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

Sinusoidal filters for frequency inverters SKY3FSM2,5-400CH to 110-400CH with a cooler

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.

SKY3FSM100-400CH

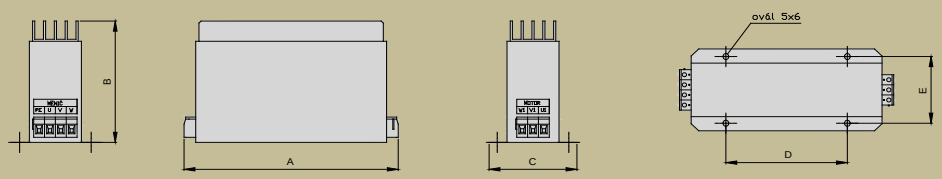
TECHNICAL PARAMETERS:

Operating nominal voltage	Un : 3x 0-400 Vac
Extent of operating frequencies fn (for In)	Fn : 0-50 Hz
Extent of operating currents	In : 3x 40-110A
Switching frequency of the inverter	SFr : 5-12kHz

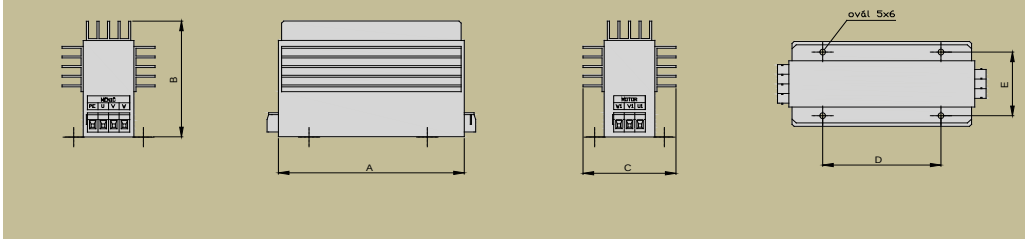
Short-term overcurrent capacity: 50% In
Thermal class: B
Protection class: IP20
Extent of operating temperature: -10°C + 40°C

Type	Nominal current [A]	Voltage drop [%]	Weight [kg]	Conductor cross section [mm 2]	basic dimensions [mm]				
					A length	B height	C width	D pitch	E pitch
SKY3FSM2,5-400CH	2,5	< 6	2,4	4-6	198	120	81	112	66
SKY3FSM3,5-400CH	3,5	< 6	2,4	4-6	198	120	81	112	66
SKY3FSM4-400CH	4	< 6	2,4	4-6	198	120	81	112	66
SKY3FSM4,5-400CH	4,5	< 6	2,4	4-6	198	120	81	112	66
SKY3FSM6-400CH	6	< 6	2,8	4-6	198	120	88	112	66
SKY3FSM6,5-400CH	6,5	< 6	3,6	4-6	180	175	95	160	75
SKY3FSM8-400CH	8	< 6	5,6	4-6	180	175	95	160	75
SKY3FSM10-400CH	10	< 6	5,6	4-6	200	175	110	180	90
SKY3FSM12-400CH	12	< 6	6,8	4-6	200	175	110	180	90
SKY3FSM13-400CH	13	< 6	6,8	4-6	360	175	110	340	90
SKY3FSM16-400CH	16	< 6	7,8	4-6	360	175	110	340	90
SKY3FSM18-400CH	18	< 6	7,8	4-6	360	175	110	340	90
SKY3FSM24-400CH	24	< 6	7,8	4-6	360	175	110	340	90
SKY3FSM25-400CH	25	< 6	9,1	4-6	360	175	110	340	90
SKY3FSM32-400CH	32	< 6	17	6-10	360	175	160	340	140
SKY3FSM40-400CH	40	< 6	30	16	440	208	195	220	146
SKY3FSM42-400CH	42	< 6	32	16	440	208	195	220	146
SKY3FSM48-400CH	48	< 6	33	16	440	208	195	220	146
SKY3FSM60-400CH	60	< 6	35	16	440	208	195	220	146
SKY3FSM75-400CH	75	< 6	36	16	440	208	195	220	146
SKY3FSM80-400CH	80	< 6	38	35	440	248,5	214	220	157
SKY3FSM90-400CH	90	< 6	42	35	530	248,5	214	317	157
SKY3FSM95-400CH	95	< 6	45	35	530	248,5	214	317	157
SKY3FSM100-400CH	100	< 6	45	35	530	248,5	214	317	157
SKY3FSM110-400CH	110	< 6	48	35	530	248,5	214	317	157

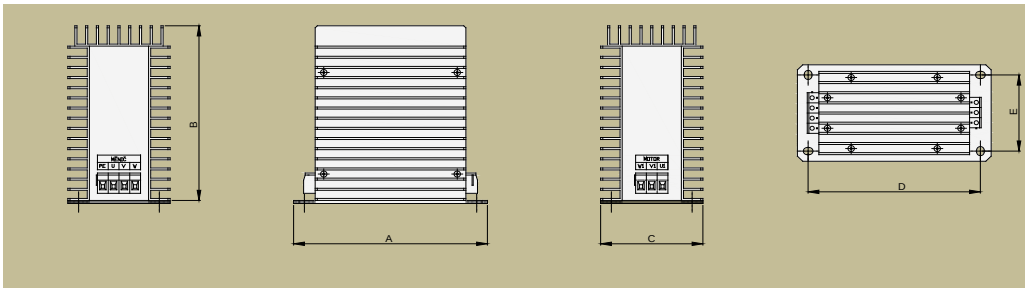
Dimensional drawing : SKY3FSM2,5-400CH to SKY3FSM4,5-400CH



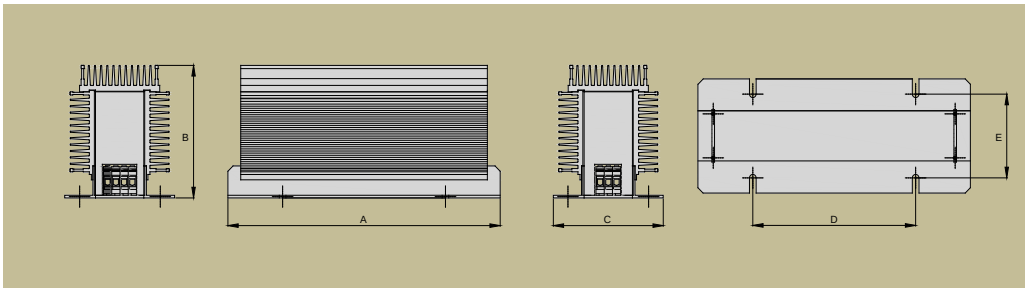
Dimensional drawing : SKY3FSM6-400CH



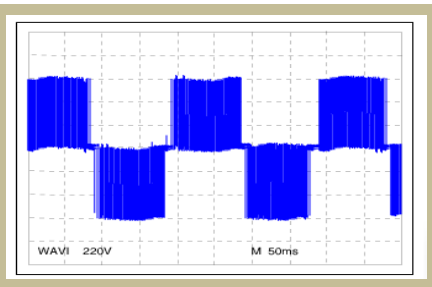
Dimensional drawing : SKY3FSM6,5-400CH to SKY3FSM32-400CH



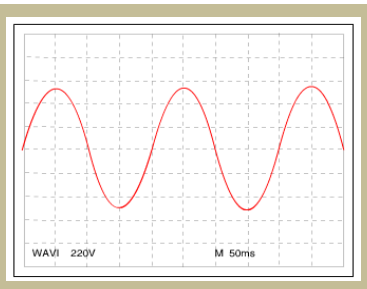
Dimensional drawing : SKY3FSM40-400CH to SKY3FSM110-400CH



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 motor winding insulation.

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 the switching frequency that is indicated on the sinusoidal filter label.