

# ETHERNET BULK CABLES

Cordial GmbH Sound & Audio Equipment

cordial-cables.com

### **INTRODUCTION**

Cordial offers a comprehensive product range of Ethernet cables that have been developed to meet the multifaceted requirements of modern event technology in the field of data transmission.

Our product lines comprise Ethernet cables ranging from Category 5e with a bandwidth of 100 MHz to Category 6A with 500 MHz and even cables designed for the transmission of high-frequency signals compliant with Category 7A (1000 MHz). These data cables are suitable for a wide range of applications, including audio networks, lighting control, EtherSound<sup>™</sup> and mobile applications, some of which allowing an operating range of more than 100 meters.

Our Ethernet cables are not only extremely versatile, but their design is also very practical and, at the same time, sophisticated. They can effortlessly be wound onto spools, are extremely robust and are characterized by high flexibility thus making them ideal for mobile applications, stage use and out-door transmissions.

All Cordial products are designed to manage all kinds of specific challenges such as suitability for cable trays, flame retardancy, halogen-free properties, low attenuation, flexibility and long distance transmission capability. We pride ourselves on providing solutions that meet specific individual requirements.

On top of that, our multicore and hybrid solutions enable independent networks to be realized within a single cable, such as our CCAT 6A PUR QUAD, featuring 4 x Cat 6A channels, or options that combine power and Cat 6A or power and DMX signals.

To ensure durability and reliable performance in outdoor environments, we predominantly use PUR (polyurethane) sheathing for our cables. For stationary (indoor) installations, our flame-retardant and halogen-free FRNC (flame retardant non-corrosive) cables are the ideal and appropriate choice.

### THE RANGE

#### CCAT 5e PUR

DATA - ETHERNET CAT 5e S/UTP - AWG 26/19 - PUR

EGORY 5e • CORDIAL GERMANY



**CCAT 5e PUR LONGRUN** 

DATA - ETHERNET CAT 5e SF/UTP -AWG 24/1 - PUR



CCAT 6A PUR

DATA - ETHERNET CAT 6A SF/UTP -AWG 24/7 - PUR



#### CCAT 6A PUR LONGRUN

DATA - ETHERNET CAT 6A S/FTP - AWG 24/7 - PUR





CCAT 7A PUR

DATA - ETHERNET CAT 7A S/FTP - AWG 26/7 - PUR



#### CCAT 7A PUR LONGRUN

DATA - ETHERNET CAT 7A S/FTP - AWG 23/7 - PUR



#### CCAT 6A PUR QUAD

DATA - ETHERNET CAT 6A 4x S/FTP -AWG 24/7 - PUR



#### CE 1-25 P

DATA - POWER CAT 6A S/FTP - AWG 24/7 - PUR

CORDIAL GERMANY



# **DATA CATEGORY CAT 5e**

#### CCAT 5e PUR

- Highly flexible, robust, reelable .
- PUR jacket for indoor/outdoor applications •
- Data category CAT 5e (100 MHz) .
- Overall Shield S/UTP •
- AWG 26/19, with 19 strands/conductors •
- PoE (15,4W) IEEE 802.3af-2003 . max. Channel PoE (15,4W) 67 m



- Flexible, robust, reelable
- PUR jacket for indoor/outdoor applications
- Data category CAT 5e (100 MHz)
- Overall Shield SF/UTP
- AWG 24/1, with solid conductor
- PoE (15,4W) IEEE 802.3af-2003



# **DATA CATEGORY CAT 6A**

A PUR • DATA CATEGORY 6A • CORDIAL GERMANY

#### CCAT 6A PUR

- Flexible, robust, reelable .
- PUR jacket for indoor/outdoor applications •
- Data category CAT 6A (500 MHz) .
- Overall Shield SF/UTP •
- AWG 24/7, with 7 strands/conductors .
- PoE++ IEEE 802.3bt-2018 (99,9W) . max. Channel PoE (99,9W) 64 m



- Flexible, robust, reelable
- PUR jacket for indoor/outdoor applications
- Data category CAT 6A (500 MHz)
- Overall Shield S/FTP
- AWG 24/7, with 7 strands/conductors
- PoE++ IEEE 802.3bt-2018 (99,9W) max. Channel PoE (99,9W) 87 m



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# DATA CATEGORY CAT 7A

PUR • DATA CATEGORY 7A • CORDIAL GERMANY

#### CCAT 7A PUR

- Flexible, robust, reelable
- PUR jacket for indoor/outdoor applications
- Data category CAT 7A (1000 MHz)
- Overall Shield S/FTP
- AWG 26/7, with 7 strands/conductors
- PoE (15,4W) IEEE 802.3af-2003 max. Channel PoE (15,4W) 70 m
- Flame-retardant and halogen-free
- Oil, mud, ozone, and microbe resistant
- Chemical resistance good
  (diesel, kerosene, petroleum)

#### **CCAT 7A PUR-LONGRUN**

- Flexible, robust, reelable
- PUR jacket for indoor/outdoor applications
- Data category CAT 7A (1000 MHz)
- Overall Shield S/FTP
- AWG 23/7, with 7 strands/conductors
- PoE++ (99,9W) IEEE 802.3bt-2018
  max. Channel PoE (99,9W) 98 m



# DATA CATEGORY CAT 6A

CORDIAL GERMANY

#### CCAT 6A PUR QUAD

- Multicore 4 x CAT 6A
- Flexible, robust, reelable
- Overall PUR jacket for indoor/outdoor applications
- Data category CAT 6A (500 MHz)
- Overall Shield S/FTP
- AWG 24/7, with 7 strands/conductors
- PoE++ (99,9W) IEEE 802.3bt-2018
  max. Channel PoE (15,4W) 97 m

### CE 1-25 P

- Flexible, robust, reelable
- PVC jacket for indoor/outdoor applications
- Data category CAT 6A (500 MHz)
- Overall Shield S/FTP
- AWG 24/7, with 7 strands/conductors
- PoE++ IEEE 802.3bt-2018 (99,9W) max. Channel PoE (15,4W) 97 m



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#### CCAT 5e PUR

#### DATA - ETHERNET CAT 5e S/UTP - AWG 26/19 - PUR

The CCAT 5e PUR, equipped with a flexible AWG 26/19 inner conductor and a special TPE-V stabilizer, is a data and network cable that is ideally suited for audio networks, lighting control, and EtherSound<sup>™</sup> systems. This cable is not only characterized by its drum capability and exceptional robustness, but also offers high flexibility and a tight bending radius.

It is the ideal choice for patch cables, device connection cables, as well as mobile applications, stage operations, and outdoor transmissions. The cable supports PoE of class IEEE 802.3af-2003 (15.4W).

TECHNICAL DATA	
Cable type	CAT 5e S/UTP
Conductor area	19 x 0,15 mm² (AWG 26/19) stranded bare copper
Conductor isolation	Solid PE (nom. 1,03 mm)
Core assembly	4 twisted pairs
Shielding type	S/UTP
Separator	TPE-V stabilizer (inner jacket)
Max. CHANNEL-LINK	Cable + 2 x RJ45 connectors CAT 6A; CAT 5e (@ 100 MHz): 73 m
Max. PERMANENT-LINK	CAT 5e (@ 100 MHz): 61 m
PoE	IEEE 802.3af-2003; PoE (15,4W); max. Channel PoE (15,4W) 67 m
Overall screen	tinned copper braid (85% nom. coverage)
Overall jacket	PUR black
Overall diameter	6,5 ± 0,2 mm
Weight	56 kg/km

5e • Cordial Germany

#### CCAT 5e PUR-LONGRUN

#### DATA - ETHERNET CAT 5e SF/UTP - AWG 24/1 - PUR

The CCAT 5e PUR LONGRUN is a premium, double-shielded data cable specifically designed for demanding applications. With its solid AWG 24/1 inner conductor, it ensures reliable data transmission for a variety of applications, including audio networks, lighting control, EtherSound<sup>™</sup>, and mobile applications that require ranges of over 100 meters.

Key features of this 100 MHz cable include a robust PUR jacket and a cross separator (PE cross) construction that protect the cable from harsh environmental conditions and mechanical stress. This extremely robust yet flexible construction makes it particularly suitable for use on stages and outdoor events, where reliability and durability are crucial.

This cable supports Power over Ethernet (PoE) with 15.4 watts of power, significantly enhancing the flexibility and versatility of applications by allowing connected devices to be powered directly through the data cable.

TECHNICAL DATA	
Cable type	CAT 5e SF/UTP
Conductor area	l x 0,20 mm² (AWG 24/l) solid bare copper
Conductor isolation	Foam-Skin PE (nom. 1,02 mm)
Core assembly	4 twisted pairs
Shielding type	SF/UTP
Separator	PE Separator-Cross
Max. CHANNEL-LINK	Cable + 2 x RJ45 connectors CAT 6A; CAT 5e (@ 100 MHz): 117 m
Max. PERMANENT-LINK	CAT 5e (@ 100 MHz): 98 m
PoE	IEEE 802.3af-2003; PoE (15,4W); max. Channel PoE (15,4W) 103 m
Overall screen	tinned copper braid (82% nom. coverage) + AL/PET Tape
Overall jacket	PUR black
Overall diameter	6,8 ± 0,2 mm
Weight	57 kg/km



### CCAT 6A PUR

#### DATA - ETHERNET CAT 6A SF/UTP - AWG 24/7 - PUR

Thanks to its PE cross separator and abrasion-resistant PUR jacket, this 500MHz cable is perfect for demanding stage use where robustness, flexibility, and performance are paramount.

It features double shielding and a flexible conductor (AWG 24/7), supporting Power over Ethernet (PoE++) with a power delivery of 99.9 watts. Ideal for audio networks, lighting control, EtherSound<sup>TM</sup>, and mobile applications on stages and outdoor transmissions.

It's reelable, robust, yet flexible, making it particularly suitable for cable drums.

#### TECHNICAL DAT

TECHNICAL DATA	
Cable type	CAT 6A SF/UTP
Conductor area	$7 \times 0.22 \text{ mm}^2$ (AWG 24/7) stranded bare copper
Conductor isolation	Solid PE (nom. 1,05 mm)
Core assembly	4 twisted pairs
Shielding type	SF/UTP
Pair screen	AL/PET foil
Separator	PE Separator-Cross
Max. CHANNEL-LINK	Cable + 2 x RJ45 connectors CAT 6A; CAT 5e (@ 100 MHz): 90 m; CAT 6A (@ 500 MHz): 76 m
Max. PERMANENT-LINK	CAT 5e (@ 100 MHz): 76 m CAT 6A (@ 500 MHz): 64 m
PoE	IEEE 802.3bt-2018; PoE++ (99,9W); max. Channel PoE (99,9W) 64 m
Overall screen	tinned copper braid (85% nom. coverage) + AL/PET Tape
Overall jacket	Soft PUR black
Overall diameter	8,0 ± 0,3 mm
Weight	54 kg/km



#### CCAT 6A PUR-LONGRUN

#### DATA - ETHERNET CAT 6A S/FTP - AWG 24/7 - PUR

The CCAT 6A PUR LONGRUN is the ideal choice for demanding data transmissions over longer distances of more than 100 meters. With a bandwidth of 500 MHz (Class EA CAT 6A), this cable delivers top performance.

Thanks to its double shielding S/FTP and flexible AWG 24/7 inner conductor, encased in a robust PUR jacket, it is the perfect companion for demanding stage use.

It is specifically designed for mobile indoor and outdoor applications, audio networks, lighting control, and EtherSound<sup>™</sup> systems. Despite its robustness, the cable remains flexible and can be wound onto drums. Additionally, it supports Power over Ethernet (PoE++) according to the IEEE 802.3bt-2018 standard with an impressive power output of 99.9 watts, significantly expanding its application possibilities.

TECHNICAL DATA	
Cable type	CAT 6A S/FTP
Conductor area	$7 \times 0,22 \text{ mm}^2$ (AWG 24/7) stranded bare copper
Conductor isolation	Foam-Skin PE (nom. 1,4 mm)
Core assembly	4 twisted pairs
Shielding type	S/FTP
Pair Screen	AL/PET foil
Max. CHANNEL-LINK	Cable + 2 x RJ45 connectors CAT 6A; CAT 5e (@ 100 MHz): 117 m; CAT 6A (@ 500 MHz): 103 m
Max. PERMANENT-LINK	CAT 5e (@ 100 MHz): 98 m CAT 6A (@ 500 MHz): 93 m
PoE	IEEE 802.3bt-2018; PoE++ (99,9W); max. Channel PoE (99,9W) 87 m
Overall screen	tinned copper braid (80% nom. coverage) + PET/PA fleece + drain wire
Overall jacket	Soft PUR black
Overall diameter	7,9 ± 0,3 mm
Weight	71 kg/km



#### CCAT 7A PUR

#### DATA - ETHERNET CAT 7A S/FTP - AWG 26/7 - PUR

The CCAT 7A PUR network cable is the optimal choice for high-performance networks. With its double shielding S/FTP, it can transmit signals of data class CAT 7A with an impressive bandwidth of 1000 MHz (1 GHz, Gigabit Ethernet). The robust PUR jacket protects the cable from environmental influences and mechanical stress in mobile indoor and outdoor applications.

Specifically designed for audio networks, lighting control, and EtherSound<sup>™</sup> systems, it features a flexible inner conductor (AWG 26/7), making it ideal for patch cables and device connection lines. Additionally, this cable supports Power over Ethernet (PoE) according to the IEEE 802.3af-2003 standard with a power output of 15.4 watts, significantly enhancing application flexibility.

Noteworthy is its high abrasion resistance and its resistance to oil, microbes, and chemicals. Whether for mobile applications, stage operations, or outdoor transmissions, this cable offers top-notch performance and reliability even under demanding conditions.

TECHNICAL DATA	
Cable type	CAT 7A S/FTP
Conductor area	$7 \ x \ 0,\!14 \ mm^2$ (AWG 26/7) stranded bare copper
Conductor isolation	Foam-Skin PE (nom. 1,05 mm)
Core assembly	4 connectors
Shielding type	S/FTP
Pair Screen	AL/PET Tape
Max. CHANNEL-LINK	Cable + 2 x RJ45 connectors CAT 6A; CAT 5e (@ 100 MHz): 88 m; CAT 6A (@ 500 MHz): 77 m; CAT 7 (@ 600 MHz): 77 m; CAT 7A (@ 1000 MHz): 77 m;
Max. PERMANENT-LINK	CAT 5e (@ 100 MHz): 74 m; CAT 6A (@ 500 MHz): 66 m; CAT 7 (@ 600 MHz): 66 m; CAT 7A (@ 1000 MHz): 65 m;
PoE	IEEE 802.3af-2003; PoE (15,4W); max. Channel PoE (15,4W) 70m
Overall screen	tinned copper braid (65% nom. coverage)
Overall jacket	PUR black
Overall diameter	6,4 ± 0,2 mm
Weight	46 kg/km



#### CCAT 7A PUR-LONGRUN

#### DATA - ETHERNET CAT 7A S/FTP - AWG 23/7 - PUR

The CCAT 7A PUR LONGRUN is the ideal choice for demanding data transmissions over longer distances of up to 100 meters. With an impressive bandwidth of 1000 MHz (Class FA CAT 7A), this cable delivers top performance. Thanks to its double shielding S/FTP and flexible AWG 23/7 inner conductor, encased in a robust PUR jacket, it is the perfect companion for demanding stage use.

It is specifically designed for mobile indoor and outdoor applications, audio networks, lighting control, and EtherSound<sup>™</sup> systems. Despite its robustness, the cable remains flexible and can be wound onto drums. Additionally, it supports Power over Ethernet (PoE++) according to the IEEE 802.3bt-2018 standard with an impressive power output of 99.9 watts, significantly expanding its application possibilities.

TECHNICAL DATA	
Cable type	CAT 7A S/FTP
Conductor area	$7 \times 0,26 \text{ mm}^2$ (AWG 23/7) stranded bare copper
Conductor isolation	Foam-Skin PE (nom. 1,53 mm)
Core assembly	4 twisted pairs
Shielding type	S/FTP
Pair Screen	AL/PET Tape
Məx. CHANNEL-LINK	Cable + 2 x RJ45 connectors CAT 6A; CAT 5e (@ 100 MHz): 125 m; CAT 6A (@ 500 MHz): 111 m; CAT 7 (@ 600 MHz): 111 m; CAT 7A (@ 1000 MHz): 101 m;
Max. PERMANENT-LINK	CAT 5e (@ 100 MHz): 105 m; CAT 6A (@ 500 MHz): 95 m; CAT 7 (@ 600 MHz): 95 m; CAT 7A (@ 1000 MHz): 86 m;
PoE	IEEE 802.3bt-2018; PoE++ (99,9W); max. Channel PoE++ (99,9W) 98m
Overall screen	tinned copper braid (65% nom. coverage)
Overall jacket	PUR black
Overall diameter	8,5 ± 0,3 mm
Weight	80 kg/km



#### CCAT 6A PUR QUAD

#### DATA - ETHERNET 4x CAT 6A S/FTP - AWG 24/7 - PUR

The CCAT 6A PUR QUAD: A high-performance multicore cable that can simultaneously handle four Ethernet channels of data class CAT 6A with a bandwidth of 500 MHz and up to 10 Gbit/s. With its double shielding, flexible inner conductor (AWG 24/7), and robust yet flexible PUR outer jacket, it offers top-notch performance and reliability.

This cable supports Power over Ethernet (PoE++) with a power output of 99.9 watts, making it an ideal choice for audio networks, lighting control, EtherSound<sup>TM</sup>, and mobile applications with a range of over 100 meters. It is particularly well-suited for use in mobile applications, stage operations, and outdoor transmissions.

#### **TECHNICAL DATA**

TECHNICAL DATA	
Cable type	CAT 6A S/FTP
Assembly	4x data elements CAT 6a S/FTP stranded together with fi llers
Conductor area	$7 \times 0,22 \text{ mm}^2$ (AWG 24/7) stranded bare copper
Conductor isolation	Foam-Skin PE (nom. 1,4 mm)
Core assembly	4 twisted pairs
Shielding type	S/FTP
Pair Screen	AL/PET foil
Max. CHANNEL-LINK	Cable + 2 x RJ45 connectors CAT 6A ; CAT 5e (@ 100 MHz): 117 m; CAT 6A (@ 500 MHz): 103 m
Max. PERMANENT-LINK	CAT 6A (@ 500 MHz): 103 m
PoE	IEEE 802.3bt-2018; PoE++ (99,9W); max. Channel PoE (15,4W) 97m
Overall screen	tinned copper braid (80% nom. coverage) + PET/PA fleece + drain wire
Overall jacket	PVC black
Overall diameter	7,9 ± 0,2 mm
Total jacket	PUR
Total diameter	23,5 ± 0,4 mm
Weight	560 kg/km

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### CE 1-25 P

#### DATA - ETHERNET CAT 6A S/FTP - AWG 24/7 - PVC

The CE 1-25 P combines the excellent characteristics of a CAT 6A Ethernet cable with a bandwidth of 500 MHz up to 10 Gbit/s and a powerful power line with a conductor cross-section of 2.50 mm<sup>2</sup>.

With this combination of data and power transmission in one cable, the CE 1-25 P hybrid cable is the optimal solution for versatile applications where both high data rates and reliable power supply are required.

POWER CABLE – TECHNICAL DATA	
Cable type	H07BQ-F
Conductor area	2,50 mm² (AWG 14)
Composition of conductor	50 x 0,25 mm Cu blank; Class5 - EN 60228
Conductor isolation	Cross linked elastomeric compound - El4 according to EN 50363-1
Overall jacket	Polyurethan TMPU; according to EN 50363-10-2
Protective conductor	YES
Insulation resistance	7,98 Ω/km
Max operating voltage	U0/U 450/750 V
Overall diameter	11,6 ± 0,2 mm

#### DATA CABLE – TECHNICAL DATA

Cable type	CAT 6A S/FTP
Conductor area	$7 \ x \ 0,22 \ mm^2$ (AWG 24/7) stranded bare copper
Conductor isolation	Foam-Skin PE (nom. 1,4 mm)
Core assembly	4 twisted pairs
Shielding type	S/FTP
Pair Screen	AL/PET foil
Max. CHANNEL-LINK	Cable + 2 x RJ45 connectors CAT 6A; CAT 5e (@ 100 MHz): 117 m; CAT 6A (@ 500 MHz): 103 m
Max. PERMANENT-LINK	CAT 5e (@ 100 MHz): 98 m CAT 6A (@ 500 MHz): 93 m
PoE	IEEE 802.3bt-2018; PoE++ (99,9W); max. Channel PoE (99,9W) 87 m
Overall screen	tinned copper braid (80% nom. coverage) + PET/PA fleece + drain wire
Overall jacket	Soft PUR black
Overall diameter	7,9 ± 0,3 mm
Weight	71 kg/km



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