



DAFIBRE EP 180

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

Product name:

Dafibre EP 180 1

Dafibre EP 180 2

Specifications:

Internal LWW 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- 2 layers of glass-fibre yarn

Impregnation: Polyesterimide

Adhesive layer: Epoxy

Properties:

- Excellent resistance to mechanical stress
- B-stage cured epoxy layer allows pre-pressing of windings

Field of application:

- Stator coils
- Large generators
- Electric motors

Standard packaging:

K500, VM630

Shelf life:

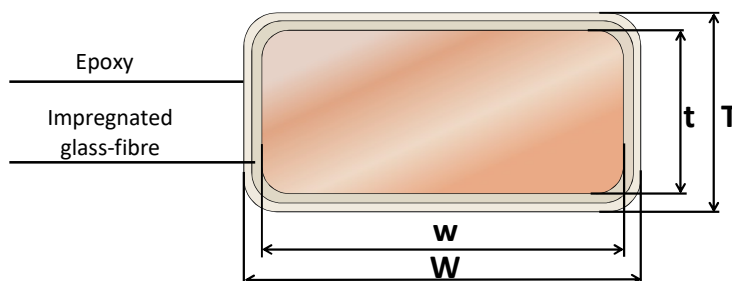
6 month, under normal ambient conditions

Conductor material

EN 1977 - ETP1 CW003 A

EN 1977 - ETP CW004A

ASTM B49 - ETP C11000/C11040



$T - t =$ Increase in thickness

$W - w =$ Increase in width

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

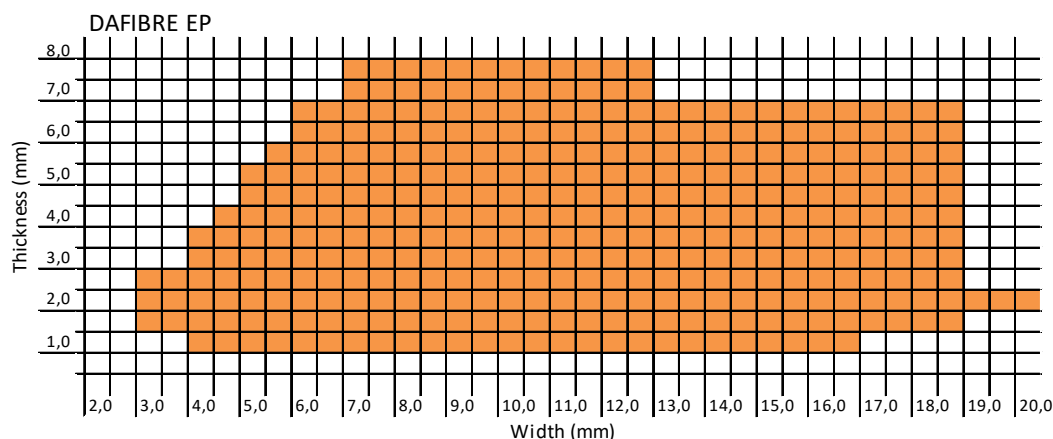
Designation	Nominal width of conductor	Increase in thickness	Increase in width
Dafibre EP 180 1	$2,00 \leq w \leq 3,15$	$0,16 \pm 0,04$	max. 0,20
	$3,15 < w \leq 6,30$	$0,18 \pm 0,04$	max. 0,22
	$6,30 < w \leq 12,50$	$0,21 \pm 0,05$	max. 0,26
	$12,50 < w \leq 20,50$	$0,24 \pm 0,06$	max. 0,30
Dafibre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

Properties for DAFIBRE EP 180

Main characteristics	Test method	Interval	Acceptance criteria
<u>Electrical properties</u>			
Conductor resistance	IEC 60851 - 5.3	1)	0,01724 Ωmm²/m
Conductivity	1/R	1)	> 58 m/(Ωmm²)
Breakdown voltage	IEC 60851 - 5.4	All sizes	350 V
- Dafibre 180 EP 1			560 V
- Dafibre 180 EP 2			560 V
<u>Mechanical properties</u>			
Elongation	IEC 60851-3.3	1,00 ≤ t ≤ 2,50	≥ 30%
		t > 2,50	≥ 32%
Springback angle	IEC 60851-3.4	All sizes	≤ 5,5°
Flexibility	IEC 60851-3.5	w ≤ 8 mm	10 x width
- Bending edgewise		w > 8 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(2)