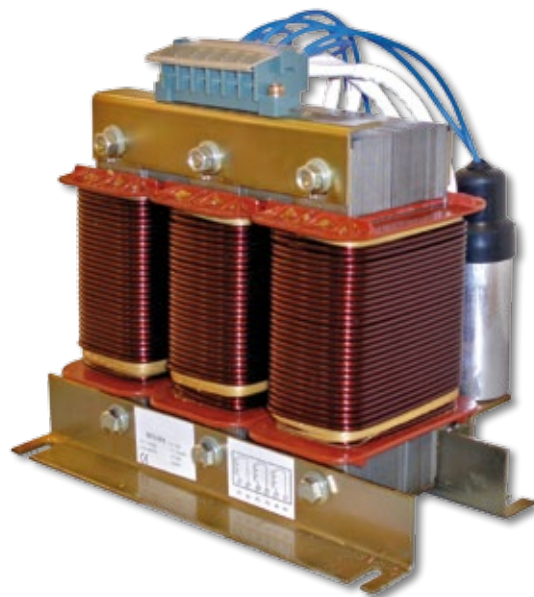


SINUS

Filter for PWM



Description

Sinus filters have been specially designed to improve the wave form and avoid overvoltages in the motors.

These filters are installed in inverters with PWM output, between the converter and the motor. Switching IGBT (isolated gate bipolar transistor) to high frequency causes an output voltage with peaks that can reach 1300 V (or more) in terminals and coils of the motor.

These constant voltage values age the motor and decrease the performance of the coils, also wearing and pitting bearings, causing overheating and unnecessary noises and the transmission of interferences through cables. This effect becomes more obvious the greater the distance between the converter and the motor.

Application

It improves the quality of the output wave of the PWM (pulse width modulator), especially in long lines connected to the motor.

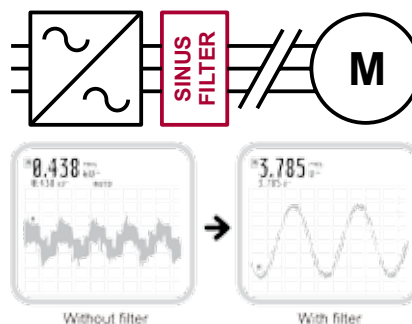
Reduction of overvoltage peaks caused by PWM and, therefore, a lower wear of motor insulation systems and bearings.

Attenuation of the interference emissions radiated by the conductors between the modulator and motor.

Features

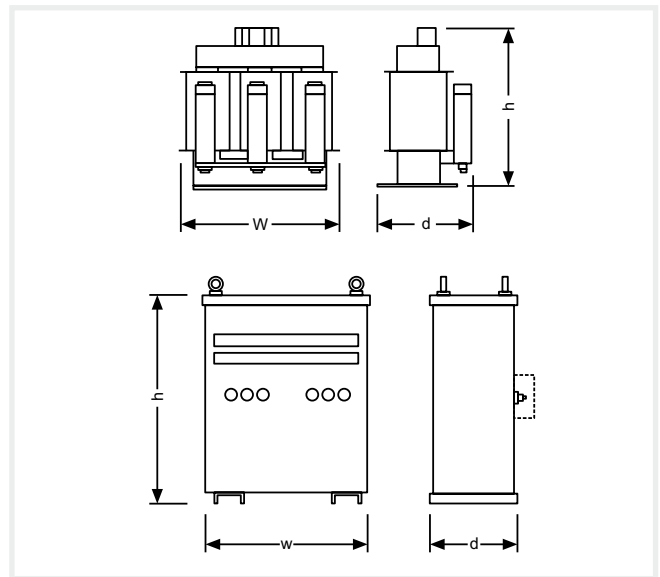
Features	
Nominal voltage	380 - 400 V a.c.
Frequency	50 / 60 Hz
Nominal current	4 ... 400 A
Standard voltage drop	4 %
Maximum permanent overload	1.17 I_n
Maximum transient overload	2 I_n
Construction	Copper conductor. Aluminium band
Switching	2...10 kHz
Insulation level	2 kV
Connection	Aluminium plate. Terminals
Degree of protection	IP 00 / IP 20
Installation	Indoor
* Other voltages, nominal currents or switching frequency, on demand. Single-phase filters, on demand	

Connections



SINUS

Filter for PWM

Dimensions**References**

SINUS filter, no casing (IP 00), 400 V

I_n (A)	Switching frequency (kHz)	Dimensions (mm) width x height x depth	Type	Code
4	10	150 x 150 x 110	SINUS-4-40-00	R7S000
6	10	191 x 180 x 120	SINUS-6-40-00	R7S001
10	10	191 x 180 x 120	SINUS-10-40-00	R7S002
16	10	240 x 237 x 165	SINUS-16-40-00	R7S003
25	10	244 x 301 x 248	SINUS-25-40-00	R7S004
48	10	235 x 324 x 293	SINUS-48-40-00	R7S005
80	10	290 x 422 x 360	SINUS-80-40-00	R7S006
115	10	330 x 421 x 360	SINUS-115-40-00	R7S007
150	10	390 x 503 x 360	SINUS-155-40-00	R7S008
180	2	310 x 525 x 370	SINUS-180-40-00	R7S009
270	2	415 x 557 x 360	SINUS-270-40-00	R7S00A
400	2	580 x 703 x 450	SINUS-400-40-00	R7S00B

SINUS filter, with casing (IP 20), 400 V

I_n (A)	Switching frequency (kHz)	Dimensions (mm)	Type	Code
4	10	285 x 280 x 175	SINUS-4-40-20	R7S010
6	10	285 x 280 x 175	SINUS-6-40-20	R7S011
10	10	285 x 280 x 175	SINUS-10-40-20	R7S012
16	10	475 x 460 x 302	SINUS-16-40-20	R7S013
25	10	475 x 460 x 302	SINUS-25-40-20	R7S014
48	10	475 x 460 x 302	SINUS-48-40-20	R7S015
80	10	740 x 696 x 447	SINUS-80-40-20	R7S016
115	10	740 x 696 x 447	SINUS-115-40-20	R7S017
150	10	740 x 696 x 447	SINUS-155-40-20	R7S018
180	2	740 x 696 x 447	SINUS-180-40-20	R7S019
270	2	740 x 696 x 447	SINUS-270-40-20	R7S01A
400	2	845 x 795 x 555	SINUS-400-40-20	R7S01B