

Low voltage transformers

Intermagnetics Srl



Three-phase or single-phase dry-type LV transformers are used as isolation transformers or to adjust the voltage level in the LV distribution grid. Hitachi ABB Power Grid's LV transformers use aluminum or copper foil or wire for the windings which are impregnated with epoxy resin of thermal class F or H by simple or vacuum pressure impregnation (VPI).

Applications

Hitachi ABB Power Grids low voltage transformers are widely used in industrial applications and in commercial and public buildings and installations. They are used for adjusting the voltage from e.g. 690V to 400V or as isolation transformers with a voltage ratio of 1:1, providing galvanic separation. Dedicated products are available for various applications in renewable power generation including:

- Wind or photovoltaics
- Transportation (ie, marine or railways)
- Uninterruptible power supply (UPS)
- Chemical, oil and gas industry
- Converters

Key Features

- Reliable and high quality
- Low loss
- Low weight and compact dimensions
- Non-flammable and non-explosive
- Optional: IP23 protection enclosures
- With air cooling based on natural convection (AN), optional with forced air cooling (AF) or water-cooled (WF)

Standards

All units are built in accordance with **IEC** and **EN**. On request can be available for **UL** market.



Low Voltage Transformers Series

Technical features

Typical voltage ratio	400V / 400V (415V No Load) (others on request)
Frequency	50 Hz or 60 Hz (others on request)
Vector group	Dyn11 (others on request)
Technology	Vacuum pressurized impregnation
Winding material	Aluminum or Copper
Terminals	Copper / Aluminum bars, cable shoes, terminals
Cooling	AN (AF, WF on request)
Protection degree	IP00 (up to IP56)
Installation altitude	≤1000 meters (3280 ft) A.S.L. (higher on request)
Power frequency withstand	3 kV for 1 minute
Insulation class	Class C,H,F,B available
Ambient temperature	40-60°C

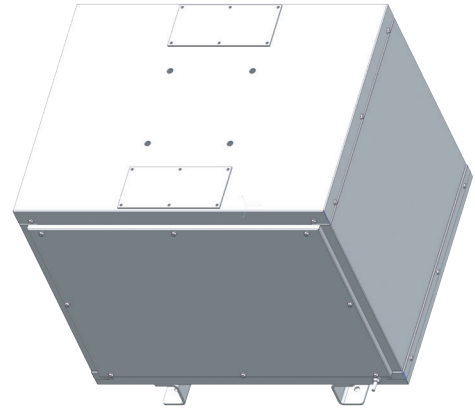
Indicative examples of available powers

Power [kVA]	Reference [IP00]	Ucc	Losses		Dimensions LxBxH [mm]	Approx Mass [Kg]
			No Load [W]	Load (115°C) [W]		
10	T3P0010K	4%	130	360	360 x 180 x 340	51
13	T3P0013K	4%	180	500	400 x 260 x 380	80
16	T3P0016K	4%	220	630	410 x 270 x 380	85
20	T3P0020K	4%	250	670	460 x 280 x 400	100
25	T3P0025K	4%	290	840	460 x 280 x 440	110
32	T3P0032K	4%	350	870	490 x 340 x 425	130
40	T3P0040K	4%	390	1180	490 x 350 x 470	150
50	T3P0050K	4%	490	1300	490 x 350 x 490	165
63	T3P0063K	4%	610	1390	600 x 430 x 480	225
80	T3P0080K	4%	630	1870	600 x 500 x 530	275
100	T3P0100K	4%	720	1900	680 x 480 x 520	340
125	T3P0125K	4%	780	2520	650 x 500 x 575	380
160	T3P0160K	4%	850	2900	685 x 550 x 620	500
200	T3P0200K	4%	1100	3100	750 x 550 x 630	610
250	T3P0250K	4%	1200	4150	700 x 570 x 780	680
315	T3P0315K	4%	1380	4400	760 x 650 x 800	845
400	T3P0400K	4%	1740	5000	875 x 670 x 800	1040
500	T3P0500K	4%	1980	6700	880 x 700 x 920	1245
630	T3P0630K	6%	2200	7950	1020 x 780 x 960	1580
800	T3P0800K	6%	2500	9300	1050 x 800 x 1050	1800
1000	T3P1000K	6%	2800	10400	1120 x 860 x 1120	2210

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Enclosures technical features

- Enclosure shall be degree IP23 (or higher) with 2 detachable panels on long side and detachable roof
- 4 fixing points on the floor
- 4 lifting hooks on cover for full lifting
- Cable entry from the top or bottom
- Painting: 100 micron DFT
- Finishing color: Grey RAL 7035 (other colors on request)



Indicative examples of available powers

Power [kVA]	Reference [IP21]	Dimensions	Approx Mass [Kg]
		LxBxH [mm]	
10	T3P0010K21	450 x 350 x 500	69
13	T3P0013K21	750 x 700 x 700	127
16	T3P0016K21	750 x 700 x 700	132
20	T3P0020K21	750 x 700 x 700	147
25	T3P0025K21	750 x 700 x 700	157
32	T3P0032K21	750 x 700 x 700	177
40	T3P0040K21	750 x 700 x 700	197
50	T3P0050K21	750 x 700 x 700	212
63	T3P0063K21	750 x 700 x 700	272
80	T3P0080K21	750 x 700 x 700	322
100	T3P0100K21	1050 x 950 x 1150	445
125	T3P0125K21	1050 x 950 x 1150	485
160	T3P0160K21	1050 x 950 x 1150	605
200	T3P0200K21	1050 x 950 x 1150	715
250	T3P0250K21	1050 x 950 x 1150	785
315	T3P0315K21	1050 x 950 x 1150	950
400	T3P0400K21	1050 x 950 x 1150	1145
500	T3P0500K21	1050 x 950 x 1150	1350
630	T3P0630K21	1300 x 1150 x 1400	1729
800	T3P0800K21	1300 x 1150 x 1400	1949
1000	T3P1000K21	1300 x 1150 x 1400	2359



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