HARMONIC CANCELLERS

QUALITY AND ENERGY EFFICIENCY
Series TAM

SERIES TAM

Multi-pulse harmonic compensating transformer

36-pulse harmonic compensating transformer for variable frequency drives for large 6.6 kV medium voltage motors.

POWER
500 ÷ 3150 kVA

PRI VOLTAGE
6.6 kV

SEC VOLTAGE
18 x 650 V

1. It cancels the current harmonics generated by the multi-level technology converter, obtaining a low value of harmonic distortion in current THD i < 5% and a power factor FP ≈0.99 without the need for external filters.

2. The distribution network does not require de-rating for harmonics, avoiding unwanted resonances and reducing electrical losses, increasing the efficiency of the installation.

3. Contributes to greater energy efficiency in electrical systems by reducing the effective current demanded by the installation.

Applications

- For starting and speed variation of large motors in water purification and pumping, mining, power generation, oil and gas plants, metallurgy and paper mills.

Regulatory

IEC/UNE-EN 60076-11

Optional:

UL 5085-1
UL 5085-2

CAN/CSA C22.2 NO.66.1-06
CAN/CSA C22.2 NO.66.2-06

Certifications

CE UKCA

Optional: cULus

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Connection

PRIMARY, SECONDARY, AUXILIARY AND TAP
regulation on the same side facilitates connection.

Magnetic core

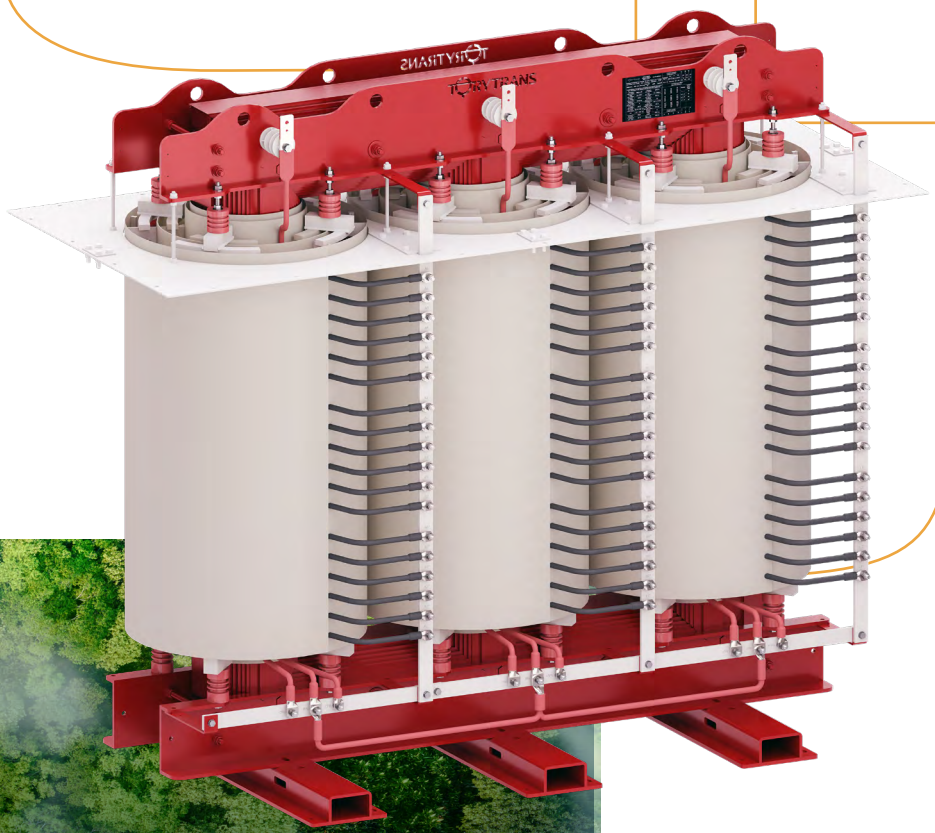
STEP-LAP TECHNOLOGY 45°: which reduces no-load losses and magnetizing current.

Tubed coil

AND HORIZONTAL DEFLECTOR
for efficient cooling.

Impregnation

COMPLETE and robust that protects it from moisture, dust and corrosion.



UL

TAGGED cURus
optional.

TORYTRANS

HARMONIC CANCELLERS

SERIES TAM

Technical specifications

POWER
500 ÷ 3150 kVA

PRI VOLTAGE
6.6 kV

SEC VOLTAGE
18 x 650 V

PULSES
36

GAP BETWEEN SEC
0° 10° 20° 30° 40° 50°

AUXILIARY VOLTAGE
400 V

REGULATION SOCKETS
± 5% in primary

FREQUENCY
50/60 Hz

HARMONICS OVERLOAD FACTOR
K ≥ 20

AMBIENT TEMPERATURE
50 °C

ALTITUDE
1000 m

THERMAL CLASS
H (180 °C)

PROTECTION INDEX
IP00

REFRIGERATION
AF ≥ 3 m/s

INSULATION LEVEL
7.2 kV Um

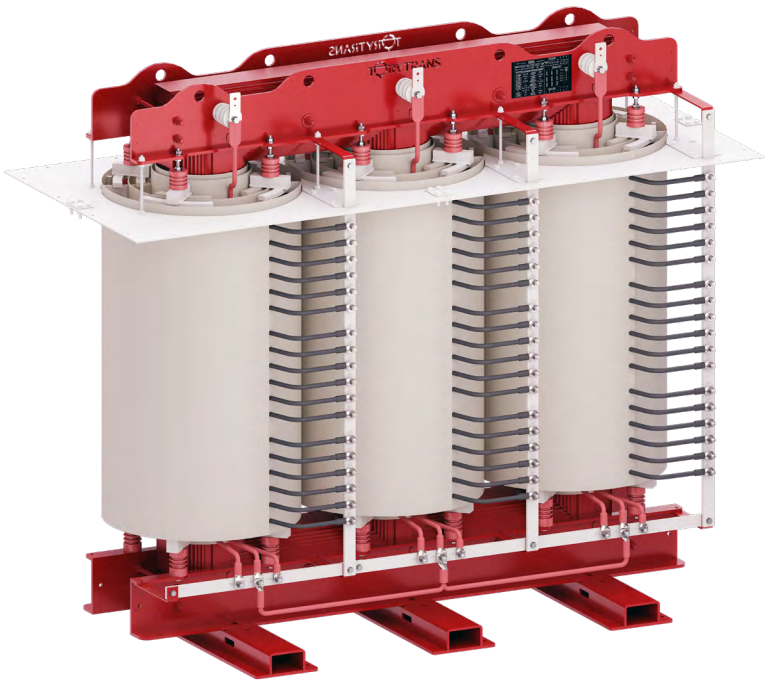
TEST VOLTAGE
20 kV

LIGHTNING IMPULSE
60 kV 1.2 / 50 µS

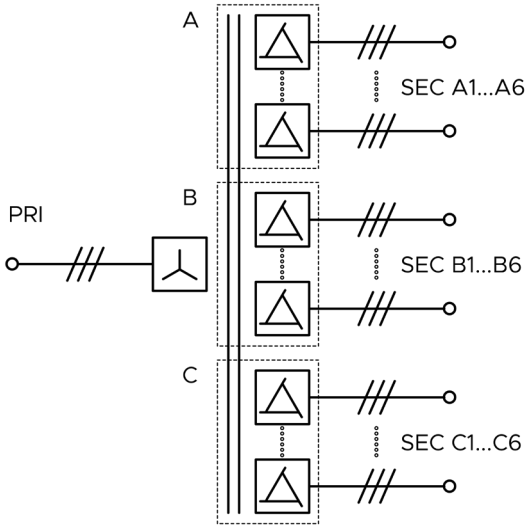
PARTIAL DISCHARGES
< 10 pC

T PROBE[a]
PT100

MULTI-PULSE HARMONIC COMPENSATING TRANSFORMER



Electric **schematic**

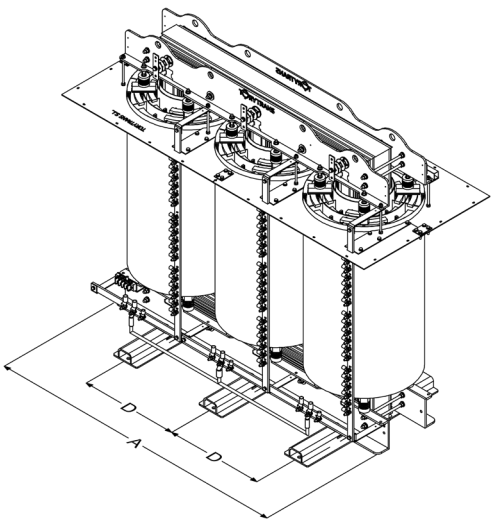


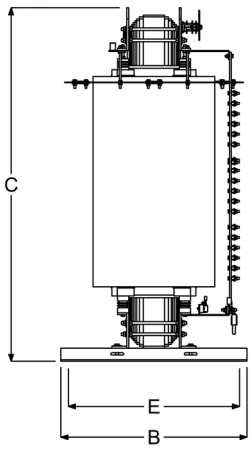
Technical data - standard models

POWER (kVA)	REFERENCES	VOLTAGE (V)		INTENSITY (A)		Ucc (%)	PERFORMANCE η (%)
	IP00	Primary	Secondary	Primary	Secondary		
500	**TAM500**	6600	18x650	43,7	18x29,6	7,0	95,6
630	**TAM630**	6600	18x650	55,1	18x37,3	6,7	95,9
800	**TAM800**	6600	18x650	70,0	18x47,4	6,6	96,1
1000	**TAM1000**	6600	18x650	87,5	18x59,2	7,1	96,4
1250	**TAM1250**	6600	18x650	109,3	18x74,0	6,3	96,9
1600	**TAM1600**	6600	18x650	140,0	18x94,7	6,6	97,3
2000	**TAM2000**	6600	18x650	175,0	18x118,4	6,6	97,4
2500	**TAM2500**	6600	18x650	218,7	18x148,0	6,8	97,8
3150	**TAM3150**	6600	18x650	275,6	18x186,5	6,7	98,1

Dimensions

POWER(k-VA)	REF.	DIMENSIONS (mm)						WEIGHT (kg)
		A	B	C	D	E	Ø	
500	**TAM500**	1330	650	1460	900	750	16	1100
630	**TAM630**	1360	660	1500	900	750	16	1300
800	**TAM800**	1390	670	1630	900	750	16	1550
1000	**TAM1000**	1430	680	1740	500	800	16	1700
1250	**TAM1250**	1500	710	1780	500	800	16	2050
1600	**TAM1600**	1640	760	1880	600	900	16	2550
2000	**TAM2000**	1730	790	1930	600	900	16	3000
2500	**TAM2500**	1880	840	1975	650	1000	16	3650
3150	**TAM3150**	2000	880	2050	650	1000	16	4500





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Series TAM

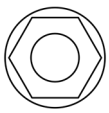
Cabling and protection

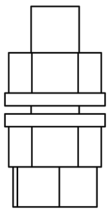
POWER (kVA)	REF.	PRIMARY PROTECTIONS (A) (aM)	SECONDARY PROTECTIONS (A) (aR)
500	**TAM500**	63	30
630	**TAM630**	80	40
800	**TAM800**	100	50
1000	**TAM1000**	125	60
1250	**TAM1250**	160	80
1600	**TAM1600**	200	100
2000	**TAM2000**	250	125
2500	**TAM2500**	315	160
3150	**TAM3150**	400	200

Connections

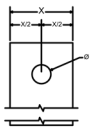
TERMINALS		MAX SECTION CONDUCTOR (mm²)	MAX. TIGHTENING TORQUE (Nm)	POWER (kVA)	
				Primary	Secondary
T2	M8	50	14	-	500-1600
	M10	150	27	-	2000-3150
P1	40x4	240	27	500-3150	-

T2





P1



Certification UL (Optional)

UL Category: OBJY2/8 (Systems, Electrical Insulation – Component).
Standard USA: UL 1446.
Standard Canada: CAN/CSA C22.2 No. 0-10, Annex B.