

**BENEFITS**

Experience gained from working with customers for over twenty years, looking for the optimum balance between performance and cost, allows us to offer standard ranges of chokes with well defined inductance and current handling capabilities.

The high frequency choke ranges are based on low loss sendust powder cores. These have a saturation flux density three times higher than ferrite cores, and a distributed air-gap which gives a controlled hold-up of inductance with bias current.

Their lower core losses allow the chokes to be used with higher ripple-current frequencies, with a corresponding increase in throughput power.

A significant advantage for use in audio amplifier circuits is that sendust toroids have a low magnetostriction, resulting in low acoustic noise.

Their "soft-saturation" characteristic allows a significant inductance to be maintained in overload conditions where gapped ferrites would have saturated.

The toroidal format also gives a lower flux-leakage than gapped ferrite, rod core or drum core chokes, for improved emc performance.

**CHOKE RANGES**

**WK range** High frequency chokes for frequencies two to three times higher than the low cost iron powder core ranges. Windings are low self-capacitance, optimised for the highest switching frequencies.

**WKM range** High inductance chokes, using multi-layer windings. Suitable for lower frequency, high ripple current, output and storage chokes

**APPLICATIONS**

Powder core chokes are mainly used where an inductance needs to be maintained where the choke is biased with a dc or a low frequency (50-60Hz) ac current.

High frequency currents should be limited to lower levels, such as the ac ripple current on a SMPSU pfc choke or output choke, or high frequency interference currents.

In general they should not be considered for applications where the choke is subject to higher levels of high frequency current, such as in resonant chokes or discontinuous-mode pfc and output chokes, unless these are at relatively low kHz frequencies.

**KEY TO TERMS USED**

<b>Iac/I<sub>dc</sub></b>	Rated current, dc or 50Hz ac	For efficient convection cooling.
<b>L<sub>0</sub></b>	Inductance without bias	Nominal, in milliHenries at 10kHz
<b>L<sub>1</sub></b>	Inductance when biased with rated current I <sub>dc</sub>	Nominal, in milliHenries at 10kHz
<b>L<sub>1.4</sub></b>	Inductance biased with 1.4 times rated current I <sub>dc</sub>	Nominal, in milliHenries at 10kHz
<b>DCR</b>	DC resistance of the coil	Nominal, ohms at 25deg.C
<b>Part no.</b>	The basic part number of the choke	Optional leadout variants are available.
<b>dia.</b>	Diameter of the toroidal choke	Nominal, in millimetres.
<b>ht.</b>	Height of the toroidal choke	Nominal, in millimetres.
<b>f 20%</b>	Frequency for 20% peak-peak ripple current	In kHz, based on a calculated
<b>f 30%</b>	Frequency for 30% peak-peak ripple current	20deg.C temperature rise due to core
<b>f 40%</b>	Frequency for 40% peak-peak ripple current	losses.

Specifications and information contained within this data are for guidance only.

Whilst every effort has been made to ensure the accuracy of this information, no liability can be accepted for any errors contained herein.

In all cases the customer should ensure that the chokes are thermally and electrically suitable for use within their equipment.

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Current Iac/I <sub>dc</sub> Amps	Inductance vs current			Part number	Resistance DCR ohms	Dimensions		Ripple frequencies			Weight kg
	L0 mH	L1 mH	L1.4 mH			dia. mm.	ht. mm.	f 20% kHz	f 30% kHz	f 40% kHz	
0.75	4.8	2.4	1.7	WKM2064-210	1.1	26	12	270	150	100	0.017
1	3	1.5	1	WKM2064-215	0.71	26	12	270	150	100	0.017
1.3	1.9	0.93	0.65	WKM2064-220	0.46	26	12	270	150	100	0.017
1.5	1.2	0.6	0.43	WKM2064-225	0.29	26	12	270	150	100	0.017
1.5	2.6	1.2	0.8	WKM2364-225	0.38	19	14	230	130	85	0.027
1.5	3.5	1.9	1.4	WKM2764-225	0.53	35	17	190	100	65	0.04
1.75	0.86	0.44	0.31	WKM2064-230	0.22	26	12	270	150	100	0.02
1.75	1.9	0.86	0.56	WKM2364-230	0.29	29	14	230	130	85	0.025
1.75	2.9	1.6	1.1	WKM2764-230	0.49	35	17	190	100	65	0.04
2	0.66	0.34	0.24	WKM2064-235	0.17	26	12	270	150	100	0.016
2	0.72	0.4	0.31	WK3165-235	0.3	36	9	180	110	70	0.025
2	1.3	0.62	0.42	WKM2364-235	0.19	29	14	230	130	85	0.027
2	2.3	1.2	0.85	WKM2764-235	0.34	35	17	190	100	65	0.043
2.5	0.37	0.2	0.15	WKM2064-245	0.1	26	12	270	150	100	0.016
2.5	0.45	0.25	0.19	WK3165-245	0.15	36	9.5	180	110	70	0.026
2.5	0.8	0.39	0.26	WKM2364-245	0.15	29	14	230	130	85	0.023
2.5	1.8	0.87	0.58	WKM2764-245	0.23	35	17	190	100	65	0.045
3	0.25	0.14	0.1	WKM2064-250	0.077	26	12	270	150	100	0.015
3	0.45	0.22	0.17	WK3165-250	0.15	36	9.5	180	110	70	0.026
3	0.5	0.25	0.18	WKM2364-250	0.1	29	14	230	130	85	0.022
3	1.1	0.55	0.39	WKM2764-250	0.16	35	17	190	100	65	0.042
3	1.4	0.76	0.55	WKM3363-250	0.16	42	20	170	100	65	0.066
3	2.5	1.4	1	WKM3263-250	0.33	42	29	170	95	60	0.1
3	3.2	1.9	1.5	WKM4062-250	0.33	48	23	150	75	55	0.12
3.5	0.19	0.1	0.073	WKM2064-255	0.058	26	12	270	150	100	0.015
3.5	0.32	0.16	0.12	WK3165-255	0.092	36	10	180	110	70	0.028
3.5	0.38	0.19	0.13	WKM2364-255	0.073	29	14	230	130	85	0.023
3.5	0.78	0.4	0.29	WKM2764-255	0.12	35	17	190	100	65	0.042
3.5	1.3	0.65	0.46	WKM3363-255	0.15	42	20	170	100	65	0.065
3.5	2.1	1.1	0.81	WKM3263-255	0.24	42	29	170	95	60	0.11
3.5	2.5	1.5	1.1	WKM4062-255	0.24	48	23	150	75	55	0.13
4	0.14	0.077	0.057	WKM2064-260	0.045	26	12	270	150	100	0.014
4	0.25	0.12	0.093	WK3165-260	0.064	37	10.5	180	110	70	0.029
4	0.34	0.16	0.11	WKM2364-260	0.062	29	14	230	130	85	0.025
4	0.55	0.3	0.21	WKM2764-260	0.093	35	17	190	100	65	0.041
4	1	0.51	0.35	WKM3363-260	0.12	42	20	170	100	65	0.065
4	1.5	0.84	0.61	WKM3263-260	0.18	42	29	170	95	60	0.105
4	2	1.2	0.9	WKM4062-360	0.17	48	23	150	75	55	0.14
4	2.8	1.8	1.4	WKM4762-260	0.25	55	26	135	70	55	0.2
4.5	0.25	0.12	0.083	WKM2364-265	0.048	29	14	230	130	85	0.023
4.5	0.43	0.23	0.17	WKM2764-265	0.073	35	17	190	100	65	0.04
4.5	0.78	0.39	0.28	WKM3363-265	0.095	42	20	170	100	65	0.06
4.5	1.2	0.65	0.47	WKM3263-265	0.14	42	29	170	95	60	0.1
4.5	1.8	1	0.72	WKM4062-265	0.14	48	23	150	75	55	0.14
4.5	2.5	1.6	1.2	WKM4762-265	0.22	55	26	135	70	55	0.2
5	0.065	0.035	0.025	WK2065-270	0.032	26	12	280	160	100	0.011
5	0.15	0.078	0.059	WK3165-270	0.032	37	11.5	180	110	70	0.03
5	0.18	0.092	0.064	WKM2364-270	0.037	29	14	230	130	85	0.023
5	0.28	0.16	0.12	WKM2764-270	0.053	35	17	190	100	65	0.04

## Storage, pfc &amp; series-mode chokes

## hi-frequency range

**Almag**

Current Iac/I <sub>dc</sub> Amps	Inductance vs current			Part number	Resistance DCR ohms	Dimensions		Ripple frequencies			Weight kg
	L0 mH	L1 mH	L1.4 mH			dia. mm.	ht. mm.	f 20% kHz	f 30% kHz	f 40% kHz	
5	0.63	0.32	0.23	WKM3363-270	0.077	42	20	170	100	65	0.064
5	0.93	0.52	0.38	WKM3263-270	0.11	42	29	170	95	60	0.104
5	1.2	0.71	0.53	WKM4062-270	0.12	48	23	150	75	55	0.12
5	2	1.3	1	WKM4762-270	0.15	56	27	135	70	55	0.2
5.5	0.15	0.075	0.053	WKM2364-275	0.03	29	14	230	130	85	0.02
5.5	0.26	0.14	0.11	WKM2764-275	0.051	35	17	190	100	65	0.04
5.5	0.5	0.26	0.18	WKM3363-275	0.061	42	20	170	100	65	0.06
5.5	0.75	0.43	0.31	WKM3263-275	0.093	42	29	150	75	55	0.1
5.5	0.91	0.55	0.42	WKM4062-275	0.094	49	23	150	75	55	0.12
6	0.046	0.024	0.018	WK2065-280	0.021	26	12	280	160	100	0.012
6	0.11	0.056	0.042	WK3165-280	0.022	38	11.5	180	110	70	0.031
6	0.12	0.06	0.044	WKM2364-280	0.023	29	14	230	130	85	0.023
6	0.18	0.11	0.082	WKM2764-280	0.043	35	17	190	100	65	0.04
6	0.37	0.2	0.14	WKM3363-280	0.053	42	20	170	100	65	0.06
6	0.51	0.31	0.24	WKM3263-280	0.069	42	29	170	95	60	0.1
6	0.81	0.5	0.36	WKM4062-280	0.078	49	23	150	75	55	0.13
6	1.5	0.9	0.69	WKM4762-280	0.12	56	26	135	70	55	0.2
6	1.6	0.91	0.69	WKM5662-282	0.127	67	24	110	60	40	0.22
7	0.04	0.02	0.015	WK2065-292	0.018	26	12	280	160	100	0.012
7	0.08	0.04	0.03	WK3165-292	0.03	36	9.5	180	110	70	0.025
7	0.08	0.042	0.031	WKM2364-290	0.02	29	14	230	130	85	0.02
7	0.12	0.07	0.056	WKM2764-290	0.025	35	17	190	100	65	0.04
7	0.26	0.14	0.1	WKM3363-290	0.04	43	21	170	100	65	0.06
7	0.4	0.24	0.18	WKM3263-290	0.061	42	29	170	95	60	0.097
7	0.6	0.36	0.27	WKM4062-290	0.06	49	23	150	75	55	0.12
7	1.1	0.68	0.51	WKM4762-290	0.08	56	26	135	70	55	0.2
7	1.3	0.72	0.54	WKM5662-292	0.09	67	24	110	60	40	0.24
7	2.1	1.13	0.88	WKM5262-291	0.13	60	37	110	60	40	0.32
8	0.032	0.016	0.012	WK2065-300	0.013	26	12	280	160	100	0.012
8	0.048	0.028	0.021	WKM2364-300	0.015	29	14	230	130	85	0.02
8	0.057	0.03	0.023	WK3165-300	0.018	36	10	180	110	70	0.027
8	0.1	0.059	0.046	WKM2764-300	0.023	35	17	190	100	65	0.04
8	0.19	0.11	0.076	WKM3363-300	0.031	43	21	170	100	65	0.057
8	0.24	0.16	0.12	WKM3263-300	0.048	42	29	170	95	60	0.091
8	0.47	0.28	0.21	WKM4062-300	0.047	49	22	150	75	55	0.12
8	0.84	0.52	0.4	WKM4762-300	0.064	56	26	135	70	55	0.2
8	1	0.56	0.43	WKM5662-302	0.071	67	24	110	60	40	0.24
8	1.6	0.87	0.68	WKM5262-301	0.1	60	37	110	60	40	0.31
8	2.1	1.1	0.86	WKM5762-302	0.12	67	38	110	60	40	0.4
9	0.036	0.018	0.013	WK2365-305	0.01	30	14	240	130	85	0.018
9	0.083	0.042	0.03	WK2765-305	0.015	33	16	190	100	65	0.038
9	0.16	0.087	0.062	WK3363-306	0.023	42	18	180	90	60	0.061
9	0.32	0.17	0.12	WK3263-309	0.036	42	29	170	95	60	0.12
9	0.34	0.21	0.16	WKM4062-305	0.038	47	22	150	75	55	0.12
9	0.57	0.37	0.29	WKM4762-305	0.052	56	26	135	70	55	0.2
9	0.89	0.47	0.36	WKM5662-307	0.058	67	24	110	60	40	0.25
9	1.3	0.68	0.53	WKM5262-306	0.092	60	37	110	60	40	0.3
9	1.6	0.88	0.68	WKM5762-307	0.097	67	38	110	60	40	0.41
10	0.033	0.016	0.012	WK2365-310	0.009	30	14	240	130	85	0.018
10	0.042	0.021	0.016	WK3165-310	0.012	37	10.5	180	110	70	0.028
10	0.069	0.035	0.025	WK2765-310	0.013	33	16	190	100	65	0.038
10	0.14	0.075	0.052	WK3363-311	0.019	42	18	180	90	60	0.063
10	0.28	0.15	0.1	WK3263-313	0.03	42	29	170	95	60	0.12
10	0.24	0.15	0.12	WKM4062-310	0.03	47	22	150	75	55	0.11

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Current Iac/I <sub>dc</sub> Amps	Inductance vs current			Part number	Resistance DCR ohms	Dimensions		Ripple frequencies			Weight kg
	L0 mH	L1 mH	L1.4 mH			dia. mm.	ht. mm.	f 20% kHz	f 30% kHz	f 40% kHz	
10	0.49	0.31	0.23	WKM4762-310	0.042	57	30	135	70	55	0.2
10	0.79	0.4	0.3	WKM5662-312	0.048	67	24	110	60	40	0.26
10	1	0.56	0.43	WKM5262-311	0.072	60	37	110	60	40	0.3
10	1.3	0.72	0.54	WKM5762-312	0.077	67	38	110	60	40	0.41
10	2	1.1	0.84	WKM5862-314	0.105	67	53	110	60	40	0.59
11	0.035	0.018	0.013	WK3165-315	0.012	37	10.5	180	110	70	0.029
11	0.13	0.063	0.044	WK3363-316	0.016	42	18	180	90	60	0.064
11	0.26	0.13	0.088	WK3263-319	0.025	42	29	170	95	60	0.12
11	0.25	0.14	0.11	WK4062-316	0.03	49	24	130	80	55	0.11
11	0.51	0.26	0.18	WK4763-315	0.04	56	27	110	65	40	0.2
11	0.71	0.35	0.25	WKM5662-317	0.041	67	24	110	60	40	0.26
11	0.84	0.46	0.35	WKM5262-316	0.058	60	37	100	60	40	0.31
11	1.1	0.6	0.47	WKM5762-317	0.071	67	38	110	60	40	0.4
11	1.5	0.86	0.66	WKM5862-315	0.092	67	53	110	60	40	0.55
12	0.093	0.05	0.036	WK3363-320	0.013	42	18	180	90	60	0.063
12	0.19	0.11	0.086	WK4062-320	0.021	49	24	130	80	55	0.12
12	0.42	0.21	0.15	WK4763-320	0.031	56	27	110	65	40	0.2
12	0.5	0.27	0.2	WKM5662-322	0.034	67	24	110	60	40	0.24
12	0.66	0.38	0.29	WK5262-320	0.047	60	37	100	60	40	0.3
12	0.86	0.5	0.37	WKM5762-320	0.057	67	38	110	60	40	0.39
12	1.3	0.75	0.56	WKM5862-320	0.077	67	53	110	60	40	0.57
13	0.024	0.012	0.009	WK3165-325	0.0054	38	11	180	110	70	0.03
13	0.1	0.048	0.033	WK3363-326	0.011	42	18	180	90	60	0.067
13	0.2	0.096	0.066	WK3263-327	0.018	42	29	170	95	60	0.13
13	0.19	0.11	0.081	WK4062-326	0.019	46	20	160	80	60	0.12
13	0.31	0.19	0.15	WK4763-325	0.027	56	27	120	60	40	0.2
13	0.4	0.22	0.17	WK5662-327	0.032	67	23	100	60	40	0.22
13	0.58	0.32	0.24	WK5262-325	0.04	60	37	100	60	40	0.31
13	0.79	0.44	0.33	WKM5762-325	0.049	67	38	110	60	40	0.4
13	1.2	0.66	0.5	WKM5862-325	0.067	67	53	110	60	40	0.58
13	1.8	0.95	0.75	WKM7668-327	0.08	90	40	140	70	50	0.72
15	0.068	0.034	0.024	WK3363-341	0.01	42	18	180	90	60	0.062
15	0.14	0.068	0.048	WK3263-344	0.015	42	29	170	95	60	0.12
15	0.14	0.081	0.061	WK4062-342	0.015	49	24	130	80	55	0.12
15	0.24	0.15	0.11	WK4763-340	0.021	56	27	120	60	40	0.2
15	0.3	0.17	0.13	WK5662-342	0.022	67	23	110	60	40	0.23
15	0.46	0.25	0.19	WK5262-340	0.028	60	37	100	60	40	0.32
15	0.6	0.33	0.25	WK5762-341	0.034	67	38	110	60	40	0.41
15	0.9	0.5	0.38	WKM5862-341	0.046	67	53	110	60	40	0.59
15	1.4	0.73	0.57	WKM7668-342	0.057	90	40	140	70	50	0.75
15	1.8	1.1	0.9	WKM7767-344	0.075	91	54	130	60	45	1.07
18	0.048	0.022	0.014	WK3364-361	0.0068	42	18	180	90	60	0.057
18	0.096	0.044	0.029	WK3264-363	0.01	42	29	170	95	60	0.105
18	0.105	0.058	0.044	WK4062-362	0.01	49	24	130	80	55	0.13
18	0.18	0.11	0.079	WK4762-361	0.013	56	27	120	60	40	0.2
18	0.23	0.13	0.1	WK5662-362	0.015	67	23	110	60	40	0.25
18	0.35	0.19	0.14	WK5262-360	0.019	60	37	100	60	40	0.34
18	0.48	0.25	0.19	WK5762-360	0.024	67	38	110	60	40	0.44
18	0.72	0.38	0.28	WK5862-361	0.033	67	53	110	60	40	0.63
18	1.1	0.56	0.43	WKM7668-362	0.041	90	40	140	70	50	0.79
18	1.4	0.84	0.69	WKM7767-364	0.054	91	54	130	60	45	1.12
20	0.012	0.0061	0.0046	WK3165-371	0.0023	39	13	180	110	70	0.033
20	0.03	0.015	0.011	WK3364-371	0.0055	39	18	180	90	60	0.049
20	0.059	0.03	0.022	WK3264-373	0.0085	39	28	175	100	60	0.092

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	L0 mH	L1 mH	L1.4 mH			dia. mm.	ht. mm.	f 20% kHz	f 30% kHz	f 40% kHz	
20	0.072	0.043	0.033	WK4062-372	0.0086	49	24	130	80	55	0.12
20	0.15	0.077	0.054	WK4763-370	0.012	56	27	110	65	40	0.2
20	0.22	0.11	0.08	WK5662-372	0.013	67	23	110	60	40	0.26
20	0.32	0.16	0.12	WK5262-370	0.018	60	37	100	60	40	0.33
20	0.43	0.21	0.16	WK5762-370	0.02	67	38	110	60	40	0.44
20	0.65	0.32	0.24	WK5862-371	0.027	67	53	110	60	40	0.64
20	0.89	0.45	0.35	WKM7668-372	0.029	90	40	140	70	50	0.84
20	1.3	0.72	0.58	WKM7767-373	0.045	91	54	130	60	45	1.15
22	0.11	0.06	0.043	WK4763-380	0.01	56	27	110	65	40	0.2
22	0.16	0.08	0.065	WK5662-382	0.011	67	23	110	60	40	0.24
22	0.22	0.12	0.09	WK5262-380	0.014	60	37	100	60	40	0.31
22	0.31	0.16	0.13	WK5762-380	0.017	67	38	110	60	40	0.42
22	0.47	0.24	0.19	WK5862-380	0.023	67	53	110	60	40	0.6
22	0.81	0.4	0.3	WKM7668-382	0.025	90	40	140	70	50	0.84
22	1.13	0.64	0.5	WKM7767-384	0.038	91	54	130	60	45	1.18
25	0.0073	0.0037	0.0028	WK3165-396	0.0018	38	11	180	110	70	0.03
25	0.021	0.01	0.0072	WK3364-396	0.0036	39	16	210	115	75	0.054
25	0.029	0.017	0.013	WK4063-396	0.005	46	21	210	115	75	0.093
25	0.041	0.02	0.014	WK3264-398	0.0056	40	29	170	95	60	0.095
25	0.049	0.031	0.024	WK4763-396	0.0064	53	24	170	95	60	0.17
25	0.13	0.07	0.05	WK5662-392	0.009	67	23	110	60	40	0.24
25	0.26	0.14	0.1	WK5762-390	0.014	67	38	110	60	40	0.42
25	0.39	0.21	0.16	WK5862-390	0.019	67	53	110	60	40	0.61
24	0.58	0.31	0.24	WKM7668-392	0.021	90	40	140	70	50	0.8
24	0.88	0.51	0.4	WKM7767-394	0.03	91	54	130	60	45	1.18
30	0.011	0.0061	0.0045	WK3364-422	0.0028	38	15	210	115	75	0.049
30	0.022	0.012	0.009	WK3264-423	0.0042	38	27	175	100	60	0.091
30	0.02	0.012	0.009	WK4063-421	0.0037	47	21	210	115	75	0.089
30	0.033	0.021	0.017	WK4763-421	0.0047	54	25	170	95	60	0.17
30	0.043	0.029	0.022	WK5662-423	0.0062	65	22	140	80	55	0.19
30	0.086	0.058	0.045	WK5762-424	0.0091	65	37	130	75	50	0.34
30	0.13	0.087	0.067	WK5862-425	0.012	65	52	120	70	45	0.5
30	0.35	0.19	0.15	WK7668-421	0.015	87	38	140	70	50	0.76
30	0.46	0.27	0.23	WK7767-423	0.019	88	52	130	60	45	1.08
35	0.036	0.023	0.018	WK5662-448	0.0047	65	22	130	75	50	0.2
35	0.072	0.046	0.036	WK5762-449	0.0067	65	37	110	60	40	0.36
35	0.109	0.069	0.054	WK5862-450	0.0091	65	52	110	60	40	0.52
35	0.29	0.15	0.113	WK7668-446	0.011	90	40	140	70	50	0.8
35	0.37	0.22	0.181	WK7767-449	0.014	91	54	130	60	45	1.13
40	0.03	0.019	0.014	WK5662-473	0.0038	66	23	130	75	50	0.2
40	0.06	0.037	0.029	WK5762-474	0.0055	66	38	110	60	40	0.36
40	0.09	0.056	0.043	WK5862-475	0.0073	66	53	110	60	40	0.52
40	0.25	0.123	0.092	WK7668-472	0.0088	90	40	140	70	50	0.81
40	0.31	0.18	0.14	WK7767-474	0.011	91	54	130	60	45	1.14
45	0.19	0.1	0.071	WK7668-497	0.0063	90	40	140	70	50	0.86
45	0.25	0.14	0.125	WK7767-499	0.0082	91	54	130	60	45	1.21
50	0.14	0.072	0.055	WK7668-522	0.0054	90	40	140	70	50	0.79
50	0.19	0.108	0.089	WK7767-523	0.0071	91	54	130	60	45	1.12
55	0.131	0.079	0.066	WK7767-548	0.006	91	54	130	60	45	1.04
60	0.093	0.058	0.05	WK7767-573	0.0051	91	54	130	60	45	0.98