



APPLICATION GUIDE

Common mode FIN 900/ FIN930 series chokes are typically used to reduce the high frequency interference caused by the pulsed wave form of power transistors (PWM). The chokes round out the fast voltage rise time and therefore reduce the high frequency (radio frequency) electromagnetic interference radiated into the environment without appreciable line voltage drop.

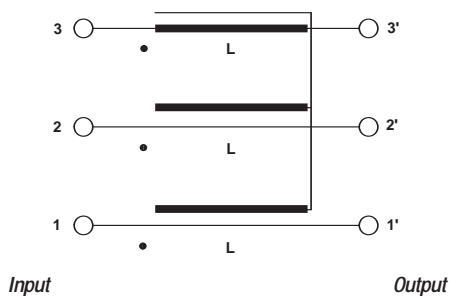
The chokes are usually connected between the inverter, or the controller, and the motor; the result of the use of a choke is optimal when a shielded cable is run between it and the motor, with the shield connected to ground at both ends; this configuration combines the effect of the inductance of the coil and of the distributed capacity of the cable shield.

A further advantage that derives from the use of chokes installed between the controller and the motor, is the reduction of conducted interference, emitted from the device towards the mains and characterised by frequencies between 1 and 3 MHz: typical interference frequency values generated by IGBT power transistors.

The chokes, to be installed between the inverter and the motor, must always be sized for the peak current of the inverter used; for use with controllers the nominal current of the choke can be the average between the peak current and the nominal current of the above device.

For some specific applications, the FIN 900 coil can also be used as a mains filter; such a use adequately reduces the parasite currents towards ground.

ELECTRIC DIAGRAM FIN 900 / FIN 930



ELECTRIC CHARACTERISTICS

Nominal Voltage	0/500 V _{AC} - 50/60 Hz
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3-Phase

Cylindrical case / Cable output

FIN 900	Nominal current at 40° C (A)	L1 (mH)	R (mΩ)	Pow loss (W)
.010.1C	3X10	1.5	12	6
.016.1C	3X16	1.5	4.5	6
.030.1C	3X30	1.5	3	6

3-Phase

Metallic case / Cable output

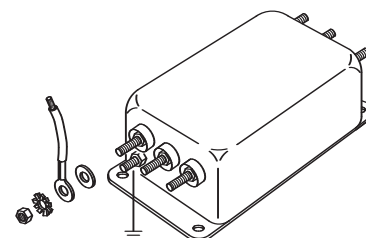
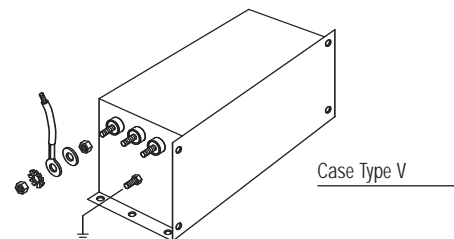
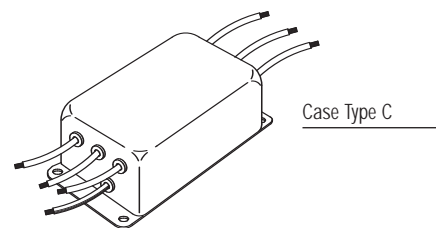
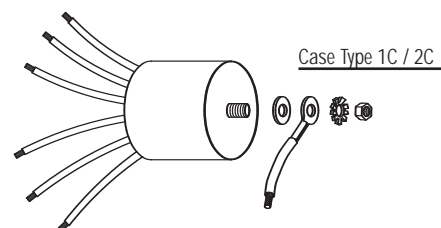
FIN 900	Nominal current at 40° C (A)	L1 (mH)	R (mΩ)	Pow loss (W)
.010.C	3X10	1.5	12	6
.016.C	3X16	1.5	4.5	6
.030.C	3X30	1.5	3	6

3-Phase

Metallic case / Screw output

FIN 900	Nominal current at 40° C (A)	L1 (mH)	R (mΩ)	Pow loss (W)
.010.V	3x10	1.5	12	6
.016.V	3x16	1.5	4.5	10
.030.V	3x30	1.5	3	15
.050.V	3x50	1.5	2.6	23
.080.V	3x80	1.5	1.5	28
.100.V	3x100	1.5	1	45
.150.V	3x150	1.2	0.7	75
.200.V	3x200	1.2	0.4	83
.280.V	3x280	1.2	0.4	96

Electric and mechanical assembling



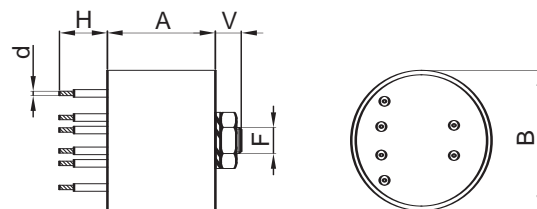
MECHANICAL DIMENSIONS (mm)

CYLINDRICAL CASE

FIN 900	A	B(ø)	d(ø)	V	F	H	Weight Kg	Case
.010.1C	50	65	2	12	M12	150	0.5	1C
.016.1C	50	65	2.5	12	M12	150	0.5	1C
.030.1C	50	65	2.5	12	M12	150	0.5	1C

Available also 2C version. Cable length H 400 or 600 mm.

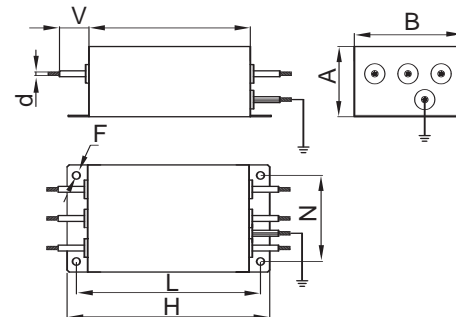
CASE 1C



METALLIC CASE

FIN 900	A	B	d(ø)	V	F(ø)	H	I	L	N	Weight Kg	Case
.010.C	42	65	2	4.5	120	96	109	51	30	0.5	C
.016.C	42	65	2.5	4.5	120	96	109	51	35	0.5	C
.030.C	42	65	3	4.5	120	96	109	51	35	0.5	C

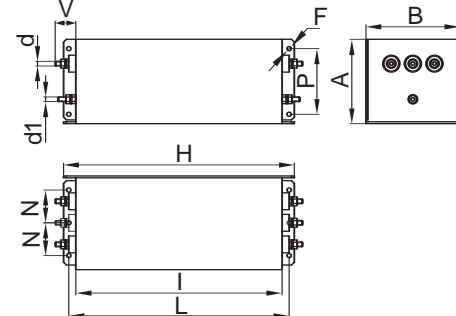
CASE C



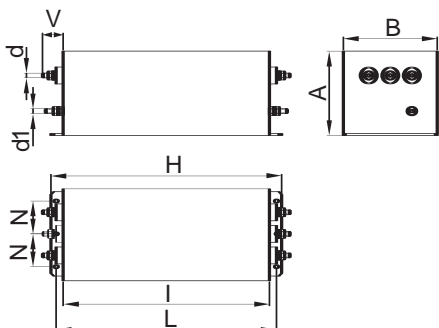
METALLIC CASE

FIN 900	A	B	d	d1	V	F(ø)	H	I	L	N	P	Weight Kg	Case
.010.V	58	86	M4	M4	14	4.5	186	160	176	30	40	1	1
.016.V	58	86	M4	M4	14	4.5	186	160	176	30	40	1	1
.030.V	58	86	M4	M4	14	4.5	186	160	176	30	40	1	1
.050.V	58	86	M4	M4	14	4.5	186	160	176	30	40	1	1
.080.V	70	100	M5	M5	20	4	246	220	236	45	-	2.9	2
.100.V	90	100	M6	M5	21	4	246	220	236	35	70	4.3	3
.150.V	104	100	M10	M6	29	4.5	246	220	236	35	-	5.3	4
.200.V	104	100	M10	M10	29	4.5	246	220	236	35	-	6	4

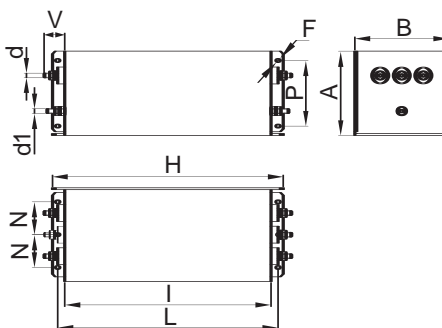
CASE 1



CASE 2



CASE 3



CASE 4

