

# UNITRAFO

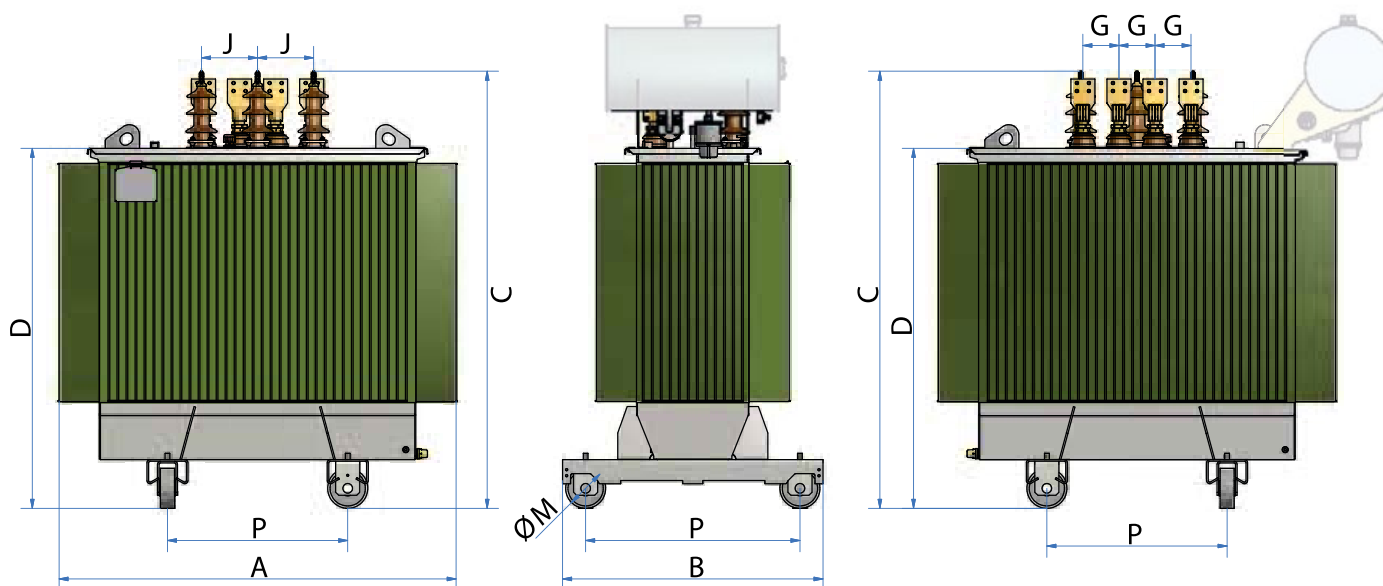
POWER QUALITY – SAFE ENVIRONMENT

## Oil-immersed Transformers

### Ecodesign 2

### Voltage Class 36 kV

|                                     |                                    |
|-------------------------------------|------------------------------------|
| Standards                           | IEC 60076 – EN 50588 – EU 548/2014 |
| Insulating Class (Temperature Rise) | A (60/65 K)                        |
| Insulation Class MV                 | 36 kV FI 70 kV BIL 170 kV          |
| Insulation Class LV                 | 1,1 kV FI 3 kV                     |
| Frequency                           | 50 Hz                              |
| Tappings MV                         | ± 4% or ± 2 x 2,5%                 |
| Tolerance                           | No tolerance on the losses         |



Hermetically sealed – conservator on request

| Power<br>kVA | P <sub>0</sub> *<br>W |      | P <sub>k</sub> *<br>W |       | U <sub>k</sub> *<br>% | LwA<br>dB(A) | Total<br>Kg | Oil<br>Kg | A<br>mm | B<br>mm | C<br>mm | D<br>mm | M<br>mm | P<br>mm | J<br>mm | G<br>mm |
|--------------|-----------------------|------|-----------------------|-------|-----------------------|--------------|-------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|
| 100          | A <sub>0</sub> -10%   | 149  | C <sub>K</sub>        | 1375  | 4                     | 40           | 1440        | 380       | 1380    | 790     | 1690    | 1210    | 125     | 520     | 380     | 90      |
| 160          | A <sub>0</sub> -10%   | 217  | C <sub>K</sub>        | 1925  | 4                     | 43           | 1410        | 320       | 1190    | 840     | 1580    | 1100    | 125     | 520     | 380     | 90      |
| 200          | A <sub>0</sub> -10%   | 259  | C <sub>K</sub>        | 2218  | 4                     | 43           | 1640        | 380       | 1290    | 840     | 1650    | 1170    | 125     | 520     | 380     | 150     |
| 250          | A <sub>0</sub> -10%   | 310  | C <sub>K</sub>        | 2585  | 4                     | 46           | 1780        | 400       | 1290    | 840     | 1740    | 1260    | 125     | 520     | 380     | 150     |
| 315          | A <sub>0</sub> -10%   | 373  | C <sub>K</sub>        | 3080  | 4                     | 48           | 1900        | 430       | 1320    | 920     | 1750    | 1270    | 125     | 670     | 380     | 150     |
| 400          | A <sub>0</sub> -10%   | 445  | C <sub>K</sub>        | 3575  | 4                     | 49           | 2200        | 480       | 1350    | 940     | 1820    | 1340    | 125     | 670     | 380     | 150     |
| 500          | A <sub>0</sub> -10%   | 528  | C <sub>K</sub>        | 4290  | 4                     | 50           | 2480        | 530       | 1410    | 940     | 1860    | 1380    | 125     | 670     | 380     | 150     |
| 630          | A <sub>0</sub> -10%   | 621  | C <sub>K</sub>        | 5060  | 4                     | 51           | 2910        | 600       | 1450    | 960     | 1940    | 1460    | 125     | 670     | 380     | 150     |
| 630          | A <sub>0</sub> -10%   | 621  | C <sub>K</sub>        | 5060  | 6                     | 51           | 2720        | 620       | 1510    | 960     | 1900    | 1420    | 125     | 670     | 380     | 150     |
| 800          | A <sub>0</sub> -10%   | 673  | C <sub>K</sub>        | 6600  | 6                     | 51           | 3230        | 660       | 1510    | 1050    | 1940    | 1460    | 125     | 670     | 380     | 150     |
| 1000         | A <sub>0</sub> -10%   | 797  | C <sub>K</sub>        | 8360  | 6                     | 54           | 3690        | 760       | 1530    | 1110    | 2080    | 1600    | 125     | 670     | 380     | 150     |
| 1250         | A <sub>0</sub> -10%   | 983  | B <sub>K</sub>        | 10450 | 6                     | 55           | 3810        | 770       | 1500    | 1250    | 2100    | 1620    | 160     | 820     | 380     | 150     |
| 1600         | A <sub>0</sub> -10%   | 1242 | B <sub>K</sub>        | 13200 | 6                     | 57           | 4360        | 940       | 1900    | 1220    | 2200    | 1720    | 160     | 820     | 380     | 180     |
| 2000         | A <sub>0</sub> -10%   | 1500 | B <sub>K</sub>        | 16500 | 6                     | 59           | 5340        | 1140      | 1980    | 1340    | 2280    | 1800    | 200     | 1070    | 380     | 180     |
| 2500         | A <sub>0</sub> -10%   | 1811 | B <sub>K</sub>        | 20350 | 6                     | 62           | 6420        | 1420      | 2080    | 1340    | 2470    | 1990    | 200     | 1070    | 380     | 220     |
| 3150         | A <sub>0</sub> -10%   | 2277 | B <sub>K</sub>        | 25300 | 6                     | 63           | 7680        | 1610      | 2160    | 1440    | 2450    | 2010    | 200     | 1070    | 380     | 220     |

\* Data referred to 75°C at rated voltage

Po = Non load losses | Pk = Load losses | Ptot (Po+Pk) = Total losses

N.B. Dimensions and weights are preliminary and will be confirmed upon order

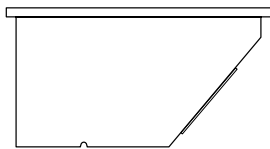
## Standard equipment

- MV regulation tapplings  $\pm 2 \times 2,5\%$  wired to off-circuit tap changing switch with external operating handle
- Primary bushings, porcelain (3 pcs) DIN 42531
- Secondary porcelain bushings (4 pcs) line terminals plus Neutral bushing DIN 42530
- Oil drain valve A22
- Bi-directional floor rollers (removable)
- Lugs/eyebolts for lifting and movement
- Earthing terminals, type M12
- Ratingplates (2 pcs) in accordance with IEC 60076 (whereof one unmounted)
- Thermometer pocket, type DIN 42554
- Oil filler cap
- Standard testing with relevant test certificate
- Documentation as digital files

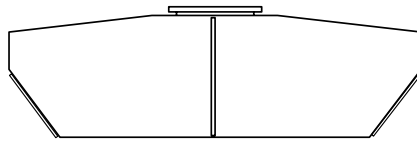
## Options

Optional we can adapt our transformers for your special needs. Please contact us for more information.

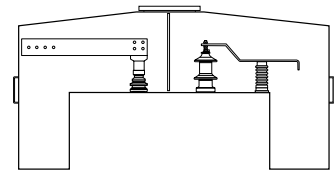
- Pressure relay QUALITROL with 2 contacts
- Oil temperature indicator with two electrical contacts
- Expansion tank
- Buchholz relay
- Drying device
- Elastimold connections
- Protected housings in coated steel – color: RAL 7031
- Marshalling box
- Windings in copper
- Alternative temperature risings and classes
- Double primary- or secondary voltage
- Alternative frequencies
- Low mounted secondary bushings
- Vector group on demand



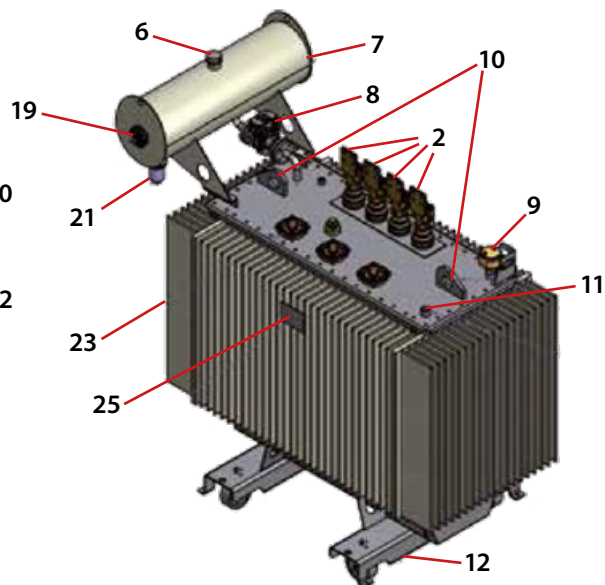
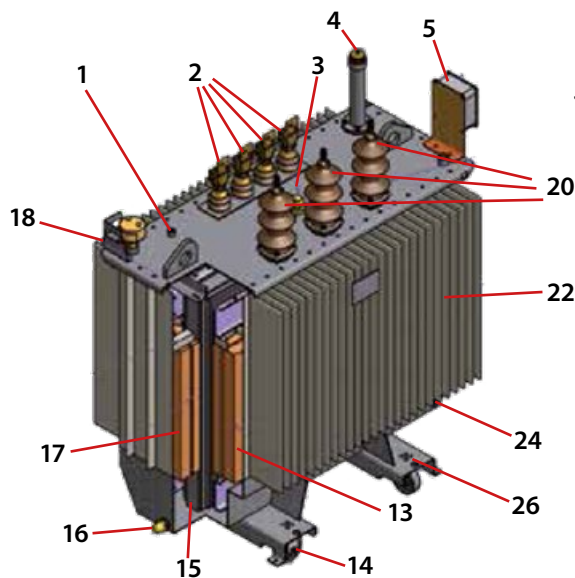
Protected housing with connections on primary or secondary side.



Protected housing with connections on primary and secondary side.



Protected housing with internal rails.



- 1 Earthing terminals
- 2 Low Voltage Bushings
- 3 Off load tap changer
- 4 Filling pipe with antibrust valve
- 5 Marshalling Box
- 6 Filling tap\*
- 7 Conservator\*
- 8 Buchholz relay\*
- 9 Thermometer with two electric contacts (on request)

- 10 Lifting eyebolts
- 11 Thermometer pocket
- 12 Truck
- 13 Medium Voltage Windings
- 14 Swivelling rollers
- 15 Magnetic Core
- 16 Oil discharge and extraction valve
- 17 Low Voltage Windings
- 18 Protection shield (on request)

- 19 Oil level indicator\*
- 20 Medium Voltage Bushings
- 21 Silica gel connection\*
- 22 Tank with waves
- 23 Plug-in connectors (upon request)
- 24 Earthing point on tank
- 25 Name plate
- 26 Movement eyebolts

\* Not on hermetically sealed transformers