

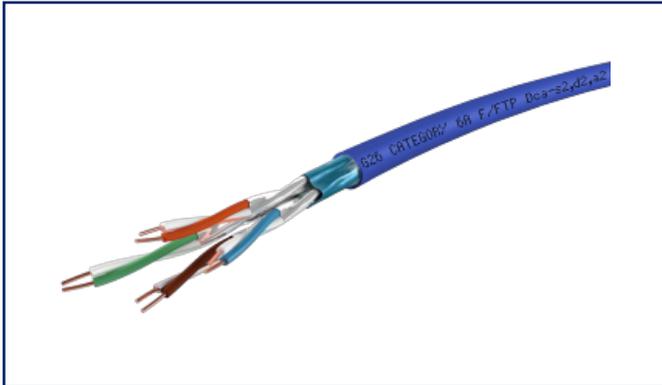
Data sheet

**MC 550 AWG 23 Cat.6_A F/FTP 4P LSHF-FR 1000 m,
class D_{ca} s2 d2 a2**

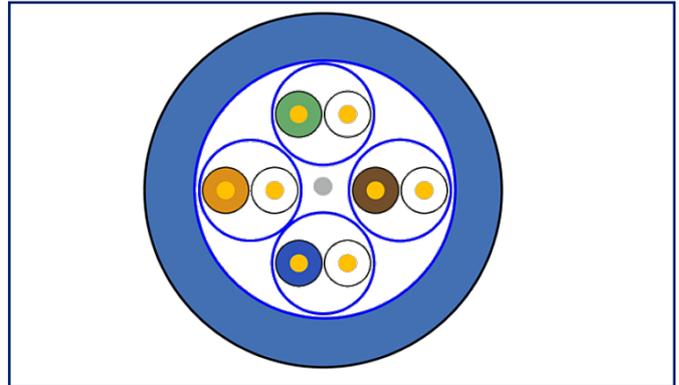
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P/N
130842A6AFFDT
EAN 4251394668444
2025/07/09
Version: H

Illustrations



Principle diagram



See enlarged drawings at the end of document

Product specification

- 10 GBase-T installation cable, simplex
- shielded installation cable Cat.6_A Class E_A, AWG 23
- 4 pairs
- outer diameter: 7.30 mm
- color of the cable jacket: blue
- coupling attenuation greater than or equal to 70 dB
- applicable standards: EN 50173-1, ISO/IEC 11801
- cable jacket: LSHF (LSOH)
- flame-retardant to: IEC 60332-1, EN 60332-1
- fire behaviour: Class D_{ca} s2,d2,a2



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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 | F/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 | Foil |
| Jacket color | blue |
| Außendurchmesser | |
| Cable sheath diameter | 7.30 mm |
| Cable sheath diameter | 0.287 in. |
| Mechanical data | |
| Tensile force | 98 N |
| Brandeigenschaften | |
| Flame retardant according to IEC 60332-1-2 | 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 | Dca |
| Fire behavior according to EN 13501-6: Smoke development | s2 |
| Fire behavior according to EN 13501-6: Drip-off behavior | d2 |

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Brandeigenschaften

| | |
|---|-------------|
| Fire behavior according to EN 13501-6: Acid development | a2 |
| Fire load | 0.153 kWh/m |
| Fire load | 550 MJ/km |

Electrical characteristics

| | |
|---------------------------------------|-------------------|
| Category | 6 _A |
| NVP value | 78 % |
| Isolation class according to EN 50174 | c |
| Loop resistance | max. 146.4 Ohm/km |
| Resistance unbalance | max. 2 % |
| Transfer impedance 1 MHz | max. 30 mOhm/m |
| Transfer impedance 10 MHz | max. 30 mOhm/m |
| Transfer impedance 30 MHz | max. 50 mOhm/m |
| Coupling attenuation | min. 70 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/fixed 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. |
| Min. permissible bending radius, stationary use/fixed installation (inch) | 1.181 in. |

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**MC 550 AWG 23 Cat.6_A F/FTP 4P LSHF-FR 1000 m,
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Technical Data

Anwendungseigenschaften / Umgebungsbedingungen

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 | Foam skin Pe-isolation |
|----------------------------|------------------------|

| | |
|------------------------------|---------|
| Material - protective jacket | LSOH-FR |
|------------------------------|---------|

| | |
|------------------------|--------------------|
| Material - Pair shield | Pet/aluminium foil |
|------------------------|--------------------|

| | |
|-------------------------------|--------------------|
| Material - Pair shield finish | Pet/aluminium foil |
|-------------------------------|--------------------|

| | |
|------------------------|--------------------|
| Material - Main shield | Pet/aluminium foil |
|------------------------|--------------------|

| | |
|-------------------------------|--------------------|
| Material - Main shield finish | Pet/aluminium foil |
|-------------------------------|--------------------|

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 |
|----------|----------|

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|-----------|----------|
| ETIM 10.0 | EC003249 |
|-----------|----------|

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Packing details

| | |
|-------------------|-------------------|
| Type of packaging | 1000 meter / drum |
| GTIN13 | 4251394668444 |

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.).

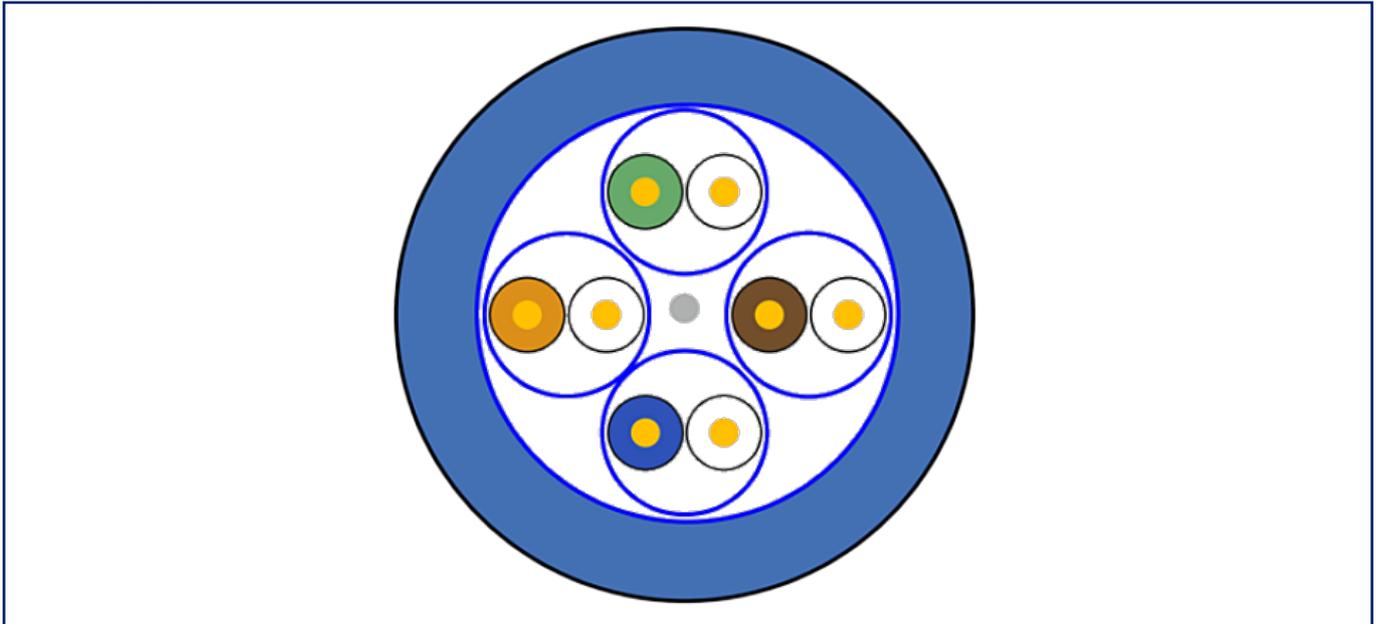
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Elektrische Daten

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_A nach IEC 61156-5 Ed.2

serve de modifications techniques!

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