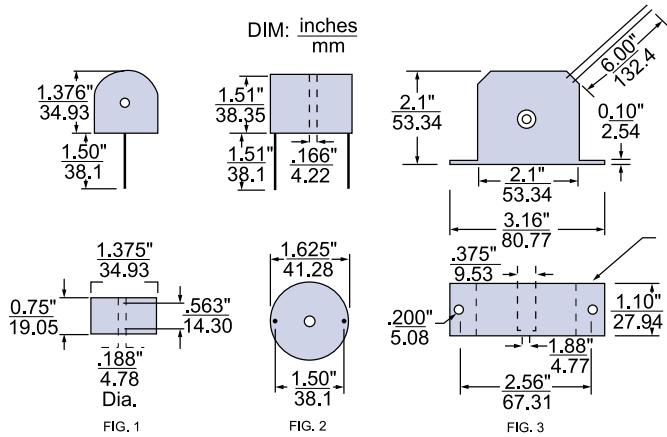


LIGHTING CHOKES

api technologies corp.

Lighting and Debuzzing Chokes

- Precision wound heavy-duty toroidal inductors
- Rugged design
- 120 volt models from 12.5 to 100 Amps
- 240 volt models from 8.3 to 60 Amps
- High quality noise rejection filter
- Ideal for lighting dimmers, EMI/RFI filters, PWM and PM circuits primarily for motor controls, UPS Systems, differential mode line filters



I= Load current

TR= Time taken for current to rise from 10% to 90% of its peak value

This factor and the rate of the current rise (slew rate)* determine the amount of noise reduction in the lamp

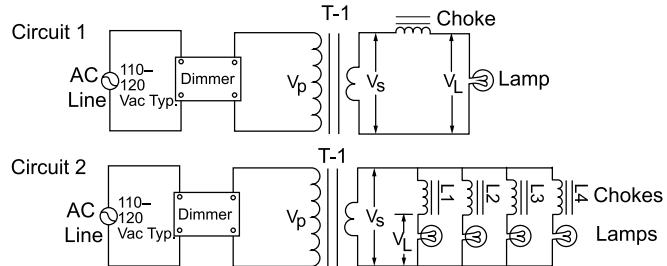
Vd= Voltage drop due to choke. (See circuits 1 and 2)

Tr= Approximate temperature rise (convection cooled)

L= Low level inductance +15
-7.5%



Typical Dimmer Circuits for Single & Multi-Lamp Loads



Vp= Primary side of transformer T-1

Vs= Secondary (Low voltage side) of transformer T-1

VL= Voltage seen at the load (Lamps)

Vd=Voltage drop due to choke (Vd= Vs-VL)

L1.L2.L3.L4, etc. + Debuzzing chokes. May or may not be the same type. **

*Foot mounting may be cut iff at factory or in the field and the center mounting hole he used only.

Architectural Lighting Debuzzing Chokes

Part No.	Lamp Voltage	I (Amps)	Load (Watts)	Tr (μS)	Vd (Volts)	Tr (°C)	DCR (Ohms)	L (mH)	Wire Ga.	Figure
101425-119091	12	4.167	50	500	0.625	69	0.11	1.38	19	1
	120	4.167	500	67	0.458	69	0.11	1.38	19	2
1328-118100	12	4.167	50	1060	0.798	56	0.14	1.51	18	2
	120	4.167	500	157	0.601	56	0.14	1.51	18	3
161859-117120	12	4.167	50	1070	0.588	44	0.11	1.15	17	3
	120	4.167	500	128	0.473	44	0.11	1.15	17	3
	12	6.25	75	1070	0.972	75	0.11	1.15	17	3
	120	6.25	750	134	0.719	75	0.11	1.15	17	3
161859-118125	12	4.167	50	1100	0.732	52	0.14	1.25	18	3
	120	4.167	500	134	0.597	52	0.14	1.25	18	3
1618-118127	12	4.167	50	1250	0.828	57	0.14	1.56	18	3
	120	4.167	500	156	0.617	57	0.14	1.56	18	3
162359-117115	12	4.167	50	1300	0.669	43	0.12	1.33	17	3
	120	4.167	500	154	0.514	43	0.12	1.33	17	3
	12	6.25	75	1300	1.12	74	0.12	1.33	17	3
	120	6.25	750	161	0.785	74	0.12	1.33	17	3

LIGHTING CHOKES

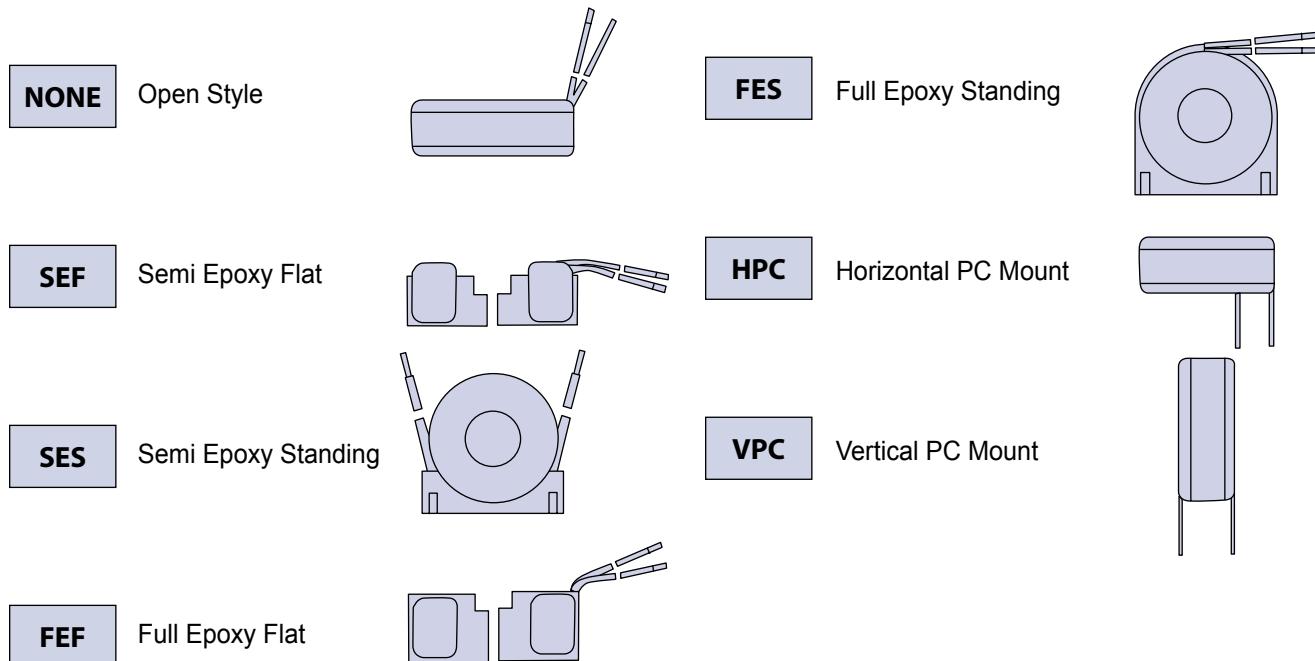
api
technologies corp.

Lighting Chokes

Part No.	I (Amp) (rms)	L Nom (mH)	Rise-Time @120V (μSec)	Temp. Rise @ 25°C (C°)	DCR @ 20°C (ohm)	Wound Dimensions (In)			Tot. Wt. (lbs)
						OD In	ID In	HT In	
1618-118116	5	1.380	143	66	0.149	1.7	0.75	0.75	0.290
1823-118116		2.229	253	68	0.183	1.97	0.75	0.89	0.486
2018-118158		2.318	230	71	0.207	2.13	1.05	0.73	0.423
2023-118158		3.000	298	73	0.234	2.13	1.05	0.9	0.521
2032-118158		4.214	418	75	0.282	2.13	1.05	1.18	0.695
2218-118179		2.980	294	73	0.241	2.38	1.2	0.73	0.520
2223-118179		3.847	379	75	0.272	2.38	1.2	0.89	0.639
2232-118179		5.419	535	78	0.327	2.38	1.2	1.18	0.857
1618-117102		1.067	124	51	0.107	1.71	0.73	0.77	0.306
1823-117102		1.724	219	55	0.130	1.98	0.73	0.91	0.505
1636-117102		2.135	248	56	0.156	1.71	0.73	1.34	0.540
2018-117140		1.820	201	55	0.148	2.14	1.03	0.75	0.445
2023-117140		2.356	260	57	0.168	2.14	1.03	0.91	0.546
2032-117140		3.309	365	60	0.202	2.14	1.03	1.2	0.725
2218-117159		2.351	257	57	0.174	2.39	1.18	0.75	0.546
2223-117159		3.035	332	60	0.195	2.39	1.18	0.91	0.669
2232-117159		4.275	468	62	0.234	2.39	1.18	1.2	0.891

Inductors

MOUNTING STYLES



INDUCTORS/FILTERS



Inductors

Part No.	I _{dc} (A)	I _{max} (A)	L ±10% (mH)	Temp Rise (°C)	DCR @ 20°C (ohm)	Tot. Wt. (lbs)
0508-01	5.7	9.4	0.011	26	0.018	0.018
0508-02	4.8	7.6	0.0161	28	0.021	0.017
0508-03	4.1	6.2	0.021	31	0.026	0.016
0508-04	3.6	5.2	0.027	34	0.032	0.015
0508-05	3.2	4.3	0.034	38	0.041	0.014
0508-06	2.7	3.5	0.047	41	0.056	0.014
0508-07	2.4	2.9	0.06	46	0.074	0.012
0508-08	2.1	2.4	0.08	51	0.1	0.012
0508-09	1.9	2	0.1	58	0.14	0.011
0508-10	1.4	1.4	0.15	65	0.26	0.01
0508-11	1	1	0.23	65	0.49	0.009
0812-01	6.3	12.3	0.033	20	0.02	0.055
0812-02	5.4	10	0.046	22	0.024	0.052
0812-03	4.8	8.4	0.057	24	0.03	0.049
0812-04	4.2	6.9	0.077	26	0.039	0.046
0812-05	3.7	5.8	0.096	30	0.05	0.044
0812-06	3.2	4.7	0.13	33	0.067	0.042
0812-07	2.9	3.9	0.16	36	0.091	0.04
0812-08	2.6	3.3	0.2	40	0.12	0.039
0812-09	2.3	2.8	0.26	45	0.17	0.037
0812-10	2	2.3	0.33	51	0.23	0.036
0812-11	1.8	1.9	0.42	56	0.33	0.035
0812-12	1.4	1.4	0.67	65	0.64	0.034
0812-13	0.95	0.95	1.05	65	1.25	0.032
1014-01	11.8	17.9	0.042	31	0.017	0.12
1014-02	10.4	14.8	0.055	34	0.02	0.11
1014-03	9.2	12.4	0.069	38	0.025	0.1
1014-04	8	10.2	0.09	42	0.031	0.1
1014-05	6.9	8.4	0.12	46	0.04	0.1
1014-06	6.2	7	0.15	52	0.052	0.09
1014-07	5.4	5.8	0.2	57	0.07	0.09
1014-08	4.8	4.8	0.26	64	0.095	0.09
1014-09	4	4	0.33	65	0.13	0.08
1414-01	14.1	21.8	0.048	30	0.017	0.187
1414-02	12.3	18	0.062	33	0.019	0.17
1414-03	10.6	14.7	0.085	36	0.024	0.16
1414-04	9.2	12.1	0.11	40	0.029	0.15
1414-05	8.2	10.1	0.14	44	0.037	0.15
1414-06	7.2	8.4	0.18	49	0.048	0.14
1414-07	6.4	7	0.23	55	0.063	0.14
1414-08	5.7	5.9	0.29	62	0.085	0.14
1414-09	4.9	4.9	0.38	65	0.117	0.13
1618-01	12.8	23.3	0.09	22	0.019	0.3
1618-02	11.3	19.4	0.11	25	0.022	0.28
1618-03	9.8	16	0.15	27	0.027	0.27
1618-04	8.7	13.3	0.19	30	0.034	0.26
1618-05	7.7	11	0.25	34	0.044	0.25
1618-06	6.9	9.2	0.31	38	0.057	0.24
1618-07	6	7.7	0.41	42	0.077	0.23
1618-08	5.3	6.4	0.51	46	0.1	0.22
1618-09	4.7	5.4	0.65	52	0.14	0.22
1618-10	4.2	4.5	0.82	58	0.2	0.21
1618-11	3.7	3.7	1.05	65	0.27	0.21
1618-12	3.2	3.2	1.29	65	0.38	0.2

Part No.	I _{dc} (A)	I _{max} (A)	L ±10% (mH)	Temp Rise (°C)	DCR @ 20°C (ohm)	Tot. Wt. (lbs)
2018-01	16.1	19.7	0.15	50	0.022	0.43
2018-02	14.4	16.4	0.19	54	0.027	0.41
2018-03	12.5	13.5	0.26	58	0.03	0.39
2018-04	11	11.2	0.33	63	0.045	0.38
2018-05	9.4	9.4	0.41	65	0.06	0.36
2018-06	7.8	7.8	0.53	65	0.08	0.35
2018-07	6.5	6.5	0.68	65	0.11	0.34
2018-08	5.4	5.4	0.85	65	0.14	0.33
2018-09	4.6	4.6	1.07	65	0.2	0.32
2223-01	16.1	18.8	0.25	54	0.026	0.65
2223-02	14	15.4	0.33	58	0.033	0.63
2223-03	12.4	12.8	0.42	62	0.043	0.6
2223-04	10.6	10.6	0.54	65	0.057	0.58
2223-05	8.9	8.9	0.67	65	0.075	0.56
2223-06	7.4	7.4	0.86	65	0.1	0.55
2223-07	6.2	6.2	1.1	65	0.14	0.53
2223-08	5.2	5.2	1.39	65	0.19	0.52
2223-09	4.3	4.3	1.77	65	0.27	0.51
2626-01	19.7	22.1	0.27	57	0.024	0.98
2626-02	17.6	18.5	0.34	61	0.029	0.94
2626-03	15.4	15.4	0.43	65	0.037	0.91
2626-04	12.8	12.8	0.55	65	0.048	0.88
2626-05	10.7	10.7	0.7	65	0.064	0.86
2626-06	8.9	8.9	0.9	65	0.087	0.84
2626-07	7.4	7.4	1.15	65	0.12	0.82
2626-08	6.2	6.2	1.45	65	0.16	0.81
2626-09	5.2	5.2	1.82	65	0.22	0.79
2626-10	4.4	4.4	2.31	65	0.31	0.78
2734-01	21.3	20.1	0.35	56	0.02	1.41
2734-02	18.5	20.1	0.46	60	0.03	1.37
2734-03	16.4	16.7	0.59	64	0.04	1.32
2734-04	14.1	14.1	0.73	65	0.05	1.28
2734-05	11.8	11.8	0.91	65	0.06	1.24
2734-06	9.9	9.9	1.14	65	0.08	1.21
2734-07	8.3	8.3	1.44	65	0.11	1.18
2734-08	6.9	6.9	1.81	65	0.15	1.16
2734-09	5.8	5.8	2.3	65	0.2	1.14
2734-10	4.9	4.9	2.91	65	0.28	1.12
2734-11	4.1	4.1	3.7	65	0.4	1.11

- For 0508/0812 series, I_{dc} is the DC current at which the inductance drops by 30%, or the temperature rises by 65°C, whichever is smaller
- For 1014 through 1618 series, the I_{dc} is the DC current at which the inductance drops by 40%, or the temperature rises by 65°C, whichever is smaller
- For 2018 through 2734 series, I_{dc} is the DC current at which the inductance drops by 50%, or the temperature rises by 65°C, whichever is smaller
- Temperature rise shown is at stated I_{dc}.
- I_{max} is the continuous DC current at which the temperature rise is 65°C
- L is the low-level inductance, derived from given AL values
- DCR is at 20°C

INDUCTORS/FILTERS

Inductors for DC Applications

- Small size
- Low price
- Repeatable performance
- High reliability
- Delivery in 2 weeks or less
- Many mounting options available
- Other values not listed also available

Applications

- Suitable for EMI/RFI noise filtering
- Filter out ripple in DC rectification circuits
- Noise Rejection
- Power filtering from DC to 50MHz
- For switch mode power regulator controls and other energy storage circuits

