

A Guide to Ebony Current Transformers

Introduction

Current Transformers perform two main functions:

- a Accurate reproduction at a given ratio in a secondary winding of the current passing through the primary winding.
- b Electrical separation between both windings.

These factors make it possible to:-

- Separate the circuit in which measurements are taken, which makes handling of the meters safer, because normally one end of the secondary winding is grounded.
- Measure high currents with low current input meters, therefore, whatever the primary rated current value may be, the secondary current can remain a constant 5 or 1 Amp.



- Use a small cross section cable since the secondary current is only 5 or 1 Amp. Other secondary currents are available on request.

Meter Load and Connection Wire Loss

Loss occurs in the lead between C.T. and the meter. This loss is measured in VA and must be added to the meter load in all VA calculations.

When the meter is situated at a long distance from the C.T., this loss can become greater than the meter VA and therefore 1A C.T.'s are recommended.

Accuracy Class

Various classes of accuracy are available - the class selected depends upon the application and the acceptable maximum permissible deviation.

Class 0.1 & 0.2

Designed to individual customer requirements for specific applications in energy metering and control systems.

Class 1

Recording meters and protection devices

Class 0.5

Transducers, digital metering systems, control systems and Watt, VAR, Phase Angle and Power Factor meters.

Class 3

Industrial ammeters and maximum demand ammeters

Loss in copper wires between instrument and C.T. for secondary 5A

Wire Section in mm ²	Loss in VA (for both wires)					
	1m	2m	4m	6m	8m	10m
1.5	0.60	1.19	2.38	3.57	4.76	5.95
2.5	0.36	0.71	1.43	2.14	2.86	3.57
4	0.22	0.45	0.89	1.34	1.79	2.23
6	0.15	0.30	0.60	1.89	1.19	1.49
10	0.09	0.18	0.36	0.54	0.71	0.89

Loss in copper wires between instrument and C.T. for secondary 1A

Wire Section in mm ²	Loss in VA (for both wires)					
	10m	20m	40m	60m	80m	100m
1	0.36	0.71	1.43	2.14	2.86	3.57
1.5	0.24	0.48	0.95	1.43	1.90	2.38
2.5	0.14	0.29	0.57	0.86	1.14	1.43
4	0.09	0.18	0.36	0.54	0.71	0.89
6	0.06	0.12	0.24	0.36	0.48	0.60
10	0.04	0.07	0.14	0.21	0.29	0.36

A Guide to Ebony Current Transformers

Crompton Ebony Series Current Transformers

The Crompton Ebony series is a range of Measuring, Primary Wound, Summation and Protection Current Transformers manufactured to meet IEC 60044-1:1999.

The range includes models for measuring and protection duties, in seven case widths: 50mm, 60mm, 77mm, 90mm, 134mm, 140mm and 213mm.

Features/Benefits

- » **Integral terminal cover which makes them 'safety' fail safe and saves on installation time**
- » **High impact flame retardant, halogen free, polycarbonate moulded case (UL94V0) which reduces the risk of mechanical damage and propagation of fire**
- » **Class E (120°C) service temperature**
- » **Combined M4 No 1 posi/slot screw clamp/6.3mm**
- » **'Fast On' push on tag terminal connection for quicker connection**
- » **Busbar or DIN rail or steel feet mounting hardware supplied**
- » **1 and 5 amp secondaries**
- » **Wide range of apertures**
- » **Non standard ratios and secondaries available on request**

Busbar Current Ratings

System current ratings, busbar sizes and subsequently the aperture size of the current transformer are interrelated.

The table indicates the approximate *continuous current rating* (IAC conductors, up to 60Hz, in accordance with DIN 43671)

The ratings are calculated to permit the temperature of the busbar to rise by no more than 50°C above an average ambient of 35°C.

Busbar Size (mm)	Single	Two in Parallel	Three in Parallel
20 x 5	356	-	-
20 x 10	500	800	-
30 x 5	492	-	-
30 x 10	645	1378	1924
40 x 5	626	-	-
40 x 10	929	1677	2301
50 x 5	757	-	-
50 x 10	1107	1963	2652
60 x 5	894	-	-
60 x 10	1280	2236	2990
80 x 5	1150	-	-
80 x 10	1612	2743	3627
100 x 5	1404	-	-
100 x 10	1937	3224	4238
120 x 10	2262	3718	4862
160 x 10	2886	4667	6084

Protection Current Transformers

Protection current transformers are designed to produce an isolated signal to the protective relay proportional to the main current.

Protection relays may require accurate signals from small leakage to very high over-currents and therefore may require current transformers to be linear up to 30 times the full load current. This means that protection current transformers are constructed with more iron. For space and economy, they should therefore not be rated with unnecessary extra margin.

Our staff are pleased to assist in the design of current transformers and may require the following information:

1. VA load of the protected equipment and type of protection.
2. Maximum fault level current for stability.
3. Sensitivity required.
4. Type of relay.
5. Knee voltage
6. Pilot wire resistance or length of run and pilot wire used.
7. Primary conductor diameter or busbar dimensions.

Caution: Relay manufacturer's recommendations should always be followed.

Ebony Range Performance

System voltage	720V maximum	Service temperature	-20°C to +85°C
Test voltage	3kV for 1 minute	Insulation class BS2757	Class E (IEC85)
System frequency	50/60Hz (400Hz optional)	Enclosure code	IP40
Short circuit thermal current (Ith)	60 x rated primary current (Ith)*: for 1 second	Integral terminal cover	IP20B
Overload withstand:	1.2 x rated current continuously	Complies with	BS7626: 1993 IEC 185: 1990
Dynamic current (Idyn)	2.55 x Ith	Humidity	Up to 95% RH (non condensating)
Saturation coefficient	< 5 for plain ring < 10 for wound primary	Secondary terminals	
		Screw clamp 'Fast on'	Up to 10mm ² cable 6.3mm type

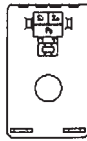
* Thermal current (Ith) and dynamic current (Idyn).

Ith is the highest primary current (effective value), the Idyn is the highest primary current (Peak Value) that the C.T. can support for 1 second without damage, owing to excessive overloads with secondary short circuits.

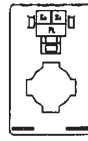
Moulded Case Current Transformers

Ebony Series Aperture Range

50mm Ebony Range

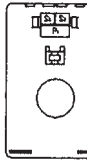


M53E-94
M55E-94
Aperture:
15 x 5 mm and
16.0mm diameter

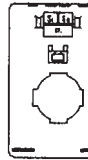


M53J-94
M55J-94
Aperture:
30 x 10mm and
25.0mm diameter

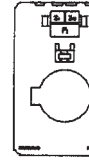
60mm Ebony Range



M63F-94
M65F-94
M67F-94
Aperture:
20 x 10mm and
23.9mm diameter



M63M-94
M65M-94
M67M-94
Aperture:
30 x 10mm and
28.0mm diameter



M63N-94
M65N-94
M67N-94
Aperture:
40 x 10mm and
32.0mm diameter

77mm Ebony Range



MA5G-94
Aperture:
40 x 10mm,
30 x 30mm
and 36.0mm
diameter



MA5H-94
Aperture:
50 x 10mm
and 36.0mm
diameter



MA5P-94
M4 Terminals



MA5Y-94
M8 Stud



MA5Q-94
**30 x 3mm
Busbar**

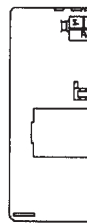
90mm Ebony Range



M93K-94
M95K-94
M97K-94
Aperture:
40 x 10mm and
32.0mm diameter



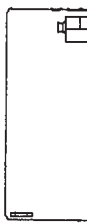
M93L-94
M95L-94
M97L-94
Aperture:
50 x 10mm
ALSO 40 x 30mm and
42.0mm diameter



M93R-94
M95R-94
M97R-94
Aperture:
60 x 30mm,
64.0 x 12.8mm and
30mm diameter



M93S-94
M95S-94
M97S-94
Aperture:
60 x 30mm,
76.5 x 19.0mm and
30mm diameter



M93P-94
M95P-94
M97P-94
M4 Terminals

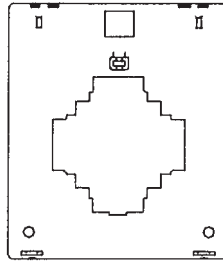


S95P-94
S97P-94
M3.5 Primary Terminals

Moulded Case Current Transformers

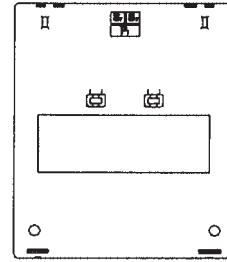
Ebony Series Aperture Range

134mm Ebony Range



MB5D-94
PB5D-94

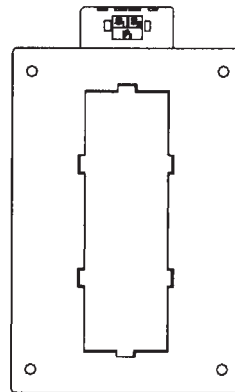
Aperture:
80 x 30mm,
60 x 30 mm,
50 x 50mm and
63.0mm diameter



MB5Z-94
PB5Z-94

Aperture:
104 x 35mm and
35.0mm diameter

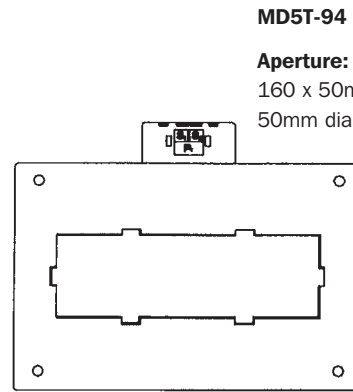
134mm Ebony Range



MC5T-94

Aperture:
50 x 160mm and
50mm diameter

213mm Ebony Range



MD5T-94

Aperture:
160 x 50mm and
50mm diameter

Catalogue Codes for Ebony Series

(example) **M67N -94B**

The first digit denotes the type of C/T

M = Measuring, P = Protection, S = Summation

The second digit denotes the C/T width (mm)

5 = 50, 6 = 60, 9 = 90,
A = 77, B = 134, C = 140, D = 213

The third digit denotes total case depth (mm)

3 = 30, 5 = 50, 7 = 70

The fourth digit denotes the aperture code

The eighth digit denotes the mounting code

A = Combined foot and DIN rail
B = Busbar
C = Combined foot and Busbar
D = DIN rail
F = Foot
H = Hole fix

Moulded Case Current Transformers

Ebony Series Measuring, Wound Primary, Summation and Protection

Measuring Current Transformers

CABLE DIA mm	VERTICAL BUSBAR mm	HORIZ BUSBAR mm	MODEL	LOW VA DIMS	RATIO RANGE	MODEL	HIGH VA DIMS	RATIO RANGE	MODEL	EXTRA HIGH VA DIMS	RATIO RANGE
				mm W x D x H	Min/Max		mm W x D x H	Min/Max		mm W x D x H	Min/Max
16.2	15x5	15x5	M53E	50x30x80	50/150	M55E	50x50x80	20/150			
25	30x10	30x10	M53J	50x30x80	100/400	M55J	50x50x80	50/400			
23	20x10	20x10	M63F	60x30x94	30/300	M65F	60x50x94	30/300	M67F	60x70x94	30/300
28	30x10	30x10	M63M	60x30x94	50/800	M65M	60x50x94	40/800	M67M	60x70x94	40/800
32		40x10	M63N	60x30x94	200/800	M65N	60x50x94	100/800	M67N	60x70x94	100/800
36	40x10	40x10	MA5G	77x50x116	100/1000	MA5G	77x50x116	100/1000			
36		50x10	MA5H	77x50x116	200/1200	MA5H	77x50x116	200/1200			
32	40x10	40x10	M93K	90x30x131	100/800	M95K	90x50x131	100/800	M97K	90x70x131	100/800
42	50x10	50x10	M93L	90x30x131	100/1600	M95L	90x50x131	100/1600	M97L	90x70x131	100/1600
42	40x30	40x30	M93L	90x30x131	100/1600	M95L	90x50x131	100/1600	M97L	90x70x131	100/1600
30		64x12.8	M93R	90x30x131	200/2000	M95R	90x50x131	200/2000	M97R	90x70x131	200/1600
30		60x30	M93R	90x30x131	200/2000	M95R	90x50x131	200/2000	M97R	90x70x131	200/1600
30	76.5x19		M93S	90x30x131	400/2000	M95S	90x50x131	200/2000	M97S	90x70x131	200/2000
30	60x30		M93S	90x30x131	400/2000	M95S	90x50x131	200/2000	M97S	90x70x131	200/2000
63	80x30	80x30	MB5D	134x50x156	200/2500	MB5D	134x50x156	200/2500			
35		104x35	MB5Z	134x50x156	750/4000	MB5Z	134x50x156	750/3000			
50	160x50		MC5T	140x50x238	1000/8000	MC5T	140x50x238	1000/8000			
50		160x50	MD5T	213x50x165	1000/8000	MD5T	213x50x165	1000/8000			

Wound Primary Current Transformers

CONNECTION	MODEL	LOW VA DIMS mm WxDxH	RATIO Range Min/Max	MODEL	HIGH VA DIMS mm WxDxH	RATIO Range Min/Max
M4 Pozi-Slot/Fast On	MA5P	77x50x116	1/15			
30x3 Busbar	MA5Q	77x50x116	50/250			
M4 Pozi-Slot/Fast On	M93P	90x30x131	1/15	M95P	90x50x131	1/15
M8 Stud	MA5Y	77x50x116	1/50			

Summation Current Transformers

CONNECTION	MODEL	DIMS mm WxDxH	PRIMARY CURRENT	MODEL	DIMENSION mm WxDxH	PRIMARY CURRENT
M3.5 Terminals	S95P	90x50x131	5 + 5 = 5	S97P	90x70x131	5 + 5 + 5 + 5 = 5
M3.5 Terminals	S95P	90x50x131	5 + 5 + 5 = 5	S97P	90x70x131	5 + 5 + 5 + 5 + 5 = 5
M3.5 Terminals	S95P	90x50x131	1 + 1 = 1	S97P	90x70x131	5 + 5 + 5 + 5 + 5 + 5 = 5
M3.5 Terminals	S95P	90x50x131	1 + 1 + 1 = 1	S97P	90x70x131	1 + 1 + 1 + 1 = 1
M3.5 Terminals				S97P	90x70x131	1 + 1 + 1 + 1 + 1 = 1
M3.5 Terminals				S97P	90x70x131	1 + 1 + 1 + 1 + 1 + 1 = 1

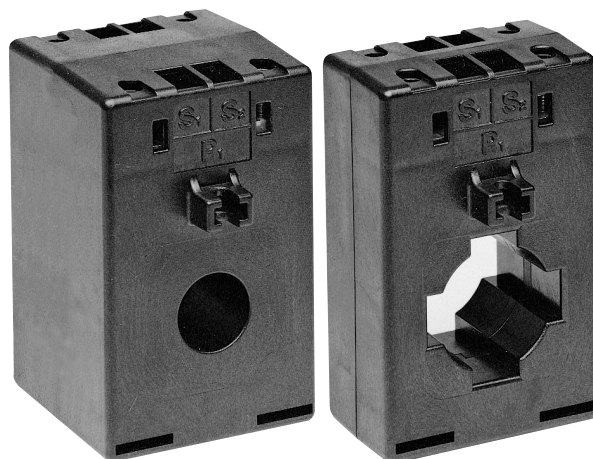
Protection Current Transformers

CABLE DIA mm	VERTICAL BUSBAR mm	HORIZ BUSBAR mm	MODEL	LOW VA DIMS mm W x D x H	RATIO RANGE Min/Max	MODEL	HIGH VA DIMS mm W x D x H	RATIO RANGE Min/Max
23	20x10	20x10	P65F	60x50x94	150/300	P67F	60x70x94	120/300
28	30x10				250/1600	P67M	60x70x94	150/600
32		40x10	P65N	60x50x94	400/600	P67N	60x70x94	250/600
32	40x10	40x10	P95K	90x50x131	100/800	P97K	90x70x131	100/800
42	50x10	50x10	P95L	90x50x131	100/1600			
42	40x30	40x30	P97L	90x70x131	100/1600			
30		64x12.8	P97R	90x70x131	200/1250			
30		60x30	P97R	90x70x131	200/1250			
30	76.5x19		P97S	90x70x131	200/1250			
30	60x30		P97S	90x70x131	200/1250			



Moulded Case Current Transformers

Ebony Series Measuring and Protection



Introduction

The Crompton Ebony series is a range of Measuring, Primary Wound, Summation and Protection Current Transformers manufactured to meet IEC 60044-1:1999. The range includes models for measuring and protection duties, in seven case widths:- 50, 60, 77, 90mm, 134mm, 140mm & 213mm.

* 1993 (implementation of CENELEC HD 553 SI, derived from IEC 185: 1987 plus amendment N° 1 1990).

Features/Benefits

- » An integral terminal cover which makes them safety fail safe and saves on installation time
- » A high impact flame retardant halogen free polycarbonate moulded case (UL94V0) reduces the risk of mechanical damage and emission of halogen in case of fire
- » Class E (120°C) service temperature
- » Combined M4 N°1 posi/slot screw clamp/ 6.3mm 'fast on' push on tag terminal connection for quicker connection
- » Busbar or DIN rail or steel feet mounting hardware supplied
- » 1 & 5 Amp secondaries
- » Wide range of apertures
- » Non standard ratios and secondaries available on request

Construction

The toroidal core and secondary winding is encapsulated by a self extinguishing grade of polycarbonate case, giving excellent mechanical strength and electrical insulation. The integral covered secondary terminals give customers the choice of both screw clamp or 'fast on' tag connections with protection to IP20B. The enclosure is protected to IP40.

Installation

Customers have a choice of installation options.

- Plug in metal feet for wall or base mounting
- Plastic DIN rail clips
- Moulded bus bar mounting for simplified fixing
- Primary copper busbar
- Copper inserts for 16 and 23mm diameter apertures
- Multi busbar mounting used with two busbars

Performance

System Voltage:	720V maximum	Insulation class BS2757 IEC85:	Class E
Test Voltage:	3kV for 1 minute	Enclosure Code:	IP40
System frequency:	50/60Hz (400Hz available on request)	Integral Terminal Cover:	IP20B
Short circuit thermal current (Ith)	60 x rated primary current (Ith)**: for 1 second	Complies with:	IEC 60044-1:1999
Overload Withstand	1.2 x rated current continuously	Humidity:	Up to 95% RH (non condensing)
Dynamic current (Idyn)	= 2.55 x Ith	Secondary terminals screw clamp:	Up to 10mm ² cable
Saturation coefficient:	<5 for plain ring <10 for wound primary	'Fast On':	6.3mm type
Service temperature:	-20°C to 85°C		

** Thermal Current (Ith) & Dynamic Current (Idyn)

Ith is the highest primary current (effective value), the Idyn is the highest primary current (Peak Value) that the C.T. can support for 1 second without damage, owing to excessive overloads with secondary short circuits.

Moulded Case Current Transformers

Ebony Series Measuring and Protection

All models single class and VA

Model M63F - 94*

Case width 60mm, depth 30mm

Ratio**	VA at Class			
	5	3	1	0.5
30	1.25	-	-	-
40	-	1.25	-	-
50	-	1.25	-	-
60	2.5	1.25	-	-
75	-	2.5	-	-
80	-	2.5	-	-
100	-	3.75	1.25	-
120	-	3.75	1.25	-
125	-	3.75	1.25	-
150	-	5	2.5	-
200	-	7.5	5	2.5
250	-	10	5	3.75
300	-	15	7.5	3.75

* Code Option

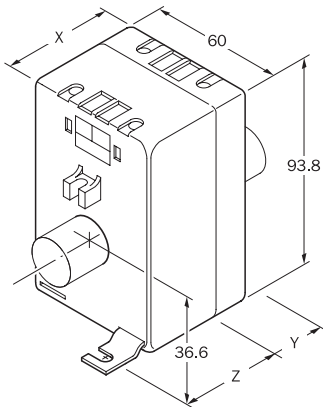
F Foot mounting

B Busbar mounting

C Combined foot & busbar mounting

D Din rail mounting (not model M67F)

** 1A and 5A secondaries are available



• Mounting feet centres 42mm

• Horizontal & Vertical Busbar
20 x 10, 23mm diameter

Feet mounting dimensions

Model	Dimension(mm)		
	X	Y	Z
M63F - 94	30	25.5	25.5
M65F - 94	50	25.5	45.5
M67F - 94	70	45.5	45.5

Model M65F - 94*,

Case width 60mm, depth 50mm

Ratio**	VA at Class		
	3	1	0.5
30	1.25	-	-
40	2.5	-	-
50	2.5	-	-
60	3.75	-	-
75	5	2.5	-
80	5	2.5	-
100	7.5	5	2.5
120	7.5	5	2.5
125	7.5	5	2.5
150	15	10	5
200	20	15	7.5
250	20	20	10
300	30	30	10

Model P65F - 94*

Case width 60mm, depth 50mm

Ratio**	VA at Class	
	10P5	5P5
30	-	-
40	-	-
50	-	-
60	-	-
75	-	-
80	-	-
100	-	-
120	-	-
125	-	-
150	2.5	-
200	3.75	3.75
250	3.75	3.75
300	5	5

Model M67F - 94*

Case width 60mm, depth 70mm

Ratio**	VA at Class		
	3	1	0.5
30	2.5	-	-
40	3.75	1.25	-
50	3.75	1.25	-
60	5	3.75	-
75	7.5	3.75	2.5
80	7.5	3.75	2.5
100	10	7.5	3.75
120	10	7.5	3.75
125	15	7.5	5
150	20	15	7.5
200	30	30	10
250	45	30	15
300	45	45	15

Model P67F - 94*

Case width 60mm, depth 70mm

Ratio**	VA at Class			
	10P5	5P5	10P5	5P10
30	-	-	-	-
40	-	-	-	-
50	-	-	-	-
60	-	-	-	-
75	-	-	-	-
80	-	-	-	-
100	2.5	-	-	-
120	2.5	2.5	-	-
125	2.5	2.5	-	-
150	3.75	3.75	-	-
200	5	5	-	-
250	7.5	7.5	2.5	2.5
300	7.5	7.5	2.5	2.5

Class 0.1 & 0.2 & intermediate ratios are available on request.

Moulded Case Current Transformers

Ebony Series Measuring and Protection

All models single class and VA

Model M63M - 94*

Case width 60mm, depth 30mm

Ratio**	VA at Class		
	3	1	0.5
50	1.25	-	-
60	1.25	-	-
75	2.5	-	-
80	2.5	-	-
100	3.75	2.5	-
120	3.75	2.5	1.25
125	3.75	2.5	1.25
150	5	3.75	2.5
200	7.5	5	3.75
250	7.5	7.5	5
300	10	7.5	5
400	10	7.5	5
500	7.5	5	3.75
600	10	7.5	5
750	15	10	7.5
800	15	10	10

* Code Option

F Foot mounting

B Busbar mounting

C Combined foot & busbar mounting

D Din rail mounting (not model M67M)

** 1A and 5A secondaries are available

Model M65M - 94*

Case width 60mm, depth 50mm

Ratio**	VA at Class		
	3	1	0.5
40	1.25	-	-
50	2.5	-	-
60	3.75	-	-
75	5	2.5	-
80	5	2.5	-
100	5	3.75	1.25
120	7.5	5	2.5
125	7.5	5	2.5
150	10	7.5	3.75
200	15	10	5
250	20	15	10
300	20	15	10
400	20	15	10
500	20	15	10
600	20	20	15
750	30	30	20
800	30	30	20

Model M67M - 94*

Case width 60mm, depth 70mm

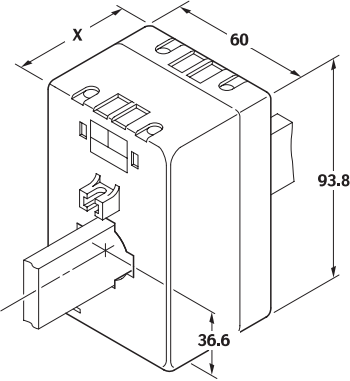
Ratio**	VA at Class		
	3	1	0.5
40	2.5	-	-
50	3.75	-	-
60	5	1.25	-
75	7.5	3.75	-
80	7.5	3.75	-
100	10	5	2.5
120	10	7.5	3.75
125	10	7.5	3.75
150	15	10	5
200	20	20	10
250	30	20	20
300	30	30	20
400	30	20	15
500	30	30	20
600	45	30	30
750	45	45	45
800	45	45	45

Model P67M - 94*

Case width 60mm, depth 70mm

Ratio**	VA at Class	
	10P5	5P5
40	-	-
50	-	-
60	-	-
75	-	-
80	-	-
100	-	-
120	-	-
125	-	-
150	2.5	-
200	2.5	2.5
250	3.75	3.75
300	5	5
400	3.75	3.75
500	5	5
600	-	-
750	-	-
800	-	-

Class 0.1 & 0.2 & intermediate ratios are available on request.



- Mounting feet centres 42mm
- Horizontal & Vertical Busbar 30 x 10, 28mm diameter

Feet mounting dimensions

Model	Dimension(mm)
M63M - 94	30
M65M - 94	50
M67M - 94	70

Moulded Case Current Transformers

Ebony Series Measuring and Protection

All models single class and VA

Model M63N - 94*

Case width 60mm, depth 30mm

Ratio**	VA at Class		
	3	1	0.5
200	2.5	-	-
250	3.75	2.5	-
300	5	3.75	-
400	7.5	5	3.75
500	10	7.5	3.75
600	10	7.5	5
750	15	10	7.5
800	15	10	7.5

* Code Option

F Foot mounting

B Busbar mounting

C Combined foot & busbar mounting

D Din rail mounting (not model M67N)

** 1A and 5A secondaries are available on all models except M67N-94 where 750 and 800A are 5A only.

Model M65N - 94*

Case width 60mm, depth 50mm

Ratio**	VA at Class			
	3	1	0.5	0.2
100	2.5	-	-	-
120	2.5	-	-	-
125	2.5	-	-	-
150	5	2.5	-	-
200	7.5	2.5	-	-
250	10	3.75	-	-
300	10	7.5	2.5	-
400	20	15	5	-
500	20	20	10	-
600	30	20	15	2.5
750	30	30	20	5
800	30	30	30	5

Model P65N - 94*

Case width 60mm, depth 50mm

Ratio**	VA at Class	
	10P5	5P5
100	-	-
120	-	-
125	-	-
150	-	-
200	-	-
250	-	-
300	-	-
400	2.5	-
500	2.5	2.5
600	3.75	3.75
750	-	-
800	-	-

Model M67N - 94*

Case width 60mm, depth 70mm

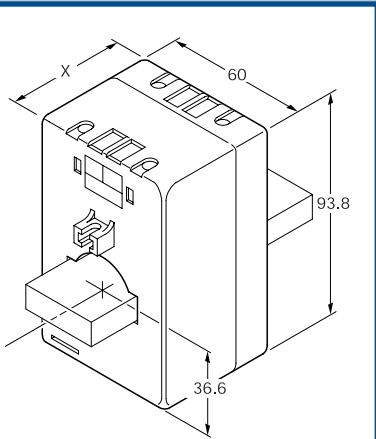
Ratio**	VA at Class		
	3	1	0.5
100	5	-	-
120	5	-	-
125	5	-	-
150	7.5	3.75	-
200	10	3.75	-
250	15	5	2.5
300	20	10	3.75
400	30	20	7.5
500	30	30	15
600	45	30	20
750	45	45	30
800	60	60	45

Model P67N - 94*

Case width 60mm, depth 70mm

Ratio**	VA at Class	
	10P5	5P5
100	-	-
120	-	-
125	-	-
150	-	-
200	-	-
250	2.5	-
300	2.5	2.5
400	3.75	3.75
500	5	5
600	5	5
750	-	-
800	-	-

Class 0.1 & intermediate ratios are available on request.



- Mounting feet centres 42mm
- Horizontal & Vertical Busbar 40 x 10, 32mm diameter

Feet mounting dimensions

Model	Dimension(mm)
M63N - 94	30
M65N - 94	50
M67N - 94	70

Moulded Case Current Transformers

Ebony Series Measuring and Protection

All models single class and VA

Model M93K - 94*

Case Width 90mm, depth 30mm

Ratio**	VA at Class			
	3	1	0.5	0.2
100	5	2.5	-	-
120	7.5	2.5	-	-
125	7.5	2.5	-	-
150	10	5	3.75	-
200	15	10	5	-
250	20	15	7.5	-
300	20	20	10	-
400	30	30	10	2.5
500	30	30	15	3.75
600	30	20	10	2.5
750	30	30	15	3.75
800	30	30	20	5

- * Code Option
 F Foot mounting
 B Busbar mounting
 C Combined foot & busbar mounting
 D Din rail mounting (not model M97K)

** 1A and 5A secondaries are available
 Rating as model 95K

Model M95K - 94*

Case Width 90mm, depth 50mm

Ratio**	VA at Class			
	3	1	0.5	0.2
100	10	3.75	2.5	--
120	10	5	2.5	--
125	10	5	2.5	--
150	20	10	5	-
200	30	20	10	-
250	45	30	15	-
300	45	30	15	2.5
400	60	45	20	5
500	60	60	30	10
600	60	60	30	10
750	60	60	45	15
800	60	60	60	20

Model P95K - 94*

Case Width 90mm, depth 50mm

Ratio**	VA at Class		
	5P5	5P10	10P10
100	2.5	-	-
120	2.5	-	-
125	2.5	-	-
150	3.75	-	-
200	5	2.5	2.5
250	7.5	2.5	2.5
300	10	3.75	3.75
400	10	3.75	3.75
500	10	3.75	3.75
600	10	3.75	3.75
750	10	3.75	3.75
800	15	5	5

Model M97K - 94*

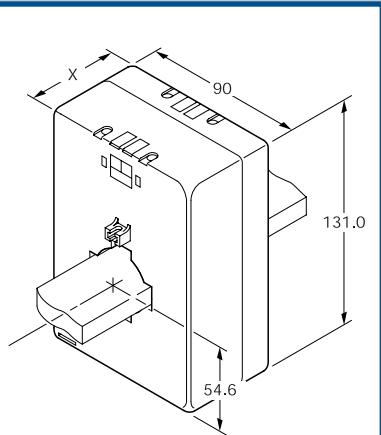
Case Width 90mm, depth 70mm

Ratio**	VA at Class			
	3	1	0.5	0.2
100	15	5	3.75	-
120	15	7.5	3.75	-
125	15	7.5	3.75	-
150	30	15	10	-
200	45	30	15	1.25
250	60	45	20	2.5
300	60	60	30	3.75
400	60	60	60	10
500	60	60	60	15
600	60	60	60	30
750	60	60	60	30
800	60	60	60	45

Model P97K - 94*

Case Width 90mm, depth 70mm

Ratio**	VA at Class		
	5P5	5P10	10P10
100	5	-	-
120	5	-	-
125	5	3.5	-
150	7.5	2.5	2.5
200	10	3.75	3.75
250	10	5	5
300	15	5	5
400	15	7.5	7.5
500	15	7.5	7.5
600	15	7.5	7.5
750	15	7.5	7.5
800	25	10	10



- Mounting feet centres 71.5mm
- Horizontal & Vertical Busbar 40 x 10, 32mm diameter

Feet mounting dimensions Dimension(mm)

Model	X
M93K - 94	30
M95K - 94	50
M97K - 94	70

Class 0.1 & intermediate ratios are available on request.

Moulded Case Current Transformers

Ebony Series Measuring and Protection

All models single class and VA

Model M93L - 94*

Case Width 90mm, depth 30mm

Ratio**	VA at Class			
	3	1	0.5	0.2
100	2.5	-	-	-
120	2.5	-	-	-
125	2.5	-	-	-
150	3.75	-	-	-
200	5	2.5	-	-
250	10	3.75	-	-
300	10	3.75	-	-
400	15	7.5	3.75	-
500	20	15	5	-
600	30	20	10	-
750	20	15	7.5	-
800	20	15	7.5	3.75
1000	20	20	15	3.75
1200	30	30	20	3.75
1250	30	30	20	3.75
1500	30	30	30	7.5
1600	30	30	30	10

- * Code Option
 F Foot mounting
 B Busbar mounting
 C Combined foot & busbar mounting
 D Din rail mounting (not model M97L)
- ** 1A and 5A secondaries are available
 Rating as model 95L

Model M95L - 94*

Case Width 90mm, depth 50mm

Ratio**	VA at Class			
	3	1	0.5	0.2
100	5	-	-	-
120	5	-	-	-
125	5	-	-	-
150	5	2.5	-	-
200	10	3.75	-	-
250	15	5	2.5	-
300	20	7.5	3.75	-
400	30	15	5	-
500	45	30	10	2.5
600	45	30	15	3.75
750	45	30	15	3.75
800	45	30	20	3.75
1000	60	45	30	5
1200	60	60	45	7.5
1250	60	60	45	7.5
1500	60	60	60	15
1600	60	60	60	20

Model M97L - 94*

Case Width 90mm, depth 70mm

Ratio**	VA at Class			
	3	1	0.5	0.2
100	7.5	-	-	-
120	7.5	-	-	-
125	7.5	-	-	-
150	10	3.75	-	-
200	15	7.5	2.5	-
250	20	7.5	5	-
300	30	10	7.5	2.5
400	60	20	7.5	3.75
500	60	45	15	5
600	60	60	20	5
750	60	60	30	5
800	60	60	30	5
1000	60	60	60	10
1200	60	60	60	15
1250	60	60	60	30
1500	60	60	60	30
1600	60	60	60	30

Model P97L - 94*

Case Width 90mm, depth 70mm

Ratio**	VA at Class		
	5P5	10P10	5P10
100	2.5	-	-
120	2.5	-	-
125	2.5	-	-
150	3.75	-	-
200	5	-	-
250	5	-	-
300	7.5	2.5	2.5
400	10	2.5	2.5
500	10	2.5	2.5
600	10	2.5	2.5
750	10	2.5	2.5
800	10	3.75	3.75
1000	15	3.75	3.75
1200	-	-	-
1250	-	-	-
1500	-	-	-
1600	-	-	-

Class 0.1 & intermediate ratios are available on request.

- Mounting feet centres 71.5mm
- Horizontal & Vertical Busbar 50 x 10, 40 x 30, 42mm diameter

Feet mounting dimensions
Dimension(mm)

Model	X
M93L - 94	30
M95L - 94	50
M97L - 94	70



Moulded Case Current Transformers

Ebony Series Measuring and Protection

All models single class and VA

Model M93R - 94*

Case Width 90mm, depth 30mm

Ratio**	VA at Class			
	3	1	0.5	0.2
200	2.5	-	-	-
250	5	2.5	-	-
300	5	2.5	-	-
400	5	3.75	2.5	-
500	7.5	5	3.75	-
600	10	7.5	3.75	-
750	10	10	5	-
800	10	10	5	-
1000	15	10	7.5	-
1200	20	15	10	3.75
1250	20	15	10	3.75
1500	20	20	15	5
1600	20	20	15	7.5
2000	30	20	20	10***

- * Code Option
- F Foot mounting
- B Busbar mounting
- C Combined foot & busbar mounting
- D Din rail mounting (not model M97R)
- ** 1A and 5A secondaries are available
- *** Not available with 1A secondary
- Rating as model 95R

Model M95R - 94*

Case Width 90mm, depth 50mm

Ratio**	VA at Class			
	3	1	0.5	0.2
200	7.5	2.5	-	-
250	10	3.75	-	-
300	15	5	2.5	-
400	20	7.5	3.75	-
500	30	15	5	-
600	30	20	7.5	-
750	45	30	15	-
800	45	30	20	2.5
1000	60	45	30	3.75
1200	60	45	30	5
1250	60	45	30	5
1500	60	60	60	15
1600	60	60	60	20
2000	60	60	60	30***

Model M97R - 94*

Case Width 90mm, depth 70mm

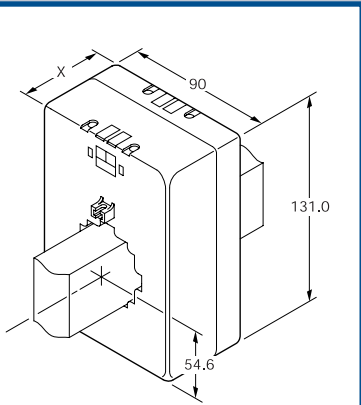
Ratio**	VA at Class			
	3	1	0.5	0.2
200	10	5	2.5	-
250	15	5	2.5	-
300	20	7.5	3.75	-
400	30	15	5	-
500	45	20	7.5	-
600	60	30	15	2.5
750	60	45	30	3.75
800	60	60	30	5
1000	60	60	60	10
1200	60	60	60	15
1250	60	60	60	15
1500	60	60	60	30
1600	60	60	60	30
2000	60	60	60	30

Model P97R - 94*

Case Width 90mm, depth 70mm

Ratio**	VA at Class		
	5P5	5P10	10P10
200	2.5	-	-
250	3.75	-	-
300	5	-	-
400	5	-	-
500	7.5	2.5	2.5
600	10	2.5	2.5
750	10	3.75	3.75
800	10	3.75	3.75
1000	15	5	5
1200	15	5	5
1250	15	5	5
1500	-	-	-
1600	-	-	-
2000	-	-	-

Class 0.1 & intermediate ratios are available on request.



- Mounting feet centres 71.5mm
- Horizontal Busbar 64 x 12.8, 60 x 30, 30mm diameter

Feet mounting dimensions

Model	Dimension(mm)
	X
M93R - 94	30
M95R - 94	50
M97R - 94	70

Moulded Case Current Transformers

Ebony Series Measuring and Protection

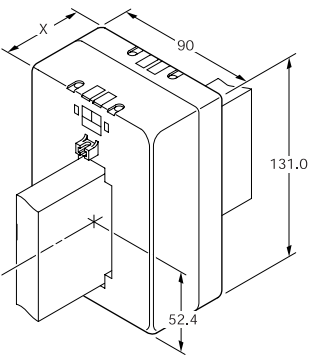
All models single class and VA

Model M93S - 94*

Case Width 90mm, depth 30mm

Ratio**	VA at Class			
	3	1	0.5	0.2
400	5	3.75	-	-
500	7.5	5	1.25	-
600	10	7.5	2.5	-
750	10	10	5	-
800	10	10	5	-
1000	15	10	7.5	-
1200	20	15	10	-
1250	20	15	10	-
1500	20	20	15	-
1600	20	20	15	-
2000	30	20	15	-

- * Code Option
 F Foot mountingS
 B Busbar mounting
 C Combined foot & busbar mounting
 D Din rail mounting (not model M97S)
- ** 1A and 5A secondaries are available up to 1600 Amps
 Rating as model 95S



- Mounting feet centres 71.5mm
- Vertical Busbar 76.5 x 19, 60 x 30, 30mm diameter

Feet mounting dimensions

Model	Dimension(mm)
M93S - 94	30
M95S - 94	50
M97S - 94	70

Model M95S - 94*

Case Width 90mm, depth 50mm

Ratio**	VA at Class			
	3	1	0.5	0.2
200	5	-	-	-
250	5	2.5	-	-
300	10	5	-	-
400	20	10	3.75	-
500	30	15	5	-
600	30	20	5	-
750	45	30	15	-
800	45	30	20	2.5
1000	60	45	20	3.75
1200	60	60	45	15
1250	60	60	45	15
1500	60	60	60	20
1600	60	60	60	30
2000	60	60	60	45

Model M97S - 94*

Case Width 90mm, depth 70mm

Ratio**	VA at Class			
	3	1	0.5	0.2
200	7.5	-	-	-
250	10	5	-	-
300	20	7.5	-	-
400	30	20	5	-
500	45	30	10	-
600	60	45	15	1.25
750	60	45	30	3.75
800	60	45	30	3.75
1000	60	60	60	10
1200	60	60	60	20
1250	60	60	60	20
1500	60	60	60	45
1600	60	60	60	60
2000	60	60	60	60

Model P97S - 94*

Case Width 90mm, depth 70mm

Ratio**	VA at Class		
	5P5	10P10	5P10
200	2.5	-	-
250	2.5	-	-
300	3.75	-	-
400	5	-	-
500	5	2.5	2.5
600	7.5	2.5	2.5
750	10	2.5	2.5
800	10	2.5	2.5
1000	10	3.75	3.75
1200	15	3.75	3.75
1250	15	3.75	3.75
1500	-	-	-
1600	-	-	-
2000	-	-	-

Class 0.1 & intermediate ratios are available on request.

Moulded Case Current Transformers

Ebony Series Measuring and Protection

All models single class and VA

MB5D - 94*

Case Width 134mm, depth 50mm

Ratio**	Low VA Range			High VA Range		
	VA at Class			VA at Class		
	3	1	0.5	3	1	0.5
200	7.5	2.5	-	10	5	-
250	10	5	-	15	10	5
300	15	10	5	20	15	10
400	15	10	7.5	22.5	15	10
500	20	15	10	30	20	15
600	15	10	5	30	20	15
750	15	10	5	40	22.5	15
800	20	15	7.5	40	30	20
1000	22.5	20	10	50	40	30
1200	30	20	15	50	40	30
1250	30	20	15	50	40	30
1500	30	20	15	50	40	30
1600	40	30	20	-	-	-
2000	50	40	30	-	-	-
2500	50	40	30	-	-	-

PB5D - 94*

Case Width 134mm, depth 50mm

Ratio**	VA at Class		
	5P5	10P10	5P10
200	3.75	-	-
250	5	-	-
300	5	2.5	-
400	5	3.75	-
500	10	5	-
600	10	5	-
750	10	5	-
800	10	5	-
1000	10	5	-
1200	10	5	-
1250	10	5	-
1500	15	5	-
1600	15	7.5	5
2000	20	-	5
2500	-	-	-

MB5Z - 94*

Case Width 134mm, depth 50mm

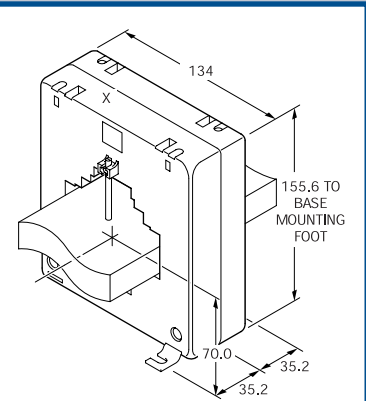
Ratio**	Low VA Range			High VA Range		
	VA at Class			VA at Class		
	3	1	0.5	3	1	0.5
750	15	7.5	2.5	30	20	5
800	20	10	2.5	30	20	7.5
1000	22.5	15	7.5	45	30	15
1200	30	20	10	60	45	30
1250	30	20	15	60	45	30
1500	30	20	15	60	60	45
1600	30	20	15	60	60	45
2000	30	20	15	60	60	60
2500	30	20	15	60	60	60
3000	30	20	15	60	60	60
4000	30	20	15	-	-	-

PB5Z - 94

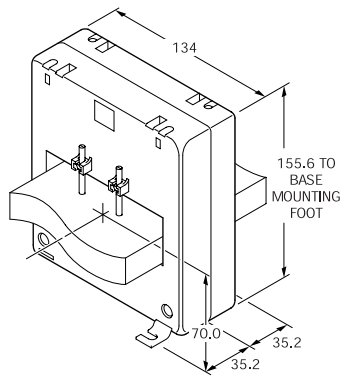
Case Width 134mm, depth 50mm

Ratio**	VA at Class	
	5P5	10P10
750	10	2.5
800	10	2.5
1000	10	2.5
1200	10	2.5
1250	10	2.5
1500	10	2.5
1600	10	2.5
2000	10	2.5
2500	10	2.5
3000	-	-
4000	-	-

- * Code Option
 - F Foot mountings
 - B Busbar mounting
 - C Combined foot & busbar mounting
 - H Hole fixing
- ** 1A and 5A secondaries are available



- Mounting feet centres 105mm
- Mounting hole centres 110 x 6.6mm diameter
- Horizontal & Vertical Busbar 80 x 30, 60 x 50, 50 x 50, 63mm diameter



- Mounting feet centres 105mm
- Mounting hole centres 110 x 6.6mm diameter
- Horizontal Busbar 104 x 35, 35mm diameter

Class 0.1 & intermediate ratios are available on request.

Moulded Case Current Transformers

Ebony Series Measuring

All models single class and VA

M53E - 94*

Case width 50mm, depth 30mm, X = 30mm, Y = 25.5mm, Z = 25.5mm

Ratio**	VA at Class		
	3	1	0.5
50	1.25	-	-
60	2.5	1.25	-
75	3.75	2.5	-
80	3.75	2.5	-
100	5	2.5	-
120	5	2.5	1.25
125	5	2.5	1.25
150	7.5	5	2.5

M55E - 94*

Case width 50mm, depth 50mm, X = 50mm, Y = 45.5mm, Z = 25.5mm

Ratio**	VA at Class		
	3	1	0.5
20	1.25	-	-
30	1.5	-	-
40	1.5	1.25	-
50	2.5	1.25	-
60	3.75	2.5	-
75	5	3.75	1.25
80	5	3.75	1.25
100	7.5	5	2.5
120	7.5	5	2.5
125	7.5	5	2.5
150	10	7.5	3.75

M53J - 94*

Case width 50mm, depth 50mm X = 30mm

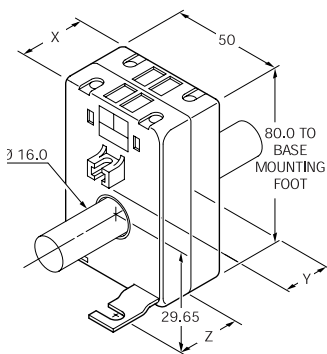
Ratio**	VA at Class		
	3	1	0.5
100	1.25	1.25	-
120	1.25	1.25	-
125	1.25	1.25	-
150	2.5	1.25	-
200	2.5	2.5	1.25
250	3.75	2.5	1.25
300	5	3.75	2.5
400	7.5	3.75	2.5

M55J - 94*

Case width 50mm, depth 50mm X = 50mm

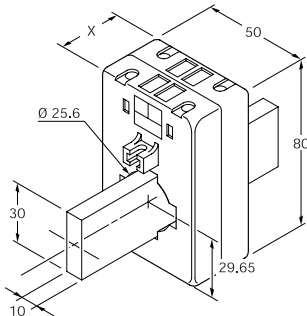
Ratio**	VA at Class		
	3	1	0.5
50	1.25	-	-
60	1.25	-	-
75	2.5	1.25	-
80	2.5	1.25	-
100	2.5	2.5	-
120	3.75	2.5	-
125	3.75	2.5	1.25
150	5	3.75	2.5
200	5	3.75	2.5
250	7.5	5	2.5
300	10	7.5	3.75
400	15	10	5

- * Code Option
- * = F Foot mounting
- = B Busbar
- = C Combined foot & busbar mounting
- = D Din rail mounting
- ** 1A and 5A secondaries are available



Mounting feet centres 33mm

- Mounting feet centres 33mm
- Horizontal & Vertical Busbar 15 x 5, 16.2mm diameter



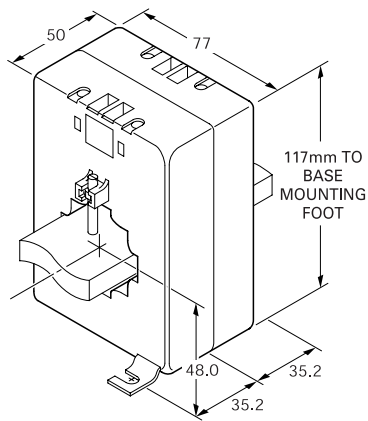
- Mounting feet centres 33mm
- X 51mm (53J)
- Mounting feet centres 33mm
- Y 71mm (55J)
- Horizontal & Vertical Busbar 30 x 10, 25mm diameter

Class 0.1 & 0.2 & intermediate ratios are available on request.

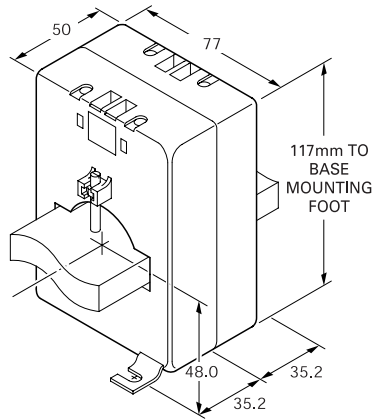
Moulded Case Current Transformers

Ebony Series Measuring

All models single class and VA



- Mounting feet centres 58.5mm
- Horizontal & Vertical Busbar 40 x 10 & 30 x 30, 36mm diameter



- Mounting feet centres 58.5mm
- Horizontal & Vertical Busbar 50 x 10, 36mm diameter

MA5G - 94*

Case width 77mm, depth 50mm

Ratio**	Low VA Range		High VA Range		
	3	1	3	1	0.5
100	2.5	-	2.5	1.25	-
120	2.5	-	5	2.5	-
125	2.5	-	5	2.5	-
150	5	3.75	7.5	5	2.5
200	7.5	5	10	5	2.5
250	7.5	5	10	7.5	5
300	7.5	5	10	7.5	5
400	7.5	5	15	7.5	5
500	-	-	10	7.5	5
600	-	-	10	10	7.5
750	-	-	15	10	10
800	-	-	15	10	10
1000	-	-	20	15	15

MA5H - 94*

Case width 77mm, depth 50mm

Ratio**	Low VA Range			High VA Range		
	3	1	0.5	3	1	0.5
200	5	-	-	10	7.5	3.75
250	5	2.5	-	15	10	7.5
300	7.5	3.75	-	15	15	10
400	10	5	2.5	20	20	20
500	15	7.5	3.75	30	20	10
600	20	10	5	45	30	15
750	20	15	7.5	45	45	30
800	20	15	10	60	45	30
1000	30	30	15	60	60	45
1200	30	30	20	60	60	60

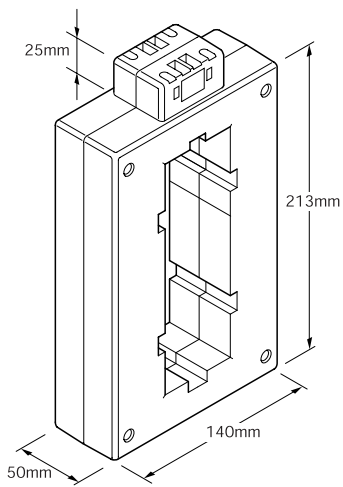
- * Code Option
- F Foot mounting
 - B Busbar mounting
 - C Combined foot & busbar mounting
 - D Din rail mounting
- ** 1A and 5A secondaries are available

Class 0.1 & 0.2 & intermediate ratios are available on request.

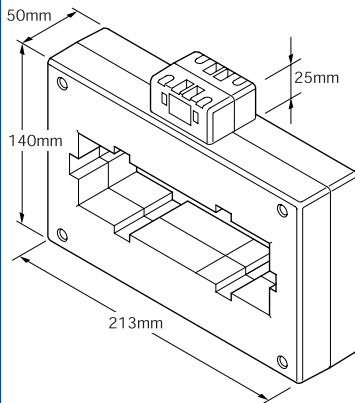
Moulded Case Current Transformers

Ebony Series Measuring

All models single class and VA



- **Mounting Centres**
117.4 x 184 & 6.6 diameter
- **Vertical Busbar** 160 x 50
50mm Diameter



- **Mounting Centres**
184 x 117.4 & 6.6 diameter
- **Horizontal Busbar** 160 x 50
- **Vertical Busbar** 160 x 50
50mm Diameter

MC5T - 94*

Case Width 140mm, depth 50mm

Ratio**	VA at Class		
	3	1	0.5
1000	30	20	7.5
1200	30	20	10
1250	30	20	10
1500	45	30	15
1600	45	30	20
2000	45	30	20
2500	60	45	30
3000	60	45	30
4000	60	45	30
5000	60	45	30
6000	60	45	30
7000	60	45	30
8000	60	45	30

MD5T - 94*

Case Width 213mm, depth 50mm

Ratio**	VA at Class		
	3	1	0.5
1000	30	20	7.5
1200	30	20	10
1250	30	20	10
1500	45	30	15
1600	45	30	20
2000	45	30	20
2500	60	45	30
3000	60	45	30
4000	60	45	30
5000	60	45	30
6000	60	45	30
7000	60	45	30
8000	60	45	30

* Code Option

B Busbar mounting

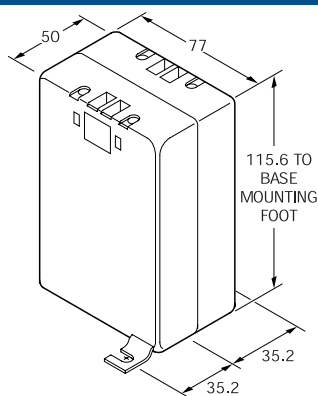
H Hole fixing

** 1A and 5A secondaries are available on all models except 7000 & 8000 A where only 5A is available

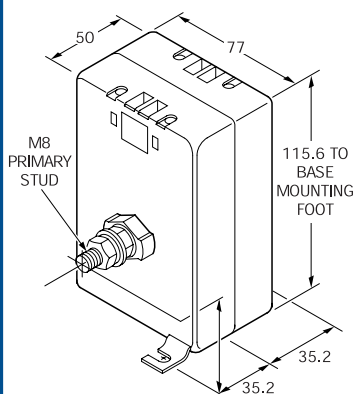
Class 0.2 & intermediate ratios are available on request.

Moulded Case Current Transformers

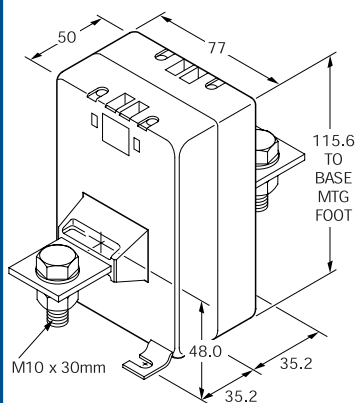
Ebony Series Wound Primary



- Mounting feet centres 58.5mm
- M4 'Fast On' Terminals



- Mounting feet centres 58.5mm
- M8 Primary Stud



- Centre of current connection point 115mm ±2mm
- Mounting feet centres 58.5mm
- 30 x 3mm Primary Bar

MA5P - 94*

Case width 77mm, depth 50mm

Ratio**	Low VA Range		High VA Range			
	3	1	3	1	0.5	0.2
1	7.5	5	15	15	7.5	2.5
2.5	7.5	5	15	15	7.5	2.5
5	7.5	5	15	15	7.5	2.5
6	7.5	5	15	15	7.5	2.5
7.5	7.5	5	15	15	7.5	2.5
10	7.5	5	15	15	7.5	2.5
15	7.5	5	15	15	7.5	2.5

MA5Y - 94*

Case width 77mm, depth 50mm

Ratio**	Low VA Range		High VA Range			
	3	1	3	1	0.5	0.2
1	7.5	5	15	15	7.5	2.5
5	7.5	5	15	15	7.5	2.5
7.5	7.5	5	15	15	7.5	2.5
8	7.5	5	15	15	7.5	2.5
10	7.5	5	15	15	7.5	2.5
15	7.5	5	15	15	7.5	2.5
20	7.5	5	15	15	7.5	2.5
25	7.5	5	15	15	10	2.5
30	7.5	5	15	15	10	2.5
40	7.5	5	15	15	10	2.5
50	7.5	5	15	15	10	2.5

MA5Q - 94*

Case width 77mm, depth 50mm

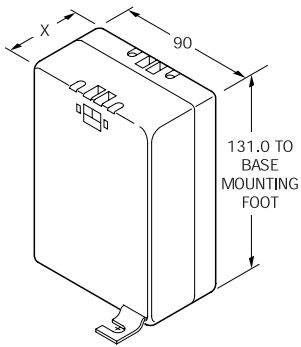
Ratio**	Low VA Range		High VA Range			
	3	1	3	1	0.5	0.2
50	7.5	5	15	15	10	2.5
60	7.5	5	15	15	10	2.5
75	7.5	5	15	15	10	2.5
80	7.5	5	15	15	10	2.5
100	7.5	5	15	15	10	2.5
120	7.5	5	20	15	10	2.5
125	7.5	5	20	15	10	2.5
150	7.5	5	20	15	10	2.5
200	7.5	5	20	15	10	2.5
250	7.5	5	20	15	10	2.5

- * Code Option
 - F Foot mounting
 - D Din rail mounting
- ** 1A and 5A secondaries are available

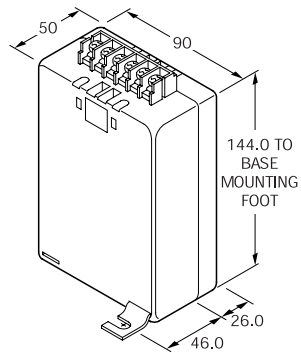
Class 0.1 & 0.2 & intermediate ratios are available on request.

Moulded Case Current Transformers

Ebony Series Wound Primary & Summation

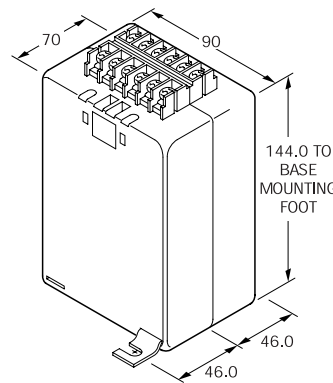


- Mounting feet centres 71.5mm
- Primary terminals
- Combined M4 No.1 Posi/Slot Screw clamp for up to 10mm² cable
- 6,3mm 'Fast On' Primary Connector



Summation

- Mounting feet centres 71.5mm
- Primary terminals M3.5



- Mounting feet centres 71.5mm
- Primary terminals M3.5

Model M93P - 94*

Case Width 90mm, depth 30mm

Ratio**	VA at Class	
	3	1
1 / 5	7.5	5
5 / 5	7.5	5
10 / 5	7.5	5
15 / 5	7.5	5
1 / 1	7.5	5
5 / 1	7.5	5
10 / 1	7.5	5
15 / 1	7.5	5

Model M95P - 94*

Case Width 90mm, depth 30mm

Ratio**	VA at Class		
	3	1	0.5
1 / 5	15	10	7.5
5 / 5	15	10	7.5
10 / 5	15	10	7.5
15 / 5	15	10	7.5
1 / 1	15	10	7.5
5 / 1	15	10	7.5
10 / 1	15	10	7.5
15 / 1	15	10	7.5

Model S95P - 94*

Case Width 90mm, depth 50mm

Primary Current	VA at Class 1
5+5 = 5	5
5+5+5 = 5	5
1+1 = 1	5
1+1+1 = 1	5

Model S97P - 94*

Case Width 90mm, depth 70mm

Primary Current	VA at Class 1
5+5+5+5 = 5	5
5+5+5+5+5 = 5	5
5+5+5+5+5+5 = 5	5
1+1+1+1 = 1	5
1+1+1+1+1 = 1	5
1+1+1+1+1+1 = 1	5

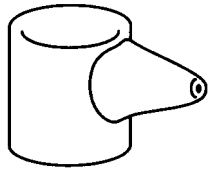
- * Code Option
- F Foot mounting
- D Din rail mounting (not model M97R)

Non standard summation C.Ts are available on request.

Moulded Case Current Transformers

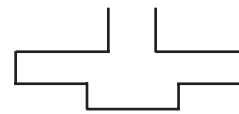
Ebony Series Accessories

Terminal Boot



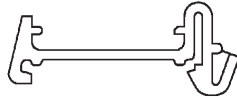
Part number 3687604.
A terminal boot is available to insulate the primary terminals of the model MA5Y Primary Wound Current Transformer.

Dual Busbar Clamp Bridge



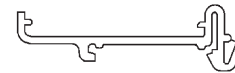
Part number 2872501
M9*S-94
MC5T-94
MB5D-94
M9*L-94

DIN Rail Adaptor



45mm long,
18.3mm high,
12.8mm wide,
Part N° 3G004.01

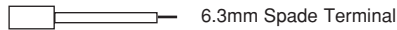
Models For use with 30mm deep models.
M53*
M63*
M93P



62mm long,
18.3mm high,
12.8mm wide,
Part N° 3G005.01

Models For use with 50mm deep models.
M55*
M65*
MA5*
M95P

Flexible Leads



Part Number

1 metre	3.G717.01 + 3G717.05
1.5 metre	3.G717.02 + 3G717.06
2 metre	3.G717.03 + 3G717.07
3 metre	3.G717.04 + 3G717.08

Shorting Links

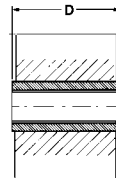
For all models except for Part N° MB5D & MB5Z

90mm long 01106

Drawing 3G645.01 gives complete detail of C.T. mountings

220mm long 01106

Fixing Between Two Busbars



A centre insert allows clamping between two busbars or cable primary conductors.

Type	Dimensions in mm		
N°	L	DØ	Part N°
M53E	47.5	9.5	2870401
M55E	67.5	9.5	2870403
M63F	47.5	13.00	2870404
M65F	67.5	13.00	2870405
M67F	87.5	13.00	2870406
P65F	67.5	13.00	2870405
P67F	87.5	13.00	2870406

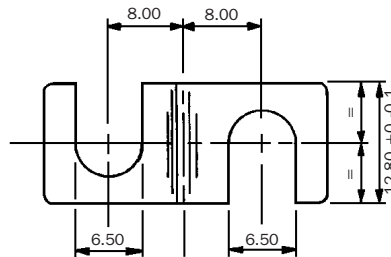
30 x 10 Primary Busbars

Models M53J, M55J, M63M, M65M, M67M, P65M, P67M
Part number 3676701
12mm Ø hole
0-600A

Models M63M, M65M, M67M, P65M, P67M
Part number 3676702
2 x 12mm Ø holes
0-800A

Fixing Foot

Part number 2644301



40 x 10 Primary Busbars

Models M63N, M65N, M67N, P65N, P67N
Part number 3676801
2 x 12mm Ø holes
0-1200A