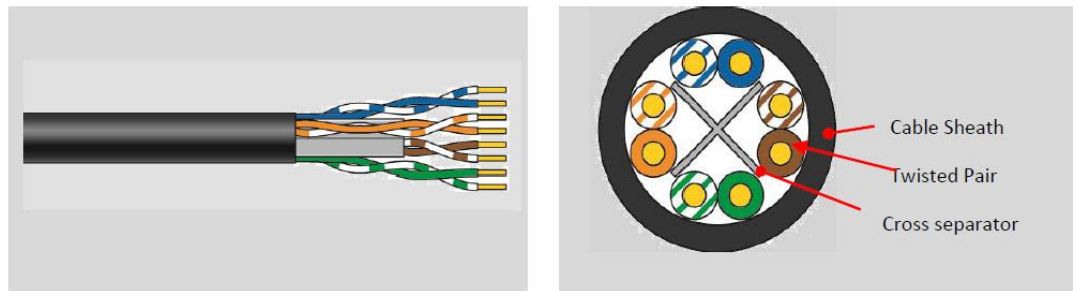


<b>Cable reference</b>	<b>Part number</b>	R 823882
	<b>Source code</b>	B
	<b>R&amp;M positioning</b>	Cat.6

<b>Cable construction</b>	<b>Conductor</b>	Solid copper wire AWG23 (Ø 0.58mm)
	<b>Insulation</b>	Polyethylene ≤ Ø 1.1 mm
	<b>Twisting</b>	2 cores to the pair,
	<b>Cable lay up</b>	4 pairs to the core, non metallic cross separator (spline)
	<b>Cable core filling</b>	Waterproof compound to prevent moisture migration and water protection.
	<b>Sheath</b>	PE, Black,RAL 9005 UV stabilized



**Application**

Primary (Campus), Secondary (Riser), Tertiary (Horizontal)  
 IEEE 802.3: 10Base-T; 100Base-T; 1000Base-T;  
 IEEE 802.5 16 MB; ISDN; TPDDI; ATM  
 IEEE 802.3af-2002: POE; IEEE 802.3at: POE+; IEEE 802.3bt: 4PPOE  
 Cisco Universal Power Over Ethernet (UPOE and UPOE+)  
 Power over HDBaseT™ (PoH)  
 Confirming to European regulation “CPR” EN 50575  
 Outdoor installations. Filled with compound to prevent water penetration.  
 To ensure electrical properties even in continuous wet conditions

**Standards** ISO/IEC 11801.; EN 50288-6-1;IEC 61156-5

**Water penetration rating** EN 50173-1, IEC 60794-1-2F5 , methode B

**Fire rating** -(PE outer sheath) ;IEC 60754-2; EN50575; Fca; DOP F3505  
 Smoke classification: No

<b>Technical Data</b>	<b>Cable designation</b>	Industry U/UTP Cat.6 450MHz 4PxAWG23
	<b>Packaging</b>	Drum 500 m
	<b>Outer diameter</b>	Nominal 7.2 mm
	<b>Weight</b>	55 kg / km
	<b>Thermal load</b>	1884 MJ / km
	<b>Segregation class</b>	b
	<b>Tensile force</b>	100 N

<b>Mechanical Properties</b>	<b>Bending radius</b>	≥ 33 mm during operation (without load)
		≥ 65 mm during installation (with load)
	<b>Temperature range</b>	During operation
During installation		-15°C...+ 50°C

**Electrical Properties**  
(at 20°C ± 5°C)





<b>DC loop residue</b>		≤ 17.6 Ω / 100 m
<b>Resistance unbalance</b>		≤ 2 %
<b>Test voltage</b>	DC, 1 min, core/core	1000 V
<b>Insulation resistance</b>	500 V	≥ 5000 MΩ * km
<b>Capacitance</b>		48 pF / m nom.
<b>Capacitance unbalance</b>		≤ 1500 pF / km
<b>Mean characteristic impedance</b>		100 ± 5 Ω
<b>Nominal velocity of propagation</b>		Approx. 67 %
<b>Propagation delay</b>	At 1 MHz	≤ 535 ns / 100 m
<b>Delay skew</b>		≤ 20 ns / 100 m
<b>Coupling attenuation</b>		≥ 40 dB
<b>Balance TCL</b>	At 1 MHz	≤ 55 dB
	At 10 MHz	≤ 40 dB
	At 100 MHz	≤ 35 dB

**Typical transmission characteristics (at 20°C)**

f (MHz)	Attenuation (dB/100 m)		NEXT (dB)		PS-NEXT (dB)		ACR-F <sup>1)</sup> (dB/100 m)		PS-ACR-F <sup>1)</sup> (dB/100 m)		Return loss (dB)	
	Max	Typ	Min	Typ	Min	Typ	Min	Typ	Min	Typ	Min	Typ
4	3.8	3.8	66	71	63	66	58	59	55	56	23	26
10	6	5.6	60	65	57	60	50	50	47	48	25	28
20	8.5	8.5	56	60	53	56	44	45	41	42	25	28
62.5	15.5	15.1	48	53	45	48	34	35	31	32	21.5	25
100	19.9	19.1	45	50	42	45	30	31	27	28	20.1	23
250	33	32.0	39	44	36	39	22	23	19	20	17.3	20
450	-	44.8	-	40	-	35	-	15	-	17	-	20

<sup>1)</sup> ACR-F was formerly known as ELFEXT.

**Recommended connection technique**

Module		Perm. Link Class D	Perm. Link Class E	Channel Class E <sub>A</sub>	Perm. Link Class E <sub>A</sub>	Short Link Class E <sub>A</sub>
	Cat.5e/u	✓	-	-	-	-
	Cat.6/u	✓	✓	-	-	-
	Cat.6 <sub>A</sub> /u	✓	✓	-	-	-
	Cat.6 <sub>A</sub> /u ISO	✓	✓	-	-	-