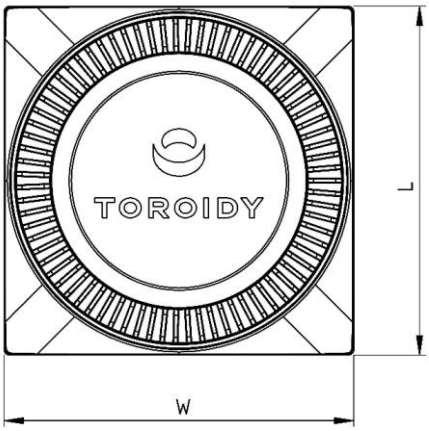
TOROIDY
TRANSFORMATORY LACHOWSKI

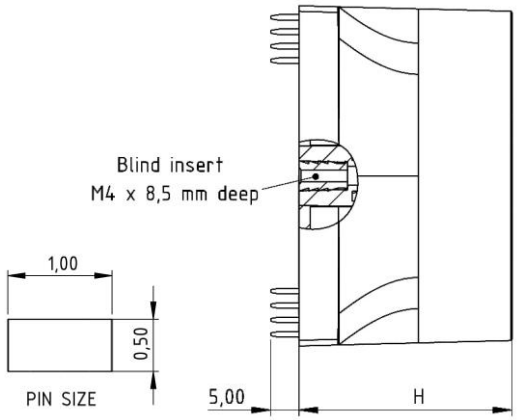
PCB MOUNTED TOROIDAL AUDIO-GRADE TRANSFORMERS **Type TAPCB**

Toroidal Transformers type TAPCB

Audio-grade, single-phase mains toroidal transformers, manufactured with Class II insulation and IP00 protection degree, according to EN 61558.
Ultra-efficient, low-loss transformers for through-hole mounting in low-voltage PSUs designed for audio equipment. Toroidal technology ensures maximum efficiency, low leakage field and compact size. The polyurethane-flooded design ensures noiseless and vibration-free operation.
Transformers can be made according to the customer's specifications and equipped with the following components:

- interwinding static shielding
- magnetic shielding
- thermal protection
- customized primary and secondary voltages



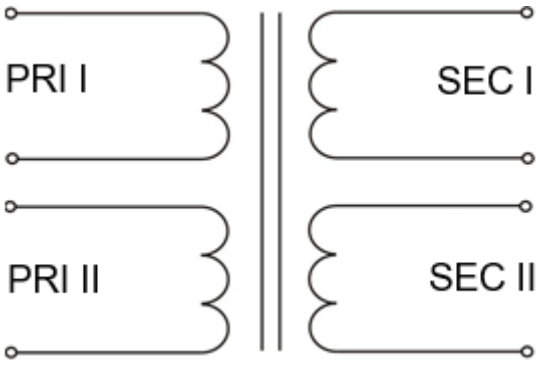


Technical details:

Nominal power:	5 VA – 25 VA
Primary voltages:	2x 115 V or others on request
Nominal frequency:	50 – 60 Hz
Secondary voltages:	according to the table of typical designs or other – on request

Construction / Insulation class:	II / B (130^{o}C)
Ambient temperature:	40^{o}C
Protection degree:	IP00
Insulation voltage test:	4 kVAC (RMS)

Wiring diagram:



sample – double primary and double secondary transformer – can be used in series or parallel connected

Electrical and mechanical characteristics of standard types:

Nominal Power	Dimensions L x W x H [mm]	Pin Layout XY [mm]	Primary Voltage	Part Number	Nominal Secondary Voltage	Nominal Secondary Current	Off-load Secondary Voltage	No Load Primary Current	Full Load Losses	Efficiency
5 VA	49,7x49,7x24,8	45,72	2 x 115 V	TAPCB-5VA-2x7	2 x 7 V	2x 357 mA	2 x 8,05 V	0,75 mA	0,51 W	80%
				TAPCB-5VA-2x9	2 x 9 V	2x 278 mA	2 x 10,31 V		0,43 W	90%
				TAPCB-5VA-2x12	2 x 12 V	2x 208 mA	2 x 13,62 V		0,28 W	92%
				TAPCB-5VA-2x15	2 x 15 V	2x 167 mA	2 x 16,90 V		0,10 W	95%
				TAPCB-5VA-2x18	2 x 18 V	2x 139 mA	2 x 20,32 V		0,16 W	94%
				TAPCB-5VA-2x22	2 x 22 V	2x 114 mA	2 x 24,92 V		0,08 W	95%
7 VA			2 x 115 V	TAPCB-7VA-2x7	2 x 7 V	2x 500 mA	2 x 8,30 V	0,71 mA	1,05 W	84%
				TAPCB-7VA-2x9	2 x 9 V	2x 389 mA	2 x 10,66 V		0,93 W	86%
				TAPCB-7VA-2x12	2 x 12 V	2x 292 mA	2 x 14,18 V		0,94 W	86%
				TAPCB-7VA-2x15	2 x 15 V	2x 233 mA	2 x 17,58 V		0,60 W	90%
				TAPCB-7VA-2x18	2 x 18 V	2x 194 mA	2 x 21,04 V		0,45 W	91%
				TAPCB-7VA-2x22	2 x 22 V	2x 159 mA	2 x 25,76 V		0,35 W	93%
10 VA	55x55x26	50,80	2 x 115 V	TAPCB-10VA-2x7	2 x 7 V	2x 714 mA	2 x 8,00 V	1,24 mA	1,31 W	86%
				TAPCB-10VA-2x9	2 x 9 V	2x 556 mA	2 x 10,22 V		1,17 W	87%
				TAPCB-10VA-2x12	2 x 12 V	2x 417 mA	2 x 13,57 V		1,01 W	88%
				TAPCB-10VA-2x15	2 x 15 V	2x 333 mA	2 x 16,99 V		0,93 W	89%
				TAPCB-10VA-2x18	2 x 18 V	2x 278 mA	2 x 20,45 V		0,87 W	90%
				TAPCB-10VA-2x22	2 x 22 V	2x 227 mA	2 x 24,83 V		0,52 W	93%
15 VA	60x60x37,5	55,88	2 x 115 V	TAPCB-15VA-2x7	2 x 7 V	2x 1071 mA	2 x 8,02 V	1,28 mA	2,03 W	86%
				TAPCB-15VA-2x9	2 x 9 V	2x 833 mA	2 x 10,30 V		1,92 W	86%
				TAPCB-15VA-2x12	2 x 12 V	2x 625 mA	2 x 13,68 V		1,75 W	87%
				TAPCB-15VA-2x15	2 x 15 V	2x 500 mA	2 x 17,23 V		1,70 W	87%
				TAPCB-15VA-2x18	2 x 18 V	2x 417 mA	2 x 20,62 V		1,53 W	88%
				TAPCB-15VA-2x22	2 x 22 V	2x 341 mA	2 x 25,11 V		1,34 W	89%
25 VA			2 x 115 V	TAPCB-25VA-2x7	2 x 7 V	2x 1785 mA	2 x 8,06 V	1,90 mA	3,60 W	85%
				TAPCB-25VA-2x9	2 x 9 V	2x 1377 mA	2 x 10,44 V		3,48 W	85%
				TAPCB-25VA-2x12	2 x 12 V	2x 1041 mA	2 x 13,56 V		2,83 W	87%
				TAPCB-25VA-2x15	2 x 15 V	2x 832 mA	2 x 17,05 V		2,88 W	87%
				TAPCB-25VA-2x18	2 x 18 V	2x 694 mA	2 x 20,52 V		2,75 W	88%
				TAPCB-25VA-2x22	2 x 22 V	2x 568 mA	2 x 25,01 V		2,59 W	90%

Nominal parameters can be adjusted to meet customer needs.
Voltages, currents and the number of secondary and primary windings can be changed.

PCB layout for standard types: