



# DAFIBRE 155

Rectangular conductor of copper, covered with glassfibre yarn, class 155

**Product name:**

Dafibre 155 1  
 Dafibre 155 2  
 Dafibre 155 3

**Specifications:**

IEC 60317-32 or customer specification

**UL approval:**

Not approved

**Class: 155**

Temperature index  $\geq 155^{\circ}\text{C}$  acc. to experience  
 Heat shock:  $\geq 175^{\circ}\text{C}$

**Insulation:**

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

**Properties:**

- Excellent resistance to mechanical stress

**Field of application:**

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

**Standard packaging:**

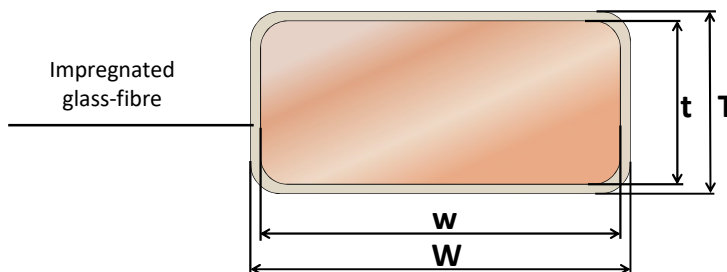
K500, VM630

**Shelf life:**

5 years, under normal ambient conditions

**Conductor material**

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



$T - t =$  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              |

Certified according to ISO 9001, IATF 16949, ISO 14001

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## Insulation increase

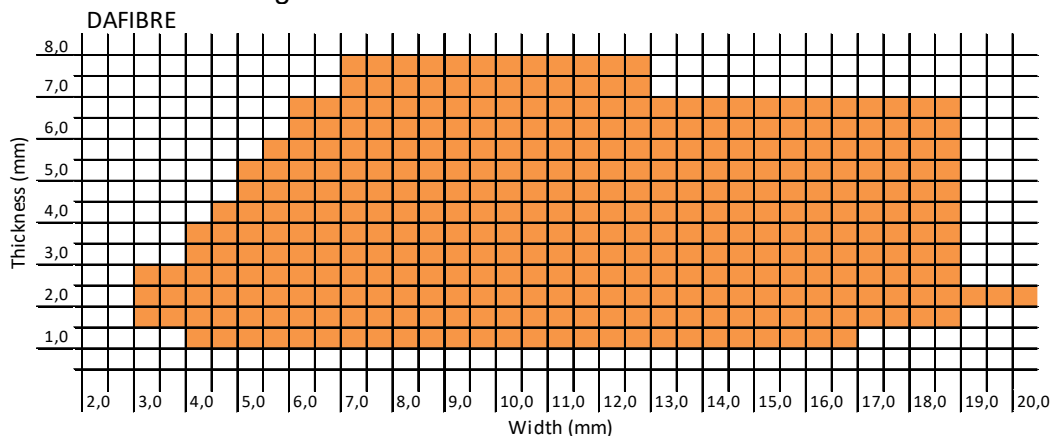
| Designation   | Nominal width of conductor | Increase in thickness | Increase in width |
|---------------|----------------------------|-----------------------|-------------------|
| Dafibre 155 1 | 2,00 ≤ w ≤ 3,15            | 0,16 ± 0,04           | max. 0,20         |
|               | 3,15 < w ≤ 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 155 2 | 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 155 3 | 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 155

| Main characteristics         | Test method     | Interval        | Acceptance criteria               |
|------------------------------|-----------------|-----------------|-----------------------------------|
| <b>Electrical properties</b> |                 |                 |                                   |
| Conductor resistance         | IEC 60851 - 5.3 | 1)              | 0,01724 Ωmm <sup>2</sup> /m       |
| Conductivity                 | 1/R             | 1)              | > 58 m/(Ωmm <sup>2</sup> )        |
| Breakdown voltage            | IEC 60851 - 5.4 | All sizes       | 350 V                             |
| - Dafibre 155 1              |                 |                 | 560 V                             |
| - Dafibre 155 2              |                 |                 | 750 V                             |
| - Dafibre 155 3              |                 |                 |                                   |
| <b>Mechanical properties</b> |                 |                 |                                   |
| 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

Fd. A(3)