



Soft Ferrites

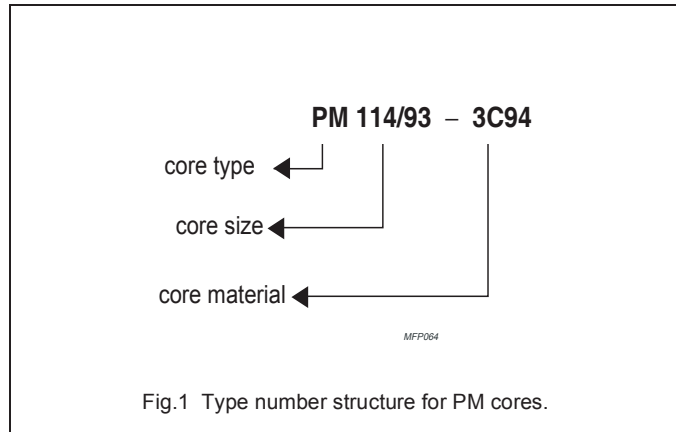
PM cores

**PRODUCT OVERVIEW AND
TYPE NUMBER STRUCTURE**

Product overview PM cores

CORE TYPE	V _e (mm ³)	A _e (mm ²)	MASS (g)
PM74/59	101000	790	460
PM87/70	133000	910	770
PM114/93	344000	1720	1940

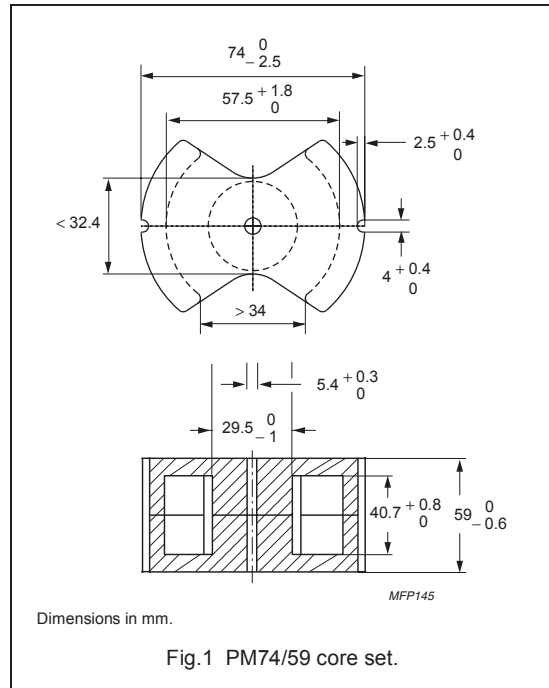
- In accordance with IEC 62317, part 10.



CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.162	mm ⁻¹
V_e	effective volume	101000	mm ³
l_e	effective length	128	mm
A_e	effective area	790	mm ²
A_{min}	minimum area	630	mm ²
m	mass of set	≈ 460	g



Core sets for general purpose transformers and power applications

Clamping force for A_L measurements, 1000 ± 200 N.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C90	14000 ± 25 %	≈ 1800	≈ 0	PM74/59-3C90
3C94	14000 ± 25 %	≈ 1800	≈ 0	PM74/59-3C94

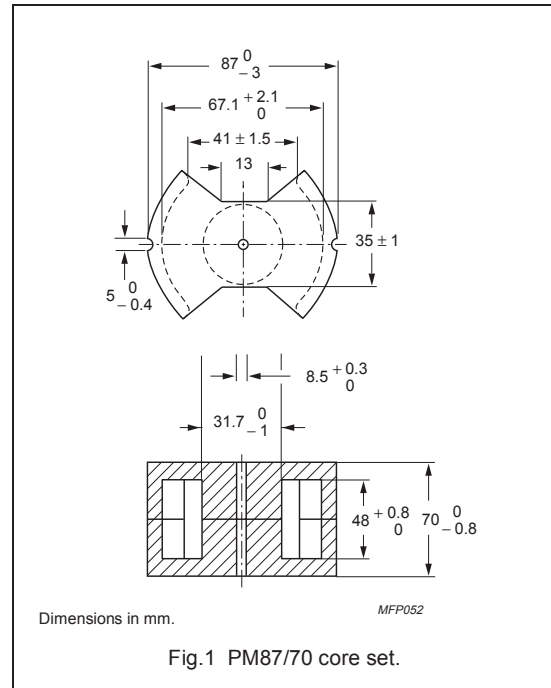
Properties of core sets under power conditions

GRADE	B (mT) at	CORE LOSS (W) at	
	H = 250 A/m; f = 25 kHz; T = 100 °C	f = 25 kHz; B̂ = 200 mT; T = 100 °C	f = 100 kHz; B̂ = 100 mT; T = 100 °C
3C90	≥ 320	≤ 12	–
3C94	≥ 320	–	≤ 9.6

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.161	mm ⁻¹
V_e	effective volume	133000	mm ³
l_e	effective length	146	mm
A_e	effective area	910	mm ²
A_{min}	minimum area	700	mm ²
m	mass of set	≈ 770	g



Core sets for general purpose transformers and power applications

Clamping force for A_L measurements, 1250 ± 250 N.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C90	15000 ± 25 %	≈ 1770	≈ 0	PM87/70-3C90
3C94	15000 ± 25 %	≈ 1770	≈ 0	PM87/70-3C94

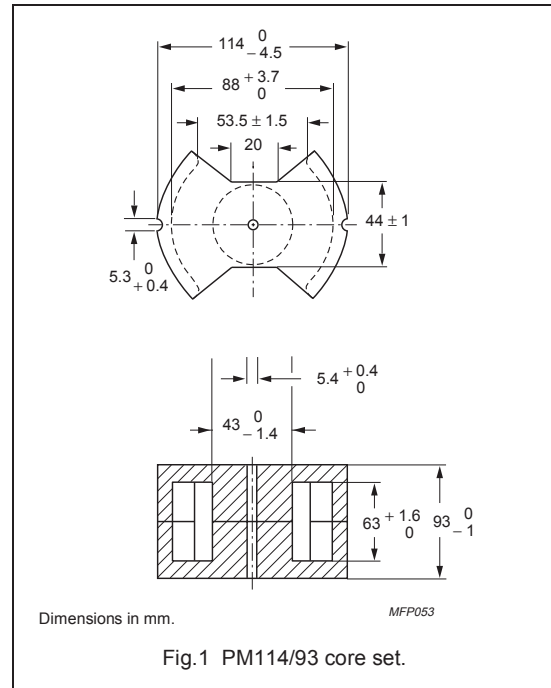
Properties of core sets under power conditions

GRADE	B (mT) at	CORE LOSS (W) at
	H = 250 A/m; f = 25 kHz; T = 100 °C	f = 25 kHz; B̂ = 200 mT; T = 100 °C
3C90	≥ 320	≤ 20
3C94	≥ 315	≤ 16

CORE SETS

Effective core parameters

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.116	mm ⁻¹
V_e	effective volume	344000	mm ³
l_e	effective length	200	mm
A_e	effective area	1720	mm ²
A_{min}	minimum area	1380	mm ²
m	mass of set	≈ 1940	g



Core sets for general purpose transformers and power applications

Clamping force for A_L measurements, 2500 ± 500 N.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C90	20000 ± 25 %	≈ 1850	≈ 0	PM114/93-3C90
3C94	20000 ± 25 %	≈ 1850	≈ 0	PM114/93-3C94

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; B̂ = 100 mT; T = 100 °C
3C90	≥ 320	≤ 12
3C94	≥ 315	≤ 9