

RBZ-50-480-60Hz-14%

RBZ-50-480-60Hz-14%, Reactors III for detuned filters

Code: P731450017300

> L(mH): 1,95
> For capacitor: 2 x CLZ-FP-60/34,5-60Hz-HD
> Frequency (Hz): 60
> kvar (480 V): 50
> Un (V): 480

Description

CIRCUTOR has a complete range of detuned reactors, p = 7%, with a resonance frequency of 189 Hz for 50 Hz networks (or, on demand, 227 Hz for 60 Hz networks). This is the most frequent tuning value to avoid any resonance with the 5th harmonic and over. The set of capacitors-reactors absorbs part of the current of the 5th harmonic and acts as a detuned filter for higher frequencies. In some installations, anyway, other value of p(%) can be required, for example, 8,7 % (170 Hz), 14 % (134 Hz).... **CIRCUTOR** can manufacture reactors adapted to any power, p (%), frequency, voltage (Un ≤ 1000 VAC).

Reactors for low power rating, **RZ** range, are built with low losses magnetic sheets and coiled with aluminum wires. A terminal block for the connection of the reactor is fitted. Higher powers are covered by RBH range. These reactors are based on a magnetic sheet core with multiple air gaps, which provides them with excellent characteristics and low loss ratios.

Both **RZ** and **RBZ** reactors are subjected to a varnish vacuum impregnation, based on polyester resin, to increase the insulation, providing a greater mechanical resistance and reducing the level of noise.

Application

RZ and **RBZ** detuned reactors have been specially designed for their use in installations with capacitor banks with considerably high harmonic distortion rates. The reactors must be connected in series to the proper power capacitor for the satisfactory protection of the own capacitors and to avoid the resonance effects in the installation.

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Reactors

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Specifications

AC power supply

Frequency	60 Hz

Electrical characteristics

Permanent overload	1,17 x In
Linearity (5% L)	1,75 x In
Maximum transient current	2 In (1 min)
Voltage	480 V,on request: up to 1000 V
Tolerance L	± 5 %
L value (mH)	1.95
Insulation voltage, circuit	3 kV

Electrical characteristic

Overvoltage factor (p %)	14 % (160 Hz)

Environmental characteristics

Thermal Class	class F (+155 °C) On request: class H (+180 °C)
Protection class	IP 00
Installation, location, position.	Inside
Ambient temperature	-10 ... +45 °C

Mechanical characteristics

Envelope	Conductor type: Aluminium strip / copper cable
Weight (kg)	32

Standards

Standards	UNE-EN 60289, IEC 60076

Protection

Circuit breaker type	9125°C NC thermostat

RZ-RBZ-60Hz

Reactors III for detuned filters, 60 Hz

CODE	TYPE	L(mH)	For capacitor	Frequency (Hz)	kvar (480 V)	Un (V)	P%
480 Vac, 60 Hz, f resonance = 227 Hz / p= 7%							
P731130017000	RZ-7,5-480-60 Hz-7%	6,12	CLZ-FP-52/8,5-60Hz-HD	60	7,5	480	7%

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CODE	TYPE	L(mH)	For capacitor	Frequency (Hz)	kvar (480 V)	Un (V)	P%
P731150017000	RZ-10-480-60Hz-7%	4,58	CLZ-FP-52/11,5-60Hz-HD	60	10	480	7%
P731170017000	RZ-12,5-480-60 Hz-7%	3,66	CLZ-FP-52/15-60Hz-HD	60	12,5	480	7%
P731200017000	RZ-15-480-60 Hz-7%	3,06	CLZ-FP-52/17-60Hz-HD	60	15	480	7%
P731250017000	RBZ-20-480-60Hz-7%	2,29	CLZ-FP-52/22,5-60Hz-HD	60	20	480	7%
P731300017000	RBZ-25-480-60 Hz-7%	1,83	CLZ-FP-52/30-60Hz-HD	60	25	480	7%
P731350017000	RBZ-30-480-60 Hz-7%	1,53	CLZ-FP-52/34-60Hz-HD	60	30	480	7%
P731400017000	RBZ-40-480-60Hz-7%	1,15	2 x CLZ-FP-52/22,5-60Hz-HD	60	40	480	7%
P731450017000	RBZ-50-480-60 Hz-7%	0,92	2 x CLZ-FP-52/30 -60Hz-HD	60	50	480	7%
P731500017000	RBZ-60-480-60 Hz-7%	0,76	2 x CLZ-FP-52/34-60Hz-HD	60	60	480	7%
P731550017000	RBZ-80-480-60Hz-7%	0,58	3 x CLZ-FP-52/30-60Hz-HD	60	80	480	7%
480 Vac, 60 Hz, f resonance = 160 Hz / p= 14%							
P731170017300	RZ-12,5-480-60Hz-14%	7,81	CLZ-FP-60/17,5-60Hz-HD	60	12,5	480	14%
P731200017300	RZ-15-480-60Hz-14%	6,52	CLZ-FP-60/21-60Hz-HD	60	15	480	14%
P731300017300	RBZ-25-480-60Hz-14%	3,91	CLZ-FP-60/34,5-60Hz-HD	60	25	480	14%
P731350017300	RBZ-30-480-60Hz-14%	3,26	2 x CLZ-FP-60/21-60Hz-HD	60	30	480	14%
P731450017300	RBZ-50-480-60Hz-14%	1,95	2 x CLZ-FP-60/34,5-60Hz-HD	60	50	480	14%

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Reactors

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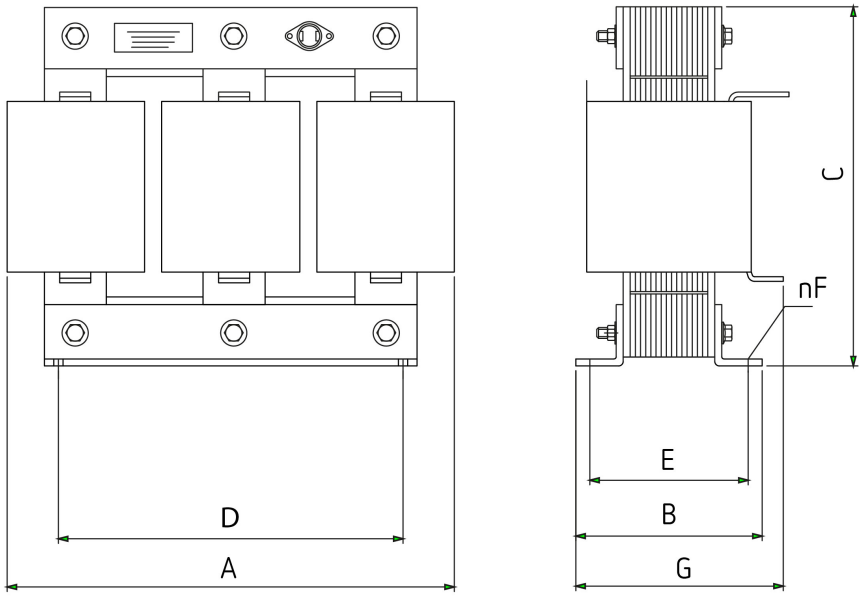
Dimensions



Tipo	A mm	B mm	C mm	D* mm	E* mm	F mm	G mm	kg
RBZ-20-400	235	125	165	150	95	7	145	14
RBZ-25-400	235	125	165	150	95	7	145	14
RBZ-30-400	255	125	200	160	95	9	150	19
RBZ-40-400	255	125	200	160	95	9	150	20
RBZ-50-400	255	145	220	160	115	9	175	25
RBZ-60-400	255	145	240	180	115	9	175	28
RBZ-80-400	305	155	255	180	115	11	190	31

Tipo	A mm	B mm	C mm	D* mm	E* mm	F mm	G mm	kg
RBEZ-40-400	300	145	235	160	113	9	180	30
RBEZ-50-400	300	145	235	160	113	9	180	30
RBEZ-60-400	300	145	235	160	113	9	180	30
RBEZ-80-400	345	155	255	180	121	11	195	40

* Distance between fixations

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