Installation transformer, TBLZ-3
GOLD/COOL DX/HC/COMPACT LP, Heat

1. General

The use of a transformer is necessary in installations that include GOLD/COOL DX/HC or COMPACT LP, Heat units at locations with 3x230V supply voltage. The supply voltage must be increased to 3x400V -10/+15% before it reaches the air handling or cooling unit.

The unit is an enclosed 3-phase transformer, designed in accordance with EN61558-2-4 standard (for indoor use). It conforms to the provisions for insulation transformers.

The primary and secondary windings are separated from one another. Internally wired according to Dyn11.

The transformer is used for creating a TN-S network, which is required for supplying power to the air handling or cooling unit.

2. Use

The transformer can be used as a separate transformer for one power connection or as a common transformer for two power connections, for example for an air handling unit and a chiller.

For correct transformer selection, see product selection program AHU Design.

Ambient temperature: -20°C....+40°C.

3. Electrical data

Designation	Power kVA	Temp. class	Encl. class	Primary voltage	Primary current	Primary fuse prot.	Inrush current	Secondary voltage	Secondary fuse, C1	Secondary fuse, C2/C3	Freq. Hz	Short circuit value, % ez	Short circuit value, % er
TBLZ-30711	7.0	B (130°C)	IP 23	3x230 V	18,3 A	3x25 A	548 A	3x400 V	3x10 A	See each installation instruction for GOLD, COMPACT LP/Heat, COOL DX and RX/HC	47-63	3,6	3,5
TBLZ-31111	11.0	B (130°C)	IP 23	3x230 V	28,7 A	3x40 A	617 A	3x400 V	3x16 A		47-63	2,8	2,6
TBLZ-31411	13.9	B (130°C)	IP 23	3x230 V	36,3 A	3x50 A	885 A	3x400 V	3x20 A		47-63	2,4	2,3
TBLZ-31811	17.5	B (130°C)	IP 23	3x230 V	45,7 A	3x63 A	995 A	3x400 V	3x25 A		47-63	2,9	2,7
TBLZ-32211	22.2	B (130°C)	IP 23	3x230 V	57,9 A	3x80 A	1480 A	3x400 V	3x32 A		47-63	2,0	1,8
TBLZ-32811	27.7	B (130°C)	IP 23	3x230 V	71,6 A	3x100 A	1890 A	3x400 V	3x40 A		47-63	1,5	1,3
TBLZ-33511	34.6	B (130°C)	IP 23	3x230 V	89,5 A	3x125 A	1645 A	3x400 V	3x50 A		47-63	2,9	2,2
TBLZ-34411	43,6	B (130°C)	IP 23	3x230 V	112,7 A	3x160 A	1575 A	3x400 V	3x63 A		47-63	3,7	2,4
TBLZ-35511	55,6	B (130°C)	IP 23	3x230 V	143,7 A	3x200 A	1472 A	3x400 V	3x80 A		47-63	3,8	3,6
TBLZ-38711	86,6	F (155°C)	IP 23	3x230 V	223,9 A	3x315 A	2214 A	3x400 V	3x125 A		47-63	3,6	1,8

4. Electrical installation

Remove the lifting lugs on top of the transformer. Lift off the cover to so that the wiring terminals will be accessible.
The wiring terminals of the Primary side are marked 3 x 230 V and Earth (Yellow-green).
The wiring terminals of the Secondary side are marked 3 x 400 V, N and Earth (same wiring terminal as the incoming one).
The **(A)** cable between the energized distribution box and the primary side of the transformer should be designed for three phases and earth. The primary fuse should be a delayed fuse and have D characteristic. When sizing the cross sectional area of the cable, you should take the fuse protection, ambient temperature and the manner in which the cable is run into consideration.
The cable **(B1 and any B2/B3)** between the secondary side of the transformer and the air handling or cooling unit should contain conductors for three phases, zero and earth. It is not permissible to use a PEN conductor after the transformer.
The transformer can only be connected with cables containing copper wires.
When sizing the cross sectional area of the cable, you should take the fuse protection, ambient temperature and the manner in which the cable is run into consideration.

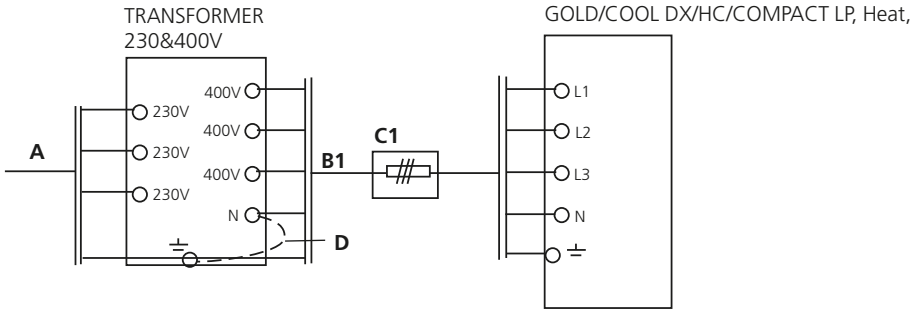
5. Secondary fuses

Secondary fuses **(C1 and possibly C2/C3)** should be installed to protect the cable between the transformer and the air handling, and protect the transformer from overloading.
The fuses should be rated as stipulated for fuse protection of the relevant size of GOLD/COOL DX/HC/COMPACT LP, Heat.

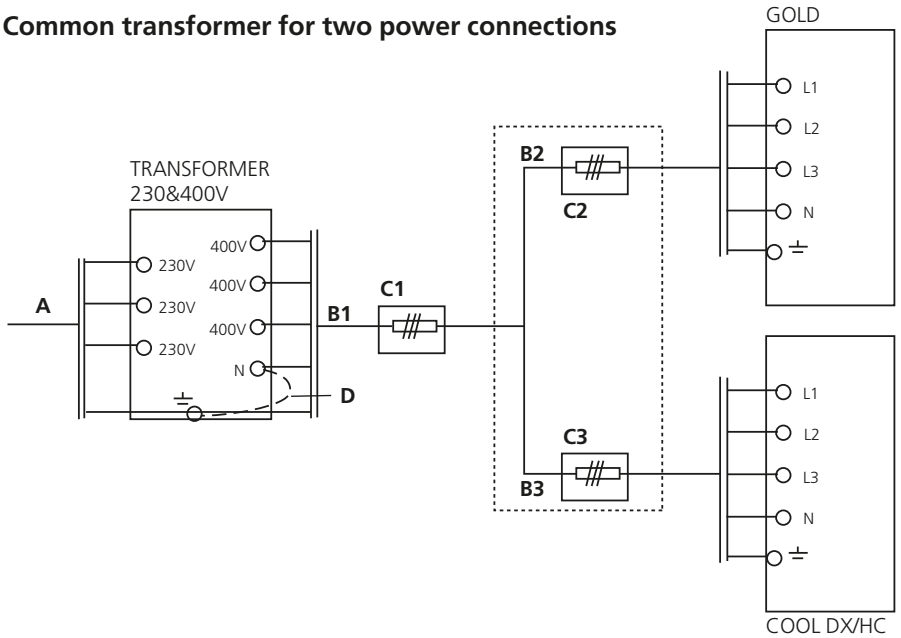
6. Potential earthing of Zero

In order that the voltage system after the transformer will have a zero wire with earth potential, connect a jumper **(D)** between zero and the earthing terminal.

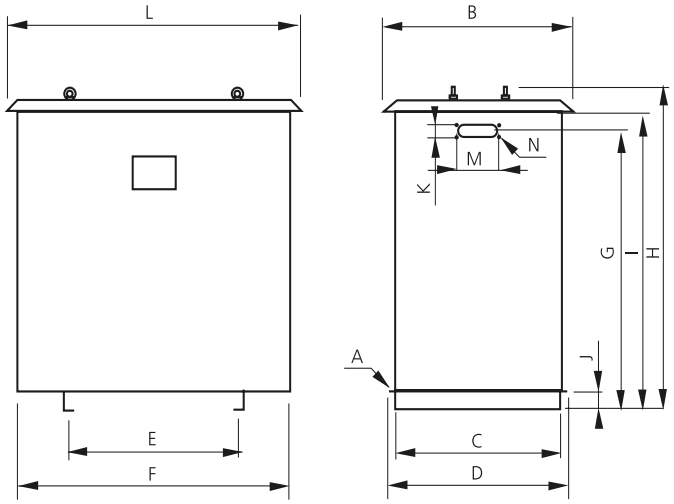
Separate transformer for one power connection



Common transformer for two power connections



7. Dimensions



Designation	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Weight, kg
TBLZ-30711	15	333	350	400	264	392	390	515	467	30	30	427	120	Ø7	59
TBLZ-31111	15	383	400	450	316	446	465	590	542	30	62	481	193	Ø9.5	78
TBLZ-31411	15	383	400	450	316	446	465	590	542	30	62	481	193	Ø9.5	92
TBLZ-31811	15	383	400	450	316	446	465	590	542	30	62	481	193	Ø9.5	119
TBLZ-32211	15	383	400	450	316	446	465	590	542	30	62	481	193	Ø9.5	132
TBLZ-32811	15	480	500	550	356	564	505	630	582	30	62	599	193	Ø9.5	169
TBLZ-33511	12	540	470	520	340	600	620	827	770	50	62	670	193	Ø9.5	187
TBLZ-34411	12	540	470	520	340	600	620	827	770	50	62	670	193	Ø9.5	200
TBLZ-35511	12	540	470	520	360	630	670	877	820	50	62	700	193	Ø9.5	270
TBLZ-38711	12	670	580	630	590	840	850	1057	1000	100	62	930	193	Ø9.5	375