

## Single-phase interference suppression filters - series B : for currents 60 - 400 A

### Description:

It is a simple LC circuit consisting of chokes and condensers. In single-phase filters of series SKY1FLxxB is a composed choke formed by 2 windings. The used safety condensers of type X are being wired among phases for filtration of symmetrical component. The condensers of type Y are being wired towards the ground for filtration of asymmetric component. They are delivered with terminals in a metal case.

### Functions of the interference suppression filters:

The LC filter is formed by low-pass filter 0 – 9kHz. It reduces a level of radio frequency interference in conductors from the side of appliance and also increases its resistance to interference from the surroundings. The filters function either way. The most effective they are from 150kHz to 30MHz.



### TECHNICAL PARAMETERS :

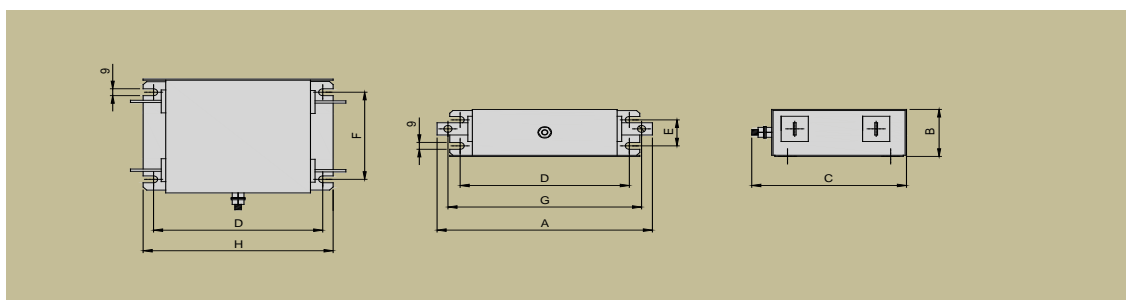
Nominal operating voltage Un : 230 Vac  
 Extent of operating frequencies fn (for In) Fn : 50-60 Hz  
 Extent of operating currents In : 60-400A  
 Short-term overcurrent capacity : 50% In  
 Thermal class : B  
 Protection class : IP00  
 Extent of operating temperature : -10°C + 40°C

Type	Nominal current [A]	Leakage current 1*) [mA]	Weight [kg]	Conductor cross section [mm]	basic dimensions [mm]							
					A	B	C	D	E	F	G	H
					length	height	width	pitch	pitch	pitch	pitch	other
SKY1FL60BP	60	< 80	2,2	20x3 Ø9	238	61,5	171	187	34	114	214	210
SKY1FL80BP	80	< 80	2,2	20x3 Ø9	238	61,5	171	187	34	114	214	210
SKY1FL100BP	100	< 80	3,1	20x3 Ø9	308	61,5	171	257	34	114	284	280
SKY1FL150BP	150	< 80	3,1	20x3 Ø9	308	61,5	171	257	34	114	284	280
SKY1FL200BP	200	< 80	3,8	20x3 Ø9	357	61,5	171	302	34	114	333	325
SKY1FL250BP	250	< 80	3,8	20x3 Ø9	357	61,5	171	302	34	114	333	325
SKY1FL320BP	320	< 80	5,8	25x5 Ø11	392	61,5	201	332	34	138	361	355
SKY1FL400BP	400	< 80	5,8	25x5 Ø11	392	61,5	201	332	34	138	361	355

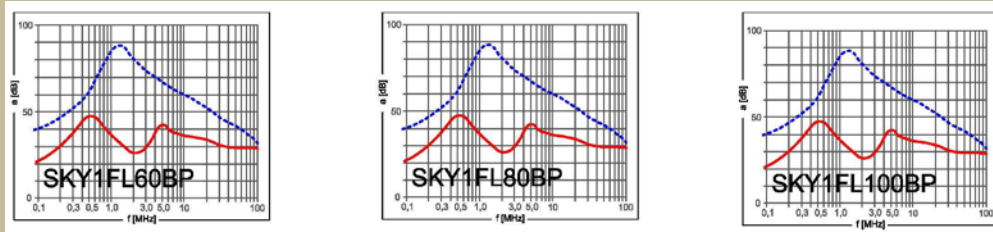
\* After a deal there is a possibility of modification of the filter construction according to the customer's request.

1\*) Leakage current measurement was performed according to the standard ČSN EN 60950.

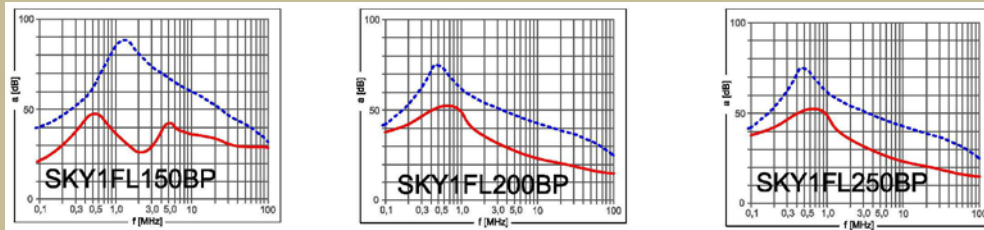
### Dimensional drawing for : SKY1FL60BP - SKY1FL400BP



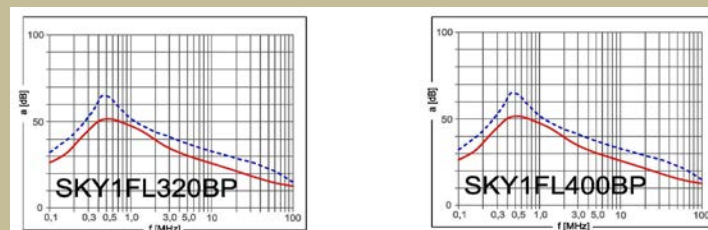
## Attenuation characteristic:



--- asymmetric    — symmetrical (measurements in the system 50/50 Ohm)

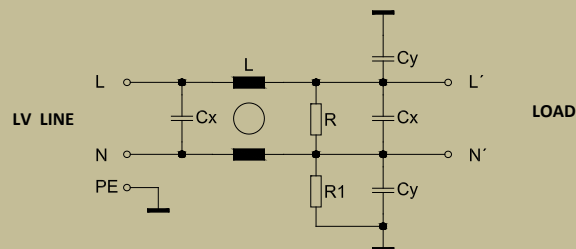


--- asymmetric    — symmetrical (measurements in the system 50/50 Ohm)



--- asymmetric    — symmetrical (measurements in the system 50/50 Ohm)

## Diagram:



## Use:

It is used to frequency converters and appliances which need supplemental interference suppression. For example: soft starters, pulse resources, thyristor controls and electronic units.

## Dimensioning, wiring:

They are dimensioned according to indicated label nominal voltage and current values. Short-circuit protection must not exceed nominal current value. When installing into switchboards it is necessary to count with power loss of the filters although it is not as large as the power loss in chokes or in sinusoidal filters. But also it is necessary to provide for sufficient heat removal. When connecting it is necessary to meet the EMC requirements. There must not be any paralleling of interference-suppressed and non-interference-suppressed circuits. The grounding connections must be as short as possible and it is necessary to avoid any ground loops.