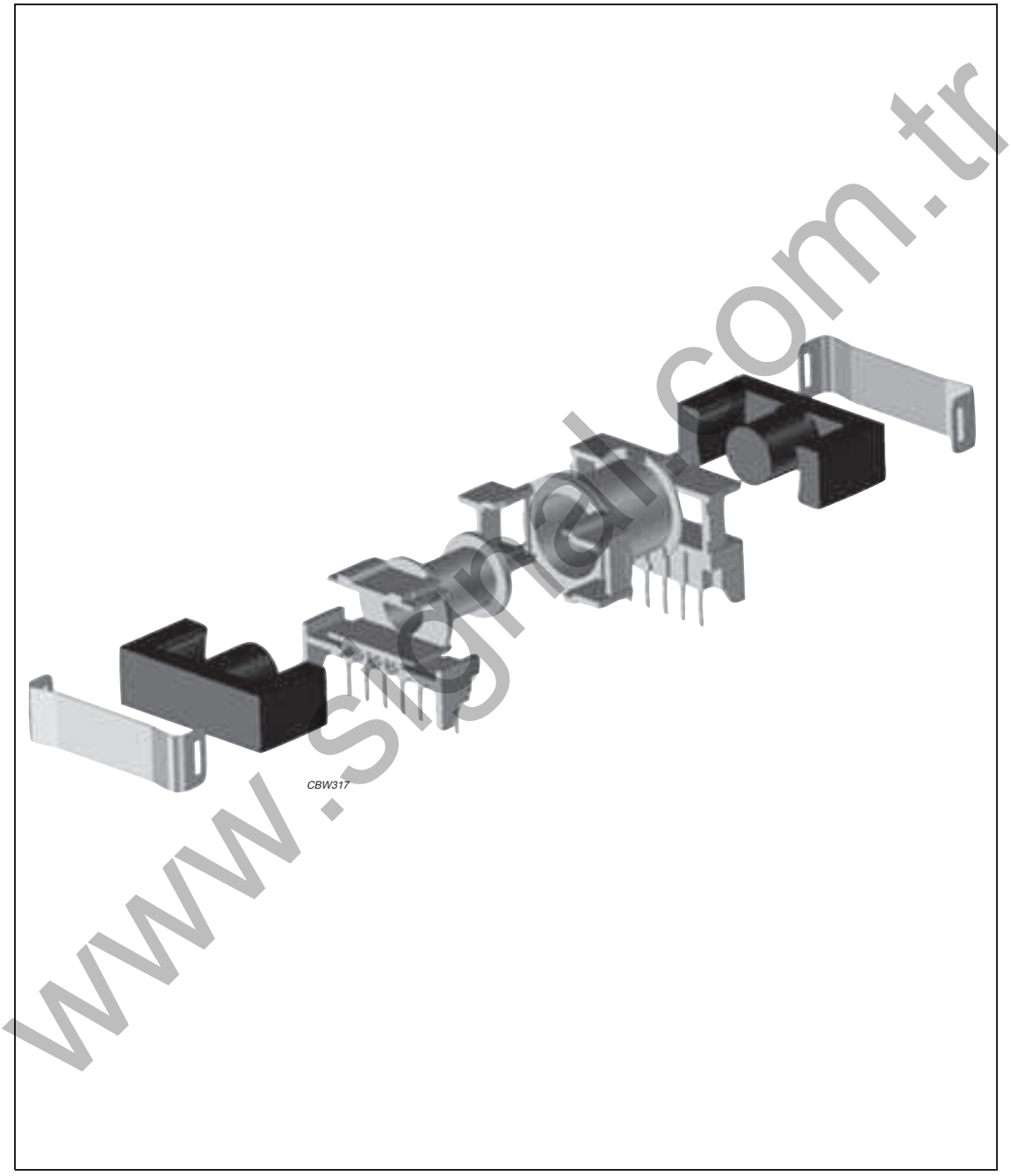


PRODUCT OVERVIEW AND TYPE NUMBER STRUCTURE

Product overview ETD cores

CORE TYPE	V_e (mm^3)	A_e (mm^2)	MASS (g)
ETD29/16/10	5470	76.0	14
ETD34/17/11	7640	97.1	20
ETD39/20/13	11500	125	30
ETD44/22/15	17800	173	47
ETD49/25/16	24000	211	62
ETD54/28/19	35500	280	90
ETD59/31/22	51500	368	130

• In accordance with IEC 62317, part 6.

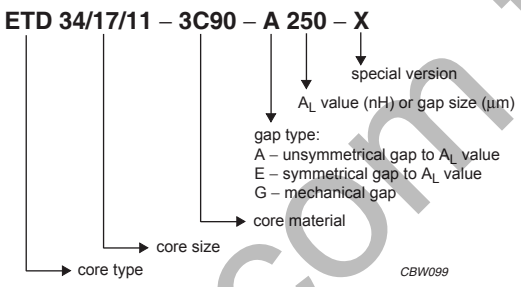


Fig.1 Type number structure for cores.

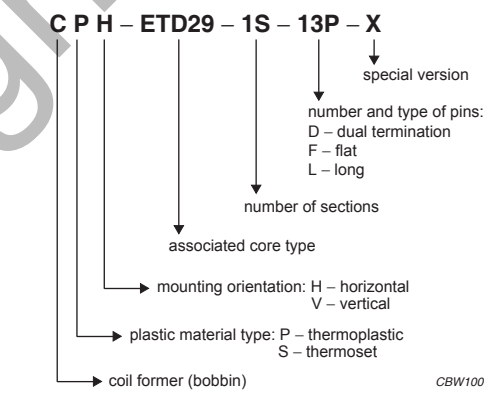
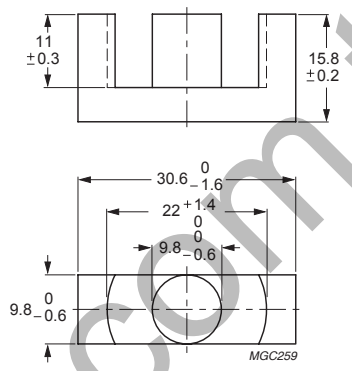


Fig.2 Type number structure for coil formers.

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.947	mm^{-1}
V_e	effective volume	5470	mm^3
l_e	effective length	72.0	mm
A_e	effective area	76.0	mm^2
A_{min}	minimum area	71.0	mm^2
m	mass of core half	≈ 14	g



Dimensions in mm.

Fig.1 ETD29/16/10 core half.

Core halves

Clamping force for A_L measurements, 40 ±20 N. Gapped cores are available on request.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C90	2350 ±25%	≈ 1770	≈ 0	ETD29/16/10-3C90
3C94	2350 ±25%	≈ 1770	≈ 0	ETD29/16/10-3C94
3C95 des	2860 ±25%	≈ 2160	≈ 0	ETD29/16/10-3C95
3C96 des	2200 ±25%	≈ 1660	≈ 0	ETD29/16/10-3C96
3F3	2200 ±25%	≈ 1660	≈ 0	ETD29/16/10-3F3
3F35 des	1600 ±25%	≈ 1210	≈ 0	ETD29/16/10-3F35

Properties of core sets under power conditions

GRADE	B (mT) at	CORE LOSS (W) at				
	H = 250 A/m; f = 25 kHz; T = 100 °C	f = 25 kHz; $\hat{B}$ = 200 mT; T = 100 °C	f = 100 kHz; $\hat{B}$ = 100 mT; T = 100 °C	f = 100 kHz; $\hat{B}$ = 200 mT; T = 25 °C	f = 100 kHz; $\hat{B}$ = 200 mT; T = 100 °C	f = 400 kHz; $\hat{B}$ = 50 mT; T = 100 °C
3C90	≥330	≤ 0.66	≤ 0.69	–	–	–
3C94	≥330	–	≤ 0.5	–	≤ 3.0	–
3C95	≥330	–	–	≤ 3.23	≤ 3.06	–
3C96	≥340	–	≤ 0.37	–	≤ 2.4	–
3F3	≥320	–	≤ 0.65	–	–	≤ 1.1
3F35	≥300	–	–	–	–	–

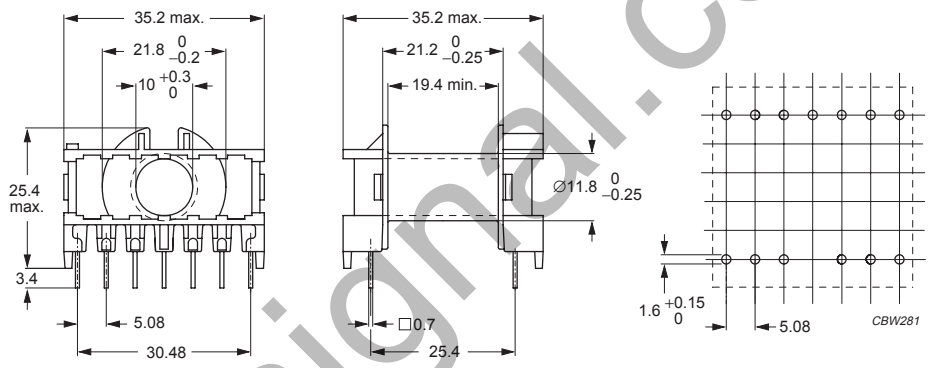
Properties of core sets under power conditions (continued)

GRADE	B (mT) at	CORE LOSS (W) at			
	H = 250 A/m; f = 25 kHz; T = 100 °C	f = 500 kHz; $\hat{B}$ = 50 mT; T = 100 °C	f = 500 kHz; $\hat{B}$ = 100 mT; T = 100 °C	f = 1 MHz; $\hat{B}$ = 30 mT; T = 100 °C	f = 3 MHz; $\hat{B}$ = 10 mT; T = 100 °C
3C90	≥330	–	–	–	–
3C94	≥330	–	–	–	–
3C95	≥330	–	–	–	–
3C96	≥340	≤ 2.0	–	–	–
3F3	≥320	–	–	–	–
3F35	≥300	≤ 0.74	≤ 5.7	–	–

COIL FORMER

General data 13-pins ETD29/16/10 coil former

PARAMETER	SPECIFICATION
Coil former material	polybutyleneterephtalate (PBT), glass-reinforced, flame retardant in accordance with *"UL 94V-0"*; UL file number E45329(R)
Pin material	copper-tin alloy (CuSn), tin (Sn) plated
Maximum operating temperature	155 °C, *"IEC 60085"*, class F
Resistance to soldering heat	*"IEC 60068-2-20"*, Part 2, Test Tb, method 1B, 350 °C, 3.5 s
Solderability	*"IEC 60068-2-20"*, Part 2, Test Ta, method 1



Dimensions in mm.

Fig.2 ETD29/16/10 coil former; 13-pins.

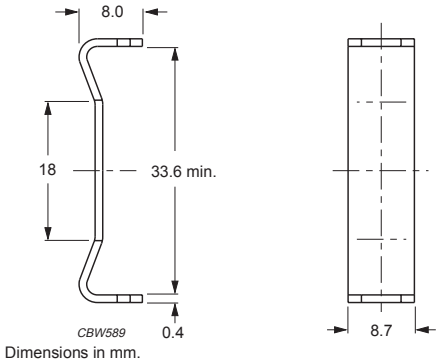
Winding data and area product for 13-pins ETD29/16/10 coil former

NUMBER OF SECTIONS	WINDING AREA (mm^2)	MINIMUM WINDING WIDTH (mm)	AVERAGE LENGTH OF TURN (mm)	AREA PRODUCT Ae x Aw (mm^4)	TYPE NUMBER
1	95	19.4	53	7220	CPH-ETD29-1S-13P

MOUNTING PARTS

General data

ITEM	REMARKS	FIGURE	TYPE NUMBER
Mounting clip	material: stainless steel	3	CLI-ETD29



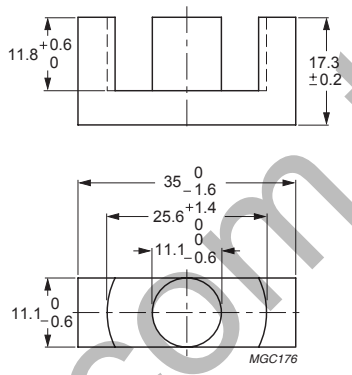
Dimensions in mm.

Fig.3 Mounting clip for ETD29/16/10.

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.810	mm^{-1}
V_e	effective volume	7640	mm^3
l_e	effective length	78.6	mm
A_e	effective area	97.1	mm^2
A_{min}	minimum area	91.6	mm^2
m	mass of core half	≈ 20	g



Dimensions in mm.

Fig.1 ETD34/17/11 core half.

Core halves

Clamping force for A_L measurements, 40 ±20 N. Gapped cores are available on request.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C90	2700 ±25%	≈ 1740	≈ 0	ETD34/17/11-3C90
3C94	2700 ±25%	≈ 1740	≈ 0	ETD34/17/11-3C94
3C95 des	3270 ±25%	≈ 2110	≈ 0	ETD34/17/11-3C95
3C96 des	2500 ±25%	≈ 1610	≈ 0	ETD34/17/11-3C96
3F3	2500 ±25%	≈ 1610	≈ 0	ETD34/17/11-3F3
3F35 des	1850 ±25%	≈ 1190	≈ 0	ETD34/17/11-3F35

Properties of core sets under power conditions

GRADE	B (mT) at	CORE LOSS (W) at				
	H = 250 A/m; f = 25 kHz; T = 100 °C	f = 25 kHz; $\hat{B}$ = 200 mT; T = 100 °C	f = 100 kHz; $\hat{B}$ = 100 mT; T = 100 °C	f = 100 kHz; $\hat{B}$ = 200 mT; T = 25 °C	f = 100 kHz; $\hat{B}$ = 200 mT; T = 100 °C	f = 400 kHz; $\hat{B}$ = 50 mT; T = 100 °C
3C90	≥330	≤ 0.92	≤ 0.97	–	–	–
3C94	≥330	–	≤ 0.73	–	≤ 4.2	–
3C95	≥330	–	–	≤ 4.51	≤ 4.28	–
3C96	≥340	–	≤ 0.55	–	≤ 3.4	–
3F3	≥320	–	≤ 0.9	–	–	≤ 1.6
3F35	≥300	–	–	–	–	–

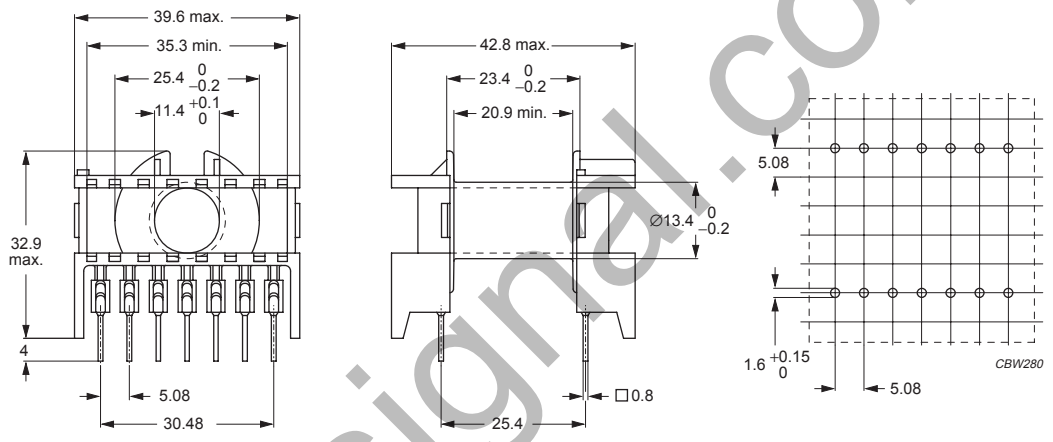
Properties of core sets under power conditions (continued)

GRADE	B (mT) at	CORE LOSS (W) at			
	H = 250 A/m; f = 25 kHz; T = 100 °C	f = 500 kHz; $\hat{B}$ = 50 mT; T = 100 °C	f = 500 kHz; $\hat{B}$ = 100 mT; T = 100 °C	f = 1 MHz; $\hat{B}$ = 30 mT; T = 100 °C	f = 3 MHz; $\hat{B}$ = 10 mT; T = 100 °C
3C90	≥330	–	–	–	–
3C94	≥330	–	–	–	–
3C95	≥330	–	–	–	–
3C96	≥340	≤ 2.8	–	–	–
3F3	≥320	–	–	–	–
3F35	≥300	≤ 1.0	≤ 8.0	–	–

COIL FORMERS

General data 14-pins ETD34/17/11 coil former

PARAMETER	SPECIFICATION
Coil former material	polybutyleneterephtalate (PBT), glass-reinforced, flame retardant in accordance with *"UL 94V-0"*; UL file number E45329(R)
Pin material	copper-tin alloy (CuSn), tin (Sn) plated
Maximum operating temperature	155 °C, *"IEC 60085"*, class F
Resistance to soldering heat	*"IEC 60068-2-20"*, Part 2, Test Tb, method 1B, 350 °C, 3.5 s
Solderability	*"IEC 60068-2-20"*, Part 2, Test Ta, method 1



Dimensions in mm.

Fig.2 ETD34/17/11 coil former; 14-pins.

Winding data and area product for 14-pins ETD34/17/11 coil former

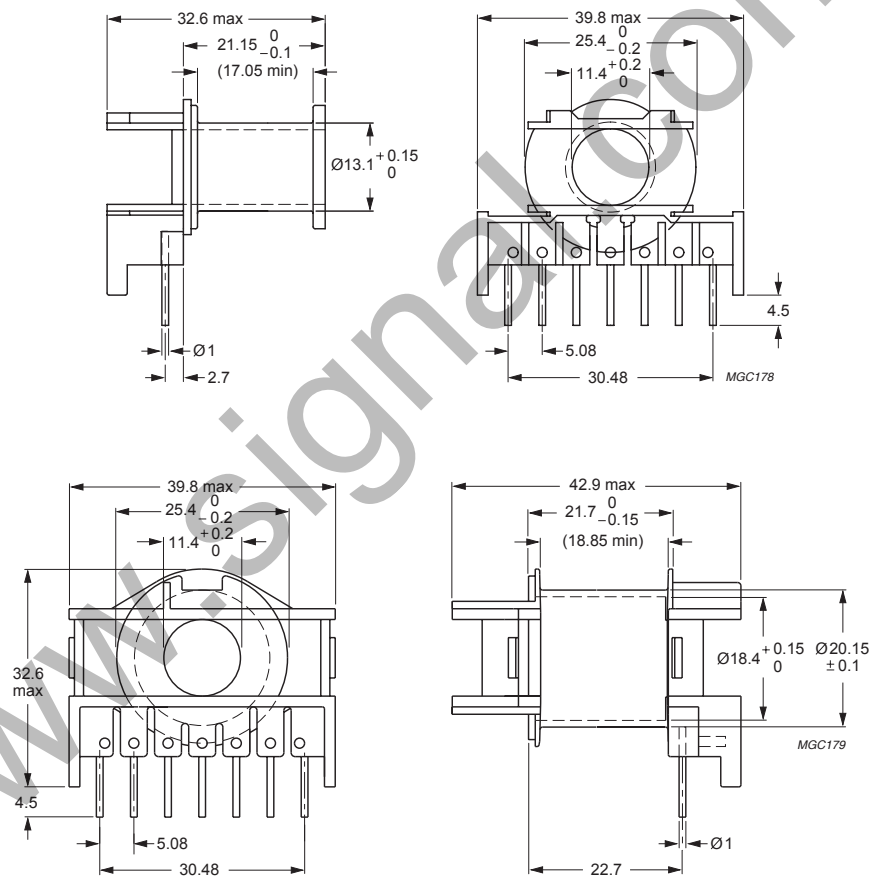
NUMBER OF SECTIONS	WINDING AREA (mm^2)	MINIMUM WINDING WIDTH (mm)	AVERAGE LENGTH OF TURN (mm)	AREA PRODUCT Ae x Aw (mm^4)	TYPE NUMBER
1	123	20.9	60	11900	CPH-ETD34-1S-14P(1)

Note

1. Also available with ∅1.0 mm pins.

General data 14-pins coaxial ETD34/17/11 coil former

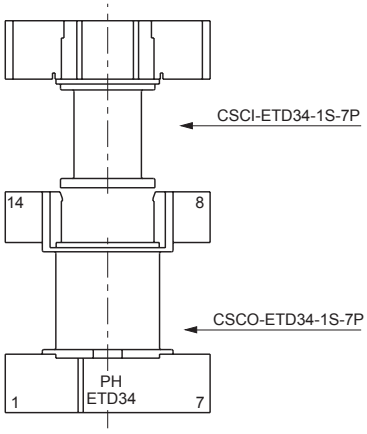
PARAMETER	SPECIFICATION
Coil former material	phenolformaldehyde (PF), glass-reinforced, flame retardant in accordance with *"UL 94V-0"*; UL file number E167521(M)
Pin material	copper-tin alloy (CuSn), tin (Sn) plated
Maximum operating temperature	180 °C, *"IEC 60085"*, class H
Resistance to soldering heat	*"IEC 60068-2-20"*, Part 2, Test Tb, method 1B, 350 °C, 3.5 s
Solderability	*"IEC 60068-2-20"*, Part 2, Test Ta, method 1

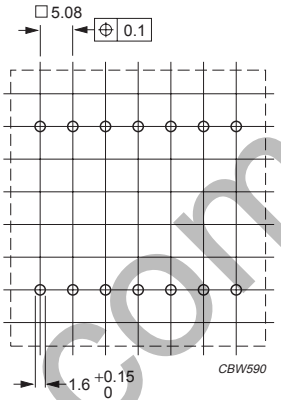


Dimensions in mm.

For mounting grid and method of fitting, see Fig.4.

Fig.3 Coaxial ETD34/17/11 coil former; 14-pins.





Dimensions in mm.

This coil former incorporates 8 mm creepage distance between primary and secondary windings, as well as between primary and all other conductive parts (in accordance with IEC 380 safety regulations).

Fig.4 Mounting grid and method of fitting.

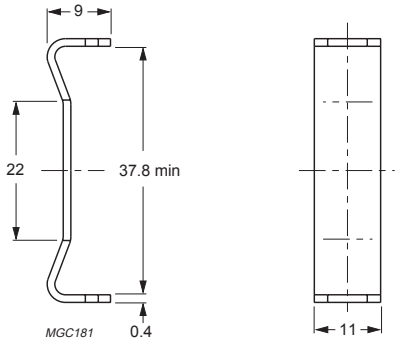
Winding data and area product for coaxial ETD34/17/11 coil former

NUMBER OF SECTIONS	WINDING AREA (mm^2)	MINIMUM WINDING WIDTH (mm)	AVERAGE LENGTH OF TURN (mm)	AREA PRODUCT Ae x Aw (mm^4)	TYPE NUMBER
1	42.6	17.05	49.4	4140	CSCI-ETD34-1S-7P
1	46.6	18.85	71.4	4520	CSCO-ETD34-1S-7P

MOUNTING PARTS

General data

ITEM	REMARKS	FIGURE	TYPE NUMBER
Mounting clip	material: stainless steel	5	CLI-ETD34



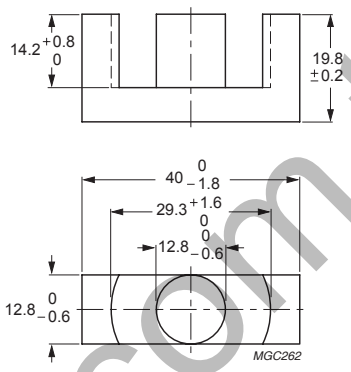
Dimensions in mm.

Fig.5 Mounting clip for ETD34/17/11.

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.737	mm^{-1}
V_e	effective volume	11500	mm^3
l_e	effective length	92.2	mm
A_e	effective area	125	mm^2
A_{min}	minimum area	123	mm^2
m	mass of core half	≈ 30	g



Dimensions in mm.

Fig.1 ETD39/20/13 core half.

Core halves

Clamping force for A_L measurements, 40 ±20 N. Gapped cores are available on request.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C90	3000 ±25%	≈ 1760	≈ 0	ETD39/20/13-3C90
3C94	3000 ±25%	≈ 1760	≈ 0	ETD39/20/13-3C94
3C95 des	3650 ±25%	≈ 2145	≈ 0	ETD39/20/13-3C95
3F3	2800 ±25%	≈ 1640	≈ 0	ETD39/20/13-3F3

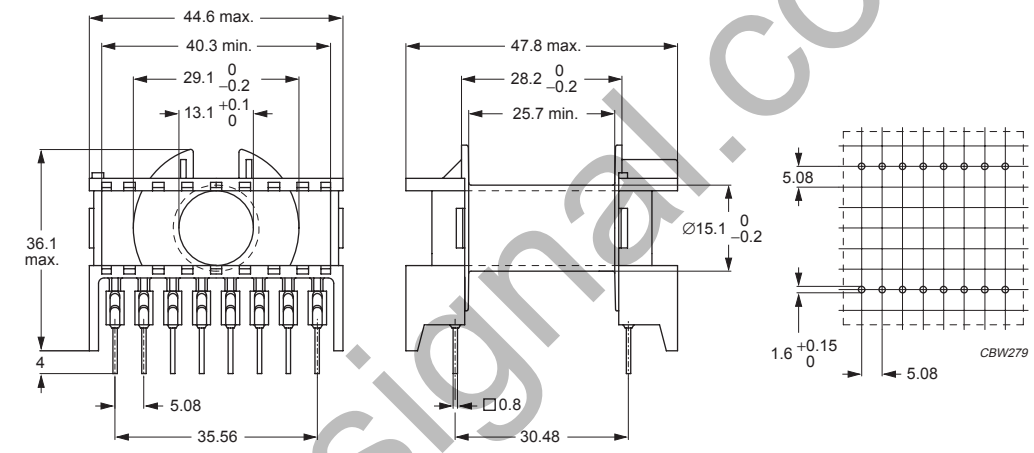
Properties of core sets under power conditions

GRADE	B (mT) at	CORE LOSS (W) at				
	H = 250 A/m; f = 25 kHz; T = 100 °C	f = 25 kHz; $\hat{B}$ = 200 mT; T = 100 °C	f = 100 kHz; $\hat{B}$ = 100 mT; T = 100 °C	f = 100 kHz; $\hat{B}$ = 200 mT; T = 25 °C	f = 100 kHz; $\hat{B}$ = 200 mT; T = 100 °C	f = 400 kHz; $\hat{B}$ = 50 mT; T = 100 °C
3C90	≥330	≤ 1.4	≤ 1.5	–	–	–
3C94	≥330	–	≤ 1.2	–	≤ 6.0	–
3C95	≥330	–	–	≤ 7.25	≤ 6.9	–
3F3	≥320	–	≤ 1.4	–	–	≤ 2.5

COIL FORMER

General data 16-pins ETD39/20/13 coil former

PARAMETER	SPECIFICATION
Coil former material	polybutyleneterephtalate (PBT), glass-reinforced, flame retardant in accordance with *"UL 94V-0"*; UL file number E45329(R)
Pin material	copper-tin alloy (CuSn), tin (Sn) plated
Maximum operating temperature	155 °C, *"IEC 60085"*, class F
Resistance to soldering heat	*"IEC 60068-2-20"*, Part 2, Test Tb, method 1B, 350 °C, 3.5 s
Solderability	*"IEC 60068-2-20"*, Part 2, Test Ta, method 1



Dimensions in mm.

Fig.2 ETD39/20/13 coil former; 16-pins.

Winding data and area product for 16-pins ETD39/20/13 coil former

NUMBER OF SECTIONS	WINDING AREA (mm^2)	MINIMUM WINDING WIDTH (mm)	AVERAGE LENGTH OF TURN (mm)	AREA PRODUCT Ae x Aw (mm^4)	TYPE NUMBER
1	177	25.7	69	22100	CPH-ETD39-1S-16P(1)

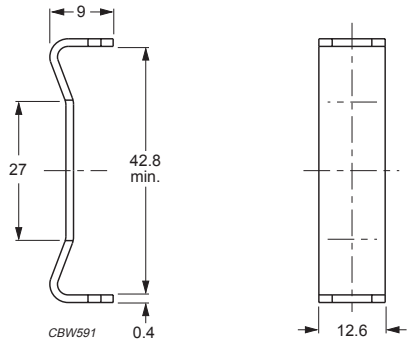
Note

1. Also available with ∅1.0 mm pins.

MOUNTING PARTS

General data

ITEM	REMARKS	FIGURE	TYPE NUMBER
Mounting clip	material: stainless steel	3	CLI-ETD39



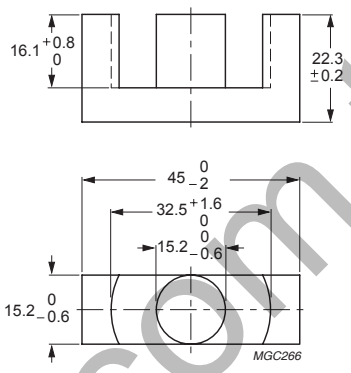
Dimensions in mm.

Fig.3 Mounting clip for ETD39/20/13.

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.589	mm^{-1}
V_e	effective volume	17800	mm^3
l_e	effective length	103	mm
A_e	effective area	173	mm^2
A_{min}	minimum area	172	mm^2
m	mass of core half	≈ 47	g



Dimensions in mm.

Fig.1 ETD44/22/15 core half.

Core halves

Clamping force for A_L measurements, 40 ±20 N. Gapped cores are available on request.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C90	3800 ±25%	≈ 1800	≈ 0	ETD44/22/15-3C90
3C94	3800 ±25%	≈ 1800	≈ 0	ETD44/22/15-3C94
3C95 des	4640 ±25%	≈ 2200	≈ 0	ETD44/22/15-3C95
3F3	3500 ±25%	≈ 1660	≈ 0	ETD44/22/15-3F3

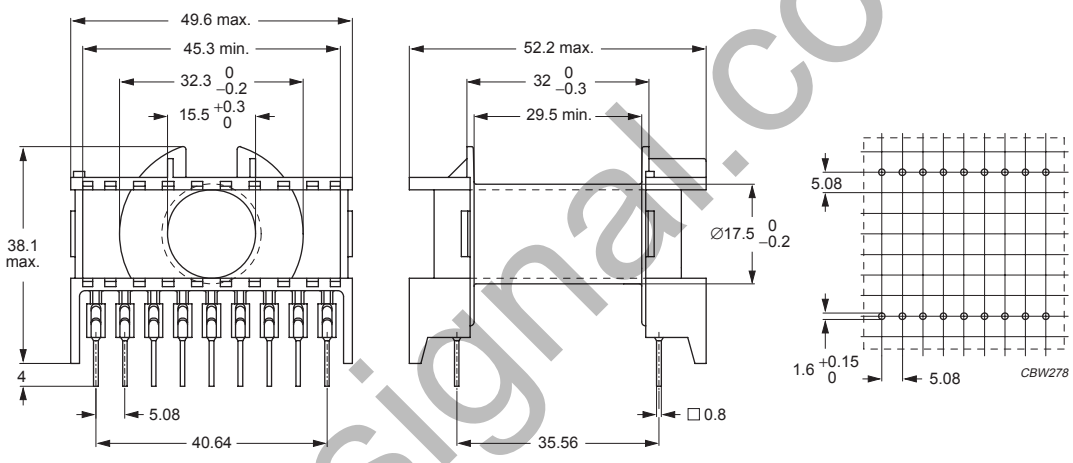
Properties of core sets under power conditions

GRADE	B (mT) at	CORE LOSS (W) at				
	H = 250 A/m; f = 25 kHz; T = 100 °C	f = 25 kHz; $\hat{B}$ = 200 mT; T = 100 °C	f = 100 kHz; $\hat{B}$ = 100 mT; T = 100 °C	f = 100 kHz; $\hat{B}$ = 200 mT; T = 25 °C	f = 100 kHz; $\hat{B}$ = 200 mT; T = 100 °C	f = 400 kHz; $\hat{B}$ = 50 mT; T = 100 °C
3C90	≥330	≤ 2.2	≤ 2.3	–	–	–
3C94	≥330	–	≤ 1.7	–	≤ 9.4	–
3C95	≥330	–	–	≤ 11.2	≤ 10.7	–
3F3	≥320	–	≤ 2.2	–	–	≤ 3.9

COIL FORMERS

General data 18-pins ETD44/22/15 coil former

PARAMETER	SPECIFICATION
Coil former material	polybutyleneterephtalate (PBT), glass-reinforced, flame retardant in accordance with *"UL 94V-0"*; UL file number E45329(R)
Pin material	copper-tin alloy (CuSn), tin (Sn) plated
Maximum operating temperature	155 °C, *"IEC 60085"*, class F
Resistance to soldering heat	*"IEC 60068-2-20"*, Part 2, Test Tb, method 1B, 350 °C, 3.5 s
Solderability	*"IEC 60068-2-20"*, Part 2, Test Ta, method 1



Dimensions in mm.

Fig.2 ETD44/22/15 coil former; 18-pins.

Winding data and area product for 18-pins ETD44/22/15 coil former

NUMBER OF SECTIONS	WINDING AREA (mm^2)	MINIMUM WINDING WIDTH (mm)	AVERAGE LENGTH OF TURN (mm)	AREA PRODUCT Ae x Aw (mm^4)	TYPE NUMBER
1	214	29.5	77	37000	CPH-ETD44-1S-18P(1)

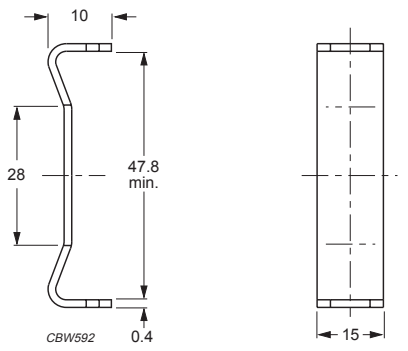
Note

1. Also available with ∅1.0 mm pins.

MOUNTING PARTS

General data

ITEM	REMARKS	FIGURE	TYPE NUMBER
Mounting clip	material: stainless steel	3	CLI-ETD44



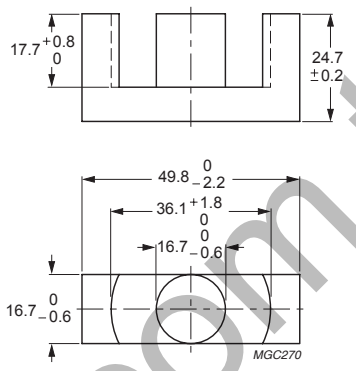
Dimensions in mm.

Fig.3 Mounting clip for ETD44/22/15.

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.534	mm^{-1}
V_e	effective volume	24000	mm^3
l_e	effective length	114	mm
A_e	effective area	211	mm^2
A_{min}	minimum area	209	mm^2
m	mass of core half	≈ 62	g



Dimensions in mm.

Fig.1 ETD49/25/16 core half.

Core halves

Clamping force for A_L measurements, 50 ±20 N. Gapped cores are available on request.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C90	4200 ±25%	≈ 1810	≈ 0	ETD49/25/16-3C90
3C94	4200 ±25%	≈ 1810	≈ 0	ETD49/25/16-3C94
3C95 des	5140 ±25%	≈ 2210	≈ 0	ETD49/25/16-3C95
3F3	3900 ±25%	≈ 1680	≈ 0	ETD49/25/16-3F3

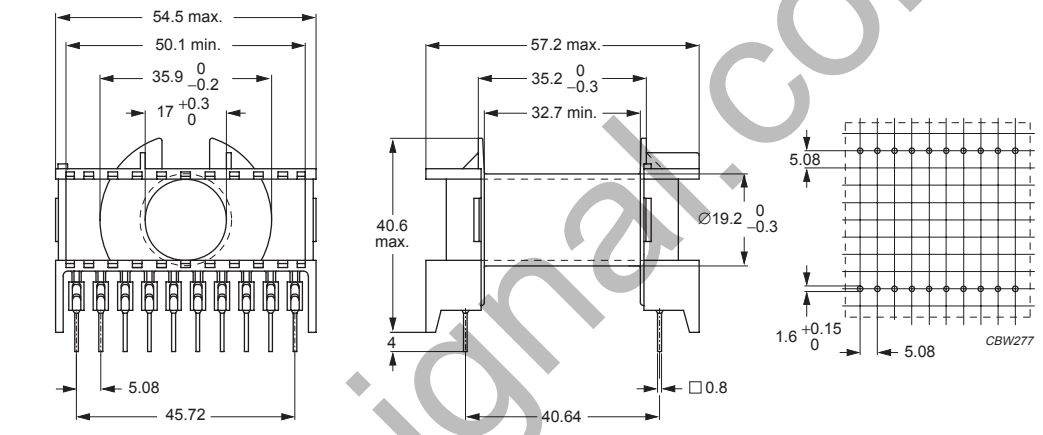
Properties of core sets under power conditions

GRADE	B (mT) at	CORE LOSS (W) at				
	H = 250 A/m; f = 25 kHz; T = 100 °C	f = 25 kHz; $\hat{B}$ = 200 mT; T = 100 °C	f = 100 kHz; $\hat{B}$ = 100 mT; T = 100 °C	f = 100 kHz; $\hat{B}$ = 200 mT; T = 25 °C	f = 100 kHz; $\hat{B}$ = 200 mT; T = 100 °C	f = 400 kHz; $\hat{B}$ = 50 mT; T = 100 °C
3C90	≥330	≤ 2.9	≤ 3.1	–	–	–
3C94	≥330	–	≤ 2.3	–	≤ 12.4	–
3C95	≥330	–	–	≤ 15.1	≤ 14.4	–
3F3	≥320	–	≤ 3.0	–	–	≤ 5.4

COIL FORMERS

General data 20-pins ETD49/25/16 coil former

PARAMETER	SPECIFICATION
Coil former material	polybutyleneterephtalate (PBT), glass-reinforced, flame retardant in accordance with *"UL 94V-0"*; UL file number E45329(R)
Pin material	copper-tin alloy (CuSn), tin (Sn) plated
Maximum operating temperature	155 °C, *"IEC 60085"*, class F
Resistance to soldering heat	*"IEC 60068-2-20"*, Part 2, Test Tb, method 1B, 350 °C, 3.5 s
Solderability	*"IEC 60068-2-20"*, Part 2, Test Ta, method 1



Dimensions in mm.

Fig.2 ETD49/25/16 coil former; 20-pins.

Winding data and area product for 20-pins ETD49/25/16 coil former

NUMBER OF SECTIONS	WINDING AREA (mm^2)	MINIMUM WINDING WIDTH (mm)	AVERAGE LENGTH OF TURN (mm)	AREA PRODUCT Ae x Aw (mm^4)	TYPE NUMBER
1	273	32.7	85	57600	CPH-ETD49-1S-20P(1)

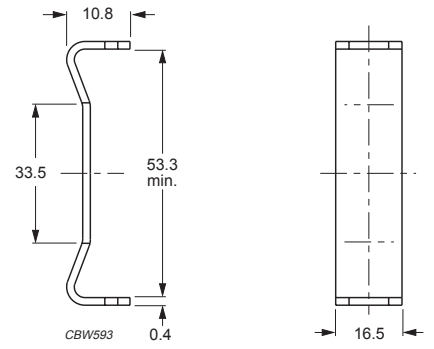
Note

1. Also available with ∅1.0 mm pins.

MOUNTING PARTS

General data

ITEM	REMARKS	FIGURE	TYPE NUMBER
Mounting clip	material: stainless steel	3	CLI-ETD49



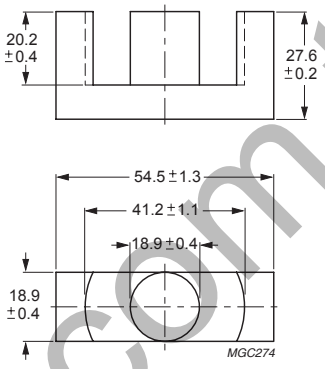
Dimensions in mm.

Fig.3 Mounting clip for ETD49/25/16.

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.454	mm^{-1}
V_e	effective volume	35500	mm^3
l_e	effective length	127	mm
A_e	effective area	280	mm^2
A_{min}	minimum area	270	mm^2
m	mass of core half	≈ 90	g



Dimensions in mm.

Fig.1 ETD54/28/19 core half.

Core halves

Clamping force for A_L measurements, 50 ±20 N. Gapped cores are available on request.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C90	5000 ±25%	≈ 1810	≈ 0	ETD54/28/19-3C90
3C94	5000 ±25%	≈ 1810	≈ 0	ETD54/28/19-3C94
3C95 des	6120 ±25%	≈ 2210	≈ 0	ETD54/28/19-3C95
3F3	4600 ±25%	≈ 1660	≈ 0	ETD54/28/19-3F3

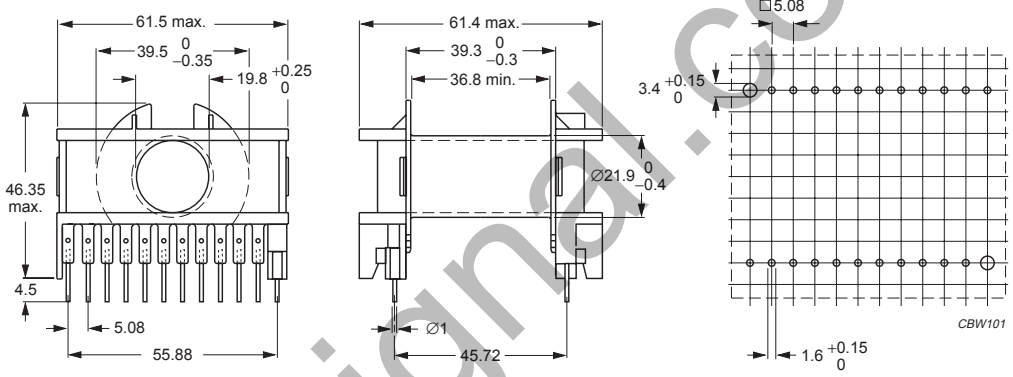
Properties of core sets under power conditions

GRADE	B (mT) at	CORE LOSS (W) at				
	H = 250 A/m; f = 25 kHz; T = 100 °C	f = 25 kHz; $\hat{B}$ = 200 mT; T = 100 °C	f = 100 kHz; $\hat{B}$ = 100 mT; T = 100 °C	f = 100 kHz; $\hat{B}$ = 200 mT; T = 25 °C	f = 100 kHz; $\hat{B}$ = 200 mT; T = 100 °C	f = 400 kHz; $\hat{B}$ = 50 mT; T = 100 °C
3C90	≥330	≤ 4.3	≤ 4.8	–	–	–
3C94	≥330	–	≤ 3.6	–	≤ 21	–
3C95	≥330	–	–	≤ 22.4	≤ 21.3	–
3F3	≥320	–	≤ 4.5	–	–	≤ 8.5

COIL FORMERS

General data 22-pins ETD54/28/19 coil former

ITEM	SPECIFICATION
Coil former material	polybutyleneterephtalate (PBT), glass-reinforced, flame retardant in accordance with UL 94V-0; UL file number E45329(M)
Pin material	copper-tin alloy (CuSn), tin (Sn) plated
Maximum operating temperature	155 °C, *"IEC 60085"*, class F
Resistance to soldering heat	*"IEC 60068-2-20"*, Part 2, Test Tb, method 1B, 350 °C, 3.5 s
Solderability	*"IEC 60068-2-20"*, Part 2, Test Ta, method 1



Dimensions in mm.

Fig.2 ETD54/28/19 coil former; 22-pins.

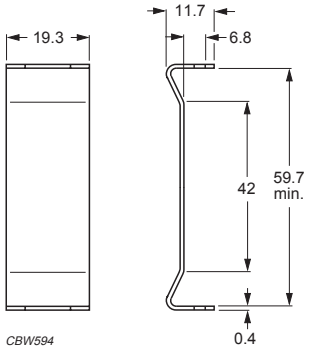
Winding data and area product for 22-pins ETD54/28/19 coil former

NUMBER OF SECTIONS	WINDING AREA (mm^2)	MINIMUM WINDING WIDTH (mm)	AVERAGE LENGTH OF TURN (mm)	AREA PRODUCT Ae x Aw (mm^4)	TYPE NUMBER
1	316	36.8	96	88500	CPH-ETD54-1S-22P

MOUNTING PARTS

General data

ITEM	REMARKS	FIGURE	TYPE NUMBER
Mounting clip	material: stainless steel	3	CLI-ETD54



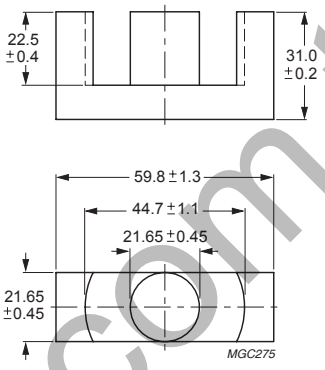
Dimensions in mm.

Fig.3 Mounting clip for ETD54/28/19.

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.378	mm^{-1}
V_e	effective volume	51500	mm^3
l_e	effective length	139	mm
A_e	effective area	368	mm^2
A_{min}	minimum area	360	mm^2
m	mass of core half	≈130	g



Dimensions in mm.

Fig.1 ETD59/31/22 core half.

Core halves

Clamping force for A_L measurements, 70 ±20 N. Gapped cores are available on request.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C90	6000 ±25%	≈ 1800	≈ 0	ETD59/31/22-3C90
3C94	6000 ±25%	≈ 1800	≈ 0	ETD59/31/22-3C94
3C95 des	7340 ±25%	≈ 2205	≈ 0	ETD59/31/22-3C95
3F3	5600 ±25%	≈ 1680	≈ 0	ETD59/31/22-3F3

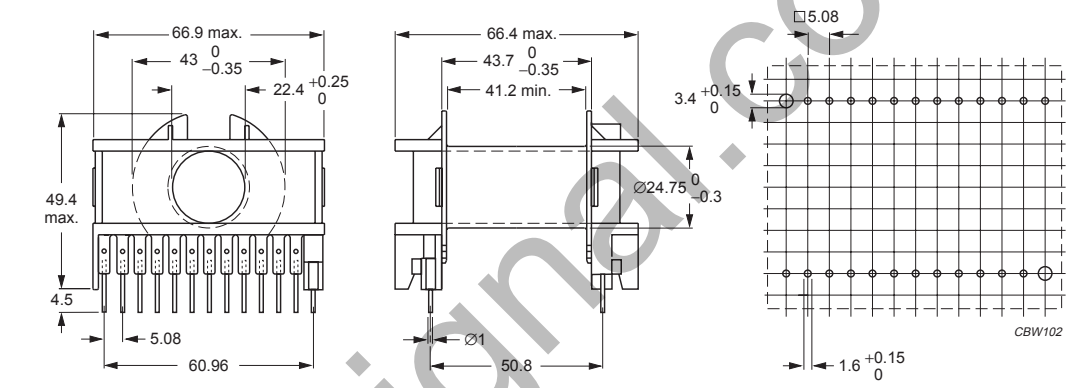
Properties of core sets under power conditions

GRADE	B (mT) at	CORE LOSS (W) at				
	H = 250 A/m; f = 25 kHz; T = 100 °C	f = 25 kHz; $\hat{B}$ = 200 mT; T = 100 °C	f = 100 kHz; $\hat{B}$ = 100 mT; T = 100 °C	f = 100 kHz; $\hat{B}$ = 200 mT; T = 25 °C	f = 100 kHz; $\hat{B}$ = 200 mT; T = 100 °C	f = 400 kHz; $\hat{B}$ = 50 mT; T = 100 °C
3C90	≥330	≤ 6.2	≤ 7.3	–	–	–
3C94	≥330	–	≤ 5.2	–	≤ 31	–
3C95	≥330	–	–	≤ 32.4	≤ 30.9	–
3F3	≥320	–	≤ 6.7	–	–	≤ 12.8

COIL FORMER

General data 24-pins ETD59/31/22 coil former

PARAMETER	SPECIFICATION
Coil former material	polybutyleneterephtalate (PBT), glass-reinforced, flame retardant in accordance with *"UL 94V-0"*; UL file number E45329(M)
Pin material	copper-tin alloy (CuSn), tin (Sn) plated
Maximum operating temperature	155 °C, *"IEC 60085"*, class F
Resistance to soldering heat	*"IEC 60068-2-20"*, Part 2, Test Tb, method 1B, 350 °C, 3.5 s
Solderability	*"IEC 60068-2-20"*, Part 2, Test Ta, method 1



Dimensions in mm.

Fig.2 ETD59/31/22 coil former; 24-pins.

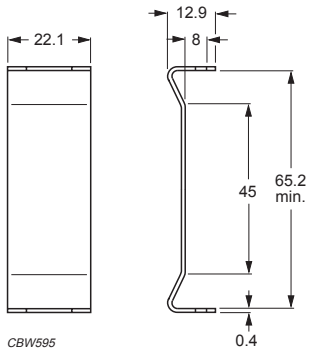
Winding data and area product for 24-pins ETD59/31/22 coil former

NUMBER OF SECTIONS	WINDING AREA (mm^2)	MINIMUM WINDING WIDTH (mm)	AVERAGE LENGTH OF TURN (mm)	AREA PRODUCT Ae x Aw (mm^4)	TYPE NUMBER
1	366	41.2	106	135000	CPH-ETD59-1S-24P

MOUNTING PARTS

General data

ITEM	REMARKS	FIGURE	TYPE NUMBER
Mounting clip	material: stainless steel	3	CLI-ETD59



Dimensions in mm.

Fig.3 Mounting clip for ETD59/31/22.