DAFIBRE 180 AL

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

Product name:
Dafibre 180 1 AL
Dafibre 180 2 AL
Dafibre 180 3 AL

Specifications:
Internal LWW or customer specification

UL approval:
Not approved

Class: 180
Temperature index ≥ 180°C acc. to experience
Heat shock: ≥ 200°C

Insulation:
1-3 layers of glass-fibre yarn
Impregnation: Polysterimide

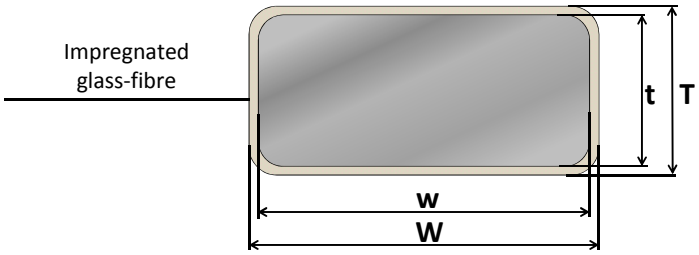
Properties:
- Excellent resistance to mechanical stress
- Suitable in lightweight designs

Field of application:
- Generators
- Large motors
- Magnet coils
- Welding equipment

Standard packaging:
Drum 500 and 630

Shelf life:
5 years, under normal ambient conditions

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

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Insulation increase

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

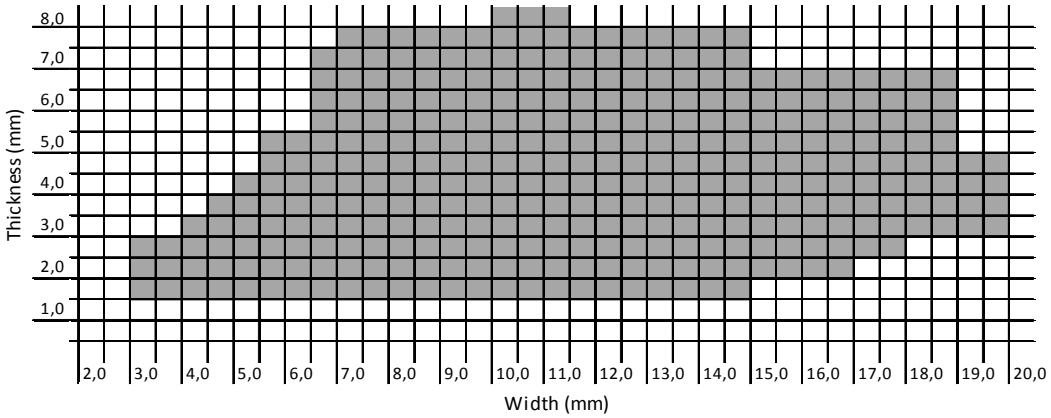
Properties for DAFIBRE 180 AL

Main characteristics	Test method	Interval	Acceptance criteria
Electrical properties			
Conductor resistance	IEC 60851 - 5.3	[1]	0,02817 Ωmm²/m
Conductivity	1/R	[1]	> 35,5 m/(Ωmm²)
Breakdown voltage			
- Dafibre 180 1 AL	IEC 60851 - 5.4	All sizes	350 V
- Dafibre 180 2 AL			560 V
- Dafibre 180 3 AL			750 V
Mechanical properties			
Elongation	IEC 60851-3.3	t ≤ 3,15	≥ 15%
		t > 3,15	≥ 20%
Flexibility - Bending flatwise	IEC 60851-3.5	All sizes	10 x thickness
Adherence -Stretch	IEC 60851-3.5	All sizes	10 % stretch, no loss of adhesion

1. Dependence of dimension is expressed by the unit

Dimension range

DAFIBRE AL



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(4)

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