

MIKRO DETUNED REACTOR

Modern electronic power apparatus such as drives and uninterruptable power supplies produce nonlinear current which in turn introduces line pollution into networks in the form of harmonics. When these harmonics interact with power factor correction capacitors and the inductance of the feeder transformer, a resonance phenomenon occurs. The resonance phenomenon causes excessive voltage and current that is detrimental to the power factor capacitors.

Mikro's Antiresonance Reactor detunes the circuit from forming the resonance phenomenon while still providing power factor correction.



APPLICATIONS

Detuned harmonic filters.

FEATURES

- 1 Avoids resonance conditions
- 2 Reduces harmonic distortion
- 3 Reduces power losses
- 4 High harmonic load capacity
- 5 Leads to low losses
- 6 Has a high linearity to avoid choke tilt
- 7 Convenient mounting points
- 8 Long expected lifespan
- 9 Temperature protection

MIKRO DETUNED REACTOR

TECHNICAL SPECIFICATION

Frequency	50Hz or 60Hz
Voltage	380..440V AC
Output power	4..100kVAR *
Detuning/Filtering %p	6, 7, 14% ***
Core	Multi Gap Silicon Steel Iron Core
Ambient Temperature	40°C Max, Class D
Insulation Class	H
Insulation Strength	3kV 50Hz for 1 min P-P, P-E
Linearity	< 5% drop of initial inductance value *
Approval	IEC 60076-6 Ed 1.0 **
Cooling	Natural Cooling
Enclosure	IP00
Phase	3 Phase
Temperature protection	Bi-metal thermostat, 150° C NC type

*** 5.67 and 13% available upon request

** Applicable to certain model

* Able to customize

MIKRO DETUNED REACTOR

ORDERING INFORMATION

For p=7% reactor, with 230V AC 50Hz capacitor at 200-210V AC System Voltage Only

Capacitor Ucr 230V	Ith	P =	Pw (Ic)	A	B	C	D	E	H- holes	Wt		P/No:
Qcr kVAR	Amp	%	Watt	mm	mm	mm	mm	mm	mm	kg	type	%P-Un/Qc-Ucr/Qcr
5	7.7	7%	35	175	175	120	67	116	10	6	A	MX07-210/4.4-230/5
10	15.4	7%	45	225	210	130	67	116	10	9	A	MX07-210/8.8-230/10
15	23.1	7%	65	175	235	138	74	116	10	11.5	B	MX07-210/13.2-230/15
20	30.8	7%	70	210	240	140	112	136	10	15	B	MX07-210/17.6-230/20
25	38.5	7%	80	210	240	140	115	136	10	17	B	MX07-210/22-230/25
30	46.2	7%	90	210	240	145	115	136	10	20	B	MX07-210/26.4-230/30
40	61.7	7%	110	210	240	155	125	136	10	24	B	MX07-210/35.2-230/40
50	77.1	7%	125	210	295	160	133	170	10	26	B	MX07-210/44-230/50
60	92.5	7%	155	265	352	245	130	170	10	37	B	MX07-210/52.8-230/60
75	115.6	7%	165	265	352	245	135	170	10	40	B	MX07-210/66-230/75
80	123.3	7%	170	255	352	255	140	300	10	42	B	MX07-210/70.4-230/80
100	154.1	7%	190	255	352	270	160	300	10	45	B	MX07-210/87.9-230/100
120	185	7%	220	255	352	300	170	300	10	55	B	MX07-210/105.5-230/120

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ORDERING INFORMATION

For p= 6, 7 & 14% reactor, with 525V AC 50Hz capacitor at 415 V AC 50Hz only

Capacitor Ucr 525V AC	Ith	P =	Pw (Ic)	A	B	C	D	E	H- holes	Wt		P/No:
Qcr kVAR	Amp	%	Watt	mm	mm	mm	mm	mm	mm	kg	type	%P-Un/Qc-Ucr/Qcr
5	5.5	7%	35	175	175	120	67	67	67	6	A	MX07-415/3.4-525/005
10	11.0	7%	45	225	210	130	67	67	67	9	A	MX07-415/6.7-525/010
15	16.5	7%	55	225	210	133	69	69	69	11	A	MX07-415/10.1-525/015
20	22.0	7%	65	180	235	138	74	74	74	11.5	B	MX07-415/13.4-525/020
25	27.5	7%	70	180	240	140	112	112	112	15	B	MX07-415/16.8-525/025
30	33.0	7%	80	210	240	140	115	115	115	17	B	MX07-415/20.2-525/030
40	44.0	7%	90	210	240	145	115	115	115	20	B	MX07-415/26.9-525/040
50	55.0	7%	110	210	240	155	125	125	125	24	B	MX07-415/33.6-525/050
60	66.0	7%	125	235	295	160	133	133	133	26	B	MX07-415/40.3-525/060
80	88.0	7%	155	265	310	245	140	140	140	37	B	MX07-415/53.8-525/080
100	110.0	7%	170	265	310	255	148	148	148	42	B	MX07-415/67.2-525/100
120	132.0	7%	190	265	352	270	160	160	160	45	B	MX07-415/80.6-525/120
150	165.0	7%	220	265	352	300	170	170	170	55	B	MX07-415/100.8-525/150
200	220.0	7%	260	335	370	320	175	175	175	68	B	MX07-415/134.4-525/200

25	27.5	14%	112	210	295	155	125	170	10	24	B	MX13-415/18.0-525/025
30	33	14%	120	210	295	160	133	170	10	26	B	MX13-415/21.6-525/030
40	44	14%	135	265	352	245	130	300	10	37	B	MX13-415/28.7-525/040
50	55	14%	160	265	352	255	140	300	10	42	B	MX13-415/35.9-525/050
60	66	14%	190	255	352	270	160	300	10	45	B	MX13-415/43.1-525/060
80	88	14%	225	265	370	320	170	300	10	55	B	MX13-415/57.5-525/080
100	110	14%	265	335	370	320	175	300	10	68	B	MX13-415/71.8-525/100
120	132	14%	330	335	370	340	185	300	10	75	B	MX13-415/86.2-525/120

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For p= 6, 7 & 14% reactor, with 525V AC 50Hz capacitor at 415 V AC 50Hz only

Capacitor Ucr 525V AC	Ith	P =	Pw (Ic)	A	B	C	D	E	H- holes	Wt		P/No:
Qcr kVAR	Amp	%	Watt	mm	mm	mm	mm	mm	mm	kg	type	%P-Un/Qc-Ucr/Qcr
10	11	6%	45	225	210	130	67	116	10	9	A	MX06-415/6.7-525/010
15	16.5	6%	55	225	210	133	69	136	10	11	A	MX06-415/10.0-525/015
20	22	6%	65	180	210	138	74	136	10	11.5	B	MX06-415/13.3-525/020
25	27.5	6%	70	180	240	140	112	136	10	15	B	MX06-415/16.6-525/025
30	33	6%	90	180	240	145	115	136	10	20	B	MX06-415/19.9-525/030
40	44	6%	110	210	240	155	125	136	10	24	B	MX06-415/26.6-525/040
50	55	6%	125	210	240	160	133	136	10	26	B	MX06-415/33.2-525/050
60	66	6%	155	235	295	245	130	170	10	37	B	MX06-415/40.0-525/060
80	88	6%	170	265	295	255	140	170	10	42	B	MX06-415/53.2-525/080
100	110	6%	190	265	352	270	160	300	10	45	B	MX06-415/66.5-525/100
120	132	6%	220	335	352	300	170	300	10	55	B	MX06-415/79.8-525/120
150	165	6%	260	335	370	320	175	300	10	68	B	MX06-415/99.7-525/150

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ORDERING INFORMATION

For p= 7% reactor, with 440V AC 50Hz capacitor at 380 - 400V AC 50Hz only

Capacitor Ucr 440V AC	Ith	P =	Pw (Ic)	A	B	C	D	E	H- holes	Wt		P/No:
Qcr kVAR	Amp	%	Watt	mm	mm	mm	mm	mm	mm	kg	type	%P-Un/Qc-Ucr/Qcr
5	7.7	7%	35	175	175	120	67	116	10	6	A	MX07-400/4.4-440/005
10	15.4	7%	45	225	210	130	67	116	10	9	A	MX07-400/8.9-440/010
15	23.1	7%	65	175	235	138	74	116	10	11.5	B	MX07-400/13.3-440/015
20	30.8	7%	70	210	240	140	112	136	10	15	B	MX07-400/17.8-440/020
25	38.5	7%	80	210	240	140	115	136	10	17	B	MX07-400/22.2-440/025
28.1	43.3	7%	85	210	240	143	115	136	10	18	B	MX07-400/25.0-440/028
30	46.2	7%	90	210	240	145	115	136	10	20	B	MX07-400/26.7-440/030
40	61.7	7%	110	210	240	155	125	136	10	24	B	MX07-400/35.6-440/040
50	77.1	7%	125	210	295	160	133	170	10	26	B	MX07-400/44.4-440/050
56.2	86.6	7%	135	235	295	200	130	170	10	32	B	MX07-400/50.0-440/056
60	92.5	7%	155	265	352	245	130	170	10	37	B	MX07-400/53.3-440/060
75	115.6	7%	165	265	352	245	135	170	10	40	B	MX07-400/66.7-440/075
80	123.3	7%	170	255	352	255	140	300	10	42	B	MX07-400/71.1-440/080
84.3	130	7%	175	255	352	255	145	300	10	43	B	MX07-400/75.0-440/084
100	154.1	7%	190	255	352	270	160	300	10	45	B	MX07-400/88.9-440/100
112.4	173.4	7%	210	255	352	290	165	300	10	50	B	MX07-400/100.0-440/112
120	185	7%	220	255	352	300	170	300	10	55	B	MX07-400/106.6-440/120
125	192.7	7%	230	255	352	310	170	300	10	60	B	MX07-400/111.0-440/125
150	231.2	7%	250	330	370	320	175	300	10	66	B	MX07-400/133.3-440/150
160	246.6	7%	260	335	370	320	175	300	10	68	B	MX07-400/142.2-440/160

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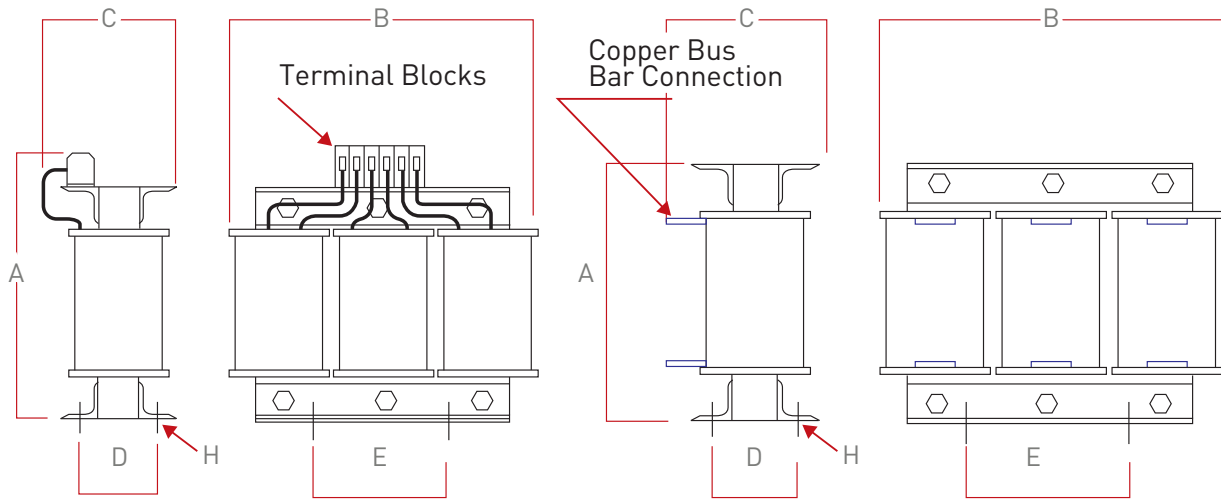
ORDERING INFORMATION

For p= 7% reactor, with 525V AC 50Hz capacitor at 380 - 400V AC 50Hz only

Capacitor Ucr 525V AC	Ith	P =	Pw (Ic)	A	B	C	D	E	H- holes	Wt		P/No:
Qcr kVAR	Amp	%	Watt	mm	mm	mm	mm	mm	mm	kg	type	%P-Un/Qc-Ucr/Qcr
10	10.8	7%	45	225	210	130	67	116	10	9	A	MX07-400/6.2-525/010
15	16.2	7%	55	225	210	133	69	116	10	11	A	MX07-400/9.4-525/015
20	21.7	7%	65	180	235	138	74	116	10	11.5	B	MX07-400/12.5-525/020
25	27.1	7%	70	180	240	140	112	136	10	15	B	MX07-400/15.6-525/025
30	32.5	7%	80	210	240	140	115	136	10	17	B	MX07-400/18.7-525/030
40	43.3	7%	90	210	240	145	115	136	10	20	B	MX07-400/25.0-525/040
50	54.1	7%	110	210	240	160	125	136	10	23	B	MX07-400/31.2-525/050
60	65	7%	125	235	295	180	133	170	10	25	B	MX07-400/37.5-525/060
75	81.2	7%	150	265	310	230	140	170	10	35	B	MX07-400/46.8-525/075
80	86.6	7%	155	265	310	245	140	170	10	36	B	MX07-400/49.9-525/080
100	108.3	7%	170	265	352	255	148	300	10	41	B	MX07-400/62.4-525/100
120	130	7%	190	265	352	270	160	300	10	44	B	MX07-400/75.0-525/120
125	135.3	7%	200	265	352	270	160	300	10	45	B	MX07-400/78.0-525/125
150	162.4	7%	215	265	352	300	170	300	10	53	B	MX07-400/93.6-525/150
160	173.2	7%	220	265	352	300	170	300	10	54	B	MX07-400/99.9-525/160
200	216.5	7%	260	335	370	320	175	300	10	67	B	MX07-400/124.8-525/200

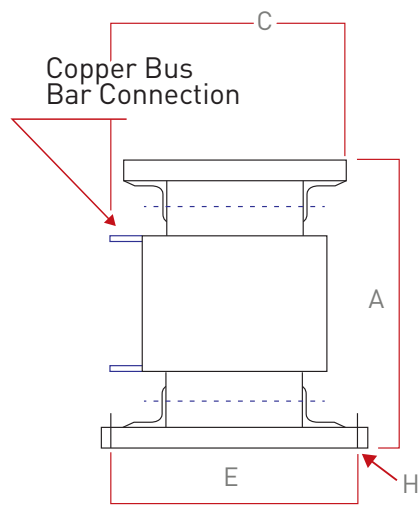
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DIMENSIONS



Vertical Mount: Type A

Vertical Mount: Type B



Vertical Mount: Type C

Please see the Ordering Information for the Dimension A to H.



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