SAKHR®
CABLES

Special cables

www.sakhrcable.com

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ABOUT US

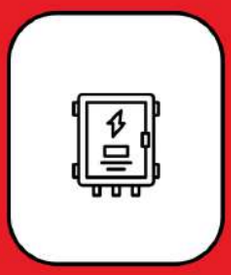
Horse Factory is a leading manufacturer of electrical cables, offering its products under the "Sakhr" brand, synonymous with quality, durability, and long-term reliability. The company utilizes state-of-the-art production lines and specialized technologies to ensure its cables meet the highest technical standards required in local and regional markets.

Since its inception, Horse Factory has set a clear objective: to provide reliable cable solutions tailored to the needs of residential, industrial, and infrastructure projects, with a focus on quality and safety at every stage of production. The Sakhr product range includes low-voltage cables, extension cables, multi-purpose power cables, and specialty cables, all of which meet international quality standards.

The company employs a highly experienced engineering and technical team that oversees manufacturing and testing processes to guarantee adherence to specifications. Furthermore, the company implements a comprehensive quality control system, making Sakhr products the preferred choice for numerous companies, contractors, and major projects. Horse Factory seeks to strengthen its position as one of the most important cable manufacturers in the region, through continuous innovation, developing its production capabilities, and offering products bearing the Sakhr name with reliable quality.

WE OPERATE IN FIVE KEY BUSINESS SECTORS

WIRE, CABLE & ACCESSORIES



ELECTRICAL PRODUCTS

ENGINEERING & CONSTRUCTION

DIGITAL SOLUTIONS

INFRASTRUCTURE INVESTMENTS

SAKHR CABLING SOLUTIONS

Horse Cables manufactures and supplies complete telecommunications infrastructure solutions to meet diverse needs and applications, with the capability to create multiple configurations based on customer requirements. Horse Cables' integrated infrastructure solutions ensure seamless compatibility, guaranteeing enhanced performance and minimizing data loss within the system. Our products undergo type testing and are ISO 9001 certified by our factory laboratory, enabling certified internal quality testing to ensure product quality. Our latest offerings include copper cabling solutions, racks, and cabinets.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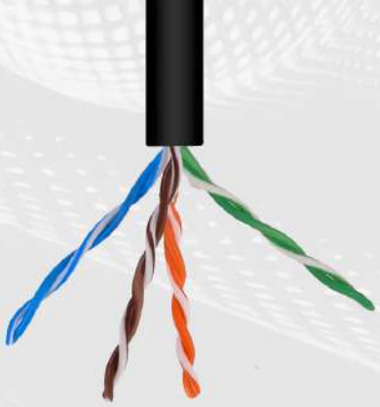
CAT5e UTP Cable



KEY FEATURES

- Comply with Cat5e specifications
- 4-pair unshielded twisted pair (UTP) cable
- 24 AWG solid copper conductor
- PE insulation
- FR PVC Jacket
- Packaged in an easy to pull reelex box for easier installation

Enhanced performance cable for transmission of high-speed data, digital and analogue voice and video (RGB) signals on LANs. Supports Gigabit Ethernet (1000 baseT) standard. Operates at bandwidth up to 100MHz.

This cable well exceeds the requirements of TIA/EIA-568-C.2 and ISO/IEC 11801

SPECIFICATIONS

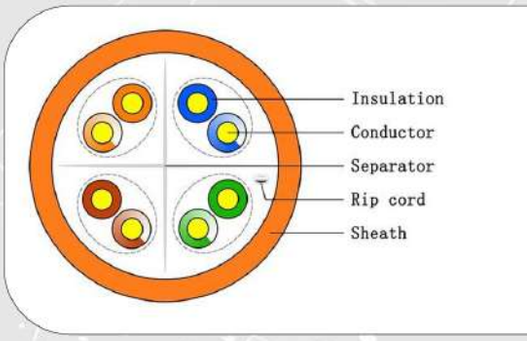
Category :	5e UTP Solid cable
Conductor :	24 AWG Multicore (Solid)
Conductor :	Bare Copper
Insulation :	HD-PE
Material :	FR PVC
Heat-resistant :	75 degree C minimum (Temperature limited)
Cable Diameter :	5 mm nominal

COLOUR CODE

PAIR NO	COLOUR
1-2	White/Orange Stripe and Orange
3-6	White/Green Stripe and Green
4-5	White/Blue Stripe and Blue
7-8	White/Brown Stripe and Brown

ELECTRICAL PROPERTIES

Characteristic Impedance :	100+15Ω
Conductor Resistance :	≤9.38Ω/100m
Mutual Capacitance :	<5.6nF/100m
Resistance Unbalance :	5% Max
Capacitance Unbalance :	330pF/100m
Delay Skew :	<45ns
NVP :	69%



ORDERING INFORMATION

PART CODE	DESCRIPTION
NCB-5EUGRYR-305	CAT5e UTP 24AWG Solid:305M, Grey
NCB-5EUBLUR-305	CAT5e UTP 24AWG Solid:305M, Blue

TRANSMISSION CHARACTERISTICS PER 100M

FREQUENCY MHZ	INSERTION LOSS (dB/100M)	RL (dB)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB)	PSELFEXT (dB)	ACR (dB)	PSACR (dB)
1	2.0	20.0	65.3	62.3	63.8	60.8	63.8	60.3
4	4.1	23.0	56.3	53.3	51.8	48.8	52.2	49.2
8	5.8	24.5	51.8	48.8	45.7	42.7	46.0	43.0
10	6.5	25.0	50.3	47.3	43.8	40.8	43.8	40.8
16	8.2	25.0	47.2	44.2	39.7	36.7	39.0	36.0
20	9.3	25.0	45.8	42.8	37.8	34.8	36.5	33.5
25	10.4	24.3	44.3	41.3	35.8	32.8	33.9	30.9
31.25	11.7	23.6	42.9	39.9	33.9	30.9	31.2	28.2
62.5	17.0	21.5	38.4	35.4	27.9	24.9	21.4	18.4
100	22.0	20.1	35.3	32.3	23.8	20.8	13.3	10.3

MECHANICAL PROPERTIES

- **Bending Radius :** **<4 x cable diameter at -20°C ± 1°C**
- **Pulling Force :** **100N**
- **Operating Temperature Range :** **-20°C to +70°C**
- **Storage Temperature Range :** **0°C to +50°C**

CONNECTION SYSTEM

- **Compatible with all common systems according to TIA/EIA 568-C.2 and ISO/IEC 11801**

PACKING

- **Available in easy-pull reelex boxes of guaranteed 305m length**

CAT5e UTP KEYSTONE JACKS

KEY FEATURES

- RJ45 8P 8C 50 Jack
- Terminating 4 pairs, 23-24 AWG cable
- Universal labels Colour-coded for T568A and T5688 wiring schemes
- Fitting 1U 24 port High-Density Keystone panel

Sakhr Category 5e keystone jacks are RJ45 8P 8C 50u' jacks suitable for 22-26 AWG stranded and solid wire, compatible with both 110 & Krone punch down tools. They are available in universal labels Colour coded for T568A and T568B wiring schemes and fit in high density keystone patch panel. It supports IEC 60603-7-4 and complied with ANSI/TIA EIA-568-C.2 standard.

SPECIFICATIONS

- RJ45 Jack : Housing : ABS + PC, UL 94V-2 Transparent Colour Contact
  Bracket : PC, UL 94V-2 Transparent Colour
- RJ45 Jack Contact : Material : Phosphor Bronze with Nickel Plated
  Finish : 50 micro-inch Gold plated on Plug Contact area
- IDC : Housing : PC+Glass Fiber, UL 94V-2 Terminal: Phosphor Bronze with Tin plated
- IDC CAP : ABS, UL 94V-0
- PCB: FR4, UL 94V-0

ORDERING INFORMATION

PART CODE	DESCRIPTION
NKJ-5EWHI1B21	Cat5E UTP Keystone Jack-White
NKJ-5EBLU1B21	Cat5E UTP Keystone Jack-Blue
NKJ-5ERED1B21	Cat5E UTP Keystone Jack-Red
NKJ-5EGRN1B21	Cat5E UTP Keystone Jack-Green
NKJ-5EYEL1B21	Cat5E UTP Keystone Jack-Yellow

CAT5e UTP PATCH CORDS

APPLICATION

- 10BASE-T, 100BASE-TX Fast Ethernet, 1000BASE-T (IEEE802.3)
- 100VG-AnyLAN (IEEE802.12)
- 500MHz Broadband Video
- Voice,T1, ISDN
- 155/622 Mbps ATM
- Power over Ethernet (PoE)

Sakhr CAT5e UTP Patch Cords are high-quality four-pair twisted stranded cables terminated with RJ45 modular plugs at both the ends. It is as per the TIA/EIA-568-C.2 standard. These patch cords are appropriate for high speed data transmission.

SPECIFICATIONS

- Conductor : 24 AWG, Multi-strands
- Conductor Metal : Bare Copper
- Insulation Material : High Density Polyethylene
- Material : PVC UL94V-0
- Heat Resistance : 60°C minimum (Temperature limited)
- Flame Property : The purpose of the vertical lame test is to screen out flammable wires. It follows the VW-1 (UL) and FT-1 (GA) standards
- Insertion Cycles : 750 times

MODULAR CONNECTOR/PLUG

RJ45 JACK CONTACT

- Material : Phosphor Bronze with Nickel Plated
- Finish : 50 micro-inch Gold plated
- Temperature Range : -10-80°C
- Dielectric withstanding voltage : 500V AC
- Insulation Resistance : 35M Ohm (max.)

ORDERING INFORMATION

PART CODE	DESCRIPTION
NCB-5EUGRYR1-05	Cat5E UTP 24AWG Patch Cord, 0.5M, Grey
NCB-5EUBLUR1-1	Cat5E UTP 24AWG Patch Cord, 1M, Blue
NCB-5EUBLUR1-2	Cat5E UTP 24AWG Patch Cord, 2M, Blue
NCB-5EUBLUR1-3	Cat5E UTP 24AWG Patch Cord, 3M, Blue
NCB-5EUGRYR1-5	Cat5E UTP 24AWG Patch Cord, 5M, Grey
NCB-5EUGRYR1-10	Cat5E UTP 24AWG Patch Cord, 10M, Grey
NCB-5EUGRYR1-15	Cat5E UTP 24AWG Patch Cord, 15M, Grey

CAT5e UTP LOADED PATCH PANELS

KEY FEATURES

- Six-port RJ45 modules applied
- ID stripes for identifying port allocations
- IDC compatible with 110 & Krone tool
- Terminating 4 pairs, 22-26 AWG, unshielded
- cable Improved cable management with an optional cable management bar (Simple type, or "T" slot type)
- Universal labels Colour-coded for T568A and T568B wiring schemes

Sakhr Category 5e patch panels are six port RJ45 modules applied and suitable for 22-26AWG stranded and solid wire, compatible with both 110 & Krone punch down tools. Sakhr Cat5e patch panels have improved Cable Management with optional Cable Management bar terminating 4 pairs UTP cable. They are complied with the TIA/EIA-568-C.2 standard.

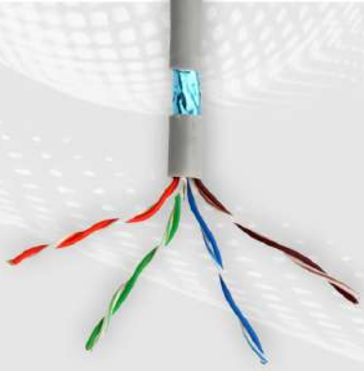
SPECIFICATIONS

• I.D. Plate :	PVC.Transparent Colour Paper
• Panel :	SPCC. 1.5 mm thickness with Black (RAL 9005) Colour painted
• RJ45 Jack :	Housing: ABS, UL 94V-0.
	Contact Bracket: PC, UL 94V-2. Transparent Colour
• RJ45 Jack Contact:	Material: Phosphor Bronze with Nickel plated
	Finish: 50 micro-inch Gold plated on Plug contact area
• IDC:	Housing: PC+Glass Fiber, UL 94V-2
	Terminal: Phosphor Bronze with Tin plated
	Jack Bracket Set: ABS, UL 94V-0
• Support Bar:	SPCC, 1.5 mm thickness with Black (RAL 9005) Colour painted

ORDERING INFORMATION

PART CODE	DESCRIPTION
• NPP-5E1BLK241	Cat5E UTP 24 Port Loaded Patch Panel
• NPP-5E1BLK481	Cat5E UTP 48 Port Loaded Patch Panel

CAT5e FTP Cable



KEY FEATURES

- Comply with Cat5e specifications
- 4-pair shielded twisted pair (FTP) cable
- 24 AWG solid copper conductor for superior conductivity
- PE insulation
- FR PVC Jacket
- Pairs are wrapped in aluminum foil with drain wire
- Packaged in MDF spool in a box

Enhanced performance cable for transmission of high speed data, digital and analogue voice and video (RGB) signals on LANS. Supports Gigabit Ethernet (1000 baseT) standard. Operates at bandwidth of 100MHz.

This cable well exceeds the requirements of TIA/EIA-568- C.2 and ISO/IEC 11801

SPECIFICATIONS

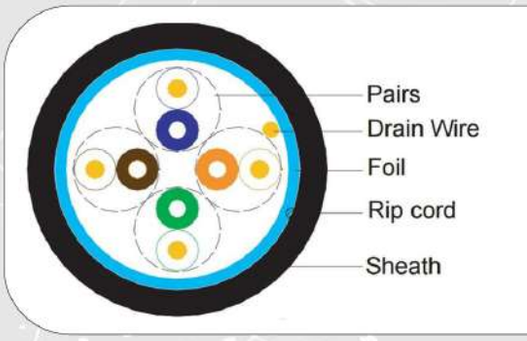
- Conductor : 24 AWG Solid bare Copper (4 pair)
- Insulation : High Density Polyethylene
- Pairs : 2 Insulated conductors twisted together
- Sheath : FR PVC
- Shield : Aluminum /Polyester Foil
- Cable Diameter : 6.0 mm nominal

COLOUR CODE

PAIR NO	COLOUR
1-2	White/Orange Stripe and Orange
3-6	White/Green Stripe and Green
4-5	White/Blue Stripe and Blue
7-8	White/Brown Stripe and Brown

ELECTRICAL PROPERTIES

- Characteristic Impedance : 100+15Ω
- Conductor Resistance : ≤9.38Ω/100m
- Mutual Capacitance : <5.6nF/100m
- Resistance Unbalance : 5% Max
- Capacitance Unbalance : 330pF/100m
- Delay Skew : <45ns
- NVP : 69%



ORDERING INFORMATION

PART CODE	DESCRIPTION
NCB-5ESGRYR-305-24	Cat5e FTP 24 AWG PVC Solid Cable-305m/Roll,Grey Colour
NCB-5ESBLUR-305	Cat5e FTP 24 AWG PVC Solid Cable-305m/Roll, Blue Colour

TRANSMISSION CHARACTERISTICS PER 100M

FREQUENCY MHZ	INSERTION LOSS (dB/100M)	RL (dB)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB)	PSELFEXT (dB)	ACR (dB)	PSACR (dB)
1	2.0	20.0	65.3	62.3	63.8	60.8	63.8	60.3
4	4.1	23.0	56.3	53.3	51.8	48.8	52.2	49.2
8	5.8	24.5	51.8	48.8	45.7	42.7	46.0	43.0
10	6.5	25.0	50.3	47.3	43.8	40.8	43.8	40.8
16	8.2	25.0	47.2	44.2	39.7	36.7	39.0	36.0
20	9.3	25.0	45.8	42.8	37.8	34.8	36.5	33.5
25	10.4	24.2	44.3	41.3	35.8	32.8	33.9	30.9
31.25	11.7	23.3	42.9	39.9	33.9	30.9	31.2	28.2
62.5	17.0	20.7	38.4	35.4	27.9	24.9	21.4	18.4
100	22.0	19.0	35.3	32.3	23.8	20.8	13.3	10.3

MECHANICAL PROPERTIES

- **Bending Radius :** **<4 x cable diameter at -20°C ± 1°C**
- **Pulling Force :** **9Kg**
- **Operating Temperature Range :** **-20°C to +70°C**
- **Storage Temperature Range :** **0°C to +50°C**

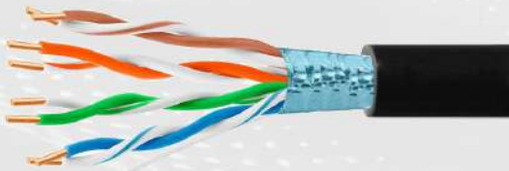
CONNECTION SYSTEM

- **Compatible with all common systems according to TIA/EIA 568-C.2 and ISO/IEC 11801**

PACKING

- **Available in MDF spoolin a box of guaranteed 305m length**

CAT5e FTP OUTDOOR CABLES



KEY FEATURES

- Comply with Cat5e specifications
- 4-pair shielded twisted pair (FTP) cable
- 24 AWG solid copper conductor for superior conductivity
- PE insulation
- UV PVC Outer Jacket
- Pairs are wrapped in aluminum foil with drain wire Packaged in MDF spool in a box

Enhanced performance cable for transmission of high speed data, digital and analogue voice and video (RGB) signals on LANS. Supports Gigabit Ethernet (1000 baseT) standard. Operates at bandwidth of 100MHz.

This cable well exceeds the requirements of TIA/EIA-568- C.2 and ISO/IEC 11801

SPECIFICATIONS

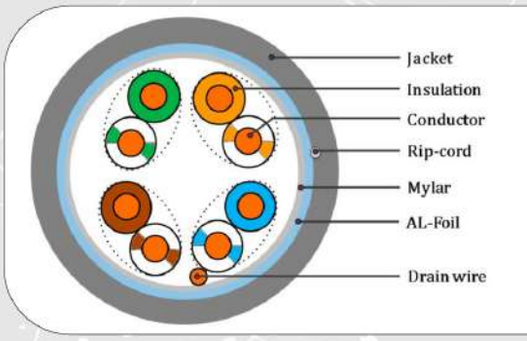
- Conductor : 24 AWG Solid bare Copper (4 pair)
- Insulation : High Density Polyethylene
- Pairs : 2 Insulated conductors twisted together
- Sheath : UV PVC Outer sheath
- Shield : Aluminum /Polyester Foil
- Cable Diameter : Cable Diameter: 6.0 mm nominal

COLOUR CODE

PAIR NO	COLOUR
1-2	White/Orange Stripe and Orange
3-6	White/Green Stripe and Green
4-5	White/Blue Stripe and Blue
7-8	White/Brown Stripe and Brown

ELECTRICAL PROPERTIES

- Characteristic Impedance : 100+15Ω
- Conductor Resistance : ≤9.38Ω/100m
- Mutual Capacitance : <5.6nF/100m
- Resistance Unbalance : 5% Max
- Capacitance Unbalance : 330pF/100m
- Delay Skew : <45ns
- NVP : 69%



ORDERING INFORMATION

PART CODE	DESCRIPTION
NCB-5EFOBLR-305	Cat5e FTP 24 AWG UV PVC Outdoor Cable-305m/Roll, Black Colour

TRANSMISSION CHARACTERISTICS PER 100M

FREQUENCY MHZ	INSERTION LOSS (dB/100M)	RL (dB)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB)	PSELFEXT (dB)	ACR (dB)	PSACR (dB)
1	2.0	20.0	65.3	62.3	63.8	60.8	63.8	60.3
4	4.1	23.0	56.3	53.3	51.8	48.8	52.2	49.2
8	5.8	24.5	51.8	48.8	45.7	42.7	46.0	43.0
10	6.5	25.0	50.3	47.3	43.8	40.8	43.8	40.8
16	8.2	25.0	47.2	44.2	39.7	36.7	39.0	36.0
20	9.3	25.0	45.8	42.8	37.8	34.8	36.5	33.5
25	10.4	24.2	44.3	41.3	35.8	32.8	33.9	30.9
31.25	11.7	23.3	42.9	39.9	33.9	30.9	31.2	28.2
62.5	17.0	20.7	38.4	35.4	27.9	24.9	21.4	18.4
100	22.0	19.0	35.3	32.3	23.8	20.8	13.3	10.3

MECHANICAL PROPERTIES

- **Bending Radius :** **<4 x cable diameter at -20°C ± 1°C**
- **Pulling Force :** **9Kg**
- **Operating Temperature Range :** **-20°C to +70°C**
- **Storage Temperature Range :** **0°C to +50°C**

CONNECTION SYSTEM

- **Compatible with all common systems according to TIA/EIA 568-C.2 and ISO/IEC 11801**

PACKING

- **Available in MDF spoolin a box of guaranteed 305m length**

CAT5e SFTP CABLES

KEY FEATURES

- Comply with Cat5e specifications
- 4-pair screened foil twisted pair Cable
- 24 AWG solid copper conductor
- Pairs are wrapped in polyester tape and aluminum foil with drain wire
- High Density Polyethylene Insulation
- FR PVC Jacket
- Tinned Copper braiding for mechanical strength
- Packaged in MDF spools in a box

Enhanced performance cable for transmission of high speed data, digital and analogue voice and video (RGB) signals on LANS. Supports Gigabit Ethernet (1000 baseT) standard. Operates at bandwidth of 100MHz. Tinned Copper Screening gives Protection against EMI and avoid signal loss. Better Mechanical Properties of Cable. This cable well exceeds the requirements of TIA/EIA-568.C.2

This cable well exceeds the requirements of TIA/EIA-568- C.2 and ISO/IEC 11801

SPECIFICATIONS

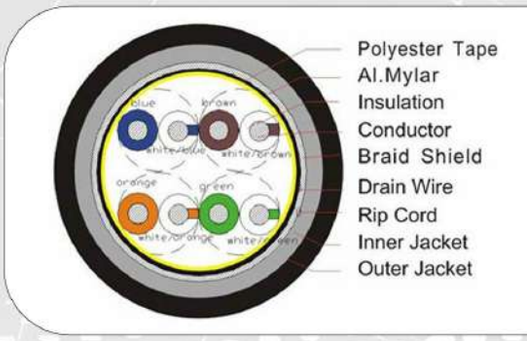
Category :	Cat5e SFTP Solid cable
Conductor :	24 AWG Multi-cores (Solid)
Conductor :	Bare Copper
Insulation :	HD-PE
Shield :	Aluminum/Polyester Foil Tinned Copper Braiding
Cable Diameter :	6.3mm nominal

COLOUR CODE

PAIR NO	COLOUR
1-2	White/Orange Stripe and Orange
3-6	White/Green Stripe and Green
4-5	White/Blue Stripe and Blue
7-8	White/Brown Stripe and Brown

ELECTRICAL PROPERTIES

Conductor Resistance :	≤9.38Ω/100m
Mutual Capacitance :	<5.6nF/100m
Resistance Unbalance :	5% Max
Capacitance Unbalance :	330pF/100m
Delay Skew :	<45ns



ORDERING INFORMATION

PART CODE	DESCRIPTION
NCB-5ESFGRR-305	CAT5e SFTP 24AWG Solid: 305M Grey Colour

TRANSMISSION CHARACTERISTICS PER 100M

FREQUENCY MHZ	INSERTION LOSS (dB/100M)	RL (dB)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB)	PSELFEXT (dB)	ACR (dB)	PSACR (dB)
1	2.0	20.0	65.3	62.3	63.8	60.8	63.8	60.3
4	4.1	23.0	56.3	53.3	51.8	48.8	52.2	49.2
8	5.8	24.5	51.8	48.8	45.7	42.7	46.0	43.0
10	6.5	25.0	50.3	47.3	43.8	40.8	43.8	40.8
16	8.2	25.0	47.2	44.2	39.7	36.7	39.0	36.0
20	9.3	25.0	45.8	42.8	37.8	34.8	36.5	33.5
25	10.4	24.2	44.3	41.3	35.8	32.8	33.9	30.9
31.25	11.7	23.3	42.9	39.9	33.9	30.9	31.2	28.2
62.5	17.0	20.7	38.4	35.4	27.9	24.9	21.4	18.4
100	22.0	19.0	35.3	32.3	23.8	20.8	13.3	10.3

MECHANICAL PROPERTIES

- **Bending Radius :** <8 x cable diameter at -20°C ± 1°C
- **Pulling Force :** 9.5Kg
- **Operating Temperature Range :** -20°C to +70°C
- **Storage Temperature Range :** 0°C to +50°C

CONNECTION SYSTEM

- Compatible with all common systems according to TIA/EIA 568-C.2 and ISO/IEC 11801

PACKING

- Available in MDF spoolin a box of guaranteed 305m length

CAT5e SHIELDED PATCH PANELS

KEY FEATURES

- Eight-port RJ45 modules applied
- ID stripes for identifying port allocations
- IDC compatible with 110 & Krone tool
- Terminating 4 pairs, 22-26 AWG, shielded cable
- Friendly installation, right angle between IDCs and RJ45 Keystone jacks
- Jack shutter to keep dust away
- Hand screw,easy to open cover

Sakhr Category 5e shielded patch panels are eight port RJ45 modules applied and suitable for 22-26AWG stranded and solid wire, compatible with both 110 & Krone punch down tools. Sakhr patch panels have improved Cable Management with optional Cable Management bar terminating 4 pairs UTP cable. They are complied with the ANSI/TIA/EIA-568-C.2 standard.

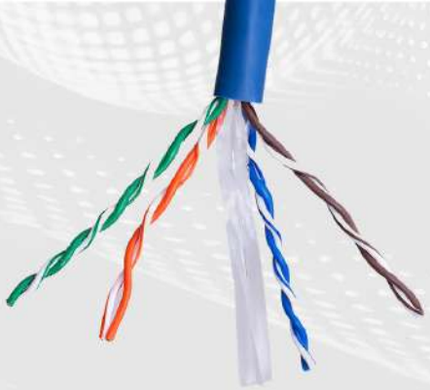
SPECIFICATIONS

• Identification :	1.D. Plate : PVC. Transparent Colour Paper
• Panel :	SPCC. 1.2 mm thickness with Black (RAL 9005) Colour painted
• RJ45 Jack :	Housing : PBT+15%GF, UL 94V-0.
• RJ45 Jack Contact :	Material : Phosphor Bronze Finish: 3mm 50 micro-inch Gold plated over nickel plated
• IDC :	Terminal : Phosphor Bronze with Tin plated
• Dust Cover :	PC, UL 94V-0, Transparent Black (RAL 9004) colour
• Ground wire :	18AWG wire, with green/yellow striped colour, length 40cm

ORDERING INFORMATION

PART CODE	DESCRIPTION
• NPP-5E2BLK241	Cat5e Shielded 24 Port Loaded Patch Panel
• NPP-5E2BLK481	Cat5e Shielded 48 Port Loaded Patch Panel

CAT6 UTP 23 AWG CABLE



KEY FEATURES

- Comply with Cat 6 specifications
- 4-pair unshielded twisted pair (UTP) cable
- 23 AWG solid copper conductor for superior conductivity
- PE insulation
- PE central cross
- FR PVC/LSZH Jacket
- Verified compliant with EIA/TIA standards by ETL & UL-listed
- Packaged in an easy-to-pull reelex box for easier installation

Enhanced performance cable for transmission of high speed data, digital and analogue voice and video (RGB) signals on LANS. Supports Gigabit Ethernet (1000 baseT) standard.Operates at bandwidth of 250MHz.

This cable well exceeds the requirements of TIA/EIA-568- C.2 and ISO/IEC 11801

SPECIFICATIONS

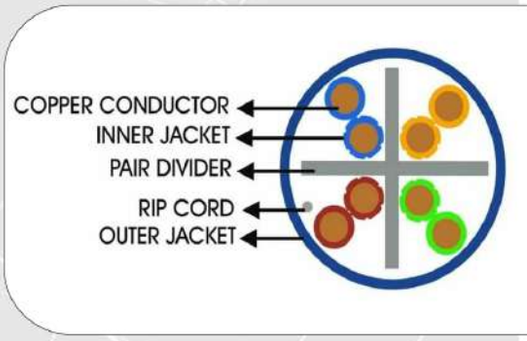
- Conductor : 23 AWG Solid bare Copper (4 pair)
- Insulation : High Density Polyethylene
- Pairs : 2 Insulated conductors twisted together
- Sheath : FR PVC/LSZH
- Cable Diameter : 6.0 mm nominal

COLOUR CODE

PAIR NO	COLOUR
1-2	White/Orange Stripe and Orange
3-6	White/Green Stripe and Green
4-5	White/Blue Stripe and Blue
7-8	White/Brown Stripe and Brown

ELECTRICAL PROPERTIES

- Characteristic Impedance : 100+15Ω
- Conductor Resistance : ≤9.38Ω/100m
- Mutual Capacitance : <5.6nF/100m
- Resistance Unbalance : 5% Max
- Capacitance Unbalance : 330pF/100m
- Delay Skew : <45ns
- NVP : 69%



ORDERING INFORMATION

PART CODE	DESCRIPTION
NCB-C6UGRYR-100	Cat6 UTP 23 AWG PVC Solid Cable-100m/Roll - Grey Colour
NCB-C6UGRYR-305	Cat6 UTP 23 AWG PVC Solid Cable-305m/Roll - Grey Colour
NCB-C6UGRNR-305	Cat6 UTP 23 AWG PVC Solid Cable-305m/Roll - Green Colour
NCB-C6UORGR-305	Cat6 UTP 23 AWG PVC Solid Cable-305m/Roll - Orange Colour
NCB-C6UVLTR-305	Cat6 UTP 23 AWG PVC Solid Cable-305m/Roll - Violet Colour
NCB-C6UGRYR-305-LS	Cat6 UTP 23 AWG LSZH Solid Cable-305m/Roll - Grey Colour

TRANSMISSION CHARACTERISTICS PER 100M

FREQUENCY MHZ	INSERTION LOSS (dB/100M)	RL (dB)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB)	PSELFEXT (dB)	ACR (dB)	PSACR (dB)
1	2.0	20.0	74.3	72.3	67.8	64.8	72.3	70.3
4	3.8	23.0	65.3	63.3	55.8	52.8	61.5	59.5
8	5.3	24.5	60.8	58.8	49.7	46.7	55.5	53.5
10	6.0	25.0	59.3	57.3	47.8	44.8	53.3	51.3
16	7.6	25.0	56.2	54.2	43.7	40.7	48.6	46.6
20	8.5	25.0	54.8	52.8	41.8	38.8	46.3	44.3
25	9.5	24.3	53.3	51.3	39.8	36.8	43.8	41.8
31.25	10.7	23.6	51.9	49.9	37.9	34.9	41.2	39.2
62.5	15.4	21.5	47.4	45.4	31.9	28.9	32.0	30.0
100	19.8	20.1	44.3	42.3	27.8	24.8	24.5	22.5
200	29.0	18.0	39.8	37.8	21.8	18.8	10.8	8.8
250	32.8	17.3	38.3	36.3	19.8	16.8	5.5	3.5

MECHANICAL PROPERTIES

- **Bending Radius :** <4*Cable Diameter at -20°C ± 1°C
- **Pulling Force :** 11.5 Kg
- **Operating Temperature Range :** -20°C to +70°C
- **Storage Temperature Range :** 0°C to +50°C

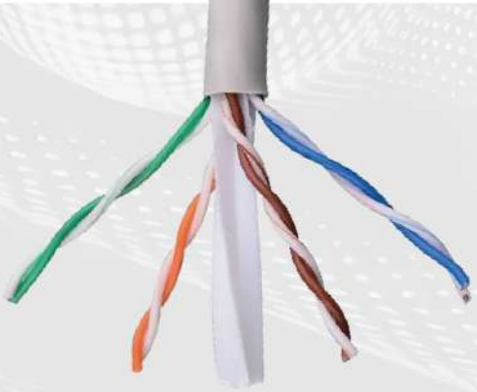
CONNECTION SYSTEM

- Compatible with all common systems according to TIA/EIA 568-C.2 and ISO/IEC 11801 Class E

PACKING

- Available in easy-pull reelex boxes of guaranteed 305m length

CAT6 UTP 24 AWG CABLES



KEY FEATURES

- Comply with Cat 6 specifications
- 4-pair unshielded twisted pair (UTP) cable
- 24 AWG solid copper conductor for superior conductivity
- PE insulation
- PE central cross
- FR PVC Jacket
- Packaged in an easy-to-pull reelex box for easier installation

Enhanced performance cable for transmission of high speed data, digital and analogue voice and video (RGB) signals on LANS. Supports Gigabit Ethernet (1000 baseT) standard.Operates at bandwidth of 250MHz.

This cable well exceeds the requirements of TIA/EIA-568- C.2 and ISO/IEC 11801

SPECIFICATIONS

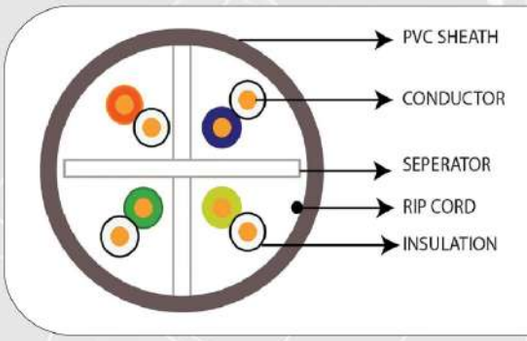
- Conductor : 24 AWG Solid bare Copper (4 pair)
- Insulation : High Density Polyethylene
- Pairs : 2 Insulated conductors twisted together
- Sheath : FR PVC
- Cable Diameter : 5.8 mm nominal

COLOUR CODE

PAIR NO	COLOUR
1-2	White/Orange Stripe and Orange
3-6	White/Green Stripe and Green
4-5	White/Blue Stripe and Blue
7-8	White/Brown Stripe and Brown

ELECTRICAL PROPERTIES

- Characteristic Impedance : 100+15Ω
- Conductor Resistance : ≤9.38Ω/100m
- Mutual Capacitance : <5.6nF/100m
- Resistance Unbalance : 5% Max
- Capacitance Unbalance : 330pF/100m
- Delay Skew : <45ns
- NVP : 69%



ORDERING INFORMATION

PART CODE	DESCRIPTION
NCB-C6UGRYR-305-24	Cat6 UTP 24 AWG PVC Solid Cable-305m/Roll-Grey Colour

TRANSMISSION CHARACTERISTICS PER 100M

FREQUENCY MHZ	INSERTION LOSS (dB/100M)	RL (dB)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB)	PSELFEXT (dB)	ACR (dB)	PSACR (dB)
1	2.0	20.0	74.3	72.3	67.8	64.8	72.3	70.3
4	3.8	23.0	65.3	63.3	55.8	52.8	61.5	59.5
8	5.3	24.5	60.8	58.8	49.7	46.7	55.5	53.5
10	6.0	25.0	59.3	57.3	47.8	44.8	53.3	51.3
16	7.6	25.0	56.2	54.2	43.7	40.7	48.6	46.6
20	8.5	25.0	54.8	52.8	41.8	38.8	46.3	44.3
25	9.5	24.3	53.3	51.3	39.8	36.8	43.8	41.8
31.25	10.7	23.6	51.9	49.9	37.9	34.9	41.2	39.2
62.5	15.4	21.5	47.4	45.4	31.9	28.9	32.0	30.0
100	19.8	20.1	44.3	42.3	27.8	24.8	24.5	22.5
200	29.0	18.0	39.8	37.8	21.8	18.8	10.8	8.8
250	32.8	17.3	38.3	36.3	19.8	16.8	5.5	3.5

MECHANICAL PROPERTIES

- **Bending Radius :** <25.4mm at -20°C ± 1°C
- **Pulling Force :** 11.5 Kg
- **Operating Temperature Range :** -20°C to +70°C
- **Storage Temperature Range :** 0°C to +50°C

CONNECTION SYSTEM

- **Compatible with all common systems according to TIA/EIA 568-C.2 and ISO/IEC 11801 Class E**

PACKING

- **Available in easy-pull reelex boxes of guaranteed 305m length**

CAT6 UTP KEYSTONES

KEY FEATURES

- RJ45 8P 8C 50u" Jack
- Terminating 4 pairs, 22-26 AWG cable
- Universal labels Colour-coded for T568A and T568B wiring schemes
- Fitting 1U 24 port High-Density Keystone panel ·
- 3P/ETL verified unshielded EIA/TIA/ connecting hardware

Sakhr Category 6 keystone jacks are RJ45 8P 8C 50u jacks suitable for 22-26 AWG stranded and solid wire, compatible with both 110 & Krone punch down tools. They are available in universal labels Colour coded for T568A and T568B wiring schemes and fit in high density keystone patch panel. It supports IEC 60603-7-4 and complied with ANSI/TIA/ EIA-568-C.2 standard.

SPECIFICATIONS

• RJ45 Jack :	Housing : ABS + PC, UL 94V-2 Transparent Colour Contact
	Bracket : PC, UL 94V-2 Transparent Colour
• RJ45 Jack Contact :	Material : Phosphor Bronze with Nickel Plated
	Finish : 50 micro-inch Gold plated on Plug Contact area
• IDC :	Housing : PC+Glass Fiber, UL 94V-0

ORDERING INFORMATION

PART CODE	DESCRIPTION
• NKJ-C6WHI1B21	Cat6 UTP Keystone Jack-White
• NKJ-C6BLU1B21	Cat6 UTP Keystone Jack-Blue
• NKJ-C6RED1B21	Cat6 UTP Keystone Jack-Red
• NKJ-C6GRN1B21	Cat6 UTP Keystone Jack-Green
• NKJ-C6YEL1B21	Cat6 UTP Keystone Jack-Yellow

CAT6 UTP PATCH CORDS

APPLICATION

- 10BASE-T, 100BASE-TX Fast Ethernet, 1000BASE-T
- 100VG-AnyLAN (IEEE802.12)
- 500MHz Broadband Video
- Voice, T1, ISDN
- 155/622 Mbps ATM
- Power over Ethernet (PoE)

Sakhr Cat6 patch cords are high-quality four pair twisted stranded cable terminated with RJ45 modular plugs at both the ends. It complies to the TIA/EIA-568-C.2 standard. These patch cords are appropriate for high-speed data transmissions.

SPECIFICATIONS

- Conductor : 24 AWG Multi-strands
- Conductor Metal : Bare Copper
- Insulation Material : High Density Polyethylene
- Material : PVC
- Heat Resistance : 60°C minimum (Temperature Limited)
- Flame Property : The purpose of the vertical flame test is to screen out flammable wires. It follows the VW-1(UL)and FT-1 (CSA) Insertion
- Cycles : 750 times

MODULAR CONNECTOR/PLUG

RJ45 JACK CONTACT

- Material : Phosphor Bronze with Nickel Plated
- Finish : 50 micro-inch Gold plated
- Temperature Range : -10-80°C
- Dielectric withstanding voltage : 500V AC
- Insulation Resistance : 35M 0hm (max.)

ORDERING INFORMATION

PART CODE	DESCRIPTION
NCB-C6UGRYR1-05	Cat6 UTP 24AWG Patch Cord, 0.5M
NCB-C6UGRYR1-1	Cat6 UTP 24AWG Patch Cord, 1M
NCB-C6UGRYR1-2	Cat6 UTP 24AWG Patch Cord, 2M
NCB-C6UGRYR1-3	Cat6 UTP 24AWG Patch Cord, 3M
NCB-C6UGRYR1-5	Cat6 UTP 24AWG Patch Cord, 5M
NCB-C6UGRYR1-10	Cat6 UTP 24AWG Patch Cord, 10M
NCB-C6UGRYR1-15	Cat6 UTP 24AWG Patch Cord, 15M

CAT6 UTP PATCH PANELS

KEY FEATURES

- Six-port RJ45 modules applied
- ID stripes for identifying port allocations
- IDC compatible with 110 & Krone tool
- Terminating 4 pairs, 22-26 AWG, unshielded cable
- Improved cable management with an optional
- cable management bar (Simple type, or T slot type)
- Universal labels Colour-coded for T568A and T568B wiring schemes

Sakhr Category 6 patch panels are six port RJ45 modules applied and suitable for 22-26AWG stranded and solid wire, compatible with both 110 & Krone punch down tools. Sakhr patch panels have improved Cable Management with optional Cable Management bar terminating 4 pairs UTP cable. They are complied with the ANSI/TIA/EIA-568-C.2 standard.

SPECIFICATIONS

• Identification :	I.D. Plate: OPP. Transparent Colour Paper
• Panel :	SPCC. 1.6 mm thickness with Black (RAL 9005) Colour painted
• RJ45 Jack :	Housing : PC, UL 94V-02. Contact Bracket : PBT+Glass Fiber, UL 94V-1, Transparent
• RJ45 Jack Contact :	Material : Phosphor Bronze with Nickel plated Finish : 50 micro-inch Gold plated on Plug contact area
• IDC :	Housing : PC+Glass Fiber, UL 94V-2 Terminal : Phosphor Bronze with Tin plated
• Jack Bracket Set :	ABS
• Support Bar :	SPCC, 1.6 mm thickness with Black (RAL 9005) Colour painted

ORDERING INFORMATION

PART CODE	DESCRIPTION
• NPP-C61BLK241	Cat6 UTP 24 Port Loaded Patch Panel
• NPP-C61BLK481	Cat6 UTP 48 Port Loaded Patch Panel

CAT6 0.5U LOADED PATCH PANELS

KEY FEATURES

- Eight-port RJ45 modules applied
- High Density 24 port 0.5U patch panel
- IDC compatible with 110 & Krone tool
- Terminating 4 pairs, 22-26 AWG, stranded and solid wire
- Ideal for limited rack space solutions

Sakhr Category 6 0.5U patch panels are eight port RJ45 modules applied and suitable for 22-26AWG stranded and solid wire, compatible with both 110 & Krone punch down tools. Sakhr patch panels have improved Cable Management with optional Cable Management bar terminating 4 pairs UTP cable. They are complied with the ANSI/TIA/EIA-568-C.2 standard.

SPECIFICATIONS

• Panel :	SPCC. 1.5 mm thickness with Black (RAL 9005) Colour painted
• RJ45 Jack :	Housing: PBT+GF,UL 94V-0, Contact brackets: PBT+GF,UL94V-2
• RJ45 Jack Contact :	Material : Phosphor Bronze with nickel plating Finish : 50 micro-inch Gold plated on plug contact area
• IDC :	Housing : PC+GF,UL94V-2, Terminal : Phosphor Bronze with Tin plated
• Dust Cover :	PC, UL 94V-0

ORDERING INFORMATION

PART CODE	DESCRIPTION
• NPP-C61BLK243	Cat6 Unshielded 24 Port Loaded Patch Panel-0.5U

CAT6 LOADED ANGLED PATCH PANELS

KEY FEATURES

- Six-port RJ45 modules applied
- ID stripes for identifying port allocations
- IDC compatible with 110 & Krone tool
- Terminating 4 pairs, 22-26 AWG, stranded and solid wire
- Designed to easily route cables into vertical cable managers
- Reduces the need for horizontal, front cable management bars

Sakhr Category 6 angled patch panels are six port RJ45 modules applied and suitable for 22-26AWG stranded and solid wire, compatible with both 110 & Krone punch down tools. Sakhr patch panels have improved Cable Management with optional Cable Management bar terminating 4 pairs UTP cable. They are complied with the ANSI/TIA/EIA-568-C.2 standard.

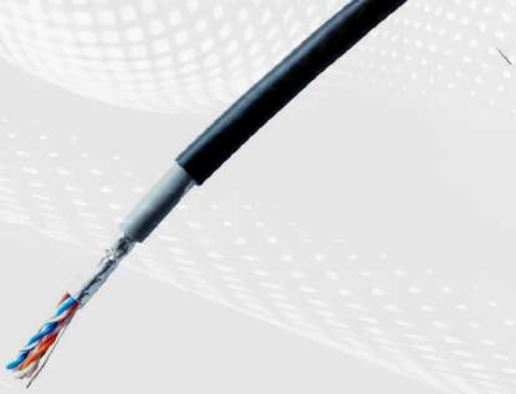
SPECIFICATIONS

• Identification :	I.D. Plate: PVC. Transparent Colour Paper
• Panel :	SPCC. 1.5 mm thickness with Black Colour painted
• RJ45 Jack :	Housing : PBT+ GF,UL 94V-0.
• RJ45 Jack Contact :	Material : Phosphor Bronze with Nickel plated Finish : 50 micro-inch Gold plated over nickel plated
• IDC :	Housing : PC +GF,UL 94 V-2,Terminal: Phosphor Bronze with Tin plated
• Back Cover :	ABS, UL 94V-0
• Support wire :	SPCC,1.5mm thickness,painted in black

ORDERING INFORMATION

PART CODE	DESCRIPTION
• NPP-C61BLK242	Cat6 Unshielded Angled 24 Port Loaded Patch Panel

CAT6 FTP 23 AWG CABLES



KEY FEATURES

- Comply with Cat 6 specifications
- 4-pair shielded twisted pair (FTP) cable
- 23 AWG solid copper conductor for superior conductivity
- PE insulation
- PE central cross
- FR PVC Jacket
- Packaged in MDF spool in a box

Enhanced performance cable for transmission of high speed data, digital and analogue voice and video (RGB) signals on

LANS. Supports Gigabit Ethernet (1000 baseT) standard. Operates at bandwidth of 250MHz. The shield acts as a Faraday cage to reduce electrical noise from affecting the signals, and to reduce electromagnetic radiation that may interfere with other devices. This cable well exceeds the requirements of TIA/EIA-568-C.2 and ISO/IEC 11801.

SPECIFICATIONS

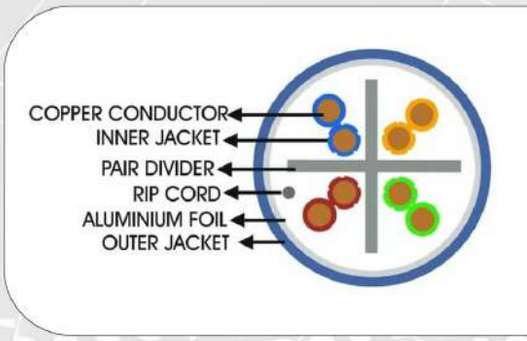
Conductor :	23 AWG Solid bare Copper (4 pair)
Insulation :	High Density Polyethylene
Pairs:	2 Insulated conductors twisted together
Sheath :	FR PVC
Shield:	Aluminum /Polyester Foil
Cable Diameter :	7.0 mm nominal

COLOUR CODE

PAIR NO	COLOUR
1-2	White/Orange Stripe and Orange
3-6	White/Green Stripe and Green
4-5	White/Blue Stripe and Blue
7-8	White/Brown Stripe and Brown

ELECTRICAL PROPERTIES

Characteristic Impedance :	100+15Ω
Conductor Resistance :	≤9.38Ω/100m
Mutual Capacitance :	<5.6nF/100m
Resistance Unbalance :	5% Max
Capacitance Unbalance :	330pF/100m
Delay Skew :	<45ns
NVP :	69%



ORDERING INFORMATION

PART CODE	DESCRIPTION
NCB-C6SGRYR-305	Cat6 FTP 23 AWG PVC Solid Cable -305m/Roll-Grey Colour

TRANSMISSION CHARACTERISTICS PER 100M

FREQUENCY MHZ	INSERTION LOSS (dB/100M)	RL (dB)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB)	PSELFEXT (dB)	ACR (dB)	PSACR (dB)
1	2.0	20.0	74.3	72.3	67.8	64.8	72.3	70.3
4	3.8	23.0	65.3	63.3	55.8	52.8	61.5	59.5
8	5.3	24.5	60.8	58.8	49.7	46.7	55.5	53.5
10	6.0	25.0	59.3	57.3	47.8	44.8	53.3	51.3
16	7.6	25.0	56.2	54.2	43.7	40.7	48.6	46.6
20	8.5	25.0	54.8	52.8	41.8	38.8	46.3	44.3
25	9.5	24.3	53.3	51.3	39.8	36.8	43.8	41.8
31.25	10.7	23.6	51.9	49.9	37.9	34.9	41.2	39.2
62.5	15.4	21.5	47.4	45.4	31.9	28.9	32.0	30.0
100	19.8	20.1	44.3	42.3	27.8	24.8	24.5	22.5
200	29.0	18.0	39.8	37.8	21.8	18.8	10.8	8.8
250	32.8	17.3	38.3	36.3	19.8	16.8	5.5	3.5

MECHANICAL PROPERTIES

- **Bending Radius :** <8*Cable Diameter at -20°C ± 1°C
- **Pulling Force :** 11.5 Kg
- **Operating Temperature Range :** -20°C to +70°C
- **Storage Temperature Range :** 0°C to +50°C

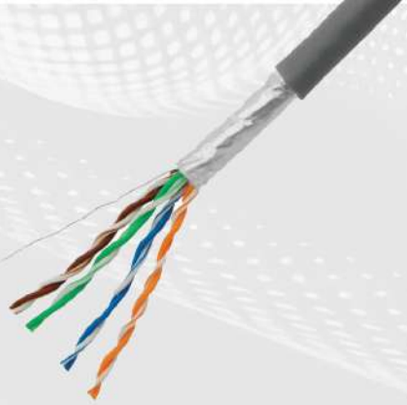
CONNECTION SYSTEM

- Compatible with all common systems according to TIA/EIA 568-C.2 and ISO/IEC 11801 Class E

PACKING

- Available in MDF spool in box of guaranteed 305m length

CAT6 FTP 24 AWG CABLES



KEY FEATURES

- Comply with Cat 6 specifications
- 4-pair shielded twisted pair (FTP) cable
- 24 AWG solid copper conductor for superior conductivity
- PE insulation
- PE central cross
- FR PVC Jacket
- Pairs are wrapped in aluminum foil with drain wire
- Packaged in MDF spool in a box

Enhanced performance cable for transmission of high speed data, digital and analogue voice and video (RGB) signals on LANS. Supports Gigabit Ethernet (1000 baseT) standard. Operates at bandwidth of 250MHz. The shield acts as a Faraday cage to reduce electrical noise from affecting the signals, and to reduce electromagnetic radiation that may interfere with other devices. This cable well exceeds the requirements of TIA/EIA-568-C.2 and ISO/IEC 11801.

SPECIFICATIONS

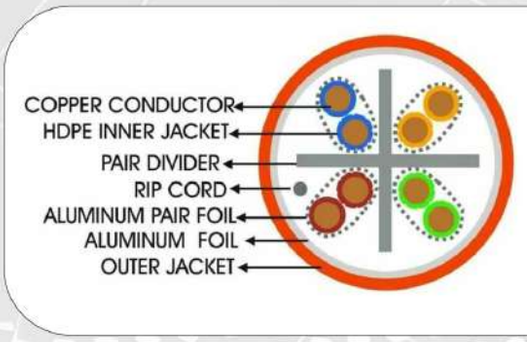
Conductor :	24 AWG Solid bare Copper (4 pair)
Insulation :	High Density Polyethylene
Pairs:	2 Insulated conductors twisted together
Sheath :	FR PVC
Shield:	Aluminum /Polyester Foil
Cable Diameter :	6.8 mm nominal

COLOUR CODE

PAIR NO	COLOUR
1-2	White/Orange Stripe and Orange
3-6	White/Green Stripe and Green
4-5	White/Blue Stripe and Blue
7-8	White/Brown Stripe and Brown

ELECTRICAL PROPERTIES

Characteristic Impedance :	100+15Ω
Conductor Resistance :	≤9.38Ω/100m
Mutual Capacitance :	<5.6nF/100m
Resistance Unbalance :	5% Max
Capacitance Unbalance :	330pF/100m
Delay Skew :	<45ns
NVP :	69%



ORDERING INFORMATION

PART CODE	DESCRIPTION
NCB-C6SGRYR-305-24	Cat6 FTP 24 AWG PVC Solid Cable-305m/Roll-Grey Colour

TRANSMISSION CHARACTERISTICS PER 100M

FREQUENCY MHZ	INSERTION LOSS (dB/100M)	RL (dB)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB)	PSELFEXT (dB)	ACR (dB)	PSACR (dB)
1	2.0	20.0	74.3	72.3	67.8	64.8	72.3	70.3
4	3.8	23.0	65.3	63.3	55.8	52.8	61.5	59.5
8	5.3	24.5	60.8	58.8	49.7	46.7	55.5	53.5
10	6.0	25.0	59.3	57.3	47.8	44.8	53.3	51.3
16	7.6	25.0	56.2	54.2	43.7	40.7	48.6	46.6
20	8.5	25.0	54.8	52.8	41.8	38.8	46.3	44.3
25	9.5	24.3	53.3	51.3	39.8	36.8	43.8	41.8
31.25	10.7	23.6	51.9	49.9	37.9	34.9	41.2	39.2
62.5	15.4	21.5	47.4	45.4	31.9	28.9	32.0	30.0
100	19.8	20.1	44.3	42.3	27.8	24.8	24.5	22.5
200	29.0	18.0	39.8	37.8	21.8	18.8	10.8	8.8
250	32.8	17.3	38.3	36.3	19.8	16.8	5.5	3.5

MECHANICAL PROPERTIES

- **Bending Radius :** >10*Cable Diameter at -20°C ± 1°C
- **Pulling Force :** 11.5 Kg
- **Operating Temperature Range :** -20°C to +70°C
- **Storage Temperature Range :** 0°C to +50°C

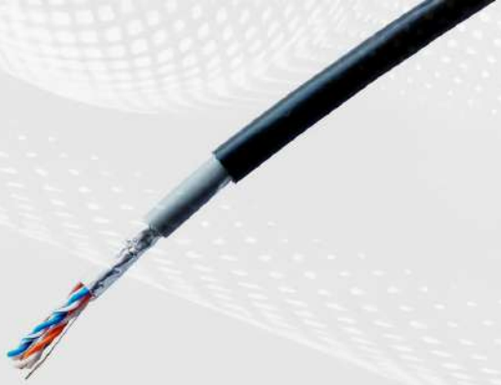
CONNECTION SYSTEM

- Compatible with all common systems according to TIA/EIA 568-C.2 and ISO/IEC 11801 Class E

PACKING

- Available in MDF spool in box of guaranteed 305m length

CAT6 FTP DOUBLE SHEATH OUTDOOR CABLES



KEY FEATURES

- Comply with Cat 6 specifications
- 4-pair shielded twisted pair (FTP) cable
- 23 AWG solid copper conductor for superior conductivity
- PE insulation
- PE central cross
- Double layer PVC/UV PVC Outer Jacket
- Pairs are wrapped in aluminum foil with drain wire
- Packaged in MDF spool in a box

Enhanced performance cable for transmission of high speed data, digital and analogue voice and video (RGB) signals on LANS. Supports Gigabit Ethernet (1000 baseT) standard. Operates at bandwidth of 250MHz. The shield acts as a Faraday cage to reduce electrical noise from affecting the signals, and to reduce electromagnetic radiation that may interfere with other devices. This cable well exceeds the requirements of TIA/EIA-568-C.2 and ISO/IEC 11801.

SPECIFICATIONS

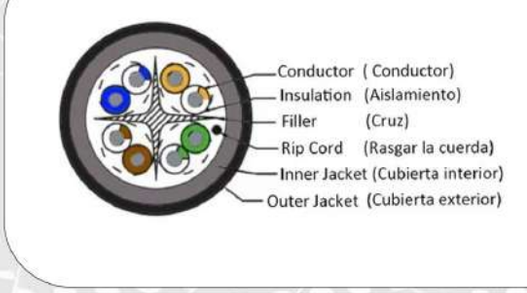
- Conductor : 23 AWG Solid bare Copper (4 pair)
- Insulation : High Density Polyethylene
- Pairs: 2 Insulated conductors twisted together
- Sheath : Double Sheath, (PVC Inner Sheath, UV PVC, Outer Sheath)
- Shield: Aluminum/Polyester Foil
- Cable Diameter : 8.3 mm nominal

COLOUR CODE

PAIR NO	COLOUR
1-2	White/Orange Stripe and Orange
3-6	White/Green Stripe and Green
4-5	White/Blue Stripe and Blue
7-8	White/Brown Stripe and Brown

ELECTRICAL PROPERTIES

- Characteristic Impedance : 100+15Ω
- Conductor Resistance : ≤9.38Ω/100m
- Mutual Capacitance : <5.6nF/100m
- Resistance Unbalance : 5% Max
- Capacitance Unbalance : 330pF/100m
- Delay Skew : <45ns
- NVP : 69%



ORDERING INFORMATION

PART CODE	DESCRIPTION
NCB-C6FOBLR-305	Cat6 FTP 23 AWG PVC/UV PVC Outdoor Cable-305m/Roll, Black Colour

TRANSMISSION CHARACTERISTICS PER 100M

FREQUENCY MHZ	INSERTION LOSS (dB/100M)	RL (dB)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB)	PSELFEXT (dB)	ACR (dB)	PSACR (dB)
1	2.0	20.0	74.3	72.3	67.8	64.8	72.3	70.3
4	3.8	23.0	65.3	63.3	55.8	52.8	61.5	59.5
8	5.3	24.5	60.8	58.8	49.7	46.7	55.5	53.5
10	6.0	25.0	59.3	57.3	47.8	44.8	53.3	51.3
16	7.6	25.0	56.2	54.2	43.7	40.7	48.6	46.6
20	8.5	25.0	54.8	52.8	41.8	38.8	46.3	44.3
25	9.5	24.3	53.3	51.3	39.8	36.8	43.8	41.8
31.25	10.7	23.6	51.9	49.9	37.9	34.9	41.2	39.2
62.5	15.4	21.5	47.4	45.4	31.9	28.9	32.0	30.0
100	19.8	20.1	44.3	42.3	27.8	24.8	24.5	22.5
200	29.0	18.0	39.8	37.8	21.8	18.8	10.8	8.8
250	32.8	17.3	38.3	36.3	19.8	16.8	5.5	3.5

MECHANICAL PROPERTIES

- **Bending Radius :** >10*Cable Diameter at -20°C ± 1°C
- **Pulling Force :** 11 Kg
- **Operating Temperature Range :** -20°C to +70°C
- **Storage Temperature Range :** 0°C to +50°C

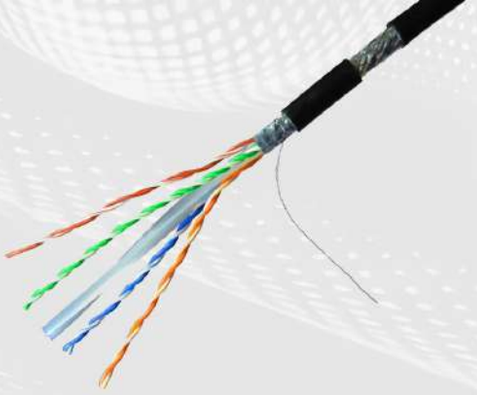
CONNECTION SYSTEM

- Compatible with all common systems according to TIA/EIA 568-C.2 and ISO/IEC 11801 Class E

PACKING

- Available in MDF spool in box of guaranteed 305m length

CAT6 SFTP CABLES



KEY FEATURES

- Comply with Cat6 specifications
- 4-pair screened foil twisted pair Cable
- 23 AWG solid copper conductor
- Pairs are wrapped in polyester tape and aluminum foil with drain wire
- High Density Polyethylene Insulation
- FR PVC Jacket
- Tinned Copper braiding for mechanical strength
- Packaged in MDF spools in a box

Enhanced performance cable for transmission of high speed data, digital and analogue voice and video (RGB) signals on LANS. Supports Gigabit Ethernet (1000 baseT) standard. Operates at bandwidth of 250MHz. Tinned Copper Screening gives Protection against EMI and avoid signal loss. Better Mechanical Properties of Cable. This cable well exceeds the requirements of TIA/EIA-568-C.2 and ISO/IEC 11801

SPECIFICATIONS

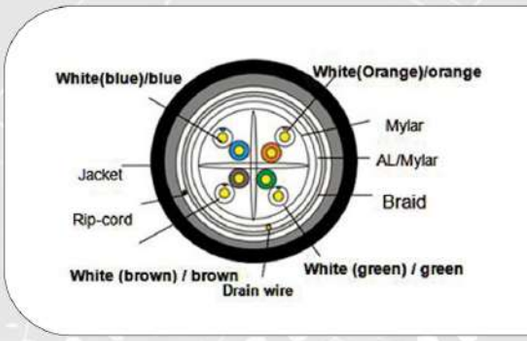
Category :	Cat6 SFTP Solid cable
Conductor :	23 AWG Multicore (Solid) Bare Copper
Insulation :	HD-PE
Shield :	Aluminum/Polyester Foil Tinned Copper Braiding
Cable Diameter :	7.6 mm nominal

COLOUR CODE

PAIR NO	COLOUR
1-2	White/Orange Stripe and Orange
3-6	White/Green Stripe and Green
4-5	White/Blue Stripe and Blue
7-8	White/Brown Stripe and Brown

ELECTRICAL PROPERTIES

Conductor Resistance :	≤9.38Ω/100m
Mutual Capacitance :	<5.6nF/100m
Resistance Unbalance :	5% Max
Capacitance Unbalance :	330pF/100m
Delay Skew :	<45ns



ORDERING INFORMATION

PART CODE	DESCRIPTION
NCB-C6SFGRR-305	CAT6 SFTP 23AWG Solid: 305M, Grey Color

TRANSMISSION CHARACTERISTICS PER 100M

FREQUENCY MHZ	INSERTION LOSS (dB/100M)	RL (dB)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB)	PSELFEXT (dB)	ACR (dB)	PSACR (dB)
1	2.0	20.0	74.3	72.3	67.8	64.8	72.3	70.3
4	3.8	23.0	65.3	63.3	55.8	52.8	61.5	59.5
8	5.3	24.5	60.8	58.8	49.7	46.7	55.5	53.5
10	6.0	25.0	59.3	57.3	47.8	44.8	53.3	51.3
16	7.6	25.0	56.2	54.2	43.7	40.7	48.6	46.6
20	8.5	25.0	54.8	52.8	41.8	38.8	46.3	44.3
25	9.5	24.3	53.3	51.3	39.8	36.8	43.8	41.8
31.25	10.7	23.6	51.9	49.9	37.9	34.9	41.2	39.2
62.5	15.4	21.5	47.4	45.4	31.9	28.9	32.0	30.0
100	19.8	20.1	44.3	42.3	27.8	24.8	24.5	22.5
200	29.0	18.0	39.8	37.8	21.8	18.8	10.8	8.8
250	32.8	17.3	38.3	36.3	19.8	16.8	5.5	3.5

MECHANICAL PROPERTIES

- **Bending Radius :** <8*Cable Diameter at -20°C ± 1°C
- **Pulling Force :** 11.5 Kg
- **Operating Temperature Range :** -20°C to +70°C
- **Storage Temperature Range :** 0°C to +50°C

CONNECTION SYSTEM

- Compatible with all common systems according to TIA/EIA 568-C.2 and ISO/IEC 11801 Class E

PACKING

- Available in MDF spool in box of guaranteed 305m length

CAT6 FTP KEYSTONE JACKS

KEY FEATURES

- RJ45 8P 8C 180° 50u Punch Down Jack
- Terminating 4 Pairs, 22-26 AWG Cable, stranded and solid wire
- Universal labels colour-coded for T568A and T568B wiring schemes
- Fitting high density keystone panel

Sakhr Category 6 keystone jacks are RJ45 8P 8C 50u jacks suitable for 22-26 AWG stranded and solid wire, compatible with both 110 & Krone punch down tool. They are capable of re-termination. They are available in universal labels Colour coded for T568A and T568B wiring schemes and fit in high density keystonepatch panel. It supports IEC 60603-7-4 and complied with ANSI/TIA/EIA-568-C.2 standard.
Contact Resistance : 100 milliohms

SPECIFICATIONS

• RJ45 Jack Shield :	Bronze with Nickel
• RJ45 Jack :	Housing: ABS+PC, UL 94V-2
	Contact Bracket: PC, UL 94V-2 Transparent Colour
• RJ45 Jack Contact :	Material : Phosphor Bronze with Nickel Plated
	Finish : 50 micro-inch Gold plated on Plug Contact area
• IDC :	Housing : PC+Glass Fiber, UL 94V-2
	Terminal : Phosphor Bronze with Tin plated
• IDC CAP :	Zinc Die-Casting, Nickel-Plated

ORDERING INFORMATION

PART CODE	DESCRIPTION
• NKJ-C6SMET2B21	Cat6 FTP 180° Tool Less Keystone Jack-Metallic
• NKJ-C6MET2B21	Cat6 FTP 180° Punch-Down Keystone Jack-Metallic

CAT6 STP PATCH CORDS

APPLICATION

- 10BASE-T, 100BASE-TX Fast Ethernet, 1000BASE-T,
- 100VG-AnyLAN (IEEE802.12)
- 500MHz Broadband Video
- Voice, T1, ISDN 155/622 Mbps ATM
- Power over Ethernet (PoE)

Sakhr Cat6 STP patch cords are high quality four pair shielded twisted stranded cable terminated with RJ45 modular plugs at both the ends. It is TIA/EIA 568C.2 standard. The shielded cables helps to complete a proper ground connection and allows longer runs with less effect of Electromagnetic Interference (EMI) and Radio Frequency Interference (RFI). These patch cords are appro- priate for high speed data transmission.

SPECIFICATIONS

- Conductor : 24 AWG Multi-strands
- Conductor Metal : Bare Copper
- Insulation Material : High Density Polyethylene
- Drain Wire : 26 AWG
- Material : PVC
- Colour Code : Grey
- Heat Resistance: 60°C minimum(Temperature Limited)
- Flame Property: The purpose of the vertical flame test is to screen out flammable wires. It follows the VW-1(UL) and FT-1 (CSA).

MODULAR CONNECTOR/PLUG

RJ45 JACK CONTACT

- Material : Phosphor Bronze with Nickel Plated
- Finish : 50 micro-inch Gold plated
- Temperature Range : -10-80°C
- Dielectric withstanding voltage : 500V AC
- Insulation Resistance : 35M Ohm (max.)

ORDERING INFORMATION

PART CODE	DESCRIPTION
NCB-C6SGRYR1-1	Cat6 STP 24AWG Patch Cord, 1M
NCB-C6SGRYR1-2	Cat6 STP 24AWG Patch Cord, 2M
NCB-C6SGRYR1-3	Cat6 STP 24AWG Patch Cord, 3M

CAT6 SHIELDED PATCH PANELS

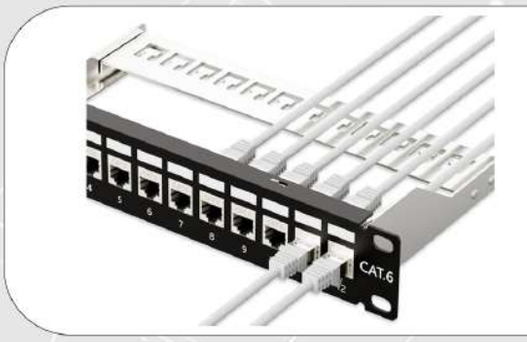
KEY FEATURES

- Hand screw, easy to open cover
- Eight port RJ45 modules applied
- Jack shutter to keep dust away
- Friendly installation, right angle between IDCS and RJ45 jacks
- ID stripes for identifying port allocations
- IDC: suitable for 22-26 AWG stranded and solid wire, compatible with both 110 & Krone punch down tools

Sakhr Category 6 Shielded patch panels are eight ports RJ-45 modules applied and suitable for 22-26 AWG stranded and solid wire, compatible with both 110 & Krone punch down tools. D-Link patch panels terminate 4 pairs STP cable and are rack mounted. They are complied with the ANSI/TIA/EIA 568C.2-1 standard

SPECIFICATIONS

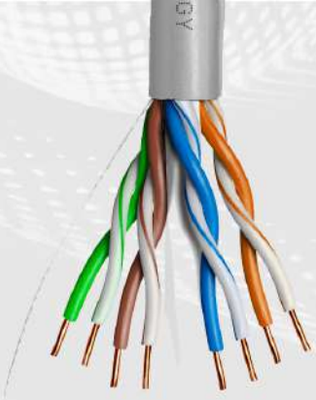
• Identification :	ID plate PVC, transparent Colour with paper ID Bracket: ABS + PC, UL 94V-0
• Panel :	SECC, 1.2mm thickness with optional Colour painted
• RJ45 Jack :	Housing : PBT+ Glass fiber, UL-94V-0 Contact Brackets : PBT+ Glass fiber, UL-94V-0
• RJ45 Jack Contact :	Material : Phosphor bronze with nickel plated Black (RAL 9005) Colour painted Finish : 50 micro-inches Gold plated on plug contact area
• RJ45 Jack Shield :	Bronze with nickel plated
• Dust Cover :	PC, UL94V-2
• IDC :	Housing : PC+ glass fiber, UL 94V-2 Terminal : Phosphor bronze with tin plated
• Ground Wire :	18 AWG wire with Green/Yellow Striped colour



ORDERING INFORMATION

PART CODE	DESCRIPTION
• NPP-C62BLK241	Cat6 24 Port Shielded Loaded Patch Panel
• NPP-C62BLK481	Cat6 48 Port Shielded Loaded Patch Panel

CAT6A UTP CABLES



KEY FEATURES

- Comply with Cat 6A specifications
- 4-pair unshielded twisted pair (UTP) cable
- 23 AWG solid copper conductor with a frequency of 500 MHZ
- HD-PE insulation, PE central cross
- FR PVC Jacket
- Packaged in MDF spool in a box

Enhanced performance cable for transmission of high speed data, digital and analogue voice and video (RGB) signals on LANS. Supports Gigabit Ethernet (10GbaseT) standard.Operates at bandwidth of 500MHz.

This cable well exceeds the requirements of TIA/EIA-568- C.2 Category 6A ISO 11801-2 cot Class E. Exceeds all requirements for IEE 802.3an

SPECIFICATIONS

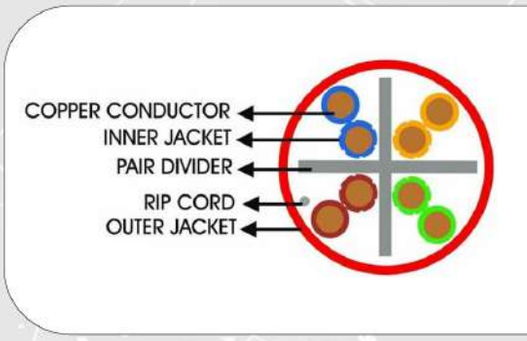
Category :	6A UTP Solid cable
Conductor :	23 AWG (Solid)
Conductor Metal :	Bare Copper
Insulation Material :	High Density Polyethylene
Sheath :	FR PVC
Cable Diameter :	8.0mm Nominal

COLOUR CODE

PAIR NO	COLOUR
1-2	White/Orange Stripe and Orange
3-6	White/Green Stripe and Green
4-5	White/Blue Stripe and Blue
7-8	White/Brown Stripe and Brown

ELECTRICAL PROPERTIES

Conductor Resistance :	≤9.38Ω/100m
Mutual Capacitance :	<5.6nF/100m
Resistance Unbalance :	5% Max
Delay Skew :	<45ns
NVP% :	68.2%



ORDERING INFORMATION

PART CODE	DESCRIPTION
NCB-6AUGRYR-305	CAT6A UTP 23AWG Solid: 305M/Roll, Grey Colour

TRANSMISSION CHARACTERISTICS PER 100M

FREQUENCY MHZ	MAX ATTENUATION (dB/100M)	RL (dB)	NEXT (dB)	PSNEXT (dB)	ACR (dB)	PSACR (dB)
1	2.1	20.0	74.3	72.3	67.8	64.8
4	3.8	23.0	65.3	63.3	55.8	52.8
10	5.9	25.0	59.3	57.3	47.8	44.8
16	7.5	25.0	56.2	54.2	43.7	40.7
20	8.4	25.0	54.8	52.8	41.8	38.8
31.25	10.5	23.6	51.9	49.9	37.9	34.9
62.5	15	21.5	47.4	45.4	31.9	28.9
100	19.1	20.1	44.3	42.3	27.8	24.8
200	27.6	18.0	39.8	37.8	21.8	18.8
250	31.1	17.3	38.3	36.3	19.8	16.8
300	34.3	16.8	38.1	35.1	18.3	15.3
500	45.3	15.2	34.8	31.8	13.8	10.8

CONNECTION SYSTEM

- **Compatible with all common systems according to TIA/EIA 568-C.2 and ISO/IEC 11801 Class E**

PACKING

- **Available in MDF spool in box of guaranteed 305m length**

CAT6A UTP KEYSTONE JACKS

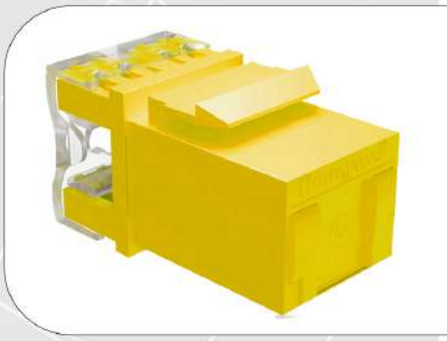
KEY FEATURES

- RJ45 8P 8C 50u, dual function:tool-free & punch down
- Terminating 4 Pairs, 23-26 AWG stranded and solid Cables
- Universal labels colour-coded for T568A and T56 8B wiring schemes
- Compatible with both 110 & Krone punch down tools
- Tool-less when using the IDC Cap for wire management
- Fitting high density keystone panel

Sakhr Category 6A keystone jacks are RJ45 8P 8C 50u jacks suitable for 22-26 AWG stranded and solid wire, compatible with both 110 & Krone punch down tools. They are available in universal labels Colour coded for T568A and T568B wiring schemes and fit in high density keystone patch panel. It supports IEC 60603-7-4 and complied with ANSI/TIA/EIA 568 C.2 standard.

SPECIFICATIONS

• RJ45 Jack :	Housing: ABS+PC, UL 94V-0, Black Colour Contact Bracket: PC, UL 94V-2, transparent Colour
• RJ45 Jack Contact :	Material: phosphor bronze with nickel plated Finish: 50 micro-inch gold plated on plug contact area
• IDC :	Housing: PC+ glass fiber, UL 94V-2 Terminal: Phosphor bronze with tin plated
• IDC CAP :	PC+ glass fiber, UL 94-V2, white Colour



ORDERING INFORMATION

PART CODE	DESCRIPTION
• NKJ-6AWHI1B21	Cat6A 10G UTP Keystone Jack White
• NKJ-6ABLU1B21	Cat6A 10G UTP Keystone Jack Blue
• NKJ-6ARED1B21	Cat6A 10G UTP Keystone Jack Red
• NKJ-6AGRN1B21	Cat6A 10G UTP Keystone Jack Green
• NKJ-6ABLK1B21	Cat6A 10G UTP Keystone Jack Black

CAT6A UTP PATCH CORDS

APPLICATION

- 10BASE-T, 100BASE-TX Fast Ethernet, 1000BASE-T, 10GBASE-T (IEEE802.3)
- 100VG-AnyLAN (IEEE802.12)
- 500MHz Broadband Video
- Voice, T1, ISDN
- 155/622 Mbps ATM
- Power over Ethernet (PoE)

Sakhr Cat6A patch cords are high quality four pair twisted stranded cable terminated with RJ45 modular plugs at both the ends. It is TIA/EIA-568-C.2 standard. These patch cords are appropriate for high speed data transmission.

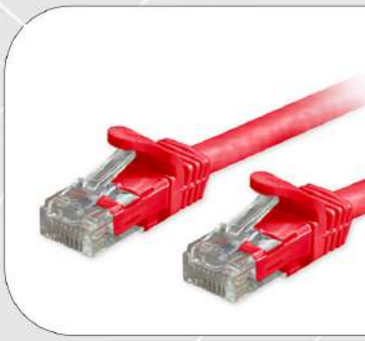
SPECIFICATIONS

- Conductor: 24 AWG Multi-strands
- Conductor: Bare Copper
- Insulation: HD-PE
- Material: PVC
- Colour Code: Grey
- Heat Resistance: 60°C minimum (Temperature limited)
- Flame Property: The purpose of the vertical flame test is to screen out flammable wires. It follows the VW-1 (UL) and FT-1 (CSA) standards
- Cycles: 750 times

MODULAR CONNECTOR/PLUG

RJ45 JACK CONTACT

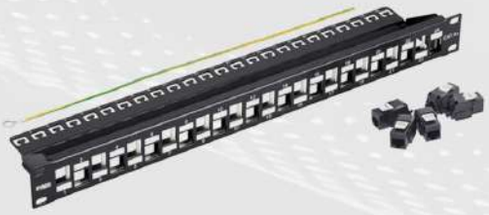
- Material : Phosphor Bronze with Nickel Plated
- Finish : 50 micro-inch Gold plated
- Temperature Range : -10-80°C
- Dielectric withstanding voltage : 500V AC
- Insulation Resistance : 35M 0hm (max.)



ORDERING INFORMATION

PART CODE	DESCRIPTION
NCB-6AUGRYR1-1	Cat6A UTP 24AWG Patch Cord, 1M, Grey
NCB-6AUGRYR1-2	Cat6A UTP 24AWG Patch Cord, 2M, Grey
NCB-6AUGRYR1-3	Cat6A UTP 24AWG Patch Cord, 3M, Grey

CAT6A UTP PATCH PANELS



KEY FEATURES

- Eight-port RJ45 modules applied
- ID stripes for identifying port allocations
- IDC compatible with 110 & Krone tool
- Terminating 4 pairs, 22-26 AWG, unshielded cable
- Improved cable management with an optional cable management bar (Simple type, or "r slot type)
- Universal labels Colour-coded for T568A and T568B wiring schemes

Sakhr Category 6A patch panels are eight port RJ45 modules applied and suitable for 22-26AWG stranded and solid wire, compatible with both 110 & Krone punch down tools. Sakhr patch panels have improved Cable Management with optional Cable Management bar terminating 4 pairs UTP cable. They are complied with the ANSI/TIA/EIA-568-C.2 standard.

SPECIFICATIONS

- **Identification :** I.D. Plate: OPP. Transparent Colour Paper
- **Panel :** SPCC. 1.6 mm thickness with Black (RAL 9005) Colour painted
- **RJ45 Jack :** Housing : PC, UL 94V-2. Contact Bracket: PBT+Glass Fiber, UL94V-1,Transparent.
- **RJ45 Jack Contact :** Material : Phosphor Bronze with Nickel plated Finish : 50 micro-inch Gold plated on Plug contact area
- **IDC :** Housing:PC, UL94V-2, Terminal: Phosphor Bronze with Tin plated
- **Jack Bracket Set :** ABS
- **Support Bar :** SPCC, 1.6 mm thickness with Black (RAL 9005) Colour painted

ORDERING INFORMATION

PART CODE	DESCRIPTION
• NPP-6A1BLK242	Cat6A UTP 24 Port Loaded Patch Panel

Cat 6A F/FTP

Description/Order Information

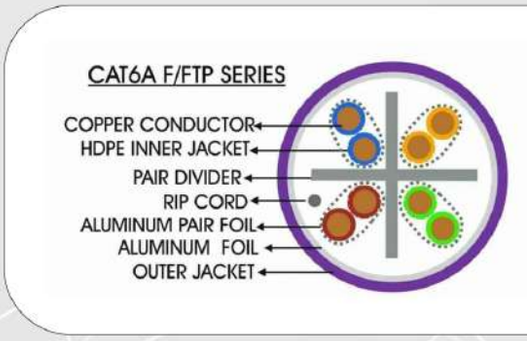
- Part No. EFF6AL-0423-WH
  Cat 6A F/FTP, 4 foil-covered twisted pairs, with tinned
  Copper drain wire, Aluminium cover, LSZH / PVC Sheath, White/Gray.
- Packaging 500 m - Coil on Drum

COLOUR CODE

PAIR NO	COLOUR
1-2	White/Orange Stripe and Orange
3-6	White/Green Stripe and Green
4-5	White/Blue Stripe and Blue
7-8	White/Brown Stripe and Brown

Standard Compliance

- EN 50173:2007 EN 50288-3-1:2013
- ISO/IEC 11801 First Edition - 2017
- ISO/IEC 11801 Second Edition - 2017
- UL444, UL1581, UL1666
- Flame Test: IEC 60332-1, IEC 60332-3C
- TIA/EIA 568 C-2
- Pass fluke > 90 m , Fluke Test 8000



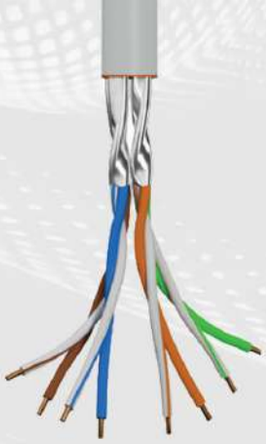
Applications

- 10 BASE-T (Ethernet), 100 BASE-T (Fast Ethernet)
- 10G BASE-T (10 Gigabit Ethernet)
- 155 Mb/s ATM, 622 Mb/s ATM, 1.2 Gb/s ATM
- ISDN, Data Centres, Voice, Videos, digital and analogue data transmission up to 500 MHz
- 1000 BASE-T (Gigabit Ethernet)
- 100 Mbps TP-PMD (ANSI X3T9.5)
- 4/16 Token Ring, POE, POE+
- Supporting up to 90 metres
- RFI or EMI noise

Construction

- Conductorm : 23 AWG Solid Copper with purity 99.99%, diameter 0.57 (+/- 0.005) mm
- Insulation : skin foam skin , 1.02 (+/- 0.03) mm
- Pairs : 4 Twisted Pairs, with Aluminium foil screen around each pair
- Aluminium foil skin underneath sheathing
- TC Drain Wire
- Sheath: LSZH/PVC 0.55 (+/- 0.05) mm thick, White/Gray
- Outer Diameter: 7.8 mm

Cat 6A U/FTP



Description/Order Information

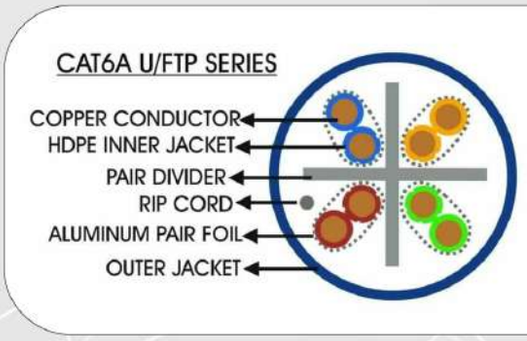
- **Part No.** EFF6AL-0423-WH
  Cat 6A F/FTP, 4 foil-covered twisted pairs, with tinned Copper drain wire, Aluminium cover, LSZH / PVC Sheath, White/Gray.
- **Packaging** 500 m - Coil on Drum

COLOUR CODE

PAIR NO	COLOUR
1-2	White/Orange Stripe and Orange
3-6	White/Green Stripe and Green
4-5	White/Blue Stripe and Blue
7-8	White/Brown Stripe and Brown

Standard Compliance

- EN 50173:2007 EN 50288-3-1:2013
- ISO/IEC 11801 First Edition - 2017
- ISO/IEC 11801 Second Edition - 2017
- UL444, UL1581, UL1666
- Flame Test: IEC 60332-1, IEC 60332-3C
- TIA/EIA 568 C-2
- Pass fluke > 90 m , Fluke Test 8000



Applications

- 10 BASE-T (Ethernet), 100 BASE-T (Fast Ethernet)
- 10G BASE-T (10 Gigabit Ethernet)
- 155 Mb/s ATM, 622 Mb/s ATM, 1.2 Gb/s ATM
- ISDN, Data centres, Voice, Videos, digital and analogue data transmission up to 500 MHz
- Flame retardance: LSZH
- 1000 BASE-T (Gigabit Ethernet)
- 100 Mbps TP-PMD (ANSI X3T9.5)
- 4/16 Token Ring, POE, POE+
- RFI or EMI Noise
- Supporting up to 90 metres
- Operation temperature: -20 °C to 70 °C

Construction

- Conductor: 23 AWG Solid Copper, diameter 0.57 (+/- 0.005) mm* Copper Purity 99.99%
- Insulation: Compressed Foam-skin PE
- Pairs: 4 Twisted Pairs with foil kin around each pair
- TC Drain Wire
- Sheath: LSZH, 0.55 (+/- 0.05) mm thick, White
- Outer Diameter: 6.9 mm

Cat 6A S/FTP

Description/Order Information

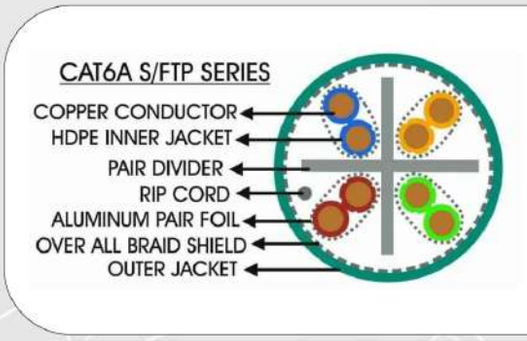
- Part No. ESF6AL-0423-WH
  Cat 6A S/FTP, 4 foil-covered twisted pairs, with tinned Copper drain wire, Shield, LSZH/PVC Sheathing, White/Gray.
- Packaging 500 m - Coil on Drum

COLOUR CODE

PAIR NO	COLOUR
1-2	White/Orange Stripe and Orange
3-6	White/Green Stripe and Green
4-5	White/Blue Stripe and Blue
7-8	White/Brown Stripe and Brown

Standard Compliance

- EN 50173:2007 EN 50288-3-1:2013
- ISO/IEC 11801 First Edition - 2017
- ISO/IEC 11801 Second Edition - 2017
- UL444, UL1581, UL1666
- Flame Test: IEC 60332-1, IEC 60332-3C
- TIA/EIA 568 C-2
- Pass fluke > 90 m , Fluke Test 8000



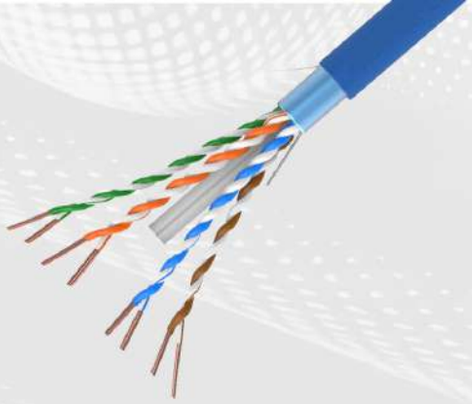
Applications

- 10 BASE-T (Ethernet), 100 BASE-T (Fast Ethernet)
- 10G BASE-T (10 Gigabit Ethernet)
- 155 Mb/s ATM, 622 Mb/s ATM, 1.2 Gb/s ATM
- 1000 BASE-T (Gigabit Ethernet)
- 100 Mbps TP-PMD (ANSI X3T9.5)
- 4/16 Token Ring, POE, POE+
- ISDN, Data Centres, Voice, Videos, digital and analogue data transmission up to 500 MHz
- HVAC alarm systems, Horizontal distribution and backbone cabling, RFI or EMI noise
- Supporting up to 90 metres

Construction

- Conductor : 23 AWG Solid Copper with purity 99.99%, diameter 0.57 (+/- 0.005) mm
- Insulation : Compressed foam PE, diameter 1.38 (+/- 0.03) mm
- Pairs : 4 Twisted Pairs, with foil screen around each pair (FPE)
- Shield: Inner TC Braid shield with TC Drain wire
- Sheath : LSZH, 0.55 (+/- 0.05) mm thick, White
- Outer Diameter : 7.8 mm

CAT6A SHIELDED CABLES



KEY FEATURES

- Comply with Cat6A specifications
- 4-pair shielded twisted pair cable
- 23 AWG solid copper conductor
- Pairs are wrapped in polyester tape and aluminum foil with drain wire
- High Density Polyethylene Insulation
- FR PVC Jacket
- Verified compliant with EIA/TIA standards
- Packaged in MDF spool in a box for easier installation

Enhanced performance cable for transmission of high speed data, digital and analogue voice and video (RGB) signals on LANs. It supports Gigabit Ethernet (10GbaseT) standard and operates at bandwidth of 500MHz. This cable well exceeds the requirements of ANSI/-TIA-568-C.2. The shield acts as a Faraday cage to reduce electrical noise from affecting the signals, and to reduce electromagnetic radiation that may interfere with other devices.

SPECIFICATIONS

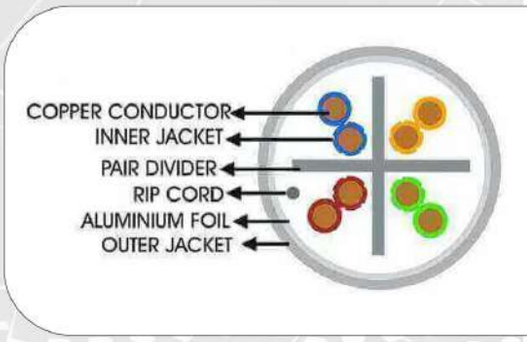
Conductor :	23 AWG Solid bare Copper (4 pair)
Insulation :	Foam Skin PE
Pairs :	2 Insulated conductors twisted together
Sheath :	LSZH
Individual Pair Shield	Aluminum/Polyester Foil
Shield:	Tinned Copper drain wire
Cable Diameter:	7.6 mm nominal

COLOUR CODE

PAIR NO	COLOUR
1-2	White/Orange Stripe and Orange
3-6	White/Green Stripe and Green
4-5	White/Blue Stripe and Blue
7-8	White/Brown Stripe and Brown

ELECTRICAL PROPERTIES

Conductor Resistance :	≤9.38Ω/100m
Mutual Capacitance :	<5.6nF/100m
Resistance Unbalance :	5% Max
Capacitance Unbalance :	330pF/100m
Delay Skew :	<45ns



ORDERING INFORMATION

PART CODE	DESCRIPTION
NCB-6ASGRYR-500-LS	Cat6A 10G U/FTP 23AWG LSZH Solid Cable-500M/Roll - Grey Colour

TRANSMISSION CHARACTERISTICS PER 100M

FREQUENCY MHZ	MAX ATTENUATION (dB/100M)	RL (dB)	NEXT (dB)	PSNEXT (dB)	ACR (dB)	PSACR (dB)
1	2.1	20.0	74.3	72.3	67.8	64.8
4	3.8	23.0	65.3	63.3	55.8	52.8
10	5.9	25.0	59.3	57.3	47.8	44.8
16	7.5	25.0	56.2	54.2	43.7	40.7
20	8.4	25.0	54.8	52.8	41.8	38.8
31.25	10.5	23.6	51.9	49.9	37.9	34.9
62.5	15	21.5	47.4	45.4	31.9	28.9
100	19.1	20.1	44.3	42.3	27.8	24.8
200	27.6	18.0	39.8	37.8	21.8	18.8
250	31.1	17.3	38.3	36.3	19.8	16.8
300	34.3	16.8	38.1	35.1	18.3	15.3
500	45.3	15.2	34.8	31.8	13.8	10.8

CONNECTION SYSTEM

- Compatible with all common systems according to ANSI/TIA-568-C.2

PACKING

- Available in MDF spool in box of guaranteed 500m length

CAT6A FTP KEYSTONE JACKS

KEY FEATURES

- RJ45 8P 8C 180° 50u Punch Down Jack
- Terminating 4 Pairs, 22-26 AWG Cable, stranded and solid wire
- Universal labels colour-coded for T568A and T568B wiring schemes
- Fitting high density keystone panel

Sakhr Category 6A FTP keystone jacks are RJ45 8P 8C 50u Jacks suitable for 22-24 AWG stranded and solid wire, compatible with both 110 & Krone punch down tools. They fit in high density keystone patch panel. Compliant with TIA/EIA 568A and B.

SPECIFICATIONS

• RJ45 Jack Shield :	Bronze with Nickel
• RJ45 Jack :	Housing : ABS+PC, UL 94V-2
	Contact Bracket : PC, UL 94V-2 Transparent Colour
• RJ45 Jack Contact :	Material : Phosphor Bronze with Nickel Plated
	Finish : 50 micro-inch Gold plated on Plug Contact area
• IDC :	Housing : PC+Glass Fiber, UL 94V-2
	Terminal : Phosphor Bronze with Tin plated
• IDC CAP :	Zinc Die-Casting, Nickel-Plated

ORDERING INFORMATION

PART CODE	DESCRIPTION
• NKJ-6ASMET2B21	Cat6A FTP 180° Tool-Less Keystone Jack-Metallic

CAT6A SHIELDED PATCH CORDS

APPLICATION

- 10BASE-T, 100BASE-TX Fast Ethernet, 1000BASE-T, 10GBASE-T (IEEE802.3)
- 100VG-AnyLAN (IEEE802.12)
- 500MHz Broadband Video
- Voice, T1, ISDN
- 155/622 Mbps ATM
- Power over Ethernet (PoE)

Sakhr Cat6A shielded patch cords are high quality four pair twisted stranded cable terminated with RJ45 modular plugs at both the ends. It is compliant to the TIA/EIA 568C.2 standard. These patch cords are appropriate for high speed data transmission.

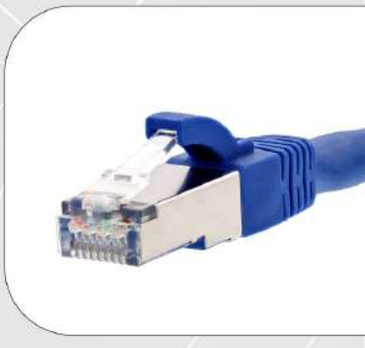
SPECIFICATIONS

- Conductor : 26 AWG, Multi-cores
- Conductor Metal : Bare Copper
- Insulation Material : HD-PE
- Material : PVC
- Colour Code : Grey
- Heat Resistance : 75°C minimum (Temperature limited)

MODULAR CONNECTOR/PLUG

RJ-45 8P FOR TRANSPARENT COLOUR

- Gold Plated : 50U"
- Contact Blade : Phosphor Bronze
- Dielectric withstanding voltage : 500V AC
- Insulation Resistance : 35M Ohm (max.)
- UL Applications : 250V AC, PC UL94-V-2



ORDERING INFORMATION

PART CODE	DESCRIPTION
NCB-6ASGRYR1-1	Cat6A Shielded 26AWG Patch Cord, 1M, Grey
NCB-6ASGRYR1-2	Cat6A Shielded 26AWG Patch Cord, 2M, Grey
NCB-6ASGRYR1-3	Cat6A Shielded 26AWG Patch Cord, 3M, Grey

CAT6A SHIELDED PATCH PANELS

KEY FEATURES

- Eight-port RJ45 modules applied
- ID stripes for identifying port allocations
- IDC compatible with 110 & Krone tool
- Terminating 4 pairs, 22-26 AWG, shielded cable
- Friendly installation,right angle between IDCS and RJ45 Keystone jacks
- Jack shutter to keep dust away
- Hand screw,easy to open cover

Sakhr Category 6A shielded patch panels are eight port RJ45 modules applied and suitable for 22-26AWG stranded and solid wire, compatible with both 110 & Krone punch down tools. D-Link patch panels have improved Cable Management with optional Cable Management bar terminating 4 pairs UTP cable. They are complied with the ANSI/TIA/EIA-568-C.2 standard.

SPECIFICATIONS

- Identification : I.D. Plate: PVC. Transparent Colour Paper
- Panel : SECC. 1.2 mm thickness with Black (RAL 9005) Colour painted
- RJ45 Jack : Housing : PBT+GF,UL 94V-0.
- RJ45 Jack Contact : Material: Phosphor Bronze with nickel plating, Finish: 50 micro-inch Gold plated on plug contact area
- IDC : Housing: PC+GF,UL94V-2, Terminal: Phosphor Bronze with Tin plated
- Dust Cover : PC, UL 94V-2
- Ground wire : 18AWG wire,with green/yellow striped colour, length 40cm

ORDERING INFORMATION

PART CODE	DESCRIPTION
NPP-6A2BLK241	Cat6AShielded 24 Port Loaded Patch Panel
NPP-6A2BLK481	Cat6A Shielded 48 Port Loaded Patch Panel

UNLOADED PATCH PANELS

KEY FEATURES

- With cable management bar for improved management
- Staggered 24 port panel in 1U
- Mounts in standard 19 inch racks
- Feasible solution for lower interference and eliminate alien crosstalk

Sakhr Unloaded Patch Panel 24/48 port RJ45 modules applied and suitable for Cat 5e, Cat 6 and Cat 6A. Sakhr patch panel have improved cable management with optional cable management bar terminating 4 pairs UTP cable.

SPECIFICATIONS

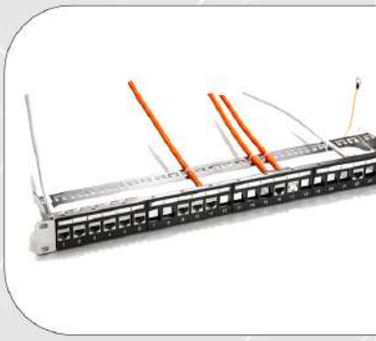
Cat6A Unloaded Panel

- Panel : PC+ glass fiber, UL 94V-0, black Colour
- Support Bar : PC+glass fiber, UL 94V-0, black Colour

Cat5e/Cat6 Unloaded Panel

- Support Bar : SPCC, 1.5 mm thickness with black colour painted
- Panel : SPCC 1.5 mm thickness with black colour painted
- Insert : ABS, UL 94V-0

Available in 10 and 20 patch panel



ORDERING INFORMATION

PART CODE	DESCRIPTION
NPP-AL1BLK241	24-Port Unloaded Patch Panel for UTP Cat5e/Cat6 Keystone Jacks
NPP-AL1BLK481	48-Port Unloaded Patch Panel for UTP Cat5e/Cat6 Keystone Jacks
NPP-6A1BLK241	24-Port Unloaded Patch Panel for UTP Cat6A Keystone Jacks

UNLOADED ANGLED PATCH PANELS

KEY FEATURES

- Angled design easy to arrange patch cord from
- both side of the rack
- Front cable manager not required

Sakhr Unloaded Angled Patch Panel with 24 port RJ45 modules applied and is suitable for Cat5e, Cat6 and Cat6A. The angled design helps to arrange and route the patch cords from both side of the rack.

APPLICATIONS

- 1000 Base-T 1000Mbps Ethernet
- 100 Base-T 100Mbps Ethernet
- 10 Base-T 10Mbps Ethernet
- Other networking and voice application Angled UTP Blank Panel 1U 24 ports, 19inch available for Cat5e, Cat6, Cat6A UTP Keystone Jack

SPECIFICATIONS

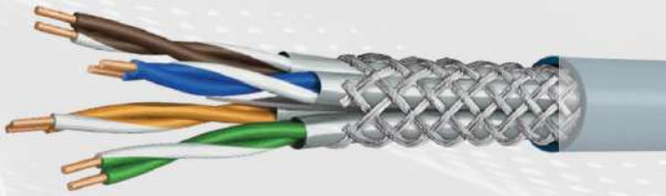
All steel metal with high quality plastic powder cladding surface

- Blank port, 24 ports for keystone jacks with back cable management bar
- Angled design for high density installation

ORDERING INFORMATION

PART CODE	DESCRIPTION
• NPP-AL1BLK244	1U 24 ports UTP Unloaded Angled Patch Panel

CAT7 S/FTP



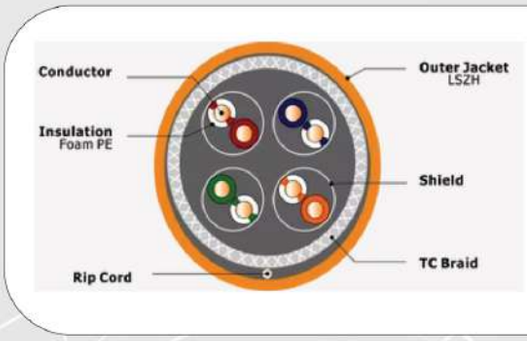
Description/Order Information

- Cat 7 S/FTP, 4 foil-covered twisted pairs, with tinned Copper
  drain wire, Tinned Copper Shield, LSZH/PVC Sheath, White/Gray/Blue .
- Packaging : 305/500 m - Coil on Drum

Standard Compliance

- EN 50173:2007 EN 50288-3-1:2013
- ISO/IEC 11801 First Edition - 2017
- ISO/IEC 11801 Second Edition - 2017
- UL444, UL1581, UL1666
- Flame Test: IEC 60332-1, IEC 60332-3C
- TIA/EIA 568 C-2
- Pass fluke > 90 m , Fluke Test 8000

Applications

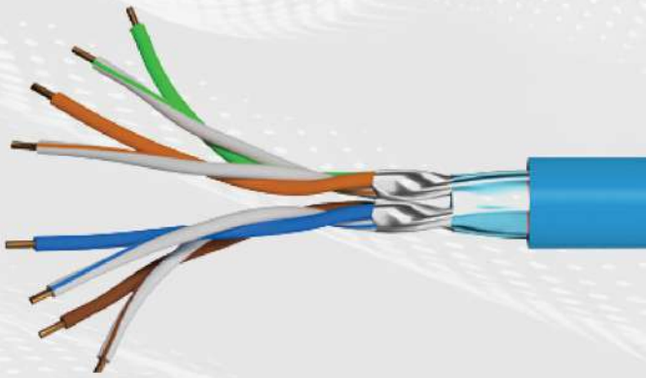


- 10 BASE-T (Ethernet), 100 BASE-T (Fast Ethernet)
- 1000 BASE-T (Gigabit Ethernet),
- 10G BASE-T (10 Gigabit Ethernet) UP to 90 m
- 1000 Mbps TP-PMD (ANSI X3T9.5)
- 155 Mb/s ATM, 622 Mb/s ATM, 1.2 Gb/s ATM
- 4/16 Token Ring, POE, POE+, POE++
- ISDN, Data Centres, Voice, Videos, digital and analogue data transmission up to 600 MHz
- HVAC alarm systems, Horizontal distribution and backbone cabling, RFI & EMI Noise
- Real time and Smart home applications (40 Gigabit for 50 meters)

Construction

- Conductor : 23 AWG Solid Copper with purity 99.99%, diameter 0.58 (+/- 0.005) mm
- Insulation : Compressed foam PE, diameter 1.38 (+/- 0.03) mm
- Pairs : 4 Twisted Pairs, with foil skin around each pair (FPE)
- Shield : Inner TC Brain shield
- TC Drain Wire
- Sheath : LSZH, 0.55 (+/- 0.05) mm thick, White
- Outer Diameter : 8 mm

CAT7A F/FTP



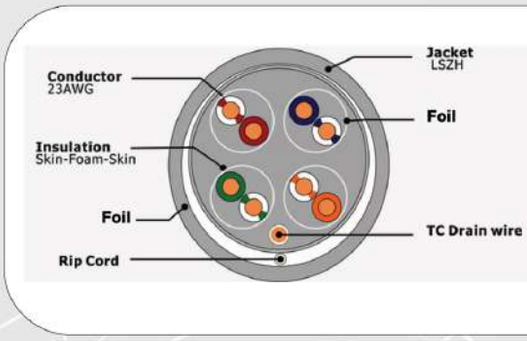
Description/Order Information

- Cat 7A F/FTP, 4 foil-covered twisted pairs, with tinned
  Copper drain wire, Aluminium
  cover, LSZH/PVC Sheath, White/Gray/Blue .
- Packaging : 305/500 m - Coil on Drum

Standard Compliance

- EN 50173:2007 EN 50288-3-1:2013
- ISO/IEC 11801 First Edition - 2017
- ISO/IEC 11801 Second Edition - 2017
- UL444, UL1581, UL1666
- Flame Test: IEC 60332-1, IEC 60332-3C
- TIA/EIA 568 C-2
- Pass fluke > 90 m , Fluke Test 8000

Applications



- 10, 100 BASE-T (Ethernet), 1000 BASE-T (Gb Ethernet)
- 10G BASE-T (10 Gigabit Ethernet) up to 90 m
- 40 Gigabit/s/50 m & 100 Gigabit/s/15 m
- 1000 Mbps TP-PMD (ANSI X3T9.5)
- 155 Mb/s ATM, 622 Mb/s ATM, 1.2 Gb/s ATM
- 4/16 Token Ring, POE, POE+, POE++, 4PPOE (100 W)
- ISDN, Data Centre, Voice, Videos, digital and analogue data transmission up to 1000 MHz
- RFI or EMI Noise

Construction

- Conductor: 23 AWG Solid Copper with purity 99.99%, diameter 0.6 (+/- 0.005) mm
- Insulation: Compressed Foam PE
- Pairs: 4 Twisted Pairs with TC Drain Wire
- Aluminium foil underneath sheathing
- Sheath: LSZH, 0.55 (+/- 0.05) mm thick, White
- Outer Diameter: 8 mm

VOICE PATCH PANELS

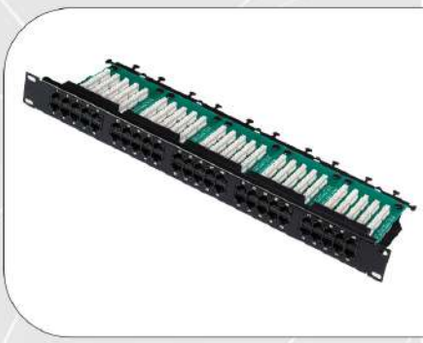
KEY FEATURES

- 50 RJ45 ports on 10
- Numeral marking of ports on front of the panel
- IDC compatible with 110 & Krone tool
- Terminating 4 pairs, 22-26 AWG, shielded cable
- High reliability and superior performance
- Built in rear cable management

Sakhr Voice patch panels are high density patch panel with 50 RJ45 ports on 10 applied and suitable for 22-26AWG stranded and solid wire, compatible with both 110 & Krone punch down tools. Sakhr patch panels have improved Cable Management with optional Cable Management bar terminating 4 pairs UTP cable. They are complied with the FCC Part 68 sub part F standard.

SPECIFICATIONS

- Entire high-carbon steel outer frame with plastic powder coating
- RJ45 jack frame material: PBT, 8 pin of the RJ45 jack.
- Punching Duration : 250 times
- FCC ports inserting duration : 750 times
- IDC : 6-3 & 504 LSA-plus type
- Complies with TIA/EIA-568-B-2 standard for Category 3 transmission



ORDERING INFORMATION

PART CODE	DESCRIPTION
• NPP-5V1BLK501	50-Port Voice Patch Panel

RACK & CABINETS
INDOOR RACKS

Design Features

- Sturdy and durable Steel Construction
- Compliant for 19" mount equipment
- Top mount fan box installed
- Ventilation: top and bottom of sides + shelves
- Finish: electrostatic powder coating
- Comes fully assembled
- Other sizes and modifications available upon request

Standard Compliance

- Installation — Floor standing or Wall Mounted
- Features — Complete with earthing kit, vertical or horizontal management
- Fans — 2 or 4 fans
- Doors — Glass or vented
- PDU — 6 or 9 Power distributors
- Compatibility — Supports all accessories
- Per request — Connection with TGB (Telecom Grounding Busbar)
- Dimensions:

		Part No.	9U	12U	15U	18U	22U	24U	27U	42U
		Height (cm)	505	640	775	910	1090	1090	1315	1990
Width x Depth (cm)	600 X 450		x	x	x					
	600 X 600		x	x	x	x	x	x	x	x
	600 X 800						x	x	x	x
	600 X 1000									x
	800 X 800									x
	800 X 1000									x
	800 X 1200									x

RACK & CABINETS
OUTDOOR RACKS

Wall/ Pole mounted
Free Standing
Telecom Street Cabinets

FEATURES

- Available with optional smart lock
- Electrostatic outdoor painting
- RAL 7035 light gray
- Material options: High quality galvanized steel sheets, stainless steel & aluminum
- Protection rate: IP55, IP65 and IP66 upon request
- Height options: Wall mount from 6U up to 20U/ free standing up to 42U/ street cabinets available in 14U, 22U & 28U

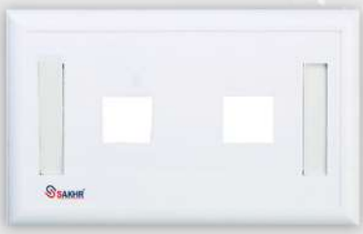
Accessories

Cable Manager

Space Panel

- **Description : 1U, 19 inch, Space Panel - Plastic Cable Organizer, includes duct on front.**

Faceplates



US Style Faceplate

- **Description : Dual Or Single Port 70x120 mm US Type Faceplate, Shuttered**
- **Colours : white**

UK Style Faceplate

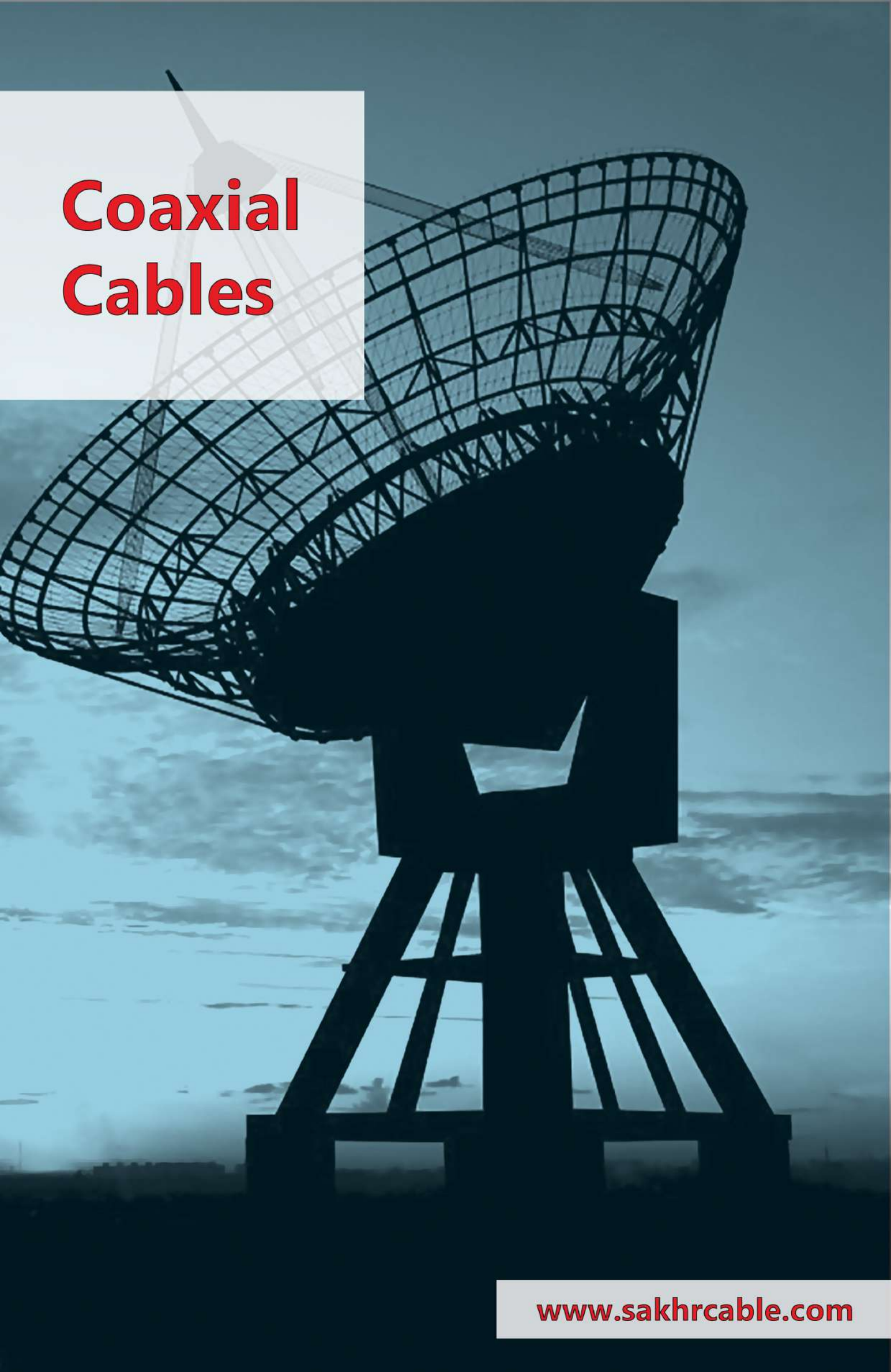
- **Description : Dual Or Single Gang, Horizontal Faceplates, UK Style, Shuttered, Accepts 2 Modules.**
- **Colours : white**

Back Boxes

Back Box - UK Style

- **Description : Back Box Plastic, size 86x86x37 mm for UK Style Faceplate**
  Colours : White

Coaxial Cables



www.sakhrcable.com

» Coaxial Cable 75 OHM RG59

BASIC CONSTRUCTION

		STANDARD SHIELD	TRI SHIELD	QUAD SHIELD
CONDUCTOR	MATERIAL	BC/CCS	BC/CCS	BC/CCS
	Nom.Dia.	20AWG(0.813mm)	20AWG(0.813mm)	20AWG(0.813mm)
DIELECTRIC	MATERIAL	Foam PE	Foam PE	Foam PE
	Nom.Dia.	3.66mm	3.66mm	3.66mm
SHIELD	MATERIAL	Al foil+Al braiding	Al foil+Al braiding+Al foil	(Al foil+Al braiding)*2
	COVERAGE	40%-95%	40%-95%	53%/35%
JACKET	MATERIAL	PVC/PE	PVC/PE	PVC/PE
	Nom.Thick.	0.80mm	0.80mm	0.86mm
	Nom.Dia.	6.10mm	6.10mm	6.70mm

BASIC CHARACTERISTICS

Nominal Impedance(ohm)		75±3	
Nominal Velocity of Propagation(%)		85	
Nominal Capacitance(pF/m)		50	
Sparker Test(VAC)		4000	
SRL(dB)		20	20
Attenuation [68° F(20°C)]	Frequency(MHz)	Maximum(dB/100ft)	Maximum(dB/100m)
	5	0.86	2.82
	55	2.05	6.73
	187	3.6	11.81
	300	4.45	14.6
	450	5.4	17.72
	600	6.2	20.34
	750	6.97	22.87
	865	7.52	24.67
	1000	8.12	26.64

» Coaxial Cable 75 OHM RG6

BASIC CONSTRUCTION

		STANDARD SHIELD	TRI SHIELD	QUAD SHIELD
CONDUCTOR	MATERIAL	BC/CCS	BC/CCS	BC/CCS
	Nom.Dia.	18AWG(1.02mm)	18AWG(1.02mm)	18AWG(1.02mm)
DIELECTRIC	MATERIAL	Foam PE	Foam PE	Foam PE
	Nom.Dia.	4.57mm	4.57mm	4.57mm
SHIELD	MATERIAL	Al foil+Al braiding	Al foil+Al braiding+Al foil	(Al foil+Al braiding)*2
	COVERAGE	40%-95%	40%-95%	60%/40%
JACKET	MATERIAL	PVC/PE	PVC/PE	PVC/PE
	Nom.Thick.	0.80mm	0.80mm	0.86mm
	Nom.Dia.	6.91mm	7.06mm	7.62mm

BASIC CHARACTERISTICS

Nominal Impedance(ohm)		75±3	
Nominal Velocity of Propagation(%)		85	
Nominal Capacitance(pF/m)		50	
Sparker Test(VAC)		4000	
SRL(dB)		20	20
Attenuation [68° F(20°C)]	Frequency(MHz)	Maximum(dB/100ft)	Maximum(dB/100m)
	5	0.58	1.9
	55	1.6	5.25
	187	2.85	9.35
	300	3.55	11.64
	450	4.4	14.43
	600	5.1	16.73
	750	5.65	18.54
	865	6.1	20.01
	1000	6.55	21.49

» Coaxial Cable 75 OHM RG11

BASIC CONSTRUCTION

		STANDARD SHIELD	TRI SHIELD	QUAD SHIELD
CONDUCTOR	MATERIAL	BC/CCS	BC/CCS	BC/CCS
	Nom.Dia.	14AWG(1.63mm)	14AWG(1.63mm)	14AWG(1.63mm)
DIELECTRIC	MATERIAL	Foam PE	Foam PE	Foam PE
	Nom.Dia.	7.11mm	7.11mm	7.11mm
SHIELD	MATERIAL	Al foil+Al braiding	Al foil+Al braiding+Al foil	(Al foil+Al braiding)*2
	COVERAGE	40%-95%	40%-95%	60%/40%
JACKET	MATERIAL	PVC/PE	PVC/PE	PVC/PE
	Nom.Thick.	1.07mm	0.94mm	0.86mm
	Nom.Dia.	10.16mm	10.16mm	10.34mm

BASIC CHARACTERISTICS

Nominal Impedance(ohm)		75±3	
Nominal Velocity of Propagation(%)		85	
Nominal Capacitance(pF/m)		50	
Sparker Test(VAC)		4000	
SRL(dB)		20	20
Attenuation [68° F(20°C)]	Frequency(MHz)	Maximum(dB/100ft)	Maximum(dB/100m)
	5	0.38	1.25
	55	0.96	3.15
	187	2.05	6.72
	300	2.25	7.38
	450	2.75	9.02
	600	3.18	10.43
	750	3.65	11.97
	865	3.98	13.05
	1000	4.35	14.27

» Coaxial Cable 75 OHM
11VATC/PATC/VRTC
17VATC/PATC/VRTC

BASIC CONSTRUCTION

		11VATC/PATC/VATC	17VATC/PATC/VATC
CONDUCTOR	MATERIAL	BC/CCS	BC/CCS
	Nom.Dia.	1.7mm	1.13mm
DIELECTRIC	MATERIAL	Foam PE	Foam PE
	Nom.Dia.	7.0mm	4.85mm
SHIELD	MATERIAL	Al foil/CU foil+TC braiding	Al foil/CU foil+BC braiding
	COVERAGE	45%-90%	35%-90%
JACKET	MATERIAL	PVC/PE	PVC/PE
	Nom.Thick.	1.07mm	0.8mm
	Nom.Dia.	10.3mm	6.8mm

BASIC CHARACTERISTICS

Nominal Impedance(ohm)		75±3		75±3	
Nominal Velocity of Propagation(%)		88		83	
Nominal Capacitance(pF/m)		50		52	
Sparker Test(VAC)		4000		4000	
SRL(dB)		20		20	
Attenuation [68° F(20°C)]	Frequency(MHz)	Maximum(dB/100ft)		Maximum(dB/100m)	
	5	0.27	0.46	0.9	1.5
	50	0.82	1.31	2.7	4.3
	100	1.16	1.8	3.8	5.9
	200	1.65	2.56	5.4	8.4
	400	2.35	3.66	7.7	12
	800	3.36	5.34	11	17.5
	950	3.69	5.86	12.1	19.2
	1000	3.78	6.04	12.4	19.8

» Coaxial Cable 75 OHM
19VATC/PATC/VRTC
21VATC/PATC/VRTC
24VATC/PATC/VRTC

BASIC CONSTRUCTION

		19VATC/PATC/VATC	11VATC/PATC/VATC	17VATC/PATC/VATC
CONDUCTOR	MATERIAL	BC/CCS	BC/CCS	BC/CCS
	Nom.Dia.	1.02mm	1.02mm	0.80mm
DIELECTRIC	MATERIAL	Foam PE	Foam PE	Foam PE
	Nom.Dia.	4.70mm	4.60mm	3.70mm
SHIELD	MATERIAL	Al foil+TC braiding+Al foil		CU foil+TC braiding+CU foil
	COVERAGE	35%-90%	35%-90%	35%-90%
JACKET	MATERIAL	PVC/PE	PVC/PE	PVC/PE
	Nom.Thick.	0.80mm	0.80mm	0.80mm
	Nom.Dia.	6.70mm	6.80mm	5.85mm

BASIC CHARACTERISTICS

Nominal Impedance(ohm)		75±3		75±3		75±3	
Nominal Velocity of Propagation(%)		83		85		88	
Nominal Capacitance(pF/m)		52		52		50	
Sparker Test(VAC)		4000		4000		4000	
SRL(dB)		20		20		20	
Attenuation [68° F(20°C)]	Frequency(MHz)	Maximum(dB/100ft)			Maximum(dB/100m)		
	5	0.43	0.64	0.58	1.4	2.1	1.9
	50	1.37	1.56	1.8	4.5	5.1	6
	100	1.92	2.38	2.56	6.3	7.8	8.4
	200	2.75	2.9	3.63	9	9.5	11.9
	400	3.97	4.27	5.15	13	14	16.9
	800	5.8	6.28	7.32	19	20.6	24
	950	6.38	6.92	8.02	20.9	22.7	26.3
	1000	6.56	7.14	8.24	21.5	23.4	27
	2150	10.19			33.4		

» Coaxial Cable 75 OHM 703

BASIC CONSTRUCTION

Nominal Dimensions	40% Braid Coverage	60% Braid Coverage	90% Braid Coverage
CONDUCTOR	1.13mm	1.13mm	1.13mm
DIELECTRIC	4.80mm	4.80mm	4.80mm
SHIELD	AL /Pet foil	AL /Pet Bonded	AL /Pet foil
	0.12mm*64 (40% Coverage)	0.12mm*96 (60% Coverage)	0.12mm*168 (90% Coverage)
JACKET	6.70mm	6.91mm	6.91mm
Messenger	1.3mm Zinc plated steel		

Electrical Characteristics

Nominal Impedance(ohm)	75±3
Nominal Velocity of Propagation(%)	53
Nominal Capacitance(pF/m)	85%
Sparker Test(VAC)	23
SRL(dB)	20

Attenuation [@68F.(20Degree Centigrade)]

Frequency MHz	dB/100 M
5	1.50
50	4.30
200	8.40
400	12.00
800	17.50
950	19.20
1350	23.30
2150	30.50

» Coaxial Cable 50 OHM RG58

BASIC CONSTRUCTION

		RG58/U	RG58 A/U	RG58 C/U
CONDUCTOR	MATERIAL	BC/TC	BC/TC	BC/TC
	Nom.Dia.	19AWG	19*0.2mm	19*0.18mm
DIELECTRIC	MATERIAL	PE	Foam PE	PE
	Nom.Dia.	2.95mm	2.90mm	2.95mm
SHIELD	MATERIAL	BC/TC braiding	BC/TC braiding	BC/TC braiding
	COVERAGE	95%	95%	95%
JACKET	MATERIAL	PVC/PE	PVC/PE	PVC/PE
	Nom.Thick.	0.80mm	0.80mm	0.80mm
	Nom.Dia.	4.95mm	4.90mm	5.08mm

BASIC CHARACTERISTICS

Nominal Impedance(ohm)		50±2	
Nominal Velocity of Propagation(%)		83	
Nominal Capacitance(pF/m)		66	
Sparker Test(VAC)		3000	
SRL(dB)		20	20
Attenuation [68° F(20°C)]	Frequency(MHz)	Maximum(dB/100ft)	Maximum(dB/100m)
	30	1.90	6.30
	50	2.46	8.10
	150	4.30	14.10
	220	5.20	17.10
	450	7.50	24.60
	900	10.70	35.00
	1500	14.40	45.60
	1800	15.30	50.10
	2000	16.10	53.00

» Coaxial Cable 50 OHM
RG174
RG223

BASIC CONSTRUCTION

		RG174	RG223
CONDUCTOR	MATERIAL	CCS/BC	SC/TC
	Nom.Dia.	7*0.16mm(0.48MM)	0.90+0.01mm
DIELECTRIC	MATERIAL	PE	PE
	Nom.Dia.	1.90mm	3.20mm
SHIELD	MATERIAL	TC braiding	SC braiding
	COVERAGE	90%	90%
JACKET	MATERIAL	PVC	PVC
	Nom.Thick.	0.5mm	0.8mm
	Nom.Dia.	2.7+0.10mm	5.4+0.10mm

BASIC CHARACTERISTICS

Nominal Impedance(ohm)		50±2		75±3	
Nominal Velocity of Propagation(%)		66		83	
Nominal Capacitance(pF/m)		100		52	
Sparker Test(VAC)		3000		3000	
SRL(dB)	50-300	23		26	
	300-1000	21		23	
Attenuation [68° F(20°C)]	Frequency(MHz)	Maximum(dB/100ft)		Maximum(dB/100m)	
	10	2.99	1.34	9.80	4.40
	100	9.50	4.24	31.0	13.9
	400	22.57	8.93	74.0	29.3
	1000	36.60	15.28	120	50.1
	2000	51.85	24.40	170	80.0
	3000	64.05	29.89	210	98.0

» Coaxial Cable 50 OHM
RG213
RG214

BASIC CONSTRUCTION

		RG213	RG214
CONDUCTOR	MATERIAL	BC	TC
	Nom.Dia.	13AWG/7*0.75mm	13AWG/7*0.75mm
DIELECTRIC	MATERIAL	PE	PE
	Nom.Dia.	7.24mm	7.25mm
SHIELD	MATERIAL	BC braiding	TC braiding
	COVERAGE	96%	96%/98%
JACKET	MATERIAL	PVC/PE	PVC/PE
	Nom.Thick.	0.80mm	0.8mm
	Nom.Dia.	10.3±0.10mm	10.80±0.10mm

BASIC CHARACTERISTICS

Nominal Impedance(ohm)		50±2		75±3	
Nominal Velocity of Propagation(%)		66		83	
Nominal Capacitance(pF/m)		100		52	
Sparker Test(VAC)		3000		4000	
SRL(dB)	50-1000	20		20	
	1000-3000	20		20	
Attenuation [68° F(20°C)]	Frequency(MHz)	Maximum(dB/100ft)		Maximum(dB/100m)	
	10	0.55	---	1.80	---
	50	1.34	---	4.40	4.50
	100	2.07	2.04	6.80	6.70
	200	2.96	2.99	9.70	9.80
	400	4.61	4.48	15.10	14.70
	500	4.94	4.97	16.20	16.30
	600	---	5.67	---	18.60
	800	6.56	7.02	21.50	23.00
	1000	7.47	7.63	24.50	25.00

» Combo Cable Series
RG59+Power

BASIC CONSTRUCTION

Component		RG59+Power
CONDUCTOR	MATERIAL	CCS/BC
	Nom.Dia.	0.80±0.01mm
DIELECTRIC	MATERIAL	Foam PE
	Nom.Dia.	3.70±0.10mm
SHIELD	MATERIAL	BC/CCA Braid
	COVERAGE	95%
JACKET	MATERIAL	PVC
	Nom.Dia.	6.0±0.10mm
Power Cords	MATERIAL	BC
	Nom.Dia.	(16/24x0.2mm+1.8mm PE/PVC)*1 pair

BASIC CHARACTERISTICS

Nominal Impedance(ohm)		75±3
Nominal Velocity of Propagation(%)		83%
Nominal Capacitance(pF/m)		53.4
Attenuation [68° F(20°C)]	Frequency(MHz)	Attenuation
	10	3.0
	50	6.23
	100	8.53
	200	12.1
	400	17.5
	700	24.0
	900	27.3
	1000	29.0

Fire Resistant Fire Alarm

www.sakhrcable.com

Fire Resistant & Fire Alarm

Fire Resistant Cables

- Fire resistant cables: are used when the cables are required to keep circuit integrity and continue to operate in the presence of a fire for a specified time under defined conditions, these cables are called fire resistant cables.
- The cables are tested based on the following standards:

IEC 60331 Fire Resistance Test

- A sample is connected to an electrical supply at its rated voltage. Fire is applied for a period of 1.5 hours. The temperature on the cable is 750°C, The test shall continue for the flame application time , after which the flame shall be extinguished but the cable sample shall remain energized for a further 15 min.
- The cable must maintain its circuit integrity.

BS6387 Fire Resistance Test

- The test method given in this British Standard consists of three component Protocols, designated C, W and Z.
- When separate test pieces from the same sample of cable are tested to each of these three protocols, these together comprise the full test. When the requirements of each one of the protocols are met, the cable may be designated as "category CWZ".
- It details the following methods to categorize the cables according to cable withstand capacities.

Resistance to fire alone

- Protocol C: subjects the cable under test to a flame via direct impingement corresponding to a temperature attack of 950 °C ±40 °C for 3 hours.

Resistance to fire with water

- Category W: Cables are subjected to fire at 650°C±40 °C for 15 minutes, then at 650°C with water spray for a further 15 minutes.

Resistance to fire with mechanical shock

- Protocol Z: subjects the cable under test to a flame via direct impingement corresponding to a temperature attack of 950 °C ±40 °C for 15 min. with indirect application of mechanical shock.
- Product standards might refer to only one of the protocols C or W or Z,but, in such cases, may not use the designation"Category CWZ".

cables resistant Fir

Fire alarm cables

	Fire Guard 1000 Plus®	Fire Guard 1000®	Fire Guard 100®
Standards	BS 7846-F120 BS 8519 BS 8491	BS 7846-F2 BS 6387 - CWZ BS 50200 BS 8434-2	BS 6387 - CWZ BS 50200 BS 8434-2
Approval	LPCB approved and listed in red book		
Bending Radius	6 x Dcable (Round conductors) 8 x Dcable (shaped condcutors)		4 x Dcable (Dca ≤ 8 mm) 6 x Dcable (Dca > 8 mm)
Temperature range	- 25 to 90 °C		
Mechanical impact	Very Good	Very Good	Requires protection
Flame propagation	BS EN 60332-3-24 IEC 60332-1-2		IEC 60332-1-2
Flexibility	Rigid	Rigid	Semi Flexible
Halogen Free	EN 60754-1		
Low corrosive gas	EN 60754-2		
Low smoke emission	BS EN 61043-2 BS 7846		BS EN 61043-2
Light Transmittance	over 70 %		over 60 %

Fire Resistant Testing Facilities

Category "C"

Category "W"

Category "Z"

Category "F-120"

Category PH-120 with water

Category "PH-120"

Flame Test BS 60332-1

Flame Test BS EN 60332-3

Smoke Density test BS EN 61034

Fire alarm cables

Fire Alarm Solid

Solid Fire Alarm Cables 500 V Un screened
Multi-Core cables to BS EN 50288-7

Cable Description

Conductor	Plain annealed solid copper
Core Insulation	PVC (Polyvinyl chloride) 105°C
Color coding	Two Cores : Red, Black Three Cores : Red, Yellow, Blue Four Cores : Red, Yellow, Blue, Black
Assembly	Cores twisted together to form round cable.
Outer Sheath	PVC (Polyvinyl chloride)
Cable Marking	= CAIRO CABLES = , Size , Cable short description , Voltage , manufacturing year , meter marking

Application

These cables are used for communication and signaling in fire alarm systems.

No. of cores	Nominal Cross sectional area (mm^2)	Nominal Thickness of Insulation (mm)	Approx. Overall Diameter (mm)	Approx. Net Weight (kg/km)
2	1.00	0.44	6.29	53.07
3			6.64	67.94
4			7.22	83.82
2	1.50	0.44	6.73	63.89
3			7.12	83.32
4			7.95	107.75

Fire alarm cables

Fire Alarm Flexible

Flexible Fire Alarm Cables 500 V UN screened
Multi-Core cables to BS EN 50288-7

Cable Description

Conductor	Plain annealed flexible copper
Core Insulation	PVC (Polyvinyl chloride) 105°C
Color coding	Two Cores : Red, Black Three Cores : Red, Yellow, Blue Four Cores : Red, Yellow, Blue, Black
Assembly	Cores twisted together to form round cable.
Outer Sheath	PVC (Polyvinyl chloride)
Cable Marking	= CAIRO CABLES = , Size , Cable short description , Voltage , manufacturing year , meter marking

Application

These cables are used for communication and signaling in fire alarm systems.

No. of cores	Nominal Cross sectional area (mm^2)	Nominal Thickness of Insulation (mm)	Approx. Overall Diameter (mm)	Approx. Net Weight (kg/km)
2	1.00	0.44	6.53	53.03
3			6.9	67.82
4			7.51	83.41
2	1.50	0.44	7.09	65.63
3			7.51	85.25
4			8.39	110.16

Fire alarm cables

Fire Alarm Stranded

Stranded Fire Alarm Cables 500 V
Multi-Core cables to BS EN 50288-7

Cable Description

Conductor	Plain annealed stranded copper
Core Insulation	PVC (Polyvinyl chloride) 105°C
Color coding	Two Cores : Red, Black Three Cores : Red, Yellow, Blue Four Cores : Red, Yellow, Blue, Black
Assembly	Cores twisted together to form round cable.
Outer Sheath	PVC (Polyvinyl chloride)
Cable Marking	= CAIRO CABLES = , Size , Cable short description , Voltage , manufacturing year , meter marking

Application

These cables are used for communication and signaling in fire alarm systems.

No. of cores	Nominal Cross sectional area (mm^2)	Nominal Thickness of Insulation (mm)	Approx. Overall Diameter (mm)	Approx. Net Weight (kg/km)
2	1.00	0.44	6.61	56.58
3			6.99	72.6
4			7.6	89.7
2	1.50	0.44	7.15	69.31
3			7.57	90.63
4			8.46	117.3

Fire alarm cables

Fire Alarm Stranded

Stranded Fire Alarm Cables 500 V Screened
Multi-Core cables to BS EN 50288-7

Cable Description

Conductor	Plain annealed stranded copper
Core Insulation	PVC (Polyvinyl chloride) 105°C
Color coding	Two Cores : Red, Black Three Cores : Red, Yellow, Blue Four Cores : Red, Yellow, Blue, Black
Assembly	Cores twisted together to form round cable.
Collective Screen	Aluminum / PET tape in contact with tinned copper drain wire
Outer Sheath	PVC (Polyvinyl chloride)
Cable Marking	= CAIRO CABLES = , Size , Cable short description , Voltage , manufacturing year , meter marking

Application

These cables are used for communication and signaling in fire alarm systems.

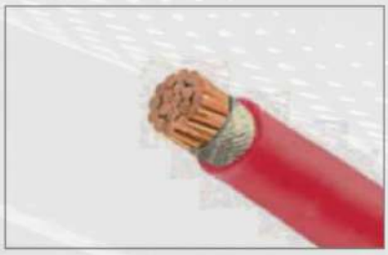
No. of cores	Nominal Cross sectional area (mm²)	Nominal Thickness of Insulation (mm)	Approx. Overall Diameter (mm)	Approx. Net Weight (kg/km)
2	1.00	0.44	6.75	62.7
3			7.15	80.75
4			7.75	100.3
2	1.50	0.44	7.3	75.5
3			7.71	99.2
4			8.6	128

cables resistant Fire

Single Core - Cu/MICA/LSOH

Fire Guard 100 - LPCB

Single core with copper conductors to BS 6387



CABLE DESCRIPTION

Conductor
Plain annealed copper

Core Insulation
Flame barrier mica tape & LS0H

Insulation Color
as per customer request

Cable Marking
CAIRO CABLES, Size, Description, Voltage, Manufacturing Year

Operation Voltage
0.45/0.75 KV

APPLICATION

These cables are used in hazardous areas where safety and circuit integrity are highly required during fire conditions.

Single Core Cables, Fire Resistance Wires, With Stranded Copper Conductor Mica Glass Tape, and LS0H Insulated (FIRE GUARD 100)

Nominal Cross Sectional Area	Max. Conductor Resistance		Current Rating		Approximate overall Diameter	Approximate Weight
			Air			
	DC at 20°C	AC at 90°C	Free Air	Pipes		
mm2	Ω/km	Ω/km	A	A	mm	kg/km
1.5	12.1	15.430	21	19	3.9	30
2.5	7.41	9.450	30	25	4.5	40
4	4.61	5.880	40	33	5.0	55
6	3.08	3.930	49	43	5.6	75
10	1.83	2.330	69	62	6.6	120
16	1.15	1.470	94	84	7.6	175
25	0.727	0.927	118	81	9.1	270
35	0.524	0.669	147	100	10.2	360
50	0.387	0.494	197	122	11.9	490
70	0.268	0.343	230	151	13.8	685
95	0.193	0.247	289	191	15.4	940
120	0.153	0.197	337	219	16.8	1165
150	0.124	0.160	385	252	18.6	1430
185	0.099	0.129	449	288	20.7	1795
240	0.075	0.099	542	345	23.5	2335
300	0.060	0.081	621	391	26.3	2920
400	0.047	0.065	681	582	29.3	3730
500	0.037	0.053	760	629	33.1	4800
630	0.0283	0.044	853	714	36.6	6055


TELEPHONE
Cables
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Non - Shielded Telephone Cables

Control Cables

Non - Shielded Telephone Cables based on IEC 60189

Cable Description

Conductor	Solid annealed copper wire, plain or tinned according to IEC 60228 class 1.
Insulation	PVC (polyvinyl chloride) rated 70°C
Assembly	Two cores are twisted to form a pair, pairs assembled together depending on the cable construction. - For cables up to 10 pairs, pairs are assembled together directly in concentric layers. - For cables more than 10 pairs and less than 30 pairs, pairs are grouped into units of 5 pairs. - For cables from 30 to 100 pairs, pairs are grouped into units of 10 pairs. Each of the above mentioned units are identified with identification tapes.
Color code	According to IEC60189 for the above mentioned construction.
Outer sheath	Flame Retardant polyvinyl chloride 70°C, grey color, or upon request.
Temperature rating	- 5°C up to + 70°C during operation
Marking	Inkjet marking (= CAIRO CABLES =TEL NO. OF PAIRS X SIZE MFG. YEAR)
Packing	Wooden drums, or air coils for up to 10 pairs.Other packing types could be aranged upon request

Application

For indoor installations and interconnection of transmission, telephone, telegraph and electronic equipment.
For outdoor applications armored and jelly filled cables are also available.

Nominal conductor diameter (mm)	No. Of Pairs	Minimum insulation thickness (mm)	Minimum outer sheath thickness (mm)	.Approx Overall Diameter (mm)	Approx Overall Weight (Kg/Km)
0.6	1	0.15	0.40	3.2	13
	2	0.15	0.40	4.4	23
	3	0.15	0.50	4.85	32
	4	0.15	0.50	5.3	40
	5	0.15	0.60	6.0	51
	6	0.15	0.60	6.05	59
	8	0.15	0.70	7.01	77
	10	0.15	0.70	8.0	93
	15	0.15	0.80	9.04	138
	20	0.15	0.80	10.57	177
	25	0.15	0.90	11.08	220
	30	0.15	0.90	12.73	258
	40	0.15	0.90	14.38	332
	50	0.15	0.90	15.97	413
	60	0.15	1.00	17.48	494
	80	0.15	1.00	19.08	638
	100	0.15	1.15	22.24	804
	150	0.15	1.15	26.67	1174
	200	0.15	1.35	30.08	1540
	250	0.15	1.35	34.09	1898
	300	0.15	1.60	37.65	2296

Non - Shielded Telephone Cables

Control Cables

Shielded Telephone Cables based on IEC 60189

Cable Description

Conductor	Solid annealed copper wire, plain or tinned according to IEC 60228 class 1.
Insulation	PVC (polyvinyl chloride) rated 70°C
Assembly	Two cores are twisted to form a pair, pairs are then assembled or grouped together depending on the cable. - For cables up to 10 pairs, pairs are assembled together directly in concentric layers. - For cables more than 10 pairs and less than 30 pairs, pairs are grouped into units of 5 pairs. - For cables from 30 to 100 pairs, pairs are grouped into units of 10 pairs. Each of the above mentioned units are identified with identification tapes.
Color code	According to IEC60189 for the above mentioned construction.
Metalic Shield	Aluminum polyester tape wrapped over the assembled cable.
Outer Sheath	Flame Retardant polyvinyl chloride 70°C, grey color, or upon request.
Bending radius	8 x d (d = overall diameter)
Temperature Rating	- 5°C up to + 70°C during operation
Marking	Inkjet marking (= CAIRO CABLES =TEL NO. OF PAIRS X SIZE MFG. YEAR)
Packing	Wooden drums, or air coils for up to 10 pairs. Other packing types could be arranged upon request.

Application

For indoor installations and interconnection of transmission, telephone, telegraph and electronic equipment.
For outdoor applications armored and jelly filled cables are also available.

Nominal conductor diameter (mm)	No. Of Pairs	Minimum insulation thickness (mm)	Minimum outer sheath thickness (mm)	Approx. Overall Diameter (mm)	Approx Overall Weight (Kg/Km)
0.6	1	0.15	0.40	3.14	15
	2	0.15	0.40	4.54	26
	3	0.15	0.50	4.99	35
	4	0.15	0.50	5.44	43
	5	0.15	0.60	6.14	55
	6	0.15	0.60	6.64	63
	8	0.15	0.70	7.24	81
	10	0.15	0.70	8.14	98
	15	0.15	0.80	9.49	142
	20	0.15	0.80	10.66	181
	25	0.15	0.90	11.89	225
	30	0.15	0.90	12.82	263
	40	0.15	0.90	14.47	337
	50	0.15	0.90	16.07	419
	60	0.15	1.00	17.57	501
	80	0.15	1.00	19.89	645
	100	0.15	1.15	22□33	813
	150	0.15	1□15	26.76	1181
	200	0.15	1.35	30.89	1552
	250	0.15	1.35	34.18	1910
	300	0.15	1.60	37.65	2309

AUTOMOTIVE
Cables

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Automotive Cables
PVC insulation based on ISO 6722

Cables Structure

- **Conductor** — Plain / tinned annealed copper
- **Insulation** — PVC (polyvinyl chloride) based on ISO 6722 class A
- **Color code** — Color coded with or without stripes upon request
- **Temperature rating** — - 40˚C up to + 85˚C
- **Packing** — Cables are packed in carton boxes.

Application

- This wire is used in the manufacture of electrical harnesses for cars and other automotive products.

Product Code	Conductor			Nominal Insulation Thickness (mm)	Maximum Overall Diameter (mm)	Approx. Weight (Kg/Km)
	Nominal Cross sectional area (mm2)	Nominal No. of wires x Max Wire Diameter (No. x mm)	Max Conductor DC Resistance at 20°C (Ohm/Km)			
AU001001	0.5	16 x 0.21	37.1	0.6	2.3	9
AU001002	0.75	24 x 0.21	24.7	0.6	2.5	12
AU001003	1	32 x 0.21	18.5	0.6	2.7	15
AU001004	1.5	30 x 0.26	12.7	0.6	3.0	20
AU001005	2	28 x 0.31	9.42	0.6	3.3	26
AU001006	2.5	50 x 0.26	7.6	0.7	3.6	32
AU001007	3	44 x 0.31	6.15	0.7	4.1	37
AU001008	4	56 x 0.31	4.71	0.8	4.4	49
AU001009	6	84 x 0.31	3.14	0.8	5.0	68

Notes : Other Automotive wires types can be provided on specific request.

The above data are approximate and subjected to normal manufacturing tolerance.

For any queries about other variants, please use our custom cable request form pg. 113

Cables Structure

- **Conductor** — Plain / tinned annealed copper
- **Insulation** — Heat resistant PVC (polyvinyl chloride) based on ISO 6722 class B.
- **Color code** — Color coded with or without stripes upon request
- **Temperature rating** — - 40°C up to +100°C
- **Packing** — Cables are packed in carton boxes.

Application

- This wire is used in the manufacture of electrical harnesses for cars and other automotive products.

Product Code	Conductor			Nominal Insulation Thickness (mm)	Approx. Overall Diameter (mm)	Approx. Weight (Kg/Km)
	Nominal Cross sectional area (mm2)	No. of Wires x Max Wire Diameter (No. x mm)	Max Conductor DC Resistance at 20°C (Ohm/Km)			
AU001010	0.5	16 x 0.21	37.1	0.6	2.3	9
AU001011	0.75	24 x 0.21	24.7	0.6	2.5	11
AU001012	1	32 x 0.21	18.5	0.6	2.7	14
AU001013	1.5	30 x 0.26	12.7	0.6	3.0	19
AU001014	2.5	50 x 0.26	7.6	0.7	3.6	31
AU001015	4	56 x 0.31	4.71	0.8	4.4	49
AU001016	6	84 x 0.31	3.14	0.8	5.0	68

Notes : Other Automotive wires types can be provided on specific request.
The above data are approximate and subjected to normal manufacturing tolerance.
For any queries about other variants, please use our custom cable request form pg. 113

Automotive Cables
Heat – Pressure resistant PVC Insulation based on ISO 6722

Cables Structure

- **Conductor** — Plain / tinned annealed copper
- **Insulation** — Heat resistant PVC (polyvinyl chloride)based on ISO 6722 class C. (Hot pressure resistance test at 120°C)
- **Color code** — Color coded with or without stripes upon request
- **Temperature rating** — - 40°C up to +120°C
- **Packing** — Cables are packed in carton boxes.

Application

- This wire is used in the manufacture of electrical harnesses for cars and other automotive products.

Product Code	Conductor			Nominal Insulation Thickness (mm)	Approx. Overall Diameter (mm)	Approx. Weight (Kg/Km)
	Nominal Cross sectional area (mm2)	No. of Wires x Max Wire Diameter (No. x mm)	Max Conductor DC Resistance at 20°C (Ohm/Km)			
AU001017	0.5	16 x 0.21	37.1	0.6	2.3	9
AU001018	0.75	24 x 0.21	24.7	0.6	2.5	11
AU001019	1	32 x 0.21	18.5	0.6	2.7	14
AU001020	1.5	30 x 0.26	12.7	0.6	3.0	19
AU001021	2.5	50 x 0.26	7.6	0.7	3.6	30
AU001022	3	44 x 0.31	6.15	0.7	4.1	36

Notes : Other Automotive wires types can be provided on specific request.

The above data are approximate and subjected to normal manufacturing tolerance.

For any queries about other variants, please use our custom cable request form pg. 113

CONTROL
Cables

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Control Cables

Control PVC Cables

PVC insulated and PVC sheathed to IEC 60502
0.6/1 kV

Cable Description

Conductor	Plain annealed stranded copper
Sizes	1.5 mm² 2.5 mm² 4 mm²
Core insulation	PVC (polyvinyl chloride)
Color coding	5 Cores Identification is Red, Yellow, Blue, Black, Y/G >5 cores will be black continuously numbered
Assembly	Cores twisted together to form a round assembly cable with fillers when necessary
Outer sheath	PVC (polyvinyl chloride)
Cables marking	= CAIRO CABLES=,size,cables short description,voltage,manufacturing year,meter marking

Application

For outdoor and indoor installations in damp and wet locations, connecting signaling and control units in industry, in railways, in traffic signals, in thermo power and hydropower stations. They are laid in air, in ducts,In trenches, in steel support brackets or direct in ground, when well protected

Nominal Cross sectional area (mm2)	No. of Cores	Nominal Thickness of insulation (mm)	Current Rating (A)			Approx. Overall Diameter (mm)	Approx. Net Weight (kg/km)
			Ground	Duct	Air		
1.5	5	0.8	14.7	12.6	13.5	11.5	210
	7	0.8	12.6	10.8	11.7	12.7	242
	10	0.8	10.5	9	9.9	15.9	333
	12	0.8	9.4	8.1	9	16.4	382
	14	0.8	9.4	8.1	9	17.2	434
	16	0.8	8.4	7.2	8.1	18.1	492
	19	0.8	8.4	7.2	8.1	19.1	564
	24	0.8	7.3	6.3	7.2	22.2	702
	30	0.8	6.3	5.4	6.3	23.5	850
	37	0.8	6.3	5.4	6.3	25.4	1026
	44	0.8	4.2	3.6	4.5	28.5	1212
2.5	5	0.8	18.9	16.1	16.5	12.8	280
	7	0.8	16.2	13.8	14.3	14.1	328
	10	0.8	13.5	11.5	12.1	17.7	456
	12	0.8	12.1	10.3	11	18.3	528
	14	0.8	12.1	10.3	11	19.2	602
	16	0.8	10.8	9.2	9.9	20.2	685
	19	0.8	10.8	9.2	9.9	21.3	789
	24	0.8	9.4	8	8.8	24.9	985
	30	0.8	8.1	6.9	7.7	26.4	1199
	37	0.8	8.1	6.9	7.7	28.5	1454
	44	0.8	5.4	4.6	5.5	32.3	1733
4	5	1.0	24.5	21	23.2	15.2	412
	7	1.0	21	18	20.1	16.8	483
	10	1.0	17.5	15	17	21.3	675
	12	1.0	15.7	13.5	15.5	22.1	786
	14	1.0	15.7	13.5	15.5	23.2	901
	16	1.0	14	12	13.9	24.5	1028
	19	1.0	14	12	13.9	25.9	1189
	24	1.0	12.2	10.5	12.4	30.5	1494
	30	1.0	10.5	9	10.8	32.4	1835
	37	1.0	10.5	9	10.8	35.2	2239

Control Cables

Control XLPE Cables

XLPE insulated and PVC sheathed to IEC 60502-1
0.6/1 KV

Cable Description

Conductor	Plain annealed stranded copper
Sizes	1.5 mm² 2.5 mm² 4 mm²
Core insulation	XLPE (Cross linked Polyethylene)
Alternatives	*LSOH (Low smoke zero halogen)*
Color coding	5 Cores Identification is Red, Yellow, Blue, Black, Y/G
Assembly	>5 cores will be black continuously numbered Cores twisted together to form a round assembly cable with fillers when necessary
Outer sheath	PVC (Polyvinyl chloride)
Alternatives	*LSOH (Low smoke zero halogen)*
Cables marking	=CAIRO CABLES=, size, cables short description,voltage,manufacturing year,meter marking

Nominal Cross sectional area (mm2)	No. of Cores	Nominal Thickness of insulation (mm)	Current Rating (A)			Approx. Overall Diameter (mm)	Approx. Net Weight (kg/km)
			Ground	Duct	Air		
1.5	5	0.7	18.2	16.1	16.5	11	181
	7	0.7	15.6	13.8	14.3	21.1	206
	10	0.7	13	11.5	12.1	15.1	283
	12	0.7	11.7	10.3	11	15.6	323
	14	0.7	11.7	10.3	11	16.3	356
	16	0.7	10.4	9.2	9.9	17.2	413
	19	0.7	10.4	9.2	9.9	18.1	472
	24	0.7	9.1	8	8.8	21	586
	30	0.7	7.8	6.9	7.7	23.2	705
	37	0.7	7.8	6.9	7.7	24	849
	44	0.7	5.2	4.6	5.5	27	1001
2.5	5	0.7	24.5	20.3	24	12.2	246
	7	0.7	21	17.4	20.8	13.5	286
	10	0.7	17.5	14.5	17.6	16.9	396
	12	0.7	15.7	13	16	17.5	456
	14	0.7	15.7	13	16	18.3	519
	16	0.7	14	11.6	14.4	19.3	590
	19	0.7	14	11.6	14.4	20.3	678
	24	0.7	12.2	10.1	12.8	23.7	846
	30	0.7	10.5	8.7	11.2	25.1	1027
	37	0.7	10.5	8.7	11.2	27.1	1234
	44	0.7	7	5.8	8	30.6	1473
4	5	0.7	31.5	25.2	30.7	13.6	336
	7	0.7	27	21.6	26.6	15	599
	10	0.7	22.5	18	22.5	18.9	552
	12	0.7	20.2	16.2	20.5	19.6	641
	14	0.7	20.2	16.2	20.5	20.6	733
	16	0.7	18	14.4	18.4	21.7	835
	19	0.7	18	14.4	18.4	22.9	965
	24	0.7	15.7	12.6	16.4	26.8	1207
	30	0.7	13.5	10.8	14.3	28.4	1474
	37	0.7	13.5	10.8	14.3	30.8	1798

Control Cables

Control PVC Cables

PVC insulated , Copper tape screened and PVC sheathed to IEC 60502 - 0.6/1 kV

Cable Description

Conductor	Plain annealed stranded copper
Sizes	1.5 mm² 2.5 mm² 4 mm²
Core insulation	PVC (polyvinyl chloride)
Color coding	5 Cores Identification is Red, Yellow, Blue, Black, Y/G >5 cores will be black continuously numbered
Assembly	Cores twisted together to form a round assembly cable with fillers when necessary
Inner sheath	PVC (polyvinyl Chloride) or binder tape
Screening	Copper tape helically applied
Outer sheath	PVC (polyvinyl chloride)
Cables marking	=CAIRO CABLES=,size,cables short description,voltage,manufacturing year,meter marking

Application

For outdoor and indoor installations in damp and wet locations, connecting signaling and control units in industry, in railways, in traffic signals, in thermo power and hydropower stations. They are laid in air, in ducts,In trenches, in steel support brackets or direct in ground, when well protected

Nominal Cross sectional area (mm2)	No. of Cores	Nominal Thickness of insulation (mm)	Current Rating (A)			Approx. Overall Diameter (mm)	Approx. Net Weight (kg/km)
			Ground	Duct	Air		
1.5	5	0.8	13.9	11.9	12.8	13.3	290
	7	0.8	11.9	10.2	11.1	14.5	330
	10	0.8	9.9	8.5	9.4	1707	443
	12	0.8	8.9	7.6	8.5	1802	496
	14	0.8	8.9	7.6	8.5	19	553
	16	0.8	7.9	6.8	7.6	19.9	617
	19	0.8	7.9	6.8	7.6	20.9	696
	24	0.8	6.9	5.9	6.8	24	856
	30	0.8	5.9	5.1	5.9	25.3	1012
	37	0.8	5.9	5.1	5.9	27.2	1201
	44	0.8	3.9	3.4	4.2	30.3	1407
2.5	5	0.8	17.9	15.2	15.6	14.6	369
	7	0.8	15.3	13.1	13.5	15.9	425
	10	0.8	12.8	10.9	11.4	19.5	578
	12	0.8	11.5	9.8	10.4	20.1	654
	14	0.8	11.5	9.8	10.4	21	734
	16	0.8	10.2	8.7	9.4	22	824
	19	0.8	10.2	8.7	9.4	23.1	936
	24	0.8	8.9	7.6	8.3	26.7	1157
	30	0.8	7.6	6.5	7.3	28.2	1381
	37	0.8	7.6	6.5	7.3	30.3	1651
	44	0.8	5.1	4.3	5.2	34.4	1981
4	5	1.0	23.2	19.9	22	17	517
	7	1.0	19.9	17.1	19.1	18.6	599
	10	1.0	16.6	14.2	16.1	23.1	822
	12	1.0	14.9	12.8	14.7	23.9	938
	14	1.0	14.9	12.8	14.7	25	1060
	16	1.0	13.3	11.4	13.2	26.3	1197
	19	1.0	13.3	11.4	13.2	27.7	1367
	24	1.0	11.6	9.9	11.7	32.6	1730
	30	1.0	9.9	8.5	10.3	34.6	2085
	37	1.0	9.9	8.5	10.3	37.4	2514

Control Cables

Control XLPE Cables

XLPE insulated, copper tape screened and PVC sheathed to IEC 60502-1 0.6/1 KV

Cable Description

Conductor	Plain annealed stranded copper
Sizes	1.5 mm^2 2.5 mm^2 4 mm^2
Core insulation	XLPE (Cross linked Polyethylene)
Alternatives	*LSOH (Low smoke zero halogen)*
Color coding	5 Cores Identification is Red, Yellow, Blue, Black, Y/G >5 cores will be black continuously numbered
Assembly	Cores twisted together to form a round assembly cable with fillers when necessary
Inner Sheath	PVC (polyvinyl chloride)
Alternatives	*LSOH (Low smoke zero halogen)*
Screening	Copper tape helically applied
Outer sheath	PVC (polyvinyl chloride)
Alternatives	*LSOH (Low smoke zero halogen)*
Cables marking	= CAIROCABLES=, size, cables short description,voltage,manufacturing year,meter marking

Application

For outdoor and indoor installations in damp and wet locations, connecting signaling and control units in industry, in railways, in traffic signals, in thermo power and hydropower stations. They are laid in air, in ducts,In trenches, in steel support brackets or direct in ground, when well protected

Nominal Cross sectional area (mm2)	No. of Cores	Nominal Thick-ness of insulation ((mm	Current Rating (A)			Approx. Overall Diameter ((mm	Approx. Net Weight (kg/km)
			Ground	Duct	Air		
1.5	5	0.7	17.2	15.2	15.6	12.8	257
	7	0.7	14.8	13.1	13.5	14	290
	10	0.7	12.3	10.9	11.4	16.9	387
	12	0.7	11.1	9.8	10.4	17.4	430
	14	0.7	11.1	9.8	10.4	18.1	478
	16	0.7	9.8	8.7	9.4	19	532
	19	0.7	9.8	8.7	9.4	19.9	596
	24	0.7	8.6	7.6	8.3	22.8	731
	30	0.7	7.4	6.5	7.3	24	858
	37	0.7	7.4	6.5	7.3	25.8	1014
	44	0.7	4.9	4.3	5.2	28.7	1186
2.5	5	0.7	23.2	19.2	22.8	14	330
	7	0.7	19.9	16.5	19.7	15.3	379
	10	0.7	16.6	13.7	16.7	18.7	512
	12	0.7	14.9	12.3	15.2	19.3	577
	14	0.7	14.9	12.3	15.2	20.1	646
	16	0.7	13.3	11	13.6	21.1	723
	19	0.7	13.3	11	13.6	22.1	818
	24	0.7	11.6	9.6	12.1	25.5	1009
	30	0.7	9.9	8.2	10.6	26.9	1200
	37	0.7	9.9	8.2	10.6	29	1430
	44	0.7	6.6	5.5	7.6	32.8	1710
4	5	0.7	29.9	23.9	29.2	25.4	729
	7	0.7	25.6	20.5	25.3	16.8	499
	10	0.7	21.3	17.1	21.4	20.7	682
	12	0.7	19.2	15.3	19.4	21.4	776
	14	0.7	19.2	15.3	19.4	22.4	875
	16	0.7	17.1	13.6	17.5	23.5	985
	19	0.7	17.1	13.6	17.5	24.7	1123
	24	0.7	14.9	11.9	15.5	28.6	1391
	30	0.7	12.8	10.2	13.6	30.2	1669
	37	0.7	12.8	10.2	13.6	32.9	2036


AMERICAN
Design Wire
AWG
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American Design Wires
AWG

Features of AWG cables and wires with 3-layer polyimide insulation: These cables are among the highest-performing wire classes and are used in harsh environments and precision applications:

Features of Polyimide Insulation (3 Layers)

- **Very high thermal resistance: Operates stably at very high temperatures (typically up to 200–260°C, depending on specifications).**
- **Excellent thermal stability: Does not melt or crack at high temperatures.**
- **Superior chemical resistance: Resistant to oils, solvents, acids, and industrial materials.**
- **High abrasion and corrosion resistance: Three layers provide excellent mechanical protection.**
- **Excellent moisture resistance: Not easily affected by humid environments.**

Electrical Features

- **High electrical insulation strength: Reduces the risk of short circuits, even in confined spaces.**
- **Stable electrical properties: Maintains consistent performance over time and at high temperatures.**
- **Very good voltage tolerance: Suitable for low, medium, and relatively high voltages, depending on the design.**
- **Suitable for sensitive signals: Maintains signal quality in sensitive circuits. 🛠️ Practical Features**
- **Extra-long service life: Suitable for long-term, maintenance-free applications.**
- **Thin insulation thickness for high performance: Allows for dense wire bundles.**
- **Good flexibility with stranded copper: Despite the strong insulation.**
- **Very high reliability: Used in critical industries.**

Applications

- **Aerospace industries**
- **High-temperature electric motors**
- **Advanced medical equipment**
- **Precision industrial electronics**
- **High-density control panels**
- **Robotics and automation systems**

Conclusion

AWG cables and wires with 3-layer polyimide insulation offer maximum thermal resistance, reliability, and efficiency, making them an ideal choice for critical applications in harsh conditions.

American Design Wires
AWG

TECHNICAL DATA

Conductor			Maximum DC Conductor Resistance at 20 °C	Nominal Insulation Thickness	Normal Jacket Thick-ness	Approx. Overall Diameter	Approx. Net Weight
Nominal Cross Section		No. x Dia					
AWG	mm^2	No. x Dia	Ohms/km	mm	mm	mm	Kg/km
14	2.08	1 x 1.63	8.45	0.38	0.10	2.7	24
12	3.31	1 x 2.05	5.31	0.38	0.10	3.1	36
10	5.26	1 x 2.59	3.343	0.51	0.10	3.9	58
18*	0.82	19 x 0.235	21.9	0.38	0.10	2.2	12
16*	1.31	19 x 0.296	13.7	0.38	0.10	2.5	17
14	2.08	19 x 0.37	8.62	0.38	0.10	2.9	24
12	3.31	19 x 0.47	5.43	0.38	0.10	3.4	37
10	5.26	19 x 0.59	3.409	0.51	0.10	4.2	59
8	8.37	19 x 0.75	2.144	0.76	0.13	5.5	97
6	13.3	19 x 0.944	1.348	0.76	0.13	6.4	195

- Listed as TFFN
- Other sizes can be provided on specific request.
- The above data is approximate and subjected to manufacturing tolerance. We reserve the right to change as a result of product development and/or changes in standard.