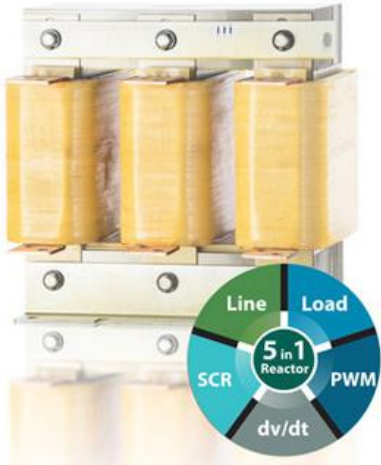


Selecting Line/Load Reactors

Includes 200V– 240V, 380V – 480V, 600V – 690V



MANGOLDT's ACL Line/Load Reactors provide proven performance and reliable high quality for your application

This application note provides the optimum selection of MANGOLDT Line/Load reactors for applications where the system voltage is 200-240V. The catalog numbers in these charts are the same reactors used for 480V (3% impedance) applications. The basis of reactor selection for 200V-240V is:

- | Sufficient current rating
- | Appropriate inductance for an impedance range of about 3% to 5%

In some cases, the current rating is larger than required. This is due to selection of the best inductance rating for the desired impedance range. In these cases, the next smaller reactor may suffice in current rating, but it would provide impedance in the range of about 6%.

If a smaller % impedance is desired, then a reactor of a higher current rating may be used. The calculation at the top of each page may be used to determine the % impedance for a reactor of a different rating.

Features

- Line and load side application
- PolyGap® Core Construction
- Vacuum and overpressure impregnation
- Balanced inductance in all three phases
- Low losses, especially due to harmonics

Benefits

- Reduction of mains harmonics
- Reduction of commutation notches
- Protection of motor drive electronics
- Limitation of inrush currents
- Improvement of true power factor

Approvals / Standards

- UL Listed (E173113)
- IEC/EN60076-6 VDE0532-76-6



Technical Support Office

-  **Allied Industrial Marketing, Inc.**
W67 N222 Evergreen Blvd. Suite 209
Cedarburg, WI 53012, USA
-  info@alliedindustrialmarketing.com
-  1-262-618-2403
-  www.alliedindustrialmarketing.com
-  Follow us!

World Headquarter

-  **Hans von Mangoldt GmbH**
Hergelsbendenstr. 18
52080 Aachen, Germany
-  info@mangoldt.com
-  +49 241 16607 0
-  www.mangoldt.com
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Selecting Line/Load Reactors

200V, 50Hz, 4-5%



Motor		Mangoldt		Reactor	
HP	kW	Amps	Reactor	mH	% Z at
0,5	0,37	2,5	ACL43-0003	8,000	5,44%
0,75	0,56	3,7	ACL43-0005	4,700	4,73%
1	0,75	4,8	ACL43-0005	4,700	6,14%
1,5	1,1	6,9	ACL43-0008	2,950	5,54%
2	1,5	7,8	ACL43-0011	2,200	4,67%
3	2,2	11	ACL43-0014	1,700	5,09%
5	3,7	17,5	ACL43-0022	1,100	5,24%
7,5	5,6	25,3	ACL43-0035	0,700	4,82%
10	7,5	32,2	ACL43-0040	0,580	5,08%
15	11	48,3	ACL43-0066	0,370	4,86%
20	15	62,1	ACL43-0081	0,300	5,07%
25	18,7	78,2	ACL43-0100	0,240	5,11%
30	22	92	ACL43-0125	0,190	4,76%
40	30	120	ACL43-0158	0,150	4,90%
50	37	150	ACL43-0185	0,130	5,31%
60	45	177	ACL43-0242	0,100	4,82%
75	56	221	ACL43-0302	0,080	4,81%
100	75	285	ACL43-0365	0,066	5,12%
125	93	359	ACL43-0480	0,050	4,88%
150	112	414	ACL43-0515	0,047	5,29%
200	150	552	ACL43-0731	0,033	4,96%

Selecting Line/Load Reactors

200V, 60Hz, 4-5%



Motor			Mangoldt	Reactor	
HP	kW	Amps	Reactor	mH	% Z
0,5	0,37	2,5	ACL43-0005	4,700	3,84%
0,75	0,56	3,7	ACL43-0005	4,700	5,68%
1	0,75	4,8	ACL43-0008	2,950	4,62%
1,5	1,1	6,9	ACL43-0011	2,200	4,96%
2	1,5	7,8	ACL43-0014	1,700	4,33%
3	2,2	11	ACL43-0022	1,100	3,95%
5	3,7	17,5	ACL43-0028	0,860	4,91%
7,5	5,6	25,3	ACL43-0035	0,700	5,78%
10	7,5	32,2	ACL43-0052	0,460	4,84%
15	11	48,3	ACL43-0081	0,300	4,73%
20	15	62,1	ACL43-0100	0,240	4,87%
25	18,7	78,2	ACL43-0125	0,190	4,85%
30	22	92	ACL43-0158	0,150	4,51%
40	30	120	ACL43-0185	0,130	5,09%
50	37	150	ACL43-0242	0,100	4,90%
60	45	177	ACL43-0302	0,080	4,62%
75	56	221	ACL43-0365	0,066	4,76%
100	75	285	ACL43-0415	0,058	5,40%
125	93	359	ACL43-0515	0,047	5,51%
150	112	414	ACL43-0594	0,040	5,41%
200	150	552	ACL43-0841	0,029	5,23%

Selecting Line/Load Reactors

208V, 60Hz, 5%



Motor		Mangoldt		Reactor	
HP	kW	Amps	Reactor	mH	% Z
0,5	0,37	2,4	ACL43-0005	4,700	3,54%
0,75	0,56	3,5	ACL43-0005	4,700	5,16%
1	0,75	4,6	ACL43-0008	2,950	4,26%
1,5	1,1	6,6	ACL43-0011	2,200	4,56%
2	1,5	7,5	ACL43-0014	1,700	4,00%
3	2,2	10,6	ACL43-0014	1,700	5,66%
5	3,7	16,7	ACL43-0022	1,100	5,77%
7,5	5,6	24,2	ACL43-0035	0,700	5,32%
10	7,5	30,8	ACL43-0040	0,580	5,61%
15	11	46,2	ACL43-0066	0,370	5,37%
20	15	59,4	ACL43-0081	0,300	5,59%
25	18,7	74,8	ACL43-0100	0,240	5,64%
30	22	88	ACL43-0125	0,190	5,25%
40	30	114	ACL43-0158	0,150	5,37%
50	37	143	ACL43-0185	0,130	5,84%
60	45	169	ACL43-0242	0,100	5,31%
75	56	211	ACL43-0302	0,080	5,30%
100	75	273	ACL43-0415	0,058	4,97%
125	93	343	ACL43-0480	0,050	5,38%
150	112	396	ACL43-0515	0,047	5,84%
200	150	528	ACL43-0731	0,033	5,47%

Selecting Line/Load Reactors

220V, 60Hz, 5%



Motor			Mangoldt	Reactor	
HP	kW	Amps	Reactor	mH	% Z
0,5	0,37	2,3	ACL43-0003	8,000	5,40%
0,75	0,56	3,4	ACL43-0005	4,700	4,69%
1	0,75	4,4	ACL43-0008	2,950	3,82%
1,5	1,1	6,3	ACL43-0008	2,950	5,49%
2	1,5	7,1	ACL43-0011	2,200	4,63%
3	2,2	10,0	ACL43-0014	1,700	5,05%
5	3,7	15,9	ACL43-0022	1,100	5,19%
7,5	5,6	23,0	ACL43-0028	0,860	5,87%
10	7,5	29,3	ACL43-0040	0,580	5,04%
15	11	43,9	ACL43-0066	0,370	4,82%
20	15	56,5	ACL43-0081	0,300	5,03%
25	18,7	71,1	ACL43-0100	0,240	5,06%
30	22	83,6	ACL43-0100	0,240	5,96%
40	30	109	ACL43-0158	0,150	4,86%
50	37	136	ACL43-0185	0,130	5,26%
60	45	161	ACL43-0242	0,100	4,78%
75	56	201	ACL43-0242	0,100	5,96%
100	75	259	ACL43-0365	0,066	5,08%
125	93	326	ACL43-0480	0,050	4,84%
150	112	376	ACL43-0515	0,047	5,25%
200	150	502	ACL43-0594	0,040	5,96%

Selecting Line/Load Reactors

240V, 50Hz, 4-5%



Motor		Mangoldt		Reactor	
HP	kW	Amps	Reactor	mH	% Z at
0,5	0,37	2,2	ACL43-0003	8	3,99%
0,75	0,56	3,2	ACL43-0005	4,7	3,41%
1	0,75	4,2	ACL43-0005	4,7	4,48%
1,5	1,1	6	ACL43-0008	2,95	4,01%
2	1,5	6,8	ACL43-0008	2,95	4,55%
3	2,2	9,6	ACL43-0011	2,2	4,79%
5	3,7	15,2	ACL43-0022	1,1	3,79%
7,5	5,6	22	ACL43-0022	1,1	5,49%
10	7,5	28	ACL43-0028	0,86	5,46%
15	11	42	ACL43-0052	0,46	4,38%
20	15	54	ACL43-0066	0,37	4,53%
25	18,7	68	ACL43-0081	0,3	4,63%
30	22	80	ACL43-0081	0,3	5,44%
40	30	104	ACL43-0125	0,19	4,48%
50	37	130	ACL43-0158	0,15	4,42%
60	45	154	ACL43-0158	0,15	5,24%
75	56	192	ACL43-0242	0,1	4,35%
100	75	248	ACL43-0302	0,08	4,50%
125	93	312	ACL43-0365	0,066	4,67%
150	112	360	ACL43-0365	0,066	5,39%
200	150	480	ACL43-0480	0,05	5,44%

Selecting Line/Load Reactors

240V, 60Hz, 5%



Motor		Mangoldt		Reactor	
HP	kW	Amps	Reactor	mH	% Z
0,5	0,373	2,2	ACL43-0003	8,000	4,79%
0,75	0,5595	3,2	ACL43-0005	4,700	4,09%
1	0,746	4,2	ACL43-0005	4,700	5,37%
1,5	1,1	6	ACL43-0008	2,950	4,82%
2	1,5	6,8	ACL43-0011	2,200	4,07%
3	2,2	9,6	ACL43-0014	1,700	4,44%
5	3,7	15,2	ACL43-0022	1,100	4,55%
7,5	5,6	22	ACL43-0028	0,860	5,15%
10	7,5	28	ACL43-0035	0,700	5,33%
15	11	42	ACL43-0052	0,460	5,26%
20	15	54	ACL43-0066	0,370	5,44%
25	18,7	68	ACL43-0081	0,300	5,55%
30	22	80	ACL43-0100	0,240	5,22%
40	30	104	ACL43-0125	0,190	5,38%
50	37	130	ACL43-0158	0,150	5,31%
60	45	154	ACL43-0185	0,130	5,45%
75	56	192	ACL43-0242	0,100	5,22%
100	75	248	ACL43-0302	0,080	5,40%
125	93	312	ACL43-0365	0,066	5,60%
150	112	360	ACL43-0415	0,058	5,68%
200	150	480	ACL43-0594	0,040	5,22%

Selecting Line/Load Reactors

380V, 50Hz, 3%



Motor		Mangoldt		Reactor	
HP	kW	Amps (max)	Reactor	mH	% Z
1	0,75	3	ACL43-0003	8,000	3,44%
1,5	1,1	5	ACL43-0005	4,700	3,37%
2	1,5	5	ACL43-0005	4,700	3,37%
3	2,2	8	ACL43-0008	2,950	3,38%
5	3,7	11	ACL43-0011	2,200	3,47%
7,5	5,6	14	ACL43-0014	1,700	3,41%
10	7,5	22	ACL43-0022	1,100	3,47%
15	11	28	ACL43-0028	0,860	3,45%
20	15	35	ACL43-0035	0,700	3,51%
25	18,7	40	ACL43-0040	0,580	3,32%
30	22	52	ACL43-0052	0,460	3,43%
40	30	66	ACL43-0066	0,370	3,50%
50	37	81	ACL43-0081	0,300	3,48%
60	45	100	ACL43-0100	0,240	3,44%
75	56	125	ACL43-0125	0,190	3,40%
100	75	158	ACL43-0158	0,150	3,39%
125	93	185	ACL43-0185	0,130	3,44%
150	112	242	ACL43-0242	0,100	3,47%
200	150	302	ACL43-0302	0,080	3,46%
250	187	365	ACL43-0365	0,066	3,45%
300	225	480	ACL43-0480	0,050	3,44%
350	260	515	ACL43-0515	0,047	3,47%
400	300	594	ACL43-0594	0,040	3,40%
450	336	731	ACL43-0731	0,033	3,45%
500	375	731	ACL43-0731	0,033	3,45%
600	450	961	ACL43-0961	0,025	3,44%
700	525	1089	ACL43-1089	0,022	3,43%
800	600	1210	ACL43-1210	0,020	3,47%

Selecting Line/Load Reactors

380V, 50Hz, 4%



Motor		Mangoldt		Reactor	
HP	kW	Amps (max)	Reactor	mH	% Z
1	0,75	3,0	ACL45-0003	13	4,42%
1,5	1,1	5,0	ACL45-0005	7,800	4,42%
2	1,5	5,0	ACL45-0005	7,800	4,42%
3	2,2	8,0	ACL45-0008	4,900	4,44%
5	3,7	11,0	ACL45-0011	3,500	4,36%
7,5	5,6	14,0	ACL45-0014	2,700	4,29%
10	7,5	21,0	ACL45-0021	1,850	4,40%
15	11	27	ACL45-0027	1,450	4,44%
20	15	34	ACL45-0034	1,150	4,43%
25	18,7	40	ACL45-0040	0,960	4,35%
30	22	52	ACL45-0052	0,750	4,42%
40	30	65	ACL45-0065	0,600	4,42%
50	37	80	ACL45-0080	0,490	4,44%
60	45	106	ACL45-0106	0,370	4,45%
75	56	129	ACL45-0129	0,300	4,39%
100	75	159	ACL45-0159	0,245	4,42%
125	93	185	ACL45-0185	0,210	4,40%
150	112	243	ACL45-0243	0,159	4,38%
200	150	302	ACL45-0302	0,130	4,45%
250	187	366	ACL45-0366	0,106	4,40%
300	225	488	ACL45-0488	0,08	4,43%
350	260	530	ACL45-0530	0,074	4,45%
400	300	615	ACL45-0615	0,065	4,53%
450	336	731	ACL45-0731	0,053	4,39%
500	375	731	ACL45-0731	0,053	4,39%
600	450	975	ACL45-0975	0,040	4,42%
700	525	1081	ACL45-1081	0,036	4,41%
800	600	1224	ACL45-1224	0,032	4,44%

Selecting Line/Load Reactors

380V, 60Hz, 3%



Motor		Mangoldt		Reactor	
HP	kW	Amps (max)	Reactor	mH	% Z
1	0,75	3	ACL43-0003	8,000	4,12%
1,5	1,1	5	ACL43-0005	4,700	4,04%
2	1,5	5	ACL43-0005	4,700	4,04%
3	2,2	8	ACL43-0008	2,950	4,06%
5	3,7	11	ACL43-0011	2,200	4,16%
7,5	5,6	14	ACL43-0014	1,700	3,24%
10	7,5	22	ACL43-0022	1,100	3,29%
15	11	28	ACL43-0028	0,860	3,28%
20	15	35	ACL43-0035	0,700	3,33%
25	18,7	40	ACL43-0040	0,580	3,16%
30	22	52	ACL43-0052	0,460	3,25%
40	30	66	ACL43-0066	0,370	3,32%
50	37	81	ACL43-0081	0,300	3,31%
60	45	100	ACL43-0100	0,240	3,26%
75	56	125	ACL43-0125	0,190	3,23%
100	75	158	ACL43-0158	0,150	3,22%
125	93	185	ACL43-0185	0,130	3,27%
150	112	242	ACL43-0242	0,100	3,29%
200	150	302	ACL43-0302	0,080	3,29%
250	187	365	ACL43-0365	0,066	3,28%
300	225	480	ACL43-0480	0,05	3,26%
350	260	515	ACL43-0515	0,047	3,29%
400	300	594	ACL43-0594	0,040	3,23%
450	336	731	ACL43-0731	0,033	3,28%
500	375	731	ACL43-0731	0,033	3,28%
600	450	961	ACL43-0961	0,025	3,27%
700	525	1089	ACL43-1089	0,022	3,26%
800	600	1210	ACL43-1210	0,020	3,29%

Selecting Line/Load Reactors

380V, 60Hz, 5%



Motor		Mangoldt		Reactor	
HP	kW	Amps (max)	Reactor	mH	% Z
1	0,75	3	ACL45-0003	13	5,31%
1,5	1,1	5	ACL45-0005	7,800	5,31%
2	1,5	5	ACL45-0005	7,800	5,31%
3	2,2	8	ACL45-0008	4,900	5,33%
5	3,7	11	ACL45-0011	3,500	5,24%
7,5	5,6	14	ACL45-0014	2,700	5,14%
10	7,5	21	ACL45-0021	1,850	5,28%
15	11	27	ACL45-0027	1,450	5,33%
20	15	34	ACL45-0034	1,150	5,32%
25	18,7	40	ACL45-0040	0,960	5,22%
30	22	52	ACL45-0052	0,750	5,31%
40	30	65	ACL45-0065	0,600	5,31%
50	37	80	ACL45-0080	0,490	5,33%
60	45	106	ACL45-0106	0,370	5,34%
75	56	129	ACL45-0129	0,300	5,26%
100	75	159	ACL45-0159	0,245	5,30%
125	93	185	ACL45-0185	0,210	5,28%
150	112	243	ACL45-0243	0,159	5,26%
200	150	302	ACL45-0302	0,130	5,34%
250	187	366	ACL45-0366	0,106	5,28%
300	225	488	ACL45-0488	0,08	5,31%
350	260	530	ACL45-0530	0,074	5,34%
400	300	615	ACL45-0615	0,065	5,44%
450	336	731	ACL45-0731	0,053	5,27%
500	375	731	ACL45-0731	0,053	5,27%
600	450	975	ACL45-0975	0,040	5,31%
700	525	1081	ACL45-1081	0,036	5,29%
800	600	1224	ACL45-1224	0,032	5,33%

Selecting Line/Load Reactors

400V, 50Hz, 3%



Motor		Mangoldt		Reactor	
HP	kW	Amps (max)	Reactor	mH	% Z
1	0,75	3	ACL43-0003	8,000	3,26%
1,5	1,1	5	ACL43-0005	4,700	3,20%
2	1,5	5	ACL43-0005	4,700	3,20%
3	2,2	8	ACL43-0008	2,950	3,21%
5	3,7	11	ACL43-0011	2,200	3,29%
7,5	5,6	14	ACL43-0014	1,700	3,24%
10	7,5	22	ACL43-0022	1,100	3,29%
15	11	28	ACL43-0028	0,860	3,28%
20	15	35	ACL43-0035	0,700	3,33%
25	18,7	40	ACL43-0040	0,580	3,18%
30	22	52	ACL43-0052	0,460	3,25%
40	30	66	ACL43-0066	0,370	3,32%
50	37	81	ACL43-0081	0,300	3,31%
60	45	100	ACL43-0100	0,240	3,26%
75	56	125	ACL43-0125	0,190	3,23%
100	75	158	ACL43-0158	0,150	3,22%
125	93	185	ACL43-0185	0,130	3,27%
150	112	242	ACL43-0242	0,100	3,29%
200	150	302	ACL43-0302	0,080	3,29%
250	187	365	ACL43-0365	0,066	3,28%
300	225	480	ACL43-0480	0,050	3,26%
350	260	515	ACL43-0515	0,047	3,29%
400	300	594	ACL43-0594	0,040	3,23%
450	336	594	ACL43-0594	0,040	3,23%
500	375	731	ACL43-0731	0,033	3,28%
600	450	841	ACL43-0841	0,029	3,32%
700	525	967	ACL43-1089	0,022	2,89%
800	600	1210	ACL43-1210	0,020	3,29%

Selecting Line/Load Reactors

400V, 50Hz, 5%



Motor		Mangoldt		Reactor	
HP	kW	Amps (max)	Reactor	mH	% Z
1	0,75	3	ACL45-0003	13,00	5,31%
1,5	1,1	5	ACL45-0005	7,800	5,31%
2	1,5	5	ACL45-0005	7,800	5,31%
3	2,2	8	ACL45-0008	4,900	5,33%
5	3,7	11	ACL45-0011	3,500	5,24%
7,5	5,6	14	ACL45-0014	2,700	5,14%
10	7,5	21	ACL45-0021	1,850	5,28%
15	11	27	ACL45-0027	1,450	5,33%
20	15	34	ACL45-0034	1,150	5,32%
25	18,7	40	ACL45-0040	0,960	5,22%
30	22	52	ACL45-0052	0,750	5,31%
40	30	65	ACL45-0065	0,600	5,31%
50	37	80	ACL45-0080	0,490	5,33%
60	45	106	ACL45-0106	0,370	5,34%
75	56	129	ACL45-0129	0,300	5,26%
100	75	159	ACL45-0159	0,245	5,30%
125	93	185	ACL45-0185	0,210	5,28%
150	112	243	ACL45-0243	0,159	5,26%
200	150	302	ACL45-0302	0,130	5,34%
250	187	366	ACL45-0366	0,106	5,28%
300	225	429	ACL45-0429	0,092	5,37%
350	260	530	ACL45-0530	0,074	5,34%
400	300	615	ACL45-0615	0,065	5,44%
450	336	615	ACL45-0615	0,065	5,44%
500	375	731	ACL45-0731	0,053	5,27%
600	450	848	ACL45-0848	0,046	5,31%
700	525	975	ACL45-0975	0,040	5,31%
800	600	1224	ACL45-1224	0,032	5,33%

Selecting Line/Load Reactors

415V, 50Hz, 2-3%



Motor		Mangoldt		Reactor	
HP	kW	Amps (max)	Reactor	mH	% Z
1	0,75	3	ACL43-0003	8,000	3,26%
1,5	1,1	5	ACL43-0005	4,700	3,20%
2	1,5	5	ACL43-0005	4,700	3,20%
3	2,2	8	ACL43-0008	2,950	3,21%
5	3,7	11	ACL43-0011	2,200	3,29%
7,5	5,6	14	ACL43-0014	1,700	3,24%
10	7,5	22	ACL43-0022	1,100	3,29%
15	11	28	ACL43-0028	0,860	3,28%
20	15	35	ACL43-0035	0,700	3,33%
25	18,7	40	ACL43-0040	0,580	3,16%
30	22	52	ACL43-0052	0,460	3,25%
40	30	66	ACL43-0066	0,370	3,32%
50	37	81	ACL43-0081	0,300	3,31%
60	45	100	ACL43-0100	0,240	3,26%
75	56	125	ACL43-0125	0,190	3,23%
100	75	158	ACL43-0158	0,150	3,22%
125	93	185	ACL43-0185	0,130	3,27%
150	112	242	ACL43-0242	0,100	3,29%
200	150	302	ACL43-0302	0,080	3,29%
250	187	365	ACL43-0365	0,066	3,28%
300	225	415	ACL43-0415	0,058	3,27%
350	260	480	ACL43-0480	0,050	3,26%
400	300	594	ACL43-0594	0,040	3,23%
450	336	594	ACL43-0594	0,040	3,23%
500	375	731	ACL43-0731	0,033	3,28%
600	450	841	ACL43-0841	0,029	3,32%
700	525	961	ACL43-0961	0,025	3,27%
800	600	1089	ACL43-1089	0,022	3,26%
900	675	1210	ACL43-1210	0,020	3,29%

Selecting Line/Load Reactors

415V, 50Hz, 4-5%



Motor		Mangoldt		Reactor	
HP	kW	Amps (max)	Reactor	mH	% Z
1	0,75	3	ACL45-0003	13,00	5,31%
1,5	1,1	5	ACL45-0005	7,800	5,31%
2	1,5	5	ACL45-0005	7,800	5,31%
3	2,2	8	ACL45-0008	4,900	5,33%
5	3,7	11	ACL45-0011	3,500	5,24%
7,5	5,6	14	ACL45-0014	2,700	5,14%
10	7,5	21	ACL45-0021	1,850	5,28%
15	11	27	ACL45-0027	1,450	5,33%
20	15	34	ACL45-0034	1,150	5,32%
25	18,7	40	ACL45-0040	0,960	5,22%
30	22	52	ACL45-0052	0,750	5,31%
40	30	65	ACL45-0065	0,600	5,31%
50	37	80	ACL45-0080	0,490	5,33%
60	45	106	ACL45-0106	0,370	5,34%
75	56	129	ACL45-0129	0,300	5,26%
100	75	158	ACL45-0159	0,245	5,27%
125	93	185	ACL45-0185	0,210	5,28%
150	112	243	ACL45-0243	0,159	5,26%
200	150	302	ACL45-0302	0,130	5,34%
250	187	366	ACL45-0366	0,106	5,28%
300	225	429	ACL45-0429	0,092	5,37%
350	260	488	ACL45-0488	0,080	5,31%
400	300	530	ACL45-0530	0,074	5,34%
450	336	615	ACL45-0615	0,065	5,44%
500	375	731	ACL45-0731	0,053	5,27%
600	450	848	ACL45-0848	0,046	5,31%
700	525	975	ACL45-0975	0,040	5,31%
800	600	1081	ACL45-1081	0,036	5,29%

Selecting Line/Load Reactors

480V, 60Hz, 3%



Motor		Mangoldt		Reactor	
HP	kW	Amps (max)	Reactor	mH	% Z
1	0,75	3	ACL43-0003	8,000	3,26%
1,5	1,1	3	ACL43-0003	8,000	3,26%
2	1,5	5	ACL43-0005	4,700	3,20%
3	2,2	5	ACL43-0005	4,700	3,20%
5	3,7	8	ACL43-0008	2,950	3,21%
7,5	5,6	11	ACL43-0011	2,200	3,29%
10	7,5	14	ACL43-0014	1,700	3,24%
15	11	22	ACL43-0022	1,100	3,29%
20	15	28	ACL43-0028	0,860	3,28%
25	18,7	35	ACL43-0035	0,700	3,33%
30	22	40	ACL43-0040	0,580	3,16%
40	30	52	ACL43-0052	0,460	3,25%
50	37	66	ACL43-0066	0,370	3,32%
60	45	81	ACL43-0081	0,300	3,31%
75	56	100	ACL43-0100	0,240	3,26%
100	75	125	ACL43-0125	0,190	3,23%
125	93	158	ACL43-0158	0,150	3,22%
150	112	185	ACL43-0185	0,130	3,27%
200	150	242	ACL43-0242	0,100	3,29%
250	187	302	ACL43-0302	0,08	3,29%
300	224	365	ACL43-0365	0,066	3,28%
350	260	415	ACL43-0415	0,058	3,27%
400	300	480	ACL43-0480	0,050	3,26%
450	336	515	ACL43-0515	0,047	3,29%
500	375	594	ACL43-0594	0,040	3,23%
600	450	731	ACL43-0731	0,033	3,28%
700	525	841	ACL43-0841	0,029	3,32%
800	600	961	ACL43-0961	0,025	3,27%
900	675	1089	ACL43-1089	0,022	3,26%
1000	750	1210	ACL43-1210	0,020	3,29%

Selecting Line/Load Reactors

480V, 60Hz, 5%



Motor		Mangoldt		Reactor	
HP	kW	Amps (max)	Reactor	mH	% Z
1	0,75	3	ACL45-0003	13,000	5,31%
1,5	1,1	3	ACL45-0003	13,000	5,31%
2	1,5	5	ACL45-0005	7,800	5,31%
3	2,2	5	ACL45-0005	7,800	5,31%
5	3,7	8	ACL45-0008	4,900	5,33%
7,5	5,6	11	ACL45-0011	3,500	5,24%
10	7,5	14	ACL45-0014	2,700	5,14%
15	11	21	ACL45-0021	1,850	5,28%
20	15	27	ACL45-0027	1,450	5,33%
25	18,7	34	ACL45-0034	1,150	5,32%
30	22	40	ACL45-0040	0,960	5,22%
40	30	52	ACL45-0052	0,750	5,31%
50	37	65	ACL45-0065	0,600	5,31%
60	45	80	ACL45-0080	0,490	5,33%
75	56	106	ACL45-0106	0,370	5,34%
100	75	129	ACL45-0129	0,300	5,26%
125	93	159	ACL45-0159	0,245	5,30%
150	112	185	ACL45-0185	0,210	5,28%
200	150	243	ACL45-0243	0,159	5,26%
250	187	302	ACL45-0302	0,13	5,34%
300	225	366	ACL45-0366	0,106	5,28%
350	260	429	ACL45-0429	0,092	5,37%
400	300	488	ACL45-0488	0,080	5,31%
450	336	530	ACL45-0530	0,074	5,34%
500	375	615	ACL45-0615	0,065	5,44%
600	450	731	ACL45-0731	0,053	5,27%
700	525	848	ACL45-0848	0,046	5,31%
800	600	975	ACL45-0975	0,040	5,31%
900	675	1081	ACL45-1081	0,036	5,29%
1000	750	1224	ACL45-1224	0,032	5,33%

Selecting Line/Load Reactors

600V, 60Hz, 3%



Motor		Mangoldt		Reactor	
HP	kW	Amps (max)	Reactor	mH	% Z
2	1,5	3	ACL63-0003	10,000	3,26%
3	2,2	6,1	ACL63-0006	5,000	3,32%
5	3,7	6,1	ACL63-0006	5,000	3,32%
7,5	5,6	9	ACL63-0009	3,200	3,13%
10	7,5	11	ACL63-0011	2,700	3,23%
15	11	17	ACL63-0017	1,700	3,15%
20	15	22	ACL63-0022	1,350	3,23%
25	18,7	27	ACL63-0028	1,100	3,23%
30	22	35	ACL63-0035	0,860	3,28%
40	30	43	ACL63-0043	0,710	3,32%
50	37	53	ACL63-0053	0,560	3,23%
60	45	67	ACL63-0067	0,450	3,28%
75	56	82	ACL63-0082	0,360	3,21%
100	75	104	ACL63-0104	0,290	3,28%
125	93	131	ACL63-0131	0,230	3,28%
150	112	144	ACL63-0144	0,210	3,29%
200	150	198	ACL63-0198	0,150	3,23%
250	187	247	ACL63-0247	0,120	3,23%
300	225	300	ACL63-0300	0,100	3,26%
350	260	344	ACL63-0344	0,088	3,29%
400	300	388	ACL63-0388	0,077	3,25%
450	336	420	ACL63-0420	0,071	3,25%
500	375	480	ACL63-0480	0,060	3,13%
600	450	579	ACL63-0579	0,052	3,28%
700	525	677	ACL63-0677	0,044	3,24%
800	600	775	ACL63-0775	0,039	3,29%
900	675	873	ACL63-0873	0,034	3,23%
1000	750	972	ACL63-0972	0,031	3,28%
1200	900	1168	ACL63-1168	0,026	3,30%

Selecting Line/Load Reactors

600V, 60Hz, 5%



Motor		Mangoldt		Reactor	
HP	kW	Amps (max)	Reactor	mH	% Z
2	1,5	3	ACL65-0003	16,500	5,39%
3	2,2	6,1	ACL65-0006	8,000	5,31%
5	3,7	6,1	ACL65-0006	8,000	5,31%
7,5	5,6	9	ACL65-0009	5,400	5,29%
10	7,5	11	ACL65-0011	4,500	5,39%
15	11	17	ACL65-0017	2,900	5,37%
20	15	22	ACL65-0022	2,200	5,27%
25	18,7	27	ACL65-0027	1,800	5,29%
30	22	34	ACL65-0035	1,400	5,18%
40	30	41	ACL65-0041	1,190	5,31%
50	37	52	ACL65-0052	0,950	5,38%
60	45	66	ACL65-0066	0,750	5,39%
75	56	81	ACL65-0081	0,610	5,38%
100	75	106	ACL65-0106	0,460	5,31%
125	93	129	ACL65-0129	0,380	5,33%
150	112	148	ACL65-0148	0,330	5,32%
200	150	192	ACL65-0192	0,250	5,22%
250	187	244	ACL65-0244	0,200	5,31%
300	225	291	ACL65-0291	0,165	5,23%
350	260	339	ACL65-0339	0,145	5,35%
400	300	382	ACL65-0382	0,130	5,40%
450	336	424	ACL65-0424	0,115	5,31%
500	375	488	ACL65-0488	0,100	5,31%
600	450	577	ACL65-0577	0,083	5,21%
700	525	673	ACL65-0673	0,073	5,35%
800	600	774	ACL65-0774	0,063	5,31%
900	675	869	ACL65-0869	0,056	5,30%
1000	750	975	ACL65-0975	0,050	5,31%
1200	900	1166	ACL65-1166	0,042	5,33%

Selecting Line/Load Reactors

690V, 50Hz, 2%



Motor		Mangoldt		Reactor	
HP	kW	Amps (max)	Reactor	mH	% Z
2	1,5	3	ACL63-0003	10,000	2,37%
3	2,2	6,1	ACL63-0006	5,000	2,41%
5	3,7	6,1	ACL63-0006	5,000	2,41%
7,5	5,6	9,0	ACL63-0009	3,200	2,27%
10	7,5	9	ACL63-0009	3,200	2,31%
15	11	17	ACL63-0017	1,700	2,28%
20	15	22	ACL63-0022	1,350	2,34%
25	18,7	22	ACL63-0022	1,350	2,34%
30	22	28	ACL63-0028	1,100	2,43%
40	30	35	ACL63-0035	0,860	2,37%
50	37	43	ACL63-0043	0,710	2,41%
60	45	53	ACL63-0053	0,560	2,34%
75	56	67	ACL63-0067	0,450	2,38%
100	75	82	ACL63-0082	0,360	2,33%
125	93	104	ACL63-0104	0,290	2,38%
150	112	131	ACL63-0131	0,230	2,38%
200	150	198	ACL63-0198	0,150	2,34%
250	187	198	ACL63-0198	0,150	2,34%
300	225	247	ACL63-0247	0,120	2,34%
350	260	300	ACL63-0300	0,100	2,37%
400	300	344	ACL63-0344	0,088	2,39%
450	336	388	ACL63-0388	0,077	2,36%
500	375	420	ACL63-0420	0,071	2,35%
600	450	480	ACL63-0480	0,060	2,27%
700	525	579	ACL63-0579	0,052	2,37%
800	600	677	ACL63-0677	0,044	2,35%
900	675	775	ACL63-0775	0,039	2,38%
1000	750	873	ACL63-0873	0,034	2,34%
1200	900	972	ACL63-0972	0,031	2,38%
1400	1040	1168	ACL63-1168	0,026	2,39%

Selecting Line/Load Reactors

690V, 50Hz, 3-4%



Motor		Mangoldt		Reactor	
HP	kW	Amps (max)	Reactor	mH	% Z
2	1,5	3	ACL65-0003	16,500	3,90%
3	2,2	6	ACL65-0006	8,000	3,85%
5	3,7	6	ACL65-0006	8,000	3,85%
7,5	5,6	9	ACL65-0009	5,400	3,83%
10	7,5	9	ACL65-0009	5,400	3,90%
15	11	17	ACL65-0017	2,900	3,89%
20	15	22	ACL65-0022	2,200	3,82%
25	18,7	22	ACL65-0022	2,200	3,82%
30	22	27	ACL65-0027	1,800	3,83%
40	30	34	ACL65-0034	1,400	3,75%
50	37	41	ACL65-0041	1,190	3,85%
60	45	52	ACL65-0052	0,950	3,90%
75	56	66	ACL65-0066	0,750	3,90%
100	75	81	ACL65-0081	0,610	3,90%
125	93	106	ACL65-0106	0,460	3,85%
150	112	129	ACL65-0129	0,380	3,87%
200	150	192	ACL65-0192	0,250	3,79%
250	187	244	ACL65-0244	0,200	3,85%
300	225	291	ACL65-0291	0,165	3,79%
350	260	291	ACL65-0291	0,165	3,79%
400	300	339	ACL65-0339	0,145	3,88%
450	336	382	ACL65-0382	0,130	3,92%
500	375	424	ACL65-0424	0,115	3,85%
600	450	488	ACL65-0488	0,100	3,85%
700	525	577	ACL65-0577	0,083	3,78%
800	600	673	ACL65-0673	0,073	3,87%
900	675	774	ACL65-0774	0,063	3,85%
1000	750	869	ACL65-0869	0,056	3,84%
1200	900	975	ACL65-0975	0,050	3,84%
1400	1040	1166	ACL65-1166	0,042	3,86%

Selecting Line/Load Reactors

690V, 60Hz, 2,5%



Motor		Mangoldt		Reactor	
HP	kW	Amps (max)	Reactor	mH	% Z
2	1,5	3	ACL63-0003	10,000	2,84%
3	2,2	6,1	ACL63-0006	5,000	2,89%
5	3,7	6,1	ACL63-0006	5,000	2,89%
7,5	5,6	9	ACL63-0009	3,200	2,73%
10	7,5	9	ACL63-0009	3,200	2,78%
15	11	17	ACL63-0017	1,700	2,73%
20	15	22	ACL63-0022	1,350	2,81%
25	18,7	22	ACL63-0022	1,350	2,81%
30	22	28	ACL63-0028	1,100	2,91%
40	30	35	ACL63-0035	0,860	2,85%
50	37	43	ACL63-0043	0,710	2,89%
60	45	53	ACL63-0053	0,560	2,81%
75	56	67	ACL63-0067	0,450	2,85%
100	75	82	ACL63-0082	0,360	2,79%
125	93	104	ACL63-0104	0,290	2,85%
150	112	131	ACL63-0131	0,230	2,85%
200	150	198	ACL63-0198	0,150	2,81%
250	187	198	ACL63-0198	0,150	2,81%
300	225	247	ACL63-0247	0,120	2,80%
350	260	300	ACL63-0300	0,100	2,84%
400	300	344	ACL63-0344	0,088	2,86%
450	336	388	ACL63-0388	0,077	2,83%
500	375	420	ACL63-0420	0,071	2,82%
600	450	480	ACL63-0480	0,060	2,73%
700	525	579	ACL63-0579	0,052	2,85%
800	600	677	ACL63-0677	0,044	2,82%
900	675	775	ACL63-0775	0,039	2,86%
1000	750	873	ACL63-0873	0,034	2,81%
1200	900	972	ACL63-0972	0,031	2,85%
1400	1040	1168	ACL63-1168	0,026	2,87%

Selecting Line/Load Reactors

690V, 60Hz, 5%



Motor		Mangoldt		Reactor	
HP	kW	Amps (max)	Reactor	mH	% Z
2	1,5	3	ACL65-0003	16,500	4,68%
3	2,2	6,1	ACL65-0006	8,000	4,62%
5	3,7	6,1	ACL65-0006	8,000	4,62%
7,5	5,6	9	ACL65-0009	5,400	4,60%
10	7,5	9	ACL65-0009	5,400	4,68%
15	11	17	ACL65-0017	2,900	4,67%
20	15	22	ACL65-0022	2,200	4,58%
25	18,7	22	ACL65-0022	2,200	4,58%
30	22	27	ACL65-0027	1,800	4,60%
40	30	34	ACL65-0034	1,400	4,50%
50	37	41	ACL65-0041	1,190	4,62%
60	45	52	ACL65-0052	0,950	4,67%
75	56	66	ACL65-0066	0,750	4,68%
100	75	81	ACL65-0081	0,610	4,68%
125	93	106	ACL65-0106	0,460	4,61%
150	112	129	ACL65-0129	0,380	4,64%
200	150	192	ACL65-0192	0,250	4,54%
250	187	244	ACL65-0244	0,200	4,62%
300	225	291	ACL65-0291	0,165	4,54%
350	260	291	ACL65-0291	0,165	4,54%
400	300	339	ACL65-0339	0,145	4,65%
450	336	382	ACL65-0382	0,130	4,70%
500	375	424	ACL65-0424	0,115	4,61%
600	450	488	ACL65-0488	0,100	4,62%
700	525	577	ACL65-0577	0,083	4,53%
800	600	673	ACL65-0673	0,073	4,65%
900	675	774	ACL65-0774	0,063	4,61%
1000	746	869	ACL65-0869	0,056	4,61%
1200	900	975	ACL65-0975	0,050	4,61%
1400	1040	1166	ACL65-1166	0,042	4,63%

The Global Reactor Brand

Hans von Mangoldt GmbH



Hans von Mangoldt GmbH, an ISO-9001 registered company, is appropriately equipped to meet the demands of the most rigorous reactor applications.

We have earned a leadership position in the international reactor markets and currently export, on a regular basis, to over thirty countries. A highly motivated and experienced workforce makes a vital contribution to the success of the company. The use of state-of-the-art production systems, together with self-defined high demands for quality and reliability allow our customers to have absolute confidence and trust in the products supplied by MANGOLDT.

The management of MANGOLDT looks to the future, firmly determined to maintain its success in meeting this quality objective. Today the entire company group has a 120-man strong workforce at two production sites in Germany, two domestic manufacturing sites (Taiwan and India) and two sales offices (China and USA).

MANGOLDT has two production facilities with complete reactor manufacturing capabilities. Both factories include everything from lamination cutting, computerized winding, assembly and vacuum and pressure impregnation systems.

1980 marked the introduction of MANGOLDT's exclusive core construction method, appropriately named PolyGap®, for its use of numerous air gaps.

PolyGap® core construction is designed to optimize the core's ability to handle harmonic frequencies and to minimize losses.

MANGOLDT has the capability to design reactors with the precise number of air gaps, length of each individual gap and location of each gap to maximize the overall performance of the reactor, based on the specified harmonic current spectrum.

