

NorateL Datasheets

The data presented in this datasheet is approximate and offered as a guideline only for the various types and sizes of transformer available from Noratel. Such data can vary depending on the transformer configuration and application and where critical, information should always be obtained from the data sheets accompanying any specific product. Please contact Noratel if your application requires any specific performance criteria or if you need any application or performance advice on any of our products.

Low voltage 0,1-30kVA, IP00



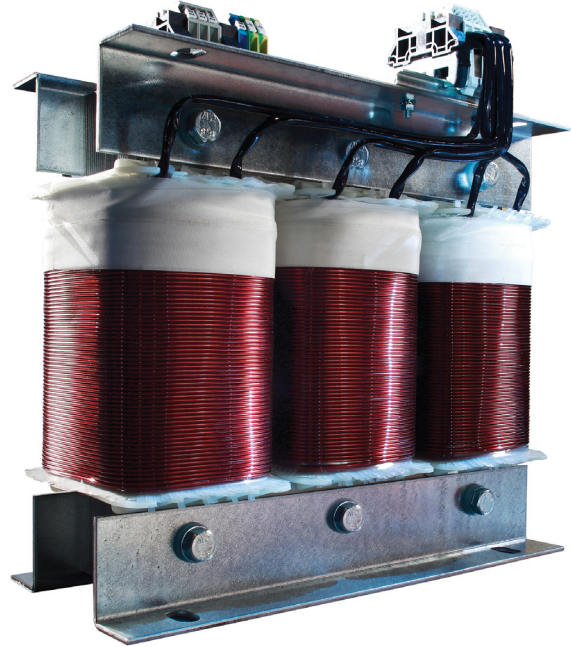
Type 3LT-00

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, tappings, transport wheels or other features are available on request.

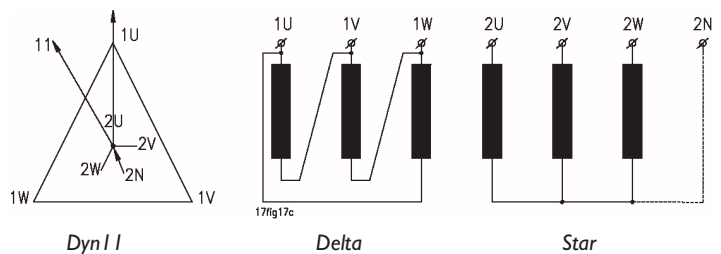


Technical specifications

- Input voltage: 3x115 to 3x1000V
- Frequency: 47-63Hz
- Output voltage: 3x115 to 3x1000V
- Vector group: Dyn11 (standard)
Dyn5, Ynd1, Ynd5
- According to: 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_a): 40°C
- Degree of protection: IP00
- Type of termination: Terminal block

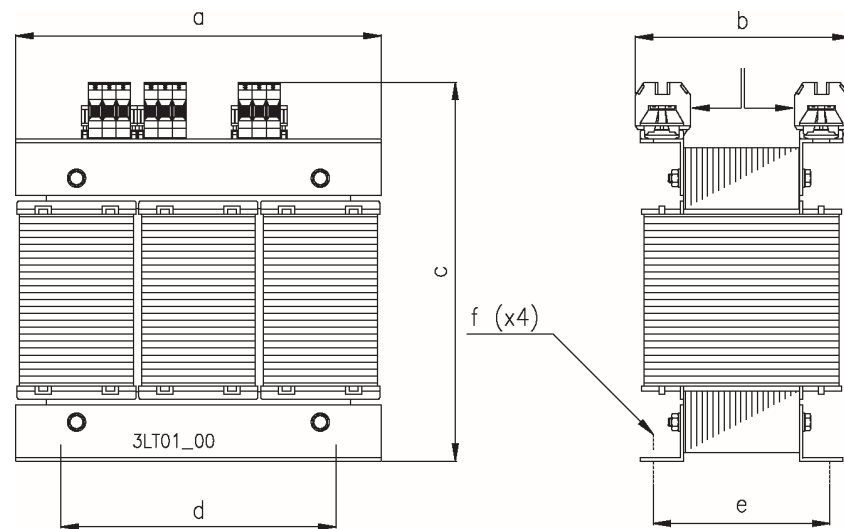
Can be supplied with Cu-bars termination depending on voltage/current.

Standard vector group



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; LVD 2014/35/EU EMC 2014/30/EU, EcoDesign 2009/125/EC.

Dimensions



Standard types 3LT-00

Power (kVA)	Type	Class	Dimensions (mm)						Weight (kg)
			a	b	c	d	e	f	
3LT-00									
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
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
3,0	3LT 3.00	B	265	165	285	200	102	10x18	33
3,5	3LT 3.50	F	300	160	325	224	94	10x18	33
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
8,0	3LT 8.00	F	360	228	380	264	142	10x18	65
10	3LT 10.0	F	360	243	380	264	157	10x18	75
12,5	3LT 12.5	F	420	240	440	316	143	13x20	85
16	3LT 16.0	F	420	270	440	316	173	13x20	111
20	3LT 20.0	F	420	300	440	316	203	13x20	137
25	3LT 25.0	F	480	300	500	356	184	13x20	155
30	3LT 30.0	F	480	330	500	356	214	13x20	197

3-phase low voltage 40-2000 kVA, IP00



Type 3LT-00

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. Open design, 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

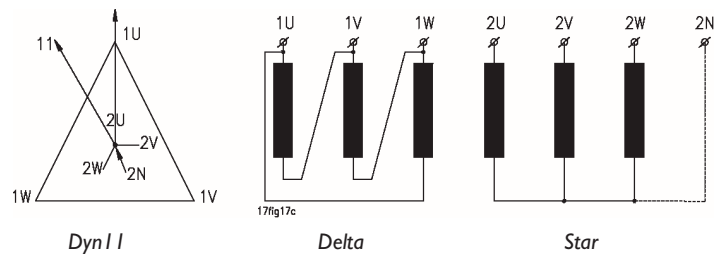
- Input voltage: 3x115 to 3x1000V
- Frequency: 47-63Hz
- Output voltage: 3x115 to 3x1000V
- Vector group: Dyn11 (standard)
Dyn5, Ynd1, Ynd5
- According to: IEC60726/IEC60076
D.N.V.
- Test voltage: 3kV AC RMS
- Construction class: I
- Insulation class: F (155°C) - standard
H (180°C)
- Ambient temp. (t_a):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

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

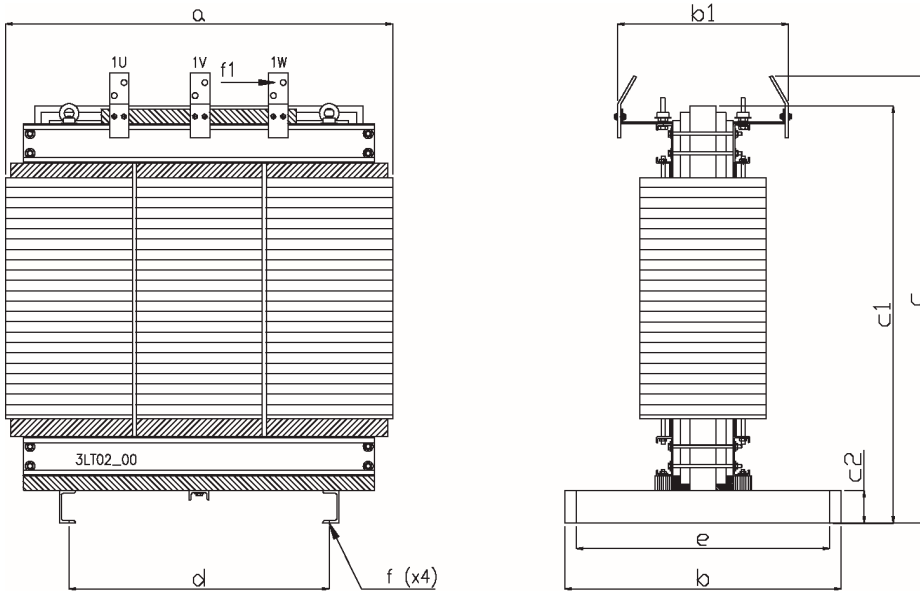
Accessories

- 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]

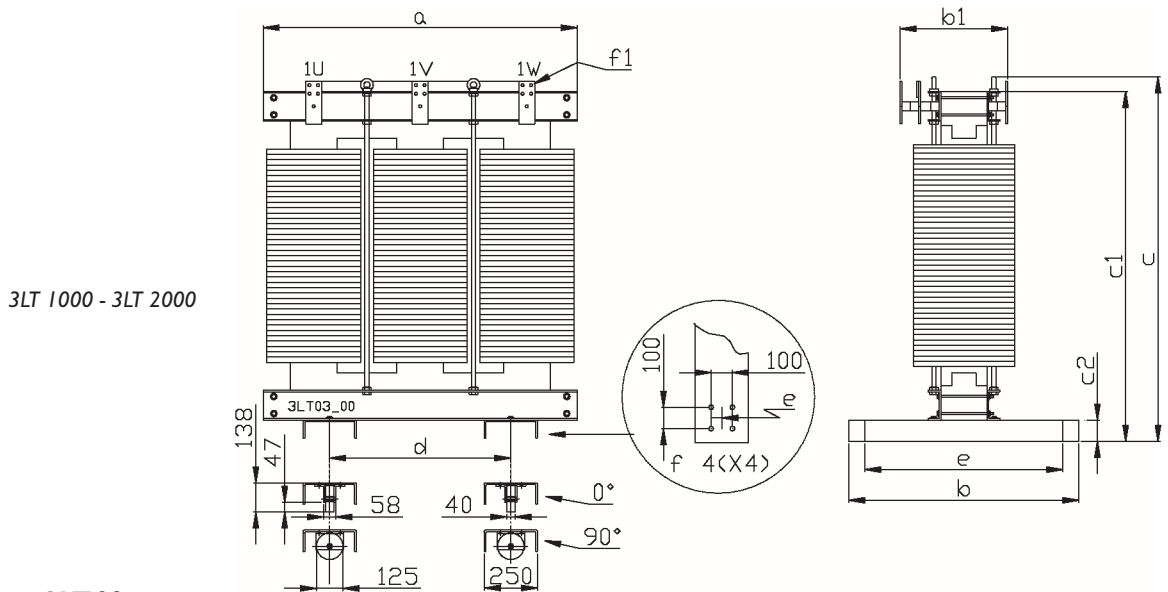
Standard vector group



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3LT 40 - 3LT 800



3LT 1000 - 3LT 2000

Standard types 3LT-00

Power (kVA)		Type	Dimensions (mm)									Weight (kg)
Cl. F	Cl. H		a	b	c	b1	c1	c2	d	e	f	
3LT-00												
40	45	3LT 40.0	540	520	670	252	570	50	340	470	14,0	159
50	56	3LT 50.0	540	520	670	275	570	50	340	470	14,0	197
63	70	3LT 63.0	590	520	720	285	620	50	360	470	14,0	228
80	89	3LT 80.0	590	520	720	307	620	50	360	470	14,0	287
100	110	3LT 100	730	630	870	345	760	100	590	580	18,0	340
125	138	3LT 125	730	630	870	374	760	100	590	580	18,0	412
160	175	3LT 160	850	700	940	375	840	100	590	650	18,0	492
200	220	3LT 200	850	700	940	405	840	100	590	650	18,0	577
250	275	3LT 250	1020	800	1180	450	1030	100	600	750	18,0	777
315	350	3LT 315	1020	800	1330	450	1180	100	600	750	18,0	912
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 / short circuit values / inrush current

Type	Losses (W)		e _z (%)	e _r (%)	I _c (xI _{nc})
	No-load	Load			
3LT					
3LT0.10	5	21	23,8	20,7	44
3LT0.15	12	27	19,8	17,5	46
3LT0.25	14	31	13,5	12,2	35
3LT0.40	21	39	10,6	9,7	35
3LT0.50	15	44	9,6	8,8	29
3LT0.63	23	40	6,7	6,3	35
3LT0.80	25	49	6,5	6,1	34
3LT1.25	36	57	4,8	4,6	25
3LT2.0	39	85	4,4	4,3	31
3LT2.5	56	70	2,9	2,8	27
3LT3.0	65	79	2,7	2,6	28
3LT3.5	75	199	5,8	5,7	20
3LT4.0	90	168	4,2	4,2	24
3LT5.0	98	205	4,2	4,1	22
3LT6.3	128	246	4,1	3,9	21
3LT8.0	129	245	3,4	3,1	21
3LT10	168	294	3,4	2,9	19
3LT12.5	186	415	3,8	3,3	15
3LT16	269	386	2,8	2,4	17
3LT20	280	371	2,2	1,9	20
3LT25	387	496	2,6	2	15
3LT30	494	472	2,1	1,6	16
3LT40M25	254	1122	3,7	2,8	16
3LT50M25	319	948	3,1	1,9	16
3LT63M25	361	1225	3,3	1,7	15
3LT80M25	444	1328	2,9	1,7	14
3LT100M25	486	2186	4,4	2,2	11
3LT125M25	604	2176	3,7	1,7	9
3LT160M25	733	2632	4,2	1,7	7
3LT200M25	878	3135	4,1	1,6	7
3LT250M25	1103	3705	4,8	1,5	6
3LT315M25	1260	4818	4,9	1,5	6
3LT400M13	822	6160	5,9	1,5	8
3LT500M13	864	8080	6,2	1,6	7
3LT630M13	1181	8535	5,7	1,4	7
3LT800	1650	10300	6,3	1,3	10
3LT1000	2000	9600	4,9	0,9	10
3LT1250	2400	10000	5	0,8	10
3LT1600	2520	12000	5	0,8	10
3LT2000	3300	15000	5,5	0,7	10

Type	Losses (W)		e _z (%)	e _r (%)	I _c (xI _{nc})
	No-load	Load			
3LTxxN					
3LT40.0N	321	1046	3,52	2,61	11
3LT50.0N	431	1098	3,09	2,20	12
3LT63.0N	404	1587	3,59	2,52	9
3LT80.0N	622	1362	2,96	1,70	10
3LT100N	673	1896	3,88	1,90	8
3LT125N	797	2133	3,91	1,71	8
3LT160N	901	3221	4,30	2,01	8
3LT200N	1283	3500	5,10	1,72	7
3LT250N	1590	3480	3,27	1,39	7
3RT-LI					
3RT4.0LI	15	180	4,63	4,5	
3RT6.3LI	27	259	4,19	4,11	
3RT10.0LI	47	372	3,73	3,72	
3RT12.5LI	39	381	3,09	3,04	
3RT16.0LI	48	468	2,94	2,92	
3RT20.0LI	60	532	2,68	2,66	
3RT25.0LI	71	549	2,31	2,2	
3RT30.0LI	83	560	1,91	1,87	

Type	Losses (W)		e _z (%)	e _r (%)	I _c (xI _{nc})
	No-load	Load			
3HT					
3HT40	300	1000	4,0	2	18
3HT50	300	1050	4,5	2	18
3HT63	300	1100	4,5	2	18
3HT80	400	1200	4,5	1,5	18
3HT100	550	1400	4,5	1,4	14
3HT125	550	1600	4,5	1,4	14
3HT160	600	2000	4,5	1,3	14
3HT200	800	2200	4,5	1,1	14
3HT250	900	3200	5,0	1,0	14
3HT315	1000	3300	5,0	0,9	12
3HT400	1200	3400	5,0	0,9	12
3HT500	1400	4500	5,0	0,9	12
3HT630	1600	5000	5,0	0,9	12
3HT800	1700	6000	5,0	0,8	10
3HT1000	2200	7500	5,0	0,8	10
3HT1250	2500	9500	5,0	0,8	10
3HT1600	2800	12000	5,0	0,8	10
3HT2000	3300	14000	5,0	0,7	10