

Three Phase Harmonic Filters

Characteristics and utility

- Three phase harmonic filters.
- Avoid resonance between inductive impedance and three phase capacitors for power factor correction
- Detuning with MA/C/CE TER RCT and DWCAP RCT, with resonance frequency 134, 189 or 210 Hz.

Upon request

RTR's technical team offers the possibility of manufacturing equipment according to customer application need, different power, voltage, frequency...

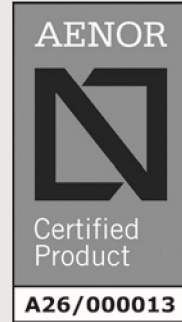
Construction and Materials

- Low losses magnetic plates
- Copper and aluminium conductor reactor insulation thermal class H with permanent regime
- Thermal protection relay
- Specially designed to increasing ventilation, and improving thermal dissipation
- Thermal class of electrical insulating material 180°C

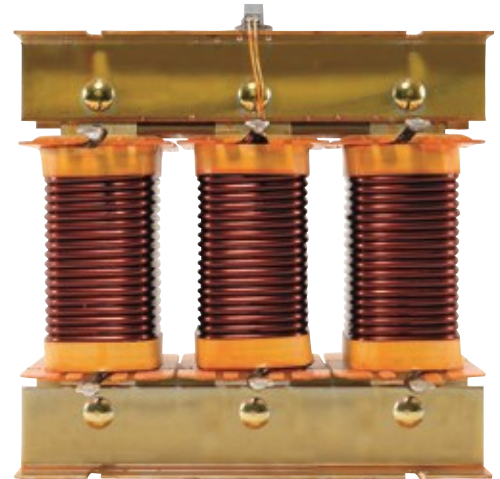
Standards

- EN 60076-6
- IEC 60076-6

Certifications



Technical Characteristics	
Tolerance "L"	5 %
Frequency networks	50 / 60 Hz
Linearity Inductance	1,8 x In
Detuning factor	5,67 % , 7% , 14%
Proof strees	4 KV
Thermal Protection	90 ° C, 120° C, 140° C, 160 °C
Permissible Overload	1,07 x In
Protection Degree	IP 00



HARMONIC FILTERS

Code	Power	Voltage	Frequency	Resonance Frec.	Detuninf Factor	Capacitance	Current	Inductance	Losses
	kVAr	V	Hz	Hz	%	µF	A	mH	Watt
RTF040001001895	10	400	50	189	7	185,02	14,43	3,83	50
RTF040001251895	12,5	400	50	189	7	231,27	18,04	3,07	70
RTF040001501895	15	400	50	189	7	277,53	21,65	2,56	80
RTF040002001895	20	400	50	189	7	370,04	28,87	1,92	90
RTF040002501895	25	400	50	189	7	462,54	36,08	1,53	100
RTF040005001895	50	400	50	189	7	925,09	72,17	0,77	190

Code	Power	Voltage	Frequency	Resonance Frec.	Detuninf Factor	Capacitance	Current	Inductance	Losses
	kVAr	V	Hz	Hz	%	µF	A	mH	Watt
RTF040001001345	10	400	50	134	14	171,09	14,43	8,29	90
RTF040001251345	12,5	400	50	134	14	213,86	18,04	6,63	120
RTF040001501345	15	400	50	134	14	256,64	21,65	5,53	150
RTF040002001345	20	400	50	134	14	342,18	28,87	4,15	150
RTF040002501345	25	400	50	134	14	427,73	36,08	3,32	190
RTF040005001345	50	400	50	134	14	855,46	72,17	1,66	320

Code	Power	Voltage	Frequency	Resonance Frec.	Detuninf Factor	Capacitance	Current	Inductance	Losses
	kVAr	V	Hz	Hz	%	µF	A	mH	Watt
RTF041500251895	2,5	415	50	189	7	42,97	3,48	16,50	30
RTF041500501895	5	415	50	189	7	85,94	6,96	8,25	40
RTF041501001895	10	415	50	189	7	171,88	13,91	4,13	60
RTF041501251895	12,5	415	50	189	7	214,86	17,39	3,30	70
RTF041501501895	15	415	50	189	7	257,83	20,87	2,75	80
RTF041502001895	20	415	50	189	7	343,77	27,82	2,06	100
RTF041502501895	25	415	50	189	7	429,71	34,78	1,65	110
RTF041505001895	50	415	50	189	7	859,42	69,56	0,83	190
RTF041507501895	75	415	50	189	7	1289,13	104,34	0,55	260
RTF041510001895	100	415	50	189	7	1718,85	139,12	0,41	340

Code	Power	Voltage	Frequency	Resonance Frec.	Detuninf Factor	Capacitance	Current	Inductance	Losses
	kVAr	V	Hz	Hz	%	µF	A	mH	Watt
RTF041500251345	2,5	415	50	134	14	39,74	3,48	35,50	40
RTF041500501345	5	415	50	134	14	79,47	6,96	17,75	60
RTF041501001345	10	415	50	134	14	158,95	13,91	8,88	110
RTF041501251345	12,5	415	50	134	14	198,68	17,39	7,10	120
RTF041501501345	15	415	50	134	14	238,42	20,87	5,92	150
RTF041502001345	20	415	50	134	14	317,89	27,82	4,44	160
RTF041502501345	25	415	50	134	14	397,37	34,78	3,55	190
RTF041505001345	50	415	50	134	14	794,74	69,56	1,78	320
RTF041505631345	56,3	415	50	134	14	894,87	78,32	1,58	360

Code	Power	Voltage	Frequency	Resonance Frec.	Detuninf Factor	Capacitance	Current	Inductance	Losses
	kVAr	V	Hz	Hz	%	µF	A	mH	Watt
RTF044001002105	10	440	50	210	5,67	155,09	13,12	3,70	50
RTF044001252105	12,5	440	50	210	5,67	193,87	16,40	2,96	60
RTF044001502105	15	440	50	210	5,67	232,64	19,68	2,47	70
RTF044002002105	20	440	50	210	5,67	310,19	26,24	1,85	80
RTF044002502105	25	440	50	210	5,67	387,73	32,80	1,48	100
RTF044005002105	50	440	50	210	5,67	775,47	65,61	0,74	140
RTF044008002105	80	440	50	210	5,67	1240,75	104,97	0,46	230
RTF044010002105	100	440	50	210	5,67	1550,94	131,22	0,37	270

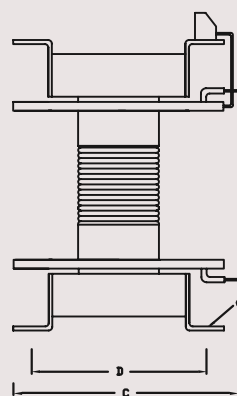
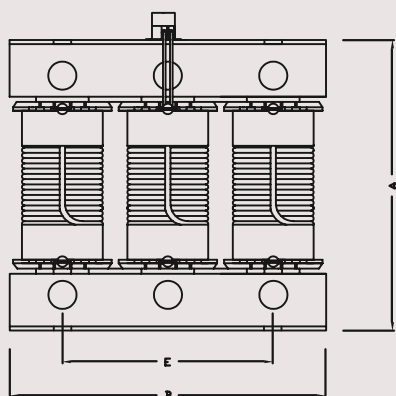
Code	Power	Voltage	Frequency	Resonance Frec.	Detuninf Factor	Capacitance	Current	Inductance	Losses
	kVAr	V	Hz	Hz	%	µF	A	mH	Watt
RTF044001001895	10	440	50	189	7	152,91	13,12	4,64	60
RTF044001251895	12,5	440	50	189	7	191,13	16,40	3,71	60
RTF044001501895	15	440	50	189	7	229,36	19,68	3,09	80
RTF044002001895	20	440	50	189	7	305,81	26,24	2,32	100
RTF044002501895	25	440	50	189	7	382,27	32,80	1,86	110
RTF044005001895	50	440	50	189	7	764,54	65,61	0,93	180

Code	Power	Voltage	Frequency	Resonance Frec.	Detuninf Factor	Capacitance	Current	Inductance	Losses
	kVAr	V	Hz	Hz	%	µF	A	mH	Watt
RTF044001001345	10	440	50	134	14	141,40	13,12	10,03	110
RTF044001251345	12,5	440	50	134	14	176,75	16,40	8,03	120
RTF044001501345	15	440	50	134	14	212,10	19,68	6,69	150
RTF044002001345	20	440	50	134	14	282,80	26,24	5,02	160
RTF044002501345	25	440	50	134	14	353,49	32,80	4,01	200
RTF044005001345	50	440	50	134	14	706,99	65,61	2,01	340

* Other voltages and frequencies upon request

HARMONIC FILTERS

Dimensions



Code	A	B	C	D	E	Ø	Weight
	mm	mm	mm	mm	mm	mm	kg
RTF040001001895	170	180	90	80	140	9	10
RTF040001251895	170	180	90	80	140	9	10
RTF040001501895	170	180	90	80	140	9	9
RTF040002001895	220	240	100	90	200	9	16
RTF040002501895	220	240	100	90	200	9	17
RTF040005001895	270	300	120	100	200	9	29

Code	A	B	C	D	E	Ø	Weight
	mm	mm	mm	mm	mm	mm	kg
RTF040001001345	220	240	100	90	200	9	16
RTF040001251345	220	240	100	90	200	9	16
RTF040001501345	220	240	110	100	200	9	18
RTF040002001345	220	240	110	100	200	9	20
RTF040002501345	270	300	120	100	200	9	30
RTF040005001345	320	360	150	125	300	9	50

Code	A	B	C	D	E	Ø	Weight
	mm	mm	mm	mm	mm	mm	kg
RTF041500501895	170	180	80	70	140	9	7
RTF041500501895	170	180	80	70	140	9	7
RTF041501001895	170	180	90	80	140	9	8
RTF041501251895	170	180	90	80	140	9	8
RTF041501501895	170	180	90	80	140	9	8
RTF041502001895	220	240	100	90	200	9	16
RTF041502501895	220	240	100	90	200	9	17
RTF041505001895	270	300	120	100	200	9	29
RTF041507501895	270	300	130	110	200	9	34
RTF041510001895	320	360	150	125	300	9	48

Code	A	B	C	D	E	Ø	Weight
	mm	mm	mm	mm	mm	mm	kg
RTF041500251345	170	180	80	70	140	9	7
RTF041500501345	220	240	100	90	200	9	15
RTF041501001345	220	240	100	90	200	9	15
RTF041501251345	220	240	100	90	200	9	16
RTF041501501345	220	240	110	100	200	9	18
RTF041502001345	220	240	130	120	200	9	25
RTF041502501345	270	300	120	100	200	9	30
RTF041505001345	270	300	160	140	200	9	48
RTF041505631345	270	300	160	140	200	9	47

Code	A	B	C	D	E	Ø	Weight
	mm	mm	mm	mm	mm	mm	kg
RTF044001252105	170	170	180	80	70	140	9
RTF044001252105	170	180	80	70	140	9	8
RTF044001502105	170	180	80	70	140	9	8
RTF044002002105	170	180	90	80	140	9	10
RTF044002502105	220	240	100	90	200	9	16
RTF044005002105	270	300	120	100	200	9	30
RTF044008002105	270	300	130	110	200	9	33
RTF044010002105	320	360	150	125	300	9	48

Code	A	B	C	D	E	Ø	Weight
	mm	mm	mm	mm	mm	mm	kg
RTF044001001895	170	180	90	80	140	9	9
RTF044001251895	170	180	90	80	140	9	10
RTF044001501895	170	180	90	80	140	9	10
RTF044002001895	170	180	90	80	140	9	10
RTF044002501895	220	240	100	90	200	9	16
RTF044005001895	270	300	120	100	200	9	30

Code	A	B	C	D	E	Ø	Weight
	mm	mm	mm	mm	mm	mm	kg
RTF044001001345	220	240	100	90	200	9	15
RTF044001251345	220	240	100	90	200	9	16
RTF044001501345	220	240	110	100	200	9	18
RTF044002001345	270	300	120	100	200	9	30
RTF044002501345	270	300	120	100	200	9	30
RTF044005001345	320	360	150	125	300	9	49