

Low voltage 0,1-30 kVA, IP00

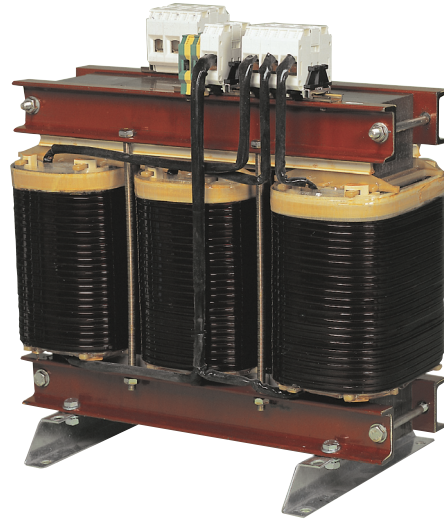
Type 3LT-00

Open three-phase non short circuit proof transformer with power range up to 30 kVA. Designed and tested according to EN61558-2-4. Standard types supplied with separate primary and secondary windings. This generates "a new system" in which any earth faults are eliminated. Degree of protection IP00.

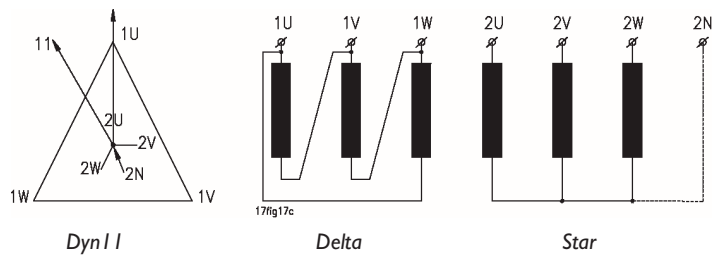
Applications:

This is an ideal design for transforming voltage up or down or for installations which require a galvanic partition between the primary and secondary voltage. Protects installations and equipment by generating "a new system" in which any earth faults are eliminated.

E.g. electric motor, compressor, cooling plants, automatic washing machines, and to uphold IT or TN-S systems. Custom designed types with other voltages, frequencies, electrostatic shield between primary and secondary, regulations, tapings, transport wheels or other features are available on request.



Standard vector group:



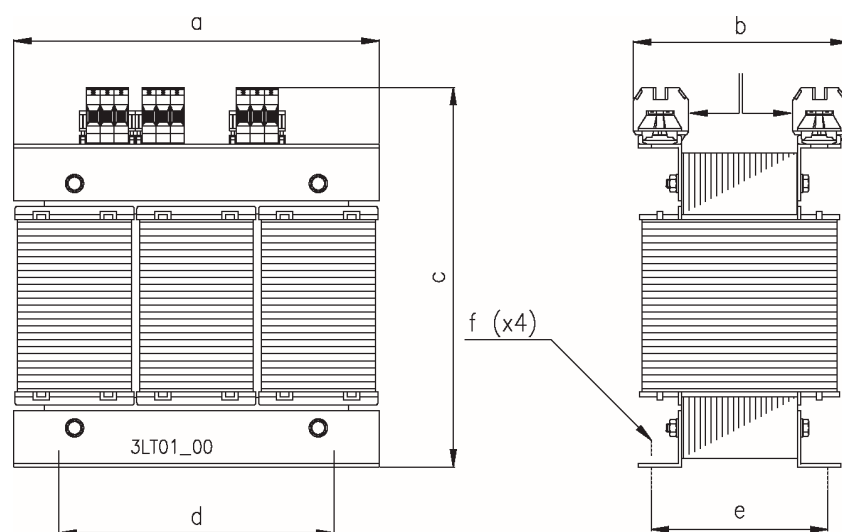
Technical specifications

- Input voltage: 3x115 to 3x1000V
- Frequency: 47-63Hz
- Output voltage: 3x115 to 3x1000V
- Vector group: Dyn 11 (standard)
Dyn5, Ynd1, Ynd5
- According to: EN61558-2-4
low voltage directive
- Test voltage: 3kV AC RMS
- Construction class: I
- Insulation class: B (130°C)
F (155°C)
- Ambient temp. (t_0): 40°C
- Degree of protection: IP00
- Type of termination: Terminal block

Can be supplied with Cu-bars termination depending on voltage/current.

Noratel declare and guarantee that all transformers are designed according to the following standards; EN61558-2-4:1997, EN55014:1993 (EN55014-1:1997), EN61000-3-2:1995, EN61000-3-3:1995, EN55104:1995, (EN55014-2:1997), EN50081-1:1992, EN50082-2:1995 based on the following directives; L.V.D 73/23/EEC, 93/68/EEC, EMC 89/336/EEC, 91/263/EEC.

Dimensions



Standard types 3LT-00

Power (kVA)	Type	Insulation class	Length a	Width b	Height c	Dimensions (mm)			Weight (kg)
						d	e	f	
0,1	3LT 0.10	B	125	68	135	100	45	5x8	2,0
0,15	3LT 0.15	B	125	75	135	100	55	5x8	2,6
0,25	3LT 0.25	B	155	76	160	130	57	8x12	3,8
0,4	3LT 0.40	B	155	92	160	130	72	8x12	5,5
0,5	3LT 0.50	B	190	78	190	170	58	8x12	7,5
0,63	3LT 0.63	B	190	88	190	170	68	8x12	9,0
0,8	3LT 0.80	B	190	96	190	170	78	8x12	10,5
1,25	3LT 1.25	B	230	130	255	176	71	7x13	17,0
2,0	3LT 2.00	B	230	150	255	176	95	7x13	22,4
2,5	3LT 2.50	B	265	155	285	200	90	10x18	29,0
3,0	3LT 3.00	B	265	165	285	200	102	10x18	33,0
3,5	3LT 3.50	F	300	160	325	224	94	10x18	33,0
4,0	3LT 4.00	F	300	173	325	224	107	10x18	38,5
5,0	3LT 5.00	F	300	185	325	224	119	10x18	43,5
6,3	3LT 6.30	F	360	213	380	264	127	10x18	55,0
8,0	3LT 8.00	F	360	228	380	264	142	10x18	65,0
10,0	3LT 10.0	F	360	243	380	264	157	10x18	75,0
12,5	3LT 12.5	F	420	240	440	316	143	13x20	85,0
16,0	3LT 16.0	F	420	270	440	316	173	13x20	111
20,0	3LT 20.0	F	420	300	440	316	203	13x20	137
25,0	3LT 25.0	F	480	300	500	356	184	13x20	155
30,0	3LT 30.0	F	480	330	500	356	214	13x20	197

Low voltage 40-2000 kVA, IP00

Type 3LT-00

Open three-phase non short circuit proof transformer with power range up from 40 to 2000 kVA. Designed and tested according to IEC60726/ IEC60076. Standard types supplied with separate primary and secondary windings. This generates "a new system" in which any earth faults are eliminated. Standard degree of protection IP00.

Applications:

This is an ideal design for transforming voltage up or down or for installations which require a galvanic partition between the primary and secondary voltage. Protects installations and equipment by generating "a new system" in which any earth faults are eliminated.

E.g. electric motor, compressor, cooling plants, automatic washing machines, and to uphold IT or TN-S systems. Custom designed types available upon request.

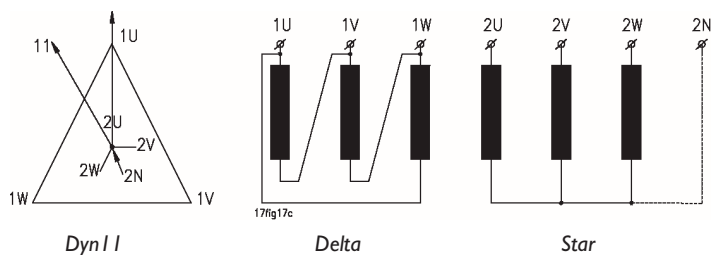


Technical specifications

- Input voltage: 3x115 to 3x1000V
- Frequency: 47-63Hz
- Output voltage: 3x115 to 3x1000V
- Vector group: Dyn11 (standard)
Dyn5, Ynd1, Ynd5
- According to: IEC60726/IEC60076
D.N.V.
- Test voltage: 3kV AC RMS
- Construction class: I
- Insulation class: F (155°C) - standard
H (180°C)
- Ambient temp. (t_0): 45°C
- Degree of protection: IP00
- Type of termination: Cu-bars

Supplied with Al-bars for termination from 630 kVA with high currents.

Standard vector group:

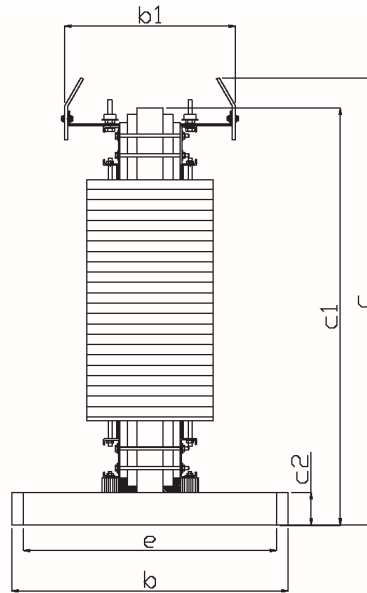
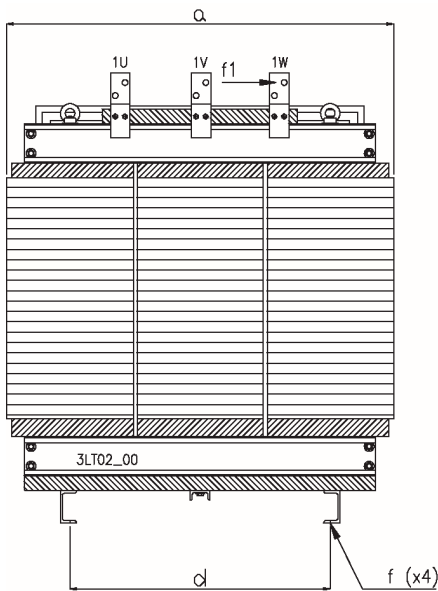


Accessories:

- Cable glands on primary/secondary [CG]
- Wheels for transport [WH]
- Temperature control units with alarm or trip [TC]
- PEN-link [PL]
- Top entry [TE]
- PT100 sensors [PT]
- RTD sensors [RTD]
- PTC sensors [PTC]

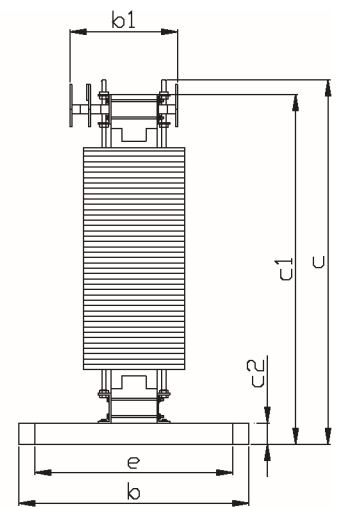
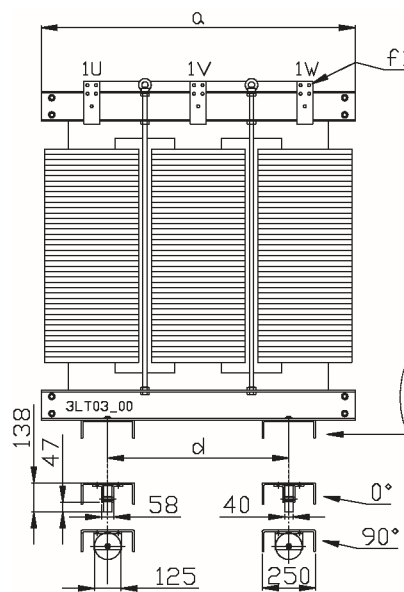
Noratel declare and guarantee that all transformers are designed according to the following standards; IEC60726, IEC60076, D.N.V., EN55014:1993 (EN55014-1:1997), EN61000-3-2:1995, EN61000-3-3:1995, EN55104:1995, (EN55014-2:1997), EN50081-1:1992, EN50082-2:1995 based on the following directives; L.V.D 73/23/EEC, 93/68/EEC, EMC 89/336/EEC, 91/263/EEC.

Dimensions



3LT 40 - 3LT 800

3LT 1000 - 3LT 2000



Standard types 3LT-00

Power (kVA)		Type	Length a	Width b	Height c	Dimensions (mm)						Weight (kg)
<i>cl. F</i>	<i>cl. H</i>					b1	c1	c2	d	e	f	
40	45	3LT 40.0	540	520	670	252	570	50	340	470	14,0	157
50	56	3LT 50.0	540	520	670	275	570	50	340	470	14,0	190
63	70	3LT 63.0	590	520	720	285	620	50	360	470	14,0	222
80	89	3LT 80.0	590	520	720	307	620	50	360	470	14,0	272
100	110	3LT 100	730	630	860	345	760	100	590	580	18,0	335
125	138	3LT 125	730	630	860	374	760	100	590	580	18,0	385
160	175	3LT 160	850	700	940	375	840	100	590	650	18,0	462
200	220	3LT 200	850	700	940	405	840	100	590	650	18,0	555
250	275	3LT 250	1020	800	1180	450	1030	100	600	750	18,0	786
315	350	3LT 315	1020	800	1330	450	1180	100	600	750	18,0	886
400	440	3LT 400	1260	900	1220	530	1070	100	760	850	18,0	1048
500	550	3LT 500	1260	900	1370	530	1220	100	760	850	18,0	1208
630	700	3LT 630	1440	1050	1390	570	1240	100	880	1000	18,0	1475
800	888	3LT 800	1500	1050	1450	590	1300	100	880	1000	18,0	1924
1000	1100	3LT 1000	1575	1080	1740	440	1640	100	850	850	4x11,0	2770
1250	1380	3LT 1250	1650	1080	1780	440	1680	100	850	850	4x11,0	3070
1600	1750	3LT 1600	1725	1080	1820	500	1720	100	850	850	4x11,0	3440
2000	2200	3LT 2000	1800	1080	1860	500	1760	100	850	850	4x11,0	4820

Losses and short circuit currents

3-LT standard types

Type	FE-loss (W)	CU-loss (W)	e_z (%)	e_r (%)	I_c (xI_{nc})
3LT					
3LT 0.10	5	15	14,8	14,8	44
3LT 0.15	6	27	17,8	17,8	46
3LT 0.25	10	27	10,8	10,8	35
3LT 0.40	12	38	9,6	9,5	35
3LT 0.50	17	39	7,8	7,8	29
3LT 0.63	23	40	6,7	6,3	35
3LT 0.80	30	51	6,5	6,4	34
3LT 1.25	36	57	4,8	4,6	25
3LT 2.00	55	72	3,6	3,6	31
3LT 2.50	56	70	2,9	2,8	27
3LT 3.00	65	79	2,7	2,6	28
3LT 3.50	75	199	5,8	5,7	20
3LT 4.00	90	168	4,2	4,2	24
3LT 5.00	98	205	4,2	4,1	22
3LT 6.30	128	246	4,1	3,9	21
3LT 8.00	158	262	3,6	3,3	21
3LT 10.0	168	294	3,4	2,9	19
3LT 12.5	247	426	3,9	3,4	15
3LT 16.0	269	386	2,8	2,4	17
3LT 20.0	280	371	2,2	1,9	20
3LT 25.0	387	496	2,6	2,0	15
3LT 30.0	494	472	2,1	1,6	16
3LT 40.0	132	1126	3,6	2,8	12
3LT 50.0	172	954	2,8	1,9	12
3LT 63.0	191	1254	3,0	2,0	12
3LT 80.0	237	1298	2,7	1,6	11
3LT 100	258	1934	4,4	1,9	9
3LT 125	356	2497	3,7	2,0	8
3LT 160	378	2912	3,9	1,8	7
3LT 200	470	3355	3,8	1,7	7
3LT 250	640	3797	4,2	1,5	12
3LT 315	651	5156	4,3	1,6	12
3LT 400	786	6681	6,1	1,7	8
3LT 500	935	7212	5,2	1,4	7
3LT 630	1220	7649	3,9	1,2	7
3LT 800	1620	10287	4,5	0,8	10
3LT 1000	1950	8500	4,5	0,8	10
3LT 1250	2400	10000	5,0	0,8	10
3LT 1600	2520	12000	5,0	0,8	10
3LT 2000	3300	15000	5,5	0,7	10

Type	FE-loss (W)	CU-loss (W)	e_z (%)	e_r (%)	I_c (xI_{nc})
3LTV					
3LTV 0.25	10	30	13,5	12,1	34
3LTV 0.40	12	40	10,2	10	34
3LTV 0.50	15	44	9,55	8,78	29
3LTV 0.63	23	40	6,68	6,27	35
3LTV 0.80	25	48	6,47	6,06	33
3LTV 1.00	28	40	4,1	4	32
3LTV 1.60	42	46	2,88	2,84	38
3LTV 2.00	50	50	2,6	2,5	33
3LTV 2.50	60	60	2,34	2,4	33
3LTV 3.00	60	92	3,2	3,07	25
3LTV 3.50	75	90	2,65	2,57	31
3LTV 4.00	90	90	2,3	1,8	30
3LTV 5.00	100	105	2,3	2,1	27
3LTV 6.30	130	130	2,2	2,06	31
3LTV 8.00	150	150	2	1,89	32
3LTV 10.0	160	200	2,1	2	23
3LTV 13.0	220	190	1,8	1,5	24
3LTV 16.0	290	190	1,48	1,19	26
3LTV 20.0	310	240	1,5	1,2	23
3LTV 25.0	390	280	1,55	1,15	24
3LTxxN					
3LT 40.0N	321	1046	3,52	2,61	11
3LT 50.0N	431	1098	3,09	2,20	12
3LT 63.0N	404	1587	3,59	2,52	9
3LT 80.0N	622	1362	2,96	1,70	10
3LT 100N	673	1896	3,88	1,90	8
3LT 125N	797	2133	3,91	1,71	8
3LT 160N	901	3221	4,30	2,01	8
3LT 200N	1283	3500	5,10	1,72	7
3LT 250N	1590	3480	3,27	1,39	7

- All data for guidance, subject to change.