



Speedofer Company Profile

What We Do: Speedofer Components manufactures Soft Ferrite Cores in forms and shapes of Drum, EDR, EE, EER, EFD, EI, ELP, EP, EPC, ER,ET, ETD, EV, I, Planer, Pot, PQ, Ring (Toroidal), RM, UT, UU & etc. geometries that composed from FeMnZn (Iron, Manganese & Zinc). These Ferrites are used in making Transformers, Inductors, Chokes and Ferrite Beads that apply in powering any electronics circuits.

What We Believe: Speedofer Components Believing that Research & Development is the only way forward for the products we manufacture and substantially invested in state-of-the-art Swiss made equipment lines.

Who We Are: Speedofer Components was found in 2007 by the most experienced professionals in Soft Ferrite Cores in India. Speedofer also has high skilled manpower with more than THREE DECADES of experience in the field of Ferrite Cores. Our organization work to the standards of Business Excellence and are fully committed to the principle of consistent and continuous improvement at all levels of our organization. This involves everyone, including our Suppliers and forms the basis for successful relationships.

Customized Products: Speedofer Components also sales NiZn (Nickel Zinc), Iron Powder, MPP (Molypermalloy Powder), Sendust composed and customized Ferrite Cores for special applications. Exports: Speedofer Components generates about 5% of total revenues from exports.

Employees: 50~100

Application : Consumer Electronics, EMI, EV (Electric Vehicle), LED Lighting, Conventional Lighting, Solar Energy, Telecommunications and Power Distribution.

Plant Capacity: 150 Tons (60 Million pieces per month).

Why Speedofer: Best Quality, Competitive Price, Product Customization, Quick Delivery & Aftersales Service.

System Certifications: QMS ISO 9001:2015, EMS ISO14001:2015, OHSAS ISO 45001:2018

System Certifications: RoHS Directive 2011/65/EU, REACh

D&B D-U-N-S Number: 67-738-4917

Speedofer Components Pvt. Ltd.						
	System Compliance	ISO 9001:2015 Quality Management System				
C	Clause & Description	4.2.1, Quality Policy				
J Speedofer	Document No	SCPL-QMS-MR-CP-02				
	Date	21st September 2021				

Quality Policy

We, at Speedofer Components Pvt. Ltd. are committed to manufacture products as per the requirements of our Customers and are also committed to give the best after sales service through continual improvement in Quality Management Systems.

Speedofer Catalogue Index

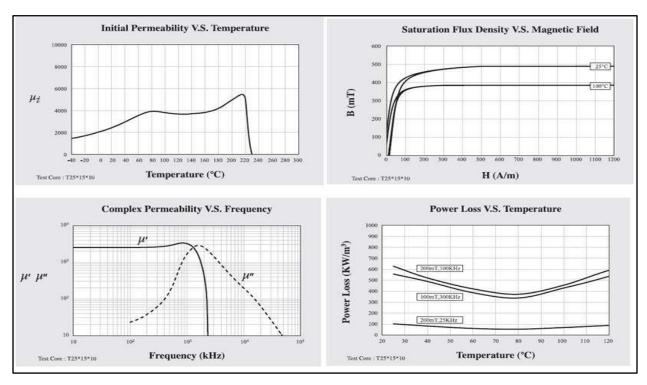
Order	Content Description Page No	Page No
1	Front Cover	1
2	Company Profile in Brief	2
3	Catalogue Index	
4	Material Characteristics Index (MnZn)	4-5
5	SFP4 Material Characteristics	6
6	SFP97 Material Characteristics	7
7	SFP95 Material Characteristics	8
8	SFP92 Material Characteristics	9
9	SFP33 Material Characteristics	10
10	SFP48 Material Characteristics	11
11	SFP49 Material Characteristics	12
12	SFA05 Material Characteristics	13
13	SFA07 Material Characteristics	14
14	SFA10 Material Characteristics	15
15	SFA12 Material Characteristics	16
16	Drum Cores	17
17	EDR Cores	18-19
18	EE Cores	20-21
19	EFD Cores	22-23
20	EI Cores	22-23
21	EP Cores	24-25
22	EPC Cores	24-25
23	ER Cores	26-27
24	EQ Cores	26-27
25	ET Cores	28-29
26	ETD Cores	28-29
27	I Cores	30-31
28	Pot Cores	30-31
29	PQ Cores	32-33
30	RM Cores	34-35
31	Toroidal Cores	36-39
32	UT Cores	40-41
33	UU Cores	40-41
34	Definitions & Formulas	42-45
35	Certifications & Back Cover Content	46
36	Speedofer Senior Management	47

M () ID ()		11. 14	Mea	suring Condit	0504	05007	
Material Properties	Symbol	Unit	Freq.	Flux den.	Temp.	SFP4	SFP97
Initial Permeability	μi		10kHz	0.25mT	25°C	2300±25%	2500±25%
			25kHz	200mT	25 °C	105	125
			ZOKITZ	2001111	100°C	55	50
			100kHz	200mT	25 °C	600	600
Power Loss	Pv	kW/m³	TOURHZ	200m1	100°C	410	250
Power Loss	PV	KVV/III°	300kHz	100mT	25 °C	660	820
			SUUKHZ	1001111	100°C	430	500
			500kHz	50mT	25 °C	380	400
					100°C	330	300
Saturation Floor Density	Bms	T	10KHz	LI=1200 A /	25°C	510	530
Saturation Flux Density	Bills	mT	III IUNIZ	H=1200A/m	100°C	390	420
Damanana	Brms	mT	10KHz	H=1200A/m	25°C	95	180
Remanence	Brms	m ı	IUNHZ	H=1200A/M	100°C	55	60
Coordinates	Цо	Δ/m	10kHz	H=1200A/m	25°C	14	13
Coercivity	Hc	A/m	TUKHZ	H=1200A/M	100°C	8.8	6
Relative Loss Factor	to=5 /	10 ⁻⁶	10KHz	<0.25mT	25°C	-	-
Relative Loss Factor	tanδ /μi	103	100kHz	<0.25III1	25°C	-	-
Hysteresis Material Constant	ηВ	10 ^{-6/} mT	10KHz	1.5-3.0mT	25°C	<1.2	<1
Disaccommodation Factor	D _F	10 ⁻⁶	10KHz	< 0.25mT	25°C	<2.0	<2.0
Curie Temperature	Тс	°C	-	-	-	≥220	>230
Resistivity	ρ	Ωm	-	-	-	6.5	4
Density	d	g/cm ³	-	-	-	4.8	4.9

SFP95	SFP92	SFP33	SFP48	SFP49	SFA05	SFA07	SFA10	SFA12
3300±25%	1700±25%	750±25%	2500±25%	1500±25%	5000±25%	7000±25%	10000±30%	12000±30%
-	-	-	-	-	-	-	-	-
_	-	-	-	-	-	-	-	-
350	750	-	-	-	-	-	-	-
300	400	-	-	-	-	-	-	-
-	-	-	-	410	-	-	-	-
410	-	-	-	370	-	-	-	-
-	450	-	-	200	-	-	-	-
250	230	-	-	100	-	-	-	-
530	540	500	450	490	440	400	410	380
410	460	410	320	400	300	200	210	180
85	280	400	180	215	80	150	140	130
60	50	330	150	125	90	110	110	110
9.5	14	25	18	35	-	-	-	-
6.5	8	20	12	30	-	-	-	-
-	-	<60	<7	-	<4	<8	<10	<10
-	-	<20	<3	-	<15	<30	<60	<60
<1.2	<1.0	<2.5 (100kHz)	<0.6	<1.0	<0.8	<1.2	<0.5	<0.5
<2.0	<2.0	8	-	<2.0	<2.0	<2.0	<2.0	<2.0
≥215	≥280	≥250	≥170	≥250	≥140	≥130	≥130	≥110
6	3	2	7.5	12	0.2	0.35	0.15	0.12
4.9	4.9	4.7	4.7	4.85	4.85	4.9	4.9	4.9

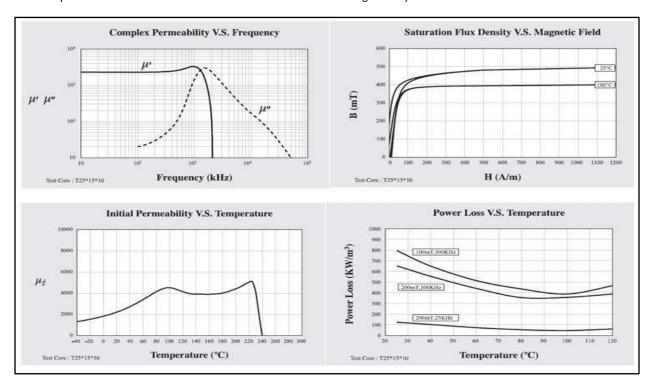
Matarial Dramartica	Comple al	Unit	Mea	asuring Condition	ons	CED4
Material Properties	Symbol	Unit	Freq.	Flux den.	Temp.	SFP4
Initial Permeability	μi		10kHz	0.25mT	25°C	2300±25%
			25kHz	200mT	25 °C	105
			ZUKIIZ	2001111	100°C	55
			100kHz	200mT	25 °C	600
Power Loss	Pv	kW/m³	TOURITZ	2001111	100°C	410
Fower Loss	ΓV	KVV/III*	300kHz	100mT	25 °C	660
				1001111	100°C	430
			500kHz	50mT	25 °C	380
					100°C	330
Saturation Flux Density	Bms	mT	10KHz	H=1200A/m	25°C	490
Saturation Flux Density	Dillo				100°C	390
Remanence	Brms	mT	10KHz	H=1200A/m	25°C	95
Remanence	פווווט	1111	TORTIZ	11-1200/4/111	100°C	55
Coercivity	Hc	A/m	10kHz	H=1200A/m	25°C	14
Coercivity	TIC	Aviii	TUKTIZ	11-1200/4/111	100°C	8.8
Hysteresis Material Constant	ηΒ	10 ^{-6/} mT	10KHz	1.5 - 3.0mT	25°C	<1.2
Disaccommodation Factor	D _F	10 ⁻⁶	10KHz	< 0.25mT	25°C	<2.0
Curie Temperature	Tc	°C				≥220
Resistivity	ρ	Ωm				6.5
Density	d	g/cm ³				4.8

Note: Material characteristics are typical for a toroid core.



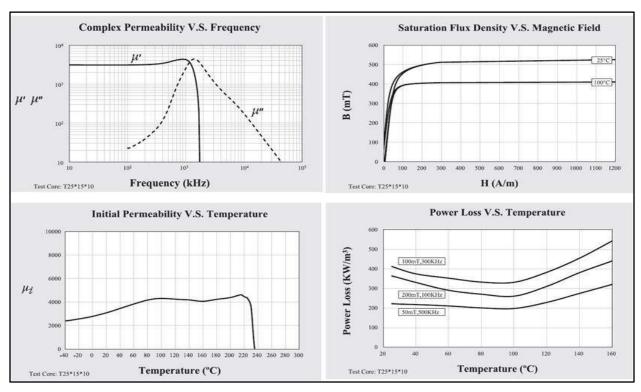
Metarial Dreventies	Cumahad	l lm!4	Mea	asuring Conditi	ons	SED07
Material Properties	Symbol	Unit	Freq.	Flux den.	Temp.	SFP97
Initial Permeability	μi		10kHz	0.25mT	25°C	2500±25%
			25kHz	200mT	25 °C	125
			ZOKITZ	2001111	100°C	50
			100kHz	200mT	25 °C	600
Power Loss	Pv	kW/m ³	TOURHZ	2001111	100°C	250
Power Loss	PV	KVV/III	300kHz	100mT	25 °C	820
			300KHZ	1001111	100°C	500
			500kHz	50mT	25 °C	400
				30111	100°C	300
Saturation Flux Density	Bms	mT	10KHz	H=1200A/m	25°C	530
Saturation Flux Density	DIIIS	1111	TORTIZ	11-1200AVIII	100°C	420
Remanence	Brms	mT	10KHz	H=1200A/m	25°C	180
Remanence	ышь	1111	TUKHZ	H-1200AVIII	100°C	60
Coercivity	Hc	A/m	10kHz	H=1200A/m	25°C	13
Coercivity	ПС	Aviii	TUKFIZ	H-1200AVIII	100°C	6
Hysteresis Material Constant	ηВ	10 ^{-6/} mT	10KHz	1.5-3.0mT	25°C	<1
Disaccommodation Factor	D _F	10 ⁻⁶	10KHz	< 0.25mT	25°C	<2.0
Curie Temperature	Tc	°C				>230
Resistivity	ρ	Ωm				4
Density	d	g/cm ³				4.9

Note: Material characteristics are typical for a toroid core.



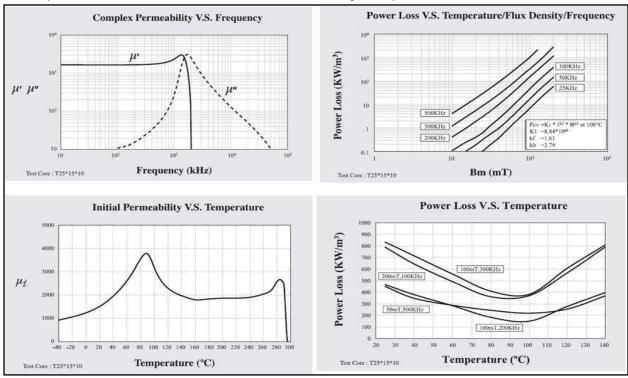
Motorial Proportion	Cumbal	Unit	Mea	SFP95		
Material Properties	Symbol	Onit	Freq.	Flux den.	Temp.	3FF93
Initial Permeability	μi		10kHz	0.25mT	25°C	3300±25%
			25kHz	200mT	25 °C	-
			ZUKIIZ	2001111	100°C	-
			100kHz	200mT	25 °C	350
Power Loss	Pv	kW/m³	TUUKHZ	2001111	100°C	300
Power Loss	ΓV	KVV/III*	300kHz	100mT	25 °C	440
				1001111	100°C	400
			500kHz	50mT	25 °C	1
					100°C	250
Saturation Flux Density	Bms	mT	10KHz	H=1200A/m	25°C	530
Saturation Flux Density					100°C	410
Remanence	Brms	mT	10KHz	H=1200A/m	25°C	85
Remanence	Dillis	1111		H-1200A/III	100°C	60
Coercivity	Hc	A/m	10kHz	H=1200A/m	25°C	9.5
Coefficiently	110	7/111	TORTIZ	11-1200/4/111	100°C	6.5
Hysteresis Material Constant	ηВ	10 ^{-6/} mT	10KHz	1.5 - 3.0mT	25°C	<0.6
Disaccommodation Factor	D _F	10 ⁻⁶	10KHz	< 0.25mT	25°C	<1
Curie Temperature	Tc	°C				≥215
Resistivity	ρ	Ωm				6
Density	d	g/cm ³				4.9

Note: Material characteristics are typical for a toroid core.



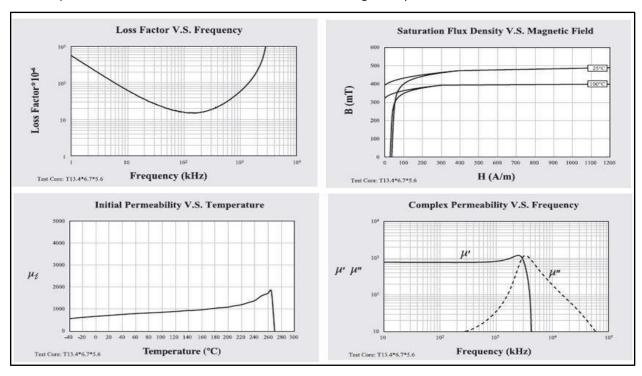
			Mea	asuring Condit	ions	
Material Properties	Symbol	Unit	Freq.	Flux den.	Temp.	SFP92
Initial Permeability	μi		10kHz	0.25mT	25°C	1700±25%
			25kHz	200mT	25 °C	-
			23KI 12	2001111	100°C	-
			100kHz	200mT	25 °C	750
Power Loss	Pv	kW/m³	TOOKITZ	2001111	100°C	400
Fower Loss	Г۷	KVV/III	300kHz	100mT	25 °C	-
				1001111	100°C	-
			500kHz	50mT	25 °C	450
					100°C	230
Saturation Flux Density	Bms	mT	10KHz	H=1200A/m	25°C	540
Saturation Flux Density	פווום	1111	TURTIZ	11-1200A/III	100°C	460
Remanence	Brms	mT	10KHz	H=1200A/m	25°C	280
Remanence	מווום		TORTIZ	11-1200/4111	100°C	50
Coercivity	Hc	A/m	10kHz	H=1200A/m	25°C	14
Coercivity	110	AVIII	TURTIZ	11-1200A/111	100°C	8
Relative Loss Factor	tanδ /μi	10 ⁻⁶	10KHz	<0.25mT	25°C	-
Relative Loss I actor	ιαπο /μι	10	100kHz	\0.23 III1	25°C	-
Hysteresis Material Constant	ηВ	10 ^{-6/} mT	10KHz	1.5-3.0mT	25°C	<1.0
Disaccommodation Factor	D _F	10 ⁻⁶	10KHz	< 0.25mT	25°C	<2.0
Curie Temperature	Тс	°C	-	-	-	≥280
Resistivity	ρ	Ωm	-	-	-	3
Density	d	g/cm ³	-	-	-	4.9

Note: Material characteristics are typical for a toroid core.



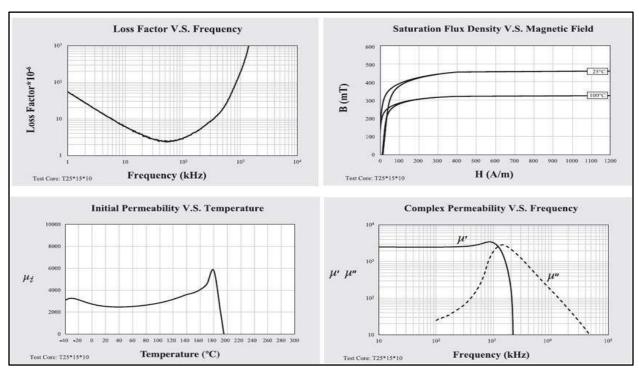
Matarial Dranautica	Cumbal	l lmi4	Mea	suring Conditi	ons	SFP33
Material Properties	Symbol	Unit	Freq.	Flux den.	Temp.	5FP33
Initial Permeability	μi		10kHz	0.25mT	25°C	750±25%
			25kHz	200mT	25 °C	-
			ZOKITZ	2001111	100°C	1
			100kHz	200mT	25 °C	
Power Loss	Pv	kW/m³	TOURNZ	2001111	100°C	-
Fower Loss	FV	KVV/III*	300kHz	100mT	25 °C	-
			JUUKHZ	1001111	100°C	-
			500kHz	50mT	25 °C	-
				30111	100°C	-
Saturation Flux Density	Bms	mT	10KHz	H=1200A/m	25°C	500
Saturation Flux Density	Dillo		101112	11-1200/4111	100°C	410
Remanence	Brms	mT	10KHz	H=1200A/m	25°C	400
Remanence	Dillis	1111	TOTALLE	11 12007 (111	100°C	330
Coercivity	Hc	A/m	10kHz	H=1200A/m	25°C	25
Coercivity	TIC	7/111	TORTIZ	11-1200/4111	100°C	20
Relative Loss Factor	tanδ /μi	10 ⁻⁶	10KHz	<0.25mT	25°C	<60
Relative Loss Factor	ιαπο /μι	10	100kHz	\0.25 III1	25°C	<20
Hysteresis Material Constant	ηВ	10 ⁻ ^{6/} mT	10KHz	1.5 - 3.0mT	25°C	<2.5 (100kHz)
Disaccommodation Factor	D _F	10 ⁻⁶	10KHz	< 0.25mT	25°C	8
Curie Temperature	Tc	°C				≥250
Resistivity	ρ	Ωm				2
Density	d	g/cm ³				4.7

Note: Material characteristics are typical for a toroid core.



Material Dress seties	Consult all	Unit	Me	easuring Condition	ons	SFP48
Material Properties	Symbol		Freq.	Flux den.	Temp.	
Initial Permeability	μi		10kHz	0.25mT	25°C	2500±25%
			25kHz	200mT	25 °C	-
			23KHZ	200111	100°C	-
			100kHz	200mT	25 °C	-
Power Loss	Pv	kW/m³	TOOKHZ	200111	100°C	-
Fower Loss	FV	KVV/III*	300kHz	100mT	25 °C	-
				100111	100°C	-
			500kHz	50mT	25 °C	-
				50111	100°C	-
Saturation Flux Density	Bms	mT	10KHz	H=1200A/m	25°C	450
Saturation Flux Density				H-1200A/III	100°C	320
Remanence	Brms	mT	10KHz	H=1200A/m	25°C	180
Remanence	DIIIIS			11-1200A/III	100°C	150
Coercivity	Hc	A/m	10kHz	H=1200A/m	25°C	18
Coercivity	ПС	AVIII	TUKHZ	H-1200A/III	100°C	12
Relative Loss Factor	tanδ /μi	10 ⁻⁶	10KHz	<0.25mT	25°C	<7
Relative LOSS Factor	ιαπο /μι	10	100kHz	~0.25III1	25°C	<3
Hysteresis Material Constant	ηВ	10 ^{-6/} mT	10KHz	1.5 - 3.0mT	25°C	<0.6
Disaccommodation Factor	D _F	10 ⁻⁶	10KHz	< 0.25mT	25°C	-
Curie Temperature	Tc	°C				≥170
Resistivity	ρ	Ωm				7.5
Density	d	g/cm ³				4.7

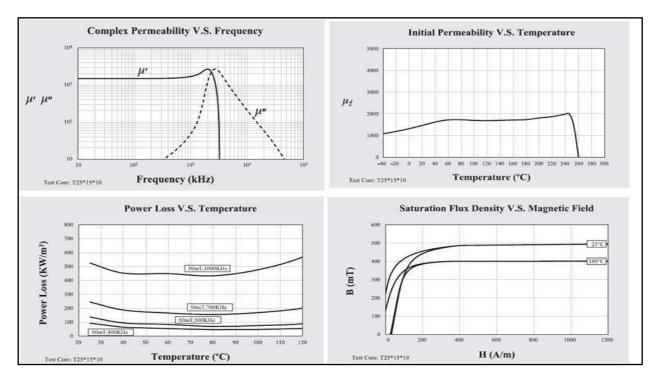
Note: Material characteristics are typical for a toroid core.



Material Proportios	Symbol	Unit	Meas	suring Condit	tions	SFP49
Material Properties	Symbol	Unit	Freq.	Flux den.	Temp.	3FF49
Initial Permeability	μi		10kHz	0.25mT	25°C	1500±25%
			25kHz	200mT	25 °C	-
			ZOKITZ	2001111	100°C	-
			100kHz	200mT	25 °C	-
			TUUKHZ	2001111	100°C	-
Power Loss	Pv	kW/m³	300kHz	100mT	25 °C	410
Power Loss	PV	KVV/III°	300KH2	1001111	100°C	370
			500kHz	50T	25 °C	200
				50mT	100°C	100
			1000kHz	50mT	25 °C	-
				50111	100°C	550
Saturation Flux Density	Bms	mT	10KHz	H=1200A/m	25°C	490
Saturation Flux Density	DIIIS			11-1200A/111	100°C	400
Remanence	Brms	T	10KHz	H=1200A/m	25°C	215
Remanence	DIIIS	mT	TUNHZ	H-1200A/III	100°C	125
Coordinity	Hc	A/m	10kHz	H=1200A/m	25°C	35
Coercivity	пс	AVIII	TUKEZ	H-1200A/III	100°C	30
Hysteresis Material Constant	ηВ	10 ^{-6/} mT	10KHz	1.5-3.0mT	25°C	<1.0
Disaccommodation Factor	D _F	10 ⁻⁶	10KHz	< 0.25mT	25°C	<2.0
Curie Temperature	Тс	°C				≥250
Resistivity	ρ	Ωm				12
Density	d	g/cm ³				4.85

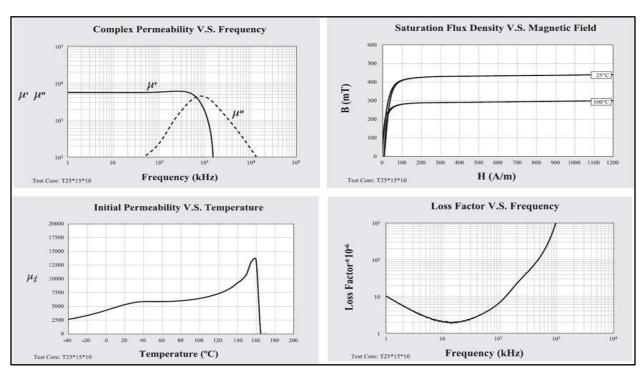
Note: Material characteristics are typical for a toroid core.

 $\label{lem:product_specification} \textbf{Product specification will differ from these data due to the influence of geometry and size.}$



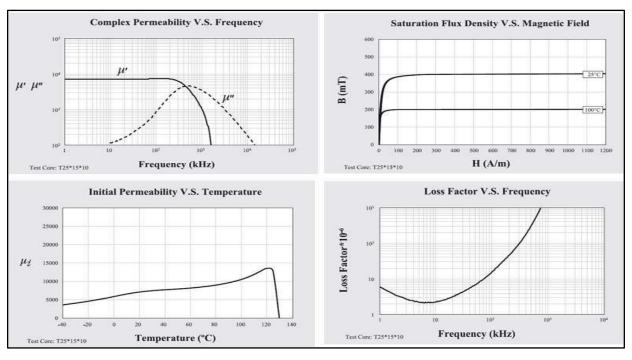
Matarial Drawartica	Comple al	l lm!4	Mea	asuring Condition	ons	CEACE
Material Properties	Symbol	Unit	Freq.	Flux den.	Temp.	SFA05
Initial Permeability	μi	-	10kHz	0.25mT	25°C	5000±25%
			25kHz	200mT	25 °C	-
			ZOKITZ	2001111	100°C	-
			100kHz	200mT	25 °C	-
Power Loss	Pv	kW/m³	TOURHZ	2001111	100°C	-
Fower Loss	l Pv	KVV/III-	300kHz	100mT	25 °C	-
			SUUKHZ	100m1	100°C	-
			500kHz	50mT	25 °C	-
				50111	100°C	-
Saturation Flux Density	Bms	mT	10KHz	H=1200A/m	25°C	440
Saturation Flux Density				11-1200/4111	100°C	300
Remanence	Brms	mT	10KHz	H=1200A/m	25°C	80
Remanence	פווווס			Π-1200A/III	100°C	90
Coercivity	Hc	A/m	10kHz	H=1200A/m	25°C	1
Coercivity	TIC	AVIII	TUKTIZ	11-12004/111	100°C	
Relative Loss Factor	tanδ /μi	10 ⁻⁶	10KHz	<0.25mT	25°C	<4
Relative Loss Factor	ιαπο /μι	10	100kHz	~ 0.23II1	25°C	<15
Hysteresis Material Constant	ηВ	10 ^{-6/} mT	10KHz	1.5 - 3.0mT	25°C	<0.8
Disaccommodation Factor	D_F	10 ⁻⁶	10KHz	< 0.25mT	25°C	<3
Curie Temperature	Tc	°C	-	-	-	≥140
Resistivity	ρ	Ωm	-	-	-	0.2
Density	d	g/cm ³	ı	i	-	4.85

Note: Material characteristics are typical for a toroid core.



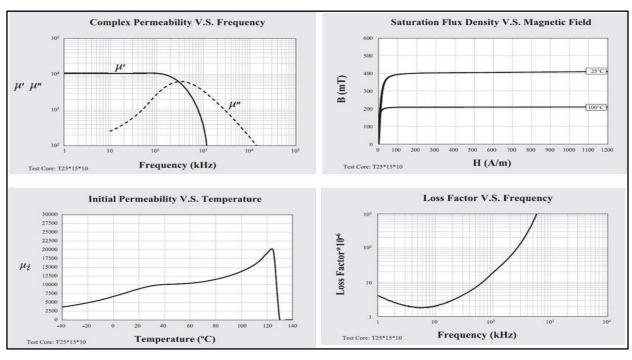
Motorial Dranautica	Cumbal	Unit	Mea	suring Conditi	ons	SFA07
Material Properties	Symbol	Unit	Freq.	Flux den.	Temp.	SFAU!
Initial Permeability	μi	-	10kHz	0.25mT	25°C	7000±25%
			25kHz	200mT	25 °C	-
			ZOKITZ	200m1	100°C	-
			100kHz	200mT	25 °C	-
Power Loss	Pv kW/	IdA//m3		200111	100°C	-
Fower Loss		KVV/III°	300kHz	100mT	25 °C	-
			SUUKIIZ	1001111	100°C	-
			500kHz	50mT	25 °C	-
				50111	100°C	-
Saturation Flux Density	Bms	mT	10KHz	H=1200A/m	25°C	400
Saturation Flux Density	DIIIS	1111	TUNHZ	11-1200//11	100°C	200
Remanence	Brms	mT	10KHz	H=1200A/m	25°C	150
Remanence	מווום	1111	TURTIZ	11-1200/4/111	100°C	110
Coercivity	Hc	A/m	10kHz	H=1200A/m	25°C	-
Coercivity	110	Aviii	TUKITZ	H=1200A/III	100°C	-
Relative Loss Factor	tanδ /μi	10 ⁻⁶	10KHz	<0.25mT	25°C	<8
	ιαπο /μι	10	100kHz	~ 0.23111	25°C	<30
Hysteresis Material Constant	ηΒ	10 ^{-6/} mT	10KHz	1.5-3.0mT	25°C	<1.2
Disaccommodation Factor	D _F	10 ⁻⁶	10KHz	< 0.25mT	25°C	<2
Curie Temperature	Tc	°C	•	-	-	≥130
Resistivity	ρ	Ωm	ı	-	-	0.35
Density	d	g/cm ³		-	-	4.9

Note: Material characteristics are typical for a toroid core.



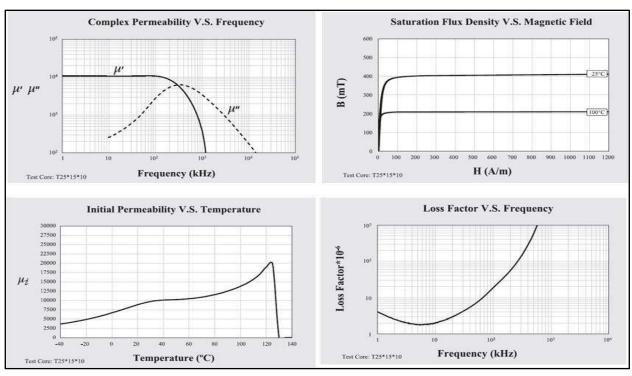
Metarial Dreparties	Cumbal	Unit	Mea	asuring Condition	ons	SFA10
Material Properties	Symbol	Unit	Freq.	Flux den.	Temp.	SFAIU
Initial Permeability	μi	-	10kHz	0.25mT	25°C	10000±30%
			25kHz	200mT	25 °C	-
			23KHZ	2001111	100°C	-
Power Loss			100kHz	200mT	25 °C	-
	Pv	kW/m ³	TOURHZ	2001111	100°C	-
	FV	KVV/III*	300kHz	100mT	25 °C	-
			SUUKITZ	TOOMT	100°C	-
			500kHz	FOT	25 °C	-
				50mT	100°C	-
Saturation Flux Density	Bms	mT	10KHz	H=1200A/m	25°C	410
Saturation Flux Density				Π-1200A/III	100°C	210
Remanence	Brms	mT	10KHz	H=1200A/m	25°C	140
Remanence	DIIIIS			Π-1200A/III	100°C	110
Coercivity	Hc	A/m	10kHz	H=1200A/m	25°C	-
Coercivity	ПС	AVIII	TUKHZ	Π-1200A/III	100°C	-
Relative Loss Factor	tanδ /μi	10 ⁻⁶	10KHz	<0.25mT	25°C	<10
Relative Loss Factor	ιαπο /μι	103	100kHz	<0.25III1	25°C	<60
Hysteresis Material Constant	ηВ	10 ^{-6/} mT	10KHz	1.5 - 3.0mT	25°C	<0.5
Disaccommodation Factor	D _F	10 ⁻⁶	10KHz	< 0.25mT	25°C	<2
Curie Temperature	Тс	°C	-	-	=	≥130
Resistivity	ρ	Ωm	-	-	-	0.15
Density	d	g/cm ³	-	-	-	4.9

Note: Material characteristics are typical for a toroid core.

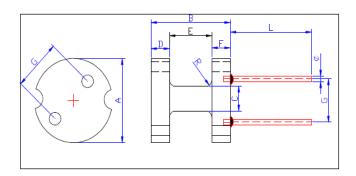


Material Dreporties	Symbol	Unit	Mea	suring Conditi	ons	SFA12
Material Properties	Symbol	Unit	Freq.	Flux den.	Temp.	SFAIZ
Initial Permeability	μi	-	10kHz	0.25mT	25°C	12000±30%
			25kHz	200mT	25 °C	-
			ZOKITZ	2001111	100°C	-
			100kHz	200mT	25 °C	-
Power Loss	Pv	kW/m³	TOURHZ	2001111	100°C	-
Power Loss	PV	KVV/III*	300kHz	100mT	25 °C	-
				TOOMT	100°C	-
			500kHz	50mT	25 °C	-
			SUUKHZ	50111	100°C	-
Saturation Flux Density	Bms	mT	10KHz	H=1200A/m	25°C	380
Saturation Flux Density				Π-1200A/III	100°C	180
Remanence	Brms	mT	10KHz	H=1200A/m	25°C	130
Remanence	Dillis			H-1200A/III	100°C	110
Coercivity	Hc	A/m	10kHz	H=1200A/m	25°C	-
Coercivity	ПС	AVIII	TUKITZ	П= 1200A/III	100°C	-
Relative Loss Factor	tanδ /μi	10 ⁻⁶	10KHz	<0.25mT	25°C	<10
Relative LOSS Factor	ιαπο /μι	10	100kHz	~ 0.25III1	25°C	<60
Hysteresis Material Constant	ηВ	10 ^{-6/} mT	10KHz	1.5-3.0mT	25°C	<0.5
Disaccommodation Factor	D _F	10 ⁻⁶	10KHz	< 0.25mT	25°C	<2
Curie Temperature	Tc	°C	-	-	-	≥110
Resistivity	ρ	Ωm	-	-	-	0.12
Density	d	g/cm ³	-	-		4.9

Note: Material characteristics are typical for a toroid core.



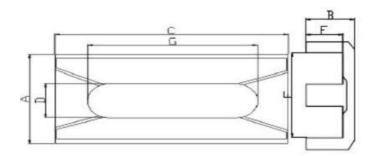
Drum Cores





Geometry		Dimensions							
Туре	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	L (mm)	AL Value in nH SFP40T
DR6*8 with pin with cut	6.0±0.25	8.3±0.3	2.5.±0.20	2.0±0.15	4.3±0.2	2.0±0.15	3.0±0.5	10.5±0.5	26.3±15%
DR8*10 with pin with cut	8.0±0.20	10±0.3	3.5.±0.15	2.0±0.15	5.8±0.2	2.0±0.15	5.0±0.5	10.5±0.5	26.3±15%
DR8*12 with pin with cut	8.0±0.25	12.0±0.3	3.5.±0.2	2.0±0.20	7.0±0.25	2.5±0.20	5.0±0.3	10.5±0.5	38.8±15%
DR10*12 with pin with cut	10.0±0.25	12±0.3	5.0±0.25	2.5±0.15	4.0±0.4	2.5±0.15	5.0±0.3	10.5±0.5	38.8±15%
DR12*15 with pin with cut	12.0±0.30	15.0±0.3	5.0±0.25	2.5±0.15	10.0±0.25	2.5±0.15	7.0±0.3	10.5±0.5	47.6±15%

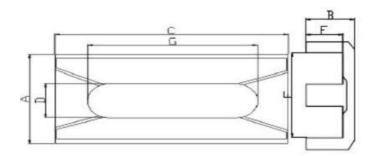
EDR Cores





Geometry	Dimensions						
Туре	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)		
EDR2009	13.5±0.5	4.6±0.2	20.2±0.5	2.70±0.2	10.4 min		
EDR2609	13.5±0.5	4.6±0.2	26.0±0.5	2.70±0.2	10.4 min		
EDR2809	13.5±0.5	5.0±0.2	28.0±0.5	3.2±0.2	10.0 min		
EDR3909	13.5±0.5	4.5±0.2	39.4±0.2	2.70±0.2	10.4 min		

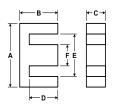
EDR Cores





Dimer	nsions	Electrica	Material Grade		
		G (mm) Le Ae mm mm²		Ve	AL Values in nH
F (mm)	G (mm)			mm³	SFP95
2.90±0.20	15.75±0.30	20.6	56.3	1159.0	4000±25%
2.70±0.20	21.75±0.30	23.6	71.0	1677.8	6500 ±25%
3.40±0.20	25.3±0.30	26.7	77.1	2060.0	6500 ±25%
2.80±0.20	35.0±0.20	24.8	102.3	2537.5	7500 ±25%

EE Cores

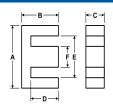




Geometry			Dimens	sions		
Туре	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
EE8.3/4/4	8.60±0.20	4.4±0.20	3.80±0.20	3.3±0.20	5.90 min	2.00±0.20
EE10/5.5/5	10.20±0.20	5.8±0.20	4.80+0.0/-0.3	4.55±0.20	7.70 min	2.40±0.20
EE10.8/5.8/5	10.80±0.20	5.8±0.20	4.80±0.20	4.55±0.20	7.80 min	2.50±0.20
EE11/5.8/05	11.20±0.20	5.8±0.20	5.00±0.20	4.55±0.20	7.90min	2.50±0.20
EE12.6/6.5/6.3	12.65+/-0.30	6.55±0.30	6.15+/-0.15	4.9±0.30	8.90 min	3.70+0.0/-0.3
EE13/06/06	13.20±0.30	6.5±0.30	6.00±0.20	4.9±0.30	9.70 min	2.75±0.20
EE14.2/5/7.2	14.20±0.30	5±0.30	7.20±0.20	3.1±0.30	10.20 min	3.45±0.20
EE14.2/4.7/7.2	14.20±0.30	4.65±0.30	7.20±0.20	3±0.30	10.20 min	3.45±0.20
EE14.5/06/10	14.50±0.30	6.6±0.30	9.80±0.20	4.95±0.30	10.50 min	3.50±0.20
EE16/06/05	16.10+/-0.30	6.1±0.30	4.7+0.0/-0.3	4.1±0.30	11.30 min	4.55±0.20
EE16/06/07	16.10+/-0.30	6.2±0.30	7.10±0.20	4.2±0.30	11.30 min	4.55±0.20
EE16/07/05	16.20±0.30	7.45±0.30	4.80±0.20	5.45±0.30	11.70 min	4.00±0.30
EE16/08/05	16.10+/-0.30	8.2±0.30	4.70+0.0/-0.4	6.1±0.30	11.30 min	4.70+0.0/-0.3
EE16/08/10	16.10±0.30	7.7±0.30	10.0±0.20	5.7±0.30	11.30 min	4.40±0.30
EE17/08/10	17.10±0.30	7.7±0.30	9.80±0.20	5.7±0.30	12.15 min	3.90±0.20
EE16/08/07	16.10+/-0.30	8.25±0.30	7.00±0.20	6.25±0.30	11.20 min	4.60±0.20
EE17/06/08	17.20±0.30	6.35±0.30	8.00±0.20	4±0.30	12.60 min	4.0±0.30
EE19/08/05	19.20±0.30	8.2±0.30	4.80±0.20	6.1±0.30	14.00 min	4.70±0.20
EE19/08/07	19.20±0.30	8.25±0.30	6.70±0.20	6.1±0.30	14.30 min	4.70±0.20
EE19/08/10	19.20±0.30	8.1±0.30	9.70±0.20	5.8±0.30	14.00 min	4.40±0.20
EE20/10/06	20.20±0.30	10.4±0.30	5.70±0.25	7.4±0.30	14.10 min	5.60±0.20
EE20/10/09	20.20±0.30	10.4±0.30	9.00±0.25	7.4±0.30	14.10 min	5.70±0.20
EE21/10/09	21.20±0.30	10.4±0.30	8.90±0.25	7.4±0.30	15.10 min	5.70±0.20
EE20/10/11	20.10+/-0.30	10.1±0.30	10.60±0.30	7.2±0.30	14.50 min	5.70±0.20
EE21/10/11	21.10+/-0.30	10.1±0.30	10.60±0.25	7.2±0.30	15.30 min	5.70±0.20
EE22/08/13	22.3+/- 0.3	8.3±0.30	12.90±0.25	5.4±0.30	15.50 min	5.60±0.20
EE25/09/06	25.40±0.30	9.75±0.30	6.25±0.25	6.95±0.30	18.60 min	6.30±0.30
EE25/13/07	25.10+/-0.30	12.6±0.30	7.20±0.25	9.1±0.30	17.50 min	7.20±0.30
EE25/13/11	25.10+/-0.30	12.6±0.30	10.90±0.25	9.1±0.30	17.50 min	7.20±0.30
EE28/10/11	28.10±0.30	10.6±0.30	10.70±0.25	6.8±0.30	20.40 min	7.20±0.30
EE30/15/07	30.10±0.40	15.1±0.30	7.05±0.25	10.1±0.30	19.50 min	6.95±0.25
EE32/16/09	32.10±0.40	16.1±0.30	9.15±0.25	11.6±0.30	22.70 min	9.20±0.25
EE42/21/15	42.20+/-0.40	21.1±0.40	14.95±0.30	15.15±0.40	29.50 min	12.10±0.20
EE42/21/20	42.20+/-0.40	21.1±0.40	20.00+0/-0.6	15.15±0.40	29.50 min	12.20+0/-0.5
EE55/28/21	55.20+/-0.40	27.5±0.40	20.70±0.30	18.9±0.40	37.50 min	16.95±0.25
EE55/28/25	55.20+/-0.40	27.5±0.40	24.80±0.30	18.9±0.40	37.50 min	16.95±0.25
EE65/32/27	65.20+/-0.50	32.5±0.40	27.20+/-0.4	22.6±0.40	44.20 min	19.70+/-0.50
EE65/32/13	65.20+/-0.50	32.5±0.40	13.70-0.60	22.6±0.40	44.20 min	20.00+/-0.50
EE100/60/28	100.3+/-1.00	59.4±0.50	27.5+/-0.5	45.85±0.50	72.00 min	27.50+/-0.50

Speedofer ____

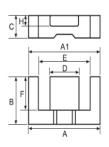
EE Cores





Elec	Electrical Characteristics		Material	Grades	SFP4, P _V (100kHz,	SFP95, P _V (100kHz,
Le	Ae	Ve	AL Value	es in nH	200mT,100°C)	200mT,100°C)
mm	mm²	mm³	SFP4	SFP95	(W/Set)	(W/Set)
19.5	7.6	136.6	600±25%	750±25%	≤0.094	≤0.092
27.1	11.52	302.7	800±25%	920±25%	≤0.15	≤0.08
27.0	12.1	326.7	800±25%	920±25%	≤0.15	≤0.08
27.7	12.5	366.7	950±25%	1200±25%	≤0.24	≤0.22
29.6	22.4	663.0	1380+30%-20%	-	≤0.29	-
30.2	16.5	520.0	1100±25%	1200±25%	≤0.38	≤0.235
25.0	25.1	647.9	1700±25%	2800±25%	≤0.47	≤0.40
25.2	24.9	641.2	1700±25%	2800±25%	≤0.47	≤0.40
32.0	34.2	1094.1	2100±25%	-	≤0.76	-
28.6	21.4	549.0	1200±25%	1250±25%	≤0.30	0.24
28.9	32.7	945.2	1800+30%-20%	2400±25%	≤0.49	≤0.40
35.1	19.2	675.0	1000+30%-20%	1400±25%	≤0.40	≤0.35
37.6	22.1	756.0	1100±25%	1350±25%	≤0.38	≤0.32
37.5	44	1546.9	1720±25%	3200±25%	≤1.00	≤0.95
37.7	37.7	1491.8	2400±25%	3200±25%	≤1.00	≤0.95
40.5	32.2	1292.8	1900+30%-20%	-	≤0.93	-
31.7	32.0	1068.3	1900nH±25%	2800±25%	≤0.65	-
39.6	22.5	891.0	1150+30%-20%	-	≤0.50	≤0.45
40.6	31.0	1254.3	1600±25%	-	≤0.75	-
40.5	42.7	1811.6	2400+30%-20%	-	≤1.00	≤0.90
46.3	32.1	1490.0	1570+30%-20%	2000±25%	≤0.75	-
46.2	51.1	2357.0	2200±25%	-	≤1.40	-
47.5	51.73	2257.9	2200±25%	-	≤1.40	-
46.5	60.42	2640.3	2730±25%	3000+30/-20%	≤1.40	≤1.38
46.0	62.5	2787.0	2730±25%	3000+30/-20%	≤1.40	≤1.38
40.6	72.2	3191.4	2800±25%	-	≤1.40	-
49.2	38.8	1910.0	1670+30%-20%	-	≤1.20	-
57.5	52.5	3020.0	1850+30%-20%	2300±25%	≤1.60	≤1.45
57.8	78.5	4440.0	2700+30%-20%	-	≤2.15	-
51.6	80.2	4215.0	3500±25%	-	≤2.40	-
66.1	50.1	5900.3	1900+30%-20%	-	≤2.20	-
74.0	83.1	6140.0	2300+30%-20%	-	≤3.00	-
97.0	178.0	17300.0	3950+30%-20%	5100+30/-20%	≤9.00	≤8.70
97.0	234.0	22700.0	5200+30%-20%	6700+30/-20%	≤2.40 @ 100mT	≤2.2 @ 100mT
124.0	354.0	43900.0	6400+30%-20%	8300±25%	≤3.80 @ 100mT	≤3.60 @ 100mT
124.0	420.0	52100.0	7300+30%-20%	8300+30%-20%	≤4.80 @ 100mT	-
147.0	535.0	78600.0	7900+30%-20%	8500+30%-20%	≤6.70 @ 100mT	≤6.50 @ 100mT
147.0	267.0	39200.0	3950+25%-25%	-	-	-
274.0	735.0	201390.0	6500+30%-20%	-	≤4.70 @ 100mT/25kHz	≤4.80 @ 100mT/25kHz

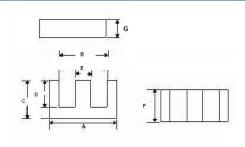
EFD Cores





Geometry	Dimensions							
Туре	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	H (mm)	
EFD15.8/8/5	15.80±0.30	7.8±0.30	4.60±0.20	5.25±0.30	11.60±0.35	5.75±0.30	2.30±0.15	
EFD20/10/7	20.5±0.30	10.6±0.30	6.65±0.15	8.90±0.20	15.60 min	8.1±0.30	3.60±0.15	
EFD21/10/7	21.3±0.30	10.6±0.30	6.65±0.15	8.90±0.20	16.10 min	8.1±0.30	3.60±0.15	
EFD25/13/9	25.20±0.30	12.7±0.30	9.10±0.20	11.30±0.20	18.50 Min	9.6±0.30	5.20±0.15	
EFD25.8/13/9	25.80±0.30	12.7±0.30	9.10±0.20	11.30±0.20	19.50 min	9.6±0.30	5.10±0.15	
EFD31/15/09	31.60±0.30	15.2±0.30	9.25±0.25	14.50±0.25	23.60 min	11.3±0.30	4.75±0.20	

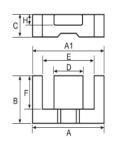
EI Cores





Geometry	Dimensions						
Туре	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)		
El28/11	28.00±0.4	18.6+0.8	17.3±0.3	12.8±0.2	7.5-0.8		
El30/11	30.0+0.7/-0.20	20.7+0.7	21.0+0.6	16.0+0.6	11.0-0.7		
El33/13	33.0±0.50	23.2+0.8	23.30±0.3	19.05±0.35	9.7±0.3		
El35/12	35.0+0.8/-0.5	25.0+0.8	23.80±0.7	18.0+0.6	10.3-0.6		
El40/12	40.0±0.50	27.2+1.0	27.20±0.5	20.0±0.5	12.0-0.7		

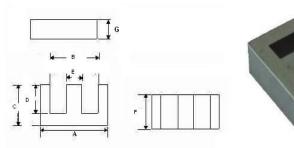
EFD Cores





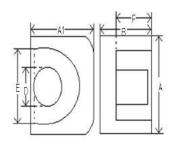
Electric	cal Charact	eristics	Material	Grades			
Le	Ae	Ve	AL Value	s in nH	SFP4, P _V (100kHz,	SFP95, P _V (100kHz, 200mT,100°C)	
mm	mm²	mm³	SFP4	SFP95	200mT,100°C) (W/Set)	(W/Set)	
36.1	14.86	536.5	780+30%-20%	1050+/-25%	≤0.28		
47	31	1460	1200+30/-20%	1800+/-25%	≤1.05	≤0.86	
48.73	30.65	1482.8	1200+30/-20%	1800+/-25%	≤1.05	≤0.86	
59.18	53.28	3153	2000+30%-20%	2800+/-25%	≤1.80		
60.73	54.65	3325.8	2000+30%-20%	2800+/-25%	≤1.80		
68	69	4690	2050±25%	-	≤2.60		

EI Cores



Dime	ensions	Ele	ctrical Characteris	Material Grades		
- ()	0 ()	Le Ae		Ve	AL Values in nH	
F (mm)	G (mm)	mm	mm mm²		SFP4	
11.0-0.6	3.5±0.2	49.5	84.4	4177.8	3600+30/-20%	
11.0-0.7	5.5±0.2	58.5	110.4	6458.4	3700+30/-20%	
12.70±0. 3	5.0±0.2	66.9	118.8	7948	3600+30/-20%	
11.70±0. 6	5.5±0.2	67.3	120	8076	3600+30/-20%	
12.0-0.7	7.5±0.3	76.8	148	11366.4	3950+30/-20%	

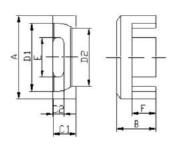
EP Cores





Geometry		Dimensions						
Туре	A (mm)	A1 (mm)	B (mm)	D (mm)	E (mm)	F (mm)		
EP5/3/4	6.00±0.15	3.80±0.10	2.80±0.05	1.70±0.10	4.40±0.15	2.00±0.10		
EP7/3.5/6	9.20±0.20	6.35±0.15	3.75±0.10	3.30±0.10	7.40±0.20	2.60±0.10		
EP10/5/7	11.50±0.30	7.65±0.20	5.20±0.10	3.30±0.15	9.40±0.20	3.70±0.10		
EP13/6.5/9	12.50±0.30	8.80±0.20	6.50±0.10	4.35±0.15	10.10±0.20	4.60±0.10		
EP13/6.5/9 Laker	12.60±0.30	8.80±0.20	6.62±0.15	4.35±0.15	10.10±0.30	4.80±0.15		
EP17/8.5/11	18.00±0.40	11.00±0.20	8.40±0.20	5.70±0.20	12.00±0.40	5.65±0.15		

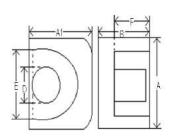
EPC Cores





Geometry		Dimensions						
Туре	A (mm)	B (mm)	C1 (mm)	C2 (mm)	D1 (mm)	D2 (mm)	E (mm)	F (mm)
EPC13/6.5/4.7	13.60±0.30	6.7±0.20	4.70±0.15	2.00±0.10	10.30 min	8.10 min	5.30 Min	4.8±0.20
EPC14/6.5/4.7	14.30±0.30	6.7±0.20	4.70±0.15	2.00±0.10	11.40 min	9.40 min	5.40±0.10	4.8±0.20
EPC17/8.50/6	17.80±0.40	8.55±0.20	6.00±0.20	2.60±0.20	14.60 min	11.80 min	7.50±0.20	6.1±0.20

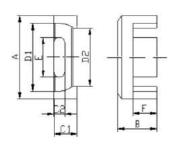
EP Cores





Elec	trical Characteris	stics	Material Grades		
Le	Ae	Ve	AL Value	lues in nH	
mm	mm²	mm³	SFP4	SFA05	
9.7	3.0	28.7	400±25%	-	
15.7	10.3	162.0	1100+30/-20%	2000+30/-20%	
19.2	11.3	217.0	1000+30/-20%	2000+30/-20%	
24.2	19.5	472.0	1600+30/-20%	2800+30/-20%	
24.2	19.5	472.0	1600+30/-20%	2800+30/-20%	
28.7	34.0	970.0	2500+30/-20%	-	

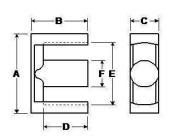
EPC Cores





Elect	rical Character	istics	Material Grade	
Le	Ae	Ve	AL Values in nH	SFP4, P _v (100kHz, 200mT,100°C) (W/Set)
mm	mm²	mm³	SFP4	
29.4	13.7	402.1	850±25%	≤0.25
30.8	13.0	386.0	850±25%	≤0.30
40.8	20.0	817.0	1150±25%	≤0.25

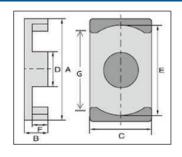
ER Cores





Geometry		Dimensions					
Туре	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	
ER28/14/11	28.55±0.55	14.2±0.40	11.40±0.25	9.9±0.40	21.80 min	9.90±0.25	
ER29/17/11	29.50±0.60	17±0.40	11.40±0.25	12.7±0.40	22.40 min	9.90±0.25	
ER35/20/11	35.0±0.6	20.7±0.4	11.3±0.25	14.7±0.40	25.6min	11.3±0.25	
ER35/22/11	35.0±0.6	21.4±0.4	11.3±0.25	15.4±0.40	25.6min	11.3±0.25	
ER42/22/15	42.0+1.0/-0.7	21.6±0.4	14.7±0.30	15.95±0.40	30.4min	14.7±0.3	

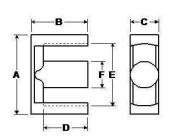
EQ Cores





Geometry	Dimensions						
Туре	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)
EQ25/14	25.10±0.30	7.3±0.20	18.00±0.30	10.80±0.20	21.50 Min	5.1±0.20	16.00 min
EQ25/15	25.10±0.30	7.5±0.20	18.00±0.30	10.80±0.20	21.50 Min	5.4±0.20	16.00 min
EQ30/16	30.0 ±0.40	8±0.15	20.0 ±0.30	11.0 ±0.20	25.60 min	5.3±0.20	19.0 min
EQ31/17	31.5 ±0.50	8.5±0.20	20.30 ±0.40	13.20 ±0.25	26.30 min	5.35±0.20	21.8 min

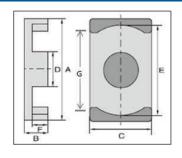
ER Cores





Elect	rical Character	istics	Material Grade	
Le	Ae	Ve	AL Values in nH	SFP4, P _v (100kHz, 200mT,100°C)
mm	mm²	mm³	SFP4	(W/Set)
63.4	86.0	5460	2700±25%	≤1.80
77.27	84.0	6478	2450±25%	≤1.90
89.6	111.0	9930	2700±25%	≤2.50
90.8	111.0	10800	2650±25%	≤2.50
99.0	170.0	16800	3700±25%	≤3.80

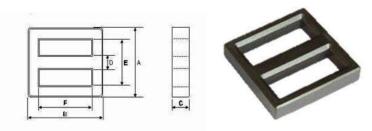
EQ Cores





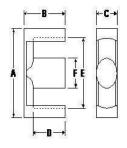
Electr	rical Characte	ristics	Material Grade	
Le	Ae	Ve	AL Values in nH	SFP4, P _V (100kHz,
mm	mm²	mm³	SFP4	200mT,100°C) (W/Set)
38.2	89.0	3461.2	4800±25%	≤2.45
38.2	89.0	3461.2	4500±25%	≤1.98
46.00	108.0	4970	4900 ±25%	≤ 2.70
43.8	136.2	5961.5	6200 ±25%	≤ 4.25

ET Cores



Geometry	Dimensions					
Туре	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)
ET20/20/04	20.10±0.40	20.10±0.40	4.40±0.20	4.00±0.20	15.70min	15.70min
ET24/24/08	24.20±0.50	24.20±0.50	4.00±0.30	4.00±0.20	19.00min	19.00min
ET28/28/05	28.40±0.50	28.40±0.50	5.00±0.30	5.00±0.30	22.20min	22.20min
ET29/29/05	28.70±0.50	28.70±0.50	5.00±0.30	5.00±0.30	22.20min	22.20min
ET35/35/07	35.30±0.60	35.30±0.60	7.40±0.25	7.40±0.25	26.80min	26.80min

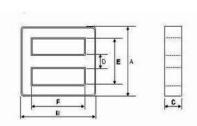
ETD Cores





Geometry		Dimensions					
Туре	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	
ETD29/16/10	29.80±0.40	16±0.40	9.50±0.30	11.3±0.40	22.00 min	9.50±0.30	
ETD34/17/11	34.50±0.40	17.5±0.40	10.80±0.30	12.6±0.40	25.60 min	10.80±0.30	
ETD39/20/13	39.00±0.40	20±0.40	12.50±0.30	14.5±0.40	29.30 min	12.50±0.30	
ETD39/21/13	39.00±0.40	21.1±0.40	12.50±0.30	15.9±0.40	29.30 min	12.50±0.30	
ETD44/22/15	44.00±0.40	22.4±0.40	14.80±0.40	16.6±0.40	32.50 min	14.80±0.40	
ETD49/25/16	48.70±0.40	24.8±0.40	16.30±0.40	18.2±0.40	36.10 min	16.70+0/-0.8	

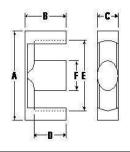
ET Cores





Electrical Characteristics			Material Grades				
Le	Ae	Ve	AL Values in nH				
mm	mm²	mm³	SFA07	SFA10	SFA12		
52.1	17.6	917.0	3100±25%	4400±25%	4850±25%		
60.0	18.0	1098.0	2800±25%	≥3500	4300±25%		
70.0	27.0	1972.0	3500±25%	4500±25%	5800±25%		
71.4	28.02	2000.7	3600±25%	-	-		
86.9	57.1	4962.0	5750+30%/-20%	-	-		

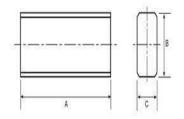
ETD Cores





Electri	cal Characte	ristics	Material	SFP4, P _V (100kHz,	
Le	Ae	Ve	AL Value	s in nH	200mT,100°C)
mm	mm²	mm³	SFP4	SFP95	(W/Set)
70.4	76.0	5350.0	2200+30/-20%	3000+/-25%	≤2.80
78.6	97.1	7630.0	2600+/-25%	3300+30/-20%	≤4.00
92.3	125.0	11500.0	2700+30%/-20%	-	≤6.00
97.1	128.7	12499.2	2650+/-25%	-	≤6.00
103.0	173.0	17800.0	3500+/-25%	4400+30/-20%	≤9.40
114.6	212.3	24317.7	3800+30/-20%	-	≤12.40

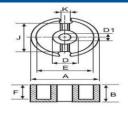
I Cores





Geometry		Material		
Type	Type A [mm] B [mm] C [mm]		Waterial	
Type	A [iiiiii]	, , , , , , , , , , , , , , , , , , ,	O []	Grade
148/48/2.7	48.0±0.50	48.0±0.50	2.70±0.20	SFP95
153.3/53.3/2.7	53.30±0.80	53.30±0.80	2.70±0.20	SFP95
160/15/06	60.0±1.0	15.0±0.80	6.0±0.50	SFP95
170/15/06	70.0±1.0	15.0±0.80	6.0±0.50	SFP95
I100/40/06	100.0±2.0	40.0±1.0	6.0±0.50	SFP95
I100/52.5/06 (Special)	100.0±2.0	52.50±1.0	6.0±0.50	SFP95
I100/100/06	100.0±2.0	100.0±2.0	6.0±0.50	SFP95

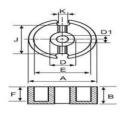
Pot Cores





Geometry	Dimensions							
Туре	A (mm)	B (mm)	D (mm)	E (mm)	F (mm)	J (mm)		
POT9x5	9.15±0.15	2.65±0.05	3.80±0.10	7.62±0.15	1.87±0.10	5.65±0.15		
POT11x7	11.10±0.20	3.30±0.10	4.60±0.10	9.20±0.20	2.3±0.10	6.80±0.25		
POT14x8	14.00±0.25	4.20±0.10	5.99max	11.60min	2.79min	9.50±0.60		
POT18x11CH	17.90±0.30	5.3±0.10	7.40±0.15	15.25±0.25	3.80±0.10	11.55±0.30		
POT24.3x17.6CH	24.30±0.50	8.90±0/-0.45	10.88±0.30	20.83±0.5	5.90+04/-0.00	16.80±0.35		
POT35.5x22CH	35.50±0.50	10.90±0.20	15.95±0.25	30.30±0.40	7.50±0.20	26.80±0.50		
POT69x28CH	69.00±1.20	14.00±0.20	29.00±0.50	58.4+1.00/- 0.80	9.30±0.30	48.20±0.80		

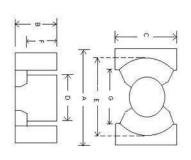
Pot Cores





Dimen	sions	Electr	ical Characte	ristics	Material Grades		
W ()	D4 ()	Le	Ae	Ve	AL Va	alues (±25%)	in nH
K (mm)	D1 (mm)	mm	mm ²	mm ³	SFP4	SFP33	SFP48
2.10±0.30	-	13.52	12.76	172.52	1300	-	-
2.20±0.30	-	16.3	19	309	2000	800	2000
3.30±0.60	-	21	29.9	628	2500	1010	2400
3.20±0.30	3.00±0.1	25.8	43.3	1120	2850	-	2850
3.95±0.25	5.51±0.20	52.73	103.34	5448.97	4200	-	-
4.00±0.30	5.65±0.15	70.47	237.15	16712	7500	-	7500
10.50±0.50	8.50±0.50	78.49	624.89	49045.32	15000	-	-

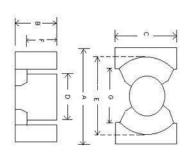
PQ Cores





Geometry			Dimens	sions			
Туре	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)
PQ21/14	21.30±0.30	7±0.30	14.00±0.30	8.80±0.20	18.00 Min	4.5±0.30	13.00 min
PQ21/16	21.30±0.30	8.1±0.30	14.00±0.30	8.80±0.20	18.00 Min	5.15±0.30	13.00 min
PQ20/16	20.50±0.30	8.1±0.30	14.00±0.30	8.80±0.20	17.50 Min	5.15±0.30	12.00 min
PQ20/12	20.50±0.30	6.25±0.30	14.00±0.30	8.80±0.20	17.50 Min	3.75±0.30	12.00 min
PQ21/12	21.30±0.30	6.25±0.30	14.00±0.30	8.80±0.20	18.00 Min	3.75±0.30	13.00 min
PQ20/12.5	20.50±0.30	6.5±0.30	14.00±0.30	8.80±0.20	17.50 Min	4±0.30	12.00 min
PQ20/20	20.50±0.30	10.3±0.30	14.00±0.30	8.80±0.20	17.50 Min	7.3±0.30	12.00 min
PQ21/20	21.30±0.30	10.3±0.30	14.00±0.30	8.80±0.20	18.50 Min	7.3±0.30	13.00 min
PQ26/25	26.50±0.40	12.6±0.30	19.00±0.30	12.00±0.25	22.00 min	8.45±0.30	15.80 min
PQ26/20	26.50±0.40	10.4±0.30	19.00±0.30	12.00±0.25	22.00 min	6.5±0.30	15.80 min
PQ27/16	27.0±0.40	8.1±0.30	19.00±0.30	12.00±0.25	22.20 min	5±0.30	16.50 min
PQ27/20	27.0±0.40	10.4±0.30	19.00±0.30	12.00±0.25	22.20 min	6.5±0.30	16.50 min
PQ27.5/20	27.50±0.40	10.4±0.30	19.00±0.30	12.00±0.25	23.00 min	6.5±0.30	16.80 min
PQ27/25	27.00±0.40	12.6±0.30	19.00±0.30	12.00±0.30	22.20 min	8.45±0.30	16.50 min
PQ27.5/25	27.50±0.40	12.6±0.30	19.00±0.30	12.00±0.30	23.00 min	8.45±0.30	16.80 min
PQ32/20	32.00±0.40	10.45±0.30	22.00±0.40	13.45±0.30	27.00 min	6.3±0.30	19.00 min
PQ32/25	32.00±0.40	12.8±0.30	22.00±0.40	13.45±0.30	27.00 min	8.7±0.30	19.00 min
PQ32/30	32.00±0.40	15.4±0.30	22.00±0.40	13.45±0.30	27.00 min	11±0.30	19.00 min
PQ32.7/30	32.70±0.40	15.4±0.30	22.00±0.40	13.45±0.30	28.0 min	11±0.30	19.50 min
PQ33/20	33.30±0.40	10.45±0.30	22.00±0.40	13.45±0.30	28.00 min	6.3±0.30	20.00 min
PQ33/25	33.30±0.40	12.8±0.30	22.00±0.40	13.45±0.30	28.00 min	8.7±0.30	20.00 min
PQ33/30	33.30±0.40	15.4±0.30	22.00±0.40	13.45±0.30	28.00 min	11±0.30	20.00 min
PQ35/35	35.10±0.40	17.6±0.40	26.00±0.40	14.35±0.30	31.50 min	12.7±0.40	23.50 min
PQ35/20	35.10±0.40	10.4±0.40	26.00±0.40	14.35±0.30	31.50 min	5.9±0.30	23.50 min
PQ40/20	40.50±0.40	10.2±0.40	28.00±0.40	14.90±0.30	36.00 min	5.4±0.40	27.30 min
PQ40/25	40.5±0.40	13.5±0.30	28.10±0.40	14.90±0.30	36.30 min	8.5±0.40	27.50 min
PQ40/27	40.5±0.40	13.5±0.30	28.10±0.40	14.90±0.30	36.30 min	8.5±0.30	27.50 min
PQ40/30	40.50±0.40	15.15±0.40	28.00±0.40	14.90±0.30	36.00 min	10±0.40	27.30 min
PQ40/40	40.50±0.40	20.1±0.40	28.00±0.40	14.90±0.30	36.00 min	14.95±0.40	27.30 min
PQ41/20	41.8±0.40	10.2±0.40	28.00±0.40	14.90±0.30	37.00 min	5.4±0.40	29.00 min
PQ50/50	50.50±0.50	25.2±0.40	32.00±0.40	20.00±0.30	43.50 Min	18.25±0.40	31.50 min

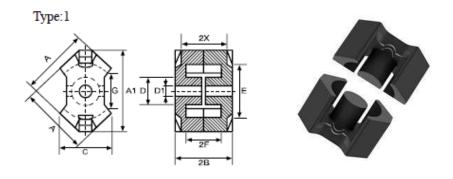
PQ Cores



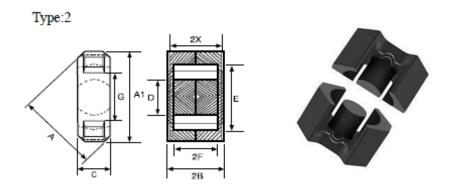


Electr	ctrical Characteristics Material Grades		l Grades			
Le	Ae	Ve	AL Valu	ies in nH	SFP4, P _V (100kHz, 200mT,100°C)	SFP95, P _V (100kHz, 200mT,100°C)
mm	mm²	mm³	SFP4	SFP95	(W/Set)	(W/Set)
34.57	57.60	2017.70	3100±25%	-	≤0.89	-
46.52	62.21	2894.10	3100±25%	3750+30/-20%	≤1.40	≤1.35
38.57	58.60	2251.70	3100±25%	3750+30/-20%	≤1.40	≤1.35
31.36	57.69	1809.00	3100±25%	=	≤0.98	=
30.56	60.84	1859.16	3100±25%	-	≤0.98	-
31.36	57.69	1809.00	3100±25%	-	≤0.98	-
45.20	62.90	2843.00	2650±25%	3300+/-25%	≤1.65	≤1.60
48.30	59.80	2888.40	2650±25%	3300+/-25%	≤1.65	≤1.60
54.70	120.70	6603.90	4500±25%	5700+30/-20%	≤3.75	≤3.60
44.40	122.60	5440.00	5000±25%	6300+/-25%	≤3.20	≤3.00
46.13	111.67	5196.50	5000±25%	-	-	-
46.13	111.67	5196.50	5000±25%	6300+/-25%	≤3.00	-
53.90	113.04	6092.80	5000±25%	6300+/-25%	≤3.00	-
57.90	125.30	7260.00	5000nH±25%	5700+30/-20%	≤3.80	≤3.70
58.65	129.80	7398.00	5000nH±25%	5700+30/-20%	≤3.80	≤3.70
49.15	156.14	7674.50	5400±25%	7600+30/-20%	≤5.50	≤4.70
63.63	161.00	10243.50	5000±25%	7000+/-25%	≤5.20	≤5.00
67.80	153.80	10440.00	4500±25%	6100+30/-20%	≤7.0	≤6.30
73.36	154.00	11298.30	4500±25%	6100+30/-20%	≤6.80	≤6.40
49.15	156.14	7674.50	5400±25%	7600+30/-20%	≤5.50	≤4.70
63.63	161.00	10243.50	5000±25%	7000+/-25%	≤5.80	-
74.60	161.00	11970.00	4500±25%	6100+30/-20%	≤6.80	≤6.40
79.20	169.70	13440.00	4500+30/-20%	5700+30/-20%	≤8.75	≤7.92
57.70	179.30	10351.20	6500±25%	-	≤5.60	-
61.60	203.31	12850.30	6000+/-25%	-	≤6.70	-
70.93	209.46	14857.60	5600+/-25%	=	≤8.74	-
75.28	204.46	15425.60	5600+/-25%	-	≤8.74	-
74.10	190.40	14120.00	5200 +30%/-20%	6500 +30%/-20%	≤ 1.50	≤ 1.45
103.96	191.90	19952.00	4300+30/-20%	5500+30/-20%	≤1.80 @ 100mT	≤1.75 @ 100mT
61.60	203.31	12850.30	6000+/-25%	-	≤6.70	-
115.53	314.40	36356.10	6500+30%-20%	8200+30/-20%	≤3.8 @ 100mT	≤3.6 @ 100mT

RM Cores

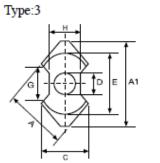


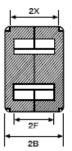
Geometry	Dimensions							
Туре	A (mm)	A1 (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)
RM4	9.60±0.20	10.80±0.20	5.20±0.05	6.40±0.20	3.80±0.10	8.15±0.15	3.60±0.10	-
RM5	12.05±0.25	14.30±0.30	5.20±0.10	9.55±0.25	4.80±0.10	10.40±0.20	3.35±0.20	-
RM6	14.40±0.30	17.60±0.30	6.20±0.10	10.47±0.25	6.30±0.10	12.64±0.25	4.20±0.20	-
RM8	19.35±0.35	22.76±0.45	8.20±0.15	15.45±0.30	8.40±0.15	17.30±0.30	5.60±0.20	-
RM10	24.15±0.55	27.80±0.65	9.30±0.15	19.85±0.30	10.65±0.20	21.65±0.45	6.40±0.20	-
RM12	29.20±0.60	36.85±0.75	12.25±0.10	24.50±0.10	12.60±0.20	25.45±0.55	8.55±0.15	13.40min
RM14	34.80+0/- 1.3	42.2+0/- 1.2	15.10+0/- 0.2	26.80±0.30	15.0+0/- 0.5	29.00+1.0/-	10.4+0.6/-	17.00min





RM Cores

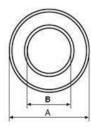






Dimer	nsions	Electric	ectrical Characteristics Material Grades Ro		Material Grades			Reference
H (mm)	2V (mm)	Le	Ae	Ve	AL Values	AL Values (+30/-25%) in nH		Type
H (mm)	2X (mm)	mm	mm²	mm³	SFP4	SFA05	SFA12	Type
-	9.00±0.25	22.0	13.0	286.0	1100	1700	-	1.0
-	9.10±0.25	22.1	23.8	526.0	2000	3500	7500min	1.0
-	10.40±0.25	28.6	36.6	1050.0	2400	4300	7490min	2.0
-	14.40±0.25	38.0	64.0	2430.0	3300	5700	-	1.0
-	16.30±0.25	44.6	96.6	4310.0	4200	7600	-	2.0
15.85±0.25	22.10±0.25	60.6	144.0	8752.0	5550±25%	-	-	3.0
-	27.20±0.25	70.0	200.0	14000.0	6000	-	-	3.0

Speedofer Toroidal Cores





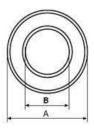


Geometry		Dimensions	
Туре	A (mm)	B (mm)	C (mm)
T6/3/3C	6.0±0.3	3.0±0.3	3.0±0.2
T6/3/3	6.0±0.3	3.0±0.3	3.0±0.2
T6.35/3.81/3.18	6.35±0.3	3.81±0.3	3.18±0.2
T6.35/3.81/3.18	6.35±0.3	3.81±0.3	3.18±0.2
T9/5/3	9.10±0.3	5.10±0.3	3.00±0.3
T9/5/3C	10.0max	4.20min	3.90max
T9.53/4.75/4.8	9.53±0.25	4.75±0.15	4.80±0.15
T9.53/4.75/4.8C	10.38max	4.03min	5.53max
T10/6/4	10.1±0.3	6.1±0.3	4.0±0.3
T10/6/4C	11.00max	5.20min	4.90max
T10/6/5	10.1±0.3	6.1±0.3	5.0±0.3
T10/6/5C	11.00max	5.20min	5.90max
T11.5x7.5x3.6	11.50 ± 0.30	7.50±0.3	3.6±0.3
T11.5x7.5x3.6C	12.40max	6.6min	4.5max
T12.5/7.5/5	12.5±0.3	7.5±0.3	5.0±0.3
T12.5/7.5/5C	13.40max	6.60min	5.90max
T13.3/8.3/5	13.3±0.3	8.3±0.3	5.0±0.3
T13.3/8.3/5C	14.20max	7.40min	5.90max
T14/8/7	14.0±0.4	8.0±0.3	7.0±0.3
T14/8/7C	15.00max	7.10min	7.90max
T16/9.6/6.1	16.0±0.3	9.6±0.3	6.10±0.3
T16/9.6/6.1C	16.90max	8.70min	7.00max
T18/10/7	18.0±0.3	10.0±0.3	7.0±0.3
T18/10/7C	18.90max	9.10min	7.90max
T20/10/7	20.0±0.4	10.0±0.4	7.00±0.3
T20/10/7C	21.0max	9.00min	7.90max
T22/14/6.5	22.0±0.40	14.0±0.40	6.5±0.30
T22/14/6.5C	23.0max	13.00min	7.40max
T22/14/10	22.0±0.40	14.0±0.40	10.0±0.30
T22/14/10C	23.0max	13.00min	10.90max

^{*}C= Coated.

^{*}Customized Dimensions are available.

Speedofer Toroidal Cores

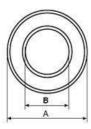






Electrical Characteristics				Material Grades						
Le	Ae	Ve	AL V	/alues (±25%) i	n nH	AL Values (±30%) in nH			
mm	mm²	mm³	SFP4	SFA05	SFA07	SFA10	SFA12			
13.1	4.32	56.5	1000	2200	2800	4000	4800			
15.3	3.95	60.4	790	1590	2220	3180	3820			
20.77	5.83	121.12	880	1760	2470	3520	4060			
20.72	11.02	228.28	1670	3340	4680	6680	7720			
24.07	7.83	188.44	1020	2040	2850	4080	4900			
24.07	9.79	235.55	1270	2550	3570	5100	5820			
28.96	7.09	205.33	758	1510	2120	3030	3635			
30.09	12.23	368.05	1250	2500	3500	5000	6000			
32.70	12.27	401.31	1150	2300	3200	4600	5500			
32.82	20.46	671.46	1956	3920	5480	7840	9170			
38.52	19.10	735.68	1520	3050	4270	6100	7320			
41.55	27.21	1130.43	2054	4110	5760	8230	9600			
43.55	33.63	1464.72	2335	4670	6540	9300	11200			
54.67	25.56	1397.42	1473	2940	4110	5870	6930			
54.67	39.33	2149.88	2259	4520	6330	9040	10670			

Speedofer Toroidal Cores





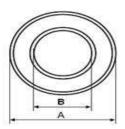


Geometry		Dimensions	
Туре	A (mm)	B (mm)	C (mm)
T25/15/10	25.0±0.4	15.00±0.4	10.0±0.30
T25/15/10C	26.0max	14.00min	10.90max
T25/15/13	25.0±0.4	15.00±0.4	13.0±0.3
T25/15/13C	26.0max	14.00min	13.90max
T25/15/15	25.0±0.4	15.0±0.4	15.0±0.3
T25/15/15C	26.0max	14.00min	15.90max
T28/18/16	28.0±0.5	18.0±0.4	16.0±0.3
T28/18/16C	29.1max	17.00min	17.90max
T31/19/13	31.0±0.5	19.0±0.5	13.0±0.4
T31/19/13C	32.10max	17.90min	14.00max
T31/19/16	31.0±0.5	19.0±0.5	16.0±0.4
T31/19/16C	32.10max	17.90min	17.00max
T36/23/15	36.0±0.6	23.45±0.5	15.0±0.4
T36/23/15C	37.20max	22.35min	16.00max
T50/30/20	50.0±1.0	30.0±1.0	20.0±0.50
T50/30/20C	51.6max	28.40min	21max
T55.5/32.6/18	55.5±1.10	32.6±1.10	18.0±0.5
T55.5/32.6/18	57.20max	30.90min	19.10max
T63/38/25	62.80±1.6	37.60±1.20	25.0±0.6
T63/38/25C	65.00max	35.80min	26.20max
T80/40/15	80.0±1.50	40.0±1.30	15.0±0.6
T80/40/15C	82.10max	38.10min	16.20max
T140/106/25	140.0±3.0	106.0±2.0	25.0±1.0
T140/106/25C	143.80max	103.20min	26.80max

^{*}C= Coated.

^{*}Customized Dimensions are available.

Speedofer Toroidal Cores



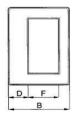


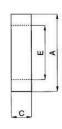


Electri	cal Charact	teristics	Material Grades							
Le	Ae	Ve	AL V	AL Values (±25%) in nH			Values (±25%) in nH AL Values (±30%) i			±30%) in nH
mm	mm²	mm³	SFP4	SFA05	SFA07	SFA10	SFA12			
60.18	48.93	2944.42	2550	5110	7150	10220	11000			
60.18	63.60	3827.75	3322	6640	9300	13270	15600			
60.18	73.30	4416.64	3830	7660	10730	15330	17500			
69.96	78.71	5506.49	-	6960	-	-	-			
75.49	76.46	5771.89	3180	6360	8910	12730	14500			
75.49	94.11	7103.86	3840	7685	10760	15200	18400			
89.65	95.89	8595.89	3210	6430	9000	12860	14500			
120.36	195.71	23555.40	5000	10000	12250	17300	-			
132.07	201.31	26585.86	4683	9365	13100	18730	-			
152.09	305.93	46528.26	6200	12500	17700	24770	-			
174.21	288.70	50218.93	5200	-	-	-	-			
381.00	422.00	160782.00	2750	5550	8750	-	-			

Speedofer

UT Cores

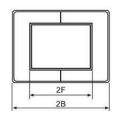


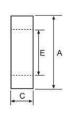


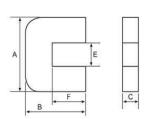


Geometry	Dimensions							
Туре	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)		
UT20	20.60±0.30	14.10±0.25	4.60±0.20	4.10±0.20	15.70min	7.35min		
UT25	25.60±0.40	17.60±0.30	5.20±0.25	5.20±0.15	19.30min	8.70min		
UT30	30.00±0.40	19.80±0.30	6.40±0.25	6.40±0.15	22.40min	8.90min		

UU Cores





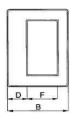




Geometry	Dimensions						Electrical Characteristics		
Tymo	Type A (mm) B (D (mm)	C (mm)	E (mm)	F (mm)	Le	Ae	Ve	
туре		B (mm)				mm	mm²	mm³	
UU9.8 (L)	9.80±0.30	7.10±0.30	2.70±0.30	4.20min	4.30±0.30	34	8	271.11	
UU10.5 (L)	10.50±0.30	8.00±0.30	5.00±0.15	5.50min	5.50±0.30	40	13	518	
UU93/76/16	93±1.8	76±0.5	16±0.5	34.6min.	48±0.9	354	448	159000	
UU93/76/20	93±1.8	76±0.5	20±0.5	34.6min.	48±0.9	354	560	198000	
UU93/76/30	93±1.8	76±0.5	30±0.6	34.6min.	48±0.9	354	840	297000	
U101/76/30	101±1.8	76±0.5	30±0.6	44.0min.	48±0.9	368	840	310800	
U141/78/30	141±4	78.5±0.5	30±1	50min.	33.5±1	377	1350	508950	

Speedofer

UT Cores

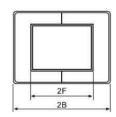


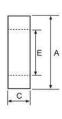


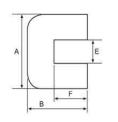


Electr	rical Characte	ristics	Material Grades			
Le	Ae	Ve	AL Values	AL Valu	ıes in nH	
mm	mm²	mm³	SFA07	SFA10	SFA121	
53	13	688	2140±30%	3000±30%	3700±30%	
68	18	1203	2350+40%-20%	3350±30%	-	
77	27	2068	3150+40%-20%	4500±30%	-	

UU Cores









	Ма	SFP4, P _V (25kHz,	SFP95, P _V (25kHz,			
	AL	200mT,100°C) (W/Set)	200mT,100°C) (W/Set)			
SFP4	SFP95					
-	-	≥2500	≥3000	≥3500	-	-
-	-	≥2500	≥3000	≥3500	-	-
3250±25%	4300±25%	-	-	-	≤14	≤9.5
4050±25%	-	-	-	-	≤12	-
6000±25%	-	-	-	-	≤14	-
6000±25%	-	-	-	-	≤14	-
9300±25%	-	-	-	-	≤18	-

Speedofer Index of Definitions & Equations

Definitions

- 1) Initial Permeability, µi
- 2) Effective Permeability, µe
- 3) Saturation Flux Density, Bs (T)
- 4) Residual Magnetic Flux Density, Br (T)
- 5) Coercivity, Hc (A/m)
- 6) Loss Factor, tanδ
- 7) Relative Loss Factor, tanδ/m
- 8) Hysteresis Material Constant, ηB (10⁻⁶/mT)
- 9) Temperature Coefficient, a₁ (K⁻¹)
- 10) Relative Temperature Coefficient, a_{Pr} (K-1)
- 11) Curie Temperature, Tc (°c)
- 12) Resistivity, ρ (Ωm)
- 13) Density, d (kg/m³)
- 14) Power Loss density, Pc (kW/m3)
- 15) Inductance Factor, A_L (nH/N²)

Equations

- 1) Hi (Initial Permeability)
- 2) Toroidal Permeability
- 3) He Effective ermeability
- 4) A_L Inductance Factor
- 5) H Magnetic Field Strength
- 6) Peak AC Flux Density
- 7) Le Effective Magnetic Path Length of Toroidal Cores
- 8) Ae Effective Cross-sectional Area
- 9) Q Quality Factor

Definitions

1) Initial Permeability, μ,

This is the limit value of B/H where H is indefinitely close to zero at the initial magnetization curve of a ferromagnetic substance.

$$\mu_i = \frac{1}{\Pi}$$

Where

- μ_0 Permeability in Vacuum ($4\pi x 10^{-7}$ H/m)
- H Magnetic Field Strength (A/m)
- B Magnetic Flux Density (T)

2) Effective Permeability, μ_e

Effective Permeability of a core forming a closed circuit where leakage flux is negligibly small.

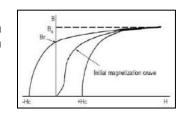
$$\mu e = \frac{Le}{\mu_0 A_e N^2}$$

Where

- L Self Inductance of Coil with Core (H)
- N Number of Turns in Coil
- L_e Effective Magnetic Path Length of Core (m)
- A Effective cross sectional area of Core (m²)

3) Saturation Flux Density, Bs (T)

Saturation flux density is the maximum attainable flux density when a very high magnetic field is applied to a soft magnetic material as shown in the figure below.



Speedafer Definitions

4) Residual Magnetic Flux Density, Br (T)

This is the amount of residual magnetic flux density retained by the core after the magnetic field is weakened and finally removed, as shown in the figure above.

5) Coercivity, Hc (A/m)

This is the strength of the magnetic field whereby the residual flux density becomes zero under the intensification in the opposite direction of the magnetic field, as shown in the figure above.

6) Loss Factor, tanδ

The loss factor can be split up into three parts as $tan\delta = tan\delta h + tan\delta e + tan\delta r$

Where tanδh Hysteresis loss tanδe Eddy-current loss tanδr Residual loss

7) Relative Loss Factor, tanδ/μ,

This is the amount of loss per unit permeability and is defined as below. $tan\delta/\mu i$ (for magnetic material) $tan\delta/\mu e$ (where gaps are added to the magnetic circuit)

8) Hysteresis Material Constant, ηB (10⁻⁶/mT)

Hysteresis material constant characterizes the change of the hysteresis loss of the material when the flux density is increased.

$$\eta B = \frac{\Delta tan\delta}{\mu_e \Delta B}$$
Where
$$tan\delta \quad Loss factor$$

$$\mu e \quad Effective Permeability$$

$$B \quad Magnetic Flux Density (mT)$$

9) Temperature Coefficient, a_u (K⁻¹)

This is the fractional difference of permeability per $^{\circ}$ K in a temperature range from T₄ to T₂ (T₂ >T₄)

$$\begin{array}{ll} a_{\mu} = (\mu_2 \text{-} \mu_1) / \mu_1 (T_2 \text{-} T_1) \\ \\ \text{Where} \qquad \mu_1 \qquad \text{Permeability at temperature } T_1 \\ \mu_2 \qquad \text{permeability at temperature } T_2 \end{array}$$

10) Relative Temperature Coefficient, a_{μr} (K⁻¹)

This is the temperature coefficient per unit permeability

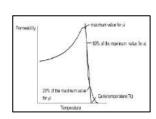
$$a_{\mu r} = (\mu_2 - \mu_1)/\mu_1^2 (T_2 - T_1)$$

The temperature coefficient of an actual core is obtained from below

$$a_{\mu r} = a_{\mu r} x \mu_e$$

11) Curie Temperature, Tc (°C)

The Curie temperature Tc is defined as the temperature at which the magnetic core changes from the ferromagnetic to the paramagnetic state.



12) Resistivity, ρ (Ωm)

This is the electrical resistance per unit length and cross-sectional area of a magnetic core.

13) Density, d (kg/m³)

This is the weight per unit volume of a magnetic core.

d = W/V

Where W Weight of magnetic core (kg)

V Volume of magnetic core (m³)

14) Power Loss density, Pc (kw/m³)

Power loss denotes the loss under a magnetization condition featuring a high frequency and a large amplitude. Operating magnetic flux density is generally expressed for a sinusoidal wave as below.

 $B_m = E/(4.44f NA_0)$

Where B_m Peak value of magnetic flux density (T)

E Voltage effective value applied to test coil (V)

f Frequency (Hz)N Number of coil turns

A_e Effective cross-sectional area of core (m²)

15) Inductance Factor, AL (nH/N²)

 $A_L = L/N^2$

Where A Self-inductance of coil with core (H)

N Number of coil turns

The inductance factor is generally united by 10°H/N² (nH/N²)

Equations

1) μ_i(Initial Permeability)

$$\mu_{i} = \frac{1}{\mu_{0}}$$
 $(\Delta H - > 0)$ $\frac{\Delta B}{(\Delta H)}$ μ_{0} $(4 \rho x 10^{-7} H/m)$

2) Toroidal Permeability

$$\mu_{\scriptscriptstyle i} = \frac{1000L.I_{\scriptscriptstyle e}}{4\pi N^2 A_{\scriptscriptstyle e}}$$

Where L Inductance(µH)

μ Permeability

N No of Turns

A_e Effective cross sectional area (cm²)

I Effective Magnetic Path Length (cm)

3) μ_e Effective Permeability

$$\mu_i = \frac{1000L}{4\pi N^2} \qquad \Sigma = \frac{I}{A}$$

Where L Inductance(μH) μ Permeability

N No of Turns

I Effective Magnetic Path Length (cm) A Effective cross sectional area (cm²)

4) A_L Inductance Factor

 $A_i = L/N2$

A_L: nH/N2 Inductance Factor
Where L Inductance
N No of Turns

5) Magnetic Field Strength

$$H = \begin{array}{c|c} \hline 0.4\pi NI \\ \hline I_e \\ \hline Where & H & Magnetic Force(Oe) \\ N & No \ of \ Turns \\ I & Current(A) \\ I_e & Effective \ Magnetic \ Path \ Length \ (cm) \\ \hline \end{array}$$

6) Peak Ac Flux Density

$$B_{max} = \frac{E_{rms}10^8}{4.44fA_eN}$$
Where
$$B \quad Peak Ac Flux Density (Gauss)$$

$$F \quad Frequency (Hz)$$

$$A_e \quad Effective Cross-Sectional Area cm2$$

$$E_{rms} \quad RMS \ Voltage (V)$$

7) Le Effective Magnetic Path Length of Torodial Cores

$$I_{e} = \frac{\frac{\pi(\text{OD-ID})}{\ln{(\frac{\text{OD}}{\text{ID}})}}}{\ln{(\frac{\text{OD}}{\text{ID}})}}$$
Where OD Outer Diameter (cm)
$$ID \qquad \text{Inner Diameter (cm)}$$

$$I_{e} \qquad \text{Effective Magnetic Path Length (cm)}$$

8) Ae Effective Cross-Sectional Area

$$\begin{array}{cccc} A_{_{\! e}} = & & \frac{\text{(OD-ID)}}{2} & \text{xHtXK} \\ \\ \text{Where} & & \text{OD} & \text{Outer Diameter (cm)} \\ & & \text{ID} & \text{Inner Diameter (cm)} \\ & & \text{Ht} & \text{Height (cm)} \\ & & \text{K} & \text{Coefficent Relative to the Shape of the edges} \\ \end{array}$$

9) Quality Factor (Q)

$$Q = \frac{\omega L}{R_{dc} + R_{ac} + R_{cd}}$$

$$Q \quad Quality Factor$$

$$L \quad Inductance (H)$$

$$Where \quad \omega = 2\pi \quad Frequency (Hz)$$

$$R_{dc} \quad Dc \ Winding \ Resistance \ (\Omega)$$

$$R_{ac} \quad Resistance \ due \ to \ core \ loss \ (\Omega)$$

$$R_{cd} \quad Resistance \ due \ to \ dielectric \ loss \ of \ Winding \ (\Omega)$$

QMS



EMS



OHSAS



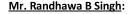
DSIR R&D Recognition



DUNS Number



Speedofer Senior Management





Chairman & Managing Director of Speedofer Components Pvt. Ltd., Bramhajeet Singh Randhawa is an entrepreneur who has over 3 decades of experience in Soft Ferrite Cores Industry.

Forayed into Soft Ferrite Cores manufacturing by setting up Speedofer Components Pvt. Ltd. in 2007 which has an expanded unit and a factory in Greater Noida, India.

Has a vision to grow together with the Clients and take Employees, Business Partners and Suppliers along to make Speedofer most reliable global supplier.

Found Hob-Nob Electronics Pvt. Ltd. in New Delhi in 1994 as an authorized Distributor to EPCOS Ferrite Cores in India.

An Executive Committee member of ELCINA that represents Electronics Industry.

Reachable at bsr@speedofer.com

Mr. Ambar N Sinha:



Former Executive Director of Speedofer Components Pvt. Ltd., Ambar N Sinha was the Managing Director of EPCOS, India. Over 15 years association with EPCOS and built up the company from scratch into a world class manufacturing facility for Soft Ferrites Cores. It is because of the rapid growth of EPCOS that the Indian Ferrite Industry is thriving today.

Graduated from IIT - Kharagpur, has techno-commercial backgrounds and evolved Six Sigma, TPM, Lean Manufacturing processes across the Organizations he served.

Motivates his colleagues by extending his expertise in Business Excellence & Strategies and ever helpful in systematic operations.

Reachable at ssb@speedofer.com

Mr. Probal Mukherjee:



Former Technical Head of Speedofer Components Pvt. Ltd., Mr. Mukherjee was General Manager, R&D in EPCOS ,India.

Actively associated with Speedofer Components Pvt. Ltd. in the field of Quality, Customer Support and customized instruments for testing different applicable characteristics of Ferrites Cores.

Graduated from IIT - Kharagpur, who also has wide global experience with having worked in Far East, Europe and the Americas.

Member and Convenor of IEC for standardisation.

Reachable at application@speedofer.com



Speedofer Components Pvt. Ltd.

Plot No. 101 & 102, Toy City, Ecotech III, Greater Noida-201306 Gautam Buddha Nagar, Uttar Pradesh, India



info@speedofer.com www.speedofer.com





+91 120 4752457