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Your advantages

- Perfect for office, building, and protected industrial applications (e.g., in control cabinets)
- Worldwide approval with CE, UL, WEEE, and EAC
- Secure connection and disconnection with reliable locking clip protection
- Ideal EMC properties, thanks to 360° shielding
- Simultaneous power transmission with PoE++
- Future-proof high-speed data transmission with up to 10 Gbps (CAT6_A)

Commercial data

Item number	1639429
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB11
Product key	ABNABH
GTIN	4067923164260
Weight per piece (including packing)	1,042.9 g
Weight per piece (excluding packing)	959 g
Customs tariff number	85444210
Country of origin	CN

NBC-R4OC/20,0-BC6A/R4OC-BK - Patch cable

1639429

<https://www.phoenixcontact.com/us/products/1639429>



Technical data

Product properties

Product type	Data cable preassembled
Product family	RJ45 STANDARD CAT6A
Sensor type	Ethernet
Number of positions	8
Shielded	yes

Electrical properties

Rated voltage (III/2)	72 V
Transmission medium	Copper
Transmission speed	10 Gbps
Transmission speed	10 Gbps
Power transmission	PoE++

Dimensions

Width	11.6 mm
Height	14.8 mm
Length	40 mm

Connector

Connection 1

Type	Plug straight RJ45
Shielded	yes
Handle color	black
Insertion/withdrawal cycles	≥ 750
Degree of protection	IP20
Ambient temperature (operation)	-20 °C ... 80 °C

Connection 2

Type	Plug straight RJ45
Shielded	yes
Handle color	black
Insertion/withdrawal cycles	≥ 750
Degree of protection	IP20
Ambient temperature (operation)	-20 °C ... 80 °C

Cable/line

Cable length	20.00 m
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Ethernet, Type B, 8-pos., CAT6A, LSZH [BC6A]

Number of positions	8
Shielded	yes

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Cable type	Ethernet, Type B, 8-pos., CAT6A, LSZH [BC6A]
Conductor structure	4x2xAWG26/7; S/FTP
Conductor structure signal line	7x 0.16 mm
AWG signal line	26
Wire diameter incl. insulation	1 mm
External cable diameter	6.50 mm ±0.3 mm
Outer sheath, material	LSZH
External sheath, color	black
Conductor material	Bare Cu litz wires
Material wire insulation	PE
Single wires, quantity	8
Single wire, cross section [AWG]	26
Thickness, outer sheath	approx. 0.70 mm
Optical shield covering	70 %
Insulation resistance	≥ 5000 MΩ*km
Loop resistance	≤ 148.00 Ω/km
Wave impedance	100 Ω
Minimum bending radius, fixed installation	8 x D
Smallest bending radius, fixed installation	52 mm
Near end crosstalk attenuation (NEXT)	75 dB (with 1 MHz) 66.3 dB (at 4 MHz) 60.3 dB (at 10 MHz) 57.2 dB (at 16 MHz) 55.8 dB (at 20 MHz) 52.9 dB (at 31.25 MHz) 48.4 dB (at 62.5 MHz) 45.3 dB (at 100 MHz) 40.8 dB (at 200 MHz) 38.1 dB (at 300 MHz) 36.3 dB (at 400 MHz) 34.8 dB (at 500 MHz)
Power-summed near end crosstalk attenuation (PSNEXT)	72.3 dB (with 1 MHz) 63.3 dB (at 4 MHz) 58.8 dB (at 8 MHz) 57.3 dB (at 10 MHz) 54.2 dB (at 16 MHz) 52.8 dB (at 20 MHz) 51.3 dB (at 25 MHz) 49.9 dB (at 31.25 MHz) 45.4 dB (at 62.5 MHz) 42.3 dB (at 100 MHz) 37.8 dB (at 200 MHz) 35.1 dB (at 300 MHz) 33.3 dB (at 400 MHz)

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Return attenuation (RL)	31.8 dB (at 500 MHz) 20 dB (with 1 MHz) 23 dB (at 4 MHz) 24.5 dB (at 8 MHz) 25 dB (at 10 MHz) 25 dB (at 16 MHz) 25 dB (at 20 MHz) 24.2 dB (at 25 MHz) 23.3 dB (at 31.25 MHz) 20.7 dB (at 62.5 MHz) 19 dB (at 100 MHz) 16.4 dB (at 200 MHz) 15.6 dB (at 300 MHz) 15.6 dB (at 400 MHz) 15.6 dB (at 500 MHz)
Shield attenuation	3.1 dB (with 1 MHz) 5.7 dB (at 4 MHz) 8.9 dB (at 10 MHz) 11.2 dB (at 16 MHz) 12.6 dB (at 20 MHz) 15.8 dB (at 31.25 MHz) 22.5 dB (at 62.5 MHz) 28.7 dB (at 100 MHz) 41.4 dB (at 200 MHz) 51.4 dB (at 300 MHz) 60.1 dB (at 400 MHz) 67.9 dB (at 500 MHz)
Halogen-free	complying with IEC 60754-1/2
Flame resistance	IEC 60332-1-2/IEC 60332-3-24/CM
Ambient temperature (operation)	-20 °C ... 80 °C (cable, fixed installation) -20 °C ... 80 °C (Cable, flexible installation)
Ambient temperature (installation)	0 °C ... 60 °C

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-20 °C ... 80 °C
Ambient temperature (storage/transport)	0 °C ... 40 °C

Standards and regulations

Flame resistance	IEC 60332-1-2
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Approvals

ⓘ To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1639429>



UL Listed

Approval ID: E335024_20210804



cUL Listed

Approval ID: E335024_20210804

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Classifications

ECLASS

ECLASS-13.0	27060307
ECLASS-15.0	27060307

ETIM

ETIM 9.0	EC001855
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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