlik Testi / Halogen-Free Properties Test	IEC60754-1/2 & TS/DIN EN 50267-2		

Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x0,22	3x2x0,22	4x2x0,22	5x2x0,22	6x2x0,22	7x2x0,22	8x2x0,22	10x2x0,22	12x2x0,22
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	4,4	6,0	6,5	7,2	7,5	7,5	8,4	9,7	10,1
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	28	41	50	57	69	74	85	108	122
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x0,50	3x2x0,50	4x2x0,50	5x2x0,50	6x2x0,50	7x2x0,50	8x2x0,50	10x2x0,50	12x2x0,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	5,5	7,6	8,8	10,0	10,3	10,3	11,5	13,5	14,0
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	44	65	88	110	128	138	165	210	240
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x0,75	3x2x0,75	4x2x0,75	5x2x0,75	6x2x0,75	7x2x0,75	8x2x0,75	10x2x0,75	12x2x0,75
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	6,1	8,7	9,8	11,1	11,5	11,5	13,0	14,9	15,5
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	58	90	110	145	165	180	220	270	312
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x1,00	3x2x1,00	4x2x1,00	5x2x1,00	6x2x1,00	7x2x1,00	8x2x1,00	10x2x1,00	12x2x1,00
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	6,3	9,2	10,3	11,5	12,3	12,3	13,7	15,9	16,5
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	68	104	132	173	200	220	255	328	380
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x1,50	3x2x1,50	4x2x1,50	5x2x1,50	6x2x1,50	7x2x1,50	8x2x1,50	10x2x1,50	12x2x1,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	7,4	11,3	12,6	14,5	14,9	14,9	16,6	19,20	19,8
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	94	153	200	253	290	320	370	472	536
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x2,50	3x2x2,50	4x2x2,50	5x2x2,50	6x2x2,50	7x2x2,50	8x2x2,50	10x2x2,50	12x2x2,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	8,9	13,7	15,2	16,9	18,0	18,0	19,8	22,7	23,5
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	143	233	305	375	440	495	553	700	805





Used in electronic control systems in voice frequency, signal and data transmission, in office machinery and measurement devices as connection cable. And also also consisting of tinned Copper wires and aluminium tape as screen screen provides more protection against external pulses. These cables are used at which have no corrosive gases are emitted in the event of fire. In case of fire, these cables inhibit the propagation of the flames whereby the development of smoke is extremely low.

Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bükülü Bakır iletken / Electrolytic Stranded Copper Conductor IEC60228 Class5		
izolasyon / Insulation	HFFR Kompaund / HFFR Compound		
Damar Tanımlama / Core Identification	DIN 47100 Renkli Damar / According to DIN 47100		
Büküm / Stranding	Damarlar sabit adımda katlar halinde / Cores Laid up Layers of Optimum Pitch		
Ekran / Screen	Al-Pes 100% Kalaylı Bakır Toprak Teli ile / Al-Pes 100% with SnCu Drain Wire		
Örçü / Braid	SnCu / Al 50%		
DN3 Kılıf / Outer Sheath	HFFR Kompaund / HFFR Compound	Kılıf Renği / Colour of Sheath	RAL 7001,

Elektriksel Ölçümler / Electrical Parameters

izolasyon Direnci / Insulation Resistance	>200 MOhm.km	Etkif Kapasitans / Mutual Capacitance	Max. 120 nF/km
(alıma Cerilimi / Operating Voltage	Max. 750V	Test Gerilimi / Test Voltage	Max. 2500 V
(alıma Sıcaklık / Temperature Range	-5 °C +70 °C		
Büküm (arı / Bending Radius	15 x D		
Alev Testi / Flame Test	IEC 60332-3 & TS/DIN EN 50266-2-4	Duman Yoğunluğu Testi / Smoke Density Test	IEC 61034-2 & TS/DIN EN 61034-2
Halojenizlik Testi / Halogen-Free Properties Test	IEC60754-1/2 & TS/DIN EN 50267-2		

Damar SaYnş x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 0,22	3 x 0,22	4 x 0,22	5 x 0,22	6 x 0,22	7 x 0,22	8 x 0,22	10 x 0,22	12 x 0,22	14 x 0,22
YaklaZnk DN3 (arı / Approx. Outer Diameter (mm)	4,5	4,7	5,3	5,6	5,7	6,0	6,4	7,2	7,6	8,6
YaklaZnk Aarı / Approx. Cable Weight (kg/km)	28	32	39	45	49	54	60	73	883	100
Damar SaYnş x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 0,50	3 x 0,50	4 x 0,50	5 x 0,50	6 x 0,50	7 x 0,50	8 x 0,50	10 x 0,50	12 x 0,50	14 x 0,50
YaklaZnk DN3 (arı / Approx. Outer Diameter (mm)	5,9	6,1	6,5	7,3	7,4	7,7	8,5	9,3	10,1	11,4
YaklaZnk Aarı / Approx. Cable Weight (kg/km)	42	50	60	73	82	91	105	124	149	154
Damar SaYnş x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 0,75	3 x 0,75	4 x 0,75	5 x 0,75	6 x 0,75	7 x 0,75	8 x 0,75	10 x 0,75	12 x 0,75	14 x 0,75
YaklaZnk DN3 (arı / Approx. Outer Diameter (mm)	6,2	6,7	7,2	7,9	8,1	8,5	9,3	10,3	11,0	12,4
YaklaZnk Aarı / Approx. Cable Weight (kg/km)	49	64	76	94	105	117	136	161	186	200
Damar SaYnş x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 1,00	3 x 1,00	4 x 1,00	5 x 1,00	6 x 1,00	7 x 1,00	8 x 1,00	10 x 1,00	12 x 1,00	14 x 1,00
YaklaZnk DN3 (arı / Approx. Outer Diameter (mm)	6,8	7,1	7,7	8,5	9,7	9,1	10,0	11,1	11,9	14,1
YaklaZnk Aarı / Approx. Cable Weight (kg/km)	61	75	91	111	125	140	161	194	226	292
Damar SaYnş x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 1,50	3 x 1,50	4 x 1,50	5 x 1,50	6 x 1,50	7 x 1,50	8 x 1,50	10 x 1,50	12 x 1,50	14 x 1,50
YaklaZnk DN3 (arı / Approx. Outer Diameter (mm)	7,8	8,2	8,9	9,9	10,1	10,7	11,7	13,0	14,0	15,6
YaklaZnk Aarı / Approx. Cable Weight (kg/km)	79	100	122	150	170	191	223	271	316	392
Damar SaYnş x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 2,50	3 x 2,50	4 x 2,50	5 x 2,50	6 x 2,50	7 x 2,50	8 x 2,50	10 x 2,50	12 x 2,50	14 x 2,50
YaklaZnk DN3 (arı / Approx. Outer Diameter (mm)	8,6	9,1	10,1	11,2	11,5	12,1	13,3	14,8	15,8	16,9
YaklaZnk Aarı / Approx. Cable Weight (kg/km)	101	133	169	212	242	273	315	381	446	518



Used in electronic control systems in voice frequency, signal and data transmission, in office machinery and measurement devices as connection cable. And also consisting of tinned Copper wires and aluminium tape as screen provides more protection against external pulses. These cables are used at which have no corrosive gases are emitted in the event of fire. In case of fire, these cables inhibit the propagation of the flames whereby the development of smoke is extremely low.



**Kablo Yapısı / Cable Construction**

iletken / Conductor	Elektrolitik Bükülü Bakır iletken / Electrolytic Stranded Copper Conductor IEC60228 Class5		
izolasyon / Insulation	HFFR Kompaund / HFFR Compound		
Damar Tanımlama / Core Identity	DIN 47100 Renkli Damar / According to DIN 47100		
Büküm / Stranding	İkili Bükümlü Damarlar Katlar Halinde Bükülür / Cores are Twisted in Pair and Bend in the Layers		
Ekran / Screen	Al-Pes 100% Kalaylı Bakır Toprak Teli ile / Al-Pes 100% with SnCu Drain Wire		
Örçü / Braid	SnCu / Al 50%		
Dış Kılıf / Outer Sheath	HFFR Kompaund / HFFR Compound	Kılıf Renği / Colour of Sheath	RAL 7001,

**Elektriksel Ölçümler / Electrical Parameters**

izolasyon Direnci / Insulation Resistance	>200 MOhm.km	Etkif Kapasitans / Mutual Capacitance	Max. 120 nF/km
(alıma Gerilimi / Operating Voltage	Max. 750V	Test Gerilimi / Test Voltage	Max. 2500 V
(alıma Sıcaklık / Temperature Range	-5 °C +70 °C		
Bükülme (arı / Bending Radius	15 x D		
Alev Testi / Flame Test	IEC 60332-3 & TS/DIN EN 50266-2-4	Duman Yoğunluğu Testi / Smoke Density Test & TS/DIN EN 61034-2	IEC 61034-2
Halogenizlik Testi / Halogen-Free Properties Test	IEC60754-1/2 & TS/DIN EN 50267-2		

Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x0,22	3x2x0,22	4x2x0,22	5x2x0,22	6x2x0,22	7x2x0,22	8x2x0,22	10x2x0,22	12x2x0,22
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	4,7	6,3	6,8	7,5	7,8	7,8	8,7	10,0	10,4
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	32	45	54	63	71	78	90	114	130
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x0,50	3x2x0,50	4x2x0,50	5x2x0,50	6x2x0,50	7x2x0,50	8x2x0,50	10x2x0,50	12x2x0,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	5,8	7,9	9,1	10,3	10,6	10,6	11,8	13,8	14,3
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	50	72	94	116	132	144	172	217	247
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x0,75	3x2x0,75	4x2x0,75	5x2x0,75	6x2x0,75	7x2x0,75	8x2x0,75	10x2x0,75	12x2x0,75
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	6,4	9,0	10,1	11,4	11,8	11,8	13,3	15,2	15,8
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	62	95	117	152	172	187	226	277	319
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x1,00	3x2x1,00	4x2x1,00	5x2x1,00	6x2x1,00	7x2x1,00	8x2x1,00	10x2x1,00	12x2x1,00
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	6,6	9,5	10,6	12,2	12,6	12,6	14,0	16,2	16,8
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	72	112	139	178	205	227	262	334	387
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x1,50	3x2x1,50	4x2x1,50	5x2x1,50	6x2x1,50	7x2x1,50	8x2x1,50	10x2x1,50	12x2x1,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	7,7	11,6	12,9	14,8	15,2	15,2	17,0	19,3	20,1
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	98	158	204	259	297	327	377	472	540
Per SaYnş x Kesit / No. of Pairs x Cross Section (mm <sup>2</sup> )	2x2x2,50	3x2x2,50	4x2x2,50	5x2x2,50	6x2x2,50	7x2x2,50	8x2x2,50	10x2x2,50	12x2x2,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	9,2	14,1	15,5	17,2	18,3	18,3	20,1	23,0	23,8
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	147	240	312	382	447	502	560	707	812



For use in connecting control equipment to mechanical, assembly lines, conveyor belts, transportation systems, manufacturing lines. These cables are ideal for use in industrial environments. These cables are not for outdoor use.

Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bükülü Bakır iletken / Electrolytic Stranded Copper Conductor IEC60 8 Class5		
izolasYon / Insulation	PVC Kompaund / PVC Compound		
Damar Tanımlama / Core Identification	Siyah numaralı+ Sarı-Yeşil damarlar / Black numbered+Yellow-green wires		
Büküm / Stranding	Damarlar sabit adımda katlar halinde, 3 Damardan itibaren Sarı Yeşil (izfili Toprak Damarı) Bulunur. Cores Laid up Layers of Optimum Pitch, From 3 Cores Yellow/Green Line is Drain Wire		
Dış Kılıf / Outer Sheath	PVC Kompaund / PVC Compound	Kılıf Renği / Colour of Sheath	RAL 7032, Gri / RAL 7032, Grey

Elektriksel Ölçümler / Electrical Parameters

izolasYon Direnci / Insulation Resistance	>200 MOhm.km	Efektif Kapasitans / Mutual Capacitance	Max. 120 nF/km
(alıma Gerilimi / Working Voltage)	Max. 750V	Test Gerilimi / Test Voltage	Max. 2500 V
(alıma Sıcaklık Aralığı / Temperature Range)	-5 °C +70 °C		
Bükülme (arı / Bending Radius)	15 x D		

Damar Sayısı x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 0,75	3 x 0,75	4 x 0,75	5 x 0,75	6 x 0,75	7 x 0,75	8 x 0,75	9 x 0,75	10 x 0,75	12 x 0,75
Yaklaşık Dış (arı / Approx. Outer Diameter (mm))	5,5	5,8	6,3	7,0	7,7	7,7	8,3	9,0	9,7	10,4
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	43	52	63	80	94	98	114	130	150	117
Damar Sayısı x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 1,00	3 x 1,00	4 x 1,00	5 x 1,00	6 x 1,00	7 x 1,00	8 x 1,00	9 x 1,00	10 x 1,00	12 x 1,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm))	5,9	6,2	6,9	7,5	8,4	8,4	9,0	9,7	10,5	11,0
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	50	61	78	95	112	123	142	162	186	213
Damar Sayısı x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 1,50	3 x 1,50	4 x 1,50	5 x 1,50	6 x 1,50	7 x 1,50	8 x 1,50	9 x 1,50	10 x 1,50	12 x 1,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm))	6,6	7,00	7,60	8,60	9,30	9,30	10,00	11,00	11,80	12,60
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	66	61	101	126	150	159	185	212	244	286
Damar Sayısı x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 2,50	3 x 2,50	4 x 2,50	5 x 2,50	6 x 2,50	7 x 2,50	8 x 2,50	9 x 2,50	10 x 2,50	12 x 2,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm))	7,90	8,60	9,4	10,5	11,4	11,4	12,60	14,70	15,70	16,40
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	97	125	155	194	232	247	293	386	449	507



For use in connecting control equipment to mechanical, assembly lines, conveyor belts, transportation systems, manufacturing lines. These cables are ideal for use in industrial environments. These cables are not for outdoor use.



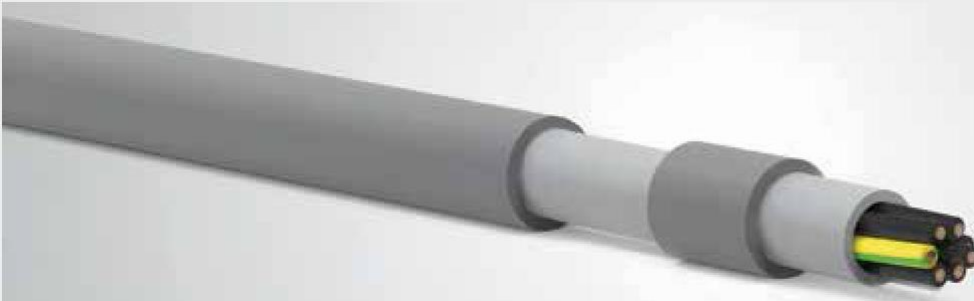
Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bükülü Bakır iletken / Electrolytic Stranded Copper Conductor IEC60 8 Class5
izolasyon / Insulation	PVC Kompaund / PVC Compound
Damar Tanımlama / Core Identification	Siyah numaralı Sarı-Yeşil damarlar / Black numbered+Yellow-green wires
Büküm / Stranding	Damarlar sabit adımda katlar halinde, 3 Damardan itibaren Sarı Yeşil (izopili Toprak Damarı Bulunur). Cores Laid up Layers of Optimum Pitch, From 3 Cores Yellow/Green Line is Drain Wire
iç izolasyon / Inner Insulation	PVC Dolgu - Kolay Şıyrılabilen, Yarızma Yan / PVC Filled Sheathed Should Be Peeled Off Easily Without Gluing Into the Insulation
Örçü / Braid	SnCU / Al 50%

Elektriksel Ölçümler / Electrical Parameters

izolasyon Direnci / Insulation Resistance	>200 MOhm.km	Efektif Kapasitans / Mutual Capacitance	Max. 120 nF/km
(alızma Gerilimi / Operating Voltage	Max. 750V	Test Gerilimi / Test Voltage	Max. 2500 V
(alızma Sıcaklık / Temperature Range	-5 °C +70 °C		
Bükülme (arı / Bending Radius	15 x D		

Damar SaYnş x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 0,75	3 x 0,75	4 x 0,75	5 x 0,75	6 x 0,75	7 x 0,75	8 x 0,75	9 x 0,75	10 x 0,75	12 x 0,75
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	6,9	7,2	7,7	8,5	9,3	9,3	9,9	10,7	11,8	12,1
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	72	82	97	117	140	145	164	190	226	246
Damar SaYnş x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 1,00	3 x 1,00	4 x 1,00	5 x 1,00	6 x 1,00	7 x 1,00	8 x 1,00	9 x 1,00	10 x 1,00	12 x 1,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	7,5	7,8	8,5	9,2	9,8	10,0	10,6	11,5	12,5	12,8
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	85	97	118	141	161	173	196	226	263	288
Damar SaYnş x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 1,50	3 x 1,50	4 x 1,50	5 x 1,50	6 x 1,50	7 x 1,50	8 x 1,50	9 x 1,50	10 x 1,50	12 x 1,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	8,0	8,6	9,4	9,9	10,9	10,9	11,9	12,6	13,7	13,7
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	101	123	150	173	209	219	256	287	333	344
Damar SaYnş x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 2,50	3 x 2,50	4 x 2,50	5 x 2,50	6 x 2,50	7 x 2,50	8 x 2,50	9 x 2,50	10 x 2,50	12 x 2,50
Yaklaşık Dış (arı / Approx. Outer Diameter (mm)	9,7	10,2	11,3	12,2	13,1	13,1	14,3	16,9	17,4	18,3
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	152	181	227	269	313	330	386	520	577	648



Such cables are suitable for use in machine production for measuring, imaging and control purposes, in power stations, engineering projects and HVAC and similar electrical systems under dry or moist ambient, in particular suited to the industrial environments. These cables not used open air, outdoor environments.

### Kablo Yapısı / Cable Construction

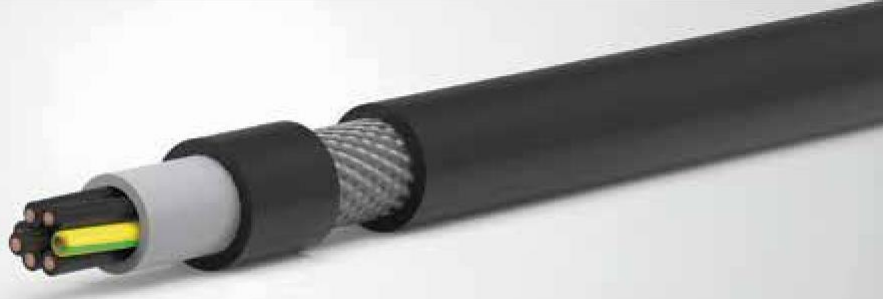
iletken / Conductor	Elektrolitik Bükülü Bakır iletken / Electrolytic Stranded Copper Conductor IEC60 8 Class5		
izolasyon / Insulation	PVC Kompaund / PVC Compound		
Damar Tanımlama / Core Identity	Siyah numaralı+ Sarı-Yeşil damarlar / Black numbered+Yellow-green wires		
Büküm / Stranding	Damarlar sabit adımda katlar halinde, 3 Damardan itibaren Sarı Yeşil (izpili Toprak Damarı Bulunur. Cores Laid up Layers of Optimum Pitch, From 3 Cores Yellow/Green Line is Drain Wire		
DN3 Kılıf / Outer Sheath	PVC Kompaund / PVC Compound	Kılıf Renği / Colour of Sheath	RAL 7001, Gri / RAL 7001, Grey

### Elektriksel Ölçümler / Electrical Parameters

izolasyon Direnci / Insulation Resistance	>200 MOhm.km	Etkili Kapasite / Mutual Capacitance	Max. 120 nF/km
(alıma Gerilimi / Operating Voltage	Max. 500V	Test Gerilimi / Test Voltage	Max. 2000 V
(alıma Sıcaklık / Temperature Range	-5 °C +70 °C		
Bükülme (arı / Bending Radius	10 x D		

Damar Sayısı x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 0,75	3 x 0,75	4 x 0,75	5 x 0,75	6 x 0,75	7 x 0,75	8 x 0,75	9 x 0,75	10 x 0,75	12 x 0,75
Yaklaşık DN3 (arı / Approx. Outer Diameter (mm)	6,3	6,7	7,3	8,2	8,9	9,7	9,8	10,7	11,6	12,0
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	58	68	83	104	124	146	154	182	211	232
Damar Sayısı x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 1,00	3 x 1,00	4 x 1,00	5 x 1,00	6 x 1,00	7 x 1,00	8 x 1,00	9 x 1,00	10 x 1,00	12 x 1,50
Yaklaşık DN3 (arı / Approx. Outer Diameter (mm)	6,6	7,0	7,7	8,6	9,5	10,2	10,3	11,3	12,4	12,8
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	66	79	97	121	148	170	180	212	251	277
Damar Sayısı x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 1,50	3 x 1,50	4 x 1,50	5 x 1,50	6 x 1,50	7 x 1,50	8 x 1,50	9 x 1,50	10 x 1,50	12 x 1,50
Yaklaşık DN3 (arı / Approx. Outer Diameter (mm)	7,5	8,2	9,0	10,0	11,1	12,1	12,2	13,2	14,5	15,0
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	88	110	135	169	206	242	257	295	348	360
Damar Sayısı x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 2,50	3 x 2,50	4 x 2,50	5 x 2,50	6 x 2,50	7 x 2,50	8 x 2,50	9 x 2,50	10 x 2,50	12 x 2,50
Yaklaşık DN3 (arı / Approx. Outer Diameter (mm)	9,3	10,1	11,0	12,2	13,3	14,4	14,6	17,5	18,1	19,2
Yaklaşık Ağırlık / Approx. Cable Weight (kg/km)	135	170	209	260	309	362	386	530	587	672





For use in connecting control equipment to mechanical, assembly lines, conveyor belts, transportation systems, manufacturing lines. These cables are ideal for use in industrial environments. These cables are not for outdoor use.



Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bükülü Bakır iletken / Electrolytic Stranded Copper Conductor IEC60 8 Class5		
izolasyon / Insulation	PVC Kompaund / PVC Compound		
Damar Tanımlama / Core Identification	Siyah numaralı+ Sarı-Yeşil damarlar / Black numbered+Yellow-green wires		
Büküm / Stranding	Damarlar sabit adımda katlar halinde, 3 Damardan itibaren Sarı Yeşil (izçili Toprak Damarı Bulunur). Cores Laid up Layers of Optimum Pitch, From 3 Cores Yellow/Green Line is Drain Wire		
iç izolasyon / Inner Insulation	PVC Dolgu - Kolay Şırlabilen, Yarızma Yan / PVC Filled Sheathed Should Be Peeled Off Easily Without Gluing Into the Insulation		
Örçü / Braid	SnCU / Al 50%		
Dış Kılıf / Outer Sheath	PVC Kompaund / PVC Compound	Kılıf Renği / Colour of Sheath	RAL 7001, Gri / RAL 7001, Grey

Elektriksel Ölçümler / Electrical Parameters

izolasyon Direnci / Insulation Resistance	>200 MOhm.km	Etkif Kapasitans / Mutual Capacitance	Max. 120 nF/km
(alızma Cerilimi / Operating Voltage	Max. 750V	Test Gerilimi / Test Voltage	Max. 2000 V
(alızma Sıcaklık / Temperature Range	-5 °C +70 °C		
Bükölme (arı / Bending Radius	10 x D		

Damar SaYın x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 0,75	3 x 0,75	4 x 0,75	5 x 0,75	6 x 0,75	7 x 0,75	8 x 0,75	9 x 0,75	10 x 0,75	12 x 0,75
YaklaZık Dış (arı / Approx. Outer Diameter (mm)	8,4	8,7	9,5	10,2	11,1	11,9	12,5	13,0	14,1	14,5
YaklaZık Ağırlık / Approx. Cable Weight (kg/km)	100	113	135	158	186	213	216	256	297	321
Damar SaYın x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 1,00	3 x 1,00	4 x 1,00	5 x 1,00	6 x 1,00	7 x 1,00	8 x 1,00	9 x 1,00	10 x 1,00	12 x 1,50
YaklaZık Dış (arı / Approx. Outer Diameter (mm)	8,8	9,4	10,0	11,0	11,7	12,8	12,9	13,7	14,9	15,5
YaklaZık Ağırlık / Approx. Cable Weight (kg/km)	112	132	154	185	214	251	262	295	343	380
Damar SaYın x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 1,50	3 x 1,50	4 x 1,50	5 x 1,50	6 x 1,50	7 x 1,50	8 x 1,50	9 x 1,50	10 x 1,50	12 x 1,50
YaklaZık Dış (arı / Approx. Outer Diameter (mm)	9,8	10,3	11,2	12,5	13,4	14,3	14,5	15,6	16,9	17,4
YaklaZık Ağırlık / Approx. Cable Weight (kg/km)	143	164	199	244	282	325	342	392	455	495
Damar SaYın x Kesit / No. of Cores x Cross Section (mm <sup>2</sup> )	2 x 2,50	3 x 2,50	4 x 2,50	5 x 2,50	6 x 2,50	7 x 2,50	8 x 2,50	9 x 2,50	10 x 2,50	12 x 2,50
YaklaZık Dış (arı / Approx. Outer Diameter (mm)	11,4	12,0	13,3	14,6	15,9	17,0	17,3	18,4	20,5	21,1
YaklaZık Ağırlık / Approx. Cable Weight (kg/km)	197	231	288	348	413	473	500	611	686	750



## ENERGY CABLES

### Enerji Kabloları Energy Cables

- |  |                     |
|--|---------------------|
| 130. H05V-U / H07V-U (NYA)               | 140. NYM(NVV)       |
| 131. H05V-K / H07V-K (NYAF)              | 141. YW(NYY)        |
| 132. H05VV-F                             | 142. NHXMH          |
| 133. H03VH-H / H05VH-H                   | 143. N2XH           |
| 134. H03VVH2-F / H05VVH2-F               | 144. 2XSLCH-JB      |
| 135. H05Z1-U / H07Z1-U (NYA)             | 145. NYIFY(KAPOTEN) |
| 136. H05Z1-K / H07Z1-K (NYAF)            |                     |
| 137. H05Z1Z1-F                           |                     |
| 138. 6242YH (TWIN AND EARTH CABLE) - PVC |                     |
| 139. 6242B (TWIN AND EARTH CABLE) - HFFR |                     |







In dry locations in conduit on and under plaster. Not approved for direct installation in plaster in switching and distribution stations.

Kablo Yapısı / Cable Construction

iletken / Conductor	Bakır iletken / Copper Conductor IEC60228 Class1/2
izolasyon / Insulation	PVC
Anma Gerilimi / Rated Voltage	300/500 V (H05V-U), 450/750 V (H07V-U/R)
Test Gerilimi / Test Voltage	2-2,5 kV AC

Elektriksel Ölçümler / Electrical Parameters

Maks. (alıñma őraklıñı / Max. Operating Temperature	70°C
Maks. Kısa Devre őraklıñı / Max. Short Circuit Temperature	160°C (maks.5 sn.) / 160°C (max.5 sec.)

Ürün Kodu Part Number	Nominal Kesit (mm <sup>2</sup> ) Nominal Cors Section	Yaklaşık Dış (ap (mm) Approx. Outer Dimeter	Yaklaşık Ağırlık (kg/km) Approx. Cable Weight	0°C'de iken max. DC Direnci Conductor Resistance at 0°C (Max)	30°C'de havada max. Akım Tañma Kapasitansı Max. Current Carrıñı CapacitY at 30°C in air	
					Toprakta 0°C'de In Ground at 0°C	Havada 30°C'de In Air at 30°C
H05V-U	0.5 re	2,1	8	36,00	-	9
H05V-U	0.75 re	2,3	11	24,50	-	9
H05V-U	1.0 re	2,5	14	18,10	-	15
H07V-U	1.5 re	2,8	20	12,10	11	19
H07V-U	2.5re	3,3	31	7,41	15	24
H07V-U	4 re	3,8	46	4,61	20	32
H07V-U	6 re	4,3	54	3,08	25	42
H07V-U	10 re	5,6	108	1,83	33	54
H07V-R	10 rm	6,0	111	1,83	45	73
H07V-R	16 rm	7,0	170	1,15	45	73
H07V-R	25 rm	8,5	260	0,727	61	98
H07V-R	35 rm	9,5	355	0,524	83	129
H07V-R	50 rm	11,0	505	0,387	103	158
H07V-R	70 rm	13,0	694	0,268	132	198
H07V-R	95 rm	15,0	938	0,193	165	245
					197	292



These flexible cables are used for the internal wiring of equipment as well as for protected installation in and to lighting fixtures, in tubes, in conduit, on and under plaster although only for bell circuits and signal systems.



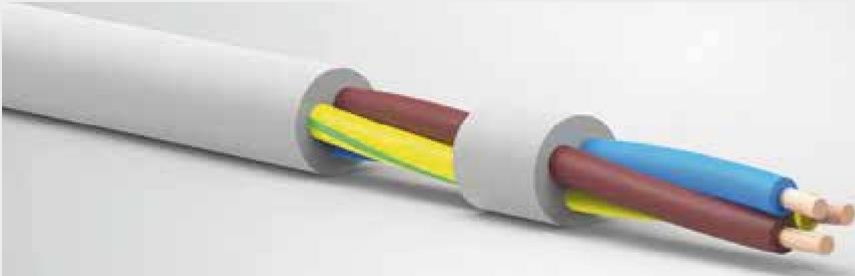
Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bükülü Bakır iletken / Electrolytic Stranded Copper Conductor IEC60228 Class5
izolasyon / Insulation	PVC
Damar Tanımlama / Core Identification	Farklı Renklerde / Different Colours Are Available

Elektriksel Ölçümler / Electrical Parameters

Anma Gerilimi / Rated Voltage	300/500 V (H05V-K), 450/750V (H07V-K)
Test Gerilimi / Test Voltage	kV - ,5 kV - (AC 50 Hz)
(alıştırma Sıcaklığı / Temperature Range	- 0 °C --+70 °C
Max. Kısa Devre Sıcaklığı / Min. Short Circuit Temperature	160 °C
Min. Bükülme Yarıçapı / Min. Bending Radius	10 x D

Ürün Kodu Part Number	Nominal Kesit (mm <sup>2</sup> ) Nominal Cross Section	Yaklaşık Dış (ap (mm) Approx. Outer Diameter	Yaklaşık Ağırlık (kg/km) Approx. Cable Weight	0 °C'de iken max. DC Direnci Conductor Resistance at 0 °C (Max)	30 °C'de havada max. Akım Taşıma Kapasitesi Max. Current Carrying Capacity at 30 °C in air	
					Toprakta 0 °C de de In Ground at 30 °C	Havada 30 °C In Air at 30 °C
H05V-K	0,5	2,1	9	39,00	-	11
H05V-K	0,75	2,3	11	26,00	-	16
H05V-K	1	2,5	14	19,50	11	26
H07V-K	1,5	2,9	20	13,30	15	24
H07V-K	2,5	3,6	32	7,98	20	32
H07V-K	4	4,2	50	4,95	25	42
H07V-K	6	4,8	70	3,30	33	54
H07V-K	10	6,5	115	1,91	45	73
H07V-K	16	8,0	175	1,21	61	98
H07V-K	25	10,0	270	0,780	83	129
H07V-K	35	11,0	370	0,554	103	158
H07V-K	50	13,5	525	0,386	132	198
H07V-K	70	15,0	700	0,272	165	245
H07V-K	95	17,5	970	0,206	197	292
H07V-K	120	19,5	1200	0,161	235	344
H07V-K	150	22,0	1500	0,129	-	391
H07V-K	185	24,0	1860	0,106	-	448



In dry, damp and wet locations as flexible connecting cables for light mechanical stresses. It's used at ambient temperatures up to 70 °C kitchen and hand tools etc.

### Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bükülü Bakır iletken / Electrolytic Stranded Copper Conductor IEC60228 Class5	izolasyon / Insulation	PVC
Büküm / Lay-up	Damar sabit adımda katlar halinde bükülür / Cores laid up In Layers of Optimum Pitch		
DH3 Kılıf / Outer Sheath	PVC		
Kılıf Renği / Colour of	RAL 9003, BeYaz veya RAL 9005, Siyah / RAL 9003, White or RAL 9005, Black		
Elektriksel Ölçümler / Electrical Parameters			

Anma Gerilimi / Rated Voltage	300/300V (H03VV-F), 300/500V (H05VV-F)	izolasyon Direnci / Insulation Resistance	>200 MOhm.km
Test Gerilimi / Test Voltage	2000 V	(alH3ma Sıcaklık / Temperature Range	-5 °C +70 °C
Maks. Kısa Devre Sıcaklığı / Max. Short Circuit Temperature	160°C	Min. Bükülme Yarıçapı / Min. Bending Radius	10 x D

Ürün Kodu Part Number	Nominal Kesit (mm <sup>2</sup> ) Nominal Cors Section	Yaklaşık DH3 (ap) (mm) Approx. Outer Dimeter	Yaklaşık Ağırlık (kg/km) Approx. Cable Weight	0 °C'de iken max. DC Direnci Conductor Resistance at 0 °C Max.	30 °C'de havada max. Akım Taşıma Kapasitansı Max. Current Capacity at 30 °C in air
H03Z1Z1-F	2 x 0,5	5,0	38	39,00	3
H03Z1Z1-F	2 x 0,75	5,5	46	26,00	6
H03Z1Z1-F	3 x 0,50	5,4	44	39,00	3
H03Z1Z1-F	3 x 0,75	6,0	56	26,00	6
H03Z1Z1-F	4 x 0,50	5,9	55	39,00	3
H03Z1Z1-F	4 x 0,75	6,4	68	26,00	6
H05Z1Z1-F	2 x 0,75	6,2	55	26,00	13
H05Z1Z1-F	2 x 1	6,6	65	19,50	16
H05Z1Z1-F	2 x 1,5	7,6	90	13,30	20
H05Z1Z1-F	2 x 2,5	9,2	130	7,98	27
H05Z1Z1-F	2 x 4	11,0	180	4,95	34
H05Z1Z1-F	3 x 0,75	6,5	65	26,00	13
H05Z1Z1-F	3 x 1	7,2	80	19,50	16
H05Z1Z1-F	3 x 1,5	8,5	110	13,30	20
H05Z1Z1-F	3 x 2,5	10,0	165	7,98	27
H05Z1Z1-F	3 x 4	11,4	230	4,95	34
H05Z1Z1-F	4 x 0,75	7,1	75	26,00	13
H05Z1Z1-F	4 x 1	7,8	95	19,50	16
H05Z1Z1-F	4 x 1,5	9,5	140	13,30	20
H05Z1Z1-F	4 x 2,5	11,0	200	7,98	27
H05Z1Z1-F	4 x 4	12,5	290	4,95	34
H05Z1Z1-F	5 x 0,75	8,0	100	26,00	13
H05Z1Z1-F	5 x 1	8,5	115	19,50	16
H05Z1Z1-F	5 x 1,5	10,5	170	13,30	20





Used in dry and humid places, and as a connecting cables in low mechanical stress.



**Kablo Yapısı / Cable Construction**

iletken / Conductor	Elektrolitik Bükülü Bakır iletken / Electrolytic Stranded Copper Conductor IEC60 8 Class5
izolasyon / Insulation	PVC
Damar Tanımlama / Core Identification	Değişik Renklerde / Different Colours Are Available

**Elektriksel Ölçümler / Electrical Parameters**

Anma Gerilimi / Rated Voltage	300/300 V	300/500V
(alıştırma Sıcaklığı / Temperature Range	- 0 °C ~ +70 °C	
Max. Kısa Devre Sıcaklığı / Min. Short Circuit Temperature	160 °C	
Min. Bükülme Yarıçapı / Min. Bending Radius	10 x D	

Ürün Tipi Product Type	Yaklaşık Dış Çap (mm) Approx. Outer Diameter	Net Ağırlık Net Weight (kg/KM)	Test Gerilimi AC V Test Voltage AC V	iletken DC Direnci 0 °C Max Ohm/km Conductor DC Resistance at 0 °C Max OHM/KM	izolasyon Direnci Min+70 °C M Ohm.km Insulation Resistance +70 °C M OHM/k	Akım Taşıma Kapasitesi (Yaklaşık) 30 °C de A Current Carrying Capacity (approx.) at 30 °C de A
x 0,5 mm <sup>2</sup>	2,1x4,5	18	2000	71,6	0,018	6
x 0,34 mm <sup>2</sup>	2,2x4,7	19	2000	55,9	0,018	6
x 0,50 mm <sup>2</sup>	2,3x5,0	20	2000	39	0,016	9
x 0,75 mm <sup>2</sup>	2,55x5,6	28	2000	26	0,014	12
x 1,00 mm <sup>2</sup>	2,7x5,7	35	2000	19,5	0,012	15
x 1,50 mm <sup>2</sup>	2,9x6,0	45	2000	13,3	0,01	18
x 2,50 mm <sup>2</sup>	3,5x7,2	65	2000	7,98	0,009	26
x 4,00 mm <sup>2</sup>	4,2x8,9	97	2000	4,95	0,007	34



In dry and covered places, in medium size plants having very little mechanical pressures, as mobile connection and indoor general wiring cable.

Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bükülü Bakır iletken / Electrolytic Stranded Copper Conductor IEC60228 Class5
izolasyon / Insulation	PVC
DH3 KHlf / Outer Sheath	PVC

Elektriksel Ölçümler / Electrical Parameters

Maks. (alı3ma 5ncaklıfı / Max. Operating Temperature	70°C
Maks. KHsa Devre 5ncaklıfı / Max. Short Circuit Temperature	160°C
Anma Gerilimi / Rated Voltage	300/500 V

Ürün Kodu Part Number	Nominal Kesit (mm <sup>2</sup> ) Nominal Cors Section	Yakla3ık DH3 (ap) Approx. Outer Dimeter	Yakla3ık Aφırlık (kφ/km) Approx. Cable Weight	Sevk Uzunluđu (m) Delivery Lenght	0°C'de iken maks. DC Direnci Conductor Resistance at 0°C (Max)	0°C'de Toprakta Akım Ta3ınma Kapasitanssi Current Carrying Capacity at 0°C in φground
H03VVH2-F	2 x 0.5	3.4 x 5.4	33,0	100	39,00	3
H03VVH2-F	2 x 0.75	3.4 x 5.8	39,0	100	26,00	6
H05VVH2-F	2 x 0.75	4.1 x 6.6	49,0	100	26,00	6
H05VVH2-F	2 x 1.0	4.3 x 6.9	55,0	100	19,50	10



In dry locations in conduit on and under plaster. Not approved for direct installation in plaster in switching and distribution stations. These halogen-free installation wires with improved properties in the case of fire are destined for the use in the dry locations, for the wiring of lamps, appliances, switchgears and distribution cabinets, in buildings.



Kablo Yapısı / Cable Construction

iletken / Conductor	Bakır iletken / Copper Conductor IEC60228 Class1/2
izolasyon / Insulation	HFFR Kompound / HFFR Compound
Anma Gerilimi / Rated Voltage	300/500 V (H05Z1-U), 450/750 V (H07Z1-U/R)
Test Gerilimi / Test Voltage	2000 V

Elektriksel Ölçümler / Electrical Parameters

Maks. (alı3ma 5ıncaklıřın / Max. Operating Temperature	70°C
Maks. Kısa Devre 5ıncaklıřın / Max. Short Circuit Temperature	160°C (maks.5 sn.) / 160°C (max.5 sec.)
Alev Testi / Flame Test	IEC 60332-3 & TS/EN 60332-3-24
Duman Yořunluęu Testi / Smoke Density Test	IEC 61034-2 & TS/DIN EN 61034-2
Halojensizlik Özellik Testi / Halogen-Free Properties Test	IEC60754-1/2 & TS/DIN EN 50267-2

Ürün Kodu Part Number	Nominal Kesit (mm <sup>2</sup> ) Nominal Cors Section	Yakla3ık Dıř (ap (mm) Approx. Outer Dimeter	Yakla3ık Aęırlık (kg/km) Approx. Cable Weight	0°C'de iken max. DC Direnci Conductor Resistance at 0°C (Max)	30°C'de havada max. Akım Ta3ıma Kapasitansı Max. Current Carrying Capacity at 30°C in air	
					Toprakta 0°C de In Ground at 0°C	Havada 30°C de In Air at 30°C
H05Z1-U	0.5 re	2,1	8	36,00	-	9
H05Z1-U	0.75 re	2,3	11	24,50	-	15
H05Z1-U	1.0 re	2,5	14	18,10	11	19
H07Z1-U	1.5 re	2,8	20	12,10	15	24
H07Z1-U	2.5re	3,3	31	7,41	20	32
H07Z1-U	4 re	3,8	46	4,61	25	42
H07Z1-U	6 re	4,3	54	3,08	33	54
H07Z1-U	10 re	5,6	108	1,83	45	73



These halogen-free installation wires with improved properties in the case of fire are destined for the use in the dry locations, for the wiring of lamps, appliances, switchgears and distribution cabinets, in buildings. These cables are also suitable for the installation in conduits, on, in and under the wall surface. In case of fire, these wires inhibit the propagation of the flames whereby the development of smoke is extremely low. No corrosive gases are emitted in the event of fire.

Kablo Yapısı / Cable Construction

iletken / Conductor	Elektrolitik Bükülü Bakır iletken / Electrolytic Stranded Copper Conductor IEC60228 Class5
izolasyon / Insulation	HFFR Kompound / HFFR Compound
Damar Tanımlama / Core Identification	Farklı renklerde / Different colours are available

Elektriksel Ölçümler / Electrical Parameters

Beyan gerilimi U <sub>0</sub> /U / Rated Voltage	300/500 V (H05Z1-K), 450/750V (H07Z1-K)
Test Gerilimi / Test Voltage	kV - ,5 kV (AC 50 Hz)
(alışma Sıcaklığı / Temperature Range	- 0 °C --+70 °C
Maks. Kısa Devre Sıcaklığı / Max. Short Circuit Temperature	160°C
Min. Bükülme Yarıçapı / Min. Bending Radius	10 x D
Alev Testi / Flame Test	IEC 60332-3 & TS/EN 60332-3-24
Duman Yoğunluğu Testi / Smoke Density Test	IEC 61034-2 & TS/DIN EN 61034-2
Halojenizlik Özelliği Testi / Halogen-Free Properties Test	IEC60754-1/2 & TS/DIN EN 50267-2

Ürün Kodu Part Number	Nominal Kesit (mm <sup>2</sup> ) Nominal Cors Section	Damar Sayısı ve Kesit (mm <sup>2</sup> ) No. of Cores x Cross Section	Yaklaşık Dış (ap (mm) Approx. Outer Dimeter	Yaklaşık Ağırlık (kg/km) Approx. Cable Weight	0 °C'de iken max. DC Direnci Conductor Resistance at 0 °C (Max)	30 °C'de havada max. Akım Taşıma Kapasitesi Max. Current Carrying Capacity at 30 °C in air	
						Toprakta 0 °C de In Ground at 0 °C	Havada 30 °C de In Air at 30 °C
H05Z1-K	0,5	15x0,20	2,1	9	39,00	-	11
H05Z1-K	0,75	22x0,20	2,3	11	26,00	-	16
H05Z1-K	1	30x0,20	2,5	14	19,50	11	26
H07Z1-K	1,5	27x0,25	2,9	20	13,30	15	24
H07Z1-K	2,5	47x0,25	3,6	32	7,98	20	32
H07Z1-K	4	51x0,30	4,2	50	4,95	25	42
H07Z1-K	6	76x0,30	4,8	70	3,30	33	54
H07Z1-K	10	73x0,40	6,5	115	1,91	45	73
H07Z1-K	16	119x0,40	8,0	175	1,21	61	98
H07Z1-K	25	187x0,40	10,0	270	0,780	83	129
H07Z1-K	35	255x0,40	11,0	370	0,554	103	158
H07Z1-K	50	374x0,40	13,5	525	0,386	132	198
H07Z1-K	70	336x0,50	15,0	700	0,272	165	245
H07Z1-K	95	356x0,51	17,5	970	0,206	197	292
H07Z1-K	120	576x0,52	19,5	1200	0,161	235	344
H07Z1-K	150	696x0,53	22,0	1500	0,129	-	391
H07Z1-K	185	888x0,54	24,0	1860	0,106	-	448



These cables can function in case of fire Halogen Free, flame retardant, low smoke density, Acidic (Corrosive) Gas Test, air ports, hospitals, metro, subway stations, shopping centers, high rise buildings, hotels, industrial plants and especially where there's electromagnetic interference.. Signal and communication cables are used as an emergency circuits.



Kablo Yapısı / Cable Construction

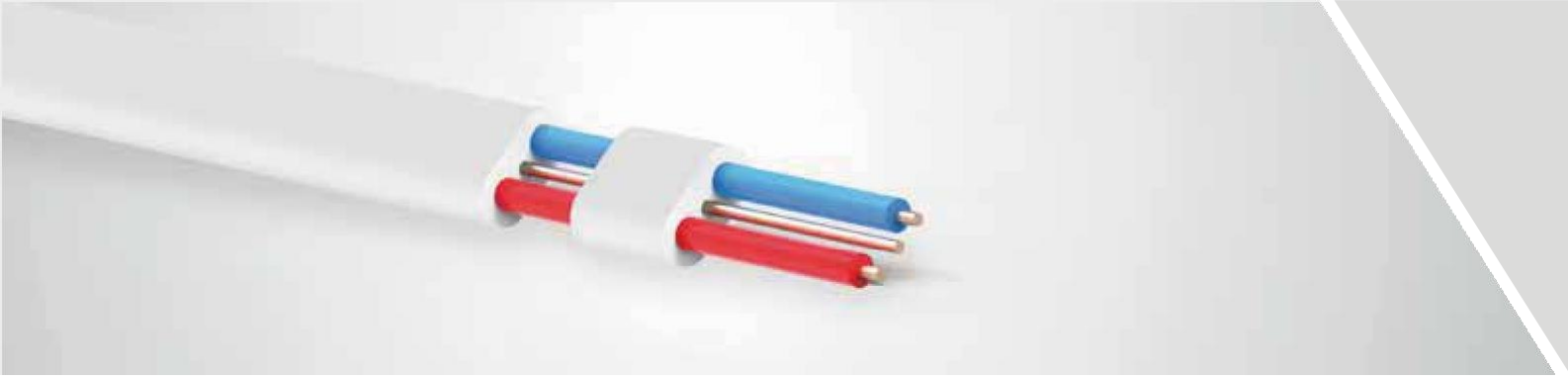
iletken / Conductor	Elektrolitik Bükülü Bakır iletken / Electrolytic Stranded Copper Conductor IEC608 Class5	izolasyon / Insulation	HFFR Kompound / HFFR Compound
Büküm / Lay-up	Damar sabit adımda katlar halinde bükülür / Cores laid up In Layers of Optimum Pitch		
DH3 Kılıf / Outer Sheath	HFFR Kompound / HFFR Compound		
Kılıf Renği / Colour of	RAL 9003, BeYaz veya RAL 9005, Siyah / RAL 9003, White or RAL 9005, Black		

Elektriksel Ölçümler / Electrical Parameters

		izolasyon Direnci / Insulation Resistance	Min. 200 MOHM km
Beyan gerilimi Uo/U / Rated Voltage	300/300V (H03Z1Z1-F), 300/500V (H05Z1Z1-F)		
Test Gerilimi / Test Voltage	kV (AC 50 Hz)	(alışma Sıcaklığı / Temperature Rangee	-5 °C ~+70 °C
Maks. Kısa Devre Sıcaklığı / Max. Short Circuit Temperature	160 °C	Min. Bükülme Yarıçapı / Min. Bending Radius	10 x D

Ürün Kodu / Halogensiz Özellik Testi / Halogen Free Properties Test	Nominal Kesit / Nominal Cors Section	Yaklaşık DH3 (ap) / Approx. Outer Dimeter	Yaklaşık Ağırlık / Approx. Cable Weight	Density Test 0 °C'de iken max. DC Direnci EN 50267-2 / Density Resistance at 0 °C Max.	30 °C'de havada max. Akım / Taşıma Kapasitansı / Max. Current Carrying Capacity at 30 °C in air
H03Z1Z1-F	2 x 0,5	5,0	38	39,00	3
H03Z1Z1-F	2 x 0,75	5,5	46	26,00	6
H03Z1Z1-F	3 x 0,50	5,4	44	39,00	3
H03Z1Z1-F	3 x 0,75	6,0	56	26,00	6
H03Z1Z1-F	4 x 0,50	5,9	55	39,00	3
H03Z1Z1-F	4 x 0,75	6,4	68	26,00	6
H05Z1Z1-F	2 x 0,75	6,2	55	26,00	13
H05Z1Z1-F	2 x 1	6,6	65	19,50	16
H05Z1Z1-F	2 x 1,5	7,6	90	13,30	20
H05Z1Z1-F	2 x 2,5	9,2	130	7,98	27
H05Z1Z1-F	2 x 4	11,0	180	4,95	34
H05Z1Z1-F	3 x 0,75	6,5	65	26,00	13
H05Z1Z1-F	3 x 1	7,2	80	19,50	16
H05Z1Z1-F	3 x 1,5	8,5	110	13,30	20
H05Z1Z1-F	3 x 2,5	10,0	165	7,98	27
H05Z1Z1-F	3 x 4	11,4	230	4,95	34
H05Z1Z1-F	4 x 0,75	7,1	75	26,00	13
H05Z1Z1-F	4 x 1	7,8	95	19,50	16
H05Z1Z1-F	4 x 1,5	9,5	140	13,30	20
H05Z1Z1-F	4 x 2,5	11,0	200	7,98	27
H05Z1Z1-F	4 x 4	12,5	290	4,95	34
H05Z1Z1-F	5 x 0,75	8,0	100	26,00	13
H05Z1Z1-F	5 x 1	8,5	115	19,50	16
H05Z1Z1-F	5 x 1,5	10,5	170	13,30	20





In dry, damp and wet locations as flexible connecting cables for light mechanical stresses. It is used for hand tools and house hold appliances with flat shape.

Kablo Yapısı / Cable Construction

iletken / Conductor	Bakır iletken / Copper Conductor IEC60228 Class1/2
izolasyon / Insulation	PVC
DH3 Kılıf / Outer Sheath	PVC

Elektriksel Ölçümler / Electrical Parameters

Beyan gerilimi U <sub>0</sub> /U / Rated Voltage	300/500 V
Test Gerilimi / Test Voltage	2 kV - 2,5 kV
(alışma Sıcaklığı / Temperature Rangee	- 0 °C --+70 °C
Maks. Kısa Devre Sıcaklığı / Max. Short Circuit Temperature	160°C
Min. Bükülme Yarıçapı / Min. Bending Radius	4 x D

Ürün Kodu Part Number	Nominal Kesit (mm <sup>2</sup> ) Nominal Cors Section	iletken Sınıfı (mm) Class of Conductor (mm)	Yaklaşık DH3 (ap (mm) Approx. Outer Dimeter	Yaklaşık Ağırlık (kg/km) Approx. Cable Weight	0 °C'de iken max. DC Direnci Conductor Resistance at 0 °C (Max)	30 °C'de havada max. Akım Taşıma Kapasitesi Max. Current Carrıng Capacity at 30 °C in air	
						Toprakta 0 °C de In Croud at 0 °C	Havada 30 °C de In Air at 30 °C
6242Y	2 x 1,5 + 1,0	1	4,70 x 8,60	84	12,1 / 18,1	9	20
6242Y	x ,5 + 1,0	1	5,40 x 9,90	116	7,41 / 18,1	13	27
6242Y	x 4,0 + 1,5	2	6,20 x 11,80	170	4,61 / 7,41	18	37
6242Y	x 6,0 + ,5	2	7,00 x 13,60	240	3,08 / 7,41	22	47
6242Y	x 10,0 + 4,0	2	8,50 x 17,20	380	1,83 / 4,61	27	64
6242Y	x 16,0 + 6,0	2	9,70 x 20,00	549	1,15 / 3,08	40	85
6243Y	3 x 1,0 + 1,0	1	4,20 x 9,90	88	18,1 / 18,1	5	13,5
6243Y	3 x 1,5 + 1,0	1	4,70 x 11,40	115	12,1 / 18,1	8	17,5
6243Y	3 x ,5 + 1,0	1	5,40 x 13,30	163	7,41 / 18,1	11	24
6243Y	3 x 4,0 + 1,5	2	6,20 x 16,00	239	4,61 / 12,1	15	32
6243Y	3 x 6,0 + ,5	2	7,00 x 18,40	333	3,08 / 7,41	17	41
6243Y	3 x 10,0 + 4,0	2	8,50 x 23,30	533	1,83 / 4,61	25	57
6243Y	3 x 16,0 + 6,0	2	9,70 x 27,10	773	1,14 / 3,08	31	76



These cables can function in case of fire Halogen Free, flame retardant, low smoke density, Acidic (Corrosive) Gas Test, air ports, hospitals, metro, subway stations, shopping centers, high rise buildings, hotels, industrials plants and especially where theres electromagnetic interference.. In dry, damp and wet locations as flexible connecting cables for light mechanical stresses. It is used for hand tools and house hold appliances with flat shape.



Kablo Yapısı / Cable Construction

iletken / Conductor	Бакыр iletken / Copper Conductor IEC60228 Class1/2
izolasyon / Insulation	HFFR
ДНЗ КИЛHF / Outer Sheath	HFFR

Elektriksel Ölçümler / Electrical Parameters

Beyan gerilimi Uo/U / Rated Voltage	300/500 V
Test Gerilimi / Test Voltage	2 kV - 2,5 kV
(аИЗма ШсаклИФН / / Temperature Rangee	- 0° C +70° C
Maks. КИса Devre ШсаклИФН / Max. Short Circuit Temperature	160° C
Min. Бүкүлме YарҺсарИ / Min. Bending Radius	4 x D
Alev Testi / Flame Test	IEC 60332-3 & TS/EN 60332-3-24
Duman Yöfунлуфу Testi / Smoke Density Test	IEC 61034 , BS EN 50268
Halojenсіzlik Özelliđi Testi / Halogen-Free Properties Test	IEC 60754-2, BS EN 50267-2

Ürün Kodu Part Number	Nominal Kesit (mm <sup>2</sup> ) Nominal Cors Section	iletken ШИИHFH (mm) Class of Conductor (mm)	Yakla3Ик ДНЗ (ap (mm) Approx. Outer Dimeter	Yakla3Ик АФИИИИк (kg/km) Approx. Cable Weight	0° C'de iken max. DC Direnci Conductor Resistance at 0° C (Max)	30° C'de havada max. АкИм Та3Има Kapasitansı Max. Current CarrYinф Capacity at 30° C in air	
						Toprakta 0° C de . In Croud at 0° C	Havada 30° C de . In Air at 30° C
6242Y	2 x 1,5 + 1,0	1	4,70 x 8,60	84	12,1 / 18,1	9	20
6242Y	x ,5 + 1,0	1	5,40 x 9,90	116	7,41 / 18,1	13	27
6242Y	x 4,0 + 1,5	2	6,20 x 11,80	170	4,61 / 7,41	18	37
6242Y	x 6,0 + ,5	2	7,00 x 13,60	240	3,08 / 7,41	22	47
6242Y	x 10,0 + 4,0	2	8,50 x 17,20	380	1,83 / 4,61	27	64
6242Y	x 16,0 + 6,0	2	9,70 x 20,00	549	1,15 / 3,08	40	85
6243Y	3 x 1,0 + 1,0	1	4,20 x 9,90	88	18,1 / 18,1	5	13,5
6243Y	3 x 1,5 + 1,0	1	4,70 x 11,40	115	12,1 / 18,1	8	17,5
6243Y	3 x ,5 + 1,0	1	5,40 x 13,30	163	7,41 / 18,1	11	24
6243Y	3 x 4,0 + 1,5	2	6,20 x 16,00	239	4,61 / 12,1	15	32
6243Y	3 x 6,0 + ,5	2	7,00 x 18,40	333	3,08 / 7,41	17	41
6243Y	3 x 10,0 + 4,0	2	8,50 x 23,30	533	1,83 / 4,61	25	57
6243Y	3 x 16,0 + 6,0	2	9,70 x 27,10	773	1,14 / 3,08	31	76



Used in dry, damp, wet places, in workshops, factories, business areas and store rooms subject to fire and explosion danger, as outdoor, not underground, but under or on plaster, in conduit.

### Kablo Yapısı / Cable Construction

iletken / Conductor	Bakır iletken / Copper Conductor IEC60228 Class1/2	izolasyon / Insulation	PVC Damar renkleri HD 308 S2/ PVC Wire colors HD 308 S2
Büküm / Lay-up	Damar sabit adımıda katlar halinde bükülür / Cores laid up in layers of optimum pitch	Dolgu / Inner Sheath	PVC
Dış Kılıf / Outer Sheath	PVC	Kılıf Renği / Colour of Sheath	RAL 7035 Gri / RAL 7035 Grey

### Elektriksel Ölçümler / Electrical Parameters

Beyan gerilimi U <sub>0</sub> /U / Rated Voltage	300/500 V
Test Gerilimi / Test Voltage	2 kV - 2,5 kV
(alışma sıcaklığı / Temperature Range)	-5 °C -- +70 °C
Maks. Kısa Devre Sıcaklığı / Max. Short Circuit Temperature	160 °C
Min. Bükülme Yarıçapı / Min. Bending Radius	12 x D

Nominal Kesit (mm <sup>2</sup> ) Nominal Cross Section	Yaklaşık Dış (ap) (mm) Approx. Outer Diameter	Yaklaşık Ağırlık (kg/km) Approx. Cable Weight	0 °C'de iken max. DC Direnci Conductor Resistance at 0 °C (Max)	30 °C'de havada max. Akım Taşıma Kapasitesi Max. Current Carrying Capacity at 30 °C in air
2x1,5	8,3	105	12,1	22
2x2,5	10,0	145	7,41	30
2x4	10,8	195	4,61	40
2x6	11,7	265	3,08	50
2x10	16,0	420	1,83	70
2x16	18,0	590	1,15	93
2x25	21,0	860	0,727	108
2x35	23,0	1150	0,524	135
3x1,5	9,0	127	12,1	22
3x2,5	10,5	185	7,41	30
3x4	11,3	240	4,61	40
3x6	13,0	325	3,08	50
3x10	16,5	575	1,83	70
3x16	19,0	740	1,15	93
3x25	22,0	1100	0,727	108
3x35	25,0	1460	0,524	135
4x1,5	9,5	145	12,1	18
4x2,5	11,2	222	7,41	24
4x4	12,3	300	4,61	32
4x6	13,7	410	3,08	42
4x10	18,5	705	1,83	60
4x16	21,6	930	1,15	80
4x25	24,5	1400	0,727	100
4x35	27,5	1900	0,524	124
5x1,5	11,0	190	12,1	18
5x2,5	12,0	265	7,41	24
5x4	14,0	360	4,61	32
5x6	16,0	500	3,08	42
5x10	20,0	815	1,83	60
5x16	23,0	1150	1,15	80
5x25	27,5	1700	0,727	100
5x35	31,0	2300	0,524	124

Used outside as energy, utility and lighting cables , in cable ducts, underground.



Kablo Yapısı / Cable Construction

iletken / Conductor	Bakır iletken / Copper Conductor IEC60228 Class1/2	izolasyon / Insulation	PVC Damar renkleri HD 308 S2/ PVC Wire colors HD 308 S2
Büküm / Lay-up	Damarsabit adımda katar halinde bükülür / Cores laid up in layers of optimum pitch	Dolgu / Inner Sheath	PVC
Dış Kılıf / Outer Sheath	PVC	Kılıf Renği / Colour of Sheath	Siyah / Black

Elektriksel Ölçümler / Electrical Parameters

Beyan gerilimi U <sub>0</sub> /U / Rated Voltage	0,6/1 kV	Maks. Kısa Devre Sıcaklığı / Max. Short Circuit Temperature	160 °C
Test Gerilimi / Test Voltage	3,5 kV (AC 50 Hz)	Min. Bükülme Yarıçapı / Min. Bending Radius	12 x D
(alıştırma Sıcaklığı / Temperature Range)	-5 °C - +70 °C		

Nominal Kesit (mm <sup>2</sup> ) Nominal Cross Section	Yaklaşık DH3 (ap) (mm) Approx. Outer Diameter	Yaklaşık Ağırlık (kg/km) Approx. Cable Weight	0 °C'de iken max. DC Direnci Conductor Resistance at 0 °C (Max)	Max. Akım Taahhüt Kapasitesi (A) Max. Current Carrying Capacity	
				Toprakta 0 °C de In Ground at 0 °C	Havada 30 °C de In Air at 30 °C
1x10	8	146	1,83	97/83	81/60
1x16	8,9	180	1,15	125/107	110/82
1x25	10,9	290	0,727	161/138	146/110
2x1,5	10,4	160	12,1	32	22
2x2,5	10,6	179	7,41	42	30
2x4	12,3	253	4,61	54	40
2x6	13,8	325	3,08	68	51
2x10	16,4	505	1,83	90	70
2x16	16,7	593	1,15	116	94
2x25	21,9	1003	0,727	150	119
2x35	24,0	1210	0,524	181	148
3x1,5	10,8	180	12,1	27	19,5
3x2,5	11,8	208	7,41	36	25
3x4	14,0	297	4,61	47	34
3x6	14,6	386	3,08	59	43
3x10	17,4	527	1,83	79	59
3x16	18,0	736	1,15	102	79
3x25	22,1	1175	0,727	133	106
3x35	24,4	1530	0,524	159	129
4x1,5	11,7	205	12,1	27	19,5
4x2,5	12,4	246	7,41	36	25
4x4	15,2	372	4,61	47	34
4x6	15,8	505	3,08	59	43
4x10	18,9	740	1,83	79	59
4x16	21,6	1123	1,15	102	79
4x25	25,4	1541	0,727	133	106
4x35	27,6	1960	0,524	159	129
5x1,5	12,4	245	12,1	27	19,5
5x2,5	13,5	290	7,41	36	25
5x4	15,7	445	4,61	47	34
5x6	17,1	575	3,08	59	43
5x10	20,6	812	1,83	79	59
5x16	22,0	1157	1,15	102	79
5x25	27,8	1877	0,727	133	106
5x35	31,0	2285	0,524	159	129



Used in energy networks in hotels, schools, high constructions, hospitals, power plants, data processing centers, business centers where there is a risk of fire.

### Kablo Yapısı / Cable Construction

iletken / Conductor	Bakır iletken / Copper Conductor IEC60228 Class1/2	izolasyon / Insulation	XLPE damar renkleri HD 308 S2/ XLPE wire colors HD 308 S2
Büküm / Lay-up	Damar sabit adımda katlar halinde bükülür / Cores laid up in layers of optimum pitch	Dolgu / Inner Sheath	HFFR
Dış Kılıf / Outer Sheath	HFFR	Kılıf Renği / Colour of Sheath	RAL 7035 Gri / RAL 7035 Grey

### Elektriksel Ölçümler / Electrical Parameters

Beyan gerilimi U <sub>0</sub> /U / Rated Voltage	300/500 V	(alışma sıcaklığı / Temperature Range)	-5 °C - +70 °C
Test Gerilimi / Test Voltage	2 kV - 2,5 kV	Min. Bükülme Yarıçapı / Min. Bending Radius	12 x D
Maks. Kısa Devre Sıcaklığı / Max. Short Circuit Temperature	50 °C	Duman Yoğunluğu Testi / Smoke Density Test	IEC 61034-2 & TS/DIN EN 61034-2
Alev Testi / Flame Test	IEC 60332-3 & TS/DIN EN 50266-2-4	Halojensizlik Testi / Halogen-Free Test	IEC60754-1/2 & TS/DIN EN 50267-2

Nominal Kesit (mm <sup>2</sup> ) Nominal Cross Section	Yaklaşık Dış (ap) (mm) Approx. Outer Diameter	Yaklaşık Ağırlık (kg/km) Approx. Cable Weight	0 °C'de max. DC Direnci (Ohm/km) Conductor Resistance at 0 °C Max.	30 °C'de havada max. Akım Taahhüt Kapasitesi Max. Current Carrying Capacity at 30 °C in air
2x1,5	8,4	105	121	22
2x2,5	9,2	135	7,41	30
2x4	10,5	190	4,61	40
2x6	11,5	250	3,08	50
2x10	15,3	400	1,83	70
2x16	17,5	550	1,15	93
2x25	21,0	780	0,727	108
2x35	23,0	1050	0,524	135
3x1,5	9,0	120	121	22
3x2,5	9,6	160	7,41	30
3x4	11,0	220	4,61	40
3x6	12,5	300	3,08	50
3x10	16,0	510	1,83	70
3x16	18,0	660	1,15	93
3x25	22,0	1050	0,727	108
3x35	24,5	1400	0,524	135
4x1,5	9,5	140	121	18
4x2,5	10,5	190	7,41	24
4x4	12,5	290	4,61	32
4x6	14,0	380	3,08	42
4x10	17,5	600	1,83	60
4x16	20,8	850	1,15	80
4x25	24,0	1275	0,727	100
4x35	27,0	1670	0,524	124
5x1,5	10,0	167	121	18
5x2,5	11,0	230	7,41	24
5x4	14,0	350	4,61	32
5x6	15,0	470	3,08	42
5x10	19,0	750	1,83/27	60
5x16	22,0	1100	1,15/24	80



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