



S.T.01.15

TMC ITALIA S.p.A. Viale Dell'Industria 65 21052 Busto Arsizio (VA) ITALY



# TECHNICAL DATA SHEET 2015

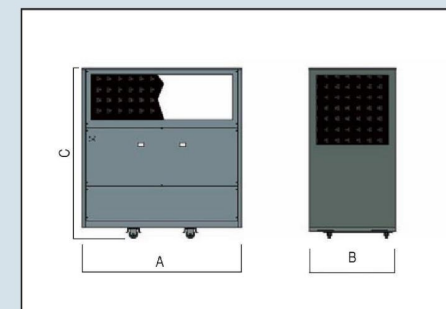
S.T.01.15



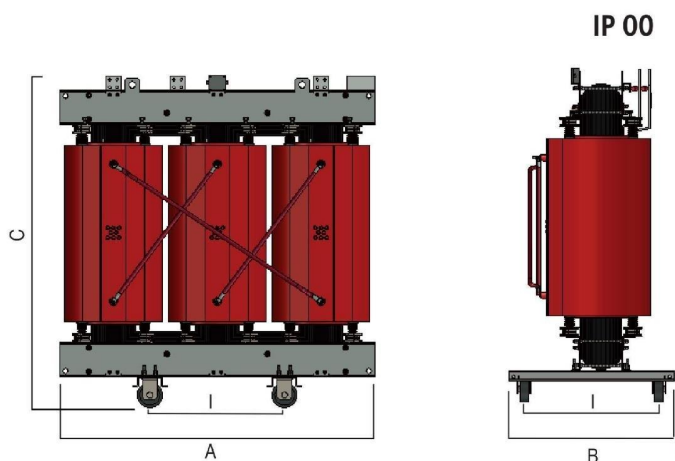
# TMCRES-S (Стандартные потери)

IEC 60076-11 EN 50541-1 Усс 6%

| IP 21-23-31 |        | Ral 7032 |        |        | INSULATION CLASS<br>12 - 17,5 - 24 KV<br><br>INSULATION CLASS<br>36 KV |
|-------------|--------|----------|--------|--------|--|
|             | A [mm] | B [mm]   | C [mm] |        |  |
| Gr.1        | 1850   | 1100     | 1580   | 160 kg |  |
| Gr.2        | 2050   | 1150     | 1980   | 210 kg |  |
| Gr.3        | 2300   | 1250     | 2520   | 270 kg |  |
| Gr.4        | 2500   | 1310     | 2660   | 300 kg |  |
| Gr.5        | 2750   | 1400     | 2960   | 360 kg |  |
| Gr.6        | 2400   | 1400     | 1930   | 250 kg |  |
| Gr.7        | 2600   | 1450     | 2260   | 300 kg |  |
| Gr.8        | 2850   | 1550     | 2550   | 340 kg |  |
| Gr.9        | 3000   | 1600     | 2850   | 400 kg |  |
| Gr.10       | 3300   | 1700     | 3400   | 480 kg |  |



## CAST RESIN transformers



| Power<br>KVA | Класс изоляции | потери              |                          | I <sub>0</sub><br>% | LpA/<br>LwA<br>(dB(A)) | A<br>mm | B<br>mm | C<br>mm | I<br>mm | Kg   | Box<br>Gr. |
|--------------|----------------|---------------------|--------------------------|---------------------|------------------------|---------|---------|---------|---------|------|------------|
|              |                | P <sub>0</sub><br>W | P <sub>k</sub> 120°<br>W |                     |                        |         |         |         |         |      |            |
| 100          | 12 kV          | 440                 | 2000                     | 2,2                 | 47/59                  | 1090    | 600     | 1060    | 520     | 550  | 1          |
|              | 17,5-24 kV     | 460                 | 2050                     | 2,2                 | 47/59                  | 1150    | 600     | 1200    | 520     | 630  | 1          |
|              | 36 kV          | -                   | -                        | -                   | -                      | -       | -       | -       | -       | -    | -          |
| 160          | 12 kV          | 610                 | 2700                     | 1,9                 | 50/62                  | 1160    | 600     | 1210    | 520     | 740  | 1          |
|              | 17,5-24 kV     | 650                 | 2900                     | 1,9                 | 50/62                  | 1250    | 600     | 1280    | 520     | 840  | 1          |
|              | 36 kV          | 960                 | 2700                     | 2                   | 53/66                  | 1650    | 600     | 1470    | 520     | 1370 | 6          |
| 250          | 12 kV          | 820                 | 3500                     | 1,5                 | 53/65                  | 1210    | 600     | 1320    | 520     | 930  | 1          |
|              | 17,5-24 kV     | 880                 | 3800                     | 1,5                 | 52/65                  | 1330    | 600     | 1440    | 520     | 1100 | 1          |
|              | 36 kV          | 1280                | 3800                     | 1,9                 | 53/67                  | 1670    | 600     | 1680    | 520     | 1620 | 6          |

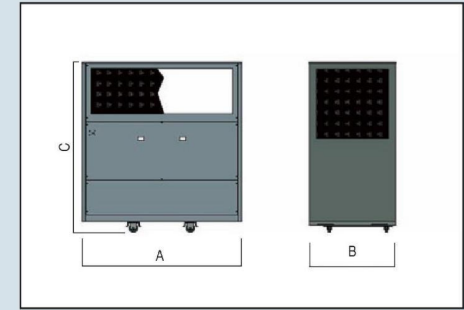
| Power<br>KVA | Класс изоляции | Потери              |                          | I <sub>0</sub><br>% | LpA/<br>LwA<br>(dB(A)) | A<br>mm | B<br>mm | C<br>mm | I<br>mm | Kg   | Box<br>Gr. |
|--------------|----------------|---------------------|--------------------------|---------------------|------------------------|---------|---------|---------|---------|------|------------|
|              |                | P <sub>0</sub><br>W | P <sub>k</sub> 120°<br>W |                     |                        |         |         |         |         |      |            |
| 400          | 12 kV          | 1150                | 4900                     | 1,3                 | 55/68                  | 1360    | 750     | 1460    | 670     | 1300 | 1          |
|              | 17,5-24 kV     | 1200                | 5500                     | 1,3                 | 55/68                  | 1460    | 750     | 1580    | 670     | 1450 | 2          |
|              | 36 kV          | 1650                | 5400                     | 1,6                 | 55/69                  | 1700    | 750     | 1790    | 670     | 1950 | 6          |
| 630          | 12 kV          | 1500                | 7300                     | 1,2                 | 56/70                  | 1430    | 850     | 1630    | 670     | 1800 | 2          |
|              | 17,5-24 kV     | 1650                | 7600                     | 1,2                 | 56/70                  | 1520    | 850     | 1690    | 670     | 1900 | 2          |
|              | 36 kV          | 2200                | 7500                     | 1,5                 | 56/71                  | 1820    | 850     | 2040    | 670     | 2600 | 7          |
| 800          | 12 kV          | 1800                | 9000                     | 1,1                 | 57/71                  | 1510    | 850     | 1800    | 670     | 2100 | 2          |
|              | 17,5-24 kV     | 2000                | 9400                     | 1,1                 | 58/72                  | 1580    | 850     | 1790    | 670     | 2250 | 2          |
|              | 36 kV          | 2700                | 9000                     | 1,2                 | 57/72                  | 1890    | 850     | 2100    | 670     | 3000 | 7          |
| 1000         | 12 kV          | 2100                | 10000                    | 1                   | 59/73                  | 1600    | 1000    | 1860    | 820     | 2500 | 2          |
|              | 17,5-24 kV     | 2300                | 11000                    | 1                   | 59/73                  | 1660    | 1000    | 1910    | 820     | 2600 | 3          |
|              | 36 kV          | 3100                | 11000                    | 0,9                 | 58/73                  | 1910    | 1000    | 2240    | 820     | 3400 | 8          |
| 1250         | 12 kV          | 2500                | 12000                    | 1                   | 61/75                  | 1660    | 1000    | 1980    | 820     | 2900 | 3          |
|              | 17,5-24 kV     | 2800                | 13000                    | 1                   | 60/75                  | 1730    | 1000    | 2030    | 820     | 3150 | 3          |
|              | 36 kV          | 3600                | 13000                    | 0,9                 | 60/75                  | 2030    | 1000    | 2350    | 820     | 4150 | 8          |
| 1600         | 12 kV          | 2800                | 14500                    | 0,9                 | 61/76                  | 1720    | 1000    | 2120    | 820     | 3600 | 3          |
|              | 17,5-24 kV     | 3100                | 16000                    | 0,9                 | 61/76                  | 1790    | 1000    | 2150    | 820     | 3700 | 3          |
|              | 36 kV          | 4200                | 16000                    | 0,8                 | 61/76                  | 2130    | 1000    | 2410    | 820     | 4850 | 8          |
| 2000         | 12 kV          | 3600                | 18000                    | 0,9                 | 63/78                  | 1780    | 1310    | 2370    | 1070    | 4250 | 4          |
|              | 17,5-24 kV     | 4000                | 18000                    | 0,9                 | 63/78                  | 1820    | 1310    | 2420    | 1070    | 4500 | 4          |
|              | 36 kV          | 5000                | 18500                    | 0,8                 | 62/78                  | 2200    | 1310    | 2630    | 1070    | 5900 | 9          |
| 2500         | 12 kV          | 4300                | 21000                    | 0,8                 | 65/81                  | 1930    | 1310    | 2420    | 1070    | 5000 | 4          |
|              | 17,5-24 kV     | 5000                | 23000                    | 0,8                 | 65/81                  | 2060    | 1310    | 2460    | 1070    | 5500 | 4          |
|              | 36 kV          | 5800                | 22500                    | 0,8                 | 65/81                  | 2290    | 1310    | 2730    | 1070    | 6700 | 9          |
| 3150         | 12 kV          | 5300                | 26000                    | 0,7                 | 67/83                  | 2070    | 1310    | 2510    | 1070    | 6150 | 4          |
|              | 17,5-24 kV     | 6000                | 28000                    | 0,7                 | 67/83                  | 2170    | 1310    | 2570    | 1070    | 6800 | 5          |
|              | 36 kV          | 6700                | 27500                    | 0,7                 | 67/83                  | 2400    | 1310    | 2800    | 1070    | 7900 | 10         |

# TMCRES-R (сниженные потери)

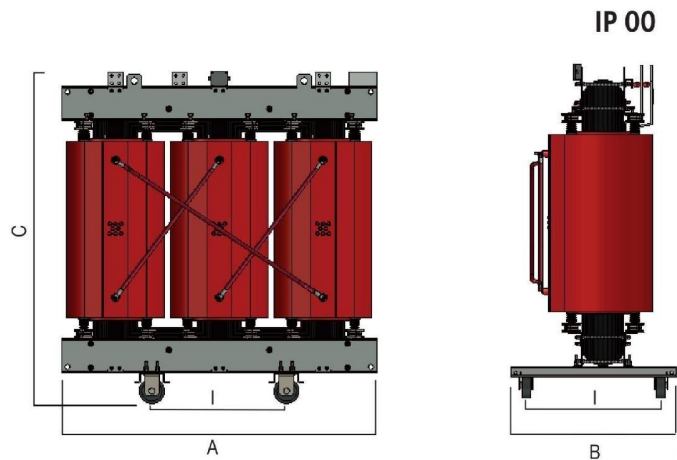
IEC 60076-11 EN 50541-1 Усс 6%

| IP 21-23-31 |        | Ral 7032 |        |        |
|-------------|--------|----------|--------|--------|
|             | A [mm] | B [mm]   | C [mm] |        |
| Gr.1        | 1850   | 1100     | 1580   | 160 kg |
| Gr.2        | 2050   | 1150     | 1980   | 210 kg |
| Gr.3        | 2300   | 1250     | 2520   | 270 kg |
| Gr.4        | 2500   | 1310     | 2660   | 300 kg |
| Gr.5        | 2750   | 1400     | 2960   | 360 kg |
| Gr.6        | 2400   | 1400     | 1930   | 250 kg |
| Gr.7        | 2600   | 1450     | 2260   | 300 kg |
| Gr.8        | 2850   | 1550     | 2550   | 340 kg |
| Gr.9        | 3000   | 1600     | 2850   | 400 kg |
| Gr.10       | 3300   | 1700     | 3400   | 480 kg |

INSULATION CLASS  
12 - 17,5 - 24 KV  
36 KV



## CAST RESIN transformers



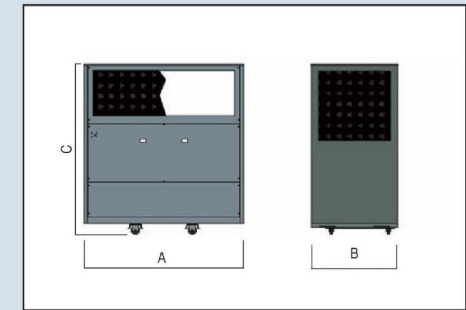
| Power<br>KVA | Класс<br>изоляция | Потери              |                          | I <sub>0</sub><br>% | LpA/<br>LwA<br>(dB(A)) | A<br>mm | B<br>mm | C<br>mm | I<br>mm | Kg   | Box<br>Gr. |
|--------------|-------------------|---------------------|--------------------------|---------------------|------------------------|---------|---------|---------|---------|------|------------|
|              |                   | P <sub>0</sub><br>W | P <sub>k</sub> 120°<br>W |                     |                        |         |         |         |         |      |            |
| 400          | 12 kV             | 880                 | 4900                     | 1,3                 | 47/60                  | 1360    | 750     | 1460    | 670     | 1350 | 1          |
|              | 17,5-24 kV        | 940                 | 5500                     | 1,3                 | 47/60                  | 1460    | 750     | 1580    | 670     | 1550 | 2          |
|              | 36 kV             | 1300                | 5400                     | 1,6                 | 51/65                  | 1700    | 750     | 1790    | 670     | 2100 | 6          |
| 630          | 12 kV             | 1150                | 7300                     | 1,2                 | 48/62                  | 1430    | 850     | 1630    | 670     | 1900 | 2          |
|              | 17,5-24 kV        | 1250                | 7600                     | 1,2                 | 48/62                  | 1520    | 850     | 1690    | 670     | 1950 | 2          |
|              | 36 kV             | 1600                | 7500                     | 1,5                 | 53/68                  | 1820    | 850     | 2040    | 670     | 2950 | 7          |
| 800          | 12 kV             | 1300                | 9000                     | 1,1                 | 51/65                  | 1510    | 850     | 1800    | 670     | 2250 | 2          |
|              | 17,5-24 kV        | 1500                | 9400                     | 1,1                 | 50/64                  | 1580    | 850     | 1790    | 670     | 2350 | 2          |
|              | 36 kV             | 1900                | 9000                     | 1,2                 | 54/69                  | 1890    | 850     | 2100    | 670     | 3350 | 7          |
| 1000         | 12 kV             | 1500                | 10000                    | 1                   | 53/67                  | 1600    | 1000    | 1860    | 820     | 2650 | 2          |
|              | 17,5-24 kV        | 1800                | 11000                    | 1                   | 51/65                  | 1660    | 1000    | 1910    | 820     | 2700 | 3          |
|              | 36 kV             | 2250                | 11000                    | 0,9                 | 55/70                  | 1910    | 1000    | 2240    | 820     | 3700 | 8          |
| 1250         | 12 kV             | 1800                | 12000                    | 1                   | 55/69                  | 1660    | 1000    | 1980    | 820     | 3100 | 3          |
|              | 17,5-24 kV        | 2100                | 13000                    | 1                   | 52/67                  | 1730    | 1000    | 2030    | 820     | 3250 | 3          |
|              | 36 kV             | 2600                | 13000                    | 0,9                 | 57/72                  | 2030    | 1000    | 2350    | 820     | 4550 | 8          |
| 1600         | 12 kV             | 2200                | 14500                    | 0,9                 | 56/71                  | 1720    | 1000    | 2120    | 820     | 3750 | 3          |
|              | 17,5-24 kV        | 2400                | 16000                    | 0,9                 | 53/68                  | 1790    | 1000    | 2150    | 820     | 3850 | 3          |
|              | 36 kV             | 3000                | 16000                    | 0,8                 | 58/73                  | 2130    | 1000    | 2410    | 820     | 5400 | 8          |
| 2000         | 12 kV             | 2600                | 18000                    | 0,9                 | 58/73                  | 1780    | 1310    | 2370    | 1070    | 4450 | 4          |
|              | 17,5-24 kV        | 3000                | 18000                    | 0,9                 | 55/70                  | 1820    | 1310    | 2420    | 1070    | 4650 | 4          |
|              | 36 kV             | 3500                | 18500                    | 0,8                 | 58/74                  | 2200    | 1310    | 2630    | 1070    | 6600 | 9          |
| 2500         | 12 kV             | 3200                | 21000                    | 0,8                 | 59/75                  | 1930    | 1310    | 2420    | 1070    | 5200 | 4          |
|              | 17,5-24 kV        | 3600                | 23000                    | 0,8                 | 55/71                  | 2060    | 1310    | 2460    | 1070    | 5650 | 4          |
|              | 36 kV             | 4200                | 22500                    | 0,8                 | 62/78                  | 2290    | 1310    | 2730    | 1070    | 7500 | 9          |
| 3150         | 12 kV             | 3800                | 26000                    | 0,7                 | 61/77                  | 2070    | 1310    | 2510    | 1070    | 6400 | 4          |
|              | 17,5-24 kV        | 4300                | 28000                    | 0,7                 | 58/74                  | 2170    | 1310    | 2570    | 1070    | 7000 | 5          |
|              | 36 kV             | 5000                | 27500                    | 0,7                 | 65/81                  | 2400    | 1310    | 2800    | 1070    | 8700 | 10         |

| Power<br>KVA | Класс<br>изоляция | Потери              |                          | I <sub>0</sub><br>% | LpA/<br>LwA<br>(dB(A)) | A<br>mm | B<br>mm | C<br>mm | I<br>mm | Kg   | Box<br>Gr. |
|--------------|-------------------|---------------------|--------------------------|---------------------|------------------------|---------|---------|---------|---------|------|------------|
|              |                   | P <sub>0</sub><br>W | P <sub>k</sub> 120°<br>W |                     |                        |         |         |         |         |      |            |
| 100          | 12 kV             | 330                 | 2000                     | 2,2                 | 39/51                  | 1090    | 600     | 1060    | 520     | 580  | 1          |
|              | 17,5-24 kV        | 340                 | 2050                     | 2,2                 | 39/51                  | 1150    | 600     | 1200    | 520     | 670  | 1          |
|              | 36 kV             | -                   | -                        | -                   | -                      | -       | -       | -       | -       | -    | -          |
| 160          | 12 kV             | 450                 | 2700                     | 1,9                 | 42/54                  | 1160    | 600     | 1210    | 520     | 770  | 1          |
|              | 17,5-24 kV        | 480                 | 2900                     | 1,9                 | 42/54                  | 1250    | 600     | 1280    | 520     | 900  | 1          |
|              | 36 kV             | 900                 | 2700                     | 2                   | 49/62                  | 1650    | 600     | 1470    | 520     | 1420 | 6          |
| 250          | 12 kV             | 610                 | 3500                     | 1,5                 | 45/57                  | 1210    | 600     | 1320    | 520     | 960  | 1          |
|              | 17,5-24 kV        | 650                 | 3800                     | 1,5                 | 44/57                  | 1330    | 600     | 1440    | 520     | 1200 | 1          |
|              | 36 kV             | 1100                | 3800                     | 1,9                 | 50/64                  | 1670    | 600     | 1680    | 520     | 1720 | 6          |

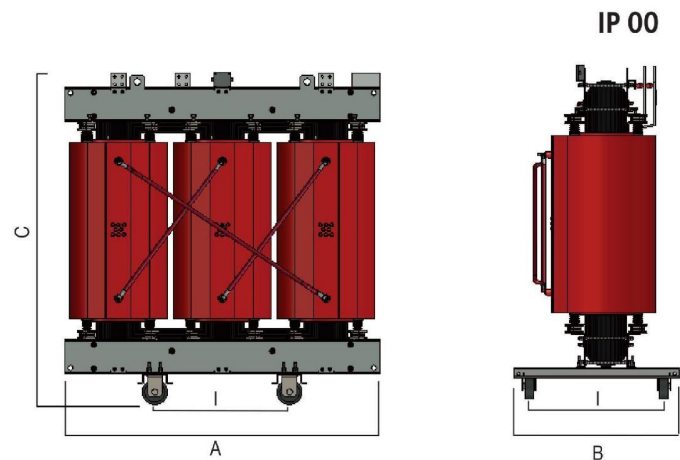
# ТМСRES-Н (минимальные потери)

IEC 60076-11 EU 548-14 Ucc 6%

| IP 21-23-31 |        | Ral 7032 |        |        |  |
|-------------|--------|----------|--------|--------|--|
|             | A [mm] | B [mm]   | C [mm] |        | INSULATION CLASS<br>12 - 17,5 - 24 kV<br><br>36 kV |
| Gr.1        | 1850   | 1100     | 1580   | 160 kg |  |
| Gr.2        | 2050   | 1150     | 1980   | 210 kg |  |
| Gr.3        | 2300   | 1250     | 2520   | 270 kg |  |
| Gr.4        | 2500   | 1310     | 2660   | 300 kg |  |
| Gr.5        | 2750   | 1400     | 2960   | 360 kg |  |
| Gr.6        | 2400   | 1400     | 1930   | 250 kg |  |
| Gr.7        | 2600   | 1450     | 2260   | 300 kg |  |
| Gr.8        | 2850   | 1550     | 2550   | 340 kg |  |
| Gr.9        | 3000   | 1600     | 2850   | 400 kg |  |
| Gr.10       | 3300   | 1700     | 3400   | 480 kg |  |



## CAST RESIN transformers



| Power<br>KVA | Класс<br>изоляция | Потери              |              | I <sub>0</sub><br>% | LpA/<br>LwA<br>(dB(A)) | A<br>mm | B<br>mm | C<br>mm | I<br>mm | Kg    | Box<br>Gr. |
|--------------|-------------------|---------------------|--------------|---------------------|------------------------|---------|---------|---------|---------|-------|------------|
|              |                   | P <sub>0</sub><br>W | Pk 120°<br>W |                     |                        |         |         |         |         |       |            |
| 400          | 12 kV             | 750                 | 5500         | 1,3                 | 47/60                  | 1360    | 750     | 1460    | 670     | 1400  | 1          |
|              | 17,5-24 kV        | 750                 | 5500         | 1,3                 | 47/60                  | 1460    | 750     | 1580    | 670     | 1600  | 2          |
|              | 36 kV             | 860                 | 6050         | 1,6                 | 47/61                  | 1780    | 750     | 1990    | 670     | 2800  | 7          |
| 630          | 12 kV             | 1100                | 7600         | 1,2                 | 48/62                  | 1470    | 850     | 1630    | 670     | 1950  | 2          |
|              | 17,5-24 kV        | 1100                | 7600         | 1,2                 | 48/62                  | 1540    | 850     | 1710    | 670     | 2150  | 2          |
|              | 36 kV             | 1265                | 8360         | 1,5                 | 48/63                  | 1880    | 850     | 2100    | 670     | 3400  | 7          |
| 800          | 12 kV             | 1300                | 8000         | 1,1                 | 50/64                  | 1520    | 850     | 1800    | 670     | 2300  | 2          |
|              | 17,5-24 kV        | 1300                | 8000         | 1,1                 | 50/64                  | 1620    | 850     | 1850    | 670     | 2600  | 3          |
|              | 36 kV             | 1495                | 8800         | 1,2                 | 49/64                  | 1900    | 850     | 2250    | 670     | 3750  | 8          |
| 1000         | 12 kV             | 1550                | 9000         | 1                   | 51/65                  | 1650    | 1000    | 1930    | 820     | 3000  | 3          |
|              | 17,5-24 kV        | 1550                | 9000         | 1                   | 51/65                  | 1730    | 1000    | 1920    | 820     | 3150  | 3          |
|              | 36 kV             | 1780                | 9900         | 0,9                 | 50/65                  | 1960    | 1000    | 2290    | 820     | 4200  | 8          |
| 1250         | 12 kV             | 1800                | 11000        | 1                   | 53/67                  | 1660    | 1000    | 2080    | 820     | 3400  | 3          |
|              | 17,5-24 kV        | 1800                | 11000        | 1                   | 52/67                  | 1740    | 1000    | 2070    | 820     | 3550  | 3          |
|              | 36 kV             | 2070                | 12100        | 0,9                 | 52/67                  | 2080    | 1000    | 2440    | 820     | 5300  | 8          |
| 1600         | 12 kV             | 2200                | 13000        | 0,9                 | 53/68                  | 1800    | 1000    | 2220    | 820     | 4300  | 3          |
|              | 17,5-24 kV        | 2200                | 13000        | 0,9                 | 53/68                  | 1840    | 1000    | 2260    | 820     | 4300  | 3          |
|              | 36 kV             | 2530                | 14300        | 0,8                 | 53/68                  | 2230    | 1000    | 2520    | 820     | 6500  | 9          |
| 2000         | 12 kV             | 2600                | 16000        | 0,9                 | 55/70                  | 1840    | 1310    | 2400    | 1070    | 4950  | 4          |
|              | 17,5-24 kV        | 2600                | 16000        | 0,9                 | 55/70                  | 1880    | 1310    | 2440    | 1070    | 5050  | 4          |
|              | 36 kV             | 2990                | 17600        | 0,8                 | 56/72                  | 2260    | 1310    | 2710    | 1070    | 7500  | 9          |
| 2500         | 12 kV             | 3100                | 19000        | 0,8                 | 55/71                  | 1970    | 1310    | 2480    | 1070    | 5950  | 4          |
|              | 17,5-24 kV        | 3100                | 19000        | 0,8                 | 55/71                  | 2070    | 1310    | 2500    | 1070    | 6500  | 4          |
|              | 36 kV             | 3565                | 20900        | 0,8                 | 57/73                  | 2340    | 1310    | 2730    | 1070    | 8100  | 9          |
| 3150         | 12 kV             | 3800                | 22000        | 0,7                 | 58/74                  | 2070    | 1310    | 2510    | 1070    | 6600  | 4          |
|              | 17,5-24 kV        | 3800                | 22000        | 0,7                 | 58/74                  | 2170    | 1310    | 2570    | 1070    | 7400  | 5          |
|              | 36 kV             | 4370                | 24200        | 0,7                 | 60/76                  | 2620    | 1310    | 2800    | 1070    | 11500 | 10         |

| Power<br>KVA | Класс<br>изоляция | Потери              |              | I <sub>0</sub><br>% | LpA/<br>LwA<br>(dB(A)) | A<br>mm | B<br>mm | C<br>mm | I<br>mm | Kg   | Box<br>Gr. |
|--------------|-------------------|---------------------|--------------|---------------------|------------------------|---------|---------|---------|---------|------|------------|
|              |                   | P <sub>0</sub><br>W | Pk 120°<br>W |                     |                        |         |         |         |         |      |            |
| 100          | 12 kV             | 280                 | 2050         | 2,2                 | 39/51                  | 1110    | 600     | 1060    | 520     | 620  | 1          |
|              | 17,5-24 kV        | 280                 | 2050         | 2,2                 | 39/51                  | 1150    | 600     | 1250    | 520     | 760  | 1          |
|              | 36 kV             | -                   | -            | -                   | -                      | -       | -       | -       | -       | -    | -          |
| 160          | 12 kV             | 400                 | 2900         | 1,9                 | 42/54                  | 1190    | 600     | 1220    | 520     | 820  | 1          |
|              | 17,5-24 kV        | 400                 | 2900         | 1,9                 | 42/54                  | 1300    | 600     | 1290    | 520     | 1000 | 1          |
|              | 36 kV             | 460                 | 3190         | 2                   | 44/57                  | 1570    | 600     | 1570    | 520     | 1750 | 6          |
| 250          | 12 kV             | 520                 | 3800         | 1,5                 | 45/57                  | 1260    | 600     | 1340    | 520     | 1100 | 1          |
|              | 17,5-24 kV        | 520                 | 3800         | 1,5                 | 44/57                  | 1330    | 600     | 1470    | 520     | 1250 | 1          |
|              | 36 kV             | 595                 | 4180         | 1,9                 | 45/59                  | 1750    | 600     | 1820    | 520     | 2400 | 6          |



**PRODUCT CERTIFICATIONS:**

**CESI** - Verification of dynamic ability to withstand short-circuit

**CESI** - Impulse test

**CESI** - Inrush current test

**IEN - IAF** Certificate of Conformity Instytut Energetyki - Polonia

**CESI** - Special test to prove suitability to climatic class C2, to environmental class E2 and to fire behaviour test class F1

**EUROFINS** - Investigation of the environmental assessment of the distribution of electromagnetic fields levels near Medium-Low Voltage power transformer

**TRAC** - Seismic testing of a transformer and enclosure

**TÜV** - Certification test at -60 ° climate, thermal shock

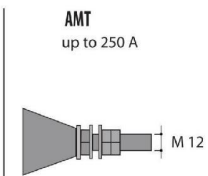
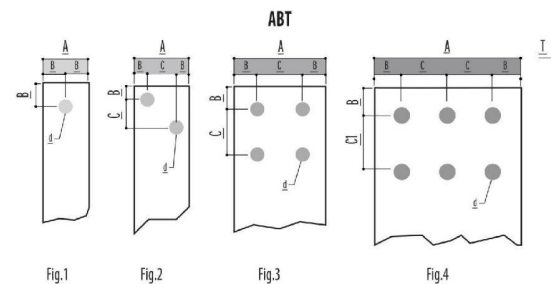
|         | ITALIANO                  | ENGLISH              | DEUTSCH               | ESPAÑOL                | FRANÇAIS             |
|---------|---------------------------|----------------------|-----------------------|------------------------|----------------------|
| R.Power | Legenda                   | Legend               | Legende               | Índice                 | Index                |
| Po      | Potenza nominale          | Nominal rated power  | Nennleistung          | Potencia Nominal       | Puissance            |
| Pk      | Perdite a vuoto           | No - load losses     | Leerlaufverluste      | Pérdidas en vacío      | Pertes à vide        |
| IO      | Perdite di corto circuito | Load losses          | Kurzschlußverluste    | Pérdidas en carga      | Pertes en charge     |
| Lwa     | Corrente a vuoto          | No - load current    | Leerlaufstrom         | Corriente de vacío     | Courant à vide       |
| Lpa     | Potenza sonora            | Sound power level    | Schalleistungspegel   | Potencia acústica      | Puissance acoustique |
| Wt      | Pressione acustica        | Sound pressure level | Schalldruckpegel      | Presión acústica       | Pression acoustique  |
| We      | Peso del trasformatore    | Transformer Weight   | Transformator Gewicht | Peso del transformador | Masse transformateur |
| In      | Peso armadio              | Enclosure Weight     | Schutzgehäuse Gewicht | Peso de la envolvente  | Masse enveloppe      |
| ABT     | Corrente nominale         | Rated current        | Nennstrom             | Corriente nominal      | Courant nominal      |
| AMT     | Terminali BT              | LV terminals         | US-Anschlüsse         | Terminales de BT       | Borne de sortie BT   |
|         | Terminali MT              | HV terminals         | OS-Anschlüsse         | Terminales de MT       | Borne de sortie HT   |

|         | PORTUGUÊS             | РУССКИЙ                                  |
|---------|-----------------------|--|
| R.Power | Índice                | Спецификация                             |
| Po      | Potência Nominal      | Номинальная мощность                     |
| Pk      | Perdas em vazio       | Потери холостого хода                    |
| IO      | Perdas em carga       | Потери КЗ                                |
| Lwa     | Corrente de vazio     | Ток холостого хода                       |
| Lpa     | Potência acústica     | Уровень акустической мощности            |
| Wt      | Pressão acústica      | Уровень акустического давления           |
| We      | Peso do transformador | Вес трансформатора                       |
| In      | Peso da proteção      | Вес кожуха                               |
| ABT     | Corrente nominal      | номинальный ток                          |
| AMT     | Terminali BT          | Присоединительные контакты со стороны НН |
|         | Terminali MT          | Присоединительные контакты со стороны ВН |

N.B. I dati di queste tabelle sono puramente indicativi e possono essere modificati in qualsiasi momento • N.B. The technical data in these tables are indicative and can be modified at any time • N.B. Die technischen Daten dieser Tabellen sind unverbindlich und können jederzeit geändert werden • N.B. Los datos de estas tablas son meramente indicativos y pueden ser modificados en cualquier momento • N.B. Données techniques non contractuelles susceptibles d'être modifiées à tout moment sans préavis • N.B. Os dados destas tabelas são indicativos e podem modificarse em qualquer momento • Прим. Технические характеристики в данных таблицах носят ориентировочно информационный характер и в любое время могут быть изменены

**TERMINAL TYPES**

| In   | 250  | 580 | 750 | 910 | 1200 | 1500 | 1800 | 2400 | 3000 | 3700 | 4600 |
|------|------|-----|-----|-----|------|------|------|------|------|------|------|
| Fig. |      | 1   | 1   | 2   | 2    | 3    | 3    | 3    | 4    | 4    | 4    |
| A    | (mm) | 40  | 50  | 60  | 60   | 80   | 100  | 120  | 120  | 160  | 160  |
| T    | (mm) | 4   | 5   | 6   | 8    | 8    | 8    | 8    | 12   | 10   | 14   |
| B    | (mm) | 20  | 25  | 14  | 14   | 20   | 25   | 30   | 30   | 30   | 30   |
| C    | (mm) | //  | //  | 32  | 32   | 40   | 50   | 60   | 60   | 50   | 50   |
| C1   | (mm) | //  | //  | //  | //   | //   | //   | //   | //   | 60   | 60   |
| d    | (mm) | 15  | 15  | 13  | 13   | 13   | 15   | 18   | 18   | 18   | 18   |



## Dedicated applications

Renewable energy (wind & solar)  
Traction (passenger and freight rail)  
Reactances  
Offshore oil, gas and mining (marine)  
Petrochemical  
Industrial  
Non-ordinary seismic conditions  
High and low temperature conditions

## TMC Testing

Routine Tests in accordance with IEC  
60076-11 and EU 548-14  
Tests "on demand":  
Heat Run  
Lightning Impulse  
Noise Level (in anechoic chamber)  
Witness Tests

