

arteche



INSTRUMENT
TRANSFORMERS.
MEDIUM VOLTAGE
INDOOR.

This document may be subject to changes.
Contact ARTECHE to confirm the characteristics and
availability of the products described here.



Moving together

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1. CURRENT TRANSFORMERS

Support type

Support window type

Generator / Wall-bushing type

Touch-proof type

Wall-bushing with primary bar type



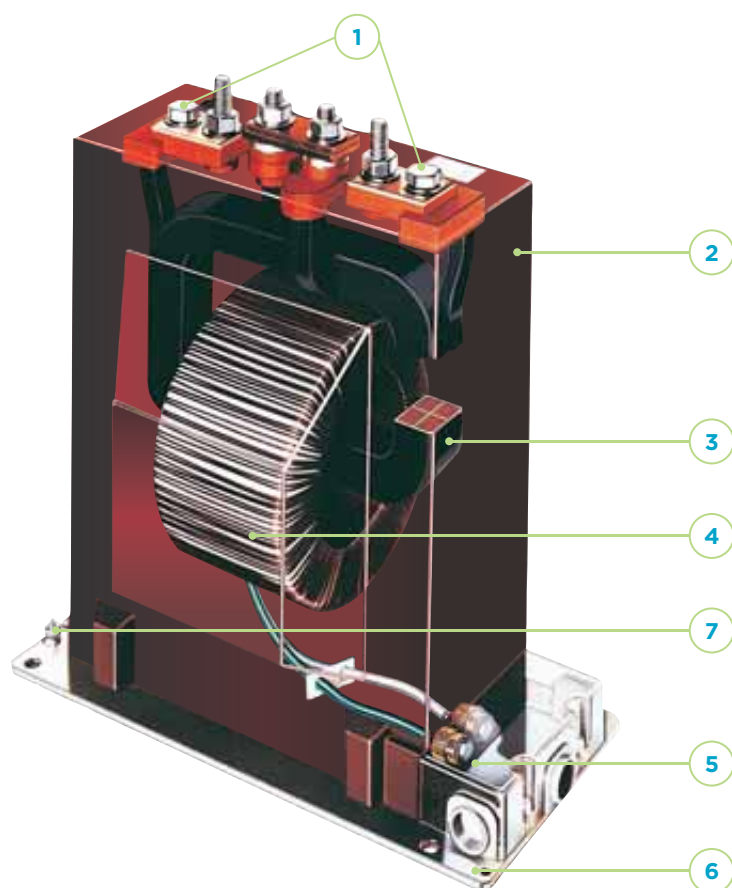
1. CURRENT TRANSFORMERS

INTRODUCTION

Current transformers reduce the current in the Medium Voltage line to proportional and manageable values, and separate the measuring instruments, meters, relays, etc. from the power circuit.

SECTION

1. Primary terminals
2. Insulation (resin)
3. Primary winding
4. Core and secondary winding
5. Secondary terminal box
6. Base
7. Earth terminal



> Model ACF



Support type



Support window type



Generator / Wall-bushing type



Touch-proof type



Wall-bushing with primary bar type



› ACM-12
Support type
transformer for primary
distribution switchgears.



› ABG-24
Current transformer for generator
designed to work with very high
primary currents.



› ABD-36
Wall-bushing type
transformer with short-
circuitable secondaries.

1. CURRENT TRANSFORMERS > Support type

SUPPORT TYPE

Current transformers for indoor service, encapsulated in resin which in addition to their primary function also act as busbar supports.

RANGE

- > Insulation voltage from 3.6 kV to 72.5 kV.
- > Rated primary currents from 1 A to 3,000 A.
- > Secondary currents: 1 and 5 A.
- > Frequencies: 50 Hz, 60 Hz.

APPLICATIONS

- > Medium voltage air insulated primary distribution switchgears.
- > Medium voltage air insulated secondary distribution switchgears.
- > Capacitor banks.

ADVANTAGES

- > Possibility of secondary currents different from the standardized ones (1 and 5 A).
- > Possibility of frequencies different from the standardized ones (50 and 60 Hz).
- > Secondary terminals on the P1 or P2 side.
- > Designed to withstand vibrations.
- > Excellent response under extreme weather conditions.
- > Short-circuit system for secondary terminals and dimensions as per with DIN 42600 available.
- > Possibility of insulation ribs in the primary.
- > Possibility of capacitive tap.
- > Ratio change by primary or secondary tapping.
- > Stainless steel screws, bolts and nuts available.
- > It can be assembled in any position (vertical, horizontal, etc.).
- > Designs approved by Underwriters Laboratories (UL-USA) available.



> Model ACF



> Model ACD



> Model ACH



> Model ACK



> Model ACJ

1. CURRENT TRANSFORMERS > Support type

MARKING

> SINGLE PRIMARY RATIO AND ONE SECONDARY



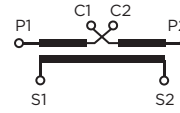
> DOUBLE PRIMARY RATIO BY SECONDARY TAPPING AND ONE SECONDARY



> SINGLE PRIMARY RATIO AND TWO SECONDARIES



> DOUBLE PRIMARY RATIO AND ONE SECONDARY



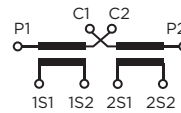
> SINGLE PRIMARY RATIO AND THREE SECONDARIES



> SINGLE PRIMARY RATIO AND TWO SECONDARIES WITH TAPS



> DOUBLE PRIMARY RATIO AND TWO SECONDARIES



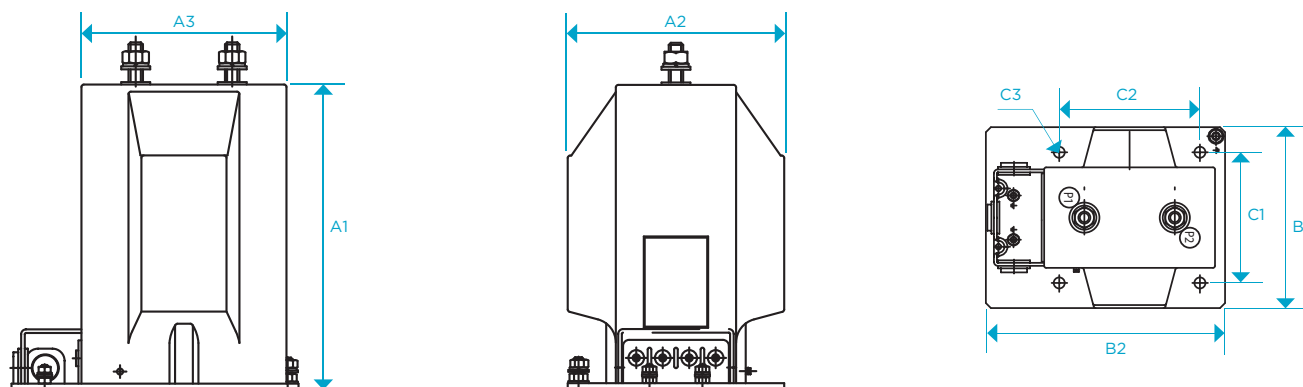
Electrical characteristics

| Model | Highest voltage (kV) | Rated insulation level | | Maximum primary current (A) | | Short-circuit current I_{th} | | | Maximum number of cores |
|---------|----------------------|------------------------|-------------------------------|-----------------------------|---------|--------------------------------|------|---------------------|-------------------------|
| | | Power frequency (kV) | Lightning impulse (BIL) (kVp) | | | Short-circuit current I_{th} | | I_{din} (A) | |
| | | | | S.R. | D.R. | S.R. | D.R. | | |
| ACD-7 | 7.2 | 20 | 60 | 1,200 | 2x600 | 96 | 50 | $2.5 \times I_{th}$ | 2 |
| ACD-12 | 12 | 28 | 75 | 1,200 | 2x600 | 96 | 50 | $2.5 \times I_{th}$ | 2 |
| ACF-12 | 12 | 28 | 75 | 2,000 | 2x600 | 100 | 50 | $2.5 \times I_{th}$ | 3 |
| ACI-12 | 12 | 28 | 75 | 2,000 | 2x600 | 100 | 50 | $2.5 \times I_{th}$ | 3 |
| ACIL-12 | 12 | 28 | 75 | 2,000 | 2x600 | 100 | 50 | $2.5 \times I_{th}$ | 3 |
| ACM-12 | 12 | 28 | 75 | 2,500 | 2x1,000 | 100 | 50 | $2.5 \times I_{th}$ | 3 |
| ACD-17 | 17.5 | 38 | 95 | 1,200 | 2x600 | 96 | 50 | $2.5 \times I_{th}$ | 2 |
| CID-17 | 17.5 | 38 | 95 | 600 | - | 48 | - | $2.5 \times I_{th}$ | 1 |
| ACF-17 | 17.5 | 38 | 95 | 2,000 | 2x600 | 100 | 50 | $2.5 \times I_{th}$ | 3 |
| ACH-17 | 17.5 | 38 | 95 | 2,000 | 2x600 | 100 | 50 | $2.5 \times I_{th}$ | 3 |
| ACI-17 | 17.5 | 38 | 95 | 2,000 | 2x600 | 100 | 50 | $2.5 \times I_{th}$ | 3 |
| ACIL-17 | 17.5 | 38 | 95 | 2,000 | 2x600 | 100 | 50 | $2.5 \times I_{th}$ | 3 |
| ACD-24 | 24 | 50 | 125 | 1,200 | 2x600 | 96 | 50 | $2.5 \times I_{th}$ | 2 |
| ACF-24 | 24 | 50 | 125 | 2,000 | 2x600 | 100 | 50 | $2.5 \times I_{th}$ | 3 |
| ACH-24 | 24 | 50 | 125 | 2,500 | 2x600 | 100 | 50 | $2.5 \times I_{th}$ | 3 |
| ACJ-24 | 24 | 50 | 125 | 2,500 | 2x600 | 100 | 50 | $2.5 \times I_{th}$ | 3 |
| ACJL-24 | 24 | 50 | 125 | 2,500 | 2x600 | 100 | 50 | $2.5 \times I_{th}$ | 3 |
| ACM-24 | 24 | 50 | 125 | 2,500 | 2x1,000 | 100 | 50 | $2.5 \times I_{th}$ | 3 |
| ACA-36 | 36 | 70 | 170 | 1,200 | 2x600 | 96 | 50 | $2.5 \times I_{th}$ | 1 |
| ACF-36 | 36 | 70 | 170 | 2,500 | 2x600 | 100 | 50 | $2.5 \times I_{th}$ | 3 |
| ACH-36 | 36 | 70 | 170 | 2,500 | 2x800 | 100 | 50 | $2.5 \times I_{th}$ | 3 |
| ACM-36 | 36 | 70 | 170 | 2,500 | 2x1,000 | 100 | 50 | $2.5 \times I_{th}$ | 3 |
| ACK-52 | 52 | 95 | 250 | 2,000 | 2x600 | 100 | 50 | $2.5 \times I_{th}$ | 3 |
| ACK-72 | 72.5 | 140 | 325 | 2,500 | 2x1,000 | 100 | 50 | $2.5 \times I_{th}$ | 3 |
| ACP-72 | 72.5 | 140 | 325 | 2,500 | 2x1,000 | 100 | 50 | $2.5 \times I_{th}$ | 3 |

Triple primary ratio available. Please consult for details.
Subject to technical change.

1. CURRENT TRANSFORMERS > Support type

DIMENSIONS



Dimensions and weights

| Model | Dimensions (mm) | | | Base (mm) | | Mounting (mm) | | | Weight (kg) |
|---------|-----------------|------------|-------------|------------|-------------|---------------|-------------|--------------------|-------------|
| | Height (A1) | Width (A2) | Length (A3) | Width (B1) | Length (B2) | Width (C1) | Length (C2) | Hole diameter (C3) | |
| ACD-7 | 255 | 180 | 170 | 180 | 238 | 130 | 140 | 11 | 16 |
| ACD-12 | 255 | 180 | 170 | 180 | 238 | 130 | 140 | 11 | 16 |
| ACF-12 | 245 | 178 | 270 | 178 | 353 | 150/155 | 280/295 | 11 | 27 |
| ACI-12 | 220 | 148 | 270 | 148 | 337.5 | 125 | 270 | 11 | 23 |
| ACIL-12 | 220 | 148 | 395 | 148 | 472 | 120 | 420 | 12 | 34 |
| ACM-12 | 395 | 260 | 446 | 178 | 408 | 175 | 350 | 11 | 80 |
| ACD-17 | 255 | 180 | 170 | 180 | 238 | 130 | 140 | 11 | 16 |
| CID-17 | 140 | 120 | 178 | 120.6 | 212 | 95.2 | 141/151 | 10 | 15 |
| ACF-17 | 245 | 178 | 270 | 178 | 295 | 150/155 | 280/295 | 11 | 27 |
| ACH-17 | 220 | 178 | 307 | 178 | 380 | 150 | 283.5/310.5 | 11 | 25 |
| ACI-17 | 220 | 148 | 270 | 148 | 337.5 | 125 | 270 | 11 | 23 |
| ACIL-17 | 220 | 148 | 395 | 148 | 472 | 125 | 420 | 12 | 34 |
| ACD-24 | 255 | 180 | 170 | 180 | 238 | 130 | 140 | 11 | 16 |
| ACF-24 | 245 | 178 | 270 | 178 | 295 | 150/155 | 280/295 | 11 | 27 |
| ACH-24 | 245 | 178 | 325 | 175 | 405 | 155 | 350 | 11 | 33 |
| ACJ-24 | 280 | 178 | 270 | 178 | 345 | 150 | 280 | 14 | 35 |
| ACJL-24 | 280 | 178 | 395 | 178 | 472 | 150 | 420 | 12 | 34 |
| ACM-24 | 395 | 260 | 446 | 178 | 408 | 175 | 350 | 11 | 80 |
| ACA-36 | 340 | 170 | 170 | 178 | 178 | 130 | 140 | 11 | 16 |
| ACF-36 | 355 | 210 | 270 | 178 | 353 | 150/155 | 280/295 | 11 | 36 |
| ACH-36 | 354 | 210 | 375 | 178 | 405 | 155 | 350 | 11 | 51 |
| ACM-36 | 395 | 260 | 446 | 178 | 408 | 175 | 350 | 11 | 80 |
| ACK-52 | 475 | 280 | 330 | 230 | 407 | 200 | 250/260 | 14 | 70 |
| ACK-72 | 650 | 310 | 355 | 310 | 417.5 | 225 | 300 | 14 | 105 |
| ACP-72 | 872 | 355 | 355 | 340 | 429.5 | 255 | 300 | 14 | 110 |

Brass primary terminals (silver-plated on request) with M12 zinc-plated, bichromated steel screw.
 Brass M5/M6 secondary terminals. Zinc-plated, bichromated steel M8/M12 earth terminals.
 Polycarbonate secondary terminal cover. Zinc-plated, bichromated steel covers available on request.
 Approximate dimensions and weights.

SUPPORT WINDOW TYPE

Current transformers for indoor service, encapsulated in resin. Toroidal support type without primary conductor to be installed in medium voltage busbars without insulation.

RANGE

- > Insulation voltage from 3.6 kV to 24 kV.
- > Rated primary currents up to 4,000 A.
- > Secondary currents: 1 and 5 A
- > Frequencies: 50 Hz, 60 Hz.

APPLICATIONS

- > Medium voltage air insulated primary distribution switchgears.
- > Capacitor banks.

ADVANTAGES

- > Possibility of secondary currents different from the standardized ones (1 and 5 A).
- > Rated primary currents over 4,000 A available.
- > Secondary terminals on the P1 or P2 side.
- > Designs for outdoor service available.
- > Stainless steel screws, bolts and nuts available.



> Model AGNE



> Model AGN



> Model AGPE



> Model AGD


 > AGN-24
Transformer for
generator switchgear.

1. CURRENT TRANSFORMERS > Support window type

MARKING

> SINGLE PRIMARY RATIO AND ONE SECONDARY



> DOUBLE PRIMARY RATIO BY SECONDARY TAPPING AND ONE SECONDARY



> SINGLE PRIMARY RATIO AND TWO SECONDARIES



> SINGLE PRIMARY RATIO AND THREE SECONDARIES



> SINGLE PRIMARY RATIO AND TWO SECONDARIES WITH TAPS

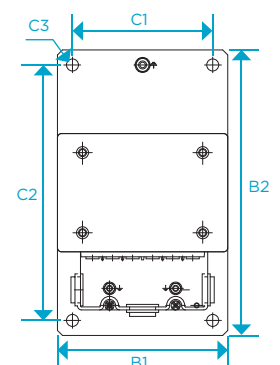
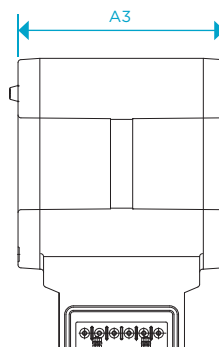
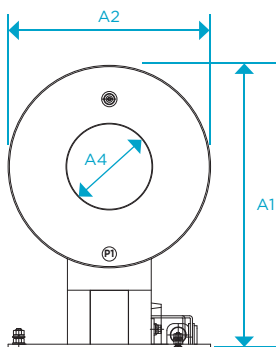


Electrical characteristics

| Model | Highest voltage (kV) | Rated insulation level | | Maximum primary current (A) | Short-circuit current I_{th} | | Maximum number of cores |
|----------|----------------------|------------------------|-------------------------------|-----------------------------|--------------------------------|---------------------|-------------------------|
| | | Power frequency (kV) | Lightning impulse (BIL) (kVp) | | I_{th} (kA/1s) | I_{din} (kA) | |
| AGNE-3.6 | 3.6 | 10 | 40 | 4,000 | 100 | $2.5 \times I_{th}$ | 3 |
| AGPE-3.6 | 3.6 | 10 | 40 | 4,000 | 100 | - | 3 |
| AGPE-12 | 12 | 28 | 75 | 4,000 | 100 | $2.5 \times I_{th}$ | 3 |
| AGN-17 | 17.5 | 38 | 95 | 4,000 | 100 | $2.5 \times I_{th}$ | 3 |
| AGD-24 | 24 | 50 | 125 | 1,500 | 100 | $2.5 \times I_{th}$ | 1 |
| AGN-24 | 24 | 50 | 125 | 4,000 | 100 | $2.5 \times I_{th}$ | 3 |

Subject to technical change.

DIMENSIONS



Dimensions and weights

| Model | Dimensions (mm) | | | | Base (mm) | | Mounting (mm) | | | Weight (kg) |
|----------|-----------------|------------|-------------|---------------------|------------|-------------|---------------|-------------|--------------------|-------------|
| | Height (A1) | Width (A2) | Length (A3) | Inner diameter (A4) | Width (B1) | Length (B2) | Width (C1) | Length (C2) | Hole diameter (C3) | |
| AGNE-3.6 | 397.5 | 285 | 230/280 | 120/150 | 307 | 170 | 255 | 140 | 12 | 42 |
| AGPE-3.6 | 498 | 370 | 160 | 200 | 370 | 160 | 270 | 130 | 11 | 33 |
| AGPE-12 | 516 | 370 | 290 | 204 | 290 | 370 | 130 | 270 | 11 | 55 |
| AGN-17 | 397.5 | 285 | 230/280 | 120/150 | 285 | 170 | 255 | 140 | 12 | 42 |
| AGD-24 | 360 | 160 | 156 | - | - | - | 63 | - | M8 | 11 |
| AGN-24 | 397.5 | 285 | 230/280 | 120/150 | 285 | 170 | 255 | 140 | 12 | 42 |

Option to supply with silver-plated copper primary bar on request.
 Brass M5/M6 secondary terminals. Zinc-plated, bichromated steel M8/M12 earth terminals.
 Polycarbonate secondary terminal cover. Zinc-plated, bichromated steel covers available on request.
 Approximate dimensions and weights.

GENERATOR TYPE

Current transformers for indoor service, encapsulated in resin. Toroidal type without primary conductor to be installed in generator outputs.

RANGE

- > Insulation voltage up to 24 kV.
- > Rated primary currents up to 12,000 A.
- > Higher currents available.
- > Secondary currents: 1 and 5 A.
- > Frequencies: 50 Hz, 60 Hz.

APPLICATIONS

- > Power generation.

ADVANTAGES

- > Measurement and protection applications.
- > Excellent performance in ambient temperatures up to 80°C.
- > Stainless steel screws, bolts and nuts available.



> Model ABG



> Model ABF

WALL-BUSHING TYPE

Current transformers for indoor service, encapsulated in resin. Toroidal model without primary conductor for installation as a wall bushing.

RANGE

- > Insulation voltage up to 36 kV.
- > Rated primary currents up to 8,000 A.
- > Secondary currents: 1 and 5 A.
- > Frequencies: 50 Hz, 60 Hz.

APPLICATIONS

- > Medium voltage air insulated primary distribution switchgears.
- > Power generation.

ADVANTAGES

- > Several inner window diameters.
- > Stainless steel screws, bolts and nuts available.



> Model ABE

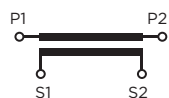


> Model ABD

1. CURRENT TRANSFORMERS > Generator / Wall-bushing type

MARKING

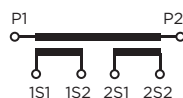
> SINGLE PRIMARY RATIO AND ONE SECONDARY



> DOUBLE PRIMARY RATIO BY SECONDARY TAPPING AND ONE SECONDARY



> SINGLE PRIMARY RATIO AND TWO SECONDARIES



> SINGLE PRIMARY RATIO AND THREE SECONDARIES



> SINGLE PRIMARY RATIO AND TWO SECONDARIES WITH TAPS

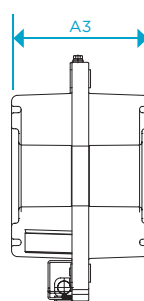
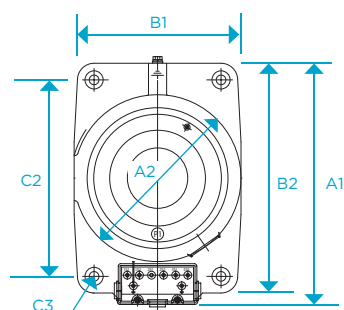


Electrical characteristics

| Model | Highest voltage (kV) | Rated insulation level | | Maximum primary current (A) | Short-circuit current I_{th} | | Maximum number of cores |
|--------|----------------------|------------------------|-------------------------------|-----------------------------|--------------------------------|---------------------|-------------------------|
| | | Power frequency (kV) | Lightning impulse (BIL) (kVp) | | I_{th} (kA/1s) | I_{din} (kA) | |
| ABD-7 | 7.2 | 20 | 60 | 4,000 | 100 | $2.5 \times I_{th}$ | 3 |
| ABD-12 | 12 | 28 | 75 | 4,000 | 100 | $2.5 \times I_{th}$ | 3 |
| ABD-17 | 17.5 | 38 | 95 | 4,000 | 100 | $2.5 \times I_{th}$ | 3 |
| ABD-24 | 24 | 50 | 125 | 5,000 | 100 | $2.5 \times I_{th}$ | 3 |
| ABD-36 | 36 | 70 | 170 | 5,000 | 100 | $2.5 \times I_{th}$ | 3 |
| ABE-12 | 12 | 28 | 75 | 6,000 | 100 | $2.5 \times I_{th}$ | 4 |
| ABE-24 | 24 | 50 | 125 | 8,000 | 100 | $2.5 \times I_{th}$ | 4 |
| ABF-24 | 24 | 50 | 125 | 6,500 | 100 | $2.5 \times I_{th}$ | 3 |
| ABG-24 | 24 | 50 | 125 | 10,000 | 100 | $2.5 \times I_{th}$ | 3 |

Subject to technical change.

DIMENSIONS



Dimensions and weights

| Model | Dimensions (mm) | | | | Base (mm) | | Mounting (mm) | | | Weight (kg) |
|--------|-----------------|------------|-------------|---------------------|------------|-------------|---------------|-------------|--------------------|-------------|
| | Height (A1) | Width (A2) | Length (A3) | Inner diameter (A4) | Width (B1) | Height (B2) | Width (C1) | Height (C2) | Hole diameter (C3) | |
| ABD-7 | 400 | 275 | 230 | 100/130 | - | - | 210 | 325 | 16 | 25 |
| ABD-12 | 400 | 275 | 230 | 100/130 | - | - | 210 | 325 | 16 | 25 |
| ABD-17 | 400 | 275 | 230 | 100/130 | - | - | 210 | 325 | 16 | 25 |
| ABD-24 | 425 | 350 | 360 | 150 | 350 | 350 | 305 | 305 | 14 | 55 |
| ABD-36 | 425 | 350 | 540 | 150 | 350 | 350 | 305 | 305 | 14 | 100 |
| ABE-12 | 501.5 | 422 | 550 | 275 | 405 | 405 | 360 | 360 | 14 | 100 |
| ABE-24 | 501.5 | 422 | 500 | 200 | 405 | 405 | 360 | 360 | 14 | 110 |
| ABF-24 | 613.5 | 525 | 180/240 | 250 | - | - | - | - | M16 | 55 |
| ABG-24 | 718 | 625 | 180/240 | 350 | - | - | - | - | M16 | 55 |

Brass M5/M6 secondary terminals. Zinc-plated, bichromated steel M8/M12 earth terminals. Polycarbonate secondary terminal cover. Zinc-plated, bichromated steel covers available on request. Approximate dimensions and weights.

TOUCH-PROOF TYPE

Resin-cast transformers with metallic coating for installation in medium voltage switchgears insulated in gas.

RANGE

- › Insulation voltage up to 52 kV.
- › Rated primary currents up to 2,000 A.
- › Secondary currents: 1 and 5 A.
- › Frequencies: 50 Hz, 60 Hz.

APPLICATIONS

- › Medium voltage primary distribution gas insulated switchgears (GIS).

ADVANTAGES

- › Possibility of secondary currents different from the standardized ones (1 and 5 A).
- › Possibility of frequencies different from the standardized ones (50 and 60 Hz).
- › Stainless steel screws, bolts and nuts available.

ARTECHE instrument transformers are installed in over 150 countries.

WALL BUSHING WITH PRIMARY BAR TYPE

Current transformers for indoor service, encapsulated in resin. Toroidal type with primary conductor to be installed as wall bushings.

RANGE

- › Insulation voltage up to 72.5 kV. Higher voltages also available.
- › Rated primary currents up to 3,000 A.
- › Secondary currents: 1 and 5 A.
- › Frequencies: 50 Hz, 60 Hz.

APPLICATIONS

- › Distribution substations.

ADVANTAGES

- › Wall bushings for indoor-indoor or indoor-outdoor installations.
- › Stainless steel screws, bolts and nuts available.



› Model APL

1. CURRENT TRANSFORMERS > Wall bushing with primary bar type

MARKING

> SINGLE PRIMARY RATIO AND ONE SECONDARY



> DOUBLE PRIMARY RATIO BY SECONDARY TAPPING AND ONE SECONDARY



> SINGLE PRIMARY RATIO AND TWO SECONDARIES



> SINGLE PRIMARY RATIO AND THREE SECONDARIES



> SINGLE PRIMARY RATIO AND TWO SECONDARIES WITH TAPS

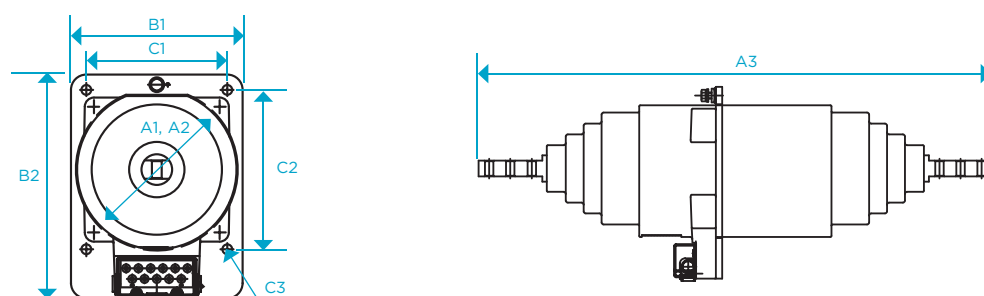


Electrical characteristics

| Model | Highest voltage (kV) | Rated insulation level | | Maximum primary current (A) | Short-circuit current I_{th} | | Maximum number of cores |
|--------|----------------------|------------------------|-------------------------------|-----------------------------|--------------------------------|---------------------|-------------------------|
| | | Power frequency (kV) | Lightning impulse (BIL) (kVp) | | I_{th} (kA/1s) | I_{din} (kA) | |
| APL-12 | 12 | 28 | 75 | 3,000 | 100 | $2.5 \times I_{th}$ | 3 |
| APL-36 | 36 | 70 | 170 | 3,000 | 100 | $2.5 \times I_{th}$ | 3 |
| APL-72 | 72.5 | 140 | 325 | 3,000 | 100 | $2.5 \times I_{th}$ | 3 |

Subject to technical change.

DIMENSIONS



Dimensions and weights

| Model | Dimensions (mm) | | | | Base (mm) | | Mounting (mm) | | | Weight (kg) |
|--------|-----------------|------------|-------------|---------------------|------------|-------------|---------------|-------------|--------------------|-------------|
| | Height (A1) | Width (A2) | Length (A3) | Inner diameter (A4) | Width (B1) | Height (B2) | Width (C1) | Height (C2) | Hole diameter (C3) | |
| APL-12 | 245 | 245 | 675 | - | 290 | 290/400 | 240/175 | 240/360 | 16 | 44 |
| APL-36 | 260 | 260 | 975 | - | 280 | 365 | 230 | 260 | 16 | 85 |
| APL-72 | 260 | 260 | 1,530 | - | 280 | 365 | 230 | 260 | 16 | 95 |

Brass M5/M6 secondary terminals. Zinc-plated, bichromated steel M8/M12 earth terminals.
 Polycarbonate secondary terminal cover. Zinc-plated, bichromated steel covers available on request.
 Approximate dimensions and weights.



> Indoor/outdoor wall-bushing in a distribution substation.

2. VOLTAGE TRANSFORMERS

Support type

Support type with fuse

Touch-proof type



2. VOLTAGE TRANSFORMERS

INTRODUCTION

Voltage transformers reduce the voltage in the medium voltage line to proportional and manageable values, and separate the measuring instruments, meters, relays, etc. from the power circuit.



Support type



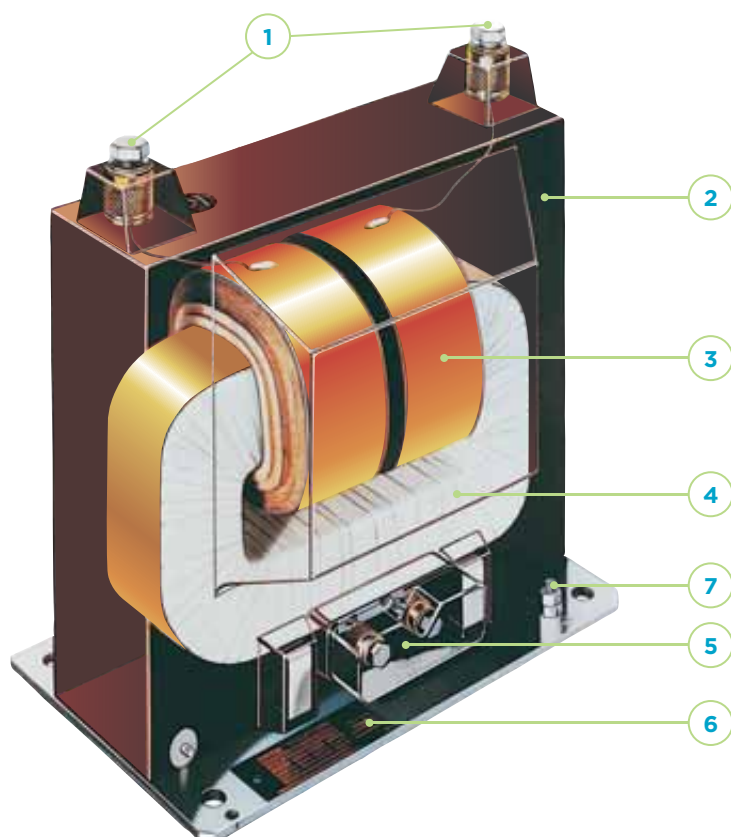
Support type with fuse



Touch-proof type

SECTION

1. Primary terminals
2. Insulator (resin)
3. Primary winding
4. Magnetic core
5. Secondary terminal box
6. Base
7. Earth terminal



> Model VCL



› UCL-7
Voltage transformer
compartment in
medium voltage
switchgear.



› UCL-24
Support type
voltage transformer
for medium voltage
switchgears.



› UCJF-24
Voltage transformer with
integrated fuse; reduces
the space needed in the
switchgear.

2. VOLTAGE TRANSFORMERS > Support type

SUPPORT TYPE

Voltage transformers for indoor service encapsulated in resin for installation phase-earth (1 pole) or phase-phase (2 poles).

RANGE > v

- > Transformers for phase-earth connections with insulation levels up to 72.5 kV.
- > Transformers for phase-phase connections with insulation levels up to 36 kV.
- > Frequencies: 50 Hz, 60 Hz.
- > Secondary voltages:
Measuring - 100: $\sqrt{3}$, 110: $\sqrt{3}$, 120: $\sqrt{3}$; 110, 115, 120V.
Residual - 100:3, 110:3, 120:3.

APPLICATIONS

- > Medium voltage air insulated primary distribution switchgears.
- > Medium voltage air insulated secondary distribution switchgears.
- > Power generation.
- > Capacitor banks.
- > Power supply for auxiliary services or distribution automation up to 3 kVA.

ADVANTAGES

- > Possibility of frequencies different from the standardized ones (50 and 60 Hz).
- > Sealable cover for secondary terminal box.
- > Designed to withstand vibrations.
- > Stainless steel screws, bolts and nuts available.
- > Transformer assembly in any position (horizontal, vertical, etc.)
- > Excellent response under extreme weather conditions.
- > Wide product range, designed to comply with DIN 42600 standard.
- > Designs approved by Underwriters Laboratories (UL-USA) available.
- > Medium voltage fuses and fuse holders on demand.
- > Safety valve for relieving internal overpressure available (model UX/VX).
- > Secondary outputs with cables for the required length.



> Model UCI



> Model VCJ



> Model VCT



> Model UCN



> Model VCN

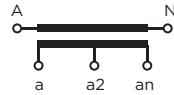
Single phase

MARKING

> SINGLE PRIMARY RATIO AND ONE SECONDARY



> DOUBLE PRIMARY RATIO BY SECONDARY TAPPING AND ONE SECONDARY



> SINGLE PRIMARY RATIO AND TWO SECONDARIES



> SINGLE PRIMARY RATIO AND TWO SECONDARIES WITH TAPS



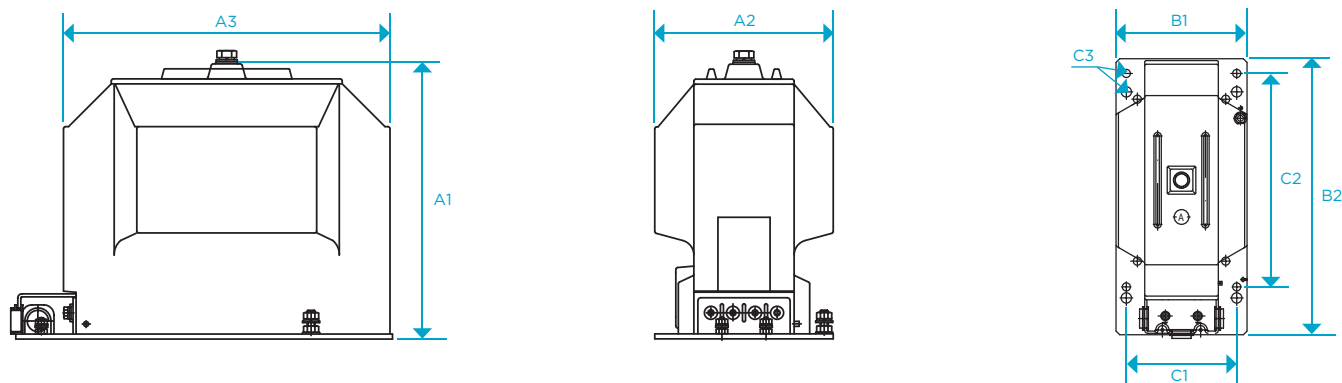
Electrical characteristics

| Model | Highest voltage (kV) | Rated insulation level | | Thermal burden (VA) | |
|--------|----------------------|------------------------|-------------------------------|---------------------|-------|
| | | Power frequency (kV) | Lightning impulse (BIL) (kVp) | | |
| UCD-7 | - | 7.2 | 20 | 60 | 300 |
| UCE-7 | - | 7.2 | 20 | 60 | 750 |
| UCL-7 | UXL-7 | 7.2 | 20 | 60 | 450 |
| UCI-12 | UXI-12 | 12 | 28 | 75 | 350 |
| UCL-12 | UXL-12 | 12 | 28 | 75 | 450 |
| UCN-12 | UXN-12 | 12 | 28 | 75 | 600 |
| UCD-17 | - | 17.5 | 38 | 95 | 1,000 |
| UCE-17 | - | 17.5 | 38 | 95 | 1,500 |
| UCI-17 | UXI-17 | 17.5 | 38 | 95 | 350 |
| UCL-17 | UXL-17 | 17.5 | 38 | 95 | 450 |
| UCG-24 | UXG-24 | 24 | 50 | 125 | 650 |
| UCI-24 | - | 24 | 50 | 125 | 350 |
| UCJ-24 | UXJ-24 | 24 | 50 | 125 | 600 |
| UCL-24 | UXL-24 | 24 | 50 | 125 | 450 |
| UCN-24 | UXN-24 | 24 | 50 | 125 | 600 |
| UCS-24 | UXS-24 | 24 | 50 | 125 | 1,500 |
| UCG-36 | UXG-36 | 36 | 70 | 170 | 650 |
| UCN-36 | UXN-36 | 36 | 70 | 170 | 600 |
| UCS-36 | UXS-36 | 36 | 70 | 170 | 1,500 |
| UCS-52 | UXS-52 | 52 | 95 | 250 | 1,500 |
| UCS-72 | UXS-72 | 72.5 | 140 | 325 | 1,500 |
| UCT-72 | - | 72.5 | 140 | 325 | 1,500 |

Rated Voltage factor: 1.2 Un continuous, up to 1.9 Un / 8 h.
Subject to technical change.

2. VOLTAGE TRANSFORMERS > Support type > Single phase

DIMENSIONS



Dimensions and weights

| Model | Dimensions (mm) | | | Base (mm) | | Mounting (mm) | | | Weight (kg) | |
|--------|-----------------|------------|-------------|------------|-------------|---------------|-------------|--------------------|-------------|-----|
| | Height (A1) | Width (A2) | Length (A3) | Width (B1) | Length (B2) | Width (C1) | Length (C2) | Hole diameter (C3) | | |
| UCD-7 | - | 187.5 | 162 | 185 | 152 | 258 | 131 | 184/234 | 11 | 15 |
| UCE-7 | - | 168 | 160 | 184 | 162 | 236.5 | 139.8 | 189/216 | 11 | 15 |
| UCL-7 | UXL-7 | 285 | 185 | 300 | 150 | 362 | 120/150 | 220/290 | 11 | 27 |
| UCI-12 | UXI-12 | 225 | 148 | 275 | 148 | 340 | 125 | 270 | 11 | 27 |
| UCL-12 | UXL-12 | 285 | 185 | 300 | 150 | 362 | 120/150 | 220/290 | 11 | 27 |
| UCN-12 | UXN-12 | 350 | 222 | 375 | 225 | 432 | 150/200 | 290/350 | 11 | 44 |
| UCD-17 | - | 233.5 | 228 | 278 | 235 | 334 | 203 | 260/330 | 11 | 39 |
| UCE-17 | - | 250 | 230 | 283 | 234 | 333.5 | 203 | 260.3/312 | 11 | 36 |
| UCI-17 | UXI-17 | 225 | 148 | 275 | 148 | 340 | 125 | 270 | 11 | 27 |
| UCL-17 | UXL-17 | 285 | 185 | 300 | 150 | 362 | 120/150 | 220/290 | 11 | 27 |
| UCG-24 | UXG-24 | 300 | 186 | 375 | 186 | 432.5 | 150/165 | 290/300 | 11 | 45 |
| UCI-24 | - | 225 | 148 | 275 | 148 | 340 | 125 | 270 | 11 | 27 |
| UCJ-24 | UXJ-24 | 275 | 178 | 325 | 178 | 375 | 120/150/150 | 220/280/290 | 11/14/11 | 30 |
| UCL-24 | UXL-24 | 285 | 185 | 300 | 150 | 362 | 120/150 | 220/290 | 11 | 27 |
| UCN-24 | UXN-24 | 350 | 222 | 375 | 225 | 432 | 150/200 | 290/350 | 11 | 44 |
| UCS-24 | UXS-24 | 367 | 240 | 410 | 240 | 502 | 200 | 300 | 14 | 76 |
| UCG-36 | UXG-36 | 300 | 186 | 375 | 186 | 432.5 | 150/165 | 290/300 | 11 | 45 |
| UCN-36 | UXN-36 | 350 | 222 | 375 | 225 | 432 | 150/200 | 290/350 | 11 | 44 |
| UCS-36 | UXS-36 | 367 | 240 | 410 | 240 | 502 | 200 | 300 | 14 | 76 |
| UCS-52 | UXS-52 | 482 | 255 | 410 | 240 | 502 | 200 | 300 | 14 | 82 |
| UCS-72 | UXS-72 | 770 | 285 | 410 | 285 | 475 | 200 | 300 | 14 | 102 |
| UCT-72 | - | 750 | 350 | 410 | 285 | 250/475 | 250 | 250 | 14 | 150 |

Brass primary terminals (silver-plated on request) with M12 zinc-plated, bichromated steel screw.
 Brass M5/M6 secondary terminals. Zinc-plated, bichromated steel M8/M12 earth terminals.
 Polycarbonate secondary terminal cover. Zinc-plated, bichromated steel covers available on request.
 Approximate dimensions and weights.

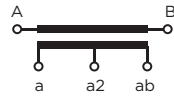
Phase-phase

MARKING

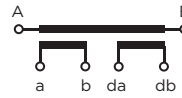
> SINGLE PRIMARY RATIO AND ONE SECONDARY



> DOUBLE PRIMARY RATIO BY SECONDARY TAPPING AND ONE SECONDARY



> SINGLE PRIMARY RATIO AND TWO SECONDARIES



> SINGLE PRIMARY RATIO AND TWO SECONDARIES WITH TAPS



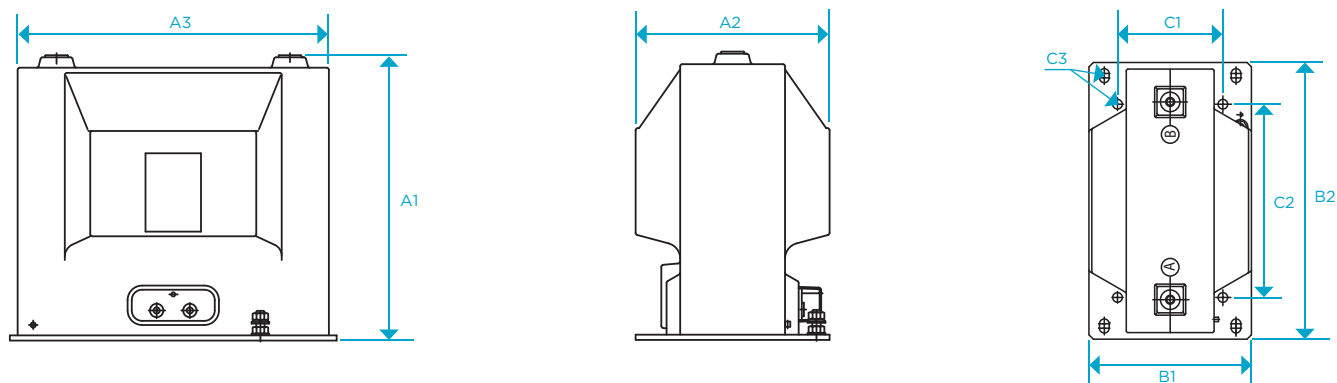
Electrical characteristics

| Model | Highest voltage (kV) | Rated insulation level | | Thermal burden (VA) |
|---------|----------------------|------------------------|-------------------------------|---------------------|
| | | Power frequency (kV) | Lightning impulse (BIL) (kVp) | |
| VCD-7 | - | 20 | 60 | 750 |
| VCE-7 | - | 20 | 60 | 750 |
| VCL-7 | VXL-7 | 20 | 60 | 600 |
| VCI-12 | VXI-12 | 28 | 75 | 400 |
| VCL-12 | VXL-12 | 28 | 75 | 600 |
| VCN-12 | VXN-12 | 28 | 75 | 750 |
| VCO-12 | - | 28 | 75 | 600 |
| VCD-17 | - | 38 | 95 | 1,500 |
| VCE-17 | - | 38 | 95 | 1,500 |
| VCL-17 | VXL-17 | 38 | 95 | 600 |
| VCLR-17 | - | 38 | 95 | 600 |
| VCJ-24 | VXJ-24 | 50 | 125 | 600 |
| VCL-24 | VXL-24 | 50 | 125 | 750 |
| VCN-24 | VXN-24 | 50 | 125 | 750 |
| VCO-24 | - | 50 | 125 | 500 |
| VCS-24 | VXS-24 | 50 | 125 | 1,500 |
| VCT-24 | - | 50 | 125 | 4,000 |
| VCN-36 | VXN-36 | 70 | 170 | 750 |
| VCS-36 | VXS-36 | 70 | 170 | 1,500 |

Rated Voltage factor: 1.2 Un continuous, up to 1.9 Un / 8 h.
Subject to technical change.

2. VOLTAGE TRANSFORMERS > Support type > Phase-phase

DIMENSIONS



Dimensions and weights

| Model | Dimensions (mm) | | | Base (mm) | | Mounting (mm) | | | Weight (kg) | |
|---------|-----------------|------------|-------------|------------|-------------|---------------|-------------|--------------------|-------------|----|
| | Height (A1) | Width (A2) | Length (A3) | Width (B1) | Length (B2) | Width (C1) | Length (C2) | Hole diameter (C3) | | |
| VCD-7 | - | 187 | 162 | 195 | 152 | 258 | 131 | 177.4/237.7 | 11 | 15 |
| VCE-7 | - | 168 | 160 | 184 | 162 | 236.5 | 139.8 | 189/216 | 11 | 15 |
| VCL-7 | VXL-7 | 275 | 185 | 300 | 185 | 315 | 120/150 | 220/290 | 11 | 28 |
| VCI-12 | VXI-12 | 225 | 148 | 275 | 148 | 337.5 | 125 | 270 | 11 | 28 |
| VCL-12 | VXL-12 | 275 | 185 | 300 | 185 | 315 | 120/150 | 220/290 | 11 | 28 |
| VCN-12 | VXN-12 | 415 | 222 | 375 | 225 | 380 | 150/200 | 290/350 | 11 | 45 |
| VCO-12 | - | 310 | 175 | 328 | 140 | 260 | 78 | 240 | M6 | 35 |
| VCD-17 | - | 295.7 | 228 | 278 | 235 | 334 | 203.2 | 260.2/311.2 | 11 | 39 |
| VCE-17 | - | 250 | 230 | 283 | 234 | 333.5 | 203 | 260.3/312 | 11 | 36 |
| VCL-17 | VXL-17 | 275 | 185 | 300 | 185 | 315 | 120/150 | 220/290 | 11 | 28 |
| VCLR-17 | - | 245 | 172.6 | 289 | 170 | 285 | 142.5 | 252.5 | 14 | 24 |
| VCJ-24 | VXJ-24 | 275 | 178 | 325 | 178 | 375 | 120/150/150 | 220/280/290 | 11/14/11 | 32 |
| VCL-24 | VXL-24 | 275 | 185 | 300 | 185 | 315 | 120/150 | 220/290 | 11 | 28 |
| VCN-24 | VXN-24 | 415 | 222 | 375 | 225 | 380 | 150/200 | 290/350 | 11 | 45 |
| VCO-24 | - | 310 | 175 | 328 | 140 | 260 | 78 | 240 | M6 | 35 |
| VCS-24 | VXS-24 | 367 | 275 | 410 | 240 | 502 | 200 | 300 | 14 | 75 |
| VCT-24 | - | 371 | 240 | 450 | 240 | 366 | 210 | 366 | 16 | 45 |
| VCN-36 | VXN-36 | 415 | 222 | 375 | 225 | 380 | 150/200 | 290/350 | 11 | 45 |
| VCS-36 | VXS-36 | 367 | 405 | 410 | 240 | 502 | 200 | 300 | 14 | 76 |

Brass primary terminals (silver-plated on request) with M12 zinc-plated, bichromated steel screw.
 Brass M5/M6 secondary terminals. Zinc-plated, bichromated steel M8/M12 earth terminals.
 Polycarbonate secondary terminal cover. Zinc-plated, bichromated steel covers available on request.
 Approximate dimensions and weights.

SUPPORT TYPE WITH FUSE

Voltage transformers for indoor service, encapsulated in resin for phase-earth (1 pole) or phase-phase (2 pole) installations and with a built-in fuse with resin housing on the primary side.

RANGE

- > Transformers for phase-earth connections with insulation levels up to 36 kV.
- > Transformers for phase-phase connections with insulation levels up to 12 kV.
- > Frequencies: 50 Hz, 60 Hz.
- > Secondary voltages:
 Measurement - $100:\sqrt{3}$, $110:\sqrt{3}$, $120:\sqrt{3}$; 110, 115, 120 V.
 Residual - $100:3$, $110:3$, $120:3$ V.

APPLICATIONS

- > Medium voltage air insulated primary distribution switchgears.
- > Medium voltage air insulated secondary distribution switchgears.

ADVANTAGES

- > Possibility of frequencies different from the standardized ones (50 Hz and 60 Hz).
- > Stainless steel screws, bolts and nuts available.
- > Double primary ratio by secondary tapping.
- > Safety valve for relieving internal overpressure available.
- > 2 A rated current fuse. Other currents also available.
- > Easy fuse assembly.
- > Quick connection of the primary terminal.



> Model VCIF



> Model UCIF



> Model UCLF



> Primary terminal with spring or fix connection for different applications.

2. VOLTAGE TRANSFORMERS > Support type with fuse

MARKING

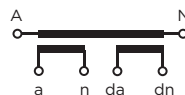
> SINGLE PHASE SINGLE PRIMARY RATIO AND ONE SECONDARY



> SINGLE PHASE DOUBLE PRIMARY RATIO BY SECONDARY TAPPING AND ONE SECONDARY



> SINGLE PHASE SINGLE PRIMARY RATIO AND TWO SECONDARIES



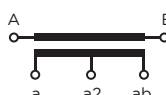
> SINGLE PHASE SINGLE PRIMARY RATIO AND TWO SECONDARIES WITH TAPS



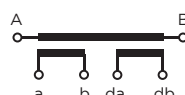
> PHASE-PHASE SINGLE PRIMARY RATIO AND ONE SECONDARY



> PHASE-PHASE DOUBLE PRIMARY RATIO BY SECONDARY TAPPING AND ONE SECONDARY



> PHASE-PHASE SINGLE PRIMARY RATIO AND TWO SECONDARIES



> PHASE-PHASE SINGLE PRIMARY RATIO AND TWO SECONDARIES WITH TAPS

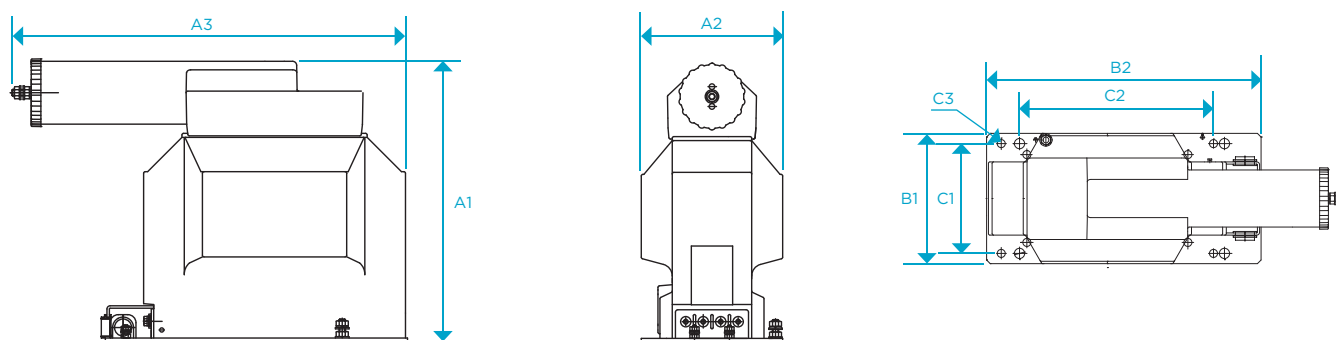


Electrical characteristics

| Model | Highest voltage (kV) | Rated insulation level | | Thermal burden (VA) | Use |
|---------|----------------------|------------------------|-------------------------------|---------------------|--------------|
| | | Power frequency (kV) | Lightning impulse (BIL) (kVp) | | |
| VCIF-12 | - | 28 | 75 | 400 | PHASE-PHASE |
| UCIF-17 | UXIF-17 | 38 | 95 | 350 | SINGLE PHASE |
| UCJF-24 | UXJF-24 | 50 | 125 | 600 | SINGLE PHASE |
| UCLF-24 | UXLF-24 | 50 | 125 | 450 | SINGLE PHASE |
| - | UXJF-36 | 70 | 170 | 600 | SINGLE PHASE |
| UCSF-36 | UXSF-36 | 70 | 170 | 1,500 | SINGLE PHASE |

Rated Voltage factor: 1.2 Un continuous, up to 1.9 Un / 8 h. Subject to technical change.

DIMENSIONS



Dimensions and weights

| Model | Dimensions (mm) | | | Base (mm) | | Mounting (mm) | | | Weight (kg) |
|---------|-----------------|------------|---------------------|------------|-------------|---------------|-------------|--------------------|-------------|
| | Height (A1) | Width (A2) | Length (A3) | Width (B1) | Length (B2) | Width (C1) | Length (C2) | Hole diameter (C3) | |
| VCIF-12 | 295 | 373 | 275 | 152 | 280 | 130 | 200 | 11 | 29 |
| UCIF-17 | 302.5 | 148 | 449.5/494.5 | 148 | 340 | 125 | 270 | 11 | 29 |
| UCJF-24 | 352 | 178 | 467/567/512/612 | 178 | 375 | 150 | 280 | 14 | 32 |
| UCLF-24 | 362 | 185 | 459.5/559.5/507/607 | 185 | 362.5 | 120/150 | 220/290 | 11 | 29 |
| - | 352 | 178 | 467/567/512/612 | 178 | 375 | 150 | 280 | 14 | 32 |
| UCSF-36 | 435 | 240 | 721/748 | 240 | 502 | 200 | 300 | 14 | 80 |

Brass primary terminals (silver-plated on request) with M12 zinc-plated, bichromated steel screw.

Brass M5/M6 secondary terminals. Zinc-plated, bichromated steel M8/M12 earth terminals.

Polycarbonate secondary terminal cover. Zinc-plated, bichromated steel covers available on request. Approximate dimensions and weights.

TOUCH-PROOF TYPE

Transformers for indoor service, encapsulated in resin with a metallic coating for installation in medium voltage switchgears insulated in gas.

RANGE

- > Transformers for phase-earth connections with insulation levels up to 52 kV.
- > Transformers for phase-phase connections with insulation levels up to 36 kV.
- > Frequencies: 50 Hz, 60 Hz.
- > Secondary voltages:
 Measurement - 100: $\sqrt{3}$, 110: $\sqrt{3}$, 120: $\sqrt{3}$; 110, 115, 120 V.
 Residual - 100:3, 110:3, 120:3 V.

APPLICATIONS

- > Medium voltage primary distribution switchgears insulated with SF₆ gas.
- > Medium voltage secondary distribution switchgears insulated with SF₆ gas.

ADVANTAGES

- > Connection in the primary through a plug-in cable bushing as per EN 50181.
- > Possibility of frequencies different from the standardized currents (50 and 60 Hz).
- > Possibility of built-in primary fuse.
- > Sealable metal secondary box cover.
- > Safety valve for releasing internal overpressure.
- > Stainless steel screws, bolts and nuts available.
- > Transformer assembly in any position (horizontal, vertical, etc).



> Model UEG



> Model UEN



> Model UEI



> Model UEGF



> Model VEG


 > UEI-24
 Touch-proof transformer for MV switchgears insulated with gas.

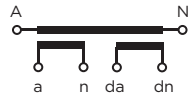
2. VOLTAGE TRANSFORMERS > Touch-proof type

MARKING

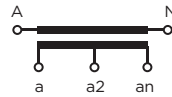
> SINGLE PRIMARY RATIO AND ONE SECONDARY



> SINGLE PRIMARY RATIO AND TWO SECONDARIES



> DOUBLE PRIMARY RATIO BY SECONDARY TAPPING AND ONE SECONDARY



> SINGLE PRIMARY RATIO AND TWO SECONDARIES WITH TAPS

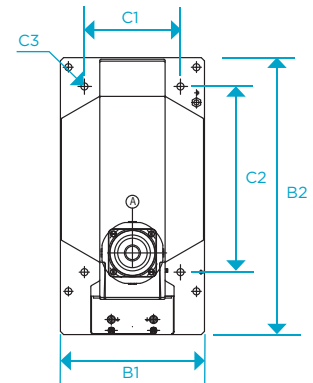
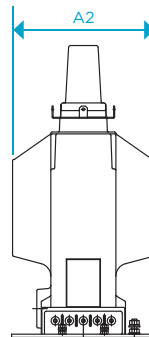
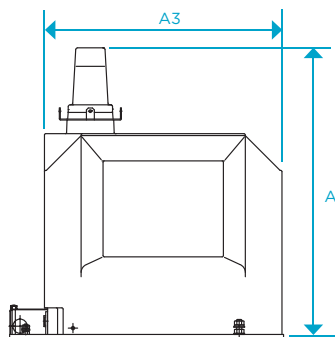


Electrical characteristics

| Model | Highest voltage (kV) | Rated insulation level | | Thermal Burden (VA) | Use |
|---------|----------------------|------------------------|-------------------------------|---------------------|------------------------|
| | | Power frequency (kV) | Lightning impulse (BIL) (kVp) | | |
| UEN-12 | 12 | 28 | 75 | 600 | SINGLE PHASE |
| VEI-12 | 12 | 28 | 75 | 450 | PHASE-PHASE |
| UEG-24 | 24 | 50 | 125 | 650 | SINGLE PHASE |
| VEG-24 | 24 | 50 | 125 | 600 | PHASE-PHASE |
| UEI-24 | 24 | 50 | 125 | 350 | SINGLE PHASE |
| UEJ-24 | 24 | 50 | 125 | 600 | SINGLE PHASE |
| UEN-24 | 24 | 50 | 125 | 600 | SINGLE PHASE |
| UEG-36 | 36 | 70 | 170 | 650 | SINGLE PHASE |
| UEGF-36 | 36 | 70 | 170 | 650 | SINGLE PHASE WITH FUSE |
| UEN-36 | 36 | 70 | 170 | 600 | SINGLE PHASE |

Rated Voltage factor: 1.2 Un continuous, up to 1.9 Un / 8 h. Subject to technical change.

DIMENSIONS



Dimensions and weights

| Model | Dimensions (mm) | | | Base (mm) | | Mounting (mm) | | | Weight (kg) |
|---------|-----------------|------------|-------------|------------|-------------|---------------|-------------|--------------------|-------------|
| | Height (A1) | Width (A2) | Length (A3) | Width (B1) | Length (B2) | Width (C1) | Length (C2) | Hole diameter (C3) | |
| UEN-12 | 467 | 222 | 375 | 225 | 432 | 150/200 | 290/350 | 11 | 45 |
| VEI-12 | 313,5 | 148 | 275 | 148 | 340 | 125 | 205/270 | 11 | 32 |
| UEG-24 | 389 | 186 | 375 | 186 | 432.5 | 165 | 300 | 11 | 27 |
| VEG-24 | 429 | 186 | 375 | 186 | 432.5 | 150 | 240/300 | 11 | 48 |
| UEI-24 | 304.5 | 148 | 275 | 148 | 337.5 | 125 | 205/270 | 11 | 27 |
| UEJ-24 | 349.5 | 178 | 325 | 178 | 375 | 120/150/150 | 220/280/290 | 11/14/11 | 30 |
| UEN-24 | 467 | 222 | 375 | 225 | 432 | 150/200 | 290/350 | 11 | 45 |
| UEG-36 | 429 | 186 | 375 | 186 | 432.5 | 150/165 | 300 | 11 | 48 |
| UEGF-36 | 400 | 186 | 602 | 186 | 439.5 | 150/165 | 290/300 | 11 | 65 |
| UEN-36 | 467 | 222 | 375 | 225 | 432 | 150/200 | 290/350 | 11 | 45 |

Brass primary terminals (silver-plated on request) with zinc plated and bichromated steel bolts, with primary lead to insulated cable in accordance with standard DIN 47636. Brass M5/M6 secondary terminals. Zinc-plated, bichromated steel M8/M12 earth terminals. Polycarbonate secondary terminal cover. Zinc-plated, bichromated steel covers available on request. Approximate dimensions and weights.

3. COMBINED TRANSFORMERS Support type



3. COMBINED TRANSFORMERS > Support type

SUPPORT TYPE

Combine instrument transformers contain a current transformer and a voltage transformer within a single resin body with an external metallic coating.

RANGE

- > Insulation level up to 24 kV.
- > Rated primary currents up to 200 A.
- > Secondary currents: 1 and 5 A.
- > Secondary voltages:
Measurement - 100:√3, 110:√3, 120:√3; 110, 115, 120 V.
Residual - 100:3, 110:3, 120:3 V.
- > Frequencies: 50 Hz, 60 Hz.

APPLICATIONS

- > Metering points in underground distribution systems.

ADVANTAGES

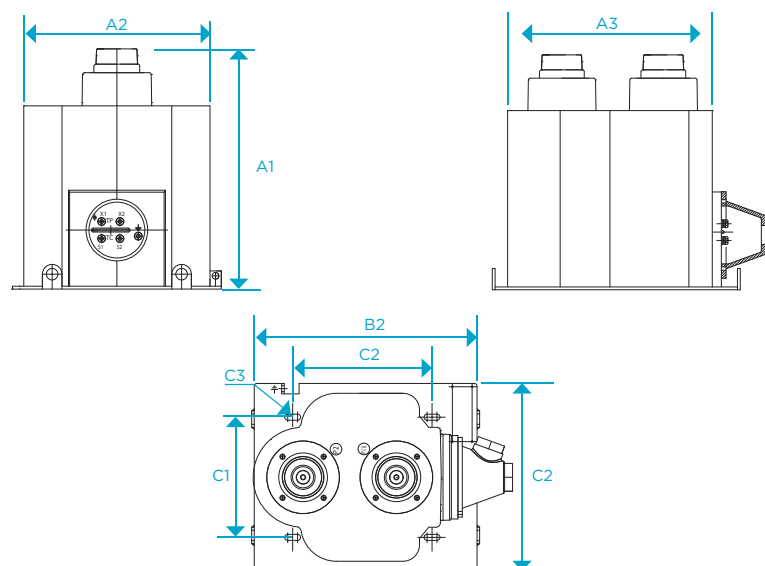
- > Primary connection with cable bushing as per IEEE standards. Can be designed based on customer specifications.
- > Waterproof metallic secondary terminal cover.
- > Stainless steel screws, bolts and nuts available.
- > Less space needed in the installation.
- > Savings in structures, supports, connectors, etc.
- > Reduced installation time.



> Model KCB

> KCB-17. 17.5 kV Combined transformers installed in a metering unit.

DIMENSIONS



Electrical characteristics

| Model | Highest voltage (kV) | Rated insulation level | | Maximum primary current (A) | Short-circuit current I_{th} | | Maximum number of cores |
|--------|----------------------|------------------------|-------------------------------|-----------------------------|--------------------------------|---------------------|-------------------------|
| | | Power frequency (kV) | Lightning impulse (BIL) (kVp) | | I_{th} (kA/1s) | I_{din} (kA) | |
| KCB-17 | 17.5 | 38 | 95 | 200 | 20 | $2.5 \times I_{th}$ | 1 |
| KCB-24 | 24 | 50 | 125 | 200 | 20 | $2.5 \times I_{th}$ | 1 |

Subject to technical change.

Dimensions and weights

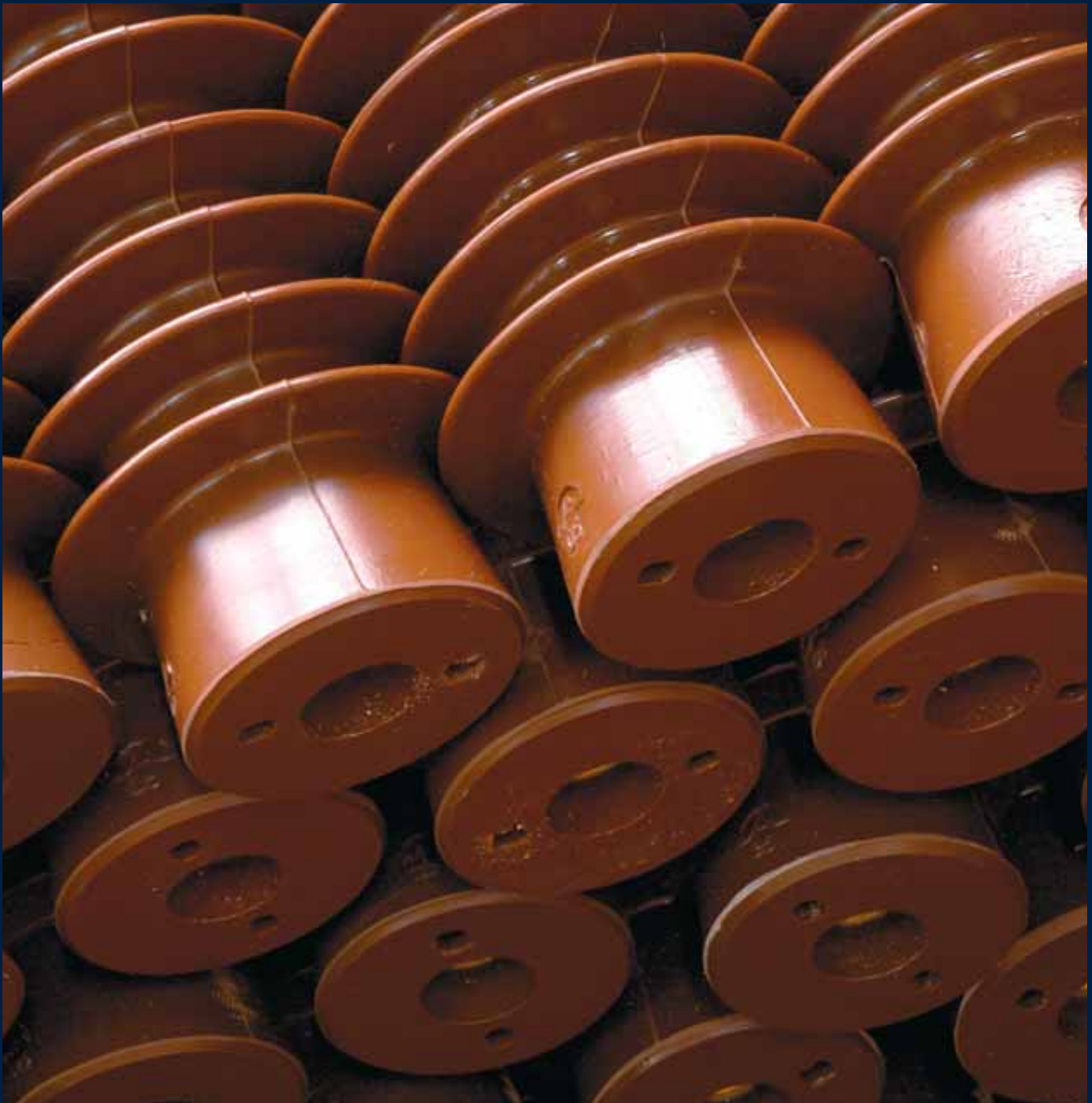
| Model | Dimensions (mm) | | | | Base (mm) | | Mounting (mm) | | | Weight (kg) |
|--------|-----------------|------------|-------------|---------------------|------------|-------------|---------------|-------------|--------------------|-------------|
| | Height (A1) | Width (A2) | Length (A3) | Inner diameter (A4) | Width (B1) | Length (B2) | Width (C1) | Length (C2) | Hole diameter (C3) | |
| KCB-17 | 360 | 305 | 340 | - | 320 | 370 | 219 | 254 | 11 | 53 |
| KCB-24 | 360 | 305 | 340 | - | 320 | 370 | 219 | 254 | 11 | 53 |

Standard 3/8" threaded terminals for receiving female connection.
1/4" standard threaded secondary terminals housed in water tight metal cases. Steel earthing terminal 7 mm in diameter.
Approximate dimensions and weights.

4. OTHER TECHNOLOGIES

Customized designs

Low Voltage



4. OTHER TECHNOLOGIES > Customized designs

CUSTOMIZED DESIGNS

ARTECHE's experience and technical capability, training and production capacity facilitates design and manufacturing of multiple solutions adapted to the specific needs of each customer or situation.

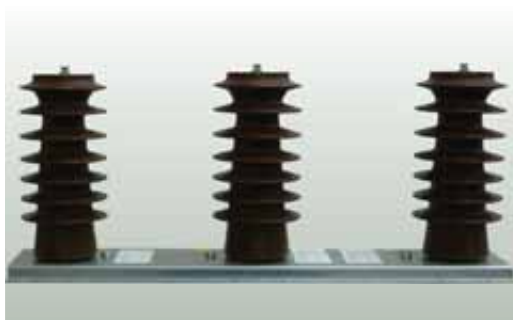


> Touch-proof voltage transformer for gas-insulated switchgear with special primary terminal design.



> Touch-proof current transformer for gas-insulated switchgear.

> SCA-24
Indoor resistive divider.



The innovation undertaken by ARTECHE in instrument transformers during the late years have made them more efficient, with compact designs for an easier transport, store, and installation and to minimize their visual impact.

> VCS-36
Support type voltage transformer with overhead medium voltage circuit breaker.



> AGD-24
Current transformer for medium voltage modular circuit breaker outputs.



> Support type voltage transformers with fuse VCT type.





ARTECHE has a multinational work team, committed to the goals of the company and ready to find effective answers to any challenge.

4. OTHER TECHNOLOGIES > Low Voltage

LOW VOLTAGE

ARTECHE has a wide range of instrument transformers for metering and protection up to 1.2 kV.

- › Current transformers for metering and/or protection (Toroidal, with primary busbar, window type).
- › Homopolar Current Transformers.
- › Split-core Current Transformers.
- › Interposing Current Transformers (low currents).
- › Adder/sumimator Current Transformers.
- › Voltage transformers for metering and/or protection.
- › Support insulators.
- › Signal transmission insulators.
- › Wall bushing Insulators.
- › Three phase insulation plates.

For more information, refer to catalog: LOW VOLTAGE INSTRUMENT TRANSFORMERS.



5. MANUFACTURING AND TECHNOLOGY

With 65 years of experience, ARTECHE guarantees the performance of its transformers regardless of altitude, weather, seismic or environmental conditions.



MANUFACTURING AND TECHNOLOGY

- › Equipment undergoing a continuous innovation process including: computerized systems for transformer calculation, analysis of the distribution of the electric field by FEM, automatic winding machines, casting in epoxy resin or polyurethane by gravity in vacuum tanks or pressurized gelification, controlled polymerization in large ovens.
- › Own laboratories with modern equipment, approved for any routine or type test, either for new developments or for specific requirements from our customers in power generation, transmission, distribution or industry.
- › Approved in laboratories belonging to the International Metrology Committee: PTB (Germany), L.C.O.E (Spain), GOST (Russia), BEV (Austria), GUM (Poland) etc.
- › Large production capacity of more than 130,000 units per year in medium voltage and an almost unlimited number of devices in low voltage, insulators and wall bushings. This capacity allows us to give a quick answer to any requirement.
- › Flexible designs, adapted to any specification, as a result of our strong engineering team located in all our production facilities.
- › Maximum safety with resin-cast transformers in which the core and the winding form a compact block. The resin acts as a dielectric support, protective casing and thermal conductor for the transformer.
- › Equipment compliant to any international or domestic standard: IEC, IEEE, UNE, BS, VDE, SS, CAN, AS, UL, NBR, JIS, GOST, NF, etc.

Maximum safety and reliability within a custom-made design.



- › Physical and chemical laboratories conduct over 130 tests to certify the quality of raw materials.

6. QUALITY & ENVIRONMENT

Exceeding **environmental regulations**, ARTECHE has been able to minimize the use off hazardous materials, energy consumption and waste generation.



QUALITY & ENVIRONMENT

Everyone in the ARTECHE Group works under the criteria set out in our environmental and quality policy.

A sum of regulated procedures based on communication, teamwork, prevention analysis and continuous improvement, common to the whole organization.

- › Advanced sustainability criteria in production and in the creation and development of new products.
- › Compact designs, manufactured with minimal energy consumption and environmental-friendly materials.
- › Internal and external skill motivation programs.
- › Advanced development of knowledge management.
- › Quality agreements with utilities.
- › Physico-chemical and electrical laboratories for testing under any International Standard.
- › Type test reports issued by KEMA, CESI, LAPEM, RENARDIÈRES, etc.
- › Final testing according to specific customer requirements.
- › Approvals in more than 100 electricity companies.
- › ISO 14001:2004.
- › ISO 9001:2008.
- › OHSAS 18001:2007.

ARTECHE's financial and technological independence gives a privileged position ahead of the challenges in the sector.



- › Officially homologated in-house medium voltage laboratories with modern technology to perform any routine test or type test.

7. SERVICE

Over 70 technical/sales service centers with real knowledge about each customer provide fast and close service.



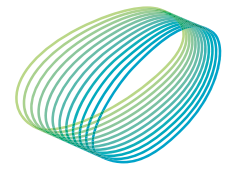
SERVICE

- › ARTECHE's service is based on a close relationship with the customers, reflected in the integrated post-sale assistance plan and structured client opinion system.
- › In addition to ensuring rapid response, ARTECHE developed a continuous service improvement plan, which sustains an extensive training program with courses, publications, conferences, etc.
- › ARTECHE's focus on service, with a broad experience leading us to be an active participant in the electrical organizations such as: IEC, IEEE, CIGRE, CIRED, ASINEL, etc.
- › ARTECHE has production facilities on four continents (North America, South America, Europe, Asia and Australia) and more than 70 technical/commercial offices. Thus ARTECHE provides effective responses to the requirements of any customer and situation, based on the global knowledge acquired.

ARTECHE has the technology and capabilities of instrument transformers. Thus we provide the best solution available in the market.



- › The solutions ARTECHE has developed and expanded upon have made it a major player participating in the most significant events and workgroups in the electricity sector.



arteche
Moving together

