

## Syntex<sup>®</sup> 155

### Description

Syntex<sup>®</sup> 155 is a flexible low voltage lead-out cable consisting of one cable made of bare or tinned wires and coated with a multi-layer insulation. The multi-layer insulation consists of braided acetate silk with an additional polyester film which is counterwound and has approx. 40% overlapping with Nomex<sup>®</sup> paper. Finally, it is braided with a polyester filament yarn and coated with polyurethane.

### Properties

Syntex<sup>®</sup> 155 achieves thermal class F (155 °C) and provides excellent thermal resistance, even for short-term thermal overload, due to its textile insulation. In addition to its high abrasion resistance, this type of insulation also offers excellent dielectric strength. Cable skinning occurs mechanically. Syntex<sup>®</sup> 155 is halogen and silicone free.  
0.25 - 2.50 mm<sup>2</sup> with acetate silk braiding  
4.00 - 95.00 mm<sup>2</sup> without braiding

### Application

Syntex<sup>®</sup> 155 is used as a connection cable in high-quality electric motor and transformer applications under permanent high thermal and mechanical stress.

It also offers sufficient safety for applications with permanent high thermal stress in apparatus, machine and plant engineering.

### Standards

VDE 0295 / IEC 60228, class 5  
RoHS compliant according to 2002/95 EC

Syntex<sup>®</sup> is a registered trademark of Synflex

The information on this data sheet is based on the information provided by our supplier. It is offered for service purposes and addressed to experts who use it at their own discretion and at their own risk. We do not guarantee results, or accept liability for the indicated specifications or for results obtained based on the specifications.

Updated 02/08

## Syntex<sup>®</sup> 155

### Conductor

Tinned copper wire VDE 0295 / IEC 60228 class 5.

Semi-concentric cable made of bare or tinned wires.

The dimensions specified in the technical datasheet are regarded as standard values. The actual cross sections may vary. The cables are manufactured according to European standards with a metric conductor cross section.

Always observe relevant standards valid for divergent operating conditions when laying for greater limit current loads.

### Colour

White is the standard colour as well as plain red, green, blue and black  
0.25 - 6.00 mm<sup>2</sup> white also with yellow, green, red, blue, black, violet or grey tracer.  
Above 50.0 mm<sup>2</sup> only available in white.

### Delivery format

Conductor cross section mm <sup>2</sup>	Format length in a ring
0.25 - 0.50	200 m
0.75 - 4.00	100 m
6.00 - 35.00	50 m
50.0 - 95.00	25 m

Other cross sections available on request.

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### Technical data

Thermal	Thermal class	F
	Temperature range	- 40 to + 155 °C
	Thermal pressure	Approx. 20%
Electrical	Operating voltage	Max. 800 V
	Testing voltage	4.0 kV (sinus/50Hz/2 min)
	Insulation resistance	≥ 200 MΩ x km
Mechanical	Bend radius	≥ 4 x outer diameter
Chemical	Insulation	Layer insulation according to description
	Resistance	Resistant to all common impregnants Resistant to oil

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### Dimensions

Nominal cross section [mm <sup>2</sup> ]	Strands x diameter [standard values]	Cu weight [kg/100m]	Outer diameter [mm]
0.25	14 x 0.15	0.25	1.70
0.50	16 x 0.20	0.50	1.90
0.75	24 x 0.20	0.75	2.20
1.00	32 x 0.20	1.00	2.35
1.50	30 x 0.25	1.50	2.60
2.50	50 x 0.25	2.50	3.00
4.00	56 x 0.30	4.00	4.00
6.00	84 x 0.30	6.00	4.90
10.00	80 x 0.40	10.00	5.80
16.00	126 x 0.40	16.00	7.00
25.00	196 x 0.40	25.00	8.50
35.00	280 x 0.40	35.00	10.20
50.00	399 x 0.40	50.00	11.70
70.00	560 x 0.40	70.00	14.00
95.00	483 x 0.50	95.00	16.00

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