

DRAKA UC^{HOME}

Communication cables bringing digitalisation
into houses and flats.





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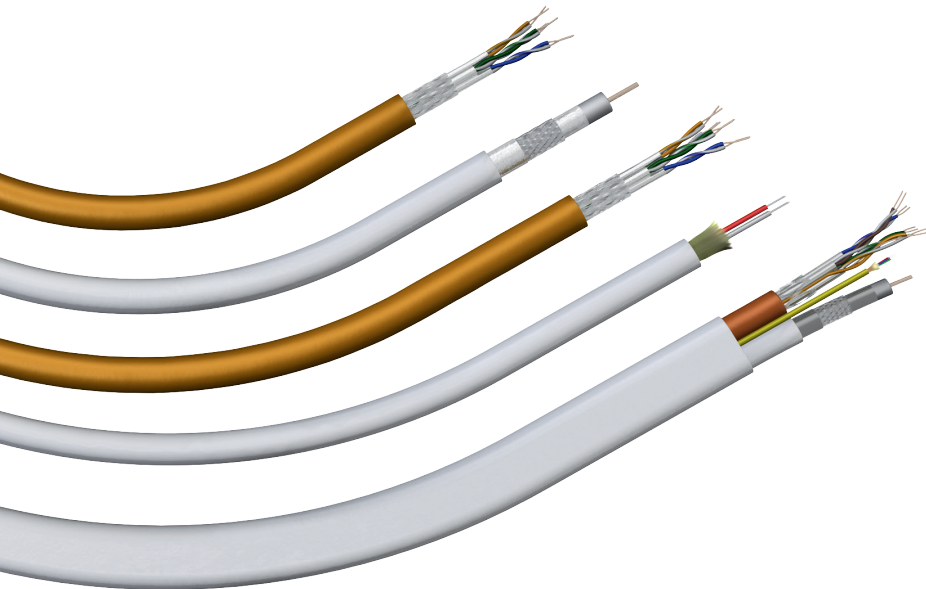
An obvious development: the importance of cabling in homes and residential areas will continue to increase in years to come. Throughout this, users' demands on the bandwidth available will increase significantly.

Keeping this in mind, cables should be as small and as compact as possible. Also, that an increased use of fibre optic cables

in houses and flats is becoming increasingly apparent.

With the Draka cable hub „UC^{Home}“, Multimedia Solutions BU of the Prysmian Group offers a wide range of cable solutions for different areas of application.

This brochure gives a detailed overview of the cable products available on the market.



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Exclusively wiring WiFi access points and other end devices with data cables

Wireless networks are standard in living environments today. Users want fast connections to stream films or music, simultaneously and in every room. For a router to radio throughout an entire flat or house, the WiFi network must be powerfully wired with high performance. The faster the transmission protocols for wireless networks run, the more sensitive the radio cells become. Nowadays, WiFi protocols use 5 GHz. Due to high transmission frequencies, data rates drop quickly if the line of sight to the wireless router is obstructed. It can be restored by setting up additional radio networks in remote rooms.

Practical experience shows much higher user satisfaction with ping rates and transmission speeds when a direct cable connection between the router is installed. Wireless networking of access points should always be a second choice.

BU Multimedia Solutions recommends installing category 7 data cables of the UC^{Home} series in both new and renovated buildings, each in positions that are suitable for additional access points. Commissioning then follows step by step, to suit the requirements of users.

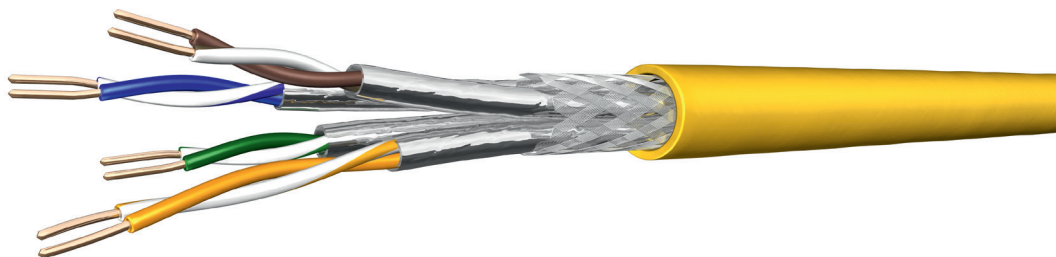




The copper installation cable Draka UC900 SS23 Cat.7 S/FTP for structured building cabling in primary, secondary and tertiary areas, offers quality at a very good price. It transmits data at a speed of 10 Gbit/s and a bandwidth of 1000 MHz. Highly flexible: tight bending radiuses make it easy to run the cables. The excellently shielded and

fireproof data cable is then ready for transmission use via telephone, Ethernet, Fast Ethernet, Gigabit Ethernet and 10Gigabit Ethernet.

The UC900 SS23 Cat.7 is suitable for operating PoE, PoE+ and PoE ++ (Type1-4) over a channel length according to Class C, D, E, E_A, F and F_A up to 100m.

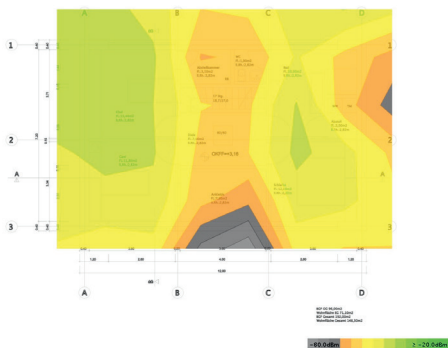


Lighting design of one floor in a detached house



The illustration shows the illumination plan of a floor in a single-family house. The predominantly used rooms have sufficient bandwidth for wireless data transmission. The access points then determine where UC copper data cables are run, in wall outlets or ceilings, all in addition to the normal data cabling.

Mobile phones can communicate conveniently with the router via Wi-Fi. This way, the mobile phone user conserves his 5G data volume and can be reached via WiFi telephone even if the network operator signal is poor.



Expected reception signal strength at 2.4 GHz

Access points receive power and data signals centrally via remote powering (PoE). This saves energy because the devices only transmit at full power when they are needed. The PoE switch can also supply other end devices, for example intercoms or PoE-capable light installations, with power via the data cable.



Now the Access point only has RJ45 PoE connection, no power supply unit required.

UC^{HOME} Copper data cable



In homes, the space available for cabling is usually limited. In principle, it is advisable to lay the cables in the cable channel. This ensures both recommended distances from live cables and interchangeability.

The customised compact and easy-to-install copper cabling solutions by BU Multimedia Solutions enable users to be well-prepared for future applications.

They bring data safely into the house and distribute it to various rooms. In addition, they are ideally suited for Power over Ethernet (PoE) by reliably transmitting the necessary energy for PoE applications to end devices.

The UC^{Home} SS26, for example, has been available on the market for several years. The highly shielded category 7 data cable with its compact AWG26 cores has an outer diameter of 5.8 mm with a connection length of 60 m in class EA permanent link. In addition to the commercially available ring packaging or disposable cable reel, the installation cable is now also available in an environmentally friendly and compact Reelex box. Multimedia Solutions BU also offers the cables in a duplex version.

New on the market is the UC^{Home} SS22 variant, which is particularly suitable if PoE end devices are to be supplied with power beyond 60m. This cable variant clearly exceeds the requirements of category 7A. It can transmit data rates of up to 25Gbit.

Both UC^{Home} SS26 and UC^{Home} SS22 have improved fire behaviour and at the very least meet the European-wide fire protection class D_{ca}.

UC^{HOME} Cat.7A SS22 S/FTP



Areas of application

Primary (Campus), Secondary (Riser),
Tertiary (Horizontal),
Home Cabling (Smart Home)
IEEE 802.3: 10Base-T; 100Base-T; 1000Base-T;
10GBase-T; 25GBase-T to 30m ISO/IEC TR 11801-9905
Power over Ethernet (PoE) / Type 1-4

Produkt Code Table

Product Description	PG Item Number	CPR-Clas
UC ^{HOME} Cat.7A SS22 S/FTP LSHF-FR 200BR	60095153	D _{ca} s1 d1 a1



Cable stucture

Conductor	Copper-Wire, blank, AWG 22
Isolation	Foam-Skin Polyethylene, Ø 1.5 mm
Stranding to the core	4 Paare (PiMF) zur Seele
Total shielding	Cu-Geflecht, verzinkt
Outer sheath	LSHF-FR / FRNC-C, weiß
Outer diameter	7.6 mm

UC^{HOME} Cat.7 SS26 S/FTP 4P



Areas of application/ Applicable standards

Installation cables for use in home wiring, primary, secondary and tertiary in the structured building cabling according to EN 50173, ISO/IEC 11801, Power over Ethernet (PoE) / Type 1 - 4
Meets the requirements of at least class EA with a conductor diameter in AWG26 with a max. transmission length of 60m in the permanent link.

Product Code Table

Product Description	PG Item Number	CPR-Class
UC ^{HOME} Cat.7 SS26 S/FTP 4P B2 _{ca} LSHF 300BR	60104219	B2 _{ca} -s1a,d1,a1
UC ^{HOME} Cat.7 SS26 S/FTP 4P B2 _{ca} LSHF 1000DW	60104218	B2 _{ca} -s1a,d1,a1
UC ^{HOME} Cat.7 SS26 S/FTP 4P LSHF-FR C _{ca}	60081483	C _{ca} s1a d1 a1
UC ^{HOME} Cat.7 SS26 S/FTP 4P LSHF-FR C _{ca} 300BR	60089020	C _{ca} s1a d1 a1
UC ^{HOME} Cat.7 SS26 S/FTP 4P LSHF-FR C _{ca} 1000DW	60032038	C _{ca} s1a d1 a1
UC ^{HOME} Cat.7 SS26 S/FTP 4P LSHF	60026439	D _{ca} s2 d2 a1
UC ^{HOME} Cat.7 SS26 S/FTP 4P LSHF 350BR	60026455	D _{ca} s2 d2 a1
UC ^{HOME} Cat.7 SS26 S/FTP 4P LSHF 100RW	60032039	D _{ca} s2 d2 a1
UC ^{HOME} Cat.7 SS26 S/FTP 4P LSHF 1000DW	60032038	D _{ca} s2 d2 a1
UC ^{HOME} Cat.7 SS26 S/FTP 2x4P LSHF	60060698	D _{ca} s2 d2 a1
UC ^{HOME} Cat.7 SS26 S/FTP 2x4P LSHF 100RW	60060750	D _{ca} s2 d2 a1
UC ^{HOME} Cat.7 SS26 S/FTP 2x4P LSHF 250DW	60060699	D _{ca} s2 d2 a1
UC ^{HOME} Cat.7 SS26 S/FTP 2x4P LSHF 500DW	60060697	D _{ca} s2 d2 a1



Cable stucture

Conductor	Copper-Wire, blank, AWG 26
Isolation	Foam-Skin Polyethylene, Ø 1.0 mm
Stranding to the core	4 Pairs (PiMF) to the core
Total shielding	Copper-Braid, tin-plated
Outer sheath	LSHF-FR / FRNC-C, white
Outer diameter	5.8 mm

UC^{HOME} Copper Universal Cable

Home cabling can also have other requirements that are not covered by standard solutions. BU Multimedia Solutions meets these requirement by designing cable solutions individually according to specific customer needs.

This includes, for example, the production of copper data cables with a universal sheath. This is because more and more outdoor applications are being connected to the data network, like surveillance cameras located on a facade or near the roof. Here, the demands on cable sheathing are increasing significantly. UV radiation and moisture can cause breakage in cables that were intended for

indoor installation and cause them to age quickly. A possibility would be to install an outdoor PE cable, the disadvantage being that it would no longer be suitable for indoor use.

BU Multimedia Solutions has a solution to the problem. The UC Compact ZD Cat.7 I/O data cable features a sheath that has been optimised for outdoor applications, but can also be installed indoors without a problem. It is suitable for connecting surveillance cameras, gate controls or intercom systems. Meaning, that house and flat owners are well prepared for any future requirements.



UC Compact ZD Cat.7 I/O



Areas of application

Installation cables for use in the primary, secondary and tertiary in the structured building cabling according to EN 50173, ISO/IEC 11801 Power over Ethernet (PoE) / Type 1 - 4. Meets the requirements of at least class EA with a conductor diameter in AWG26 with a maximum transmission length of 60m in permanent link.

Cable stucture

Conductor	Copper-Wire, blank, AWG 26
Isolation	Foam-Skin Polyethylene
Stranding to the core	4 Pairs (PIMF) to the core
Total shielding	Copper-Braid, tin-plaited
Outer sheath	LSHF D _{ca} black
Outer diameter	6.3 mm

Product Code Table

Product Description	PG Item Number	CPR-Class
UC COMPACT ²⁰ 26 C7 S/FTP 4P	60013695	D _{ca} s2 d1 a1
UCF I/O SS26 C7 S/FTP 4P LSHF D _{ca} 100RW	60060436	D _{ca} s2 d1 a1
UCF I/O SS26 C7 S/FTP 4P LSHF D _{ca} 305BR	60060547	D _{ca} s2 d1 a1
UCF I/O SS26 C7 S/FTP 4P LSHF D _{ca} 1000DW	60060437	D _{ca} s2 d1 a1

UC^{HOME} IDROP - FTTH (Fibre To The Home)



No question about it: fibreglass supplies houses and flats with high data rates. Fortunately, increasingly more houses and buildings in this country are starting to benefit from fibre optic connections. Network operators are no longer relying solely on coaxial or telecommunications cables for their expansion projects, much rather using high-fibre optic cables for connection. Starting in basements, they are then distributed to individual residential units.

To serve this purpose, BU Multimedia Solutions offers the UC^{HOME} idrop cable series: the UC^{HOME} idrop250 drag & blow and the UC^{HOME} idrop900. The single-mode fibre optic cables are compactly built and available in different fibre counts. Starting at 4 fibres per residential

unit, with the possibility of even more, a future-proof cabling structure can be created. The UC^{HOME} idrop 250 drag & blow can be blown in, pulled in or pushed in. With fibres boasting a coating of 250µm and a total outer diameter of 2.3 mm, it fits into small channel systems. This cable is particularly suitable for splicing on both sides of the connection.

The UC^{HOME} idrop 900 is suitable for direct connector assemblage. The cores used, allow sufficient reserve to be created for splice deposit with a drop length of up to 50 cm. The cable is available in the practical UC^{HOME} Reelexbox. Both cables are equipped with bend-resistant fibres according to ITU-T G.657.A2.

UC^{HOME} FIBRE IDROP 250 DRAG&BLOW



Cable structure

Loose tube	4 oder 12 fibres G.657.A2 With Aramid roving and FireRes®-Sheath
Strain relief	Aramid yarn
Outer sheath	LSHF-FR, white
Outer diameter	2.3 mm (4 fibres); 2.8 mm (12 fibres)

Properties

Properties	Test Method	
Tensile strength	E1B	250 N
Minimum bending radius, installation	E11	R = 56 mm
Minimum bending radius, permanent	-	R = 28 mm

Product Code Table

Cable	CPR	Description	Fibre count	BendBright ^{xs} G.657.A2
IDROP 250 Drag&Blow	B2 _{ca} -s1a-d1-a1	UC ^{HOME} FIBRE IDROP 250 Drag&Blow	4	60099788
IDROP 250 Drag&Blow	B2 _{ca} -s1a-d1-a1	UC ^{HOME} FIBRE IDROP 250 Drag&Blow	12	60099789

UC^{HOME} FIBRE IDROP 900



Cable structure

Loose tube	2 or 4 fibres Secondary coated LS9 (semi-tight) fibres 900 µm ± 50 µm
Strain relief	strong Aramid Yarn
Outer sheath	FireRes® LSHF-FR
Outer diameter	4.5 mm

Properties

Properties	Test Method	
Tensile strength	E1	500 N
Minimum bending radius, installation	E11	R = 90 mm
Minimum bending radius, permanent	-	R = 45 mm

Product Code Table

Cable	CPR	Description	Fibre count	BendBright ^{xs} G.657.A2
IDROP 900	D _{ca} s2 d2 a1	UC ^{HOME} FIBRE IDROP 900 I-VH	2	60066208
IDROP 900	D _{ca} s2 d2 a1	UC ^{HOME} FIBRE IDROP 900 I-VH	4	60066209

UC^{HOME} Coaxing cable



The expansion of CATV networks is continuous. Connection technologies that have been used for a long time have proven themselves and remain a sustainable alternative for the future.

Coaxial cables have been used for years and not only for the transmission of radio and television content. Thanks to new transmission protocols such as DOCSIS, gigabit speed connections can be implemented therefore enabling fast internet.

Data rates of up to 1000 Mbit aren't a problem for the UC^{Home} coaxial cables by BU Multimedia Solutions. Equipped with

DOCSIS, they provide high-speed Internet. Additionally, satellite systems can be operated with the Draka coaxial cables. In its portfolio, BU Multimedia Solutions boasts cables with different core diameters, all of which equip networks with different attenuation requirements. Customers can choose between several shielding qualities. With a shielding level greater than 110 dB, cables with shielding class A+ offer more than sufficient protection against external interference and do not interfere with other services. Furthermore, highly shielded underground cables with welded copper outer conductors are available.

In residential construction, BU Multimedia Solutions recommends the Coax10 Trishield A+ as the perfect cable. It is popular and approved by a large number of big network operators.



Coax10 Trishield A+



Areas of application

Subscriber cables are used in private and commercial distribution networks for television signals and as antenna cables for terrestrial and satellite reception. Reception for fixed installation. KDG Vodafone approved, shielding class A+

Electrical Properties

Shielding factor	30 MHz – 1000 MHz	≥ 110 dB
	1000 MHz – 2000 MHz	≥ 100 dB
	2000 MHz – 3000 MHz	≥ 100 dB
Coupling resistance	5 MHz – 30 MHz	≤ 5 m Ω /m

Produkt Code Table

Product Description	PG Item Number
Coax10 Trishield A+ FRNC WH 100RW	60045937
Coax10 Trishield A+ FRNC WH 500DW	60045938

Cable Structure

Inner conductor	Copper wire, massive, blank, diameter 1.0 mm
Outer conductor	PET- Al-Foil, glues to insulation lengthways, with overlying, tinned copper braiding, + PET- Al-Foil running lengthways bonded to the outer sheath
Sheath	LSHF / FRNC CPR Eca, white diameter 6.8mm

Coax10 AD 10 S Al



Areas of application

Subscriber cables are used in private and commercial distribution networks for television signals and as antenna cables for terrestrial and satellite reception for fixed installation.

Electrical Properties

Shielding factor	30 MHz – 1000 MHz	≥ 110 dB
	1000 MHz – 2000 MHz	≥ 100 dB
	2000 MHz – 3000 MHz	≥ 100 dB
Coupling resistance	5 MHz – 30 MHz	≤ 5 m Ω /m

Product Code Table

Product Description	PG Item Number
Coax10 AD 10 S Al 100RW	60014932
Coax10 AD 10 S Al 200BR	60016703
Coax10 AD 10 S Al 500DP	60024867

Kabelaufbau

Inner conductor	Copper wire, massive, blank, diameter 1.02 mm
Outer conductor	PET- Al Foil, Alloy-braided, optical cover >80 %, Aluminium-laminated PVC foil
Sheath	PVC CPR Eca, white diameter 6.8mm

UC^{HOME} Hybrid

During the first phase of planning a residential building, it is often unclear, which physical medium should be used for the distribution of fast internet access within the house.



BU Multimedia Solutions accommodates for this uncertainty and manufactures cables according to customers wishes and requirements.

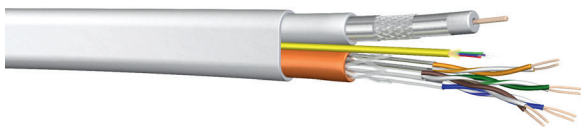
The cable expert offers solutions that integrate data cables of various categories as well as coaxial cables in addition to sustainable optical fibres. These can be used by all service providers. In addition, it is possible to use the cables, laid in a star configuration, for intercom systems or for the distribution of classic television systems.

To cater to those needs, the Multimedia Solutions BU recommends laying UCHome hybrid cables. They are available in many combinations.



A standard variant is our UCHome Hybrid, which consists of four bend-resistant single-mode glass fibres, a highly shielded low-attenuation coaxial cable in shielding class A+ with network operator approval and a UC900 category 7 data cable. It's the universal riser cable for multi-story residential buildings. It offers all options under one sheath.

UC^{HOME} Coax10 Trishield A+ - UC900 HS23 4P - 4xSM BBXS LSHF



Areas of application

In relation to system standards:
For simultaneous transmission of television and data signals. The participant cables included are used in private and commercial distribution networks as well as distribution networks for television signals and antenna cables for terrestrial and satellite reception for fixed installation. The included CAT.7 is to be used in the primary, secondary and tertiary areas of structured building cabling according to EN 50173, ISO/IEC 11801

Suitable for HDBase-T

Based on component standards for cables:

The following applies to the Coax10 Trishield A+:

Shielding class A+ in accordance with EN 50117-2-1, EN 50117-2-2, EN 50117-2-4 and EN 50117-2-5, as well as EN 50083-2/A1, EN 50117-1.

For the CAT.7 cable UC900 HS23 4P the following applies:

EN 50173-1; EN 50288-4-1; ISO/IEC 11801; IEC 61156-5

The following applies to the fibre optic element:

Single mode fibres according to ITU G.657A2 and ITU G.657B2

Cable structure

Position of element	1xCoax10 A+ + 1xUC900 HS23 4P parallel, side-by-side + 1xLWL Element (4xSM BBXS)
Outer sheath	FRNC, white
Dimension	UC ^{HOME} Coax10 A+ + UC900 HS23 4P + 4xSM BBXS LSHF + Batch number + metre marking

Mechanical data at 20 °C

Bending radius over flat side	Without tensile stress	≥ 90 mm
	With tensile stress	≥ 140 mm
Operating temperature	At rest	-20°C to +60°C
	In motion	0°C to +50°C

Product Code Table

Product Description	PG Item Number
UC ^{HOME} Coax10 A+/UC900 HS23+4xBBXS	60078132
UC ^{HOME} Coax10 A+/UC900 HS23+4xBBXS 500DW	60078133

FORWARD-THINKING CABLING SOLUTIONS

By assisting you on your network solutions journey with cutting-edge technology, we help keep communication running. To get in touch and find out how we can help you build your networks, visit www.draka-cable.com or contact us:



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