



DAFIBRE EP 180 AL

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

Product name:

Dafibre EP 180 1 AL
Dafibre EP 180 2 AL

Properties:

- Excellent resistance to mechanical stress
- Suitable in lightweight designs

Specifications:

Internal LWW or customer specification

Field of application:

- Generators
- Large motors
- Magnet coils
- Welding equipment

UL approval:

Not approved

Class: 180

Temperature index $\geq 180^{\circ}\text{C}$ acc. to experience
Heat shock: $\geq 200^{\circ}\text{C}$

Standard packaging:

Drum 500 and 630

Shelf life:

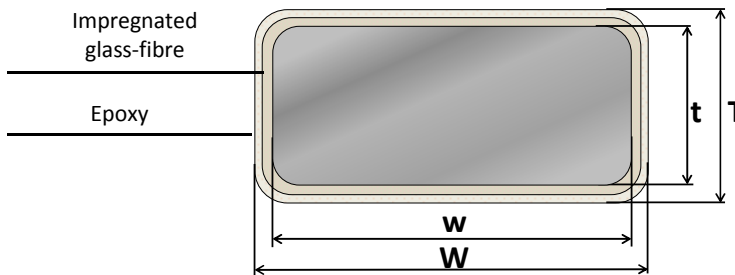
6 month, under normal ambient conditions

Insulation:

1-2 layers of glass-fibre yarn
Impregnation: Polyesterimide
Adhesive layer: Epoxy

Conductor material:

EN 1715 - EN AW1370 [Al 99.7]



$T - t =$ 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

DAFIBRE EP 180 AL

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

Insulation increase

Designation	Nominal width of conductor	Increase in thickness	Increase in width
Damidfibre EP 180 1 AL	$2,00 \leq w \leq 3,15$	$0,30 \pm 0,06$	max. 0,36
	$3,15 < w \leq 6,30$	$0,32 \pm 0,06$	max. 0,38
	$6,30 < w \leq 12,50$	$0,35 \pm 0,07$	max. 0,42
	$12,50 < w \leq 20,50$	$0,38 \pm 0,08$	max. 0,46
Damidfibre EP 180 2 AL ¹⁾	$2,00 \leq w \leq 3,15$	$0,37 \pm 0,06$	max. 0,51
	$3,15 < w \leq 6,30$	$0,37 \pm 0,06$	max. 0,53
	$6,30 < w \leq 12,50$	$0,42 \pm 0,08$	max. 0,57
	$12,50 < w \leq 20,50$	$0,47 \pm 0,08$	max. 0,63

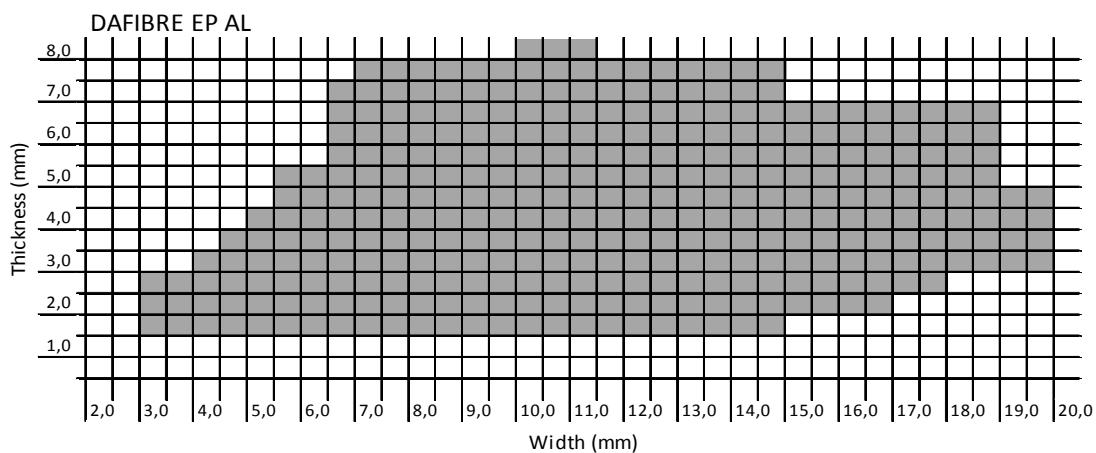
1. Not IEC standard, values modified to suit LWW production process

Properties for DAMIDFIBRE EP 180 AL

Main characteristics	Test method	Interval	Acceptance criteria
Electrical properties			
Conductor resistance	IEC 60851 - 5.3	¹⁾	$0,02817 \Omega \text{mm}^2/\text{m}$
Conductivity	1/R	¹⁾	$> 35,5 \text{ m}/(\Omega \text{mm}^2)$
Breakdown voltage	IEC 60851 - 5.4	All sizes	1,5 kV
- Damidfibre EP 180 1 AL - Damidfibre EP 180 2 AL			2,0 kV
Mechanical properties			
Elongation	IEC 60851-3.3	$t \leq 3,15$	$\geq 15\%$
		$t > 3,15$	$\geq 20\%$
Flexibility	IEC 60851-3.5	All sizes	10 x thickness
- Bending flatwise			
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)

