

Soft Ferrites

EQ cores and accessories

PRODUCT OVERVIEW AND TYPE NUMBER STRUCTURE

Overview EQ cores and plates (PLT)

CORE TYPE	V_e (mm ³)	A_e (mm ²)	MASS (g)
EQ13	348	19.9	0.8
PLT13	315	19.8	0.6
EQ20/R	1960	59.0	5.1
PLT20/S	1500	59.8	3.0
EQ25	4145	100	11
EQ25/LP	2370 ⁽¹⁾	89.7 ⁽¹⁾	8.2
PLT25	–	–	4.9
EQ30	4970	108	13.2
PLT30	3400	108	7.6
EQ38/8/25	7900	152	21.5

Note:

(1) In combination with PLT25

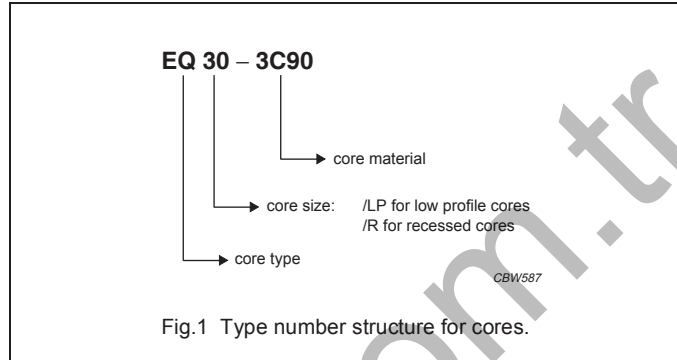


Fig.1 Type number structure for cores.

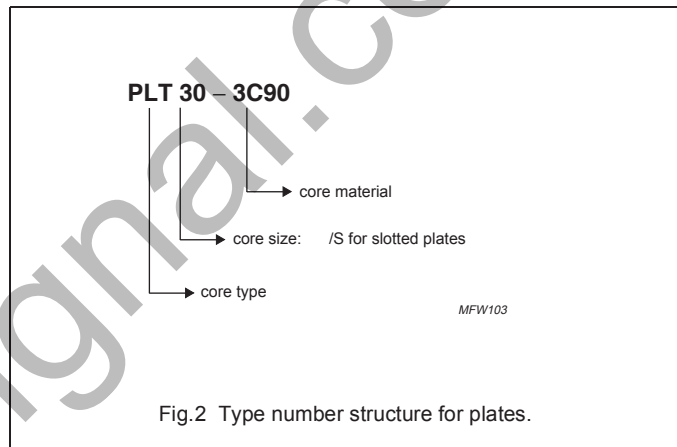


Fig.2 Type number structure for plates.

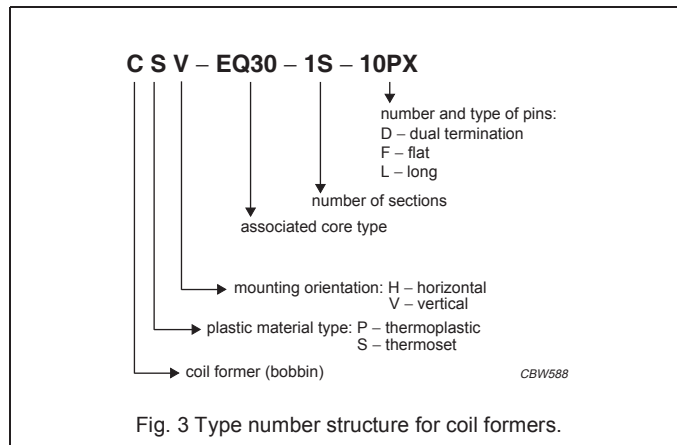
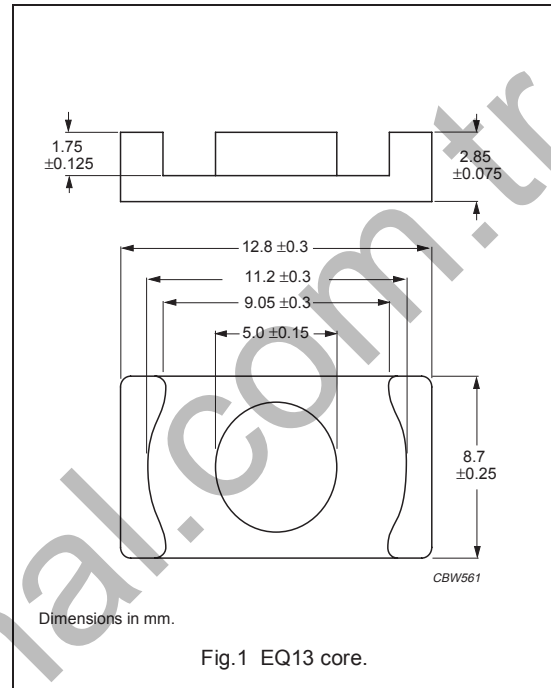


Fig. 3 Type number structure for coil formers.

CORES

Effective core parameters of a set of EQ cores

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.911	mm ⁻¹
V_e	effective volume	348	mm ³
l_e	effective length	17.5	mm
A_e	effective area	19.9	mm ²
A_{min}	minimum area	19.2	mm ²
m	mass of core half	≈ 0.8	g

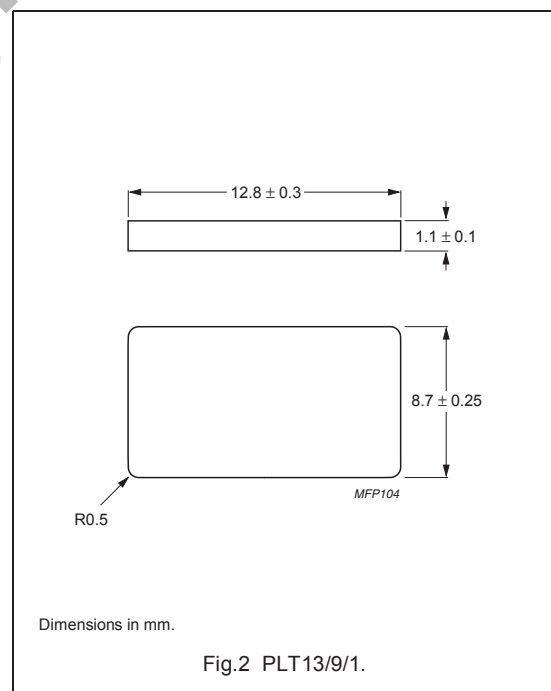


Effective core parameters of an EQ/PLT combination

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.803	mm ⁻¹
V_e	effective volume	315	mm ³
l_e	effective length	15.9	mm
A_e	effective area	19.8	mm ²
A_{min}	minimum area	19.2	mm ²
m	mass of plate	≈ 0.6	g

Ordering information for plates






GRADE	TYPE NUMBER
3C94	PLT13/9/1-3C94
3C95 <small>des</small>	PLT13/9/1-3C95
3C96 <small>des</small>	PLT13/9/1-3C96
3F35 <small>des</small>	PLT13/9/1-3F35
3F4 <small>des</small>	PLT13/9/1-3F4
3F45 <small>prot</small>	PLT13/9/1-3F45








EQ cores and accessories

EQ13

Core halves for use in combination with an EQ coreA_L measured in combination with a non-gapped core half, clamping force for A_L measurements, 10 ± 5 N.

GRADE	A _L (nH)	μ _e	AIR GAP (μm)	TYPE NUMBER
3C94	1700 ± 25 %	≈ 1230	≈ 0	EQ13-3C94
3C95 	1930 ± 25 %	≈ 1350	≈ 0	EQ13-3C95
3C96 	1600 ± 25 %	≈ 1160	≈ 0	EQ13-3C96
3F35 	1300 ± 25 %	≈ 942	≈ 0	EQ13-3F35
3F4 	950 ± 25 %	≈ 689	≈ 0	EQ13-3F4
3F45 	950 ± 25 %	≈ 689	≈ 0	EQ13-3F45

Core halves for use in combination with a plate (PLT)A_L measured in combination with a plate (PLT), clamping force for A_L measurements, 10 ± 5 N.

GRADE	A _L (nH)	μ _e	AIR GAP (μm)	TYPE NUMBER
3C94	1800 ± 25 %	≈ 1150	≈ 0	EQ13-3C94
3C95 	2030 ± 25 %	≈ 1300	≈ 0	EQ13-3C95
3C96 	1700 ± 25 %	≈ 1085	≈ 0	EQ13-3C96
3F35 	1350 ± 25 %	≈ 863	≈ 0	EQ13-3F35
3F4 	1000 ± 25 %	≈ 639	≈ 0	EQ13-3F4
3F45 	1000 ± 25 %	≈ 639	≈ 0	EQ13-3F45

Properties of core sets under power conditions

CORE COMBINATION	B (mT) at	CORE LOSS (W) at			
	H = 250 A/m; f = 10 kHz; T = 100 °C	f = 100 kHz; B = 100 mT; T = 100 °C	f = 100 kHz; B = 200 mT; T = 25 °C	f = 100 kHz; B = 200 mT; T = 100 °C	f = 500 kHz; B = 50 mT; T = 100 °C
EQ+EQ13-3C94	≥ 320	≤ 0.031	–	≤ 0.21	–
EQ+PLT13-3C94	≥ 320	≤ 0.028	–	≤ 0.19	–
EQ+EQ13-3C95	≥ 320	–	≤ 0.19	≤ 0.18	–
EQ+PLT13-3C95	≥ 320	–	≤ 0.17	≤ 0.16	–
EQ+EQ13-3C96	≥ 340	≤ 0.023	–	≤ 0.16	≤ 0.13
EQ+PLT13-3C96	≥ 340	≤ 0.021	–	≤ 0.14	≤ 0.12
EQ+EQ13-3F35	≥ 300	–	–	–	≤ 0.047
EQ+PLT13-3F35	≥ 300	–	–	–	≤ 0.043

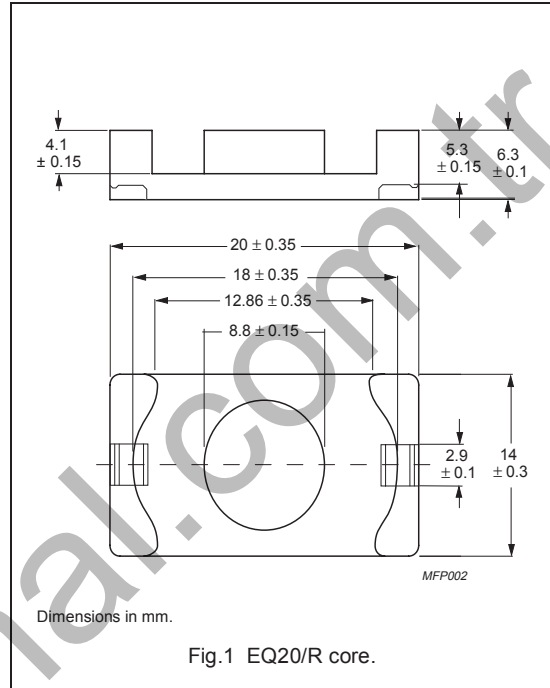
Properties of core sets under power conditions (continued)

CORE COMBINATION	B (mT) at	CORE LOSS (W) at			
	H = 250 A/m; f = 10 kHz; T = 100 °C	f = 500 kHz; B = 100 mT; T = 100 °C	f = 1 MHz; B = 30 mT; T = 100 °C	f = 1 MHz; B = 50 mT; T = 100 °C	f = 3 MHz; B = 10 mT; T = 100 °C
EQ+EQ13-3F35	≥ 300	≤ 0.36	–	–	–
EQ+PLT13-3F35	≥ 300	≤ 0.33	–	–	–
EQ+EQ13-3F4	≥ 300	–	≤ 0.1	–	≤ 0.17
EQ+PLT13-3F4	≥ 300	–	≤ 0.095	–	≤ 0.15
EQ+EQ13-3F45	≥ 300	–	≤ 0.08	≤ 0.3	≤ 0.14
EQ+PLT13-3F45	≥ 300	–	≤ 0.07	≤ 0.26	≤ 0.12

CORES

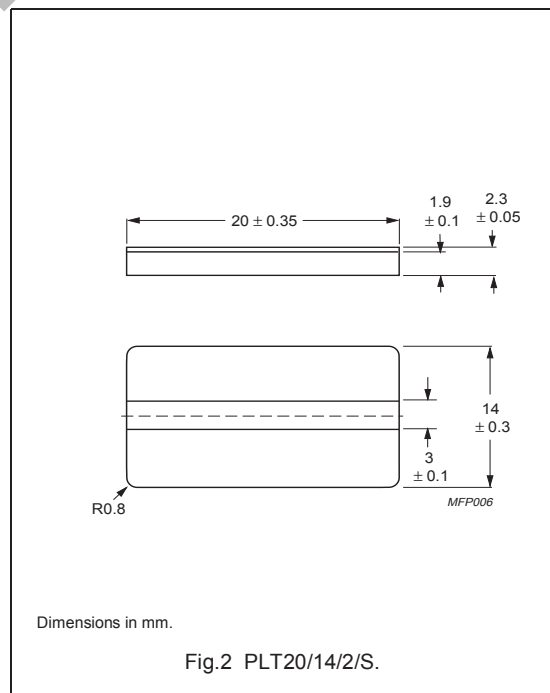
Effective core parameters of a set of EQ cores

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.563	mm ⁻¹
V_e	effective volume	1960	mm ³
l_e	effective length	33.2	mm
A_e	effective area	59.0	mm ²
A_{min}	minimum area	55.0	mm ²
m	mass of core half	≈ 5.1	g



Effective core parameters of an EQ/PLT combination

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.420	mm ⁻¹
V_e	effective volume	1500	mm ³
l_e	effective length	25.1	mm
A_e	effective area	59.8	mm ²
A_{min}	minimum area	55.0	mm ²
m	mass of plate	≈ 3.0	g








Ordering information for plates

GRADE	TYPE NUMBER
3C94	PLT20/14/2/S-3C94
3C95 <small>des</small>	PLT20/14/2/S-3C95
3C96 <small>des</small>	PLT20/14/2/S-3C96
3F35 <small>des</small>	PLT20/14/2/S-3F35
3F4 <small>des</small>	PLT20/14/2/S-3F4
3F45 <small>prot</small>	PLT20/14/2/S-3F45






EQ cores and accessories

EQ20/R

Core halves for use in combination with an EQ core A_L measured in combination with a non-gapped core half, clamping force for A_L measurements, 30 ± 10 N.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C94	$3500 \pm 25 \%$	≈ 1570	≈ 0	EQ20/R-3C94
3C95 	$4160 \pm 25 \%$	≈ 1865	≈ 0	EQ20/R-3C95
3C96 	$3150 \pm 25 \%$	≈ 1410	≈ 0	EQ20/R-3C96
3F35 	$2400 \pm 25 \%$	≈ 1075	≈ 0	EQ20/R-3F35
3F4 	$1700 \pm 25 \%$	≈ 762	≈ 0	EQ20/R-3F4
3F45 	$1700 \pm 25 \%$	≈ 762	≈ 0	EQ20/R-3F45

Core halves for use in combination with a plate (PLT) A_L measured in combination with a plate (PLT), clamping force for A_L measurements, 30 ± 10 N.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C94	$4750 \pm 25 \%$	≈ 1590	≈ 0	EQ20/R-3C94
3C95 	$5660 \pm 25 \%$	≈ 1890	≈ 0	EQ20/R-3C95
3C96 	$4350 \pm 25 \%$	≈ 1450	≈ 0	EQ20/R-3C96
3F35 	$3300 \pm 25 \%$	≈ 1100	≈ 0	EQ20/R-3F35
3F4 	$2200 \pm 25 \%$	≈ 735	≈ 0	EQ20/R-3F4
3F45 	$2200 \pm 25 \%$	≈ 735	≈ 0	EQ20/R-3F45

Properties of core sets under power conditions

CORE COMBINATION	B (mT) at	CORE LOSS (W) at			
	H = 250 A/m; f = 10 kHz; T = 100 °C	f = 100 kHz; B = 100 mT; T = 100 °C	f = 100 kHz; B = 200 mT; T = 25 °C	f = 100 kHz; B = 200 mT; T = 100 °C	f = 500 kHz; B = 50 mT; T = 100 °C
EQ+EQ20/R-3C94	≥ 320	≤ 0.17	–	≤ 1.2	–
EQ+PLT20/S-3C94	≥ 320	≤ 0.13	–	≤ 0.9	–
EQ+EQ20/R-3C95	≥ 320	–	≤ 1.16	≤ 1.1	–
EQ+PLT20/S-3C95	≥ 320	–	≤ 0.89	≤ 0.84	–
EQ+EQ20/R-3C96	≥ 340	≤ 0.13	–	≤ 0.9	≤ 0.74
EQ+PLT20/S-3C96	≥ 340	≤ 0.091	–	≤ 0.68	≤ 0.56
EQ+EQ20/R-3F35	≥ 300	–	–	–	≤ 0.27
EQ+PLT20/S-3F35	≥ 300	–	–	–	≤ 0.2

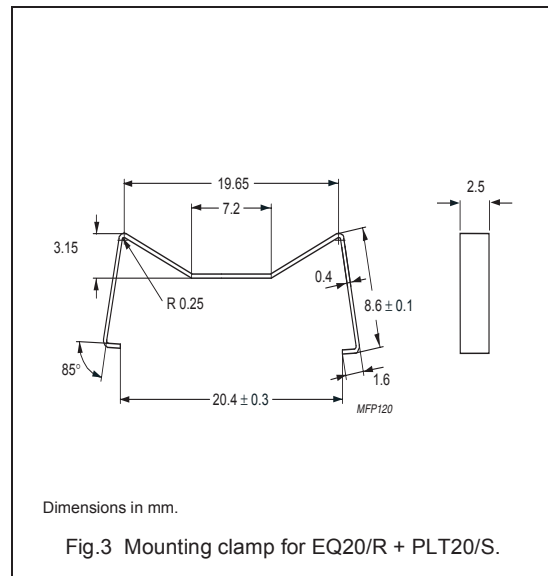
Properties of core sets under power conditions (continued)

CORE COMBINATION	B (mT) at	CORE LOSS (W) at			
	H = 250 A/m; f = 10 kHz; T = 100 °C	f = 500 kHz; B = 100 mT; T = 100 °C	f = 1 MHz; B = 30 mT; T = 100 °C	f = 1 MHz; B = 50 mT; T = 100 °C	f = 3 MHz; B = 10 mT; T = 100 °C
EQ+EQ20/R-3F35	≥ 300	≤ 2.1	–	–	–
EQ+PLT20/S-3F35	≥ 300	≤ 1.6	–	–	–
EQ+EQ20/R-3F4	≥ 300	–	≤ 0.6	–	≤ 0.94
EQ+PLT20/S-3F4	≥ 300	–	≤ 0.45	–	≤ 0.72
EQ+EQ20/R-3F45	≥ 300	–	≤ 0.45	≤ 1.7	≤ 0.75
EQ+PLT20/S-3F45	≥ 300	–	≤ 0.35	≤ 1.3	≤ 0.6

MOUNTING PARTS

General data

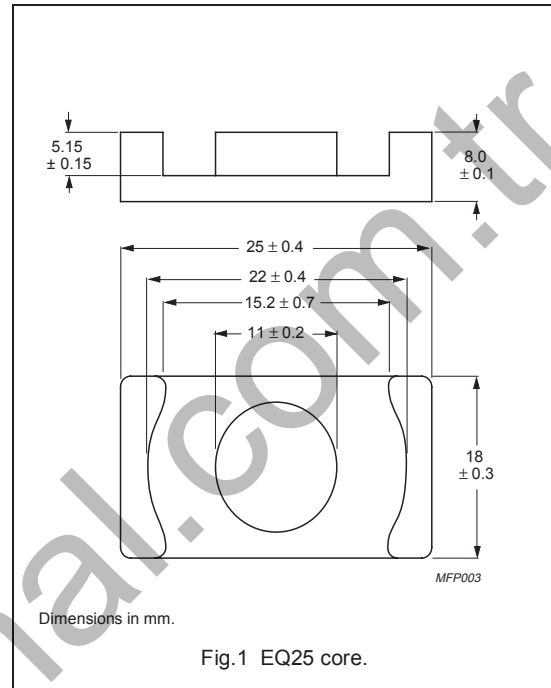
ITEM	SPECIFICATION
Clamping force	≈ 30 N
Clamp material	corrosion resisting steel (CrNi)
Type number	CLM-EQ20/PLT20



CORES

Effective core parameters of a set of EQ cores

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.414	mm ⁻¹
V_e	effective volume	4145	mm ³
l_e	effective length	41.4	mm
A_e	effective area	100	mm ²
A_{min}	minimum area	95.0	mm ²
m	mass of core half	≈ 11	g



Core halves for general purpose transformers and power applications

Clamping force for A_L measurements, 40 ± 20 N.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C94	$4800 \pm 25 \%$	≈ 1580	≈ 0	EQ25-3C94
3C95 <small>des</small>	$5710 \pm 25 \%$	≈ 1880	≈ 0	EQ25-3C95
3C96 <small>des</small>	$4400 \pm 25 \%$	≈ 1450	≈ 0	EQ25-3C96
3F35 <small>des</small>	$3350 \pm 25 \%$	≈ 1100	≈ 0	EQ25-3F35
3F4 <small>des</small>	$2300 \pm 25 \%$	≈ 758	≈ 0	EQ25-3F4
3F45 <small>prot</small>	$2300 \pm 25 \%$	≈ 758	≈ 0	EQ25-3F45

Properties of core sets under power conditions

CORE COMBINATION	B (mT) at	CORE LOSS (W) at			
	H = 250 A/m; f = 10 kHz; T = 100 °C	f = 100 kHz; B = 100 mT; T = 100 °C	f = 100 kHz; B = 200 mT; T = 25 °C	f = 100 kHz; B = 200 mT; T = 100 °C	f = 500 kHz; B = 50 mT; T = 100 °C
EQ+EQ25-3C94	≥ 320	≤ 0.37	–	≤ 2.5	–
EQ+EQ25-3C95	≥ 320	–	≤ 2.45	≤ 2.32	–
EQ+EQ25-3C96	≥ 340	≤ 0.28	–	≤ 1.9	≤ 1.5
EQ+EQ25-3F35	≥ 300	–	–	–	≤ 0.56

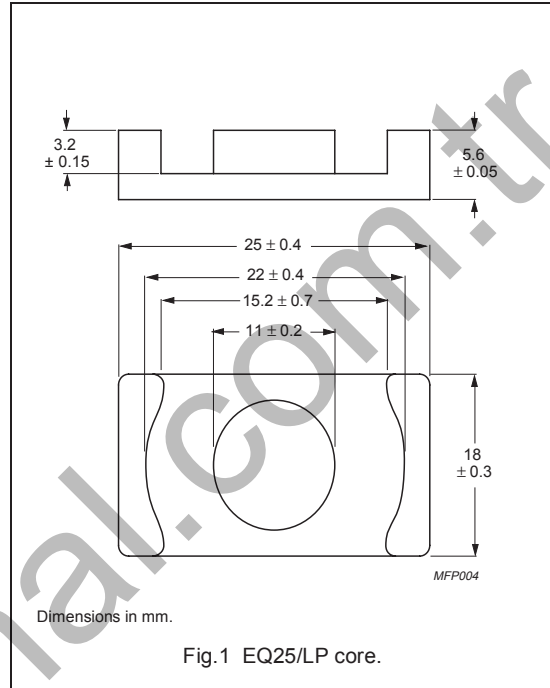
Properties of core sets under power conditions (continued)

CORE COMBINATION	B (mT) at	CORE LOSS (W) at			
	H = 250 A/m; f = 10 kHz; T = 100 °C	f = 500 kHz; B = 100 mT; T = 100 °C	f = 1 MHz; B = 30 mT; T = 100 °C	f = 1 MHz; B = 50 mT; T = 100 °C	f = 3 MHz; B = 10 mT; T = 100 °C
EQ+EQ25-3F35	≥ 300	≤ 4.3	–	–	–
EQ+EQ25-3F4	≥ 300	–	≤ 1.25	–	≤ 2.0
EQ+EQ25-3F45	≥ 300	–	≤ 0.95	≤ 3.5	≤ 1.6

CORES

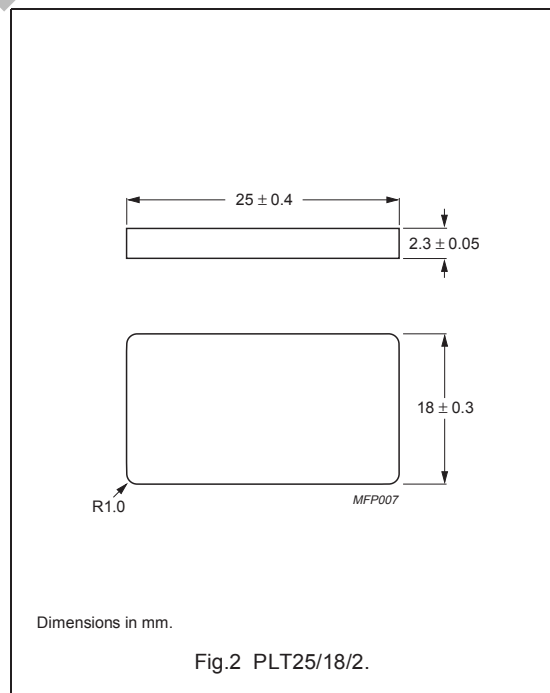
Effective core parameters of a EQ/LP/PLT combination

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(I/A)$	core factor (C1)	0.294	mm ⁻¹
V_e	effective volume	2370	mm ³
l_e	effective length	26.4	mm
A_e	effective area	89.7	mm ²
A_{min}	minimum area	82.8	mm ²
m	mass of core half	≈ 8.2	g
m	mass of plate	≈ 4.9	g



Ordering information for plates






GRADE	TYPE NUMBER
3C94	PLT25/18/2-3C94
3C95 <small>des</small>	PLT25/18/2-3C95
3C96 <small>des</small>	PLT25/18/2-3C96
3F35 <small>des</small>	PLT25/18/2-3F35
3F4 <small>des</small>	PLT25/18/2-3F4
3F45 <small>prot</small>	PLT25/18/2-3F45



EQ cores and accessories

EQ25/LP

Core halves for use in combination with a plate (PLT)A_L measured in combination with a plate (PLT), clamping force for A_L measurements, 40 ±20 N.

GRADE	A _L (nH)	μ _e	AIR GAP (μm)	TYPE NUMBER
3C94	6100 ± 25 %	≈ 1430	≈ 0	EQ25/LP-3C94
3C95 	7130 ± 25 %	≈ 1670	≈ 0	EQ25/LP-3C95
3C96 	5600 ± 25 %	≈ 1310	≈ 0	EQ25/LP-3C96
3F35 	4350 ± 25 %	≈ 1020	≈ 0	EQ25/LP-3F35
3F4 	3100 ± 25 %	≈ 725	≈ 0	EQ25/LP-3F4
3F45 	3100 ± 25 %	≈ 725	≈ 0	EQ25/LP-3F45

Properties of core sets under power conditions

CORE COMBINATION	B (mT) at	CORE LOSS (W) at			
	H = 250 A/m; f = 10 kHz; T = 100 °C	f = 100 kHz; B̂ = 100 mT; T = 100 °C	f = 100 kHz; B̂ = 200 mT; T = 25 °C	f = 100 kHz; B̂ = 200 mT; T = 100 °C	f = 500 kHz; B̂ = 50 mT; T = 100 °C
EQ/LP+PLT25-3C94	≥ 320	≤ 0.21	–	≤ 1.4	–
EQ/LP+PLT25-3C95	≥ 320	–	≤ 1.4	≤ 1.33	–
EQ/LP+PLT25-3C96	≥ 340	≤ 0.16	–	≤ 1.1	≤ 0.89
EQ/LP+PLT25-3F35	≥ 300	–	–	–	≤ 0.32

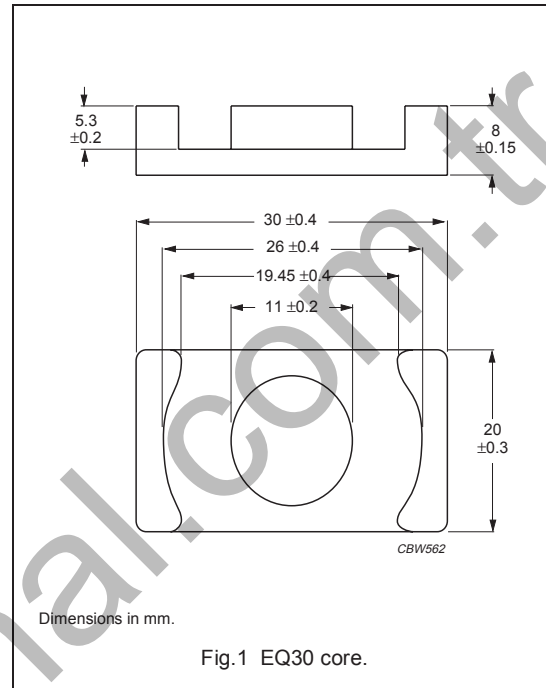
Properties of core sets under power conditions (continued)

CORE COMBINATION	B (mT) at	CORE LOSS (W) at			
	H = 250 A/m; f = 10 kHz; T = 100 °C	f = 500 kHz; B̂ = 100 mT; T = 100 °C	f = 1 MHz; B̂ = 30 mT; T = 100 °C	f = 1 MHz; B̂ = 50 mT; T = 100 °C	f = 3 MHz; B̂ = 10 mT; T = 100 °C
EQ/LP+PLT25-3F35	≥ 300	≤ 2.5	–	–	–
EQ/LP+PLT25-3F4	≥ 300	–	≤ 0.71	–	≤ 1.14
EQ/LP+PLT25-3F45	≥ 300	–	≤ 0.54	≤ 2.0	≤ 0.95

CORES

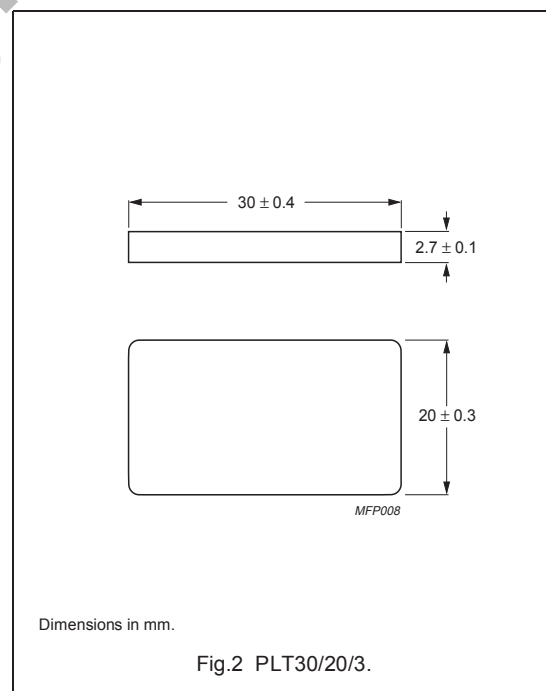
Effective core parameters of a set of EQ cores

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.426	mm ⁻¹
V_e	effective volume	4970	mm ³
l_e	effective length	46.0	mm
A_e	effective area	108	mm ²
A_{min}	minimum area	95.0	mm ²
m	mass of core half	≈ 13.2	g



Effective core parameters of an EQ/PLT combination

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.335	mm ⁻¹
V_e	effective volume	3910	mm ³
l_e	effective length	36.2	mm
A_e	effective area	108	mm ²
A_{min}	minimum area	95.0	mm ²
m	mass of plate	≈ 7.6	g








Ordering information for plates

GRADE	TYPE NUMBER
3C94	PLT30/20/3-3C94
3C95 <small>des</small>	PLT30/20/3-3C95
3C96 <small>des</small>	PLT30/20/3-3C96
3F35 <small>des</small>	PLT30/20/3-3F35
3F4 <small>des</small>	PLT30/20/3-3F4
3F45 <small>prot</small>	PLT30/20/3-3F45






Core halves for use in combination with an EQ core

A_L measured in combination with a non-gapped core half, clamping force for A_L measurements, 40 ± 20 N.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C94	$5400 \pm 25 \%$	≈ 1830	≈ 0	EQ30-3C94
3C95 	$6630 \pm 25 \%$	≈ 2250	≈ 0	EQ30-3C95
3C96 	$4900 \pm 25 \%$	≈ 1660	≈ 0	EQ30-3C96
3F35 	$3600 \pm 25 \%$	≈ 1220	≈ 0	EQ30-3F35
3F4 	$2400 \pm 25 \%$	≈ 814	≈ 0	EQ30-3F4
3F45 	$2400 \pm 25 \%$	≈ 814	≈ 0	EQ30-3F45

Core halves for use in combination with a plate (PLT)

A_L measured in combination with a plate (PLT), clamping force for A_L measurements, 40 ± 20 N.

GRADE	A_L (nH)	μ_e	AIR GAP (μm)	TYPE NUMBER
3C94	$6550 \pm 25 \%$	≈ 1750	≈ 0	EQ30-3C94
3C95 	$7960 \pm 25 \%$	≈ 2120	≈ 0	EQ30-3C95
3C96 	$6000 \pm 25 \%$	≈ 1600	≈ 0	EQ30-3C96
3F35 	$4600 \pm 25 \%$	≈ 1225	≈ 0	EQ30-3F35
3F4 	$3200 \pm 25 \%$	≈ 853	≈ 0	EQ30-3F4
3F45 	$3200 \pm 25 \%$	≈ 853	≈ 0	EQ30-3F45

Properties of core sets under power conditions

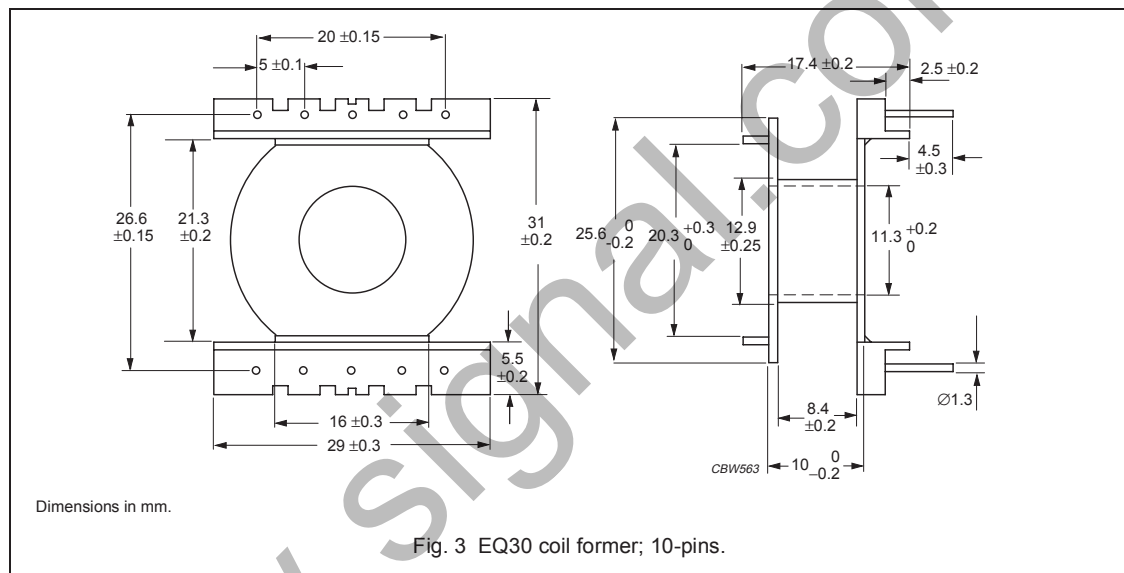
CORE COMBINATION	B (mT) at	CORE LOSS (W) at			
	H = 250 A/m; f = 10 kHz; T = 100 °C	f = 100 kHz; B̂ = 100 mT; T = 100 °C	f = 100 kHz; B̂ = 200 mT; T = 25 °C	f = 100 kHz; B̂ = 200 mT; T = 100 °C	f = 500 kHz; B̂ = 50 mT; T = 100 °C
EQ+EQ30-3C94	≥ 320	≤ 0.45	–	≤ 3.0	–
EQ+PLT30-3C94	≥ 320	≤ 0.35	–	≤ 2.3	–
EQ+EQ30-3C95	≥ 320	–	≤ 2.93	≤ 2.78	–
EQ+PLT30-3C95	≥ 320	–	≤ 2.3	≤ 2.2	–
EQ+EQ30-3C96	≥ 340	≤ 0.34	–	≤ 2.3	≤ 1.9
EQ+PLT30-3C96	≥ 340	≤ 0.23	–	≤ 1.7	≤ 1.4
EQ+EQ30-3F35	≥ 300	–	–	–	≤ 0.67
EQ+PLT30-3F35	≥ 300	–	–	–	≤ 0.52

Properties of core sets under power conditions (continued)

CORE COMBINATION	B (mT) at	CORE LOSS (W) at			
	H = 250 A/m; f = 10 kHz; T = 100 °C	f = 500 kHz; B̂ = 100 mT; T = 100 °C	f = 1 MHz; B̂ = 30 mT; T = 100 °C	f = 1 MHz; B̂ = 50 mT; T = 100 °C	f = 3 MHz; B̂ = 10 mT; T = 100 °C
EQ+EQ30-3F35	≥ 300	≤ 5.2	–	–	–
EQ+PLT30-3F35	≥ 300	≤ 4.1	–	–	–
EQ+EQ30-3F4	≥ 300	–	≤ 1.5	–	≤ 2.4
EQ+PLT30-3F4	≥ 300	–	≤ 1.17	–	≤ 1.9
EQ+EQ30-3F45	≥ 300	–	≤ 1.15	≤ 4.3	≤ 2.0
EQ+PLT30-3F45	≥ 300	–	≤ 0.9	≤ 3.4	≤ 1.55

COIL FORMERS**General data**

PARAMETER	SPECIFICATION
Coil former material	phenolformaldehyde (PF), glass reinforced, flame retardant in accordance with "UL 94V-0"; UL file number E41429 (M)
Pin material	copper-clad steel, 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: 235 °C, 2 s

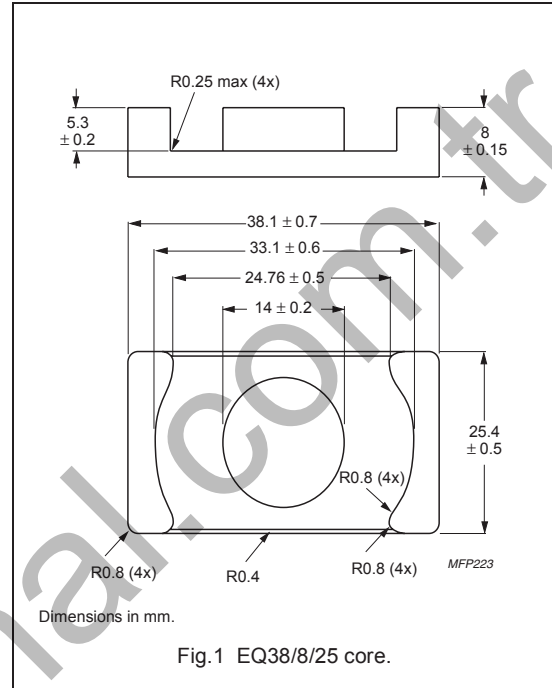
**Winding data and area product for EQ30 coil former with 10 pins**

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	52.0	8.2	60	5620	CSV-EQ30-1S-10P

CORES

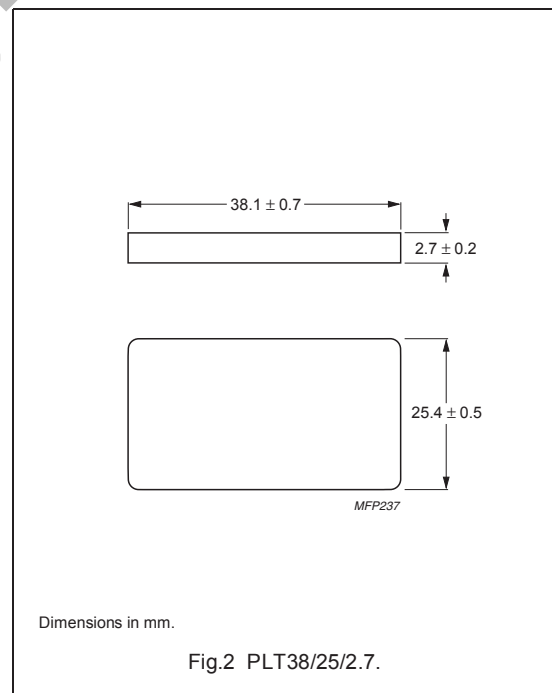
Effective core parameters of a set of EQ cores

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(I/A)$	core factor (C1)	0.341	mm ⁻¹
V_e	effective volume	7900	mm ³
l_e	effective length	51.9	mm
A_e	effective area	152	mm ²
A_{min}	minimum area	119	mm ²
m	mass of core half	≈ 21.5	g



Effective core parameters of an EQ/PLT combination

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(I/A)$	core factor (C1)	0.282	mm ⁻¹
V_e	effective volume	6190	mm ³
l_e	effective length	41.7	mm
A_e	effective area	148	mm ²
A_{min}	minimum area	119	mm ²
m	mass of plate	≈ 14.6	g








Ordering information for plates

GRADE	TYPE NUMBER
3C94	PLT38/25/2.7-3C94
3C95 <small>des</small>	PLT38/25/2.7-3C95
3C96 <small>des</small>	PLT38/25/2.7-3C96
3F35 <small>des</small>	PLT38/25/2.7-3F35
3F4 <small>des</small>	PLT38/25/2.7-3F4
3F45 <small>prot</small>	PLT38/25/2.7-3F45






EQ cores and accessories

EQ38/8/25

Core halves for use in combination with an EQ coreA_L measured in combination with a non-gapped core half, clamping force for A_L measurements, 50 ± 20 N.

GRADE	A _L (nH)	μ _e	AIR GAP (μm)	TYPE NUMBER
3C94	7000 ± 25 %	≈ 1900	≈ 0	EQ38/8/25-3C94
3C95 	8810 ± 25 %	≈ 2395	≈ 0	EQ38/8/25-3C95
3C96 	6300 ± 25 %	≈ 1710	≈ 0	EQ38/8/25-3C96
3F35 	4500 ± 25 %	≈ 1220	≈ 0	EQ38/8/25-3F35
3F4 	3000 ± 25 %	≈ 815	≈ 0	EQ38/8/25-3F4
3F45 	3000 ± 25 %	≈ 815	≈ 0	EQ38/8/25-3F45

Core halves for use in combination with a plate (PLT)A_L measured in combination with a plate (PLT), clamping force for A_L measurements, 50 ± 20 N.

GRADE	A _L (nH)	μ _e	AIR GAP (μm)	TYPE NUMBER
3C94	8200 ± 25 %	≈ 1840	≈ 0	PLT38/25/2.7-3C94
3C95 	10220 ± 25 %	≈ 2295	≈ 0	PLT38/25/2.7-3C95
3C96 	7400 ± 25 %	≈ 1660	≈ 0	PLT38/25/2.7-3C96
3F35 	5300 ± 25 %	≈ 1190	≈ 0	PLT38/25/2.7-3F35
3F4 	3500 ± 25 %	≈ 785	≈ 0	PLT38/25/2.7-3F4
3F45 	3500 ± 25 %	≈ 785	≈ 0	PLT38/25/2.7-3F45

Properties of core sets under power conditions

CORE COMBINATION	B (mT) at	CORE LOSS (W) at			
	H = 250 A/m; f = 10 kHz; T = 100 °C	f = 100 kHz; B̂ = 100 mT; T = 100 °C	f = 100 kHz; B̂ = 200 mT; T = 25 °C	f = 100 kHz; B̂ = 200 mT; T = 100 °C	f = 500 kHz; B̂ = 50 mT; T = 100 °C
EQ+EQ38-3C94	≥ 320	≤ 0.72	≤ 4.8	–	–
EQ+PLT38-3C94	≥ 320	≤ 0.56	≤ 3.8	–	–
EQ+EQ38-3C95	≥ 320	–	≤ 4.66	≤ 4.42	–
EQ+PLT38-3C95	≥ 320	–	≤ 3.65	≤ 3.47	–
EQ+EQ38-3C96	≥ 340	≤ 0.52	–	≤ 3.5	≤ 3.1
EQ+PLT38-3C96	≥ 340	≤ 0.42	–	≤ 2.8	≤ 2.4
EQ+EQ38-3F35	≥ 300	–	–	–	≤ 1.2
EQ+PLT38-3F35	≥ 300	–	–	–	≤ 0.94

Properties of core sets under power conditions (continued)

CORE COMBINATION	B (mT) at	CORE LOSS (W) at			
	H = 250 A/m; f = 10 kHz; T = 100 °C	f = 500 kHz; B̂ = 100 mT; T = 100 °C	f = 1 MHz; B̂ = 30 mT; T = 100 °C	f = 1 MHz; B̂ = 50 mT; T = 100 °C	f = 3 MHz; B̂ = 10 mT; T = 100 °C
EQ+EQ38-3F35	≥ 300	≤ 8.9	–	–	–
EQ+PLT38-3F35	≥ 300	≤ 7.0	–	–	–
EQ+EQ38-3F4	≥ 300	–	≤ 4.1	–	≤ 5.8
EQ+PLT38-3F4	≥ 300	–	≤ 3.2	–	≤ 4.6
EQ+EQ38-3F45	≥ 300	–	≤ 3.2	≤ 12	≤ 4.7
EQ+PLT38-3F45	≥ 300	–	≤ 2.5	≤ 9.0	≤ 3.7