

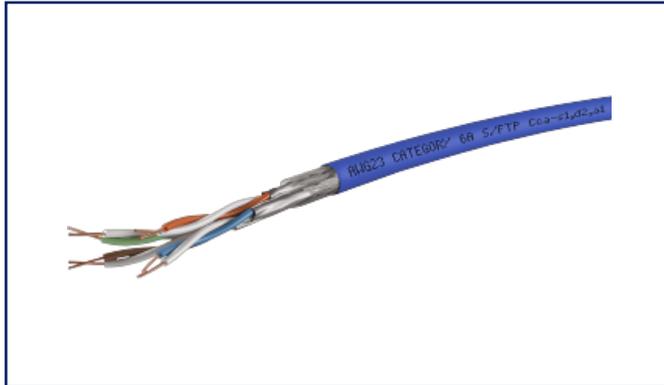
## Data sheet

**MC 550 AWG 23 Cat.6<sub>A</sub> S/FTP 4P LSHF-FR 500 m,  
class C<sub>ca</sub> s1 d1 a1**

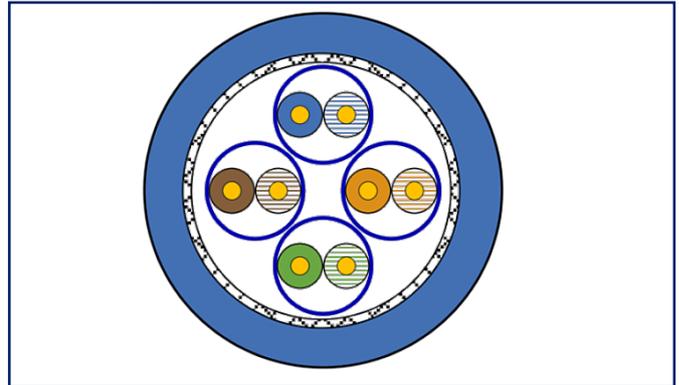
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P/N  
130842A6ASFCF1  
EAN 4251394679600  
2025/07/09  
Version: B

### Illustrations



Principle diagram



See enlarged drawings at the end of document

### Product specification

- 10 GBase-T installation cable, simplex
- shielded installation cable Cat.6<sub>A</sub> Class E<sub>A</sub>, AWG 23
- 4 pairs
- outer diameter: 7.40 mm
- color of the cable jacket: blue
- coupling attenuation greater than or equal to 85 dB
- applicable standards: EN 50173-1, ISO/IEC 11801
- cable jacket: LSHF (LSOH)
- flame-retardant to: IEC 60332-1/EN 60332-1 and IEC 60332-3-24/EN 60332-3-24
- fire behaviour: C<sub>ca</sub> s1,d1,a1



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**Technical Data**

**General Data**

Fields of application	Primary (Campus) Secondary (Riser) Tertiary (Horizontal)
Applications	IEEE 802.3 :10Base-T; 100Base-TX;1000Base-T; 2.5GBase-T ; 5GBase-T ; 10GBase -T IEEE 802.3 af (PoE) / 802.3 at (PoE+) / 802.3 bt (4PPoE 90W) IEEE 802.5 / FDDI / ATM / RNIS
Kabelaufbau	
Cable Type	S/FTP
Conductor material	Copper
Conductor class	Cl.1 = solid
Conductor surface	blank
Conductor diameter (mm)	0.57 mm
Conductor diameter (inch)	0.022 in.
AWG size	23
Core number	8
Number of twisting elements	4
Twisting element	Pair
Shield over twisting element	Foil
Twisted stranding	Bundle
Shield over twisted stranding	braid
Jacket color	blue
Außendurchmesser	
Cable sheath diameter	7.40 mm
Cable sheath diameter	0.291 in.

**Mechanical data**

Tensile force 95 N

**Brandeigenschaften**

Flame retardant according to IEC 60332-1	yes
Flame retardant according to IEC 60332-3-24	yes
Low smoke according to EN IEC 61034	yes
Low smoke according to EN IEC 61034-2	yes
Halogen-free according to EN IEC 60754-1	yes
Halogen-free according to EN IEC 60754-2	yes
Fire behavior according to EN 13501-6: Class	Cca

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**Brandeigenschaften**

Fire behavior according to EN 13501-6: Smoke development	s1
Fire behavior according to EN 13501-6: Drip-off behavior	d1
Fire behavior according to EN 13501-6: Acid development	a1
Fire load	0.125 kWh/m
Fire load	449 MJ/km

**Electrical characteristics**

Category	6 <sub>A</sub>
NVP value	78 %
Isolation class according to EN 50174	d
Loop resistance	max. 146.4 Ohm/km
Resistance unbalance	max. 2 %
Transfer impedance 1 MHz	max. 8 mOhm/m
Transfer impedance 10 MHz	max. 8 mOhm/m
Transfer impedance 30 MHz	max. 10 mOhm/m
Mean characteristic impedance 100 MHz	max. 20 mOhm/m
Coupling attenuation	min. 85 dB
Capacitance unbalance pair to ground	max. 1600 pF/km
Insulation resistance	> 5000 MOhm.km

**Anwendungseigenschaften / Umgebungsbedingungen**

Permitted type of installation in the ground	Installation pipe for underground installation
Functional integrity according to IEC 60331-23	no
Oil-resistant according to EN IEC 60811-404	no
Min. permissible bending radius, flexible use with forced guidance (mm)	min. 60 mm
Min. permissible bending radius, flexible use/free movement (mm)	min. 60 mm
Min. permissible bending radius, stationary use/fixd installation (mm)	min. 30 mm
Min. permissible bending radius, flexible use with forced guidance (inch)	2.362 in.
Min. permissible bending radius, flexible use/free movement (inch)	2.362 in.



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**Anwendungseigenschaften / Umgebungsbedingungen**

Min. permissible bending radius, stationary use/fixed installation (inch) 1.181 in.

Zulässige Kabelaußentemperatur bei Montage/Handling

Zulässige Kabelaußentemperatur bei Montage/Handling 0 °C - 50 °C

Permissible external cable temperature during installation/handling 32 °F - 122 °F

Zulässige Kabelaußentemperatur nach Montage ohne Erschütterung

Permissible external cable temperature after installation without vibration -20 °C - 60 °C

Permissible external cable temperature after installation without vibration -4 °F - 140 °F

UV-resistance no

**Materials and material properties**

Material - core insulation Cell polyethylene

Material - protective jacket LSOH-FR

Material - Pair shield Aluminium/Polyester

Material - Main shield Cu (copper) braid

**Geltende Normen**

General requirements ISO/IEC 11801  
DIN EN 50173-1  
ANSI/TIA-568.2-D

PoE IEEE 802.3af

PoE plus IEEE 802.3at

UPoE yes

4PPoE IEEE 802.3bt

Multi-core metallic data & control cables for analog & digital transmission EN 50288-10-1  
IEC 61156-5

**Classifications**

ETIM 8.0 EC003249

ETIM 9.0 EC003249

ETIM 10.0 EC003249

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### Packing details

Type of packaging	500 meter / drum
GTIN13	4251394679600

### Application note

This product is a standard product of METZ CONNECT. METZ CONNECT is not aware of the specific intended use of the goods by the Customer or any customers of the Customer. The Customer guarantees that it has fully and sufficiently tested the use of the goods and any product modifications, product changes or product enhancements with regard to the specific intended use in accordance with the state of the art or in any other way. At METZ CONNECT's request, the Customer shall submit and make available meaningful evidence (e.g. test and laboratory protocols, certifications, etc.).



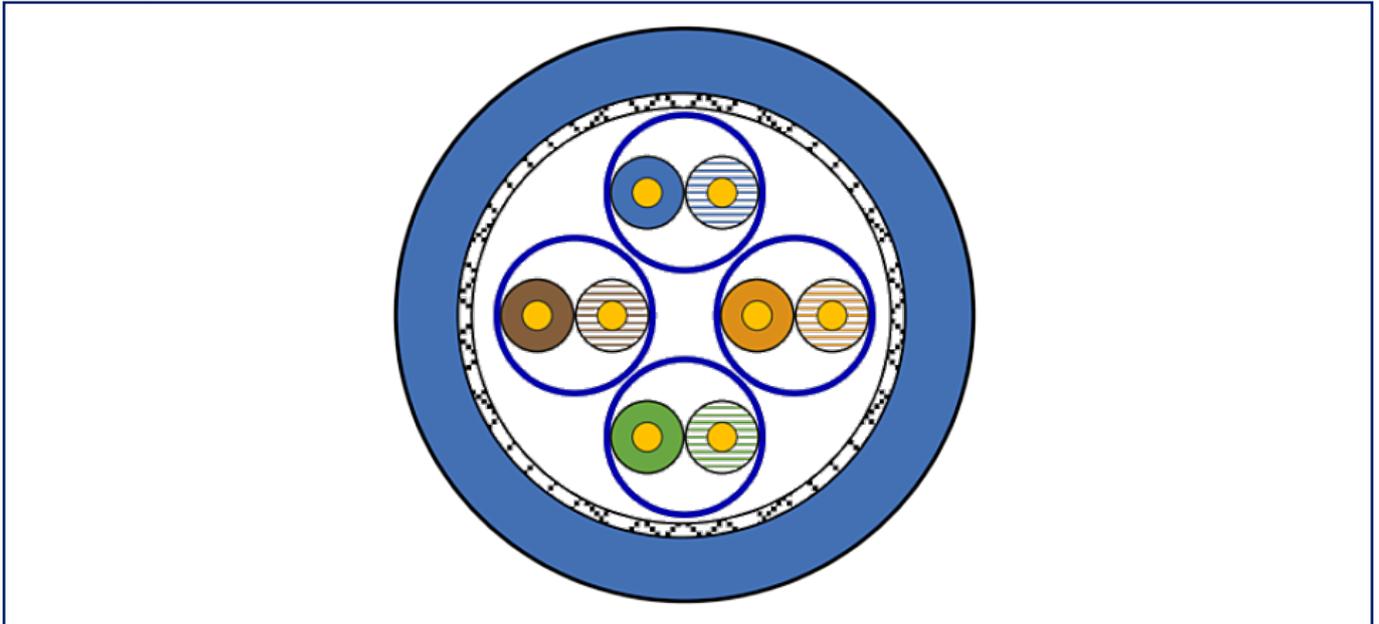
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**Illustrations**

Principle diagram



Elektrische Daten

Übertragungseigenschaften bei 20 °C

F (MHz)	Attenuation (dB/100m)		NEXT (dB)		PS-NEXT (dB)		ELFEXT (dB/100m)		PS-ELFEXT (dB/100m)		Return loss (dB)		PS-ANEXT	
	Typ.Wert	Max.Wert*	Typ.Wert	Min.Wert*	Typ.Wert	Min.Wert*	Typ.Wert	Min.Wert*	Typ.Wert	Min.Wert*	Typ.Wert	Min.Wert*	Typ.Wert	Min.Wert*
4	3,6	3,8	95	65,3	92	63,3	85	58	82	55	26	23	85	76,5
10	5,5	5,9	95	59,3	92	57,3	85	50	82	47	28	25	85	72,5
20	7,9	8,4	95	54,8	92	52,8	84	44	81	41	28	25	85	69,5
62,5	14,5	15	95	47,4	92	45,4	82	34,1	79	31,1	26	21,5	85	64,5
100	18,5	19,1	95	44,3	92	42,3	78	30	75	27	24	20,1	85	62,5
250	29,6	31,1	88	38,3	85	36,3	62	22	59	19	22	17,3	73	56,5
500	42,9	45,3	84	33,8	81	31,8	56	16	53	13	19	17,3	68	52
550**	50	-	83	-	80	-	55	-	52	-	18	-	67	-

Kategorie 6<sub>A</sub> nach IEC 61156-5 Ed.2

