SKYBERGTECH

U Mototechny 107
251 62 Tehovec
Czech Republic

Tel.: +420 323605511
+420 323660013
Fax: +420 323607922

http://www.skybergtech.com

E-mail: info@skybergtech.com

Three-phase line 4% chokes for currents to 1200A

Description:

The choke consists of a conductor which is wound on the core (iron powder, ferrite..). Magnetic circuit is formed by magnetic material and air gap. A 4% choke means that voltage drop on the choke is 4% from nominal voltage.

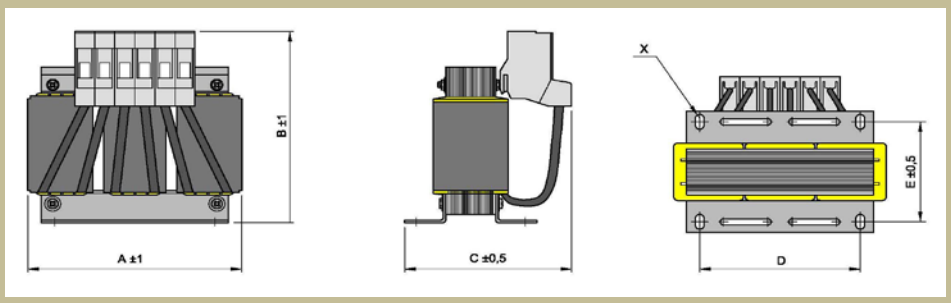
For example from 3x230/400V is 1%= 2,3V , 4% = 2,3x4=9,2V

TECHNICAL PARAMETERS:

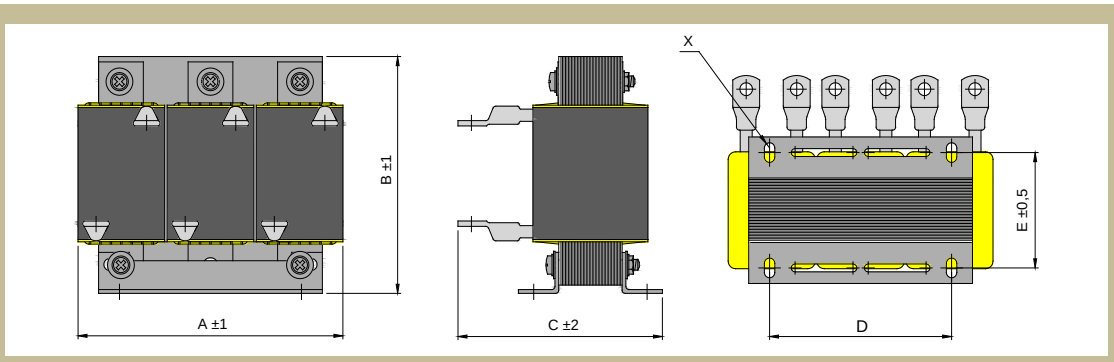
Nominal operating voltage — **Un: 3x500 Vac**
Extent of operating frequencies fn (for In) — **Fn: 50-60 Hz**
Extent of operating currents — **In: 3-1200A**
Short-term overcurrent capacity : 50% In
Thermal class : B
Protection class : IP00
Extent of operating temperature : -10°C + 40°C

Type	Nominal current [A]	Inductance ±20% [mH]	Power loss [W]	Weight [kg]	Conductor cross section [mm 2]	basic dimensions [mm]					
						A	B	C	D	E	X
						length	height	width	pitch	pitch	mounting
SKY3TLT3-10	3x3	10	18	0,6	terminal 4mm²	79	84	52	50	30	4,8x9
SKY3TLT6-5	3x6	5	26	1,0	terminal 4mm²	95	99	63	63	41	5,8x11
SKY3TLT10-4	3x10	4	41,1	2,1	terminal 4mm²	120	120	71	73	55	5,8x11
SKY3TLT16-2	3x16	2	39	3,9	terminal 4mm²	149	137	73	90	55	5,8x11
SKY3TLT25-1,45	3x25	1,45	80	5,4	terminal 4mm²	178	163	86	122	65	7x13
SKY3TLT32-0,9	3x32	0,9	103	6,7	terminal 16mm²	178	176	112	122	65	7x13
SKY3TLT40-0,8	3x40	0,8	74	6,5	terminal 16mm²	179	172	110	122	65	7x13
SKY3TLT60-0,5	3x60	0,5	126	13,1	lug 8-35	202	179	155	175	97,5	9x15
SKY3TLT100-0,3	3x100	0,3	210	25	lug 10-95	240	208	160	184	102	10x18
SKY3TLT100-0,3M	3x100	0,3	210	25	lug 10-95	240	208	160	184	102	10x18
SKY3TLT200-0,2	3x200	0,2	189	46,6	lug 13-185	297	275	253	225	120	10x18
SKY3TLT300-0,1	3x300	0,1	285	57,4	lug 13-185	356	310	248	250	123	9x15
SKY3TLT400-0,6	3x400	0,6	280	73	8x50x13	358	310	220	250	125	Ø8
SKY3TLT400-0,8	3x400	0,8	309	73,4	8x50x13	358	310	235	250	137	Ø8
SKY3TLT600-0,03	3x600	0,03	300	67,4	8x50x13	360	310	220	250	125	Ø8
SKY3TLT600-0,05	3x600	0,05	310	68	8x50x13	360	310	220	250	125	Ø8
SKY3TLT800-0,025	3x800	0,025	600	64	8x50x13	380	340	295	350	133	10x18
SKY3TLT900-0,022	3x900	0,022	800	70	lug 500x16,5x2	380	340	295	350	133	10x18
SKY3TLT1200-0,02	3x1200	0,002	750	140	lug800x16x2	510	460	322	470	210	13x20

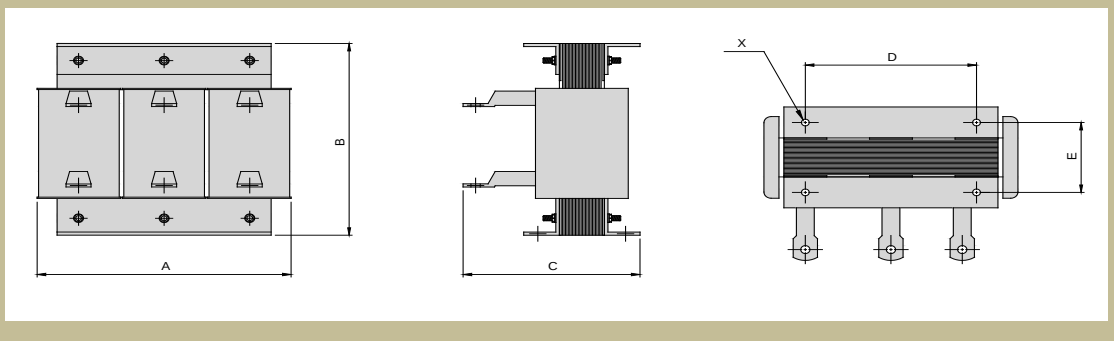
Dimensional drawing : SKY3TLT3-10 to SKY3TLT40-0,8



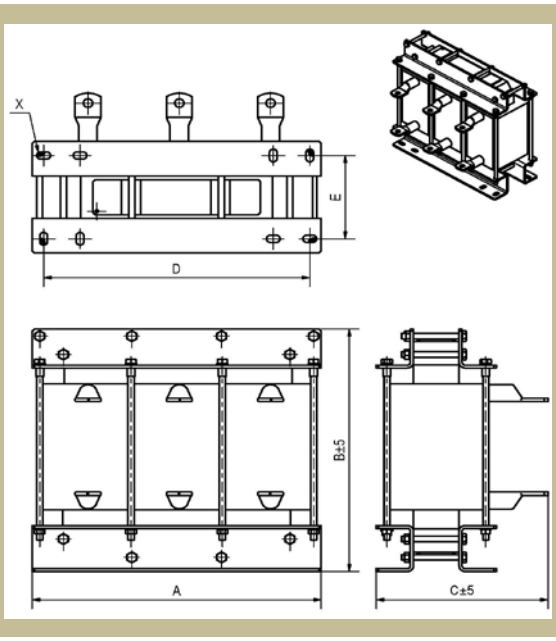
Dimensional drawing : SKY3TLT60-0,5 to SKY3TLT100-0,3M



Dimensional drawing : SKY3TLT400-0,6 to SKY3TLT600-0,05



Dimensional drawing : SKY3TLT200-0,2 to SKY3TLT300-0,1, SKY3TLT800-0,025 to SKY3TLT1200-0,02



Use:

The line choke is supposed to be connected among LV line and frequency converter and devices which have a rectifier on input.

Functions of the line choke:

- it restricts size of commutation current when rectifier diodes are being switched-over
- it decreases size of radio-frequency interference from the device to LV line and vice versa
- it increases interference resistance of the device from LV line
- it restricts size of current and voltage harmonic components from 3rd harmonic and up
- it increases resistance to overvoltage which is caused by switching actions
- it decreases constant overvoltage by amount of its drop

Dimensioning:

Short-circuit protection of the chokes must not exceed the label value. Through the chokes besides the nominal current there also flows harmonic components of the current, their size depends on impedance of LV line and it can be changed in large extent. Therefore it is important to dimension the chokes sufficiently and count with current reserve. For example in the course of 30 % of the 5th harmonic of current there are losses in magnetic circuit almost as large as in the course of nominal current!!! In practice there are causes where size of 5th harmonic is even 50 to 70 % from In. Therefore when installing into switchboards it is necessary to count with power loss of the chokes and provide for sufficient heat removal. Maximum operating temperature is to 120ºC, class B. It is important to realise that with increasing temperature the dielectric strenght of individual parts of the choke is being decreased.