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# Sinusoidal filters for frequency inverters, type TZS three-phase

#### Function and description:

Low pass filter is created by combination of inductance L and condensers C. The low pass filters switching frequency of the frequency changer. As result is sinusoidal phase to phase voltage on the filter output.



#### **TECHNICAL PARAMETERS:**

SKY3FSM20

Extent of operating currents In: 20A SFr: 5-16kHz Switching frequency of the inverter

#### TECHNICAL PARAMETERS:

SKY3FSM20-u

Extent of operating currents
Switching frequency of the inverter In: 20A SFr: 5-16kHz

#### TECHNICAL PARAMETERS:

SKY3FSM43

Extent of operating currents In: 40A Switching frequency of the inverter SFr: 3-10kHz

# TECHNICAL PARAMETERS :

SKY3FSM43.1 Extent of operating currents In: 40A Switching frequency of the inverter SFr: 3-10kHz

## TECHNICAL PARAMETERS:

SKY3FSM43.2

Extent of operating currents In: 40A Switching frequency of the inverter SFr: 3-10kHz

# TECHNICAL PARAMETERS :

SKY3FSM43.3

Extent of operating currents In: 40A Switching frequency of the inverter SFr: 4-10kHz

#### TECHNICAL PARAMETERS :

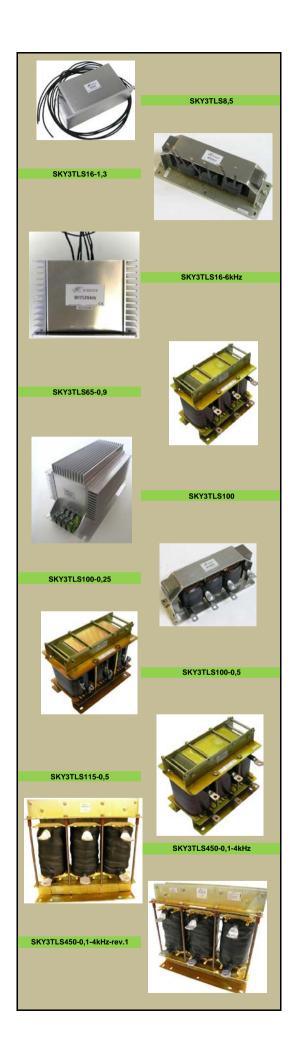
SKY3FSM60.1

Extent of operating currents In: 60A Switching frequency of the inverter SFr: 3-10kHz

## TECHNICAL PARAMETERS:

SKY3FSM250P

In: 250A **Extent of operating currents** Switching frequency of the inverter SFr: 5-16kHz



#### TECHNICAL PARAMETERS:

SKY3TLS8,5

Extent of operating currents In: 8,5A
Switching frequency of the inverter SFr : 8-10kHz

# TECHNICAL PARAMETERS :

SKY3TLS16-1,3

Extent of operating currents In: 160A
Switching frequency of the inverter SFr: 8-10kHz

#### TECHNICAL PARAMETERS:

SKY3TLS16-6kHz

Extent of operating currents In: 16A
Switching frequency of the inverter SFr: 6-10kHz

## TECHNICAL PARAMETERS :

SKY3TLS65-0,9

Extent of operating currents In: 65A
Switching frequency of the inverter SFr : 3-8kHz

## TECHNICAL PARAMETERS:

SKY3TLS100

Extent of operating currents In: 100A
Switching frequency of the inverter SFr : 5-16kHz

## TECHNICAL PARAMETERS:

SKY3TLS100-0,25

Extent of operating currents In: 100A
Switching frequency of the inverter SFr : 5-8kHz

## TECHNICAL PARAMETERS:

SKY3TLS100-0,5

Extent of operating currents In: 100A
Switching frequency of the inverter SFr : 5-8kHz

## TECHNICAL PARAMETERS :

SKY3TLS115-0,5

Extent of operating currents In: 115A
Switching frequency of the inverter SFr : 5-8kHz

## TECHNICAL PARAMETERS :

SKY3TLS450-0,1-4kHz

Extent of operating currents In: 450A
Switching frequency of the inverter SFr : 4-16kHz

#### TECHNICAL PARAMETERS:

SKY3TLS450-0,1-4kHz-rev.1

Extent of operating currents In: 450A
Switching frequency of the inverter SFr : 4-16kHz



#### TECHNICAL PARAMETERS:

SKY3TS32

Extent of operating currents In: 32A Switching frequency of the inverter SFr: 5-16kHz

TECHNICAL PARAMETERS :

SKY3TLS32P
Extent of operating currents In: 32A SFr: 5-16kHz Switching frequency of the inverter

#### TECHNICAL PARAMETERS:

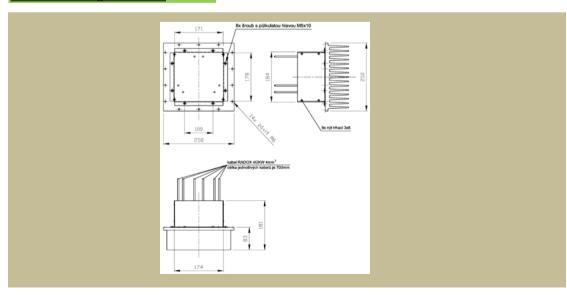
SKY3TSF11-16kHz

Extent of operating currents
Switching frequency of the inverter In: 11A SFr : 5-16kHz

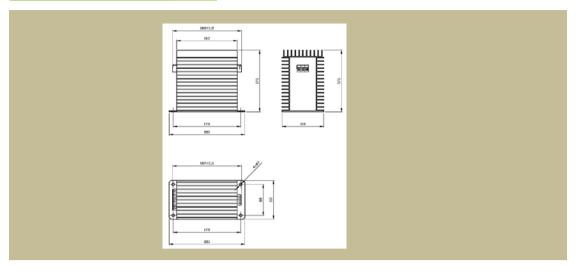
TECHNICAL PARAMETERS :
SKY3FSM250P-rev.1
Extent of operating currents
Switching frequency of the inverter In: 250 A SFr : 5-16 kHz

Туре	Nominal current [A]	Weight [kg]	Conductor cross section [mm 2]	basic dimensions [mm]				
				Α	В	C	D	E
				length	height	width	pitch	pitch
SKY3FSM20	20	16	4	250	181	250	-	-
SKY3FSM20-u	20	9,1	4 - 6	200	175	110	178	88
SKY3FSM43	40	35,5	16	460	243	250	-	-
SKY3FSM43.1	40	28,5	16	385	165	180	355	145
SKY3FSM43.2	40	25,5	10	400	110	164	-	-
SKY3FSM43.3	40	23	oko 35x8	414	175	146	200	132
SKY3FSM60.1	60	28,5	16	440	200	175	408	135
SKY3FSM250P	250	68	oko185x12	380	343	230	350	150
SKY3TLS8,5	8,5	4,2	radox 1,5	200	100	75	180	45
SKY3TLS16-1,3	16	6	oko 35x8	268	105	124	248	80
SKY3TLS16-6kHz	16	28	CSA 2,5	280	125	160	260	140
SKY3TLS65-0,9	65	34	oko 50x10	300	295	190	260	135
SKY3TLS100	100	68	35	497	284	256	460	206
SKY3TLS100-0,25	100	20	oko 50x10	350	168	150	330	100
SKY3TLS100-0,5	100	35	oko 50x10	300	295	195	260	150
SKY3TLS115-0,5	115	48	oko 50x10	300	295	215	260	150
SKY3TLS450-0,1-4kHz	450	100	oko 300x12	510	455	370	470	240
SKY3TLS450-0,1-4kHz-rev.1	450	100	oko 300x12	510	455	292	470	181
SKY3TLS32	32	15,5	6 - 10	360	160	175	340	140
SKY3TS32P	32	22	oko 32x8	240	238,5	177	200	120
SKY3TSF11-16kHz	11	3,6	radox 2,5	200	75	100	180	60
SKY3FSM250P-rev.1	250	75	oko 180x12	290	343	229	350	148

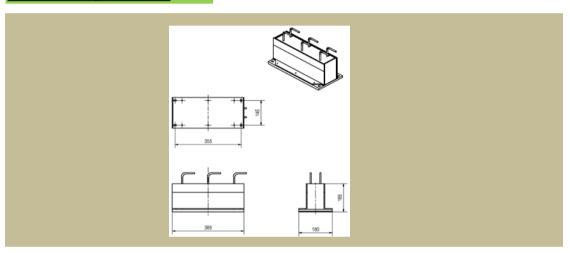
# <u>Dimensional drawing : SKY3FSM20</u>



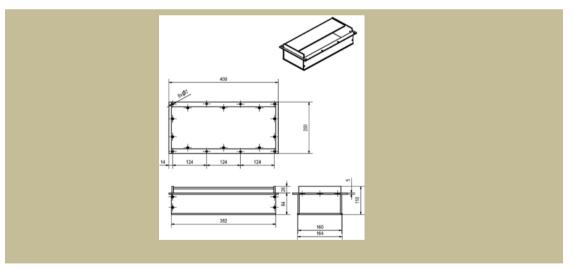
# Dimensional drawing : SKY3FSM20-u



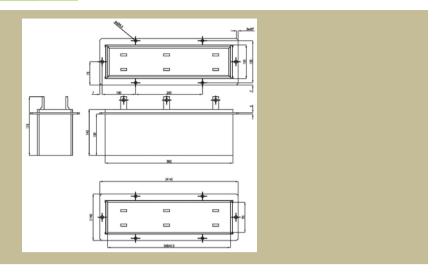
# Dimensional drawing : SKY3FSM43.1



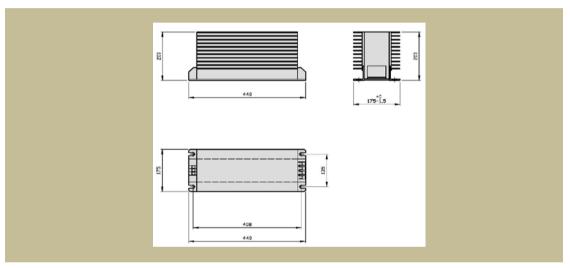
# Dimensional drawing : SKY3FSM43.2



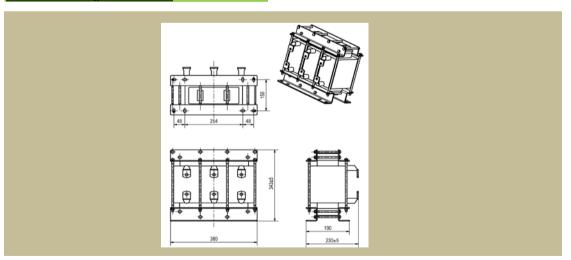
# Dimensional drawing : SKY3FSM43.3



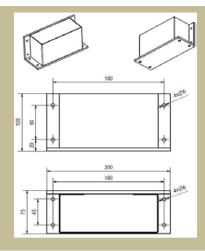
# Dimensional drawing : SKY3FSM60.1



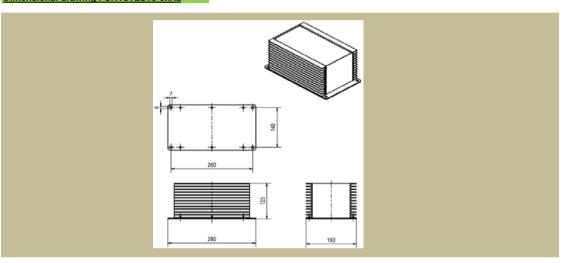
# <u>Dimensional drawing : SKY3FSM250P</u>



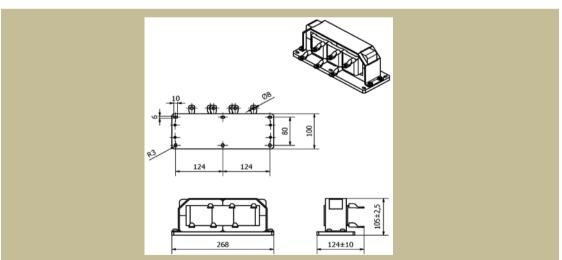
# <u>Dimensional drawing : SKY3TLS8,5</u>



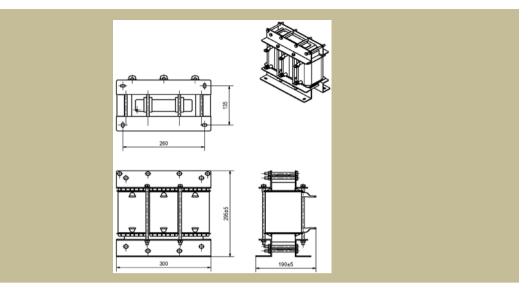
# Dimensional drawing : SKY3TLS16-6kHz



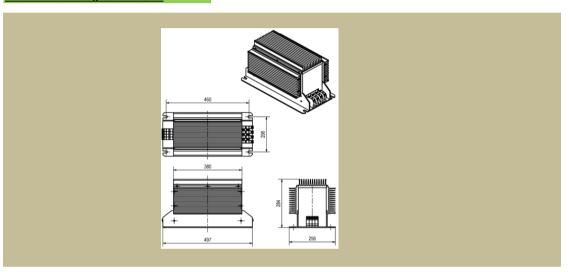
# Dimensional drawing : SKY3TLS16-1,3



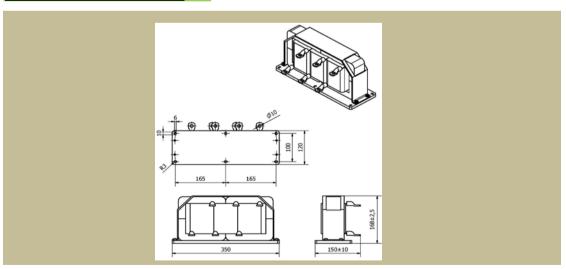
# <u>Dimensional drawing : SKY3TLS65-0,9</u>



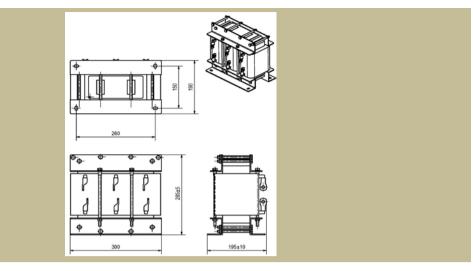
# <u>Dimensional drawing : SKY3TLS100</u>



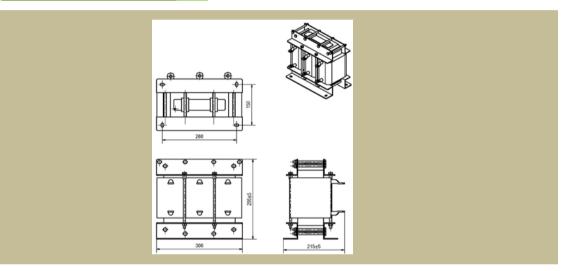
# <u>Dimensional drawing : SKY3TLS100-0,25</u>



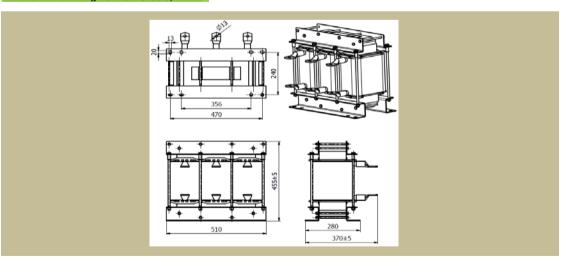
# <u>Dimensional drawing : SKY3TLS100-0,5</u>



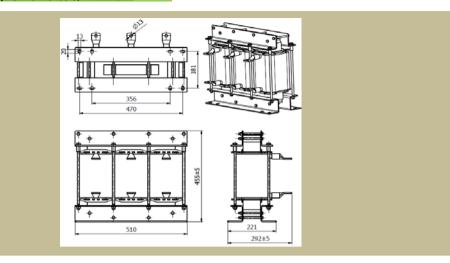
# <u>Dimensional drawing : SKY3TLS115-0,5</u>



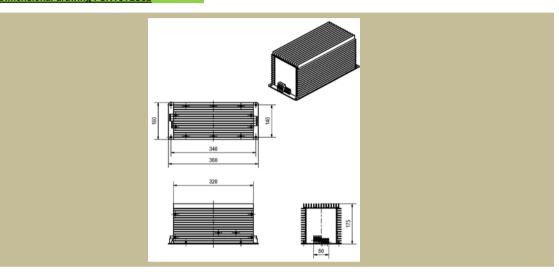
# Dimensional drawing : SKY3TLS450-0,1-4kHz



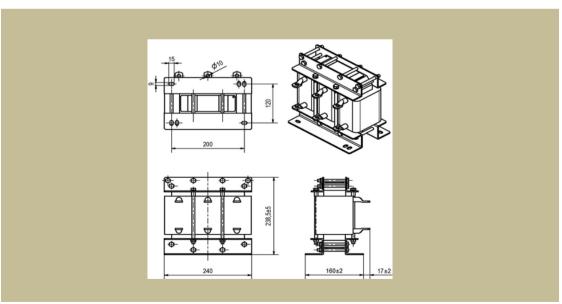
# Dimensional drawing : SKY3TLS450-0,1-4kHz-rev.1



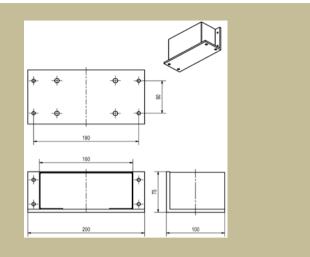
# <u>Dimensional drawing : SKY3TLS32</u>



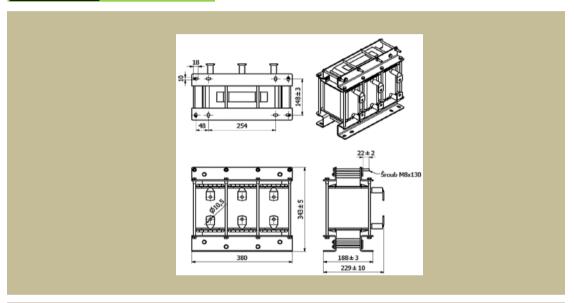
# <u>Dimensional drawing : SKY3TS32P</u>



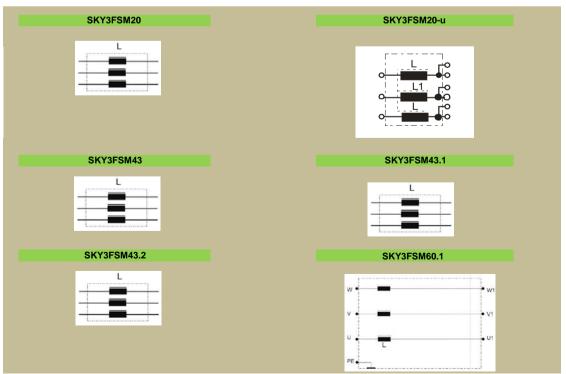
# Dimensional drawing : SKY3TSF11-16kHz



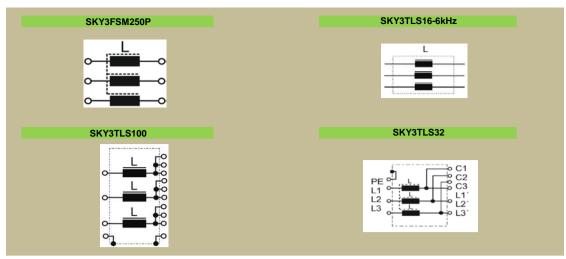
## SKY3FSM250P-rev.1

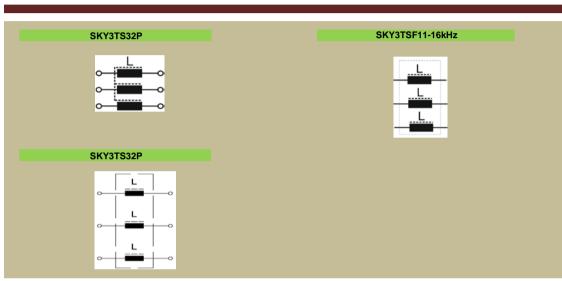


# Diagram:



strana 10 z 11





#### Use:

It is used where we have big distance between the changer and motor. Also it is used where we need to decrease the size of electromagnetic emission and where must be kept low rate of voltage rise du/dt on the motor. By using the sinusoidal filter it is provided

#### Dimensioning, wiring:

It is dimensioned according to the indicated label values. When installing into switchboards it is necessary to count with power loss of the filter and provide for removal of heat loss by the help of a suitably placed ventilator. It is also necessary to beware of setting of the switching frequency of the changer. The higher is the switching frequency, the lower are radio-frequency losses. Therefore it is important to keep to the