

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 :

SKY1FSM50-690-400Hz_x3 In: 100A
 Switching frequency of the inverter SFr : 6-16kHz

TECHNICAL PARAMETERS :

SKY3FSM1-400S In: 1A
 Extent of operating currents SFr : 5-20kHz
 Switching frequency of the inverter

TECHNICAL PARAMETERS :

SKY3FSM4-400-3kHz In: 4A
 Extent of operating currents SFr : 3-16kHz
 Switching frequency of the inverter

TECHNICAL PARAMETERS :

SKY3FSM4-400-IP67 In: 4A
 Extent of operating currents SFr : 5-16kHz
 Switching frequency of the inverter

TECHNICAL PARAMETERS :

SKY3FSM4-400-8kHz In: 4A
 Extent of operating currents SFr : 8-10kHz
 Switching frequency of the inverter

TECHNICAL PARAMETERS :

SKY3FSM4-80Hz-8kHz In: 4A
 Extent of operating currents SFr : 8-10kHz
 Switching frequency of the inverter

TECHNICAL PARAMETERS :

SKY3FSM5-6kHz In: 5A
 Extent of operating currents SFr : 6-16kHz
 Switching frequency of the inverter

TECHNICAL PARAMETERS :

SKY3FSM5-230-2100Hz In: 5A
 Extent of operating currents SFr : 5-16kHz
 Switching frequency of the inverter

TECHNICAL PARAMETERS :

SKY3FSM6-400-3kHz In: 6A
 Extent of operating currents SFr : 3-16kHz
 Switching frequency of the inverter

TECHNICAL PARAMETERS :

SKY3FSM6-690-6kHz In: 6A
 Extent of operating currents SFr : 6-8kHz
 Switching frequency of the inverter



TECHNICAL PARAMETERS :

SKY3FSM7-6kHz
Extent of operating currents
Switching frequency of the inverter

In: 7A
SFr : 6-16kHz

TECHNICAL PARAMETERS :

SKY3FSM9-6kHz
Extent of operating currents
Switching frequency of the inverter

In: 9A
SFr : 6-16kHz

TECHNICAL PARAMETERS :

SKY3FSM10-230
Extent of operating currents
Switching frequency of the inverter

In: 10A
SFr : 5-16kHz

TECHNICAL PARAMETERS :

SKY3FSM12-6kHz
Extent of operating currents
Switching frequency of the inverter

In: 12A
SFr : 6-16kHz

TECHNICAL PARAMETERS :

SKY3FSM12-16kHz
Extent of operating currents
Switching frequency of the inverter

In: 12A
SFr : 8kHz

TECHNICAL PARAMETERS :

SKY3FSM16-400-IP67
Extent of operating currents
Switching frequency of the inverter

In: 16A
SFr : 1kHz

TECHNICAL PARAMETERS :

SKY3FSM16-400-IP69-rev.4
Extent of operating currents
Switching frequency of the inverter

In: 16A
SFr : 1kHz

TECHNICAL PARAMETERS :

SKY3FSM16-400-8kHz
Extent of operating currents
Switching frequency of the inverter

In: 16A
SFr : 8-16kHz

TECHNICAL PARAMETERS :

SKY3FSM32-5kHz
Extent of operating currents
Switching frequency of the inverter

In: 32A
SFr : 5-16kHz

TECHNICAL PARAMETERS :

SKY3FSM40-3kHz
Extent of operating currents
Switching frequency of the inverter

In: 40A
SFr : 3-10kHz

TECHNICAL PARAMETERS :

SKY3FSM40-400-6kHz
Extent of operating currents
Switching frequency of the inverter

In: 40A
SFr : 6-8kHz

TECHNICAL PARAMETERS :

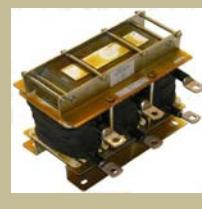
SKY3FSM40-400-CH-90Hz
Extent of operating currents
Switching frequency of the inverter

In: 40A
SFr : 5-16kHz

TECHNICAL PARAMETERS :

SKY3FSM40-690-4kHz
Extent of operating currents
Switching frequency of the inverter

In: 40A
SFr : 4-8kHz

 <p>SKY3FSM50-3kHz</p>	 <p>SKY3FSM60-400-4kHz</p>
 <p>SKY3FSM50-5kHz</p>	 <p>SKY3FSM70-3kHz</p>
 <p>SKY3FSM72-5kHz</p>	 <p>SKY3FSM90-5kHz</p>
 <p>SKY3FSM100-400-8kHz-4ms</p>	 <p>SKY3FSM110-400-M22</p>
 <p>SKY3FSM25-400-3kHzCH</p>	 <p>SKY3FSM8-500CH</p>
 <p>SKY3FSM10-500CH</p>	 <p>SKY3FSM3-16kHz</p>
 <p>SKY3FSM3-16kHz-rev.1</p>	

TECHNICAL PARAMETERS :

SKY3FSM50-3kHz

Extent of operating currents
Switching frequency of the inverter

In: 50A
SFr : 3-8kHz

TECHNICAL PARAMETERS :

SKY3FSM60-400-4kHz

Extent of operating currents
Switching frequency of the inverter

In: 50A
SFr : 4-10kHz

TECHNICAL PARAMETERS :

SKY3FSM50-5kHz

Extent of operating currents
Switching frequency of the inverter

In: 50A
SFr : 5-8kHz

TECHNICAL PARAMETERS :

SKY3FSM70-3kHz

Extent of operating currents
Switching frequency of the inverter

In: 70A
SFr : 3-8kHz

TECHNICAL PARAMETERS :

SKY3FSM72-5kHz

Extent of operating currents
Switching frequency of the inverter

In: 72A
SFr : 5-8kHz

TECHNICAL PARAMETERS :

SKY3FSM90-5kHz

Extent of operating currents
Switching frequency of the inverter

In: 90A
SFr : 5-8kHz

TECHNICAL PARAMETERS :

SKY3FSM100-400-8kHz-4ms

Extent of operating currents
Switching frequency of the inverter

In: 90A
SFr : 8-16kHz

TECHNICAL PARAMETERS :

SKY3FSM110-400-M22

Extent of operating currents
Switching frequency of the inverter

In: 110A
SFr : 5-16kHz

TECHNICAL PARAMETERS :

SKY3FSM25-400-3kHzCH

Extent of operating currents
Switching frequency of the inverter

In: 25 A
SFr : 3-8 kHz

TECHNICAL PARAMETERS :

SKY3FSM8-500CH

Extent of operating currents
Switching frequency of the inverter

In: 8A
SFr : 5-16 kHz

TECHNICAL PARAMETERS :

SKY3FSM10-500CH

Extent of operating currents
Switching frequency of the inverter

In: 10A
SFr : 5-16 kHz

TECHNICAL PARAMETERS :

SKY3FSM3-16kHz

Extent of operating currents
Switching frequency of the inverter

In: 3A
SFr : 16 kHz

TECHNICAL PARAMETERS :

SKY3FSM3-16kHz-rev.1

Extent of operating currents
Switching frequency of the inverter

In: 3A
SFr : 16 kHz



TECHNICAL PARAMETERS :

SKY3FSM10-400Hz-6kHz
Extent of operating currents
Switching frequency of the inverter

In: 10A
SFr : 6-16 kHz

TECHNICAL PARAMETERS :

SKY3FSM16-400Hz-16kHz
Extent of operating currents
Switching frequency of the inverter

In: 16A
SFr : 16 kHz

TECHNICAL PARAMETERS :

SKY3FSM32-400E-3kHz
Extent of operating currents
Switching frequency of the inverter

In: 32A
SFr : 3-16 kHz

TECHNICAL PARAMETERS :

SKY3FSM16-400IP69-G03-rev.G
Extent of operating currents
Switching frequency of the inverter

In: 16A
SFr : 5-16 kHz

TECHNICAL PARAMETERS :

SKY3FSM80.1
Extent of operating currents
Switching frequency of the inverter

In: 80 A
SFr : 8-16 kHz

TECHNICAL PARAMETERS :

SKY3FSM16-400-8kHz-rev.2
Extent of operating currents
Switching frequency of the inverter

In: 16A
SFr : 8-16 kHz

TECHNICAL PARAMETERS :

SKY3FSM85-400Hz-6kHz
Extent of operating currents
Switching frequency of the inverter

In: 85 A
SFr : 6-12 kHz

TECHNICAL PARAMETERS :

SKY3FSM6-400CH-T
Extent of operating currents
Switching frequency of the inverter

In: 6A
SFr : 5-16 kHz

TECHNICAL PARAMETERS :

SKY3FSM3-10kHz-200Hz
Extent of operating currents
Switching frequency of the inverter

In: 3A
SFr : 10-20 kHz

TECHNICAL PARAMETERS :

SKY3FSM16-2kHz
Extent of operating currents
Switching frequency of the inverter

In: 16A
SFr : 2 kHz

TECHNICKÉ PARAMETRY :

SKY3FSM16-200Hz-10kHz
Extent of operating currents
Switching frequency of the inverter

In: 16A
SFr : 10-20 kHz

TECHNICAL PARAMETERS :

SKY3FSM160-480-6kHz
Extent of operating currents
Switching frequency of the inverter

In: 160 A
SFr : 6 kHz

TECHNICAL PARAMETERS :

SKY3FSM360-0,1-5,76kHz
Extent of operating currents
Switching frequency of the inverter

In: 360 A
SFr : 5,76 kHz



TECHNICAL PARAMETERS :

SKY3FSM75-400CH-4kHz

Extent of operating currents
Switching frequency of the inverter

In: 75 A
SFr : 4 kHz

TECHNICAL PARAMETERS :

SKY3FSM110-400EL

Extent of operating currents
Switching frequency of the inverter

In: 110 A
SFr : 4-16 kHz

TECHNICAL PARAMETERS :

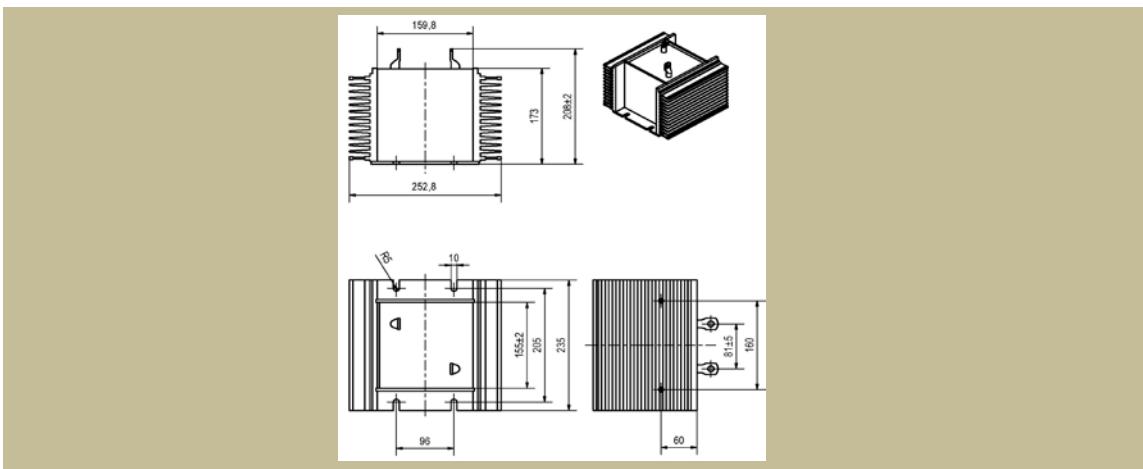
SKY3FSM120-400-6kHz

Extent of operating currents
Switching frequency of the inverter

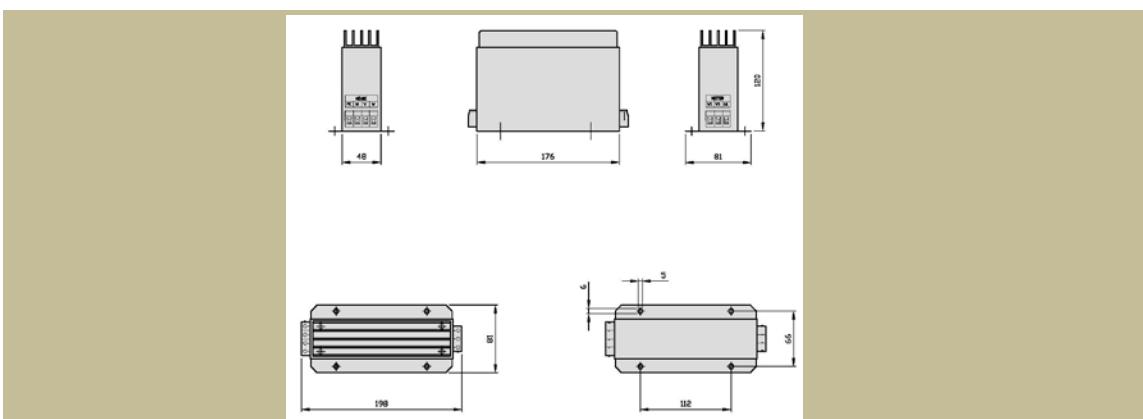
In: 120 A
SFr : 6 kHz

Type	Nominal current [A]	Voltage drop [%]	Weight [kg]	Conductor cross section [mm ²]	basic dimensions [mm]				
					A	B	C	D	E
					length	height	width	pitch	pitch
SKY1FSM50-690-400Hz_x3	100	6-16	70	oko 10x50	235	280	252,8	205	96
SKY3FSM1-400S	1	5-20	0,9	4 - 6	198	120	81	112	66
SKY3FSM4-400-3 kHz	4	3-16	0,7	4 - 6	198	120	81	112	66
SKY3FSM4-400-IP67	4	5-16	2,7	4 x 1	176	120	81	112	66
SKY3FSM4-400-8kHz	4	8-10	0,6	4 - 6	198	100	81	112	66
SKY3FSM4-80Hz-8kHz	4	8-10	5,3	-	190	172	95	-	-
SKY3FSM5-6kHz	5	6-16	5,3	-	270	175	95	-	-
SKY3FSM5-230-2100Hz	5	5-16	5	-	270	175	95	-	-
SKY3FSM6-400-3kHz	6	3-16	4,5	4 - 6	230	175	95	210	75
SKY3FSM6-690-6kHz	6	6-8	5,5	4 - 6	230	155	105	210	85
SKY3FSM7-6kHz	7	6-16	5,3	-	270	175	95	-	-
SKY3FSM9-6kHz	9	6-16	5,3	-	270	175	95	-	-
SKY3FSM10-230	10	5-16	2,8	4 - 6	180	175	95	160	75
SKY3FSM12-6kHz	12	6-16	5,5	-	270	175	95	-	-
SKY3FSM12-16kHz	12	8	8,8	4 - 6	370	117	110	350	50
SKY3FSM16-400-IP67	16	1	11,7	4 x 2,5	374	175	110	340	90
SKY3FSM16-400-IP69-rev.4	16	1	11,8	4 x 2,5	374	93	235	340	200
SKY3FSM16-400-8kHz	16	8-16	12	4x25	315	100	120	-	-
SKY3FSM32-5kHz	32	5-16	17	oko 25x8	240	240	212	200	120
SKY3FSM40-3kHz	40	3-10	25	16	480	225	204	220	157
SKY3FSM40-400-6kHz	40	6-8	25	oko 50x10	300	300	205	260	110
SKY3FSM40-400CH-90Hz	40	5-16	32	-	440	208	195	-	-
SKY3FSM40-690-4kHz	40	4-8	28	oko 35x8	300	300	205	260	110
SKY3FSM50-3kHz	50	3-8	28	oko 35x8	240	240	225,5	200	120
SKY3FSM50-5kHz	50	5-8	45	oko 35x8	240	240	212	200	120
SKY3FSM60-400-4kHz	50	4-10	28	oko 35x10	240	240	212	200	120
SKY3FSM70-3kHz	70	3-8	45	oko 50x10	300	300	254,5	260	150
SKY3FSM72-5kHz	72	5-8	14,3	16	440	200	175	408	135
SKY3FSM90-5kHz	90	5-8	45	oko 50x10	300	300	205,5	260	110
SKY3FSM100-400-8kHz-4ms	90	8-16	46	oko 50x10	300	295	270	260	151
SKY3FSM110-400-M22	110	5-16	35,5	35	548	249	214	317	177
SKY3FSM25-400-3kHzCH	25	3-8	16,5	6-10	360	175	160	340	140
SKY3FSM8-500CH	8	5-16	4	4-6	180	175	95	160	75
SKY3FSM10-500CH	10	5-16	6,1	4-6	200	175	110	180	90
SKY3FSM3-16kHz	3	16	1,2	radox 1,5	137	51	90	87	75
SKY3FSM3-16kHz-rev.1	3	16	1,2	radox 1,5	137	51	90	87	75
SKY3FSM10-400Hz-6kHz	10	6-16	6	4-6	360	175	110	340	90
SKY3FSM16-400Hz-16kHz	16	16	17	oko 25x8	240	270	152	185	95
SKY3FSM32-400E-3kHz	32	3-16	18	oko 25x8	240	270	154	185	92
SKY3FSM16-400IP69-G03-rev.G	16	5-16	12	-	360	93	187	340	100
SKY3FSM80.1	80	8-16	27	20x3 Ø9	400	160	194	384	2x70
SKY3FSM16-400-8kHz-rev.2	16	8-16	8	4-25	315	100	120	-	-
SKY3FSM85-400Hz-6kHz	80	6-12	45	oko 50x10	480	282	264	450	64
SKY3FSM6-400CH-T	6	5-16	2,1	4-6	198	120	85	112	66
SKY3FSM3-10kHz-200Hz	3	10-20	3,2	-	223	86	100	143	82
SKY3FSM16-2kHz	16	2	16	oko 25x8	210	178	172	175	92
SKY3FSM16-200Hz-10kHz	16	10-20	10	4-6	360	175	110	340	90
SKY3FSM16-480-6kHz	160	6	65	oko 150x12	380	346	268	350	118
SKY3FSM360-0,1-5,76kHz*	360	5,76	111	oko 185x12	510	448	282	470	180
SKY3FSM75-400CH-4kHz	75	4	30	35	440	208	194	220	145
SKY3FSM110-400EL	110	4-16	54	oko 70x10	297	260	269	224	145
SKY3FSM120-400Hz-6kHz	120	6	63	oko 120x12	450	393	307	410	170

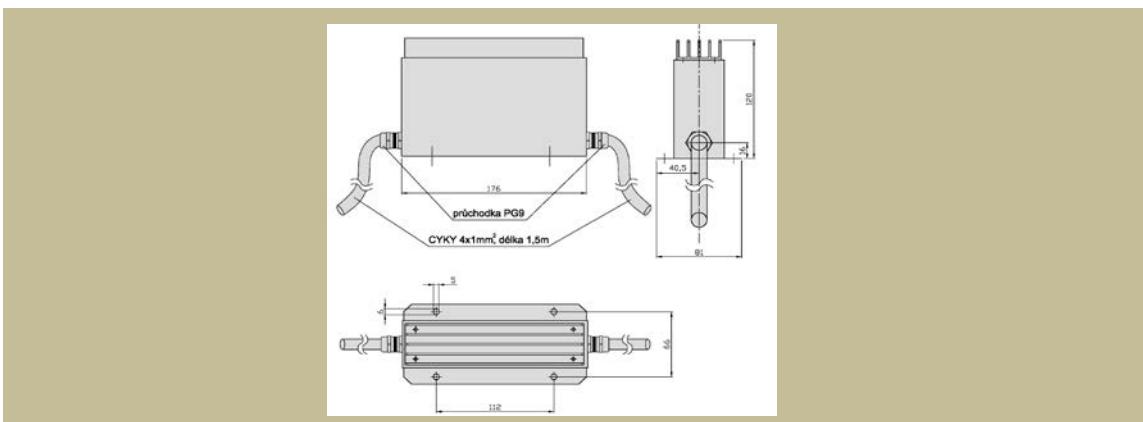
Dimensional drawing : SKY1FSM50-690-400Hz_x3



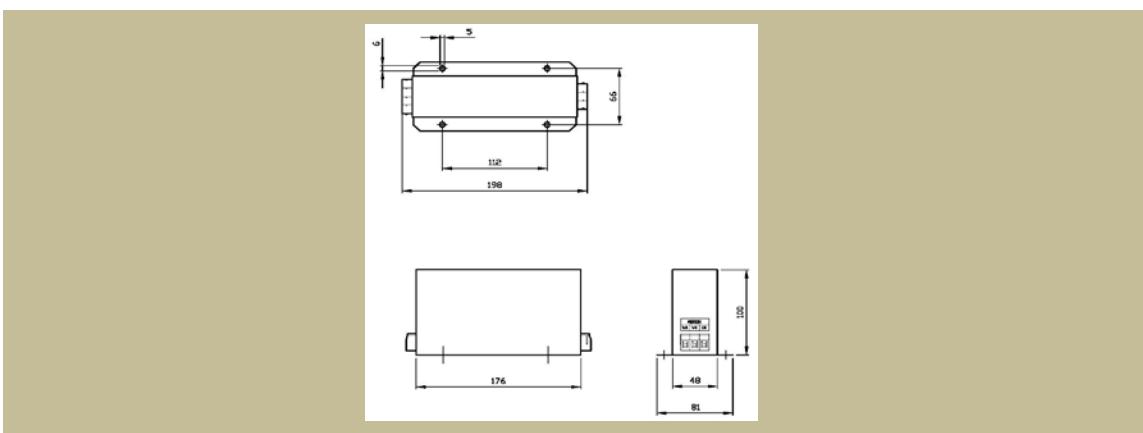
Dimensional drawing : SKY3FSM1-400S, SKY3FSM4-400-3 kHz



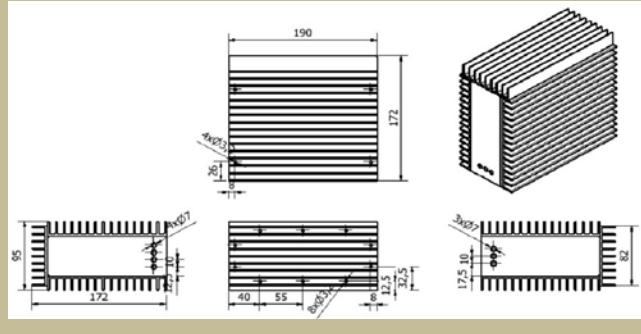
Dimensional drawing : SKY3FSM4-400-IP67



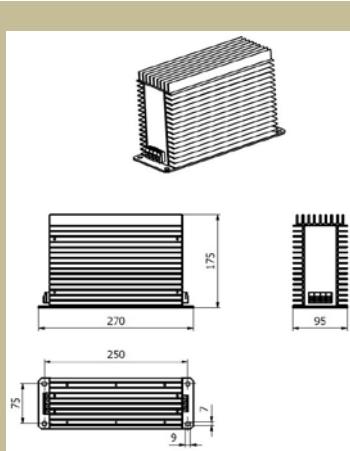
Dimensional drawing : SKY3FSM4-400-8kHz



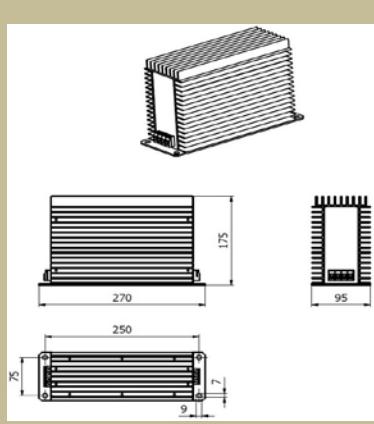
Dimensional drawing : SKY3FSM4-80Hz-8kHz



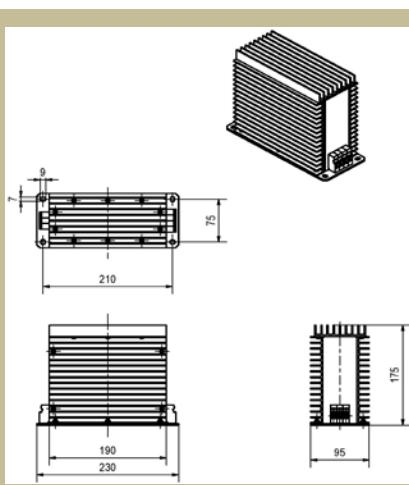
Dimensional drawing : SKY3FSM5-6kHz



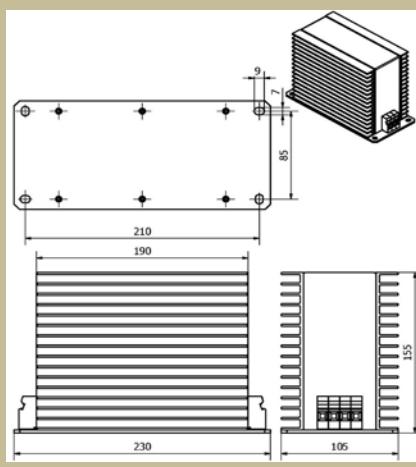
Dimensional drawing : SKY3FSM5-230-2100Hz



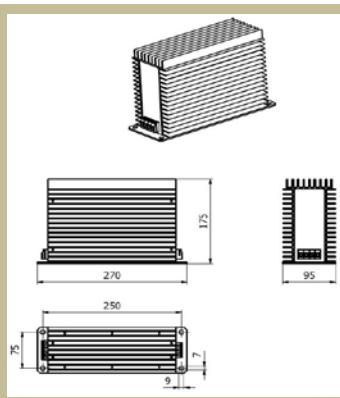
Dimensional drawing : SKY3FSM6-400-3kHz



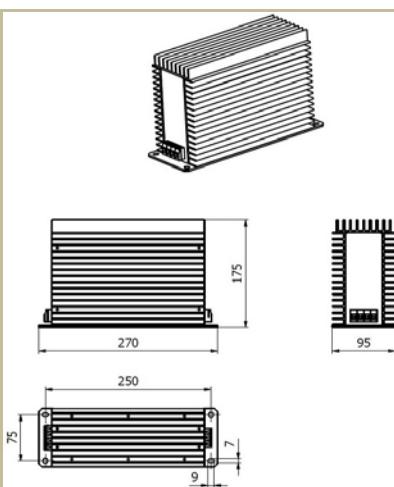
Dimensional drawing : SKY3FSM6-6kHz



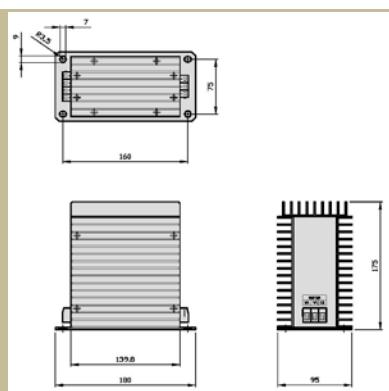
Dimensional drawing : SKY3FSM7-6kHz



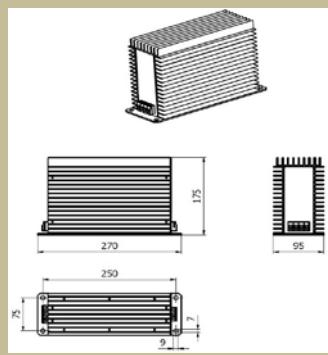
Dimensional drawing : SKY3FSM9-6kHz



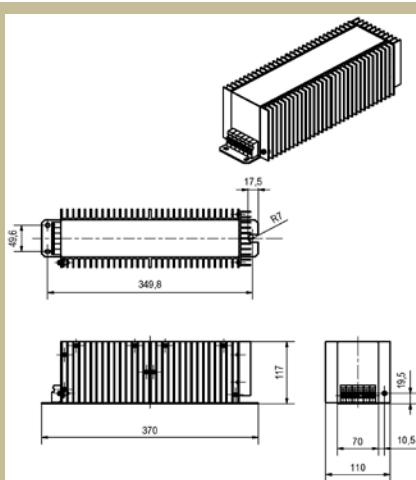
Dimensional drawing : SKY3FSM10-230



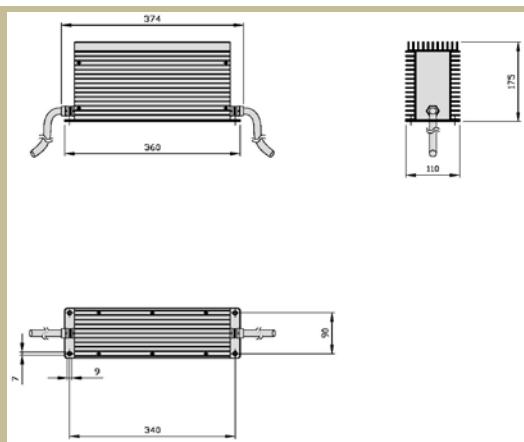
Dimensional drawing : SKY3FSM12-6kHz



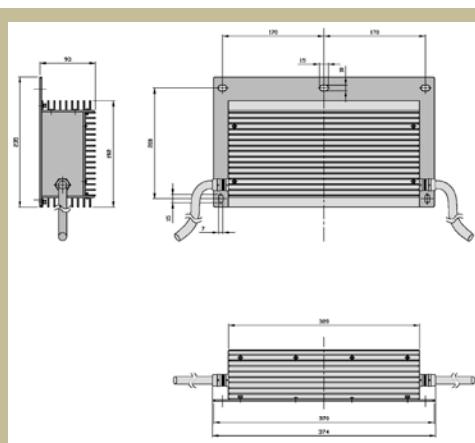
Dimensional drawing : SKY3FSM12-16kHz



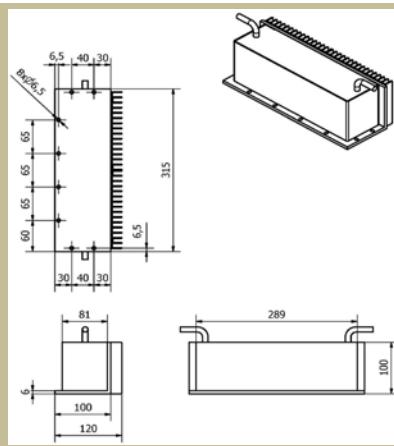
Dimensional drawing : SKY3FSM16-400-IP67



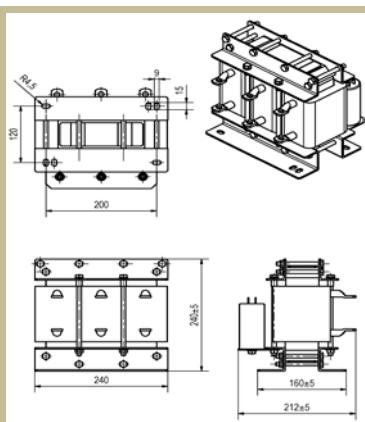
Dimensional drawing : SKY3FSM16-400-IP69-rev.4



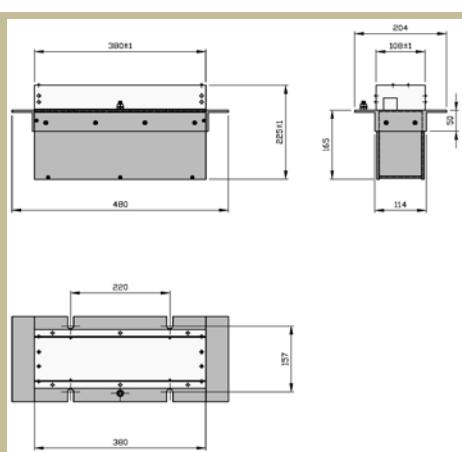
Dimensional drawing : SKY3FSM16-400-8kHz, SKY3FSM16-400-8kHz-rev.2



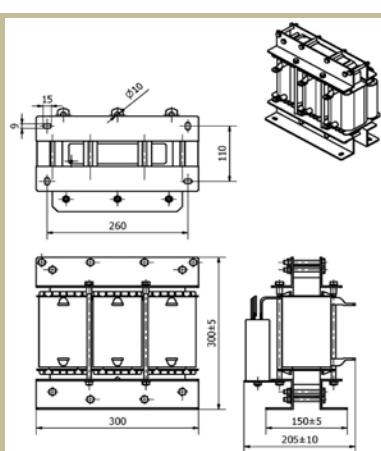
Dimensional drawing : SKY3FSM32-5kHz



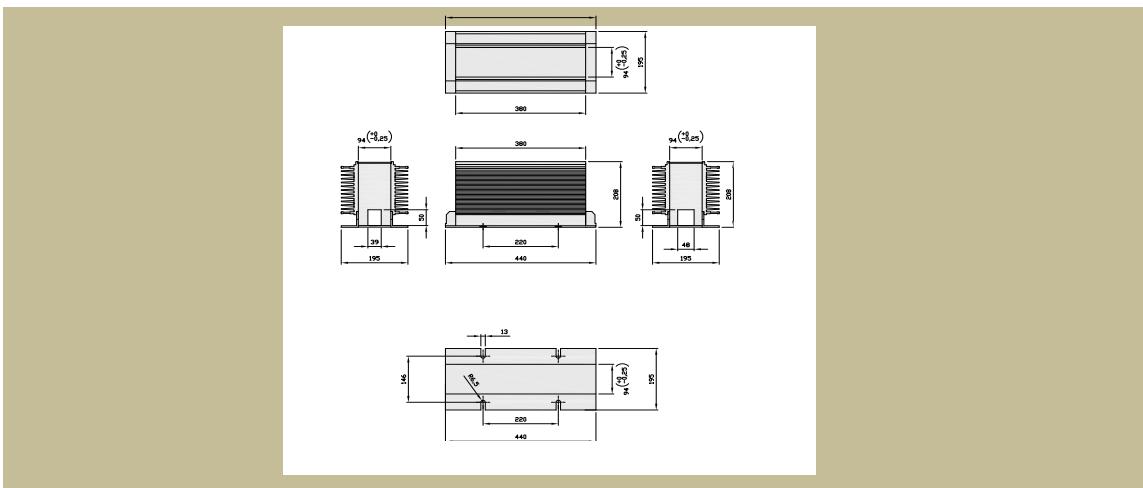
Dimensional drawing : SKY3FSM40-3kHz



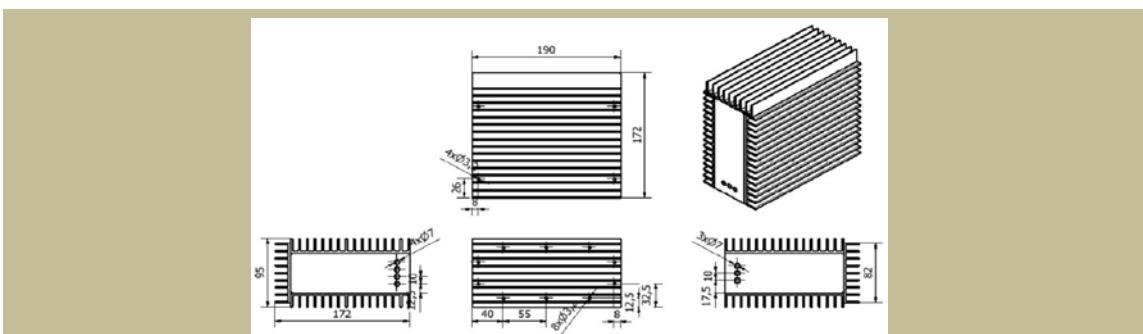
Dimensional drawing : SKY3FSM40-400-6kHz



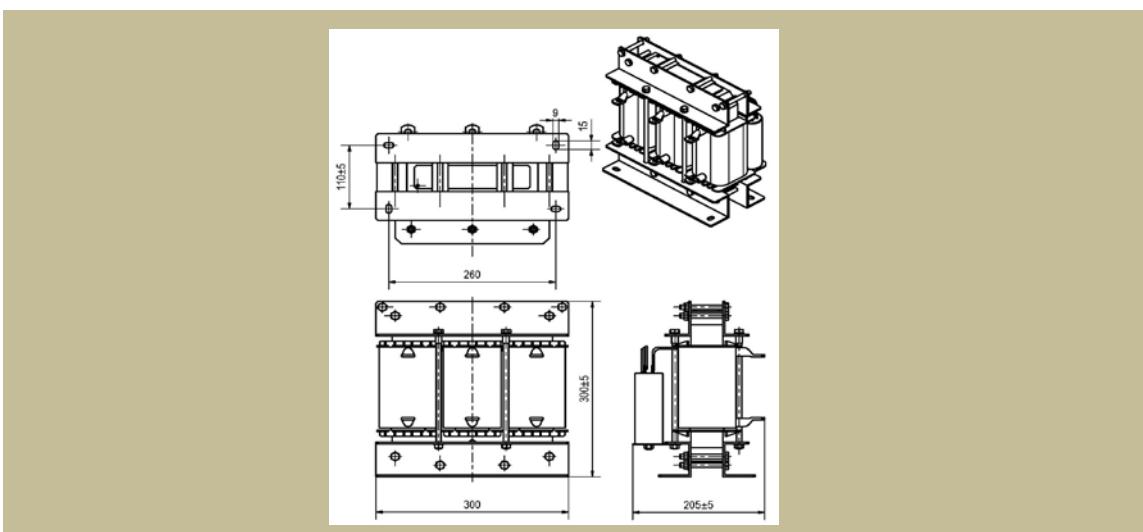
Dimensional drawing : SKY3FSM40-400CH-90Hz



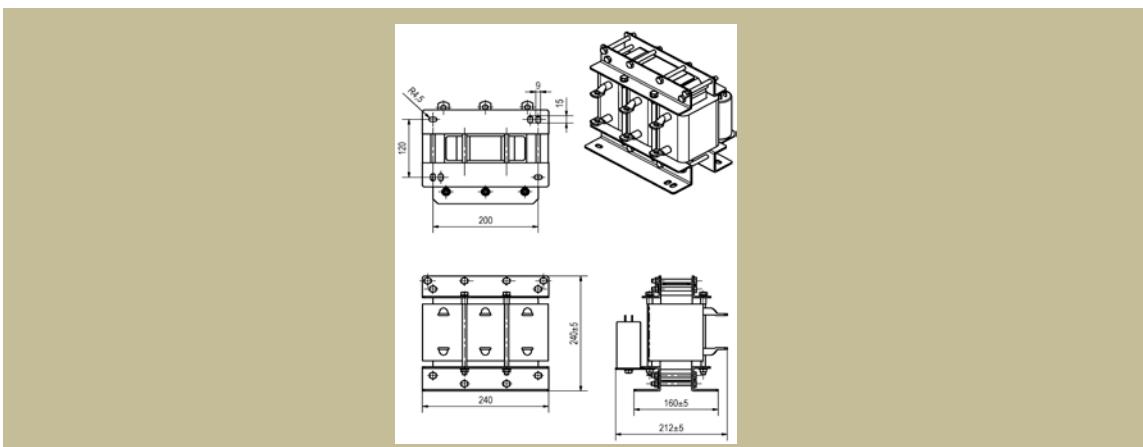
Dimensional drawing : SKY3FSM40-690-4kHz



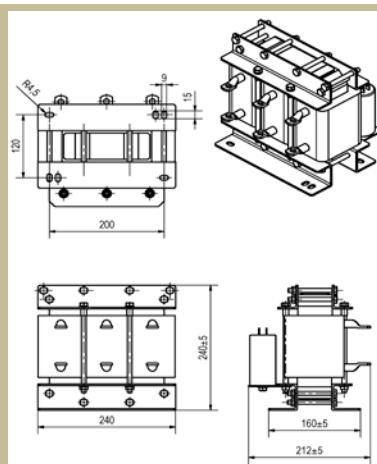
Dimensional drawing : SKY3FSM40-690-4kHz



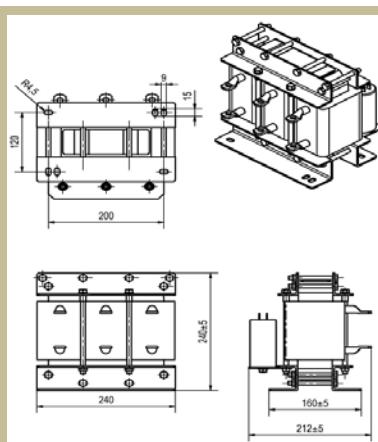
Dimensional drawing : SKY3FSM50-3kHz



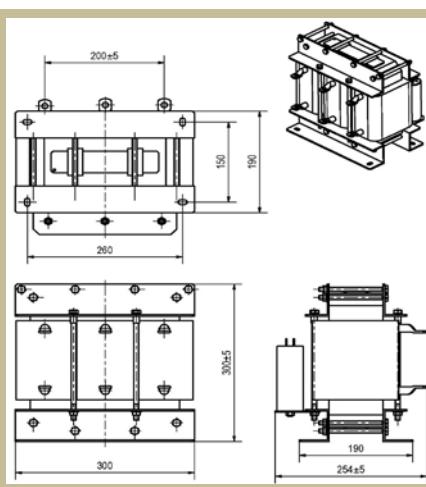
Dimensional drawing : SKY3FSM50-5kHz



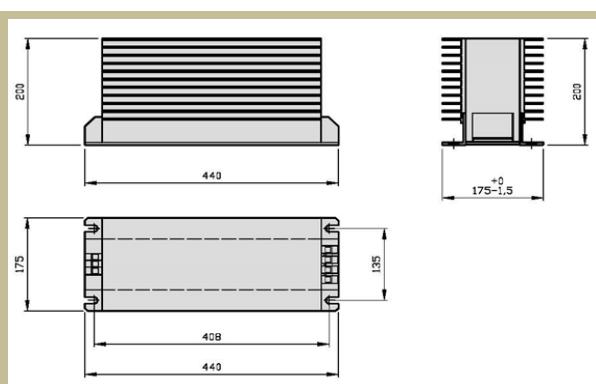
Dimensional drawing : SKY3FSM60-400-4kHz



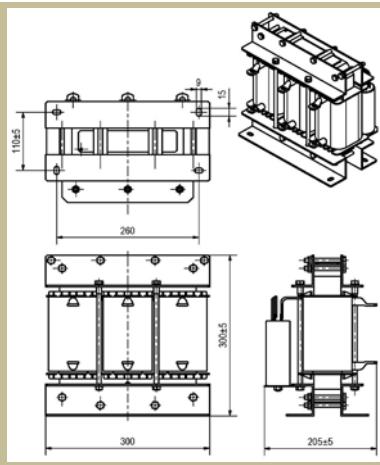
Dimensional drawing : SKY3FSM70-3kHz



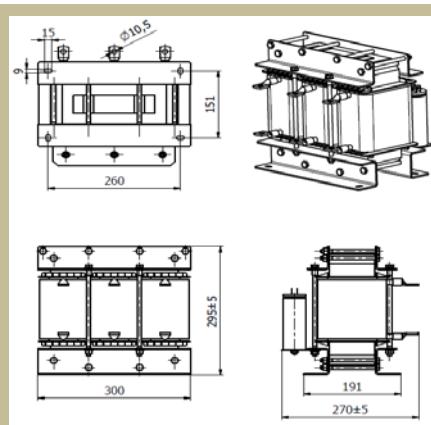
Dimensional drawing : SKY3FSM72-5kHz



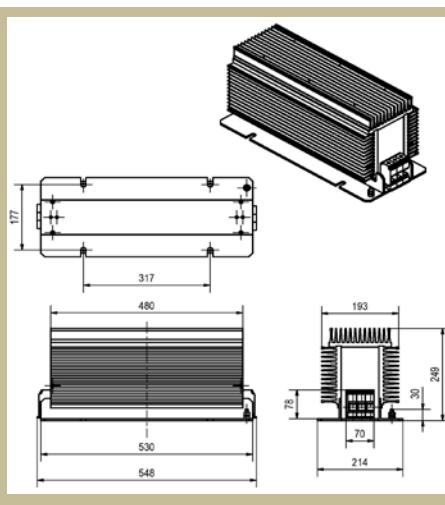
Dimensional drawing : SKY3FSM90-5kHz



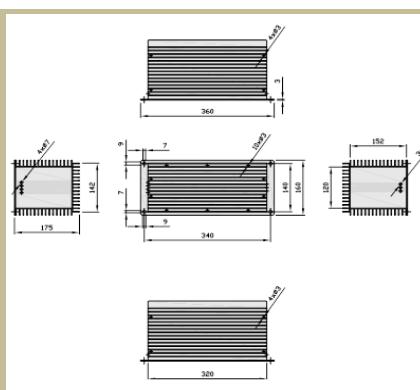
Dimensional drawing : SKY3FSM100-400-5kHz-4ms



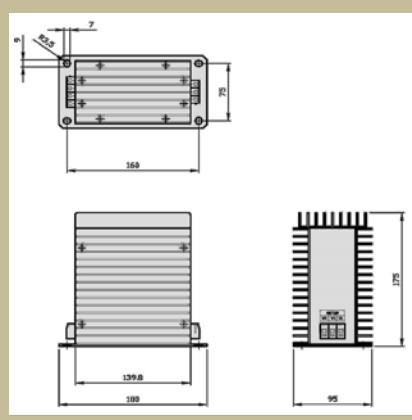
Dimensional drawing : SKY3FSM110-400-M22



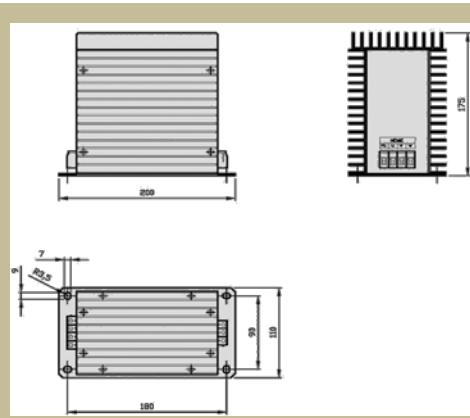
Dimensional drawing : SKY3FSM25-400-3kHzCH



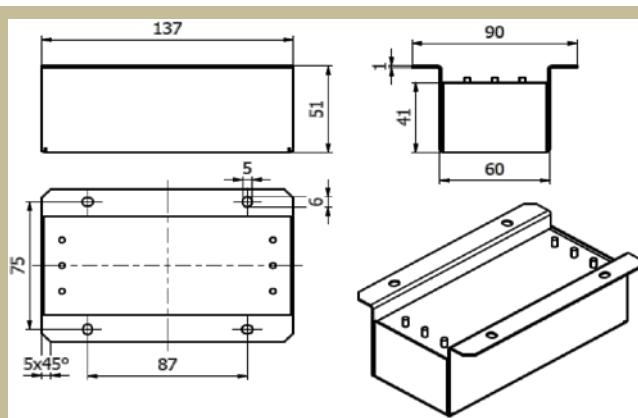
Dimensional drawing : SKY3FSM8-500CH



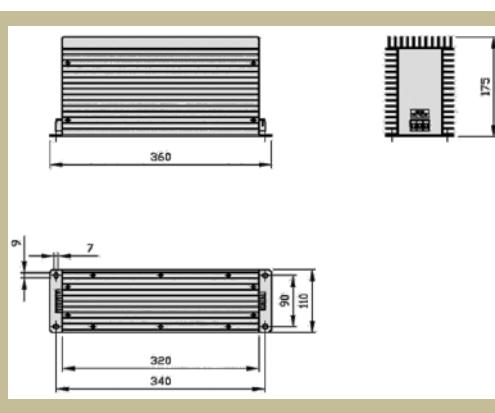
Dimensional drawing :SKY3FSM10-500CH



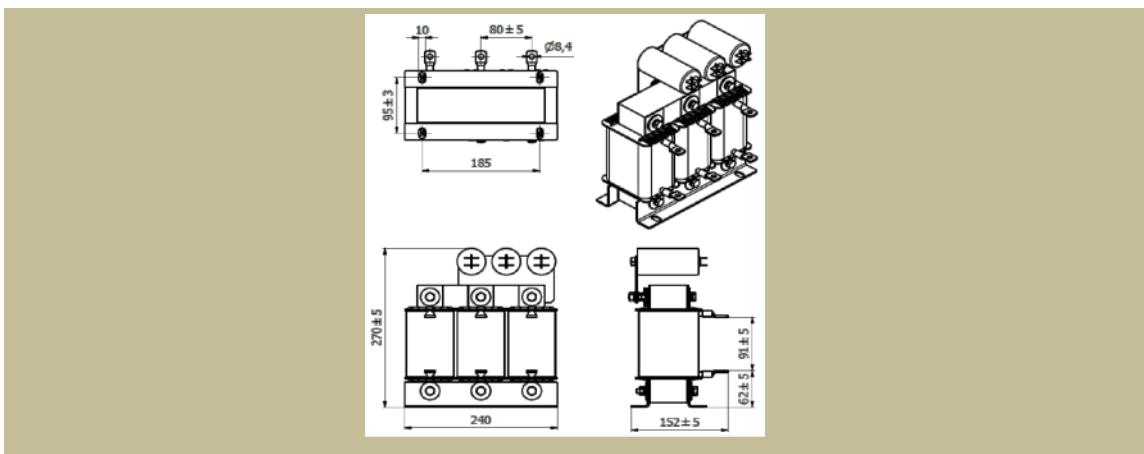
Dimensional drawing : SKY3FSM3-16kHz, SKY3FSM3-16kHz-rev.1



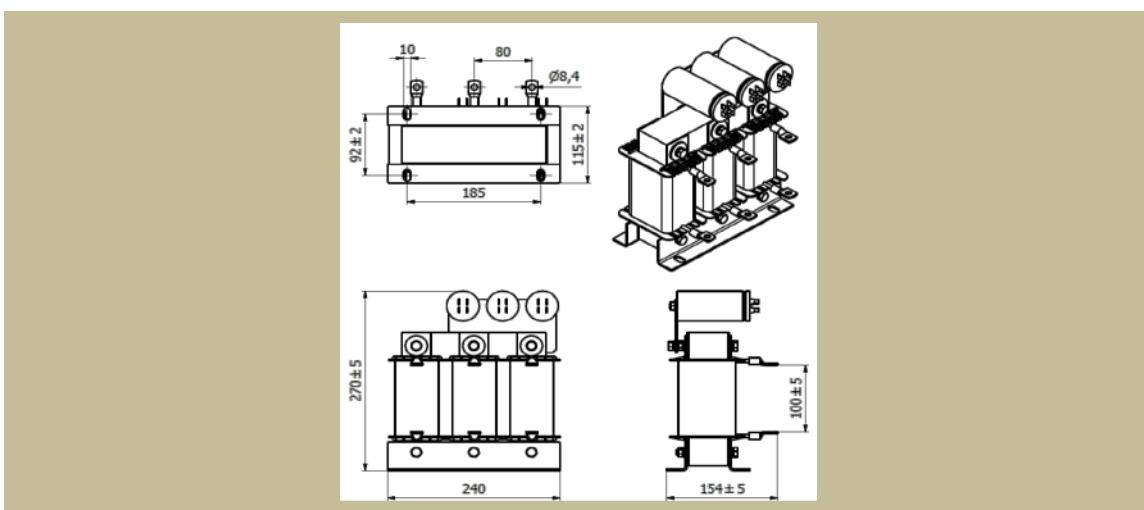
Dimensional drawing : SKY3FSM16-400Hz-6kHz



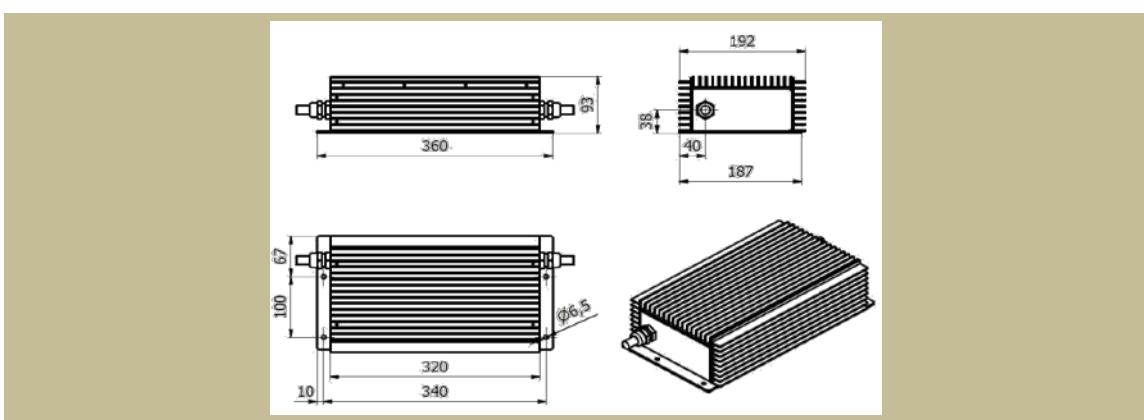
Dimensional drawing : SKY3FSM16-400Hz-16kHz



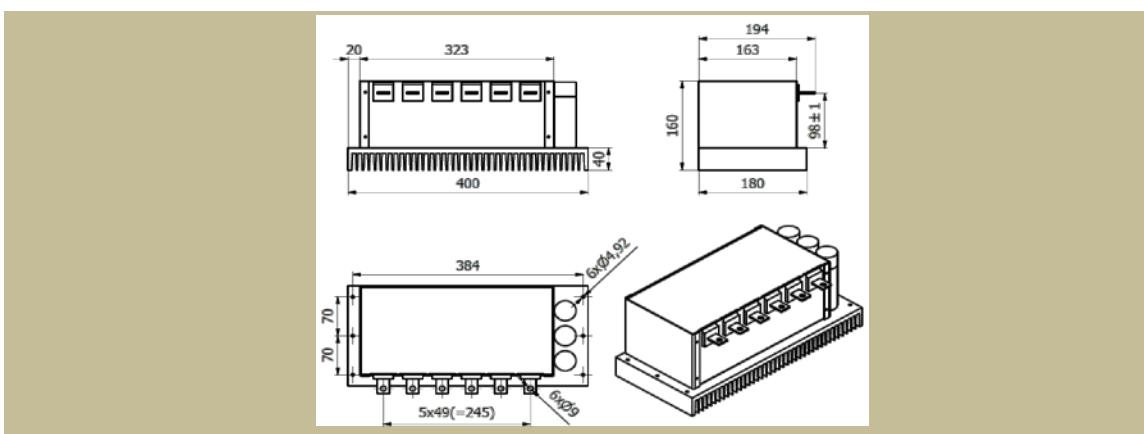
Dimensional drawing : SKY3FSM16-400Hz-16kHz



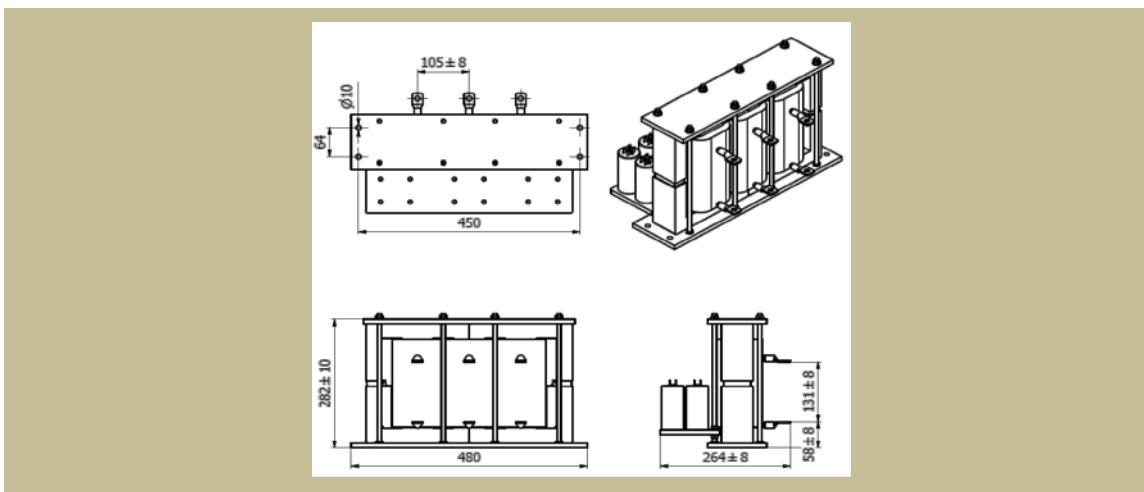
Dimensional drawing : SKY3FSM16-400IP69-G03-rev.G



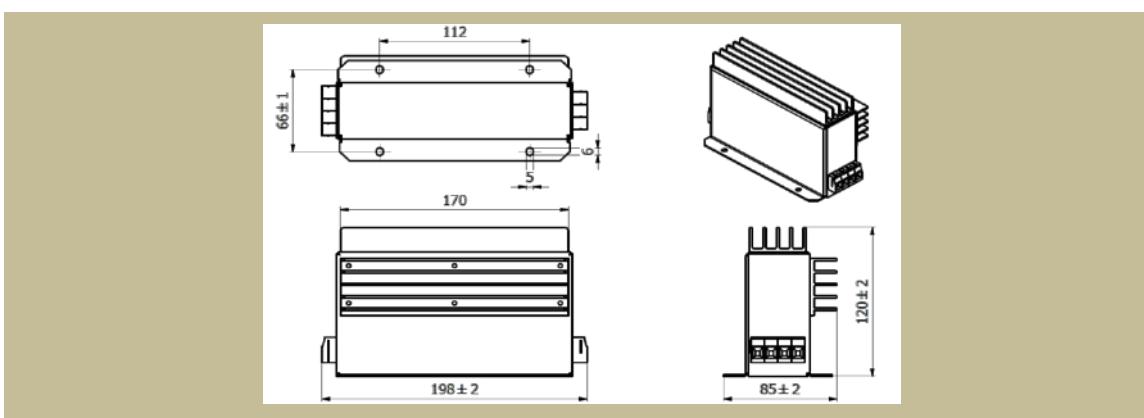
Dimensional drawing : SKY3FSM80.1



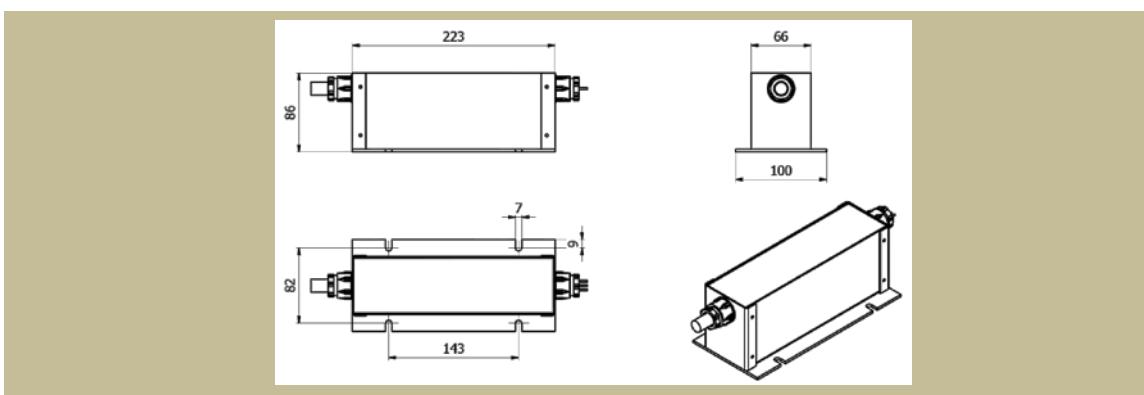
Dimensional drawing : SKY3FSM85-400Hz-6kHz



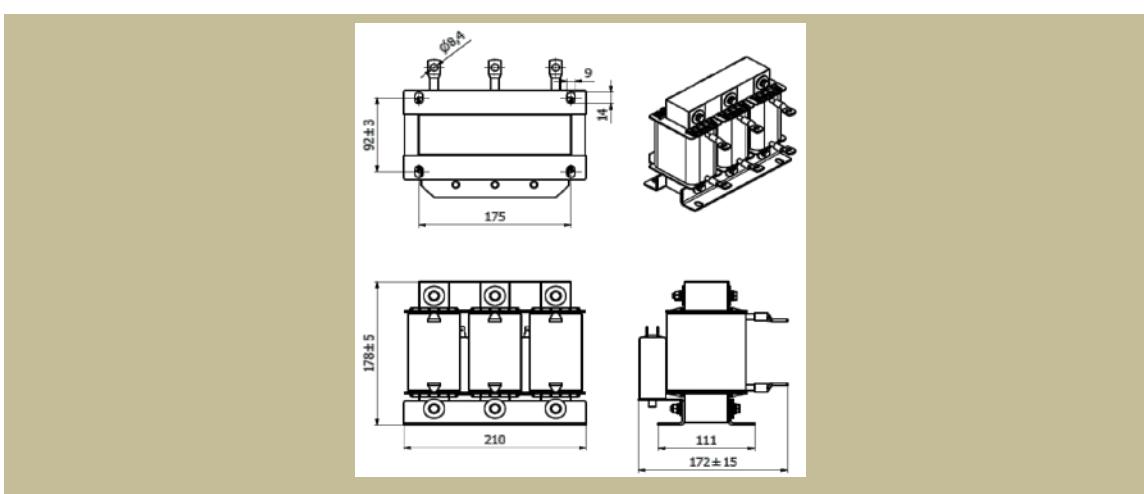
Dimensional drawing : SKY3FSM6-400CH-T



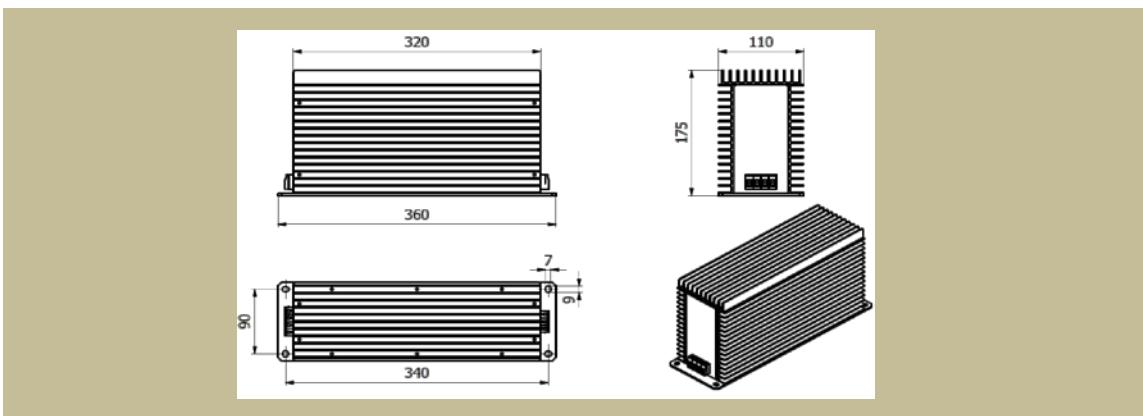
Dimensional drawing : SKY3FSM3-10kHz-200Hz



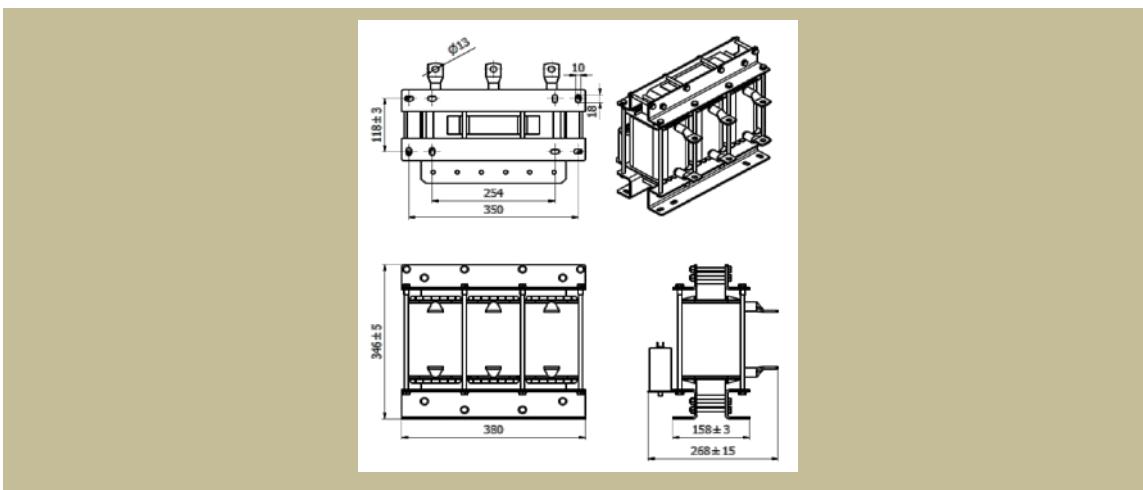
Dimensional drawing : SKY3FSM16-2kHz



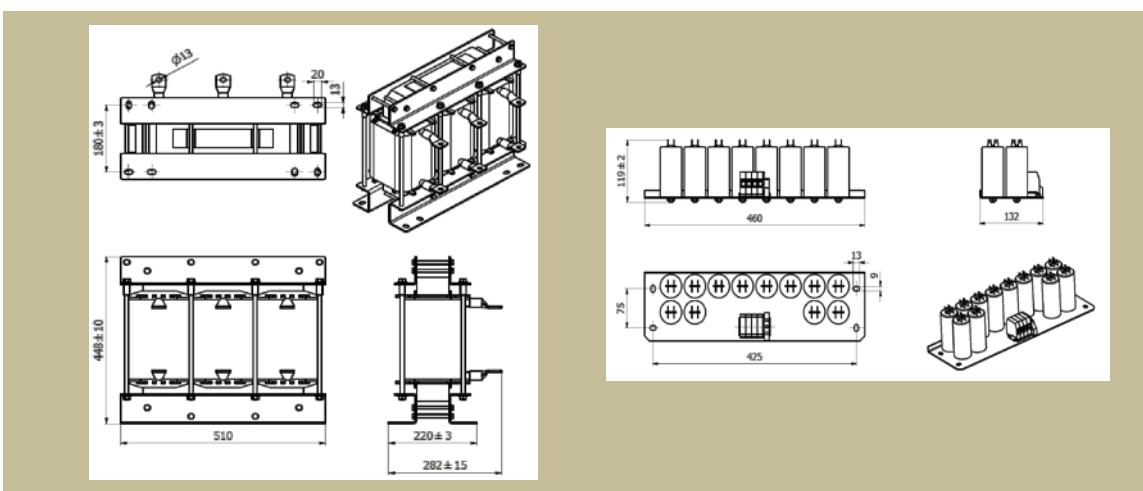
Dimensional drawing : SKY3FSM16-200Hz-10kHz



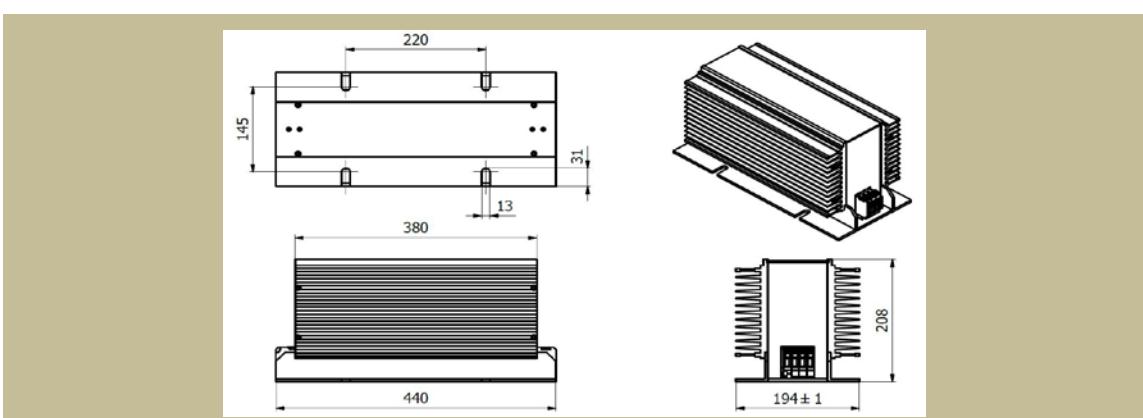
Dimensional drawing : SKY3FSM160-480-6kHz



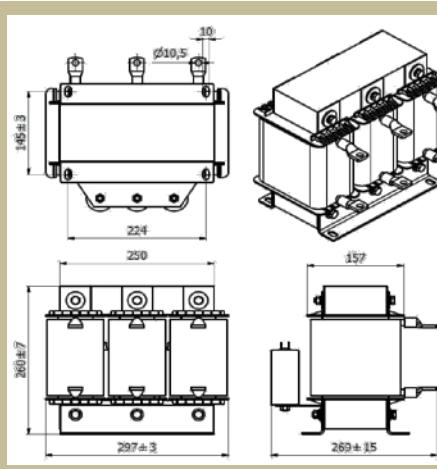
Dimensional drawing : SKY3FSM340-0,1-5,76



Dimensional drawing : SKY3FSM75-400CH-4kHz



Dimensional drawing : SKY3FSM110-400EL



Dimensional drawing : SKY3FSM110-400EL

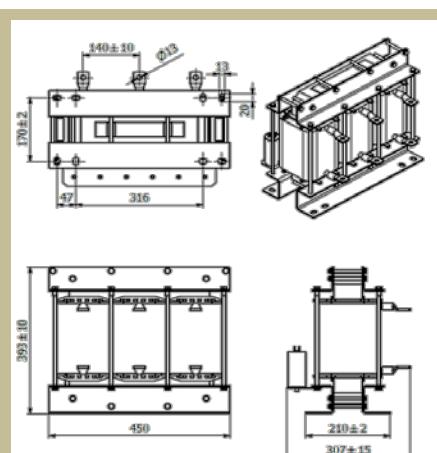
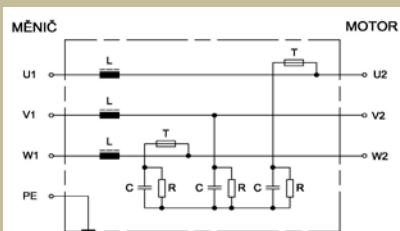
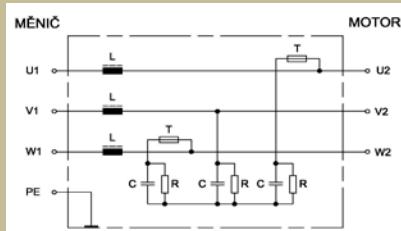


Diagram:

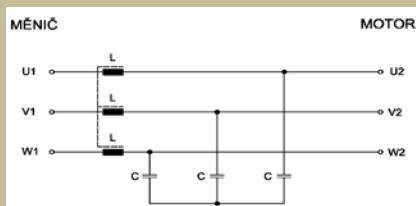
SKY3FSM1-400S



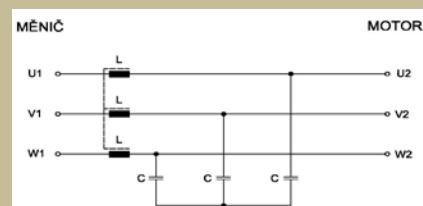
SKY3FSM10-230



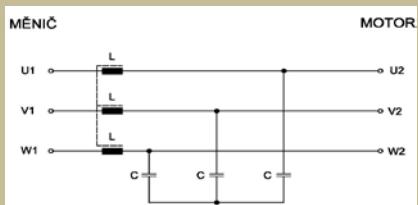
SKY3FSM4-400-8kHz



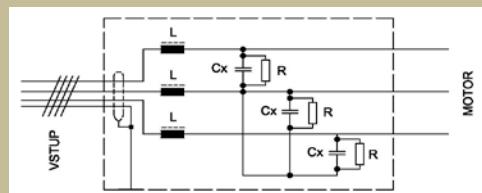
SKY3FSM6-400-3kHz



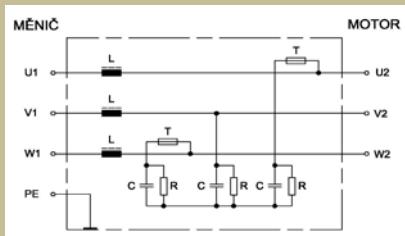
SKY3FSM6-690-6kHz



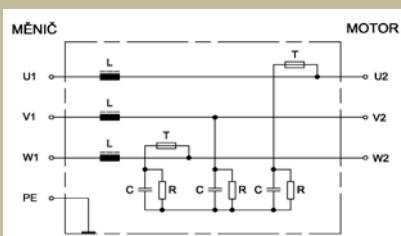
SKY3FSM16-400-8kHz, SKY3FSM16-400-8kHz-rev.2



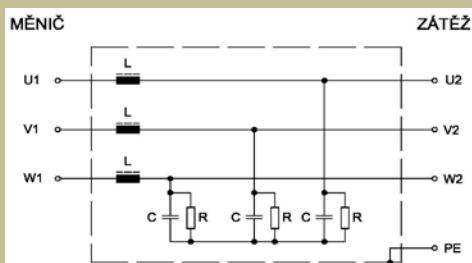
SKY3FSM4-400-3kHz



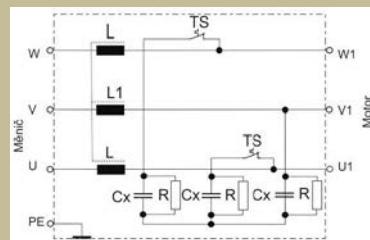
SKY3FSM40-690-4kHz



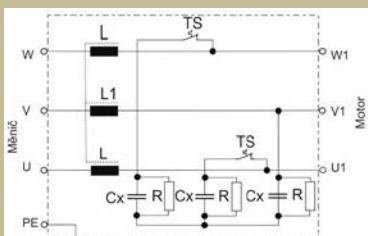
SKY3FSM12-16kHz



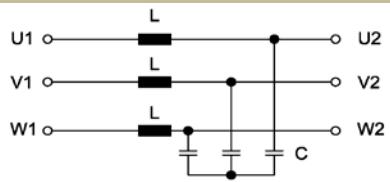
SKY3FSM16-400-IP67



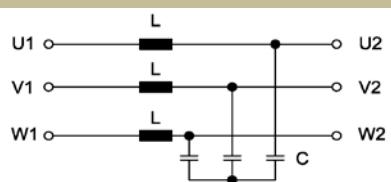
SKY3FSM16-400-IP69-rev.4



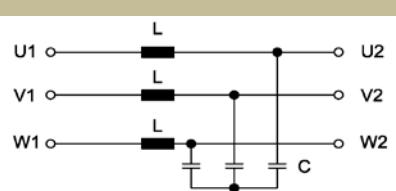
SKY3FSM32-5



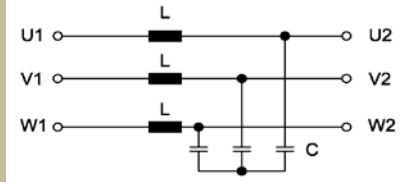
SKY3FSM50-3kHz



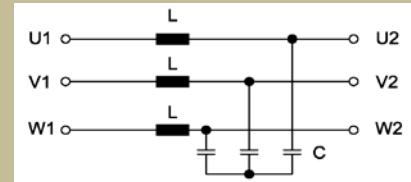
SKY3FSM50-5kHz



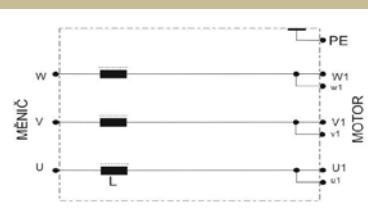
SKY3FSM70-3kHz



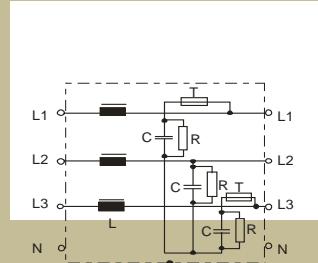
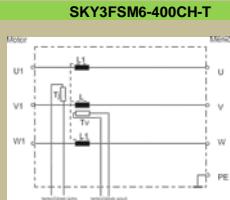
SKY3FSM70-5kHz, SKY3FSM90-5kHz
SKY3FSM40-400-8kHz, SKY3FSM9-6kHz, SKY3FSM12-6kHz
SKY3FSM4-80Hz-8kHz, SKY3FSM5-6kHz, SKY3FSM7-6kHz,
SKY3FSM60-400-40kHz, SKY3FSM100-400-8kHz-4ms
SKY3FSM16-400Hz-16kHz, SKY3FSM32-400E-16kHz
SKY3FSM80.1, SKY3FSM85-400Hz-6kHz
SKY3FSM16-2kHz, SKY3FSM160-480-6kHz
SKY3FSM360-0.1-5.76kHz, SKY3FSM110-400kHz
SKY3FSM120-400-6kHz



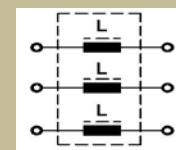
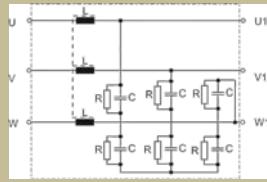
SKY3FSM72-5 kHz



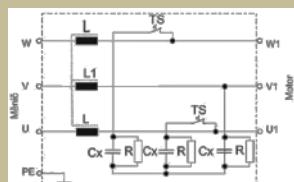
SKY3FSM40-3kHz



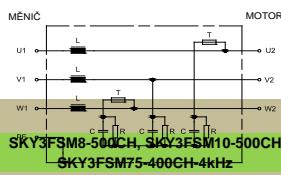
SKY3FSM3-10kHz-200Hz



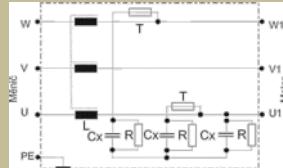
SKY3FSM16-400IP69-G03-rev.G



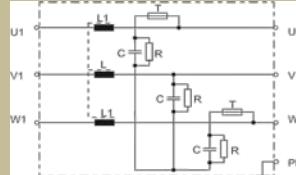
**SKY3FSM5-230-2100Hz, SKY3FSM40-400CH-90Hz
SKY2FSM25-400-3kHzCH, SKY3FSM16-400Hz-3kHz**



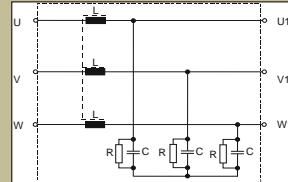
SKY3FSM16-200Hz-10kHz



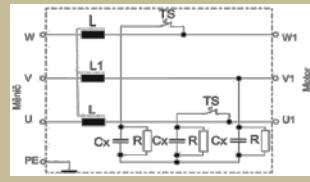
**SKY3FSM8-500CH, SKY3FSM10-500CH
SKY3FSM75-400CH-4kHz**



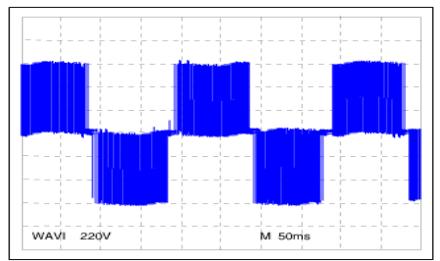
SKY3FSM3-16kHz, SKY3FSM3-16kHz-rev.1



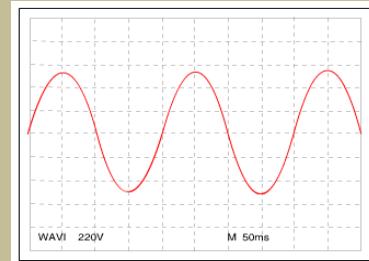
SKY3FSM16-400IP69-G03-rev.G



Course of symmetrical voltage:



course of the symmetrical voltage on output terminals of the changer



course of the symmetrical voltage behind the sinusoidal filter

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 against early ageing of

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 minimal size of