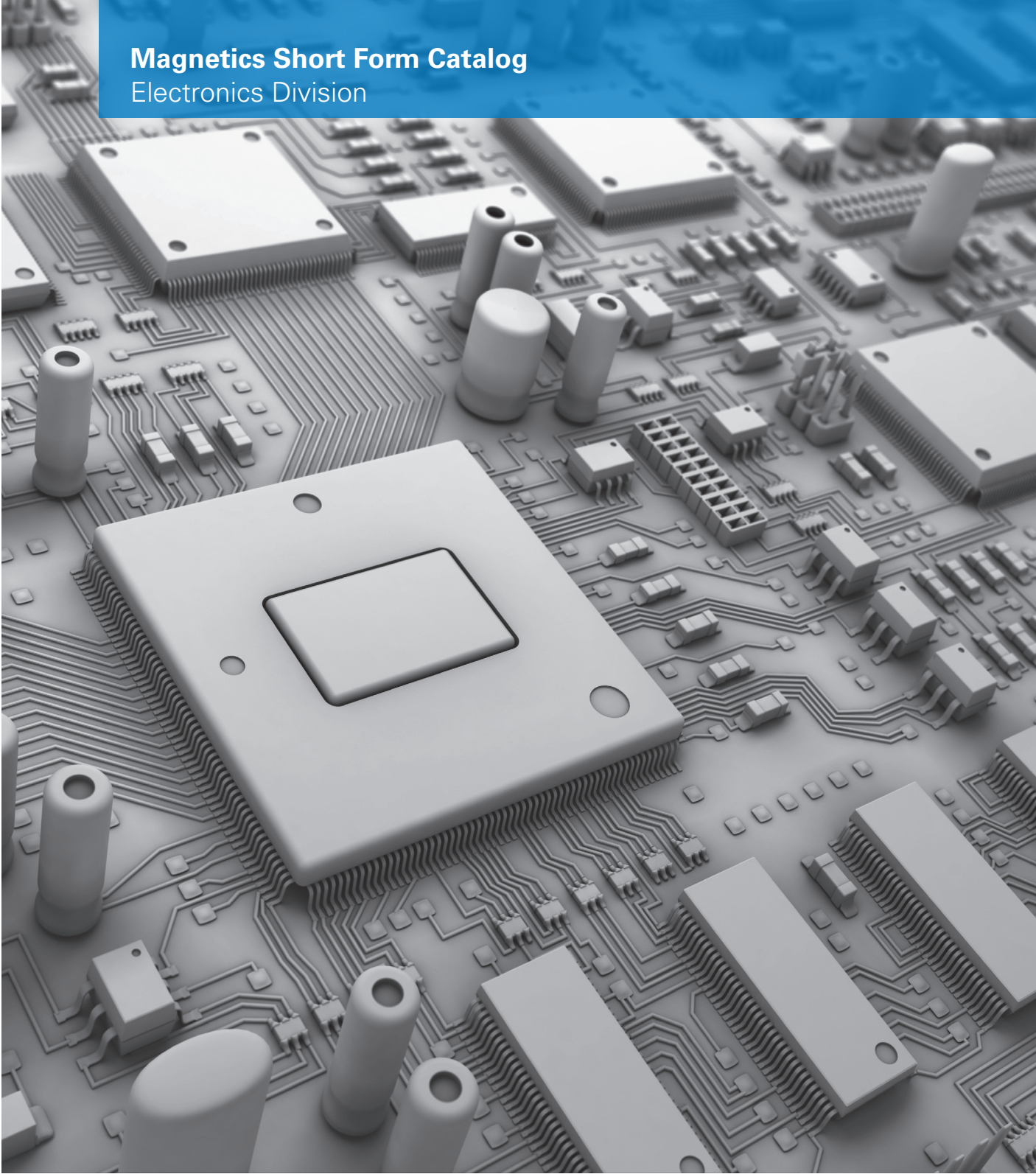


**Magnetics Short Form Catalog**  
Electronics Division



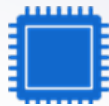
*Powering Business Worldwide*

## Eaton Electronics Product Selection Tools



### PARAMETRIC SEARCH

Drill down into the Eaton Electronics product database to find the right part for your application.



### IC MATCHING

Find the Eaton Electronics parts called out on IC manufacturers' demo and evaluation boards.



### CROSS REFERENCE

Find a cross to a competitor's product or to an alternate Eaton Electronics part number.



### SUPERCAPACITOR CALCULATOR

Determine your calculated requirements and design capability.

[tools.eatonelectronics.com](https://tools.eatonelectronics.com)

## Automotive Products

*DRA, DRAQ, HCMA, MPIA*



## High Current Inductors

*MPI, HCM, HCx, FPx*



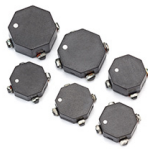
## Shielded Drum Inductors

*DR, SD*



## Surface Mount Power Inductors

*LD, UP (Uni-Pac), CTX\_-1x (Octa-Pac, Econo-Pac)*



## Through-Hole Power Inductors

*LCPI, RL*



## Multi-Phase & V-Core

*FP, CL*



## Common-Mode Inductors

*CMS*



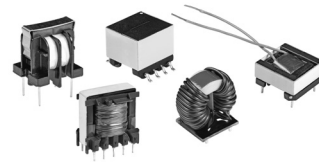
## Transformers

*VP (Versa-Pac), POE*



## Custom Magnetics

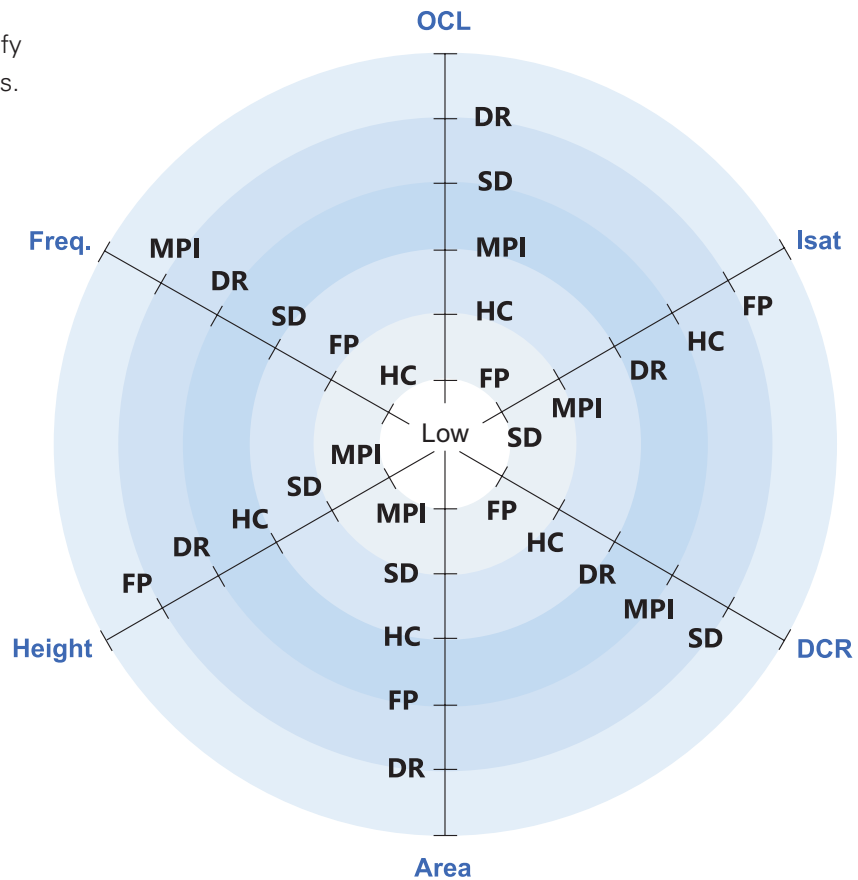
*Inductors and Transformers*



## Quick-Look Product Selector

Use the radar chart to quickly identify products to meet your requirements.

- DR = DR, DRQ, DRA, DRAQ
- SD = SD, SDQ
- FP = FP/FP2/FP4, FPV, FPT, CL, CLB, HC1/2/3, HCF
- HC = HCM, HCMA, HCM1A, HCP, HC7/8/9, FP3
- MPI = MPI, MPIA



## DRA and DRAQ High Power Shielded Inductors

- AEC-Q200 qualified
- 165°C maximum total temperature operation
- Ferrite core material

- Rugged construction for high shock and vibration environments
- Magnetically shielded - reduces EMI
- Dual winding option, DRAQ



	Inductance (μH)		Isat Current (A)		Irms Current (A)		DCR Max. (Ω)		Size (mm)			
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	L	W	H	
<b>Single Winding</b>												
DRA73	0.29	992	0.24	14.8	0.24	8.4	0.0048	6.18	7.6	7.6	3.6	
DRA74	0.29	1002	0.29	18.4	0.26	7.3	0.0064	5.02	7.6	7.6	4.4	
DRA124	0.42	1001	0.63	30.8	0.38	13.5	0.0028	3.52	12.5	12.5	4.5	
DRA125	0.45	993	0.70	33.2	0.55	14.7	0.003	2.13	12.5	12.5	6.0	
DRA127	0.41	999	1.10	56.0	0.60	15.9	0.003	2.10	12.5	12.5	8.0	
<b>Dual Winding</b>												
DRAQ127	9.63	192	2.54	11.2	1.31	6.02	0.022	0.444	12.5	12.5	8.0	

## HCM1A High Current Shielded Inductors

- AEC-Q200 qualified
- 155°C maximum total temperature operation
- Iron powder core material

- Low core losses
- Magnetically shielded



	Inductance (μH)		Isat Current (A)		Irms Current (A)		DCR Max. (mΩ)		Size (mm)		
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	L	W	H
HCM1A0503	0.2	15	2.1	24	1.8	16	2.3	180	5.5	5.3	3.0
HCM1A0703	0.1	33	2.3	36	1.6	22	1.4	242	7.4	7.0	3.0
HCM1A0805	3.3	100	2.7	10	1.5	8	10	265	8.3	8.0	5.4
HCM1A1104	0.2	100	3.0	40	1.9	32	0.72	265	11.5	10.3	4.0
HCM1A1305	0.1	33	7.0	80	4.0	46	0.59	86	13.8	12.5	5.0
HCM1A1307	0.22	33	6.0	100	4.8	48	0.70	34	13.7	13.0	6.5
HCM1A1707	1.0	68	6.0	42	5.2	53	1.6	85	17.5	17.2	7.0

## HCMA High Current Shielded Inductors

- AEC-Q200 qualified
- 125°C maximum total temperature operation
- Iron powder core material

- Low core losses
- Magnetically shielded



	Inductance (μH)		Isat Current (A)		Irms Current (A)		DCR Max. (mΩ)		Size (mm)		
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	L	W	H
HCMA0503	0.20	22	1.9	21	1.9	22	2.30	270	5.5	5.3	3
HCMA0703	0.15	33	2.2	52	1.8	26	2.50	242	7.4	7.0	3
HCMA1104	0.20	22	5.5	45	5.0	32	0.72	66	11.5	10.3	4
HCMA1305	0.10	33	8.0	118	5.2	55	0.59	86	13.8	12.5	5
HCMA1707	1.5	68	6.5	40	5.2	40	2.15	85	17.5	17.2	7

## MPIA High Power Density Composite Inductors

- AEC-Q200 qualified
- Very soft saturation roll-off
- 125°C maximum total temperature operation

- Rugged construction
- Magnetically shielded



	Inductance (μH)		Isat Current (A)		Irms Current (A)		DCR Max. (mΩ)		Size (mm)		
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	L	W	H
MPIA4040	0.09	22.0	1.8	32.	1.1	10.1	6.4	490	4.7	4.3	1.2 - 2.0

# Computing (Vcore, multi-phase, VRM, POL) Solutions

## FP High Current Inductors

- High frequency
- Ferrite core material
- Tight tolerance DCR
- High current carrying capacity
- Small size, open bottom, lower DCR, and vertical versions



	Inductance (nH)		Isat Current (A)		Irms Current (A)		DCR Typ. (mΩ)		Size (mm)		
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	L	W	H
FP0404	22	110	14	40	19		0.32		4.0	4.0	3.0 - 4.0
FP0505R		100		34	30		0.38		5.0	5.0	4.8
FP0705	72	220	20	65	32	43	0.25	0.46	7.0	7.0	5.0
FP2	50	500	9.0	70	16	39	0.13	0.65	7.2	6.7	3.0 - 5.0
FP0708	72	200	36	90		44		0.35	8.5	7.0	7.2
FP0805	32	200	20	110		65		0.17	7.6	7.5	5.0
FP0807	70	220	35	108		45		0.50	7.6	7.4	7.0
FP0906	100	300	33	94		51		0.29	9.6	6.5	8.0
FP1005	85	220	33	90	45	53	0.39	0.55	10.2	7.0	5.0
FP1006	85	220	38	100	45	53	0.27	0.36	10.2	8.0	6.0
FP4	100	200	30	64	33	40	0.42	0.65	10.2	6.8	5.0
FP1007	115	300	32	94	51	61	0.29	0.48	10.4	8.0	6.5 - 7.5
FP1007R6	150	470	24	75		61		0.29	10.5	8.0	7.0
FP1008	120	180	64	100		63		0.17	10.8	8.0	8.0
FP1008L	100	150	50	75		65		0.17	9.6	6.4 - 7.5	8.0
FP1008R1/R2	120	300	38	112	74	79	0.17	0.18	10.8	8.0	8.0
FP1105	100	226	39	81		46		0.35	11.0	8.0	4.9
FP1107	70	510	18	140	42	55	0.29	0.47	11.0	7.2	7.2 - 7.5
FP1108	100	210	55	100		65		0.29	11.0	8.0	7.5
FP1108B		180		63		40		0.29	11.6	8.0	8.0
FP1108L1/L2	105	180	47	81	48	64	0.10	0.18	11.0	8.2	8.3
FP1108L3/L4	105	180	33	57		91		0.05	11.0	8.0	8.0
CTX01-18738-R		210		55		50		0.29	11.0	8.0	7.5
FP1109	205	950	12	69		35		0.42	11.2	11.2	9.0
FP1109B	150	330	38	80		55		0.19	11.0	8.2	9.0
FP1110V1	195	320	42	70		61		0.23	10.5	7.5	9.5
FP1110V2		200		65		61		0.18	10.5	6.2	9.5
FP1206	120	400	24	88		50		0.43	12.0	8.0	6.0
FP1208	150	250	55	85		50		0.29	12.1	8.0	8.0
FP1308R	110	440	37	120	45	68	0.18	0.53	13.4	12.7	8.0
FP1309B	100	150	80	100		60		0.19	12.8	8.3	8.8
FP1505	100	400	24	105		53		0.47	15.0	7.0	5.0

## High Current Inductors – Zero Voltage Switching (ZVS)

- Ferrite core material
- Magnetically shielded
- Compatible with Picor® Cool-Power® ZVS Buck and Buck- Boost Regulator Families



	Inductance (nH)		Isat Current (A)		Irms Current (A)		DCR Typ. (mΩ)		Size (mm)		
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	L	W	H
<b>Dual conductor, two-turn construction</b>											
FPT705	170	300	17	31		13		0.65	7.5	8.3	5.3
FPT1006	340	580	23	41		19		1.00	10.3	8.7	6.4
FPV1507	500	650	31	40		20		1.15	15.1	8.6	6.6
<b>Single conductor, multi-turn winding</b>											
FPV1006	85	150	45	81		25		0.41	10.3	8.7	6.4
FP1507R		185		40		45		0.52	15.1	8.5	6.7
HCV1206	420	3000	13	42	11	16	3.15	7.4	12.7	10.2	5.1

## Multi-phase Coupled Inductors

- High current multi-phase inductor
- Ferrite core material
- Designed exclusively for use with Volterra® or Maxim® VPR-Devices



	Number of Phases		Inductance per Phase (nH)	DCR Typ. (mΩ)	Size (mm)			
	Min.	Max.	Max.	Max.	L	W	H	
CL0904	2	3	50	0.35	20.5 - 27.8	8.5	4.0	
CL1108	2	5	50	0.28	18.5 - 45.8	11.5	8.0	
CLB1108	2	5	50	0.28	18.5 - 45.8	11.5	8.0	
CL0608		2	100	0.89	10.5	6.8	8.0	
CTX17-18913-R3		2	100	0.30	18.5	11.5	10.0	
CL1208	2	6	100	0.45	1	2.5 - 36.5	12.0	8.5

## MPI High Power Density Composite Inductors

- Rugged construction
- Magnetically shielded

- High frequency, high current
- High power density



	Inductance (μH)		Isat Current (A)		Irms Current (A)		DCR Max. (mΩ)		Size (mm)		
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	L	W	H
MPI2520	0.5	10	1.2	4.8	1.1	4.5	34	468	2.7	2.2	1.0 - 1.2
MPI4040	0.1	22	1.8	32.0	1.1	10.1	6.4	490	4.7	4.3	1.2 - 2.0

## HC High Current Inductors – Iron Powder

- Iron powder core material
- Magnetically shielded, low EMI

- High current carrying capacity, low core losses

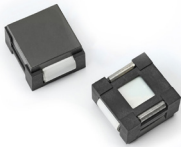


	Inductance (μH)		Isat Current (A)		Irms Current (A)		DCR Max. (mΩ)		Size (mm)		
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	L	W	H
HCM0503	0.2	22.0	1.9	21	1.9	22	2.3	270	5.5	5.3	3.0
HCM0703	0.2	33.0	2.2	52	1.8	26	2.5	242	7.4	7.0	3.0
HCM1103	0.1	22.0	5.0	75	3.0	30	0.61	99	11.5	10.3	3.0
HCM1104	0.2	22.0	5.5	45	5.0	32	0.72	66	11.5	10.3	4.0
HCM1305	0.1	33.0	8.0	11.8	5.2	55.	0.6	86	13.8	12.5	5.0
HCM1307	0.5	3.3	40.0	63	15.0	38	1.2	5	14.2	13.0	6.5
HCM1707	1.5	68.0	6.5	40	5.2	40	2.2	85	17.5	17.2	7.0
HCP0605		0.095		20		53		0.4	6.1	5.3	5.0
HCP0704	0.4	4.7	8.0	27	5.0	17	3.5	33	6.8	6.8	4.0 - 4.2
HCP0805	0.4	2.2	14.0	32	10.0	20	3.3	12	7.9	7.6	5.0
FP3	0.1	14.9	2.5	35	2.2	19	1.2	127	7.3	6.7	3.0

## HC High Current Inductors – Ferrite

- Ferrite core material
- Low profile

- Low core losses with high DC bias
- High current



	Inductance (μH)		Isat Current (A)		Irms Current (A)		DCR Max. (mΩ)		Size (mm)		
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	L	W	H
HCF1007	0.3	10	5.3	48	9.4	30	0.99	9.2	10.3	8.1	6.7
HCF1305	0.5	4.7	10.4	36	10.9	32	1.00	7.2	12.5	12.5	5.0
HC1	0.2	10.5	5.3	40.5	12.8	51	0.36	5.7	13.0	13.0	10.0
HC2LP	0.5	6.0	16.5	63.8	17.0	53	0.60	4.6	19.2	19.2	11.2
HC3	0.5	6.5	30	120	33.8	78	0.42	2.2	25.3	30	17.5 - 18

## HC High Current Inductors – High Temperature Shielded Inductors

- 155°C maximum total operating temperature
- Low DCR


- High efficiency



	Inductance (μH)		Isat Current (A)		Irms Current (A)		DCR Max. (mΩ)		Size (mm)		
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	L	W	H
HC8	0.175	47.3	4.2	76	2.2	39.0	0.8	237	10.9	10.4	4.0
HC8LP	0.170	47.9	3.1	56	1.8	29.0	1.4	344	10.9	10.4	3.3 - 3.5
HC9	0.219	49.2	5.7	95	3.7	46.7	0.5	72	13.4 - 14.10	13.1	7.5
HC7	0.220	4.8	17.3	87	9.8	35.8	0.67	9	13.8 - 14.25	13.0	5.5 - 6.0

## DR and DRQ High Power, Shielded Inductors

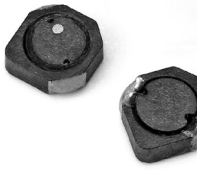
- High power density
- High efficiency
- Magnetically shielded drum
- Dual winding available, DRQ
- Secure mounting
- Ferrite core material



	Inductance (μH)		Isat Current (A)		Irms Current (A)		DCR Typ. (mΩ)		Size (mm)		
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	L	W	H
<b>Single Winding</b>											
DR73	0.306	995	0.250	14.4	0.26	6.2	8.5	5060	7.6	7.6	3.6
DR74	0.294	1009	0.310	18.4	0.27	6.3	8.6	4540	7.6	7.6	4.4
DR1030	1.100	155	0.860	9.5	0.68	7.0	8.0	700	10.5	10.3	3.0
DR1040	1.400	323	0.700	10.0	0.52	6.5	8.0	1090	10.5	10.3	4.0
DR1050	0.700	1000	0.480	13.5	0.43	9.7	4.0	1950	10.5	10.3	5.0
DR124	0.420	998	0.530	24.4	0.44	16.0	2.7	3500	12.5	12.5	4.5
DR125	0.456	120630	0.069	33	0.06	17.6	2.1	175000	12.5	12.5	6.0
DR127	0.419	1005	1.140	56	0.61	17.9	2.3	1940	12.5	12.5	8.0
<b>Dual Winding</b>											
DRQ73	0.306	3980	0.130	14.4	0.128	6.2	6.0	17,400	7.6	7.6	3.6
DRQ74	0.294	4036	0.160	18.4	0.135	6.2	6.0	15,600	7.6	7.6	4.5
DRQ125	0.470	4032	0.350	33.0	0.283	17.6	2.0	6,800	12.5	12.5	6.0
DRQ127	0.419	4020	0.571	56.0	0.307	17.9	2.0	6,800	12.5	12.5	8.0

## SD and SDQ High Power, Shielded Inductors

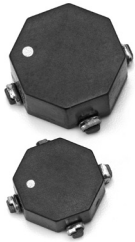
- High power density
- Dual winding available, SDQ
- Ferrite core material
- Low profile shielded drum



	Inductance (μH)		Isat Current (A)		Irms Current (A)		DCR Max. (Ω)		Size (mm)		
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	L	W	H
<b>Single Winding</b>											
SD10	0.45	468	0.11	3.5	0.12	2.59	0.025	12.10	5.2	5.2	1.0
SD12	0.49	992	0.09	3.9	0.12	3.19	0.025	17.20	5.2	5.2	1.2
SD14	0.61	1008	0.12	4.8	0.13	3.52	0.022	15.80	5.2	5.2	1.5
SD18	0.49	1004	0.10	4.6	0.14	3.58	0.020	14.01	5.2	5.2	1.8
SD20	0.49	1005	0.88	4.0	0.17	3.59	0.020	8.73	5.2	5.2	2.0
SD25	0.47	1003	0.13	6.0	0.22	3.88	0.018	5.70	5.2	5.2	2.5
SD3110	0.44	219	0.12	2.3	0.11	1.54	0.042	9.46	4.0	3.1	1.0
SD3112	1.10	219	0.12	1.7	0.12	1.39	0.069	9.12	3.6	3.1	1.2
SD3114	1.20	330	0.14	2.4	0.11	1.60	0.058	11.78	3.7	3.1	1.4
SD3118	1.00	999	0.08	3.1	0.09	2.01	0.041	21.00	3.9	3.2	1.8
SD3814	0.36	680	0.10	4.4	0.10	2.81	0.020	15.78	4.8	4.0	1.4
SD53	1.10	100	0.45	4.8	0.44	3.25	0.017	0.69	5.2	5.7	3.0
SD6020	1.99	94	0.36	2.2	0.42	4.20	0.030	1.00	6.0	6.0	2.0
SD6030	2.70	659	0.16	2.6	0.27	4.08	0.013	3.50	6.0	6.0	3.0
SD7030	1.50	677	0.21	4.5	0.28	5.50	0.010	3.20	7.0	7.0	3.0
SD8328	2.70	97	0.80	4.5	0.80	6.60	0.012	0.33	9.5	8.3	3.0
SD8350	1.50	99	1.30	9.1	0.80	5.50	0.012	0.32	9.5	8.3	4.5
<b>Dual Winding</b>											
SDQ12	0.49	331	0.167	4.34	0.154	2.78	0.0325	10.49	5.2	5.2	1.2
SDQ25	0.39	4033	0.063	6.43	0.08	3.71	0.0181	39.26	5.2	5.2	2.5

## Dual Winding Toroidal Power Inductors

- Dual winding inductors that can be used as either a single inductor, or in coupled inductor/transformer applications (1:1 turns ratio)
- Closed magnetic path, low EMI
- Low core loss



	Inductance ( $\mu$ H)		Current (A)		DCR Max. ( $\Omega$ )		Size (mm)		
	Min.	Max.	Min.	Max.	Min.	Max.	L	W	H
CTX__-1	0.40	1210	0.1	5.5	0.005	5.7	11.4	8.9	4.2
CTX__-2	0.42	1203	0.2	6.5	0.005	4.9	11.4	8.9	6.0
CTX__-3	0.38	1204	0.2	6.0	0.005	3.1	14.0	11.4	4.8
CTX__-4	0.44	1192	0.3	7.0	0.004	2.7	14.0	11.4	6.4
CTX__-1P	0.42	1199	0.2	5.5	0.005	6.1	11.4	8.9	4.2
CTX__-2P	0.54	1201	0.2	5.9	0.006	4.7	11.4	8.9	6.0
CTX__-3P	0.46	1194	0.3	6.2	0.006	3.7	14.0	11.4	4.8
CTX__-4P	0.49	1196	0.3	7.9	0.005	4.0	14.0	11.4	6.4

	Inductance ( $\mu$ H)		Isat Current (A)		Irms Current (A)		DCR Max. (m $\Omega$ )		Size (mm)		
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	L	W	H
CTX__-1A	0.33	1203	0.2	12.5	0.280	10.0	0.0037	4.7	11.4	8.9	4.2
CTX__-2A	0.33	1215	0.3	18.8	0.290	10.9	0.003	4.7	11.4	8.9	6.0
CTX__-3A	0.33	1185	0.3	15.0	0.280	11.4	0.003	5.2	14.0	11.4	4.8
CTX__-4A	0.33	1211	0.4	22.5	0.370	12.2	0.003	3.1	14.0	11.4	6.4

## CMS Toroidal Common-Mode Inductors

- Common mode inductor
- 160°C maximum total temperature
- Frequency range up to 100MHz
- Noise attenuation up to 44dB



	Inductance ( $\mu$ H)		Irms Current (A)		DCR Typ. ( $\Omega$ )		Size (mm)		
	Min.	Max.	Min.	Max.	Min.	Max.	L	W	H
CMS1	8	205	0.85	7.0	0.003	0.19	9.4	7.2	2.6
CMS2	25	1340	0.50	6.0	0.004	0.62	11.4	8.9	6.0
CMS3	28	1310	0.75	5.7	0.005	0.03	14.0	11.4	6.0

## UP Unshielded Drum Core Power Inductors

- Designed for high shock environments
- Ferrite core material
- Rugged construction



	Inductance ( $\mu$ H)		Isat Current (A)		Irms Current (A)		DCR Max. (m $\Omega$ )		Size (mm)		
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	L	W	H
UP0.4C	1.20	100	0.35	3.7	0.37	2.88	30	1580	6.6	4.5	2.9
UP1B	0.57	332	0.3	7.7	0.28	6.00	9.7	3100	8.9	6.1	5.0
UP2B	0.60	1005	0.3	11.4	0.37	10.60	4.9	2960	14.0	10.4	6.0
UP2.8B	0.98	150	0.7	8.0	0.62	3.60	28.6	971	12.9	9.4	2.8
UP2C	0.48	1080	0.4	18.6	0.38	12.20	2.9	3100	12.9	9.4	5.2
UP2UC	1.00	1000	0.3	9.0	0.30	6.80	9.0	3000	13.0	9.5	5.2
UP3B	0.45	330	1.0	25.1	0.75	16.00	2.1	733	19.3	13.2	6.8
UP4B	0.47	470	1.7	51.7	0.91	19.20	1.9	833	22.1	15.0	7.9
UP5	1.00	1000	1.0	20.0	0.56	8.60	9.0	1800	18.7	15.3	7.5



## LD Metalized, Unshielded Drum Core Inductors

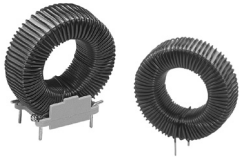
- Metalized, unshielded drum core
- Ferrite core material
- Noise filtering and output filter chokes



	Inductance ( $\mu\text{H}$ )		Isat Current (A)		Irms Current (A)		DCR Max. ( $\text{m}\Omega$ )		Size (mm)		
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	L	W	H
LD1	1	330	0.3	4.5	0.22	2.66	33	4700	4.8	4.3	3.5
LD2	10	470	0.6	3.5	0.74	3.83	70	1960	8.1	7.3	5.3

## LCPI Vertical, Horizontal and Header Mounted Through-Hole Toroidal Inductors

- Self-leaded and header mounted toroidal inductors
- Low loss, iron powder cores with stable electrical operating characteristics
- Vertical and horizontal configurations



	Inductance ( $\mu\text{H}$ )		Isat Current (A)		Irms Current (A)		DCR Max. ( $\text{m}\Omega$ )		Mounting Style
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
CTX-52	10.10	1004	1.9	29.5	1.5	31.5	0.003	0.64	Vertical
CTX-52LP	10.10	1004	1.9	29.5	1.5	31.5	0.003	0.64	Horizontal
CTX-52M	10.10	1004	1.9	14.5	1.5	11.4	0.008	0.64	Header

## RL Through-Hole Unshielded Inductors

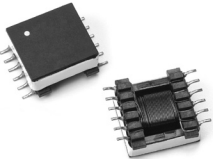
- Radial leaded, unshielded drum core
- Protective sleeving over winding
- Ferrite core



	Inductance ( $\mu\text{H}$ )		Isat Current (A)		Irms Current (A)		DCR Max. ( $\text{m}\Omega$ )		Size (mm)		
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	L	W	H
RL0607	6.80	1500	0.1	1.8	0.17	2.23	38	7200	5.7	5.7	7.3
RL0809	9.65	32997	0.04	2.5	0.06	2.90	31	79000	7.9	7.9	9.0
RL1011	4.43	2204	0.3	7.1	0.26	4.60	17	4580	9.5	9.5	10.5
RL1218	4.47	12000	0.3	15.0	0.20	5.65	17	14100	12.2	12.2	18.0

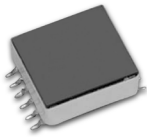
## VP Surface-Mount Configurable Inductor/Transformers

- High power density, low profile configurable transformers
- Multi-winding (six total)
- Ferrite core material
- Low radiated noise and tightly coupled windings
- Over 500 configurable combinations



Family	Inductance (μH)		Isat Current (A)		Irms Current (A)		DCR Max. (mΩ)		Size (mm)		
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	L	W	H
VP1	3.8	201	0.04	1.37	0.55	0.85	0.145	0.344	13	12.9	6.2
VP2	3.2	160	0.10	2.50	0.95	1.26	0.090	0.159	16.8	16.3	7.8
VP3	3.8	132	0.10	1.73	0.97	1.47	0.061	0.140	22.3	17.1	8.4
VP4	3.8	160	0.11	2.18	1.41	1.70	0.057	0.083	24.6	18.0	10.0
VP5	3.4	173	0.14	4.59	1.70	2.08	0.047	0.071	28.5	21.0	10.8

## Power-over-Ethernet (PoE) Configurable Transformers



- Versatile design allows for multiple output variations
- Flyback and forward topology
- Low leakage inductance
- Ferrite core material

Family	Power (W)	Input (V)		Primary Inductance (μH)	Secondary Outputs@Currents	DCR Primary (Ω)	DCR Secondary (Ω)		Leakage Inductance (μH)		Size (mm)		
		Min.	Max.				Min.	Max.	Min.	Max.	L	W	H
PoE4	4	29.5	60	200	3 x 3.3 V @ 0.45 A 3 x 5.0 V @ 0.3 A 2 x 12 V @ 0.2 A	0.50	0.07	0.740	1.4	2.75	22.3	17.1	8.4
PoE7	7	29.5	60	100	3 x 3.3 V @ 0.75 A 3 x 5.0 V @ 0.5 A 2 x 12 V @ 0.3 A	0.28	0.03	0.250	1.0	1.0	22.3	17.1	8.4
PoE13	13	29.5	60	100	3 x 3.3 V @ 1.35 A 3 x 5.0 V @ 0.9 A 2 x 12 V @ 0.6 A 7.0V @ 1.1A, 3.3V @ 1.1A, 1.8V @ 1.1 A 5.0V @ 1.6A, 3.3 V @ 1.6 A	0.25	0.025	0.280	1.0	1.5	24.6	18.0	10.0
PoE26	26	29.5	60	160	2 x 3.3 V @ 4.0 A 5.0 V @ 2.6 A	0.10	0.03	0.050	1.0	1.0	28.5	21.5	10.8

Custom Capabilities

Eaton’s Electronics Division leadership in custom solutions is derived from our in-depth understanding of applications, modeling tools, and customer needs to maximize device performance. We offer transformers, inductors, and planar form factors which can be build to print or fully designed by our team.

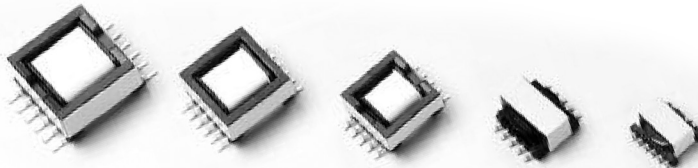
Standard Geometry Custom Inductors

- Power range from 1 Watt to 120 Watts
- Frequency range from 20kHz to 500kHz
- High power density and low radiated noise
- Ferrite core material

Standard Geometries Sizes 1 to 9 Core and Bobbin Parameters

Specifications	SG1	SG2	SG3	SG4	SG5	SG6	SG7	SG8	SG9
Core	ER 11/5	ER 14.5/6	EFD 15	EFD 17	EFD 20	EE8.3	EF 12.6	EE 13	SEE 16
AL-1, nH/T <sup>2</sup>	1400	1600	780	1028	1200	675	1075	1100	1254
AL-2, nH/T <sup>2</sup>	190	216	138	140	155	96	95	128	153
AL-3, nH/T <sup>2</sup>	102	116	84	75	83				
AL-4, nH/T <sup>2</sup>	76	83	55	60	67	58	57	77	92
AL-5, nH/T <sup>2</sup>	59	66	47	47	53				
Ae, min. core area, cm <sup>2</sup>	0.09	0.152	0.122	0.196	0.31	0.06	0.1003	0.138	0.1848
le, mag. path lgth., cm	1.46	1.9	3.4	4.12	4.7	1.92	2.96	3.06	3.55
Ve, core volume, cm <sup>3</sup>	0.17	0.33	0.51	0.94	1.46	0.1564	0.386	0.5479	0.8552
MLT, ave. turn length, cm	2.1666	2.7051	2.6805	3.2202	3.8359	2.088	2.548	3.23	3.778
Wa, usable wdg. area, cm <sup>2</sup> *	0.0171	0.0302	0.0915	0.1051	0.1441	0.0317	0.0769	0.1114	0.1849
WaAc, cm <sup>4</sup>	0.0015	0.0046	0.0112	0.0206	0.0447	0.0019	0.00772	0.0154	0.03416
UL flammability rating	94V-0	94V-0	94V-0	94V-0	94V-0	94V-0	94V-0	94V-0	94V-0

\* fill factor considered



- Standard geometries sizes 1 through 5 are gull wing style devices offering very low product profiles
- Standard geometries sizes 6 through 9 are J-lead style devices offering smaller product footprints but with increased product height

Custom Form Factor Inductors and Transformers

- Optimized performance
- Traditional wire wound, planar and integrated options
- Broad range of material solutions



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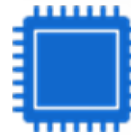
## TOOLS

### Eaton Electronics Product Selection Tools



#### PARAMETRIC SEARCH

Drill down into the Eaton Electronics product database to find the right part for your application.



#### IC MATCHING

Find the Eaton Electronics parts called out on IC manufacturers' demo and evaluation boards.



#### CROSS REFERENCE

Find a cross to a competitor's product or to an alternate Eaton Electronics part number.



#### SUPERCAPACITOR CALCULATOR

Determine your calculated requirements and design capability.

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