BR SERIES BLOCKING REACTOR

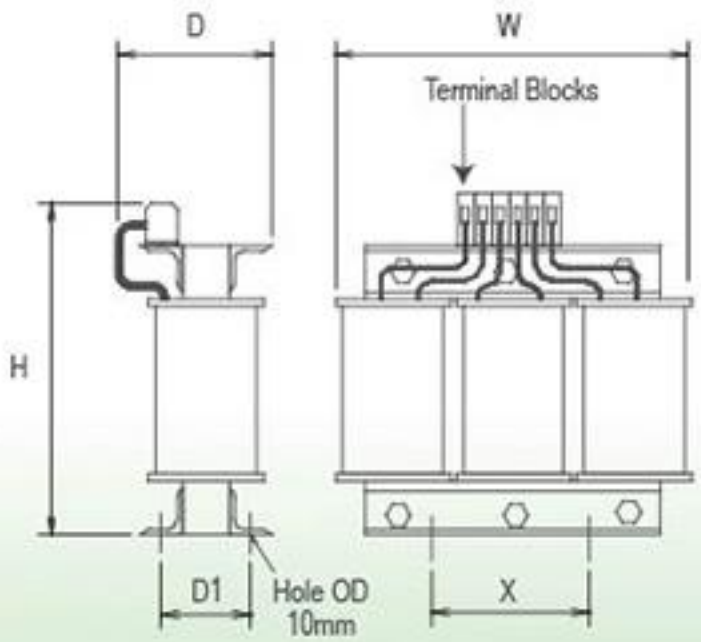
A Series Reactor functions together with a power capacitor to provide a Series Resonance circuit that acts as a sink drawing damaging harmonics, preventing dangerous overloads and increasing the life of the Automatic Power Factor Correction System Components.

No.	Specifications	Data
1	Maximum Rated Input Voltage	600V
2	Frequency	50 Hz
3	Resonance Frequency	7% - 189 Hz / 6% - 204Hz / 13% - 138Hz
4	Impedance Ratio / Model	P= 7% of Capacitor Value / BR07 P= 6% of Capacitor Value / BR06 P= 13% of Capacitor Value / BR13
5	Coil Winding Material	Copper[Aluminium on request]
6	Maximum Current Including Harmonics Overload	1.5 Times the Capacitor current
7	Approximate Losses	15-20W / kVAr (Qc)
8	Tolerance of Inductance	+/- 3% at Effective Current (Ieff)
9	Linearity of Inductance	1.75 x IC
10	Designed Limits for Harmonic Currents	I5 = 50%, I7 = 25%, I11 = 12.5%, I13 = 5%
11	Ventilation / IP Class	Air-Cooled / IP 00 [Indoor]
12	Maximum Reactor Operating Temperature	135°C at ambient temperature 45°C
13	Thermal Ovevrload Protection	Built-in thermostat cut off at 135°C
14	Insulation Class	Class F (155°C)
15	Vacuum Impregnation	Yes
16	Insulation Strength Testing Voltage	3kV
17	Noise Level	Below 55db
16	Installation Mounting & Clearance	Vertical, Minimum 50mm to adjacent part
17	Duty Cycle	Continuous
18	Compliance Standards	IEC60076-6

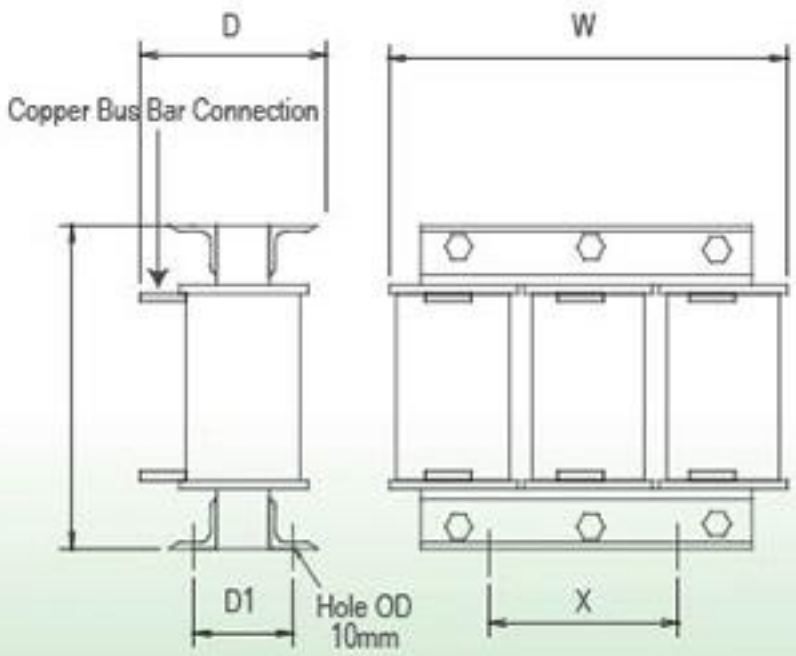
Detuned Harmonic Filters at (415V/440V) network p=7% according to spec EN60076-6

Product Code	Capacitor Power (kVAr)	Capacitor Voltage (V)	LC Power at (415V /440) (kVAr)	Reactor Inductance (mH)	Dimension (WxDxH) mm	Fixing Holes (X x D1)mm	Weight (kg)
BR07ELCO0050ALU	5	525	3.36	12.28	120x99x140	90x74	2.5
BR07ELCO0100ALU	10	525	6.72	6.14	150x106x160	110x73	5
BR07ELCO0125ALU	12.5	525	8.4	4.91	180x116x180	135x68	5.5
BR07ELCO0150ALU	15	525	10	4.1	180x116x180	135x68	5.8
BR07ELCO0200ALU	20	525	13.44	3.07	180x136x180	135x88	8
BR07ELCO0250ALU	25	525	16.8	2.46	180x145x180	135x97	9
BR07ELCO0300ALU	30	525	20	2.05	240x117x250	185x79	11
BR07ELCO0400ALU	40	525	26.88	1.54	240x126x210	185x80	12
BR07ELCO0500ALU	50	525	33.6	1.23	240x136x210	185x90	15
BR07ELCO0600ALU	60	525	40	1.02	240x146x210	185x100	17
BR07ELCO0700ALU	70	525	47.03	0.877	260x157x240	200x106	20
BR07ELCO0750ALU	75	525	50	0.82	260x157x240	200x106	21
BR07ELCO0800ALU	80	525	53.75	0.768	260x172x240	200x121	26
BR07ELCO0900ALU	90	525	60.47	0.682	260x172x240	200x121	27
BR07ELCO1000ALU	100	525	67.2	0.61	290x177x260	224x116	28
BR07ELCO1200ALU	120	525	80	0.51	290x182x260	224x121	31
BR07ELCO1500ALU	150	525	100	0.41	290x204x260	265x148	40
BR07ELCO2000ALU	200	525	135	0.31	360x194x310	265x133	45

Product Dimension



For 5 - 60 KVAR



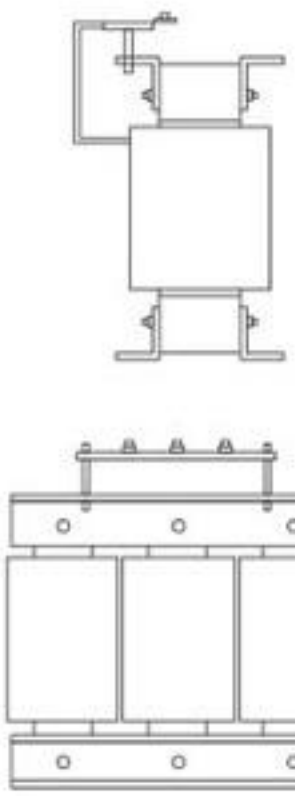
For 70 - 200KVAR

SHUNT REACTOR

Shunt reactors are mainly used in places with long power transmission and distribution lines. Especially for supplying telecommunication stations in urban areas like radio, GSM and TV transmitters with electricity, long overland cables must be used. More and more solar and BioGen facilities require these products in order to comply with Voltage Regulation conditions set by utilities.

MAIN FEATURES OF ELCO SHUNT REACTORS

- One or three phase,
- High permeability iron core,
- High quality copper or aluminium windings,
- Thermal fuse protection against overheating in all phases,
- Low losses, high efficiency
- Vacuum impregnated varnish to ensure silent and moisture-immunity operation
- CE approved compatible with EN 61558-1, EN 61558-2-20 and suitable sub-clauses
- Manufactured under ISO 9001 quality management system



SR3 440 THREE PHASE REACTOR SHUNT TECHNICAL DATA

Reactor type	SR3/25-440V 25Kvar	SR3/50-440V 50Kvar	SR3/75-440V 75Kvar
Inductance (mh)	24.6±5%	12.3±5%	8.21±5%
Nominal Current (A)	32,80	65,60	98,40
Thermal Current (A)	36,08	72,16	108,24
Saturation Peak Current (A^)	55,5	111	166
Nominal Voltage (V)	440	440	440
Frequency (Hz)	50	50	50
Winding Resistance (mΩ)	75.7±10%@22C°	26.9±10%@22C°	13.6±10%@22C°
Insulation Class	ta 40C°/F	ta 40C°/F	Ta 40C°/F
Relevant Standard	EN 61558-2-20	EN 61558-2-20	EN 61558-2-20
Reactive Power	25	50	75
Star Connection	Y	Y	Y
Winding Losses	355,05	516,29	658,33
Core Losses	88,85	172,66	271,49
Total Losses	443,9	688,95	929,82
Over temperature protection	132C°	132C°	132C°
Winding Material	Aluminum Flat Wire	Aluminum Flat Wire	Aluminum Flat Wire
Connection Type	Lug	Lug	Lug
Width (mm)	420	540	600
Depth (mm)	198,9	228,5	276
Height (mm)	355	455	505
Weight (kg)	93,5	168,9	272,4

Reactor type	SR3/100-440V 100Kvar	SR3/150-440V 150kvar	SR3/200-440V 200Kvar
Inductance (mh)	6.16±5%	4.11±5%	3.08±5%
Nominal Current (A)	131,00	197,00	262,00
Thermal Current (A)	144,1	216,7	288,2
Saturation Peak Current (A^)	222	333	444
Nominal Voltage (V)	440	440	440
Frequency (Hz)	50	50	50
Winding Resistance (mΩ)	7.4±10%@22C°	3.1±10%@22C°	2.2±10%@22C°
Insulation Class	ta 40C°/F	ta 40C°/F	Ta 40C°/F
Relevant Standard	EN 61558-2-20	EN 61558-2-20	EN 61558-2-20
Reactive Power	99,8	150,1	199,7
Star Connection	Y	Y	Y
Winding Losses	645,23	765,59	830,69
Core Losses	439,65	594,23	756,61
Total Losses	1084,88	1359,82	1587,3
Over temperature protection	132C°	132C°	132C°
Winding Material	Aluminum Flat Wire	Aluminum Foil	Aluminum Foil
Connection Type	Lug	Bar	Bar
Width (mm)	600	720	720
Depth (mm)	326	431	461
Height (mm)	505	605	689
Weight (kg)	359,7	498,2	639,4

Dimensions vary accoding to coil windings. Other sizes customizable

SR2 415 THREE PHASE REACTOR SHUNT TECHNICAL DATA

Reactor type	SR2/25-415V 25Kvar	SR2/50-415V 50Kvar	SR2/75-415V 75Kvar
Inductance (mh)	21.9±5%	10.9±5%	7.3±5%
Nominal Current (A)	34.80	69.60	104.00
Thermal Current (A)	38.28	76.56	114.4
Saturation Peak Current (A^)	59	117	176
Nominal Voltage (V)	415	415	415
Frequency (Hz)	50	50	50
Winding Resistance (mΩ)	72.2±10%@22C°	22.3±10%@22C°	14.4±10%@22C°
Insulation Class	ta 40C°/F	ta 40C°/F	ta 40C°/F
Relevant Standard	EN 61558-2-20	EN 61558-2-20	EN 61558-2-20
Reactive Power	25	50	74.8
Star Connection	YES	YES	YES
Winding Losses	382.81	482.91	668.08
Core Losses	76.16	188.22	224.09
Total Losses	458.97	671.13	892.17
Over temperature protection	132C°	132C°	132C°
Winding Material	Aluminium Flat Wire	Aluminium Flat Wire	Aluminium Flat Wire
Connection Type	Lug	Lug	Lug
Width (mm)	420	540	600
Depth (mm)	198.9	228.5	276
Height (mm)	355	455	505
Weight (kg)	92.9	165	267

Reactor type	SR2/100-415V 100Kvar	SR2/150-415V 150kvar	SR2/200-415V 200Kvar
Inductance (mh)	5.48±5%	3.65±5%	2.74±5%
Nominal Current (A)	139.00	208.00	278.00
Thermal Current (A)	152.9	228.8	305.8
Saturation Peak Current (A^)	221	351	470
Nominal Voltage (V)	415	415	415
Frequency (Hz)	50	50	50
Winding Resistance (mΩ)	6.6±10%@22C°	3±10%@22C°	2±10%@22C°
Insulation Class	ta 40C°/F	ta 40C°/F	ta 40C°/F
Relevant Standard	EN 61558-2-20	EN 61558-2-20	EN 61558-2-20
Reactive Power	99.9	149.5	199.8
Star Connection	YES	YES	YES
Winding Losses	582.84	790.04	850.62
Core Losses	354.84	495.78	651.93
Total Losses	937.68	1285.82	1502.55
Over temperature protection	132C°	132C°	132C°
Winding Material	Aluminium Flat Wire	Aluminium Foil	Aluminium Foil
Connection Type	Lug	Bar	Bar
Width (mm)	600	720	720
Depth (mm)	326	431	461
Height (mm)	505	605	689
Weight (kg)	360.3	493.2	632.6

Dimensions vary accoding to coil windings. Other sizes customizable