

# Low voltage I6 - 250 kVA, IP54

## Type 3LT-54

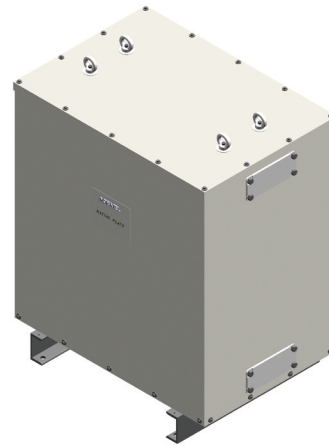
Capsulated three-phase non short-circuit proof transformer with power range from I6 to 250 kVA. Designed and tested according to EN61558-2-4, EN61558-2-6 & IEC60726. Standard types supplied with separate primary and secondary windings. This generates "a new system" in which any earth faults are eliminated. Aluminium enclosure, IP54, protects the transformer against hostile environment such as dust and splash water.

### 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 upon request.

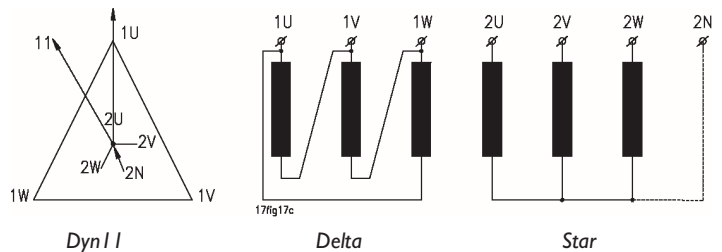
### Technical specifications

- Input voltage: 3x I15 to 3x I000V
  - Frequency: 47-63Hz
  - Output voltage: 3x I15 to 3x I000V
  - Vector group: Dyn I I (standard)  
Dyn5, Ynd I, Ynd5
  - According to: EN61558-2-4/  
EN61558-2-6  
IEC60076, L.V.D.
  - Test voltage: 3kV AC RMS
  - Construction class: I
  - Insulation class: F (155°C) - standard  
H (180°C) - option
  - Ambient temp. ( $t_0$ ): 45°C
  - Degree of protection: IP54
  - Colour: RAL7032
  - Type of termination: Terminal block
- Can be supplied with Cu-bars termination depending on voltage/current.



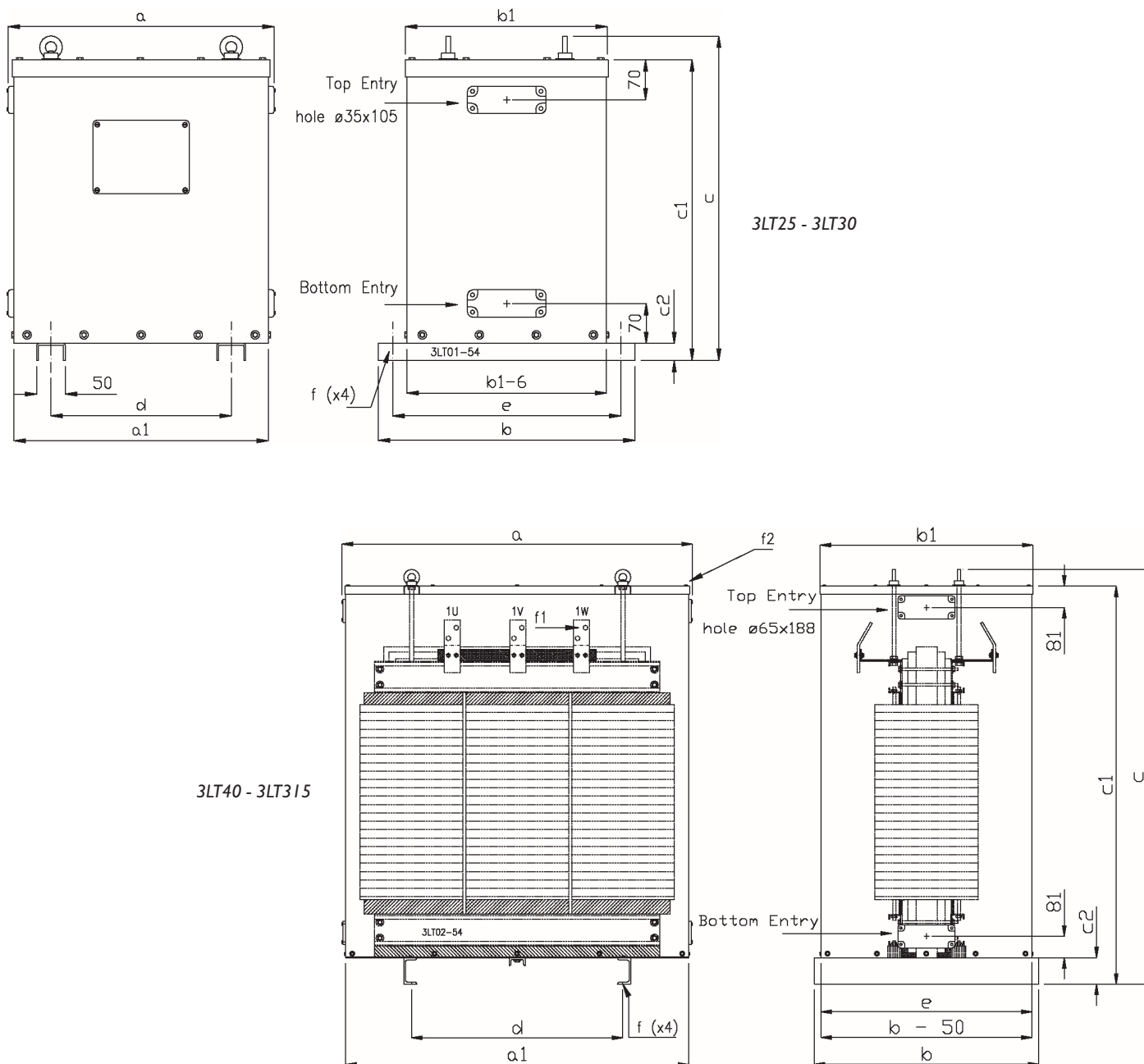
Standard types supplied with enclosure in aluminium with rubber compound and cable glands (FL21). To access terminals, only the lid has to be dismantled. Sidewalls mounted to the bottom with screws and silicon compound.

### Standard vector group:



Noratel declare and guarantee that all transformers are designed according to the following standards; IEC60076, D.N.V., EN55014:1993 (EN55014-1:1997), EN61558, 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-54

Power (kVA)		Type	Length <b>a</b>	Width <b>b</b>	Height <b>c</b>	Dimensions (mm)							Weight (kg)
<i>cl.F</i>	<i>cl.H</i>					<i>a1</i>	<i>b1</i>	<i>cl</i>	<i>c2</i>	<i>d</i>	<i>e</i>	<i>f<sup>(a)</sup></i>	
16	18	3LT 25.0	600	550	630	570	456	580	30	356	500	15.0	196
20	22	3LT 30.0	600	550	630	570	456	580	30	356	500	15.0	245
30	33	3LT 40.0	630	520	827	600	476	770	50	340	470	14.0	245
40	45	3LT 50.0	630	520	827	600	476	770	50	340	470	14.0	285
50	56	3LT 63.0	660	520	877	630	476	820	50	360	470	14.0	320
63	70	3LT 80.0	660	520	877	630	476	820	50	360	470	14.0	380
80	89	3LT 100	870	630	1057	840	586	1000	100	590	580	18.0	473
100	110	3LT 125	870	630	1057	840	586	1000	100	590	580	18.0	550
125	138	3LT 160	990	700	1137	960	656	1080	100	590	650	18.0	695
160	175	3LT 200	990	700	1137	960	656	1080	100	590	650	18.0	800
200	220	3LT 250	1130	800	1517	1100	756	1450	100	600	750	18.0	1012
250	275	3LT 315	1130	800	1517	1100	756	1450	100	600	750	18.0	1150

# Losses and short circuit currents

## 3-LT standard types

Type	FE-loss (W)	CU-loss (W)	$e_z$ (%)	$e_r$ (%)	$I_c$ ( $xI_{nc}$ )
<b>3LT</b>					
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	229	1108	3,3	2,8	18
3LT 50.0	274	1063	2,8	2,1	18
3LT 63.0	296	1567	3,3	2,5	15
3LT 80.0	387	1564	2,8	2,0	14
3LT 100	450	2291	3,5	2,3	13
3LT 125	515	2415	2,8	1,9	13
3LT 160	687	3000	3,3	1,9	13
3LT 200	740	2928	3,0	1,5	11
3LT 250	800	3387	3,0	1,4	12
3LT 315	943	4754	3,0	1,5	14
3LT 400	909	6808	6,4	1,7	8
3LT 500	1387	7212	5,2	1,4	8
3LT 630	1709	7649	3,9	1,2	9
3LT 800	1800	8000	4,5	0,8	10
3LT 1000	2000	8500	4,5	0,8	10
3LT 1250	2800	10000	5,0	0,8	10
3LT 1600	3100	12000	5,0	0,8	10
3LT 2000	3300	15000	5,5	0,7	10

Type	FE-loss (W)	CU-loss (W)	$e_z$ (%)	$e_r$ (%)	$I_c$ ( $xI_{nc}$ )
<b>3LTV</b>					
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
<b>3LTxxN</b>					
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	9

- All data for guidance, subject to change.