fiber optic cable series

Hybrid Fibre-Copper Microcable

Composite Fibre-Optic and Copper Power Air-Blown Microcable



Air-blown composite optical fibre (2–24F) + DC remote power copper (0.5–2.5 mm²)

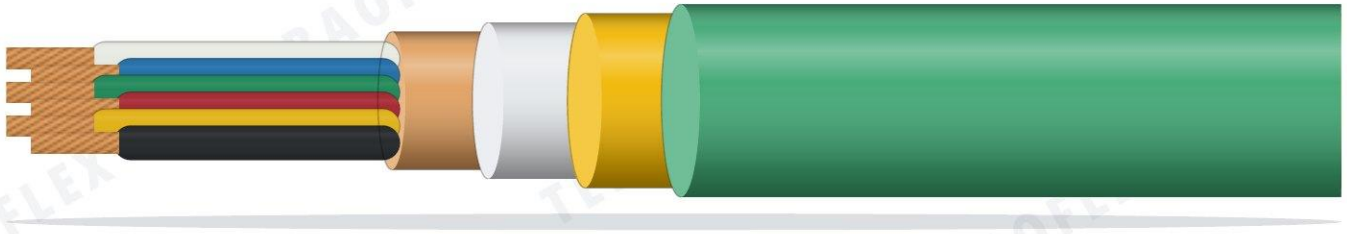
Fibre + Copper Hybrid | **Air-Blown Microcable** | **48 V DC / PoE / Class 2**

Application

Hybrid Fibre-Copper Microcable Composite Fibre-Optic and Copper Power Air-Blown Microcable integrating 2 to 24 ITU-T G.657.A1 single-mode optical fibres and 2 × 0.5 mm² to 2.5 mm² Class 5 stranded copper power conductors inside a low-friction Ø.

Typical uses: 5G Small Cell & DAS Remote Powering, Smart Highway CCTV, Radar & VMS Signs, FTTx Active Optical Network (AON) & PoE, Airport, Port & Campus Perimeter Wi-Fi/PTZ, Rail & Tunnel Emergency IoT Nodes

Construction





Cross-section, not to scale

1	Copper power conductors + G.657.A1 optical fibres	
2	Power core XLPE/PE insulation & optical micro-tube	300 V rating & thermal isolation up to +70 °C
3	Aramid / glass yarn & dry water-blocking bed	
4	Low-friction HDPE or flame-retardant LSZH sheath	

Technical data

Typical values

Copper cross-sections	2 × 0.50 mm² · 2 × 0.75 mm² · 2 × 1.50 mm² · 2 × 2.50 mm²	Max. DC resistance @ 20 °C	39.0 Ω/km (0.5) · 26.0 Ω/km (0.75) · 13.3 Ω/km (1.5) · 7.98 Ω/km (2.5)
Nominal voltage rating	300 V DC / AC rms (48 V SELV / ±190 V RFT Class 2)	Dielectric test voltage	1,500 V AC rms for 1 min
Operating temperature	-30 °C to +70 °C	Installation (blowing) temp.	-10 °C to +50 °C
Storage temperature	-40 °C to +70 °C	Outer diameter range	4.8 mm (2×0.5 + 4F) to 7.8 mm (2×2.5 + 24F)
Max. pulling / blowing load	600 N to 1,400 N	Crush resistance	1,000 N / 100 mm
Min. bend radius	15 × OD (static) · 20 × OD (installation)	Optical fibre type	ITU-T G.657.A1 bend-insensitive SM (2 to 24 fibres)
Attenuation @ 1310 / 1550 nm	≤ 0.35 dB/km @ 1310 nm · ≤ 0.21 dB/km @ 1550 nm	Macro-bend loss	≤ 0.2 dB (10 turns @ R = 15 mm, 1550 nm)
Water penetration	IEC 60794-1-22 Method F5B pass	Flame option (LSZH)	IEC 60332-1-2 & IEC 60332-3-24 Cat C
Microduct blowing	Up to 1,000–1,200 m per blowing shot	Standards	IEC 60794-5-10 & IEC 60228 Class 5

Sizes

5 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Copper + optical compliment	Outer Ø mm	Weight ≈ kg/km	Cu DC R Ω/km	Min. duct ID mm
Composite Copper Power + G.657.A1 Optical Microcables 5 sizes					
☐ Hybrid Fibre-Copper Microcable 2×0.5+04F	2 × 0.50 mm² Cu + 4F G.657.A1	4.8	28	39.00	8.0
☐ Hybrid Fibre-Copper Microcable 2×0.75+12F	2 × 0.75 mm² Cu + 12F G.657.A1	5.5	38	26.00	8.0
☐ Hybrid Fibre-Copper Microcable 2×1.5+12F	2 × 1.50 mm² Cu + 12F G.657.A1	6.4	56	13.30	10.0
☐ Hybrid Fibre-Copper Microcable 2×2.5+12F	2 × 2.50 mm² Cu + 12F G.657.A1	7.5	82	7.98	10.0
☐ Hybrid Fibre-Copper Microcable 2×2.5+24F	2 × 2.50 mm² Cu + 24F G.657.A1	7.8	88	7.98	12.0

– At 56 V DC remote feed, 2 × 2.5 mm² delivers 100 W at up to 450 m or 60 W at up to 750 m.

Standards and approvals

- IEC 60794-5-10 & IEC 60228
- ITU-T G.657.A1 & IEC 62368-1
- RoHS 2 & REACH Compliant

Certifications

Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone
+86 185 9591 3361

Email
info@tebaoflex.com

Web
tebaoflex.com/cables/siroccohybrid-composite-fibre-optic-and-copper-power-air-blown-microcable

Typical values for this cable type, based on IEC 60794-5-10 / IEC 60228 / ITU-T G.657.A1. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.