

# DATA SHEET

## **E22/6/16/R** Planar E cores

Product specification  
Supersedes data of November 1997  
File under Ferrite Ceramics, MA01

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# Planar E cores

E22/6/16/R

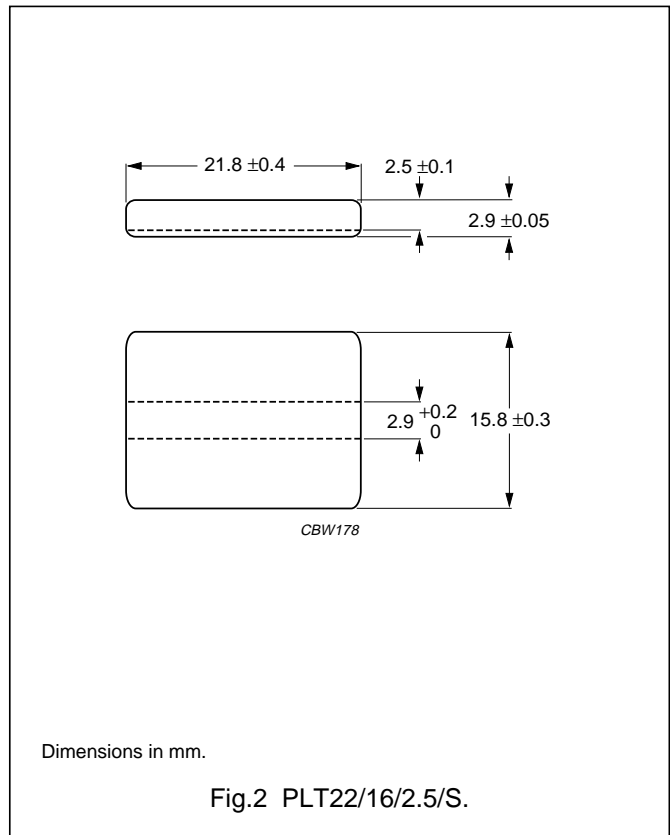
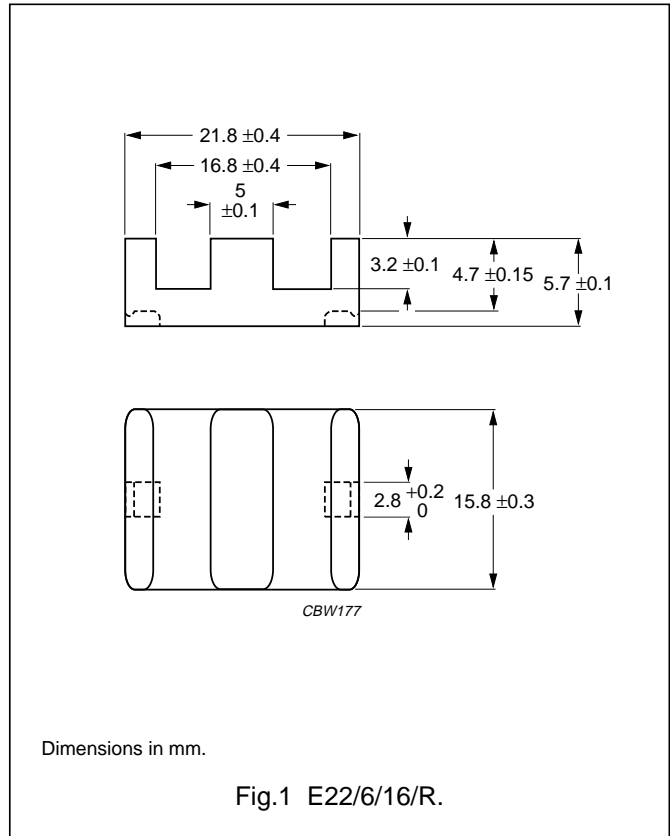
## CORES

### Effective core parameters of an E/PLT combination

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.324	mm <sup>-1</sup>
$V_e$	effective volume	2100	mm <sup>3</sup>
$l_e$	effective length	26.1	mm
$A_e$	effective area	80.4	mm <sup>2</sup>
$A_{min}$	minimum area	72.6	mm <sup>2</sup>
m	mass of E core half	≈6.5	g
m	mass of plate	≈4	g

### Ordering information for plates

GRADE	TYPE NUMBER
3C90	PLT22/16/2.5/S-3C90
3C94 <small>des</small>	PLT22/16/2.5/S-3C94
3C96 <small>prot</small>	PLT22/16/2.5/S-3C96
3F3	PLT22/16/2.5/S-3F3
3F35 <small>prot</small>	PLT22/16/2.5/S-3F35
3F4 <small>des</small>	PLT22/16/2.5/S-3F4
3E6	PLT22/16/2.5/S-3E6







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**Core halves for use in combination with a slotted plate (PLT/S)**

$A_L$  measured in combination with a slotted plate (PLT/S) clamping force for  $A_L$  measurements,  $20 \pm 10$  N; measurement coil as for E22/6/16.

GRADE	$A_L$ (nH)	$\mu_e$	AIR GAP ( $\mu\text{m}$ )	TYPE NUMBER
3C90	160 $\pm 3\%$	$\approx 42$	$\approx 950$	E22/6/R-3C90-A160-P
	250 $\pm 3\%$	$\approx 66$	$\approx 550$	E22/6/R-3C90-A250-P
	315 $\pm 3\%$	$\approx 83$	$\approx 400$	E22/6/R-3C90-A315-P
	400 $\pm 5\%$	$\approx 106$	$\approx 280$	E22/6/R-3C90-A400-P
	630 $\pm 8\%$	$\approx 166$	$\approx 160$	E22/6/R-3C90-A630-P
	6150 $\pm 25\%$	$\approx 1620$	$\approx 0$	E22/6/16/R-3C90
3C94 	160 $\pm 3\%$	$\approx 42$	$\approx 950$	E22/6/R-3C94-A160-P
	250 $\pm 3\%$	$\approx 66$	$\approx 550$	E22/6/R-3C94-A250-P
	315 $\pm 3\%$	$\approx 83$	$\approx 400$	E22/6/R-3C94-A315-P
	400 $\pm 5\%$	$\approx 106$	$\approx 280$	E22/6/R-3C94-A400-P
	630 $\pm 8\%$	$\approx 166$	$\approx 160$	E22/6/R-3C94-A630-P
	6150 $\pm 25\%$	$\approx 1620$	$\approx 0$	E22/6/16/R-3C94
3C96 	5450 $\pm 25\%$	$\approx 1440$	$\approx 0$	E22/6/16/R-3C96
3F3	160 $\pm 3\%$	$\approx 42$	$\approx 950$	E22/6/R-3F3-A160-P
	250 $\pm 3\%$	$\approx 66$	$\approx 550$	E22/6/R-3F3-A250-P
	315 $\pm 3\%$	$\approx 83$	$\approx 400$	E22/6/R-3F3-A315-P
	400 $\pm 5\%$	$\approx 106$	$\approx 280$	E22/6/R-3F3-A400-P
	630 $\pm 8\%$	$\approx 166$	$\approx 160$	E22/6/R-3F3-A630-P
	5000 $\pm 25\%$	$\approx 1320$	$\approx 0$	E22/6/16/R-3F3
3F35 	4100 $\pm 25\%$	$\approx 1080$	$\approx 0$	E22/6/16/R-3F35
3F4 	160 $\pm 3\%$	$\approx 42$	$\approx 950$	E22/6/R-3F4-A160-P
	250 $\pm 3\%$	$\approx 66$	$\approx 550$	E22/6/R-3F4-A250-P
	315 $\pm 3\%$	$\approx 83$	$\approx 400$	E22/6/R-3F4-A315-P
	400 $\pm 5\%$	$\approx 106$	$\approx 280$	E22/6/R-3F4-A400-P
	630 $\pm 8\%$	$\approx 166$	$\approx 160$	E22/6/R-3F4-A630-P
	2900 $\pm 25\%$	$\approx 770$	$\approx 0$	E22/6/16/R-3F4
3E6	26000 +40/-30%	$\approx 6900$	$\approx 0$	E22/6/16/R-3E6

## Planar E cores

E22/6/16/R

## Properties of core sets under power conditions

GRADE	B (mT) at	CORE LOSS (W) at		
	H = 250 A/m; f = 10 kHz; T = 100 °C	f = 100 kHz; $\hat{B}$ = 100 mT; T = 100 °C	f = 100 kHz; $\hat{B}$ = 200 mT; T = 100 °C	f = 400 kHz; $\hat{B}$ = 50 mT; T = 100 °C
E18/R+PLT18/S-3C90	≥320	≤0.235	–	–
E18/R+PLT18/S-3C94	≥320	≤0.180	≈0.88	≈0.39
E18/R+PLT18/S-3C96	≥320	≈0.13	≈0.62	≈0.28
E18/R+PLT18/S-3F3	≥300	≤0.230	–	≤0.40
E18/R+PLT18/S-3F35	≥300	≤0.230	–	≈0.20
E18/R+PLT18/S-3F4	≥250	–	–	–

## Properties of core sets under power conditions (continued)

GRADE	B (mT) at	CORE LOSS (W) at			
	H = 250 A/m; f = 10 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
E18/R+PLT18/S-3C90	≥320	–	–	–	–
E18/R+PLT18/S-3C94	≥320	–	–	–	–
E18/R+PLT18/S-3C96	≥320	–	–	–	–
E18/R+PLT18/S-3F3	≥300	–	–	–	–
E18/R+PLT18/S-3F35	≥300	≈0.34	≈2.50	–	–
E18/R+PLT18/S-3F4	≥250	–	–	≤0.41	≤0.66

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**MOUNTING PARTS**

**General data and ordering information**

ITEM	MATERIAL	FIGURE	TYPE NUMBER
Clamp	stainless steel (CrNi)	3	CLM-E22/PLT22

