TDS | 300/500 V | 600/1000 V | COPPER CONDUCTORS

Low-voltage cables
Power, instrumentation and control

Technical specification prepared for INTRAHAUS ENGINEERING SDN. BHD.
Attention: Zahirah · Skudai, Johor, Malaysia

FC-TDS-MY-INTRAHAUS-2026-01 · Revision F · 18 November 2026

Enquiry schedule

Item	Cable designation	Cores × mm²	U₀/U (V)	Length
1.a	CU(F)-PVC+FR+AT+AR	1 × 70	600/1000	50 m
1.b	CU(F)-PVC+FR+AT+AR	1 × 95	600/1000	50 m
1.c	CU(F)-PVC+FR+AT+AR	1 × 110	600/1000	50 m
1.d	CU(F)-PVC+FR+AT+AR	1 × 125	600/1000	50 m
2	CU-XLPE/OSCR/LSOH+AT+AR	2 × 0.5	300/500	50 m
3	CU(F)-EPR/TRS	3 × 2.5	600/1000	500 m
4	CU-XLPE/TCWB/PVC+FR+AT+AR	8 × 0.5	600/1000	500 m

7
Enquiry items

4
Cable constructions

1,250 m
Total cable length

7.5–23 mm
Estimated OD range

Construction and application

Single-core power cable

Flexible copper for single-core power connections. The four sizes share one proposed layer sequence.

Screened instrumentation cable

Two XLPE-insulated cores share an overall screen. The drain provides a termination point for the foil.

Flexible rubber power cable

An EPR-insulated three-core assembly inside a tough rubber sheath for flexible power connections.

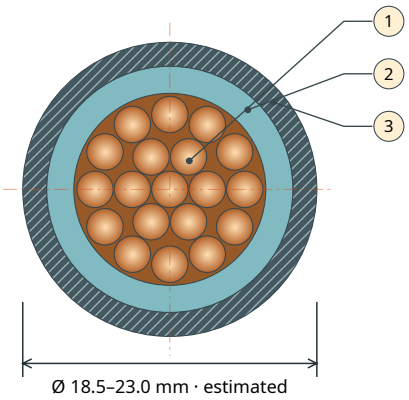
Braid-screened control cable

Eight XLPE-insulated cores under a common tinned copper braid for multicore control circuits.

© 2026 Anhui FeiChun Special Cable Co., Ltd. · feichuncables.com

Item 1.a–1.d / Single-core power cable

CU(F)-PVC+FR+AT+AR · 600/1000 V



MY–XS–01 | REV F | TRANSVERSE SECTION · NTS

Pos.	Layer / material
1	Flexible copper conductor
2	PVC insulation
3	PVC sheath (proposed)

The separate PVC jacket is the basis for the diameter estimate. Insulation and sheath thicknesses vary with conductor size.

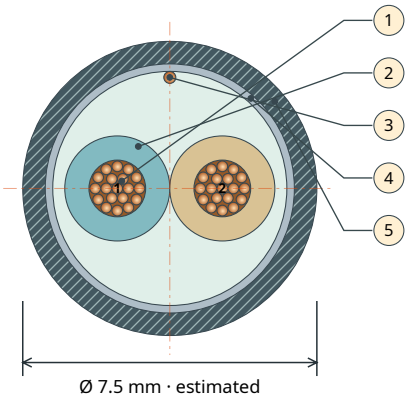
Nominal build

Flexible copper, proposed Class 5 · PVC · 1.4 / 1.6 / 1.6 / 1.6 mm · PVC · 1.6 / 1.6 / 1.8 / 1.8 mm

Item	Cores × mm²	Est. OD (mm)	Est. mass (kg/m)	Length (m)
1.a	1 × 70	18.5	0.90	50
1.b	1 × 95	20.5	1.17	50
1.c	1 × 110	22.0	1.33	50
1.d	1 × 125	23.0	1.48	50

Item 2 / Screened instrumentation cable

CU-XLPE/OSCR/LSOH+AT+AR · 300/500 V



MY–XS–02 | REV F | TRANSVERSE SECTION · NTS

Pos.	Layer / material
1	Copper conductor
2	XLPE insulation
3	Drain wire (proposed)
4	Overall foil screen (proposed)
5	LSOH sheath

The foil surrounds both insulated cores. The drain wire lies against its conductive face under the LSOH sheath.

Nominal build

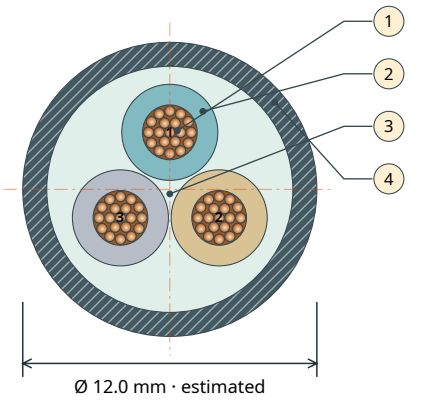
Stranded copper · XLPE · 0.5 mm · LSOH · 1.0 mm

Item	Cores × mm²	Est. OD (mm)	Est. mass (kg/m)	Length (m)
2	2 × 0.5	7.5	0.09	50

© 2026 Anhui FeiChun Special Cable Co., Ltd. · feichuncables.com

Item 3 / Flexible rubber power cable

CU(F)-EPR/TRS · 600/1000 V



MY–XS–03 | REV F | TRANSVERSE SECTION · NTS

Pos.	Layer / material
1	Flexible copper conductor
2	EPR insulation
3	Interstices / filler
4	Tough rubber sheath

Three insulated cores are laid up together. Filler may be used between the cores to support a round TRS sheath.

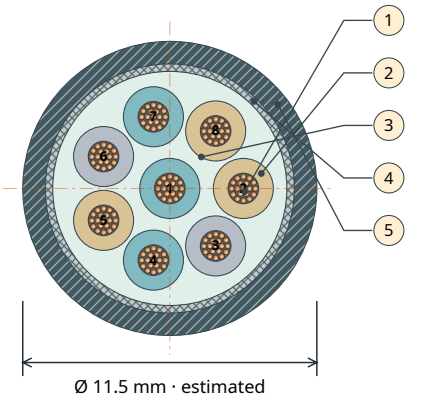
Nominal build

Flexible copper, proposed Class 5 · EPR · 0.8 mm · TRS · 1.4 mm

Item	Cores × mm²	Est. OD (mm)	Est. mass (kg/m)	Length (m)
3	3 × 2.5	12.0	0.22	500

Item 4 / Braid-screened control cable

CU-XLPE/TCWB/PVC+FR+AT+AR · 600/1000 V



MY–XS–04 | REV F | TRANSVERSE SECTION · NTS

Pos.	Layer / material
1	Copper conductor
2	XLPE insulation
3	Interstices / filler
4	Tinned copper wire braid
5	PVC sheath

The braid surrounds the complete laid-up assembly. Its coverage and the termination method are subject to project approval.

Nominal build

Stranded copper · XLPE · 0.5 mm · PVC · 1.2 mm

Item	Cores × mm²	Est. OD (mm)	Est. mass (kg/m)	Length (m)
4	8 × 0.5	11.5	0.20	500

© 2026 Anhui FeiChun Special Cable Co., Ltd. · feichuncables.com

Operating parameters

Parameter	Engineering basis
Conductor temperature	Continuous design targets are 70 °C for PVC insulation and 90 °C for XLPE and EPR. The approved compound and termination ratings govern service temperature.
Bending radius	Allow 6 × estimated OD for preliminary fixed-installation planning. Flexible duty requires the operating radius and movement cycle.
Protection suffixes	FR is interpreted as flame retardant, AT as anti-termite and AR as anti-rodent. The purchaser specifies the required test method and acceptance criteria.

Inspection and tests

Characteristic	Proposed verification
Conductor	Check continuity, core identification and DC resistance at 20 °C against the agreed conductor specification. Agree resistance limits for 110 and 125 mm².
Finished cable	Measure OD, wall thickness and mass per metre. Agree the voltage withstand test against the applicable product specification.
Flame behaviour	Items 1 and 4 · IEC 60332-1-2 proposed for single-cable flame propagation.
LSOH sheath	Item 2 · Agree smoke density and halogen gas criteria under IEC 61034-2 and IEC 60754, as applicable.

Cable identification and packing

Sheath marking

Proposed legend includes FEICHUN, cable construction, voltage, conductor size and metre mark.

Reel identification

Identify each length by RFQ item, cable size, measured length and batch. Record gross mass and drum dimensions after packing.

Engineering basis. The 110 and 125 mm² conductor sizes follow the enquiry. Diameter, mass and layer thicknesses are estimates for the proposed construction. Final values follow design approval.

ANHUI FEICHUN SPECIAL CABLE CO., LTD.

Technical enquiries · Tech@feichuncables.com · +86 138 5512 3218

© 2026 Anhui FeiChun Special Cable Co., Ltd. · feichuncables.com