

# Short Form Catalogue



MMG India Pvt. Ltd.

## Company Profile



MMG India Pvt Ltd is a part of Magnetic Material Group (MMG) of TT electronics plc U.K, who have strong manufacturing base in soft ferrites and other electronic components. Apart from India, the principal manufacturing facilities are located in Europe and USA. Each of the company in the group supplies components to telecommunication, transportation, computer and automobile industries.

Chennai factory in India started its operation in the year 1974. TT group acquired this operation in July 1997. This acquisition is a strategic move by TT electronics to establish a strong manufacturing base for soft ferrites in India for catering to both the Domestic and international Markets.

Our ISO 9001-2000 forms the basis of our quality assurance policy. MMG is committed to quality and manufactures products to meet the highest standards of the market place, together with world class customer service.

The MMG companies are engaged in the design, development and manufacture of magnetic materials, such as soft ferrites, permanent magnets, Automotive and Industrial applications. With over 200 years of combined experience, MMG will be able to draw upon appropriate engineering, sales and manufacturing expertise anywhere in the world to assist our customers with magnetic component design issues. The MMG name will emerge as ...Your Global Partner in Magnetic Solutions.

The following are the part of Magnetic Material Group.

MMG India Pvt Limited, MMG MagDev Limited, MMG North America, Inc,  
MMG Canada Limited, Neosid Australia Pty Limited

## Group Profile

### About the company

TT electronics plc is a focused, global electronics company that is winning an increasing share of specialist, high growth markets. We supply the world's leading manufacturers in the automotive, telecommunications, computing, avionics and industrial electronics markets.

In order to more accurately reflect the nature of our businesses and future aspirations, the company has recently changed its name from TT Group PLC to TT electronics plc. The strategy is to sharpen our focus on the design, development, manufacture and supply of advanced electronic and electrical products.

The world's demand for electronics is increasing as a broader customer base is adopting new technologies, with a higher dependence on complex components. This growth provides TT electronics an assured future as we focus our efforts to deliver excellence in customer service and quality products to these markets.

Our continuing investment in modern manufacturing equipment and the development of new technologies is based upon understanding our customers' needs and providing solutions.

From our strong UK base, the company has achieved a truly global reach. We have established technical and manufacturing facilities in strategic countries maintaining the successful formula of close liaison with our customers in all major overseas markets.

In addition, through strategic relationships with Original Equipment Manufacturers around the world, we are now in the enviable position where we gain double benefit - from the growth in their markets and from the increase in the electronic content of end products.

This Company's policy is one of continuous improvement and development and the right to change materials, designs, dimensions and descriptive matter, etc. at any time without notice is reserved. Specifications and information contained within this catalogue are intended for guidance only.

MMG India Pvt Ltd has exercised the utmost care and attention in compiling the information contained in this brochure and believes it to be accurate and reliable. However, it is provided for illustrative purposes only and MMG India Pvt Ltd gives no warranty and makes no representation that the theory or other information contained in the brochure is suitable for any particular purpose or application. MMG India Pvt Ltd shall not be liable for any loss, direct or consequential, which may result from the use of such information.



## RM CORES - REGULAR

RM (Rectangular modulus) cores arose due to the demand for coil formers with integrated pins that allow for efficient winding and high PCB packing densities. Clamps engaging in recesses in the core base hold the cores in place, meaning glue is not normally required in this process.

All the cores adhere to specifications laid down in IEC 431 and in DIN 41980.

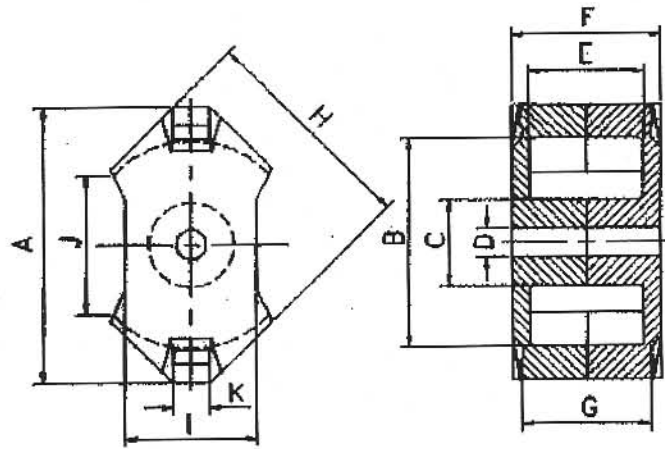
RM cores are designed for two main applications:

- Highly stable, extremely low loss filter inductors and other resonance determining inductors (F58, P11).
- Low distortion broadband transmission at low signal modulation (F39, F10, F9).

RM cores can also be supplied without the centre hole. These have a higher A L value and cross sectional area and are used for power transformer applications (F47, F44, F5A).

### Dimensional Details

Core	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	Effective parameters				Approx. Weight/Set gms/set
									$\Sigma l/A$ mm <sup>-1</sup>	le mm	Ae mm <sup>2</sup>	Ve mm <sup>3</sup>	
RM4	11 <sub>-0.4</sub>	8 <sup>+0.3</sup>	3.9 <sub>-0.2</sub>	2 <sup>+0.1</sup>	7 <sup>+0.4</sup>	10.5 <sub>-0.2</sub>	9 <sup>+0.25</sup> <sub>-0.25</sub>	9.8 <sub>-0.4</sub>	1.9	21	11	232	1.45
RM5	14.6 <sub>-0.6</sub>	10.2 <sup>+0.4</sup>	4.9 <sub>-0.2</sub>	2 <sup>+0.1</sup>	6.3 <sup>+0.4</sup>	10.5 <sub>-0.2</sub>	9 <sup>+0.25</sup> <sub>-0.25</sub>	12.3 <sub>-0.5</sub>	1	20.8	20.8	430	2.9
RM6	17.9 <sub>-0.6</sub>	12.4 <sup>+0.5</sup>	6.4 <sub>-0.2</sub>	3 <sup>+0.1</sup>	8 <sup>+0.4</sup>	12.5 <sub>-0.2</sub>	10.34 <sup>+0.25</sup> <sub>-0.25</sub>	14.7 <sub>-0.6</sub>	0.86	26.9	31.3	840	4.9
RM7	20.3 <sub>-0.8</sub>	14.75 <sup>+0.65</sup>	7.25 <sub>-0.3</sub>	3 <sup>+0.1</sup>	8.5 <sup>+0.4</sup>	13.5 <sub>-0.2</sub>	11.3 <sup>+0.25</sup> <sub>-0.25</sub>	17.2 <sub>-0.7</sub>	0.74	29.8	40	1200	6.5
RM8	23.2 <sub>-0.9</sub>	17 <sup>+0.6</sup>	8.55 <sub>-0.3</sub>	4.4 <sup>+0.2</sup>	10.8 <sup>+0.4</sup>	16.5 <sub>-0.2</sub>	14.3 <sup>+0.25</sup> <sub>-0.25</sub>	19.7 <sub>-0.8</sub>	0.67	35.1	52	1840	10.3
RM10	28.5 <sub>-1.3</sub>	21.2 <sup>+0.9</sup>	10.9 <sub>-0.4</sub>	5.4 <sup>+0.2</sup>	12.4 <sup>+0.6</sup>	18.7 <sub>-0.2</sub>	16.2 <sup>+0.25</sup> <sub>-0.25</sub>	24.7 <sub>-1.1</sub>	0.5	42	83	3470	20
RM12	37.6 <sub>-1.5</sub>	24.9 <sup>+1.1</sup>	12.8 <sub>-0.4</sub>	5.4 <sup>+0.2</sup>	16.8 <sup>+0.6</sup>	24.6 <sub>-0.2</sub>	21.6 <sup>+0.25</sup> <sub>-0.25</sub>	29.8 <sub>-1.2</sub>	0.39	57	146	8340	44
RM14	42.2 <sub>-1.2</sub>	29 <sup>+1</sup>	15 <sub>-0.5</sub>	5.4 <sup>+0.2</sup>	20.8 <sup>+0.6</sup>	30.2 <sub>-0.2</sub>	27 <sup>+0.25</sup> <sub>-0.25</sub>	34.8 <sub>-1.3</sub>	0.35	70	200	14000	72
R6	17.6 <sup>-0.6</sup>	12.4 <sup>+0.4</sup>	6.4 <sub>-0.2</sub>	3 <sup>+0.1</sup>	8 <sup>+0.4</sup>	12.5 <sub>-0.2</sub>	10.34 <sup>+0.25</sup> <sub>-0.25</sub>	14.7 <sub>-0.5</sub>	0.8	25.6	32	820	5.1



AL Values with Tolerance Code

	F58	P11	F5	F5A	F5C	F44	F47	F9	F9C	F10	F39	F44A
Ungapped	-	900R				800R		1700R		2800R	3700Y	1100R
Ungapped	-	1800R			2600R	1570R		3170R	6000Y	5200R	6700Y	1800R
Ungapped	890R	2000R	2250R		3100R	2200R		4625R	4270R	6200R	8600Y	2200R
Ungapped	-	2800R		2850R	3400R	2370R		4690R	5040R	7000R	10000Y	2700R
Ungapped	1170R	2500R	3000R	4000R	4300R	2906R		5700R	5670R	8375R	12500Y	3300R
Ungapped	1600R	3960R	4000R	4490R	3300+60%	3800R	3650R	7600R	8060R	11000R	16000Y	4200R
Ungapped	-		4400R	5800R	6000R	5000R	4750R	8400R		12800R		5300R
Ungapped	-			6600R	6800R	6000R	5400R	9500R		-		6000R
Ungapped	732R	2300R						4300R	4900R	6000R	8600Y	

Gapped values can be provided on request.

R - +30%, -20%  
Y - +40%, -30%

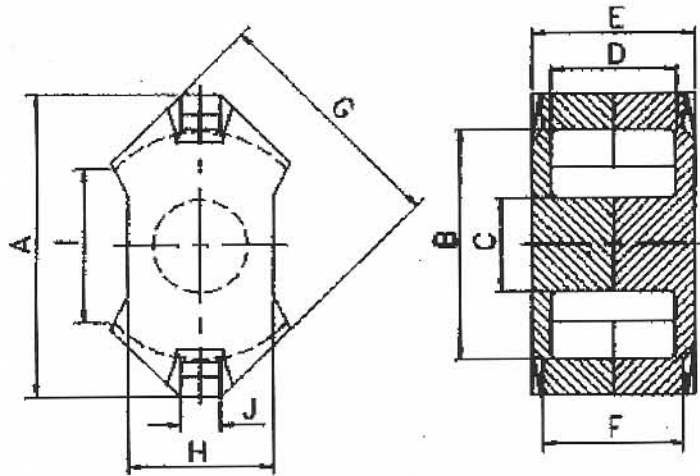
## RM CORES - LOW PROFILE

Low Profile RM Cores With the increasing miniaturisation of electronic circuits and Switched Mode power supplies being integrated into PCB philosophy, low profile components are necessary to overcome height restrictions. In some cases the conventional Windings can be replaced by printed circuit tracks directly onto the PCB.

The RM core's low profile shape and ease of construction give significant advantages including, fast error free winding and efficient repeatable performance.

Dimensional Details

Core	A mm	B mm	C mm	D mm	E mm	F mm	G mm	Effective parameters				Approx. Weight/Set gms/set
								$\Sigma l/A$ mm <sup>-1</sup>	le mm	Ae mm <sup>2</sup>	Ve mm <sup>3</sup>	
RM4 LP	11 <sub>-0.4</sub>	8 <sup>+0.3</sup>	3.9 <sub>-0.2</sub>	4.3 <sup>+0.4</sup>	7.8 <sub>-0.2</sub>	6.3 <sup>+0.2</sup> <sub>-0.2</sub>	9.8 <sub>-0.4</sub>	1.2	17.3	14.5	251	1.2
RM5 LP	14.6 <sub>-0.6</sub>	10.2 <sup>+0.4</sup>	4.9 <sub>-0.2</sub>	3.6 <sup>+0.4</sup>	7.8 <sub>-0.2</sub>	6.3 <sup>+0.25</sup> <sub>-0.25</sub>	12.3 <sub>-0.5</sub>	0.17	17.5	24.5	430	2.6
RM6 LP	17.9 <sub>-0.6</sub>	12.4 <sup>+0.5</sup>	6.4 <sub>-0.2</sub>	4.5 <sup>+0.4</sup>	9 <sub>-0.2</sub>	6.84 <sup>+0.25</sup> <sub>-0.25</sub>	14.7 <sub>-0.6</sub>	0.58	21.8	37.5	820	4
RM7 LP	20.3 <sub>-0.8</sub>	14.75 <sup>+0.65</sup>	7.25 <sub>-0.3</sub>	4.7 <sup>+0.5</sup>	9.8 <sub>-0.2</sub>	7.8 <sup>+0.25</sup> <sub>-0.25</sub>	17.2 <sub>-0.7</sub>	0.52	23.5	45.3	1060	5.7
RM8 LP	23.2 <sub>-0.9</sub>	17 <sup>+0.6</sup>	8.55 <sub>-0.3</sub>	5.9 <sup>+0.4</sup>	11.6 <sub>-0.2</sub>	9.4 <sup>+0.25</sup> <sub>-0.25</sub>	19.7 <sub>-0.8</sub>	0.44	28.7	64.9	1860	9.2
RM10LP	28.5 <sub>-1.3</sub>	21.2 <sup>+0.9</sup>	10.9 <sub>-0.4</sub>	6.7 <sup>+0.4</sup>	13.0 <sub>-0.2</sub>	10.5 <sup>+0.25</sup> <sub>-0.25</sub>	24.7 <sub>-1.1</sub>	0.34	33.9	99.1	3360	17.2
RM12LP	37.6 <sub>-1.5</sub>	24.9 <sup>+1.1</sup>	12.8 <sub>-0.4</sub>	9 <sup>+0.5</sup>	16.8 <sub>-0.2</sub>	13.8 <sup>+0.25</sup> <sub>-0.25</sub>	29.8 <sub>-1.2</sub>	0.28	42	147.5	6195	33.6
RM14LP	42.2 <sub>-1.2</sub>	29 <sup>+1</sup>	15 <sub>-0.5</sub>	11.1 <sup>+0.6</sup>	20.5 <sub>-0.2</sub>	17.3 <sup>+0.25</sup> <sub>-0.25</sub>	34.8 <sub>-1.3</sub>	0.25	50.9	201	10230	55



AL Values with Tolerance Code

	F44	F47	F48	F9C	F10	F39	F44A	F45
Ungapped	-	-	-	-	-	5000Y	1200R	-
Ungapped	-	-	-	-	-	7700Y	2400R	-
Ungapped	2500R	2400R	-	5500R	6600R	10500Y	3000R	2600R
Ungapped	-	-	3120R	-	-	11500Y	3300R	-
Ungapped	3600R	-	-	7050R	-	15000Y	4100R	3750R
Ungapped	4700R	-	-	10500R	-	19500Y	5200R	4900R
Ungapped	6000R	5600R	-	12750R	-	23800Y	6300R	6300R
Ungapped	6710R	6280R	-	16275R	-	26640Y	7100R	7040R

Gapped values can be provided on request.

R→+30%, -20%  
Y→+40%, -30%

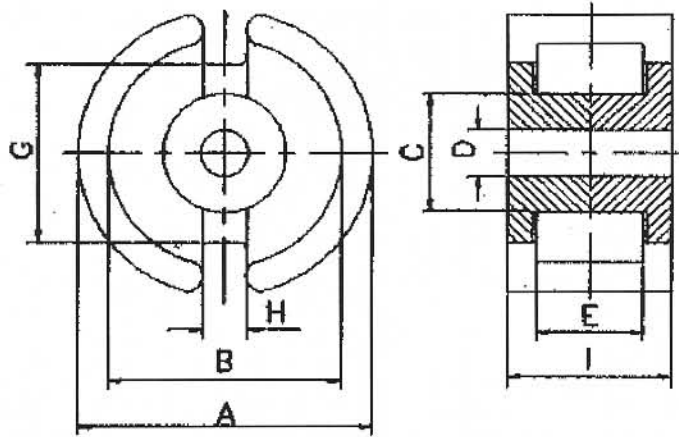
## POT CORES

As pot cores are one of the oldest core designs, they are available in a wide range of worldwide standardised sizes - according to IEC 133. Originally produced for filter inductors, pot cores are becoming increasingly popular in power applications. With the introduction of new EMC legislation, electromagnetic screening has become a prime concern in core selection. The pot core's shape almost completely encloses the windings and whilst this can be a hinderance for access purposes, it provides excellent screening.

Dimensional Details

Core	A mm	B mm	C mm	D mm	E mm	F mm	Effective parameters				Approx. Weight/Set gms/Set
							$\Sigma l/A$ mm <sup>-1</sup>	$l_e$ mm <sup>-1</sup>	$A_e$ mm <sup>2</sup>	$A_e$ mm <sup>3</sup>	
PC7x4	7.35 <sub>-0.25</sub>	5.8 <sup>+0.2</sup>	3 <sub>-0.1</sub>	1.4 <sup>+0.05</sup>	2.8 <sup>+0.2</sup>	4.2 <sub>-0.1</sub>	1.43	10	7	70	0.5
PC9x5	9.3 <sub>-0.3</sub>	7.5 <sup>+0.25</sup>	3.9 <sub>-0.2</sub>	2 <sup>+0.1</sup>	3.6 <sup>+0.3</sup>	5.4 <sub>-0.2</sub>	1.25	12.2	9.8	120	0.8
PC11x7	11.3 <sub>-0.4</sub>	9 <sup>+0.4</sup>	4.7 <sub>-0.2</sub>	2 <sub>+0.1</sub>	4.4 <sub>+0.3</sub>	6.6 <sub>-0.2</sub>	1	15.9	15.9	252	1.7
PC14x8	14.3 <sub>-0.5</sub>	11.6 <sup>+0.4</sup>	6 <sub>-0.2</sub>	3 <sup>+0.1</sup>	5.6 <sup>+0.4</sup>	8.5 <sub>-0.3</sub>	0.8	20	25	500	3.2
PC18x11	18.4 <sub>-0.8</sub>	14.9 <sup>+0.5</sup>	7.6 <sub>-0.3</sub>	3 <sup>+0.1</sup>	7.2 <sup>+0.4</sup>	10.7 <sub>-0.3</sub>	0.6	25.9	43	1120	6
PC22x13	22 <sub>-0.8</sub>	17.9 <sup>+0.6</sup>	9.4 <sub>-0.3</sub>	4.4 <sup>+0.2</sup>	9.2 <sup>+0.4</sup>	13.6 <sub>-0.4</sub>	0.5	31.6	63	2000	13
PC26x16	26 <sub>-1</sub>	21.2 <sup>+0.8</sup>	11.5 <sub>-0.4</sub>	5.4 <sup>+0.2</sup>	11 <sup>+0.4</sup>	16.3 <sub>-0.4</sub>	0.4	37.5	94	3520	21
PC30x19	30.5 <sub>-1</sub>	25 <sup>+0.8</sup>	13.5 <sub>-0.4</sub>	5.4 <sup>+0.2</sup>	13 <sup>+0.4</sup>	19 <sub>-0.4</sub>	0.33	45	136	6120	36
PC36x22	36 <sub>-1</sub>	29.9 <sup>+0.8</sup>	16.2 <sub>-0.4</sub>	5.4 <sup>+0.2</sup>	14.6 <sup>+0.4</sup>	22 <sup>-0.6</sup>	0.26	52	202	10600	57
PM50x39	50 <sub>-1.7</sub>	39 <sup>+1.3</sup>	20 <sub>-0.6</sub>	5.4 <sup>+0.2</sup>	26.4 <sup>+0.8</sup>	39 <sub>-0.4</sub>	0.227	84	370	31000	-
PC59x36	59.3 <sub>-1.8</sub>	49 <sup>+1.3</sup>	25.5 <sub>-0.8</sub>	5.5 <sup>+0.2</sup>	23.6 <sup>+0.8</sup>	35.6 <sub>-0.7</sub>	0.181	88	485	42600	229
PC80x60	78 <sup>+2.0</sup>	69	33.5 <sub>-1</sub>	9 <sup>+0.5</sup>	43.8 <sup>+1</sup>	60 <sub>-1</sub>	0.164	154.6	945	145700	783





AL Values with Tolerance Code

	F58	P11	F5	F5A	F44	F47	F48	F9	F9C	F10	F39	F16	F44A
UnGapped	-	-	-	-	900/R	-	-	-	-	-	-	-	-
UnGapped	560/R	1300/R	-	-	1160/R	-	1400/R	2500/R	2700/R	4000/R	5000Y	-	-
UnGapped	780/R	1600/R	-	1880/R	1580/R	1455/R	1600/R	3500/R	3800/R	-	-	-	-
UnGapped	970/R	2300/R	-	2500/R	2090/R	1875/R	2100/R	4600/R	-	-	9800Y	130 <sub>±25%</sub>	2800/R
UnGapped	1300/R	2900/R	2800/R	3075/R	2600/R	2500/R	-	5600/R	6000/R	6450/R	12600Y	-	3600/R
UnGapped	1710/R	3800/R	-	4650/R	3500/R	-	-	6860/R	-	8600/R	16000Y	-	4400/R
UnGapped	-	5200/R	-	6000/R	4650/R	-	-	9000/R	-	12000/R	20000	-	5500/R
UnGapped	-	6300/R	6412/R	7500/R	6000/R	-	-	10500/R	-	14500/R	-	-	6400/R
UnGapped	-	8400/R	-	-	7600/R	-	-	15200/R	-	-	21000/R	-	-
UnGapped	-	-	7400/R	-	-	-	-	-	-	-	-	-	-
UnGapped	-	12500/R	-	3850/R	-	-	-	-	-	-	-	6500/R	-
UnGapped	-	100A	-	-	-	-	-	-	-	-	-	-	-

Gapped values can be provided on request.

R→+30%, -20%  
Y→+40%, -30%

## UU – CORES

Dimensional details & AL Values with Tolerance Code

Core	A mm	B mm	C mm	D mm	E mm	F mm	Effective Parameters			F5	F5A	F9	F10	F39
							le mm	Ae mm <sup>2</sup>	Ve mm <sup>3</sup>					
UU 10.5	10.5 <sup>+0.2</sup> <sub>-0.2</sub>	7.9 <sub>±0.2</sub>	5.2 <sup>+0.3</sup>	5.3 <sup>+0.15</sup> <sub>-0.15</sub>	2.70 <sub>-0.3</sub>	5.5 <sup>+0.2</sup>	40	13	520	800/R	-	1000/R	1700/R	2400/Y
U12.7	12.7 <sub>±0.38</sub>	6.35 <sub>±0.05</sub>	4.95 <sub>±0.25</sub>	3.81 <sub>±0.18</sub>	2.54 <sub>±0.13</sub>	7.30 <sub>Mini</sub>	33	12.60	416	-	-	1000/R	-	-
U15/11/6.5	15.2 <sup>+0.7</sup> <sub>-0.6</sub>	11.2 <sup>+0.5</sup> <sub>-0.5</sub>	6.45 <sub>±0.25</sub>	6 <sub>±0.25</sub>	5.00	5 <sup>+0.4</sup>	48	32	1540	1200/R	-	2625/R	-	5000/Y
U25/20/13	24.75 <sub>±0.75</sub>	19.43 <sup>+0.57</sup> <sub>-0.58</sub>	12.75 <sub>±0.25</sub>	11.33 <sup>+0.32</sup> <sub>-0.33</sub>	8.0 <sub>Mini</sub>	8.25 <sub>±0.25</sub>	86	105	9030	-	-	4120/R	-	-
U26.5/20.2/9.7	26.54 <sub>±0.78</sub>	20.07 <sub>±0.13</sub>	9.40 <sub>±0.25</sub>	14.60 <sub>±0.13</sub>	-	7.87 <sub>±0.5</sub>	95.40	60.90	5724	-	1790/R	-	-	-
U31/15.5/16	31 <sub>±0.6</sub>	16.0 <sub>±0.3</sub>	16.0 <sub>±0.3</sub>	8.5 <sub>±0.5</sub>	7 <sub>±0.2</sub>	17.0 <sub>±0.4</sub>	90	112	10079	-	-	4500 <sup>+30%</sup> <sub>-10%</sub>	-	-
U37/25/18	36.9 <sub>±0.8</sub>	25.2 <sub>±0.20</sub>	18 <sub>±0.4</sub>	16.30 <sub>Mini</sub>	14.7 <sub>±0.3</sub>	14.9 <sub>±0.1</sub>	125	150	18750	-	3125/R	-	-	-
U46/20/28	47 <sub>±0.8</sub>	40 <sub>±0.4</sub>	28 <sub>±0.6</sub>	25.8 <sub>±0.25</sub>	-	19 <sub>±0.85</sub>	-	-	-	-	5880/R	-	-	-
U60/36/23	60.50 <sub>Nomi</sub>	35.8 <sub>±0.2</sub>	23.0 <sub>±0.4</sub>	26.5 <sub>±0.4</sub>	17.0 <sub>±0.4</sub>	26.75 <sub>±0.75</sub>	189	210	39700	2410/R	-	-	-	-
U82/44/16	80.8 <sub>±1.2</sub>	44.53 <sub>±0.2</sub>	-	30.53 <sub>±0.25</sub>	15.0 <sub>±0.25</sub>	50.80 <sub>Mini</sub>	268.6	177.20	47600	-	1810/R	-	-	-
U91/44.4/15	91 <sub>±1.36</sub>	44.53 <sub>±0.2</sub>	15.0 <sub>±0.25</sub>	30.53 <sub>±0.25</sub>	15.0 <sub>±0.25</sub>	61.0 <sub>Mini</sub>	275.2	177.20	48751.3	-	1840/R	-	2410/R	-

Other shapes : Square / Round / Round - available

## PLANAR CORES

Core	A	B	C	D	E	F	G	Effective Parameters			F44	F48	F47
								le mm	Ae mm <sup>2</sup>	Ve mm <sup>3</sup>			
EE14x3.5x5	14 <sub>±0.3</sub>	3.5 <sub>-0.1</sub>	4.9 <sub>±0.2</sub>	11 <sub>±0.25</sub>	2.9 <sub>±0.15</sub>	2.05 <sub>±0.15</sub>	-	20.70	14.50	300	-	-	1100 <sub>±25%</sub>
E+I 14	14 <sub>±0.3</sub>	-	4.9 <sub>±0.2</sub>	-	-	-	1.50 <sub>±0.05</sub>	16.70	14.50	240	-	-	1300 <sub>±25%</sub>
EE18x4x10	18 <sub>±0.35</sub>	4 <sub>±0.10</sub>	10 <sub>±0.2</sub>	14 <sub>±0.3</sub>	3.95 <sub>±0.15</sub>	2.05 <sub>±0.15</sub>	-	24.30	39.50	960	-	-	2700 <sub>±25%</sub>
E+I18	18 <sub>±0.35</sub>	-	10 <sub>±0.2</sub>	-	-	-	2.0 <sub>±0.1</sub>	20.30	39.50	800	-	2900/R	3100 <sub>±25%</sub>
EE22x5.7x15.8	21.8 <sub>±0.4</sub>	5.7 <sub>±0.1</sub>	15.8 <sub>±0.3</sub>	16.8 <sub>±0.4</sub>	4.9 <sub>±0.2</sub>	3.20 <sub>±0.1</sub>	-	32.50	78.50	2550	-	-	4300 <sub>±25%</sub>
E+I22	21.8 <sub>±0.4</sub>	-	15.8 <sub>±0.3</sub>	-	-	-	2.5 <sub>±0.05</sub>	26.1	78.50	2040	-	-	5000 <sub>±25%</sub>
EE31.8x6.3x20.3	31.75 <sub>±0.64</sub>	6.35 <sub>±0.13</sub>	20.32 <sub>±0.41</sub>	25.4 <sub>±0.5</sub>	6.28 <sub>±0.2</sub>	3.23 <sub>±0.15</sub>	-	41.70	129	5380	6425 <sub>±25%</sub>	-	5900 <sub>±25%</sub>
E+I31.8	31.75 <sub>±0.64</sub>	-	20.32 <sub>±0.41</sub>	-	-	-	3.18 <sub>±0.13</sub>	35.90	129	4560	6780 <sub>±25%</sub>	-	7350 <sub>±25%</sub>
EE38.1x8.26x25.4	38.1 <sub>±0.76</sub>	8.26 <sub>±0.13</sub>	25.4 <sub>±0.51</sub>	30.85 <sub>±0.6</sub>	7.6 <sub>±0.2</sub>	4.52 <sub>±0.2</sub>	-	52.60	194	10200	7940 <sub>±25%</sub>	-	7250 <sub>±25%</sub>
E+I38.1	38.1 <sub>±0.76</sub>	-	25.4 <sub>±0.51</sub>	-	-	-	3.81 <sub>±0.13</sub>	43.70	194	8460	9290 <sub>±25%</sub>	-	8500 <sub>±25%</sub>
EE63.8x10.2x50.3	63.8 <sub>±1.3</sub>	10.2 <sub>±0.13</sub>	50.3 <sub>±1</sub>	53.6 <sub>±1.1</sub>	10.2 <sub>±0.2</sub>	5.17 <sub>±0.2</sub>	-	79.70	511	40700	13300 <sub>±25%</sub>	-	12120 <sub>±25%</sub>
E+I63.8	63.8 <sub>±1.3</sub>	-	50.3 <sub>±1</sub>	-	-	-	5.08 <sub>±0.13</sub>	69.60	511	35500	15050 <sub>±25%</sub>	-	14360 <sub>±25%</sub>

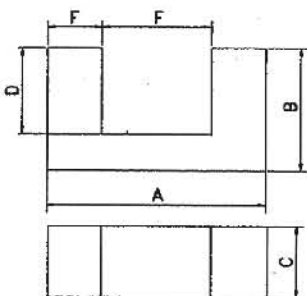
# EE, ETD CORES

## Dimensional details & AL Values with Tolerance Code

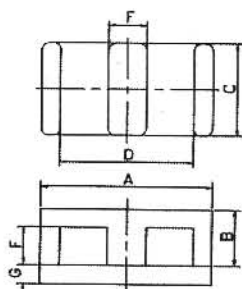
Core	A mm	B mm	C mm	D mm	E mm	F mm	Effective Parameters			F5	F9	F5A	F44	F9C	F10
							le mm	Ae mm <sup>2</sup>	Ve mm <sup>3</sup>						
EF12.6	12.6 <sup>+0.5</sup> <sub>-0.4</sub>	6.5 <sub>-0.2</sub>	3.7 <sub>-0.3</sub>	4.5 <sup>+0.3</sup>	8.9 <sup>+0.6</sup>	3.7 <sub>-0.3</sub>	29.6	13.0	384	-	-	-	760/R	-	-
E13/6.6/3	12.7 <sub>+0.25</sub>	6.6 <sub>+0.05</sub>	3.18 <sub>+0.2</sub>	5.105 <sub>±0.155</sub>	9.725 <sub>±0.725</sub>	3.18 <sub>±0.2</sub>	31.70	9.68	307	550/R	-	-	-	-	-
E16/8/5	16 <sup>+0.7</sup> <sub>-0.5</sub>	8.2 <sub>-0.3</sub>	4.7 <sub>-0.4</sub>	5.7 <sub>-0.4</sub>	11.3 <sup>+0.6</sup>	4.7 <sub>-0.3</sub>	37.6	20.1	754	1000/R	1400/R	-	960R	-	-
E20/10/5	20 <sup>+0.7</sup> <sub>-0.4</sub>	10.1 <sub>±0.3</sub>	5.3 <sub>-0.4</sub>	6.5 <sub>±0.2</sub>	13.1 <sub>±0.3</sub>	5.00 <sub>±0.2</sub>	43	31	1330	1500/R	2500/R	-	1390/R	-	-
EF20/10/6	20.4 <sub>-0.8</sub>	9.95 <sub>±0.15</sub>	5.9 <sub>-0.4</sub>	7 <sup>-0.3</sup>	14.1 <sup>+0.6</sup>	5.9 <sub>-0.3</sub>	44.9	33.5	1500	1300/R	2500/R	-	1300/R	-	-
E19x8x5	19.3 <sub>±0.5</sub>	8.08 <sub>±0.115</sub>	4.75 <sub>±0.18</sub>	5.72 <sub>±0.125</sub>	14.5 <sub>±0.53</sub>	4.75 <sub>±0.18</sub>	40	22.5	900	-	2160/R	1190/R	970/R	2350/R	2650/R
E25/13/7	25 <sup>+0.8</sup> <sub>-0.7</sub>	12.8 <sub>-0.5</sub>	7.5 <sub>-0.6</sub>	8.7 <sup>+0.5</sup>	17.5 <sup>+0.8</sup>	7.5 <sub>-0.5</sub>	57.5	52.5	3020	1750/R	3100/R	-	1700/R	-	-
E25/9.5/6	25.4 <sub>±0.63</sub>	9.53 <sub>±0.13</sub>	6.27 <sub>±0.2</sub>	6.49 <sub>±0.19</sub>	19.56 <sub>±0.51</sub>	6.27 <sub>±0.2</sub>	48	38.10	1860	2000/R	-	1830/R	1480/R	-	4000/R
E30/15/7	30 <sup>+0.8</sup> <sub>-0.6</sub>	15.2 <sup>-0.4</sup>	7.3 <sub>-0.5</sub>	9.7 <sup>+0.5</sup>	19.5 <sup>+0.8</sup>	7.2 <sub>-0.5</sub>	67	60	4000	1800/R	3300/R	-	1800/R	-	-
E34/13/8	34.14 <sub>±0.86</sub>	13.11 <sub>±0.1</sub>	7.87 <sub>±0.18</sub>	8.485 <sub>±0.205</sub>	24.59 <sub>±0.63</sub>	11.12 <sub>±0.25</sub>	62.50	77.4	4840	2240/R	4100/R	-	2360/R	-	-
E41/22/9	41 <sub>+1.27</sub>	22.28 <sub>±0.1</sub>	8.78 <sub>±0.19</sub>	16.715 <sub>±0.455</sub>	28.58 <sub>±0.53</sub>	11.76 <sub>±0.20</sub>	102	105	10600	-	-	-	2000/R	-	-
E42/21/15	42 <sup>+1</sup> <sub>-0.7</sub>	21.2 <sub>-0.4</sub>	15.2 <sub>-0.5</sub>	14.8 <sup>+0.6</sup>	29.5 <sup>+1.2</sup>	12.2 <sub>-0.5</sub>	97	181	17600	3500/R	-	-	3500/R	-	-
E42/21/20	42 <sup>+1</sup> <sub>-0.7</sub>	21.2 <sub>-0.4</sub>	20 <sub>-0.8</sub>	14.8 <sup>+0.7</sup>	29.5 <sup>+1.2</sup>	12.2 <sub>-0.5</sub>	98	240	23300	4750/R	-	-	-	-	-
E55/27/21	55 <sup>+1.2</sup> <sub>-0.9</sub>	27.8 <sub>-0.6</sub>	21 <sub>-0.6</sub>	18.5 <sup>+0.8</sup>	37.5 <sup>+1.2</sup>	17.2 <sub>-0.5</sub>	120	354	42500	5800/R	10000/R	-	-	-	-
E65/32/27	65 <sup>+1.5</sup> <sub>-1.2</sub>	32.8 <sub>-0.6</sub>	26.8 <sup>+0.6</sup>	22.2 <sup>+0.7</sup>	44.2 <sup>+1.5</sup>	20 <sub>-0.7</sub>	147	532	78200	-	-	10250/R	7430/R	-	-
E70/32/32	70 <sub>±1.35</sub>	32 <sup>+0.5</sup>	31.75 <sub>±0.33</sub>	21.57 <sub>±0.17</sub>	48.38 <sub>±0.75</sub>	22.13 <sub>±0.35</sub>	146.27	691.03	101076	-	-	11125/R	9060/R	-	-
ETD29/16/10	30.6 <sub>-1.6</sub>	16 <sub>-0.4</sub>	9.8 <sub>-0.6</sub>	22 <sup>+1.4</sup>	9.8 <sub>-0.6</sub>	10.7 <sup>+0.6</sup>	70.4	76	5350	-	-	2350/R	1950/R	-	-
ETD34/17/11	34 <sup>+1</sup> <sub>-0.6</sub>	17.5 <sup>-0.4</sup>	11.1 <sup>-0.6</sup>	25.6 <sup>+1.4</sup>	11.1 <sub>-0.6</sub>	11.8 <sup>+0.6</sup>	78.6	97.10	7640	2400/R	-	2840/R	2250/R	-	-
ETD39/20/13	38.9 <sup>+1.1</sup> <sub>-0.7</sub>	20 <sub>-0.4</sub>	12.8 <sub>-0.6</sub>	29.3 <sup>+1.6</sup>	12.8 <sub>-0.6</sub>	14.2 <sup>+0.8</sup>	92.20	125	11500	2700/R	-	3210/R	2470/R	-	-
ETD44/25/15	43.8 <sup>+1.2</sup> <sub>-0.8</sub>	22.5 <sub>-0.4</sub>	15.2 <sub>-0.8</sub>	32.5 <sup>+1.6</sup>	15.2 <sub>-0.8</sub>	16.1 <sup>+0.8</sup>	103	173	17800	3300/R	-	3920/R	3100/R	-	-
ETD49/25/17	48.5 <sup>+1.3</sup> <sub>-0.9</sub>	24.9 <sub>-0.4</sub>	16.7 <sub>-0.8</sub>	36.1 <sup>+1.8</sup>	16.7 <sub>-0.8</sub>	17.80 <sub>Mini</sub>	144	211	24000	3700/R	-	4400/R	3525/R	-	-

Gapped values can be provided on request.  
Any change in dimension can be provided.

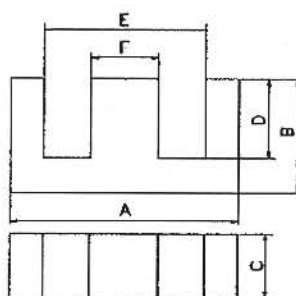
R - +30%, - 20%  
Y - +40%, - 30%



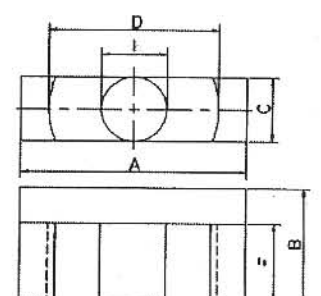
U-Core



Planar Core



EE-Core



ETD-Core

## EP CORES

EP Cores have a particularly compact, low profile shape and offer excellent shielding from adjacent cores due to the winding being almost completely surrounded by the ferrite core. This allows for high packing densities on printed circuit boards. Originally designed for broadband, small power transformers and signal transmission applications, EP cores are well suited for the demanding properties required from modern electronic components.

EP Cores are available in a range of sizes and materials.

Dimensional Details

Core	A mm	B mm	C mm	D mm	E mm	F mm	Effective Parameters		
							le mm	Ae mm <sup>2</sup>	Ve mm <sup>3</sup>
EP7	9.4 <sub>-0.4</sub>	7.2 <sup>+0.4</sup>	3.4 <sub>-0.2</sub>	6.5 <sub>-0.3</sub>	5 <sup>+0.4</sup>	7.5 <sub>-0.2</sub>	15.7	10.3	162
EP10	11.8 <sub>-0.6</sub>	9.2 <sup>+0.4</sup>	3.45 <sub>-0.3</sub>	7.85 <sub>-0.4</sub>	7.2 <sup>+0.4</sup>	10.4 <sub>-0.2</sub>	19.2	11.3	217
EP13	12.8 <sub>-0.6</sub>	9.7 <sup>+0.6</sup>	4.5 <sub>-0.3</sub>	9 <sub>-0.4</sub>	9 <sup>+0.4</sup>	13 <sup>-0.3</sup>	24.2	19.5	472
EP17	18.4 <sub>-0.8</sub>	11.6 <sup>+0.8</sup>	5.85 <sub>-0.35</sub>	11.25 <sub>-0.5</sub>	11 <sup>+0.6</sup>	17 <sub>-0.6</sub>	28.5	33.9	966
EP20	24.5 <sub>-1</sub>	16.1 <sup>+0.8</sup>	9 <sub>-0.5</sub>	15.3 <sub>-0.7</sub>	14 <sup>+0.6</sup>	21.6 <sub>-0.4</sub>	40	78	3120
EOP7	9.2 <sub>±0.2</sub>	7.4 <sub>±0.2</sub>	3.3 <sub>±0.1</sub>	8.8 <sub>±0.2</sub>	4.8 <sub>±0.2</sub>	7.4 <sub>±0.1</sub>	15.6	17.7	276

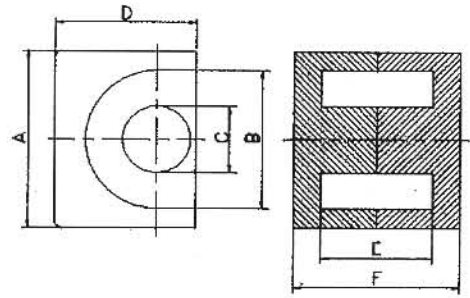
## EFD CORES

Core	A	B	C	D	E	F	G	le	Ae	Ve
EFD15x8x5	15 <sub>±0.4</sub>	7.5 <sup>+0.15</sup>	4.65 <sub>±0.15</sub>	11 <sub>±0.35</sub>	5.55 <sub>±0.2</sub>	2.4 <sub>±0.1</sub>	5.3 <sub>±0.15</sub>	34	15	510
EFD20x10x7	20 <sub>±0.55</sub>	10 <sub>±0.15</sub>	6.65 <sub>±0.15</sub>	15.4 <sub>±0.5</sub>	7.75 <sub>±0.2</sub>	3.6 <sub>±0.15</sub>	8.9 <sub>±0.2</sub>	47	31	1460
EFD25x13x9	25 <sub>±0.65</sub>	12.5 <sub>±0.15</sub>	9.1 <sub>±0.2</sub>	18.7 <sub>±0.6</sub>	9.3 <sub>±0.25</sub>	5.2 <sub>±0.15</sub>	11.4 <sub>±0.2</sub>	57	58	3310

## ER CORES

Core	A	B	C	D	E	F	G	le	Ae	Ve
ER9.5x5	9.5 <sub>-0.3</sub>	7.5 <sup>+0.25</sup>	3.5 <sub>-0.2</sub>	7.00 <sub>Mini.</sub>	5 <sub>-0.2</sub>	1.6 <sup>+0.15</sup>	5 <sub>-0.2</sub>	13.6	8.81	120
ER11x5	11.00 <sub>-0.35</sub>	8.7 <sup>+0.3</sup>	4.25 <sub>-0.2</sub>	7.90 <sub>Mini.</sub>	6 <sub>-0.2</sub>	1.5 <sup>+0.15</sup>	5 <sub>-0.2</sub>	14.1	12.4	174
ER14.5x6	14.5 <sub>±0.2</sub>	11.8 <sub>±0.2</sub>	4.7 <sub>±0.1</sub>	-	6.7 <sub>±0.1</sub>	1.65 <sub>±0.1</sub>	5.9 <sub>±0.2</sub>	19	17.6	333

Also other shapes like EIR can be provided.

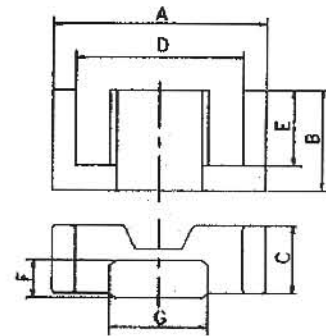


AL Values with Tolerance Code

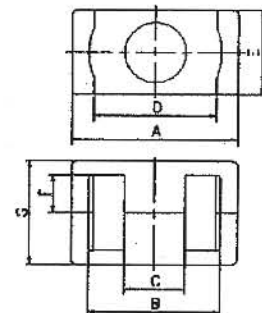
	P11	F5	F5A	F44	F48	F9	F10	F39	FTA	F44A
UnGapped	980/R	1200/R	1200/R	920/R	1100/R	2000/R	3400/R	5200/Y	-	1100/R
UnGapped	940/R	-	1063/R	855/R	-	2000/R	3200/R	4800/Y	-	1100/R
UnGapped	1500/R	1750/R	1460/R	1235/R	-	2800/R	4400/R	7000/Y	-	1600/R
UnGapped	2250/R	2300/R	-	2130/R	-	4300/R	6875/R	11400/Y	-	2400/R
UnGapped	-	-	4100/R	4000/R	-	6700/R	11200/R	18700/Y	-	-
UnGapped	-	-	-	-	-	-	-	-	8780/Y	-

R - +30%, - 20%  
Y - +40%, - 30%

	F44	F47	F48
UnGapped	675R	650R	780R
UnGapped	1120R	1075R	-
UnGapped	1790R	1720R	2200R



	F44	F48	F39
UnGapped	740R	800R	4500Y
UnGapped	1100R	1200R	6400Y
UnGapped	1500R	1500R	-



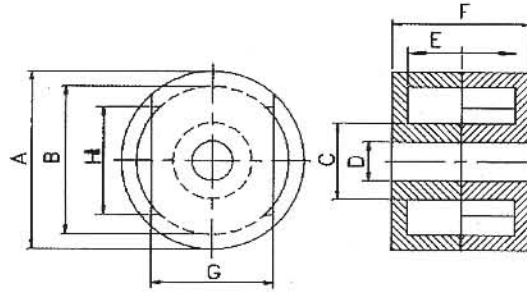
Gapped values can be provided on request.

# TOROIDS

Gapped and Coating can be provided. R – +30%, -20% Y – +40%, -30%

Core	OD A mm	ID B mm	Ht C mm	le mm	Ae mm <sup>2</sup>	Ve mm <sup>3</sup>	F5A	P11	F8	F9	F9C	F14	F19	F5C	F10	F39	F47	F48	F44	F16	F57	F5
T4.5x2.5x2.0	4.5 <sup>+0.18</sup>	2.495 <sup>+0.16</sup>	2.0 <sup>+0.18</sup>	-	-	-	-	470 <sup>+3%</sup>	-	-	940R	-	-	-	-	-	-	-	-	-	-	-
T5.8x3.0x3.05	5.84 <sup>+0.13</sup>	3.05 <sup>+0.13</sup>	3.05 <sup>+0.13</sup>	13.029	4.108	53.52	-	-	-	-	1900R	-	-	-	-	-	-	-	764R	-	-	-
T6.3x6.18x7.92	6.35 <sup>+0.19</sup>	3.17 <sup>+0.15</sup>	7.93 <sup>+0.13</sup>	13.80	12.05	166.0	-	1983 <sup>+1%</sup>	1322 <sup>+1%</sup>	4820 <sup>+3%</sup>	-	242R	-	-	-	-	-	-	-	-	-	-
T9.52x4.75x3.18	9.52 <sup>+0.25</sup>	4.75 <sup>+0.25</sup>	3.18 <sup>+0.12</sup>	20.70	7.29	151	1250 <sup>+2%</sup>	-	-	2000 <sup>+2%</sup>	2110R	-	442 <sup>+3%</sup>	1380 <sup>+3%</sup>	3000R	-	-	-	840R	58R	330 <sup>+2%</sup>	-
T10x6x4	10 <sup>+0.4</sup>	6.0 <sup>+0.8</sup>	4.0 <sup>+0.2</sup>	24.07	7.84	189.70	-	-	-	-	2046R	-	-	-	2490R	-	-	-	-	-	-	-
T12.7x3.8x6.35	12.7 <sup>+0.3</sup>	7.9 <sup>+0.15</sup>	6.35 <sup>+0.2</sup>	27.65	19.37	555.7	-	-	1917R	3864R	4401R	193R	-	-	424 <sup>+1%</sup>	7570 <sup>+3%</sup>	-	-	-	-	450 <sup>+2%</sup>	-
T14x6x5	14 <sup>+0.4</sup>	9 <sup>+0.4</sup>	5 <sup>+0.4</sup>	34.9	12.3	430	-	-	-	-	2200R	-	440R	-	2800 <sup>+1%</sup>	4600 <sup>+1%</sup>	-	-	-	-	-	-
T16.7x9.6x5.0	16.76 <sup>+0.55</sup>	9.65 <sup>+0.25</sup>	5 <sup>+0.25</sup>	39.45	17.33	683	-	-	-	1948 <sup>+1%</sup>	2730 <sup>+2%</sup>	-	-	-	-	-	-	-	-	-	-	-
T16.7x9.6x6.35	16.76 <sup>+0.55</sup>	9.65 <sup>+0.25</sup>	6.3 <sup>+0.25</sup>	39.45	21.84	894	-	-	-	3365R	3470 <sup>+3%</sup>	-	-	-	4165R	-	-	-	1220R	-	-	-
T19.05x12.7x9.52	19.05 <sup>+0.78</sup>	12.7 <sup>+0.31</sup>	9.52 <sup>+0.38</sup>	48.50	29.88	1449	-	-	930 <sup>+1%</sup>	3410R	3890 <sup>+3%</sup>	-	-	-	-	-	-	-	-	-	-	-
T22.1x13.7x12.7	22 <sup>+0.3</sup>	13.72 <sup>+0.25</sup>	12.70 <sup>+0.25</sup>	54.08	51.61	2791	2400 <sup>+1%</sup>	-	5277R	6110 <sup>+2%</sup>	-	-	1196 <sup>+3%</sup>	-	7425R	10000 <sup>+3%</sup>	-	-	-	-	-	-
T24x12x12	24 <sup>+0.6</sup>	11.85 <sup>+0.25</sup>	11.85 <sup>+0.25</sup>	9	69.57	558	-	-	-	-	6571R	366R	-	-	-	-	-	-	-	-	-	-
T24x15x10	25 <sup>+1.0</sup>	15 <sup>+0.77</sup>	10 <sup>+0.38</sup>	60.20	49.00	280	-	-	-	4000 <sup>+1%</sup>	4080 <sup>+1%</sup>	-	-	-	6130R	876 <sup>+3%</sup>	-	-	1522 <sup>+1%</sup>	-	-	2440 <sup>+2%</sup>
T31.5x19.6x12.5	31.5 <sup>+1.0</sup>	19.6 <sup>+0.5</sup>	12.5 <sup>+1.25</sup>	76.04	76.48	8916	2970R	-	-	5000R	6820R	-	2370 <sup>+2%</sup>	3843 <sup>+3%</sup>	-	-	-	-	-	-	-	-
T36x23x16	36.4 <sup>+1.1</sup>	22.6 <sup>+0.3</sup>	15.4 <sup>+0.6</sup>	89.65	95.89	8897	-	-	-	-	-	-	-	-	-	-	13907	-	-	-	-	-
T38.1x25.4x19.05	38.1 <sup>+1.2</sup>	25.4 <sup>+0.2</sup>	19.05 <sup>+0.46</sup>	97.10	119.40	11530	-	-	2490 <sup>+2%</sup>	6830R	7725R	3411R	-	-	-	-	13265 <sup>+2%</sup>	-	2335R	-	-	-
T38.1x25.4x15.87	38.1 <sup>+1.22</sup>	25.4 <sup>+0.2</sup>	15.87 <sup>+0.38</sup>	97.05	99.41	9950	3217R	-	-	5633R	6930 <sup>+2%</sup>	-	-	-	-	-	-	-	2445R	-	-	-
T45	45 <sup>+1.0</sup>	19 <sup>+1</sup>	16 <sup>+0.5</sup>	8	195.4	17370	5000R	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T49.51x31.9	49.1 <sup>+0.8</sup>	31.8 <sup>+0.15</sup>	19.05 <sup>+0.4</sup>	123	162	19936	-	-	-	-	8215R	-	-	-	4970R	9860 <sup>+3%</sup>	-	-	-	-	-	-
T54x15x19	54 <sup>+2.0</sup>	15.6 <sup>+0.6</sup>	19.0 <sup>+0.4</sup>	65.72	321.7	27394	-	-	-	21200R	-	1070 <sup>+2%</sup>	-	-	14600R	-	-	-	-	-	-	-
T58x23x18	55.4 <sup>+1.6</sup>	32.4 <sup>+0.7</sup>	18 <sup>+0.7</sup>	131.5	202.10	26578	-	-	-	7724 <sup>+3%</sup>	-	-	-	-	-	-	-	-	-	-	-	-
T63x30x25	63 <sup>+2</sup>	38 <sup>+1.2</sup>	25 <sup>+0.8</sup>	132	305.93	46690	6319R	-	-	11100R	12840 <sup>+3%</sup>	-	-	-	15160 <sup>+2%</sup>	-	-	-	5460R	-	-	5054R
T78x38x14	78.00 <sup>+1.38</sup>	44.65 <sup>+1.7</sup>	14.00 <sup>+0.4</sup>	181.6	231.8	42088	-	3210 <sup>+3%</sup>	-	-	6410 <sup>+3%</sup>	-	1600 <sup>+2%</sup>	4810 <sup>+3%</sup>	-	-	-	-	-	-	-	-
T102x66x15	102 <sup>+2.0</sup>	65.8 <sup>+1.8</sup>	15.00 <sup>+0.5</sup>	255.32	267.21	88225	-	-	-	-	-	-	-	-	7890R	-	-	-	-	-	-	-

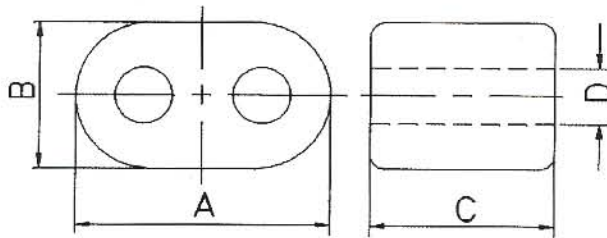
# WIDE SLOT CORES



(CC Cores / Touch tone Cores) Dimensional details & AL Values with tolerance code

Core		A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	Effective Parameters			P11	F5	F44A	F9	F10	F39
										le mm	Ae mm <sup>2</sup>	Ve mm <sup>2</sup>						
14x8	Ungapped	13.8 <sup>+0.5</sup>	11.6 <sup>+0.4</sup>	5.8 <sup>+0.2</sup>	3 <sup>+0.2</sup>	5.6 <sup>+0.4</sup>	8.5 <sub>-0.3</sub>	9.4 <sup>+0.15</sup>	8.65 <sup>+0.3</sup>	25.3	25.3	539	2000R	1800R	1700R	3800R	5000R	7000R
23x11	Ungapped	22.4 <sup>+0.9</sup>	18 <sup>+0.6</sup>	9.5 <sup>+0.4</sup>	5 <sup>+0.2</sup>	7.4 <sup>+0.4</sup>	11 <sup>+0.2</sup>	15.25 <sup>+0.25</sup> -0.25	13.2 <sub>0</sub>	31.2	68.8	2144	4375R	4000R	3850R	7200R	10000R	16000R
23x18	Ungapped	22.4 <sup>+0.9</sup>	18 <sup>+0.6</sup>	9.5 <sup>+0.4</sup>	5 <sup>+0.2</sup>	14.0 <sup>+0.6</sup>	18.2 <sup>+0.2</sup>	15.25 <sup>+0.25</sup>	13.2 <sub>0</sub>	45.1	73.1	3293	2720R	2500R	2400R	5300R	7000R	12000R
30x19	Ungapped	29.5 <sup>+1.0</sup>	25 <sup>+0.8</sup>	13.1 <sup>+0.4</sup>	5.4 <sup>+0.4</sup>	13.0 <sup>+0.4</sup>	19 <sup>+0.4</sup>	20.2 <sup>+0.3</sup> -0.3	18 <sup>+0.5</sup> -0.5	46.4	119	5534	5400R	4700R	4500R	8000R	11100R	18500R

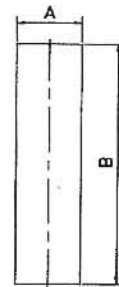
R - +30%, -20%



## BALUN CORES

Core	A Length	B Thick	C Width	D Hole Dia
13.2x7.37x13.5	13.21 <sup>+0.5</sup>	7.37 <sub>±0.18</sub>	12.96 <sup>+0.5</sup>	3.81 <sub>±0.18</sub>
13x8x6	13 <sub>±0.8</sub>	6.00 <sub>±0.4</sub>	8 <sub>±0.4</sub>	3.0 <sub>±0.4</sub>
13.2x7.37x6.60	6.6 <sub>±0.25</sub>	7.37 <sub>±0.18</sub>	13.21 <sub>±0.25</sub>	3.81 <sub>±0.18</sub>

Above cores are available in F14, F19, F9C materials.



## RODS

Core	A OD	B Length
3x16	3 <sub>±0.05</sub>	16 <sub>±0.3</sub>
4x13	3.97 <sub>±0.03</sub>	13.21 <sub>±0.26</sub>
4.75x15.88	4.75 <sub>±0.23</sub>	15.88 <sub>±0.5</sub>
6.35x15.0	6.35 <sub>±0.25</sub>	15.00 <sub>±0.5</sub>
10x12	9.75 <sub>±0.25</sub>	12.00 <sub>±1.0</sub>
10x30	9.75 <sub>±0.25</sub>	30.00 <sub>±1.0</sub>

Above cores are available in F14, F19, F9C materials.

Other dimensions available on request.

## QUALITY POLICY

### OUR COMMITMENT

For all of us at MMG INDIA PRIVATE LIMITED,  
Customer satisfaction is the primary goal.

We are **COMMITTED** to offer product of  
**CONSISTENT QUALITY** and **TIMELY DELIVERY**  
meeting customer requirements on a **CONTINUOUS BASIS**.

### OUR ACTION

Implementation, Maintenance and **IMPROVEMENT** of  
**QUALITY SYSTEM** and evolving methods of  
**DOING IT RIGHT FIRST TIME** shall be the way of life at  
**MMG INDIA PRIVATE LIMITED**.

## MMG Companies

### MMG MagDev Limited

Parsonage Road  
Stratton St.Margaret  
Swindon  
Wiltshire SN3 4RN, UK  
Telephone : +44 (O) 1793 833200  
Facsimile : +44 (O) 1793 834359  
Email : sales@magdev.co.uk  
Web : http://www.magdev.co.uk

### MMG North America

126 Pennsylvania Avenue  
Paterson,New Jersey 07509-2512  
USA  
Tel : 001 973 345 8900  
Fax : 001 973 345 1172  
Email : sales@mmgna.com  
Web : http://www.mmgna.com/

### MMG Canada Ltd

Formerly Neosid Canada Ltd.  
10 Vansco Road, Toronto  
Ontario M8Z 5J4, CANADA  
Tel : 001 416 251 2831  
Fax : 001 416 251 6790  
Email : mail@neosidcanada.com  
Web : http://www.neosidcanada.com/

### Neosid Australia Pty. Ltd

23-25 Percival Street,Lilyfield  
Sydney New South Wales 2040  
AUSTRALIA  
Tel : 0061 2 9660 4566  
Fax : 0061 2 9552 1748  
Email : sales@neosid.com.au/  
Web : http://www.neosid.com.au/



## MMG India Pvt. Ltd.

### Factory

**MMG India Pvt Ltd.**  
Formerly Neosid India Pvt. Ltd.  
144, Seevaram, Thoraipakkam  
Chennai - 600 096, INDIA  
Tel : +91 44 24965981  
Fax : +91 44 24960986  
Email : sales@mmg-india.com  
Web : http://www.mmg-india.com/

### Branches

**MMG India Pvt. Ltd.**  
No.4929, 11th Floor  
High Point 4  
No.45, Palace Road  
Bangalore,560 001, INDIA  
Tel. : +91 80 22268205  
Fax : +91 80 22253859  
E-mail : mmgnibr@vsnl.net

**MMG India Pvt.Ltd.**  
205, Hemkunt House 2nd Floor  
6 Rajindra Place  
New Delhi 110 008, INDIA  
Tel. : +91 11 25727731  
Fax : +91 11 25727732  
E-mail : melssdel@vsnl.com