



DAFIBRE 180

Rectangular glass-fibre covered conductor of copper, class 180

Product name:

Dafibre 180

Properties:

- Good resistance to mechanical stress
- Heat resistant

Specifications:

IEC 60317-32 or customer specification

Field of application:

- Dry-type transformers
- Electric motors
- Magnet coils
- Generators

UL approval:

Not approved

Class: 180

Temperature index $\geq 180^{\circ}\text{C}$ acc. to experience

Heat shock: $\geq 180^{\circ}\text{C}$

Standard packaging:

Drum 500 and 630

Conductor material

Cu according to EN 1977/ASTM B49

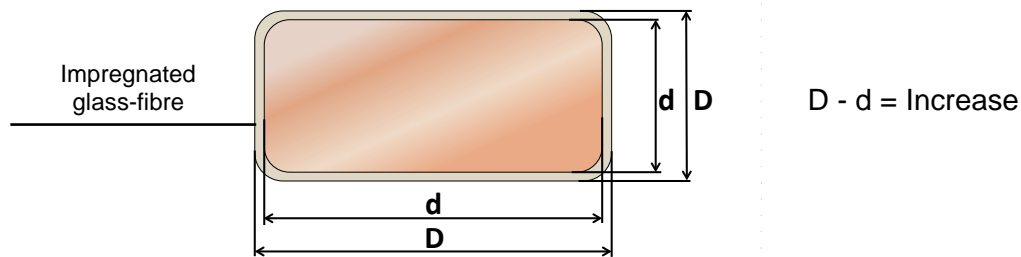
Shelf life:

5 years, under normal ambient conditions

Insulation:

1-3 layers of glass-fibre yarn

Impregnation: Polyesterimide



Conductor tolerances

Nominal width or thickness of the conductor (mm)		Tolerance +/- (mm)
Over	Up to and including	
-	3,15	0,030
3,15	6,30	0,050
6,30	12,50	0,070
12,50	-	0,100

Conductor corner radius

Nominal thickness of conductor (mm)		Corner radius (mm)	Tolerance
Over	Up to and including		
-	1,00	0,5 nominal thickness	+/- 25%
1,00	1,60	0,50	+/- 25%
1,60	2,24	0,65	+/- 25%
2,24	3,55	0,80	+/- 25%
3,55	-	1,00	+/- 25%

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Insulation increase

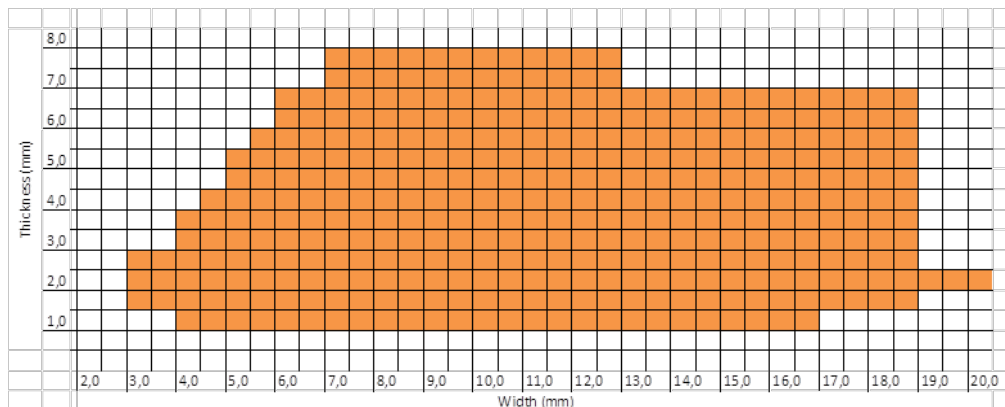
Designation	Nominal width of conductor	Increase in thickness	Increase in width
Dafibre 180 1	$2,00 \leq W \leq 3,15$	$0,16 \pm 0,04$	max. 0,20
	$3,15 < W \leq 6,30$	$0,18 \pm 0,04$	max. 0,22
	$6,30 < W \leq 12,50$	$0,21 \pm 0,05$	max. 0,26
	$12,50 < W \leq 20,50$	$0,24 \pm 0,06$	max. 0,30
Dafibre 180 2	$2,00 \leq W \leq 3,15$	$0,27 \pm 0,06$	max. 0,33
	$3,15 < W \leq 6,30$	$0,30 \pm 0,07$	max. 0,37
	$6,30 < W \leq 12,50$	$0,35 \pm 0,08$	max. 0,43
	$12,50 < W \leq 20,50$	$0,39 \pm 0,08$	max. 0,47
Dafibre 180 3	$2,00 \leq W \leq 3,15$	$0,44 \pm 0,09$	max. 0,53
	$3,15 < W \leq 6,30$	$0,46 \pm 0,09$	max. 0,55
	$6,30 < W \leq 12,50$	$0,50 \pm 0,11$	max. 0,61
	$12,50 < W \leq 20,50$	$0,64 \pm 0,14$	max. 0,78

PROPERTIES OF DAFIBRE 180

Main characteristics	Test method	Interval	Acceptance criteria
Electrical properties			
Conductor resistance	IEC 60851 - 5.3	1)	$0,01709 \Omega \text{mm}^2/\text{m}$
Conductivity	1/R	1)	$> 58 \text{ m}/(\Omega \text{mm}^2)$
Breakdown voltage	IEC 60851 - 5.4	All sizes	350 V
- Dafibre 180 1			560 V
- Dafibre 180 2			900 V
- Dafibre 180 3			
Mechanical properties			
Elongation	IEC 60851-3.3	$1,00 \leq T \leq 2,50$	$\geq 30\%$
		$T > 2,50$	$\geq 32\%$
Springback angle	IEC 60851-3.4	All sizes	$\leq 5,5^\circ$
Flexibility	IEC 60851-3.5	$W \leq 8 \text{ mm}$	10 x width
- Bending edgewise		$W > 8 \text{ mm}$	15 x width
- Bending flatwise		All sizes	10 x thickness
Adherence	IEC 60851-3.5	All sizes	10 % stretch, no loss of adhesion
-Stretch			

1. Dependence of dimension is expressed by the unit

Dimension range



The technical data included is up to date at the time of printing.

LWW reserve the right to make any amendments deemed necessary

Liljedahl Winding Wire

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