Transformer components

SINGLE PHASE DUAL VOLTAGE SWITCH



- Changes the transformer winding connections between series and parallel to provide different voltage ratios.

- Operated externally with the transformer de-energized, allowing a single transformer to accommodate different voltage configurations.

VOLTAGE (kV)	BIL AND FULL WAVE CREST kV	AC 60Hz 1- MINUTE WITHSTAND (kV)	CONTINUOU CURRENT IN SERIES (A rms)	CONTINUOUS CURRENT IN PARALLEL (A rms)	VOLTAGE RATIO
25	150	50	150	300	2 : 1

Voltage ratings and characteristics in accordance with IEEE std C57.12

BAY-O-NET FUSE DRIP GUARD



- Prevents dripping of transformer oil or other insulating fluids onto molded rubber terminators, cables, and arresters during removal of the bayonet fuse holder.



Since 1977, SIMELCA has manufactured accessories for power transformers and components for electrical distribution networks in Medellín, Colombia. We machine, inject and assemble metal and plastic parts under one roof, following international standards and certified processes. Siemens Energy and Hitachi Energy rely on our components across Latin America, and our parts are already inside the transformers that Latin American manufacturers export to the United States.

What sets us apart is how we work with your purchasing team. Our shipments leave Cartagena and reach Houston or Miami in about five days by sea, and we work in your time zone, so questions get answered the same day. We quote in less than a week and we build from a single unit: prototypes, bridge runs and replacement parts for designs nobody else still makes, with technical and after sales support on every order. If a component is holding up your production line or your repair shop, send us the drawing.

49 years
Manufacturing without interruption since 1977

200+ people
Machining, injection, assembly and engineering

IEEE-compliant
Processes and full material traceability

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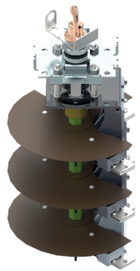
TRANSFORMER COMPONENTS

RELIABLE SOLUTIONS FOR A CONNECTED TOMORROW

DISTRIBUTION TRANSFORMERS | SAFETY & RELIABILITY | SUSTAINABLE SOLUTIONS

POWER DISTRIBUTION

Four-position switch



- Used in pad-mounted transformers for loop or ring main networks.

Applications in power distribution networks:

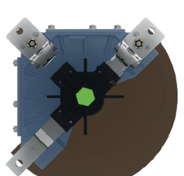
- Underground residential
- Industrial
- Commercial

VOLTAGE (kV)	BIL AND FULL WAVE CREST kV	AC 60Hz 1- MINUTE WITHSTAND (kV)	CURRENT RATING (A)	FAULT WITHSTAND SHORT TIME (1 sec RMS) 10 CYCLE SYMMETRIC	FAULT WITHSTAND 10 CYCLE PEAK
38	150	70	200	10.000 A	26.000 A
27,5	125	60	300	12.000 A	31.200 A
15,5	95	35	630	12.000 A	31.200 A

Voltage ratings and characteristics in accordance with IEEE Standard C37.74-2014.

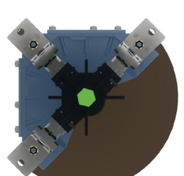
Configurations

III



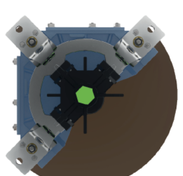
Blade/selector 1 side

VII

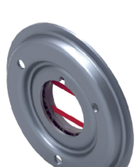


T-blade – Break-before-make

VIII



T-blade – Make-before-break



Oil level sight glass

- Allows checking and monitoring of the transformer oil level.

WINDOW	LID
POLYCARBONATE	STEEL PLATE

Transformer components

Tap changers

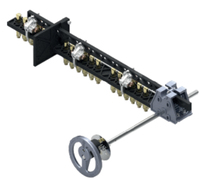
- Used to change the transformer ratio to ensure the required voltage is delivered on the transformer's low-voltage side.

Linear

Three-phase



Three-phase



Rotary

One-phase



Three-phase



TAP CHANGER SWITCH	VOLTAGE (kV)			CURRENT (A)						ONE-PHASE	TWO-PHASE	THREE-PHASE	SEMI-SUBMERGED
	15	25	34.5	30	60	100	150	250	350				
ROTATIVE TAP CHANGER SWITCH	X	X	X		X	X				X	X	X	X
LINEAR TAP CHANGER SWITCH	X	X	X	X	X		X	X	X			X	
BIL AND FULL WAVE CREST	95	150	200										



Two-position switch

- Used to energize or de-energize pad-mounted transformers or maneuvering boxes.

Operable only with a retractable hook pole.

LAPEM laboratory tests according to IEEE Std. C37.74/2003.

Available in: One-phase, Two-phase, Three-phase and Semi-submerged versions.

ONE-PHASE	TWO-PHASE	THREE-PHASE	SEMI-SUBMERGED
X	X	X	X

VOLTAGE (kV)	BIL AND FULL WAVE CREST kV	AC 60Hz 1- MINUTE WITHSTAND (kV)
38	150	70
27,8	125	60
15	95	35

Voltage ratings and characteristics in accordance with IEEE Standard C37.74-2003.

CURRENT RATING (A)	FAULT WITHSTAND SHORT TIME (1 sec RMS) 10 CYCLE SYMMETRIC	FAULT WITHSTAND 10 CYCLE PEAK
200	10.000 A	26.000 A
300	12.000 A	31.200 A
630	12.000 A	31.200 A

Current ratings and characteristics in accordance with IEEE Standard C37.74-2003.

Transformer components



Bushing well

- Used in pad-mounted transformers and maneuvering boxes.

Allows the connection between the transformer's active part and the interface with the bushing insert, to the power network.

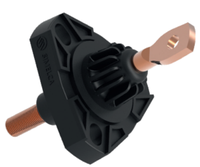
Electric Current

CHARACTERISTICS	A (rms)
NOMINAL CURRENT	200 A
SHORT-TERM CURRENT	10,000 A rms SYMMETRICAL DURING 0.17 SECONDS
	3,500 A rms SYMMETRICAL DURING 3 SECONDS

Voltage

CHARACTERISTICS	kV
MAXIMUM CLASS PHASE - PHASE	35
MAXIMUM CLASS PHASE TO GROUND	21,1
AC 60 Hz WITHSTAND FOR 1 MINUTE	50
BIL AND FULL WAVE CREST	150

Secondary bushing for transformers



- Used in pedestal-type power transformers for connecting the low-voltage side to the electrical distribution network.

CHARACTERISTICS	
STANDARD VOLTAGE	1.2 kV
NOMINAL VOLTAGE	600 V
NOMINAL VOLTAGE (AC 60 Hz 1 MIN)	10 kV
INSULATION LEVEL (BIL)	30 kV
NOMINAL DIRECT CURRENT (AC)	820 A
THREAD	5/8"

Wildlife Protection for Transformers



- Monolithic plastic device designed to be installed on the high-voltage insulators of distribution transformers. It prevents accidental contact of birds or other animals with energized conductors.

Its design enables quick installation without the need to disconnect the transformer wires. The upper section allows adaptation to different conductor diameters.

Rated for nominal voltage levels up to 15 kV - 34.5 kV.