

Passive harmonic filters for power converters IP-00



Passive harmonic filter especially designed for 6 pulses power converters such as frequency converters, variable speed drives for motors, three phase rectifiers, battery chargers, HVAC systems ...


SPFS filter provides a very good cost-filtering relation and a very effective attenuation of harmonic currents in three phase facilities. Reduces wave form current distortion to the energy network and to the rest of the installation.

Reduces energy consumption due to higher efficient power energy use, reducing the power energy demand. Improves the reliability and extends the service life of equipment and electrical facilities.

Additionally, it eliminates the notches and transients generated by the power converters avoiding mal-functioning and failure in electronic devices.

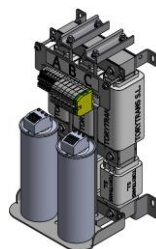
Optionally, a contactor can be incorporated, that according to the converter load level, the reactive part of the filter can be switched off when no-load.

Technical characteristics

Motor rating	4 ÷ 630 kW (5,5 ÷ 860 CV/HP)
Nominal current	9 ÷ 1171 A
Nominal voltage	380 / 400 / 415 V
Frequency	50 Hz (60 Hz add suffix Z at ref.)
Distortion 75÷100% load	≈ 5% THD-I
Distortion 50÷75% load	≈ 6% THD-I
Distortion < 50% load	≈ 8% THD-I
Power Factor with full load	≈ 0,99
with load > 40%	≥ 0,9
Admissible overload	Permanent 1,07 IN Transitory 1,5 IN
Ambient temperature	50 °C
Insulation class	H (180°C)
Protection degree	IP-20 up to SPFS055 IP-00 from SPFS075
Protection	Bimetal thermal contact
Safety class	Class I 
Standard	IEC/UNE-EN 60076-6 IEC/UNE-EN 61000-6



NET



SPFS FILTER



CONVERTER



MOTOR

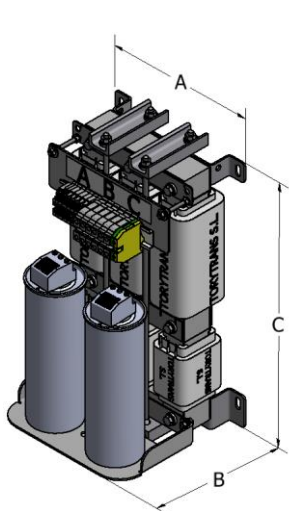
Select current rating of the filter according to the nominal power of the motor:

Motor rating		Current A	Ref. 50 Hz	Ref. 60 Hz	Dimensions mm			Weight kg	Losses W	Capacitors plate	Type*
kW	CV				A	B	C				
4	5,5	9	SPFS004	SPFS004Z	210	205	410	14	165	-	I
5,5	7,5	12	SPFS005	SPFS005Z	210	210	410	16	180	-	I
7,5	10	16	SPFS007	SPFS007Z	210	230	410	20	215	-	I
11	15	23	SPFS011	SPFS011Z	260	245	495	25	335	-	I
15	20	30	SPFS015	SPFS015Z	260	250	495	30	330	-	I
18,5	25	37	SPFS018	SPFS018Z	260	265	495	38	375	-	I
22	30	43	SPFS022	SPFS022Z	260	280	495	44	460	-	I
30	40	58	SPFS030	SPFS030Z	320	325	555	59	540	-	I
37	50	72	SPFS037	SPFS037Z	320	330	555	65	610	-	I
45	60	86	SPFS045	SPFS045Z	320	345	555	77	650	-	I
55	75	104	SPFS055	SPFS055Z	320	355	555	87	690	-	I
75	100	140	SPFS075	SPFS075Z	380	345	940	105	925	-	II
90	125	168	SPFS090	SPFS090Z	380	360	940	120	1115	-	II
110	150	204	SPFS110	SPFS110Z	420	245	760	145	1395	(1x)PC2	III
132	180	245	SPFS132	SPFS132Z	420	260	760	168	1505	(1x)PC2	III
150	205	278	SPFS150	SPFS150Z	420	260	760	180	1575	(1x)PC2	III
160	220	296	SPFS160	SPFS160Z	420	280	760	192	1685	(1x)PC2	III
185	255	341	SPFS185	SPFS185Z	420	280	760	200	1715	(1x)PC2	III
200	270	369	SPFS200	SPFS200Z	480	280	860	211	1875	(1x)PC2	III
220	300	406	SPFS220	SPFS220Z	480	300	860	242	1995	(2x)PC1	III
250	340	485	SPFS250	SPFS250Z	480	320	860	285	2190	(2x)PC1	III
280	380	543	SPFS280	SPFS280Z	480	320	860	293	2260	(2x)PC1	III
315	430	611	SPFS315	SPFS315Z	480	345	860	335	2555	(2x)PC2	III
355	485	667	SPFS355	SPFS355Z	480	345	860	347	2485	(2x)PC2	III
400	545	746	SPFS400	SPFS400Z	540	330	970	395	2770	(2x)PC2	III
450	610	836	SPFS450	SPFS450Z	540	360	970	460	3135	(2x)PC2	III
500	680	929	SPFS500	SPFS500Z	540	360	970	477	3115	(3x)PC2	III
560	760	1041	SPFS560	SPFS560Z	540	360	970	493	3220	(3x)PC2	III
630	860	1171	SPFS630	SPFS630Z	540	395	970	594	3200	(3x)PC2	III

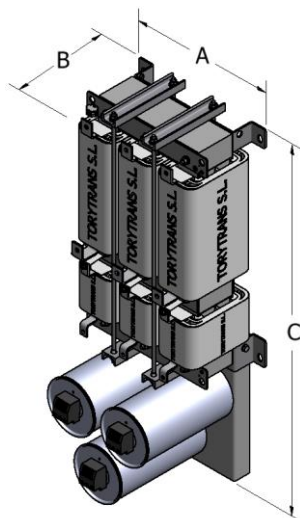
* Other features, power, voltage, etc., on request.

* Torytrans reserves the right to modify the information in any time and without prior notice.

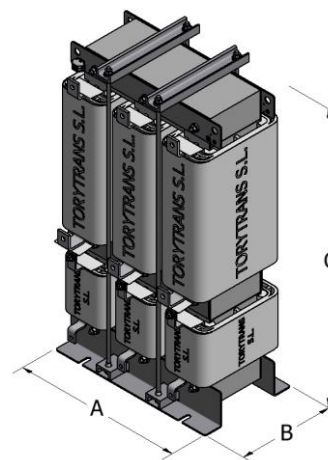
* Capacitors is not included in the type III reactors body, they are supplied in an independent capacitors plate PC1 and/or PC2.



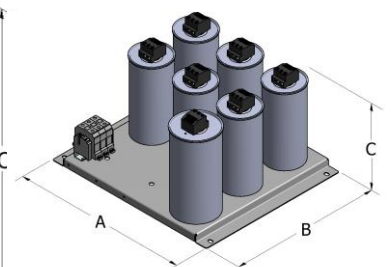
Type I



Type II



Type III



Capacitors plate

	Dimensions (mm)		
	A	B	C
PC1	560	320	325
PC2	560	480	325