

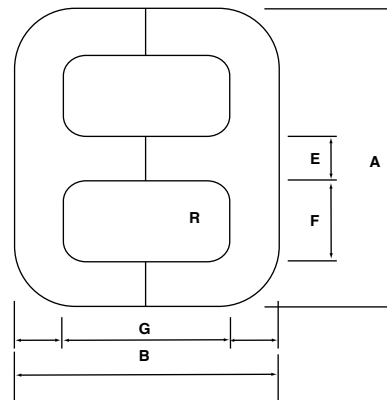
'E' cores



BRITISH RANGE 0.3 & 0.1MM 'E' CORES

IMPERIAL DIMENSIONS

Wiltan 'E' Type Cores



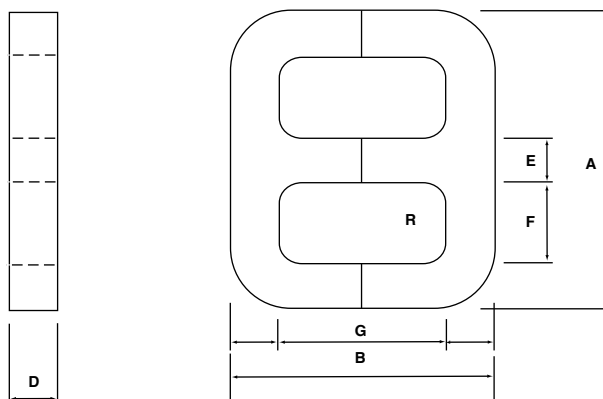
CORE REF.		DIMENSIONS IN INCHES											Nominal Nett Cross Section Area cm ²		Nominal Weight Kgs.		Approx.V.A. Rating	
IEC 329	HWE	A		B		D		E		F	G	Max. Corner Radius	0.3mm	0.1mm	0.3mm	0.1mm	50Hz 0.3mm	400Hz 0.1mm
			Tol		Tol		Tol		Tol	Min	Min							
-	13	2 1/4	+1/8	1 7/8	+1/8	1/2	+1/32	3/8	-0.010 +0.020	9/16	1 1/8	1/32	1.15	1.11	0.17	0.16	8	40
-	14	2 3/4	"	2 1/4	"	3/4	"	1/2		5/8	1 1/4	1/32	2.29	2.22	0.39	0.37	16	80
3Q1	1	3	"	2 1/2	"	1	"	1/2	"	3/4	1 1/2	1/16	3.06	2.97	0.60	0.58	30	150
3Q2	2	3 1/2	"	3	"	1	"	5/8	"	13/16	1 3/4	1/16	3.77	3.66	0.85	0.82	45	250
3Q3	3	3 5/8	"	3 1/4	"	1 1/8	"	5/8	"	7/8	2	1/16	4.24	4.11	1.04	1.01	60	350
3Q4	4	4 1/4	"	3 3/4	"	1 1/4	"	3/4	"	1	2 1/4	1/8	5.67	5.50	1.59	1.54	100	600
3Q5	5	4 7/8	"	4 1/4	"	1 1/4	"	7/8	"	1 1/8	2 1/2	1/8	6.65	6.45	2.10	2.04	150	800
3Q6	6	5 3/4	"	5	"	1 1/4	"	1	"	1 3/8	3	1/8	7.60	7.37	2.86	2.77	250	1350
3Q7	7	6 3/4	"	6	"	1 1/4	"	1 1/4	"	1 1/2	3 1/2	1/8	9.50	9.22	4.17	4.04	400	2000
3Q8	8	8	"	6 3/4	+5/32	1 1/2	"	1 1/2	"	1 3/4	3 3/4	1/8	13.70	13.29	6.80	6.60	700	3500
3Q9	9	8 5/8	"	7 1/2	"	1 5/8	"	1 5/8	"	1 7/8	4 1/4	1/8	16.10	15.62	8.81	8.55	1000	5000
3Q10	10	9 7/8	"	8 1/2	"	1 7/8	"	1 7/8	"	2 1/8	4 3/4	1/8	21.40	20.76	13.30	12.90	1700	8500
3Q11	11	11 1/8	"	9 1/4	"	2 1/8	+1/16	2 1/8	"	2 3/8	5	1/8	27.60	26.77	18.80	18.24	2500	12500
3Q12	12	12 5/8	"	10 1/4	"	2 3/8	"	2 3/8	"	2 3/4	5 1/2	1/8	34.40	33.37	26.40	25.61	4000	20000

The ratings quoted have been determined under conditions described in the introduction

BRITISH RANGE 0.3 & 0.1MM 'E' CORES

METRIC DIMENSIONS

Wiltan 'E' Type Cores

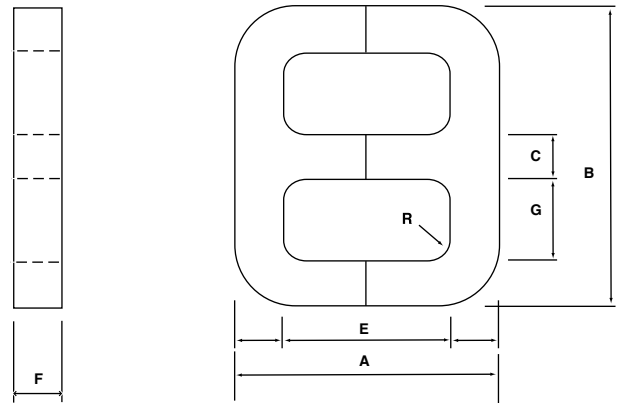


CORE REF.		DIMENSIONS IN mm									Nominal Nett Cross Section Area cm ²		Nominal Weight Kgs		Approx. V.A. Ratings	
IEC 329	HWE	A	B	D		E		F	G	R	0.3mm	0.1mm	0.3mm	0.1mm	0.3mm	0.1mm
		max	max	min	max	min	max	min	min	max						
-	13	60.40	50.80	12.70	13.50	9.30	10.00	14.30	28.60	0.80	1.15	1.11	0.17	0.16	8	40
-	14	73.00	60.30	19.00	19.80	12.50	13.20	15.90	31.70	0.80	2.22	2.29	0.37	0.39	16	80
3Q1	1	79.50	67.50	25.40	26.20	12.70	13.50	19.00	38.10	1.60	3.06	2.97	0.60	0.58	30	150
3Q2	2	92.00	79.60	25.40	26.20	15.60	16.60	20.60	44.40	1.60	3.77	3.66	0.85	0.82	45	250
3Q3	3	95.20	86.20	28.60	29.40	15.60	16.60	22.20	50.80	1.60	4.24	4.11	1.04	1.01	60	350
3Q4	4	111.10	99.00	31.70	32.50	18.80	19.60	25.40	57.20	3.20	5.67	5.50	1.59	1.54	100	600
3Q5	5	127.00	111.80	31.70	32.50	22.00	23.00	28.60	63.50	3.20	6.65	6.45	2.10	2.04	150	800
3Q6	6	148.40	130.80	31.70	32.50	25.10	26.10	34.90	76.20	3.20	7.60	7.37	2.86	2.77	250	1350
3Q7	7	174.20	156.60	31.70	32.50	31.50	32.50	38.10	88.90	3.20	9.50	9.22	4.17	4.04	400	2000
3Q8	8	206.00	175.90	38.10	38.90	37.80	39.00	44.40	95.30	3.20	13.70	13.29	6.80	6.60	700	3500
3Q9	9	222.20	195.30	41.30	42.10	41.00	42.20	47.60	108.00	3.20	16.10	15.62	8.81	8.55	1000	5000
3Q10	10	254.70	221.50	47.60	48.40	47.40	48.90	54.00	120.70	3.20	21.40	20.76	13.30	12.90	1700	8500
3Q11	11	286.80	241.30	54.00	55.60	53.70	55.20	60.30	127.00	3.20	27.60	26.77	18.80	18.24	2500	12500
3Q12	12	326.10	268.20	60.30	61.90	60.10	61.80	69.90	140.00	3.20	34.40	33.37	26.40	25.61	4000	20000

The ratings quoted have been determined under conditions described in the introduction

S3U RANGE 0.3MM 'E' CORES TO DIN 41309

Wiltan 'E' Cores Type S3U



S3U CORE Ref.	DIMENSIONS IN mm								Nett Cross Sectional Area cm ²	Nominal Weight Kgs	Approx. V.A. Ratings 50Hz
	A Max	B Max	C Tol	E Min	F Tol	G Min	R Max				
30 ^a 30 ^b	53.7	50.9	9.9 -0.8	32.5	10.1 16.1	-0.6	10	1.5	0.86 1.41	0.115 0.189	7 15
39 ^a 39 ^b	70.9	66.0	12.9 -0.8	41.5	13.4 20.4	-0.9	13	1.5	1.51 2.36	0.262 0.409	20 25
48 ^a 48 ^b	83.9	80.8	15.8 -0.9	50.5	16.6 25.6	-1.0	16	1.5	2.32 3.67	0.492 0.779	30 40
60 ^a 60 ^b	104.6	100.9	19.8 -0.9	63.0	20.6 30.6	-1.1	20	2.0	3.69 5.58	0.959 1.470	60 100
75 ^a 75 ^b	129.7	125.7	24.7 -1.0	78.0	26.1 41.1	-1.1	25	2.0	5.93 9.48	1.82 2.93	140 180
90 ^a 90 ^b	156.8	150.6	29.6 -1.1	95.0	30.9 50.9	-1.4	30	3.0	8.41 14.11	3.33 5.59	270 450
102 ^a 102 ^b	176.4	171.1	33.7 -1.2	106.0	35.4 56.4	-1.4	34	3.0	11.05 17.88	4.94 8.00	450 700
114 ^a 114 ^b	196.2	191.0	37.6 -1.3	118.0	39.2 63.2	-1.7	38	3.0	13.54 22.20	6.78 11.10	650 1000
132 ^a 132 ^b	226.4	220.5	43.4 -1.4	136.0	45.2 71.2	-1.7	44	3.0	18.27 29.19	10.50 16.80	1000 1800
150 ^a 150 ^b	255.6	249.6	49.4 -1.5	154.0	51.2 76.2	-1.7	50	3.0	23.71 35.69	15.50 23.40	2000 3000
168 ^a 168 ^b	286.0	279.6	55.3 -1.6	172.0	57.0 91.0	-2.0	56	3.0	29.54 47.79	21.70 35.10	3000 4000
180 ^a 180 ^b 180 ^c	307.2	301.0	59.7 -1.8	184.0	62.0 77.0 92.0	-2.0	60	3.0	34.74 43.43 52.11	27.40 34.20 41.10	3500 4500 5000
210 ^a 210 ^b 210 ^c	357.2	350.8	69.6 -2.0	214.0	71.7 101.7 131.7	-2.2	70	3.0	46.98 67.26 87.54	43.10 61.70 80.40	6000 8000 10000

The ratings quoted have been determined under conditions described in the introduction

The above can also be supplied in 0.1mm material.

**Correlation Reference Nos.
British Range of 'E' Cores -
Continental References**

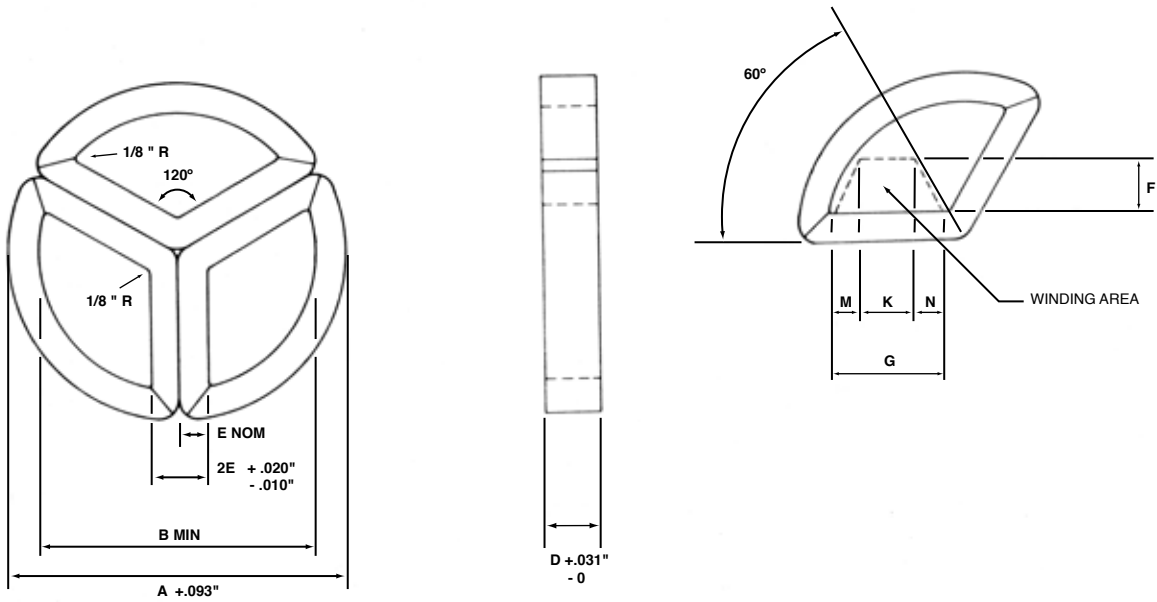


BS Spec. 5347 & IEC Spec. 329	German Specification Din. 41309	French Specification UTE C93-325 FA 10/30 FA 10/30	Telmag Reference
3R 1.1	S3U 150A		S3U 150A
3R 1.2	S3U 150B		S3U 150B
3R 2.1	S3U 168A		S3U 168A
3R 2.2	S3U 168B		S3U 168B
3R 3.1	S3U 180A		S3U 180A
3R 3.2	S3U 180B		S3U 180B
3R 3.3	S3U 180C		S3U 180C
3R 4.1	S3U 210A		S3U 210A
3R 4.2	S3U 210B		S3U 210B
3R 4.3	S3U 210C		S3U 210C
3P 1.1		EA 8	E 175
3P 1.2		EA 13	E 176
3P 1.3		EA 16	E 177
3P 2.1		EB 10	E 178
3P 2.2		EB 13	E 163
3P 2.3		EB 16	E 164
3P 2.4		EB 19	E 179
3P 2.5		EB 22	E 180
3P 3.1		EC 13	E 181
3P 3.2		EC 16	E 182
3P 3.3		EC 19	E 183
3Q 1		EC 25	E 1
3Q 2		ED 25	E 2
3Q 3		EF 29	E 3
3Q 4		EH 32	E 4
3Q 5		EK 32	E 5
3Q 6		EM 32	E 6
3Q 7		EP 32	E 7
3Q 8		ER 38	E 8
3Q 9		ET 41	E 9
3Q 10		EV 48	E 10
3Q 11		EX 54	E 11
3Q 12		EZ 60	E 12
3Q 00		-	E 13
3Q 0		-	E 14

WILTAN CIRCULAR 'E' TYPE CORE

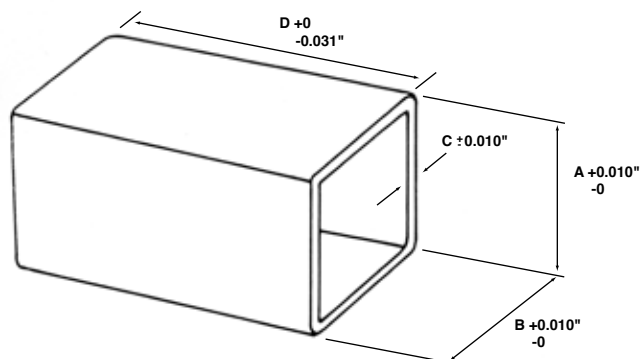
Standard Range of Sizes

Wiltan Circular 'E' Type Cores are now produced in the range of sizes shown in the table below. The Wiltan Technical Advisory Service is available to design engineers regarding the application of Circular 'E' Type Cores to particular requirements which they have in view.



Wiltan Part No.	USA Part No.	Dimensions in Inches					Complete Weight Kg.		Nett Cross Section Area cm ²		Effective Window Area					
		A	B	D	E	2E	0.3	0.1	0.3	0.1	F	G	K	M	N	In ²
CE 500	5192	1 7/8	1 1/2	3/8	3/16	3/8		.082		.020	1/8	17/32	1/4	1/8	1/8	.097
CE 501	5283	3	2 1/2	1/2	1/4	1/2		.249		.036	1/2	1	1/2	7/32	9/32	.38
CE 502	5091	3	2 1/2	3/4	1/4	1/2		.372		.054	1/2	1	1/2	7/32	9/32	.38
CE 503	5188	3	2 1/2	1	1/4	1/2		.499		.071	1/2	1	1/2	7/32	9/32	.38
CE 504	5213	3 5/8	3 1/16	9/16	9/32	9/16		.381		.045	5/8	1 1/4	5/8	1/4	3/8	.59
CE 505	5284	3 5/8	3 1/16	3/4	9/32	9/16		.503		.059	5/8	1 1/4	5/8	1/4	3/8	.59
CE 506	5145	3 5/8	3 1/16	7/8	9/32	9/16		.594		.070	5/8	1 1/4	5/8	1/4	3/8	.59
CE 507	5198	4	3 3/8	3/4	5/16	5/8	.631	.612	.070	.067	11/16	13/8	11/16	5/16	3/8	.71
CE 508	5282	4	3 3/8	7/8	5/16	5/8	.726	.703	.081	.079	11/16	13/8	11/16	5/16	3/8	.71
CE 509	5137	4	3 1/2	7/8	1/4	1/2	.594	.576	.065	.062	11/16	13/8	11/16	5/16	3/8	.71
CE 510	5285	4 1/2	3 3/4	3/4	3/8	3/4	.739	.717	.082	.081	3/4	19/16	3/4	3/8	7/16	.87
CE 511	5090	4 1/2	3 3/4	7/8	3/8	3/4	.898	.871	.096	.093	3/4	19/16	3/4	3/8	7/16	.87
CE 512	5236	4 1/2	3 3/4	19/32	3/8	3/4	1.306	1.270	.141	.136	3/4	19/16	3/4	3/8	7/16	.87
CE 513	5286	4 1/2	3 3/4	1	3/8	3/4	1.025	.993	.110	.107	3/4	19/16	3/4	3/8	7/16	.87
CE 514	5101	4 1/2	3 3/4	1 1/8	3/8	3/4	1.152	1.116	.124	.119	3/4	19/16	3/4	3/8	7/16	.87
CE 515	5125	4 1/2	3 3/4	1 1/4	3/8	3/4	1.284	1.243	.138	.133	3/4	19/16	3/4	3/4	7/16	.87
CE 516	5142	5 1/4	4 3/8	1	7/16	7/8	1.488	1.442	.129	.126	7/8	13/4	15/16	5/16	1/2	1.18
CE 517	5156	5 1/4	4 3/8	1 1/2	7/16	7/8	2.232	2.164	.194	.188	7/8	13/4	15/16	5/16	1/2	1.18
CE 518	5157	5 1/4	4 3/8	1 5/8	7/16	7/8	2.413	2.341	.209	.203	7/8	13/4	15/16	5/16	1/2	1.18
CE 519	5287	5 1/2	4 5/8	7/8	7/16	7/8	1.374	1.334	.112	.109	15/16	17/8	15/16	7/16	1/2	1.32
CE 520	5288	5 1/2	4 5/8	1	7/16	7/8	1.569	1.524	.129	.126	15/16	17/8	15/16	7/16	1/2	1.32
CE 521	5289	5 1/2	4 5/8	1 1/8	7/16	7/8	1.769	1.715	.144	.140	15/16	17/8	15/16	7/16	1/2	1.32
CE 522	5290	5 1/2	4 5/8	1 1/4	7/16	7/8	1.964	1.905	.160	.155	15/16	17/8	15/16	7/16	1/2	1.32
CE 523	5154	7	5 3/4	1 1/2	5/8	1 1/4	4.087	3.960	.276	.267	1 1/16	2 1/8	1 1/16	1/2	9/16	1.70
CE 524	5291	7	5 3/4	1 1/4	5/8	1 1/4	3.402	3.298	.229	.222	1 1/16	2 1/8	1 1/16	1/2	9/16	1.70

RECTANGULAR TUBES TO SUIT BRITISH RANGE 'E' CORES



Core Ref.Spec. BS 5347 IEC. 329	HWE Core Ref.	DIMENSIONS IN INCHES			
		A	B	C	D
3Q00	13	$\frac{7}{16}$	$\frac{9}{16}$	$\frac{1}{32}$	$1\frac{1}{16}$
3Q0	14	$\frac{9}{16}$	$\frac{13}{16}$	$\frac{1}{32}$	$1\frac{3}{16}$
3Q1	1	$\frac{9}{16}$	$1\frac{1}{16}$	$\frac{1}{16}$	$1\frac{7}{16}$
3Q2	2	$1\frac{1}{16}$	$1\frac{1}{16}$	$\frac{1}{16}$	$1\frac{11}{16}$
3Q3	3	$1\frac{1}{16}$	$1\frac{3}{16}$	$\frac{1}{16}$	$1\frac{15}{16}$
3Q4	4	$\frac{13}{16}$	$1\frac{5}{16}$	$\frac{1}{16}$	$2\frac{1}{8}$
3Q5	5	$\frac{15}{16}$	$1\frac{5}{16}$	$\frac{1}{16}$	$2\frac{3}{8}$
3Q6	6	$1\frac{1}{16}$	$1\frac{5}{16}$	$\frac{1}{16}$	$2\frac{7}{8}$
3Q7	7	$1\frac{5}{16}$	$1\frac{5}{16}$	$\frac{1}{16}$	$3\frac{3}{8}$
3Q8	8	$1\frac{9}{16}$	$1\frac{9}{16}$	$\frac{1}{16}$	$3\frac{5}{8}$
3Q9	9	$1\frac{11}{16}$	$1\frac{11}{16}$	$\frac{3}{32}$	$4\frac{1}{8}$
3Q10	10	$1\frac{15}{16}$	$1\frac{15}{16}$	$\frac{3}{32}$	$4\frac{5}{8}$
3Q11	11	$2\frac{1}{4}$	$2\frac{1}{4}$	$\frac{1}{8}$	$4\frac{7}{8}$
3Q12	12	$2\frac{1}{2}$	$2\frac{1}{2}$	$\frac{1}{8}$	$5\frac{3}{8}$

STANDARD ELECTRICAL GUARANTEES 0.03MM & 0.1MM 'E' CORES

Telmag Spec No.	Material mm	Frequency Hz	Guarantee Induction Tesla	Total Iron Loss Not Greater Than Watts/kg	Total R.M.S. magnetising VA/Kg Not Greater Than
OS-17	0.3	50	1.7	2.7	$\sqrt{\frac{(9.7 + 2.63 \times A)^2 + 2.7^2}{W}}$
OS-12	0.1	400	1.2	17.6	$\sqrt{\frac{(17.6 + 8.2 \times A)^2 + 17.6^2}{W}}$

Where A is nett cross section per limb (cm²) W is nett weight of core (kilograms).



NOTES