



DAFIBRE 180

Rectangular conductor of copper, covered with glassfibre yarn, class 180

Product name:

- Dafibre 180 1
- Dafibre 180 2
- Dafibre 180 3

Specifications:

IEC 60317-31 or customer specification

UL approval:

Not approved

Class: 180

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

Heat shock: $\geq 200^{\circ}\text{C}$

Insulation:

- 1-3 layers of glass-fibre yarn
- Impregnation: Polyesterimide

Properties:

- Excellent resistance to mechanical stress

Field of application:

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

Standard packaging:

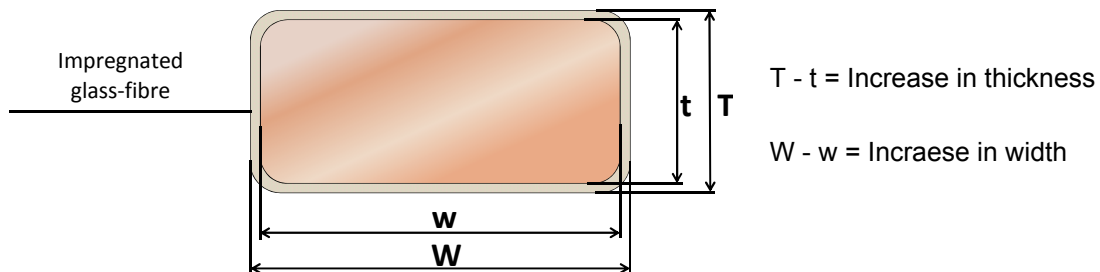
K500, VM630

Shelf life:

5 years, under normal ambient conditions

Conductor material

- EN 1977 - ETP1 CW003 A
- EN 1977 - ETP CW004A
- ASTM B49 - ETP C11000/C11040



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%

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

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Insulation increase

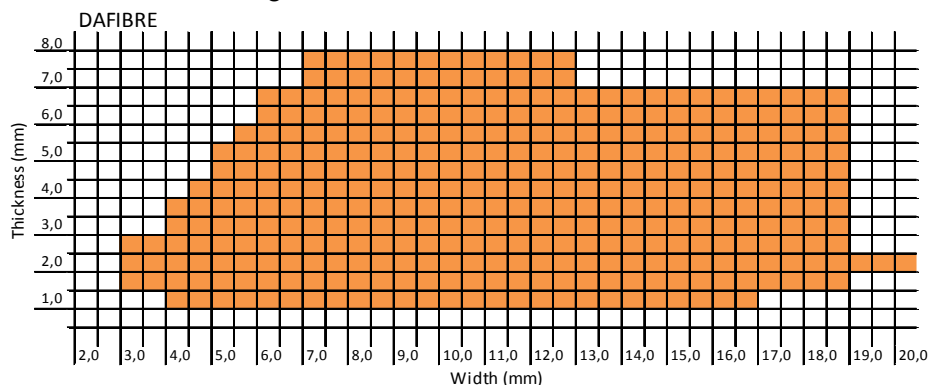
Designation	Nominal width of conductor	Increase in thickness	Increase in width
Dafibre 180 1	$2,00 \leq w \leq 3,15$	$0,16 \pm 0,04$	max. 0,20
	$3,15 < w \leq 6,30$	$0,18 \pm 0,04$	max. 0,22
	$6,30 < w \leq 12,50$	$0,21 \pm 0,05$	max. 0,26
	$12,50 < w \leq 20,50$	$0,24 \pm 0,06$	max. 0,30
Dafibre 180 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 for DAFIBRE 180

Main characteristics	Test method	Interval	Acceptance criteria
Electrical properties			
Conductor resistance	IEC 60851 - 5.3	1)	$0,01724 \Omega \text{mm}^2/\text{m}$
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			750 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 reserves the right to make any amendments deemed necessary

Ed.A(3)

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