

Seven-Strand CTC

Continuously transposed copper conductor
Technical parameters | Reference configuration

Conductor dimensions and material

Strand count	7
Bare strand dimensions, b1 × h1	1.81 × 5.20 mm
Total copper cross-section	63.35 mm²
Nominal finished dimensions, radial × axial	8.20 × 11.00 mm
Minimum 0.2% proof stress, Rp0.2	169 N/mm²
Copper material options	Cu-ETP / Cu-OF / Cu-OFE

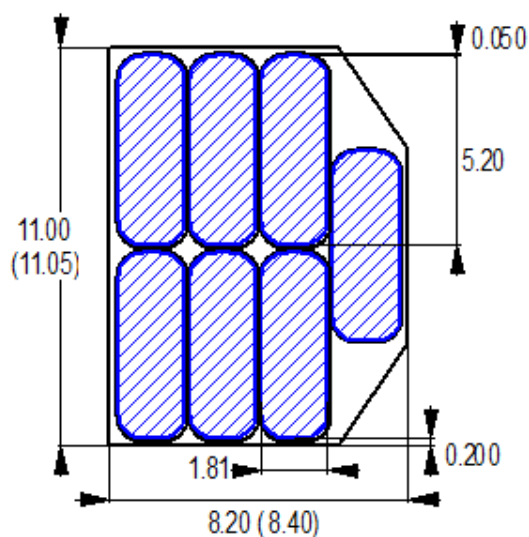
Insulation specifications

Enamel thermal class	200°C (Class N)
Enamel system	Polyamide-imide (PAI), or polyester-imide (PEI) with PAI overcoat
PAI overcoat proportion	≥20% of total varnish thickness for the overcoated system
Outer paper - reference configuration	Metastar YT510
Alternative paper, subject to specification approval	Nomex 410
Paper insulation thickness tolerance	±5%
Enamel thickness parameter, ten	0.10 mm; tolerance +0.02 / -0.01 mm
Outer insulation parameter, Tpo	0.40 mm
Paper wrapping	Two layers interleaved 45-55%
Epoxy application	Broad faces
Epoxy material	19227MC70 or approved equivalent
Epoxy thickness	0.04 ±0.01 mm
Specified epoxy shear strength	≥6 MPa at 120°C

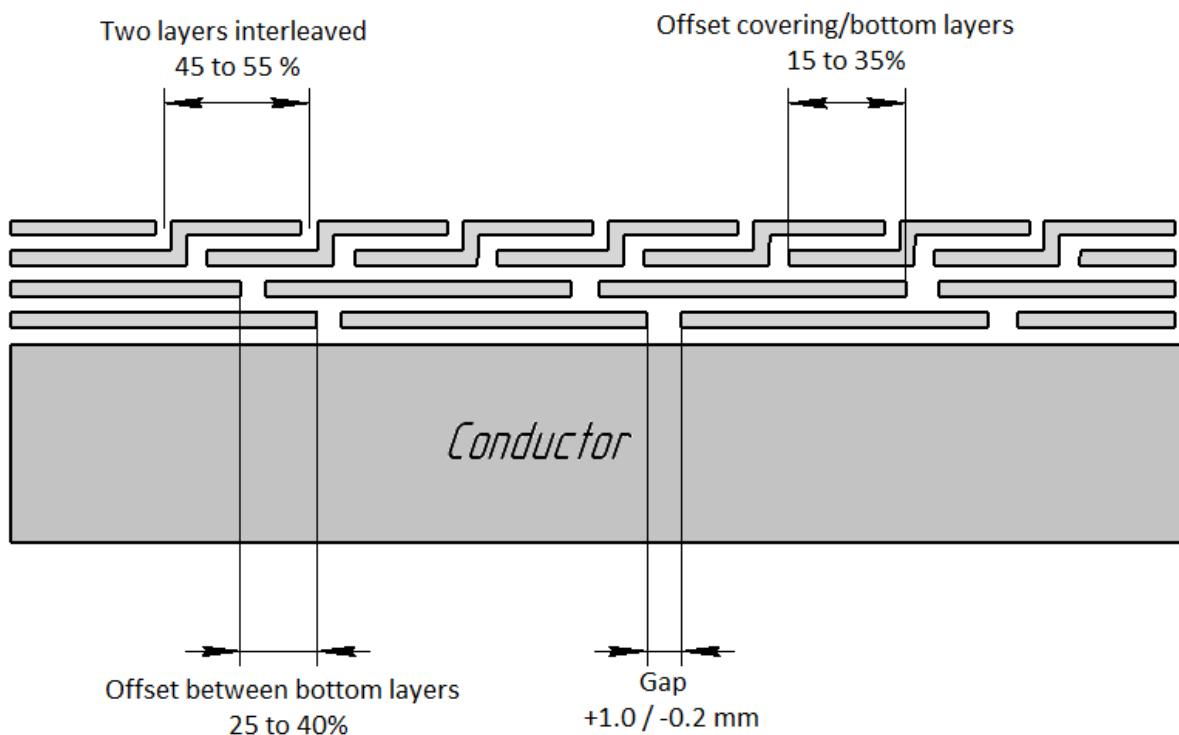
Seven-Strand CTC

Dimensional drawing and insulation structure

Conductor cross-section | Dimensions in mm



Paper insulation structure



Five-Strand CTC

Continuously transposed copper conductor
Technical parameters | Reference configuration

Conductor dimensions and material

Strand count	5
Bare strand dimensions, b1 × h1	1.50 × 8.70 mm
Total copper cross-section	64.18 mm²
Nominal finished dimensions, radial × axial	5.20 × 18.00 mm
Minimum 0.2% proof stress, Rp0.2	150 N/mm²
Copper material options	Cu-ETP / Cu-OF / Cu-OFE

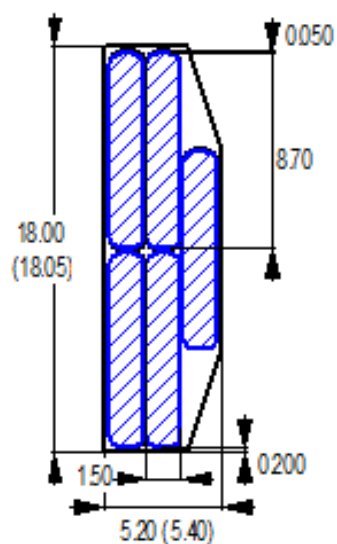
Insulation specifications

Enamel thermal class	200°C (Class N)
Enamel system	Polyamide-imide (PAI), or polyester-imide (PEI) with PAI overcoat
PAI overcoat proportion	≥20% of total varnish thickness for the overcoated system
Outer paper - reference configuration	Metastar YT510
Alternative paper, subject to specification approval	Nomex 410
Paper insulation thickness tolerance	±5%
Enamel thickness parameter, ten	0.10 mm; tolerance +0.02 / -0.01 mm
Outer insulation parameter, Tpo	0.40 mm
Paper wrapping	Two layers interleaved 45-55%
Epoxy	Not specified for this reference configuration

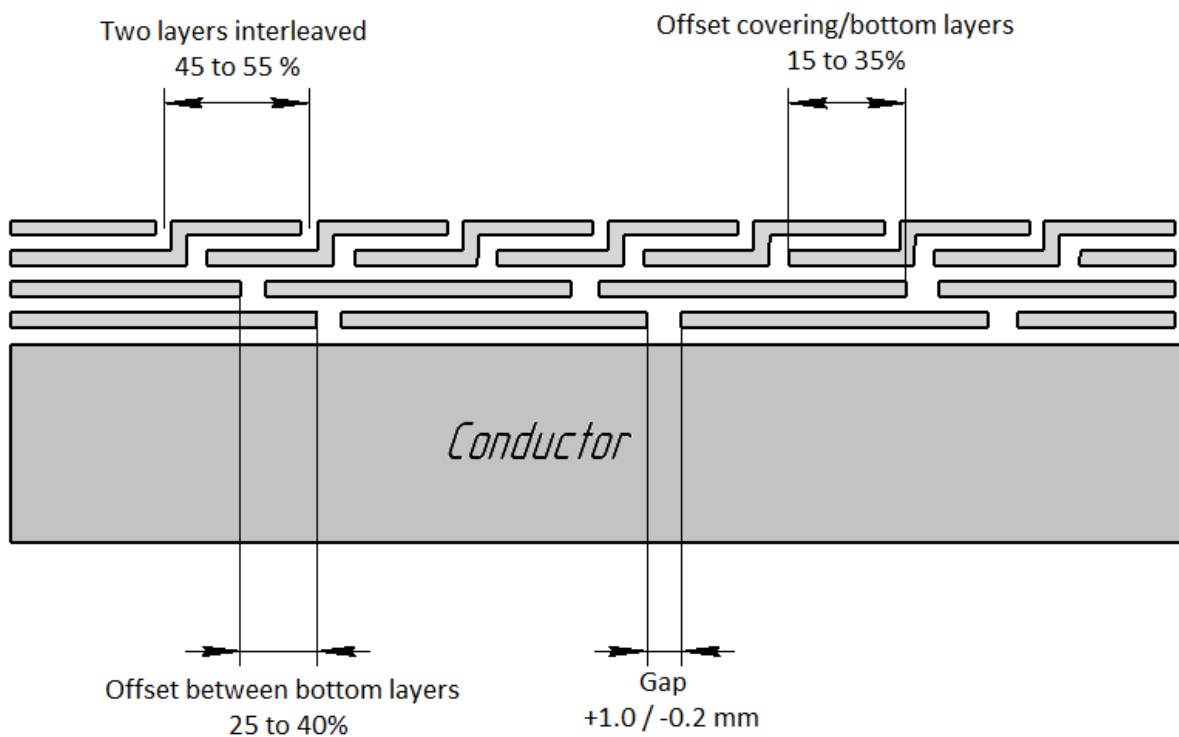
Five-Strand CTC

Dimensional drawing and insulation structure

Conductor cross-section | Dimensions in mm



Paper insulation structure



Paper-Covered Round Copper Wire

Enameled single conductor with external paper insulation

Technical parameters | Reference configuration

Conductor dimensions and material

Strand count	1
Bare conductor diameter	2.24 mm
Copper cross-section	3.94 mm ²
Nominal finished diameter	2.517 mm
Minimum 0.2% proof stress, Rp0.2	120 N/mm ²
Copper material options	Cu-ETP / Cu-OF / Cu-OFE

Insulation specifications

Enamel thermal class	200°C (Class N)
Enamel system	Polyamide-imide (PAI), or polyester-imide (PEI) with PAI overcoat
PAI overcoat proportion	≥20% of total varnish thickness for the overcoated system
Outer paper - reference configuration	Metastar YT510
Alternative paper, subject to specification approval	Nomex 410
Paper insulation thickness tolerance	±5%
Enamel thickness parameter, ten	0.077 mm
Enamel tolerance reference	IEC 60317-0-1, Grade 2
Outer insulation parameter, Tpo	0.20 mm
Paper wrapping	One layer interleaved 50 ±5%