



Tape Wound, Split Core and Ebony Current Transformers

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Tape Wound Measuring and Protection Current Transformers

MR Series Measuring Range

A comprehensive range of measuring ring current transformers for installation where reliability, accuracy and quality are required.

Construction

High grade silicon iron cores are carefully selected, then insulated and protected by a polypropylene covering on which the secondary winding is toroidally wound by precision winding machines. Multi layers of polyester and PVC are then applied to provide a tough moisture resistant coating.



Specifications

| | |
|---------------------------------------|---|
| System voltage: | 720V maximum |
| Test voltage: | 3kV for 1 minute |
| System frequency: | 50/60Hz |
| Overload withstand: | 1.2 x rated current continuously |
| Short circuit thermal current (Ith)*: | 60 x rated primary current for 1 second |
| Dynamic current (Idyn)*: | = 2.55 x Ith |
| Service temperature: | -20°C to 70°C |
| Secondary current: | 5A or 1A |
| Complies with: | IEC60044-1, BSEN60044-1 |
| Saturation coefficient: | <6 |
| Humidity: | Up to 95% RH (non condensing) |
| Insulation class: | BSEN60085 Class Y |
| Mounting hardware: | Foot mounted |

Features

- Available in a wide range of transformer ratings
- Accuracy up to Class 0.5
- Measuring or protective types

Benefits

- Long product life

Applications

- Switchgear
- Control panels
- Overload protection
- Control devices

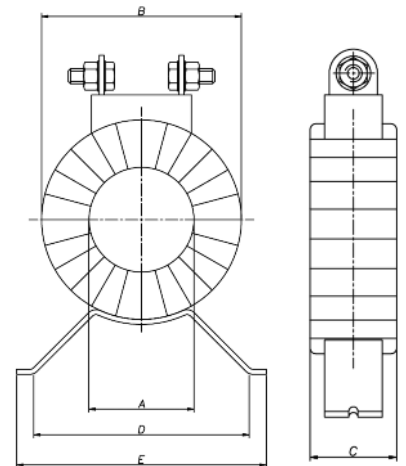
Loss in copper wires between instrument and CT for 5A secondary

| 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 | 0.89 | 1.19 | 1.49 |
| 10 | 0.09 | 0.18 | 0.36 | 0.54 | 0.71 | 0.89 |

Loss in copper wires between instrument and CT for 1A secondary

| 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 |

Dimensions



* 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 CT can support for 1 second without damage, owing to excessive overloads with secondary short circuits.



MR Series Measuring Range

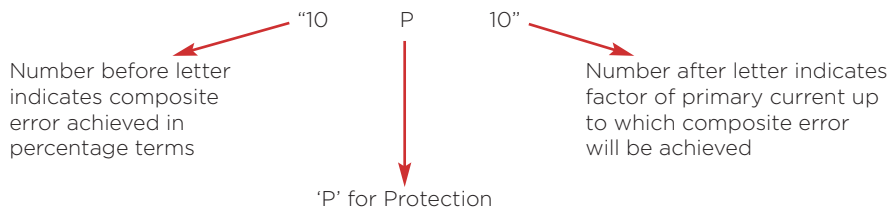
MR transformers are used to accurately measure high alternating primary currents, converting the primary current into a proportional secondary current as required for measurement and instrumentation. They are available in 5 amp or 1 amp secondary versions.

| Part number | Ratio range | Class 3 | Class 1 | Class 0.5 | A | B | C | D | Approx. weight |
|----------------|-------------|---------|---------|-----------|-----|-----|----|------|----------------|
| MR-28-40/5A | 40/5 | 1.5 | - | - | 28 | 70 | 40 | 77.5 | 0.5 |
| MR-28-50/5A | 50/5 | 2 | - | - | 28 | 70 | 40 | 77.5 | 0.5 |
| MR-28-60/5A | 60/5 | 2.5 | - | - | 28 | 70 | 40 | 77.5 | 0.5 |
| MR-28-40/1A | 40/1 | 1.5 | - | - | 22 | 60 | 50 | 70 | 0.5 |
| MR-28-50/1A | 50/1 | 2 | - | - | 22 | 60 | 40 | 70 | 0.5 |
| MR-28-60/1A | 60/1 | 2.5 | - | - | 22 | 60 | 40 | 70 | 0.5 |
| MR-42-80/5A | 80/5 | 1.5 | - | - | 42 | 80 | 30 | 86 | 0.5 |
| MR-42-100/5A | 100/5 | 3.75 | 1.25 | - | 42 | 80 | 30 | 86 | 0.5 |
| MR-42-150/5A | 150/5 | 5 | 2.5 | 1 | 42 | 80 | 30 | 86 | 0.5 |
| MR-42-200/5A | 200/5 | 7.5 | 5 | 2.5 | 42 | 80 | 30 | 86 | 0.5 |
| MR-42-250/5A | 250/5 | 10 | 5 | 2.5 | 42 | 80 | 30 | 86 | 0.5 |
| MR-42-80/1A | 80/1 | 1.5 | - | - | 40 | 72 | 26 | 70 | 0.5 |
| MR-42-100/1A | 100/1 | 5 | 1.5 | - | 40 | 72 | 45 | 70 | 0.5 |
| MR-42-150/1A | 150/1 | 5 | 3 | - | 40 | 72 | 40 | 70 | 0.5 |
| MR-42-200/1A | 200/1 | 7.5 | 5 | 3 | 40 | 72 | 40 | 70 | 0.5 |
| MR-42-250/1A | 250/1 | 10 | 7.5 | 2.5 | 40 | 72 | 40 | 70 | 0.5 |
| MR-45-300/5A | 300/5 | 10 | 7.5 | 3.75 | 45 | 80 | 30 | 86 | 0.5 |
| MR-45-400/5A | 400/5 | 15 | 7.5 | 5 | 45 | 80 | 30 | 86 | 0.5 |
| MR-45-300/1A | 300/1 | 10 | 10 | 5 | 45 | 83 | 32 | 100 | 0.5 |
| MR-45-400/1A | 400/1 | 15 | 10 | 5 | 45 | 83 | 32 | 100 | 0.5 |
| MR-60-400/5A | 400/5 | 15 | 7.5 | 5 | 60 | 100 | 30 | 86 | 0.5 |
| MR-60-500/5A | 500/5 | 15 | 10 | 5 | 60 | 100 | 30 | 86 | 0.5 |
| MR-60-600/5A | 600/5 | 20 | 10 | 7.5 | 60 | 100 | 30 | 86 | 0.5 |
| MR-60-400/1A | 400/1 | 15 | 7.5 | 5 | 58 | 100 | 30 | 100 | 0.5 |
| MR-60-500/1A | 500/1 | 20 | 15 | 5 | 58 | 100 | 32 | 100 | 0.5 |
| MR-60-600/1A | 600/1 | 20 | 15 | 10 | 58 | 100 | 32 | 100 | 0.5 |
| MR-85-800/5A | 800/5 | 20 | 10 | 7.5 | 85 | 124 | 30 | 86 | 0.5 |
| MR-85-1000/5A | 1000/5 | 30 | 15 | 10 | 85 | 124 | 30 | 86 | 1 |
| MR-85-1200/5A | 1200/5 | 30 | 15 | 10 | 85 | 124 | 30 | 86 | 1 |
| MR-85-1500/5A | 1500/5 | 30 | 15 | 10 | 85 | 124 | 30 | 86 | 1 |
| MR-85-1600/5A | 1600/5 | 30 | 15 | 10 | 85 | 124 | 30 | 86 | 1 |
| MR-85-800/1A | 800/1 | 20 | 15 | 10 | 84 | 122 | 30 | 100 | 0.5 |
| MR-85-1000/1A | 1000/1 | 25 | 20 | 15 | 94 | 135 | 30 | 100 | 1 |
| MR-85-1200/1A | 1200/1 | 25 | 20 | 15 | 94 | 135 | 30 | 100 | 1 |
| MR-85-1500/1A | 1500/1 | 25 | 20 | 15 | 94 | 135 | 30 | 100 | 1 |
| MR-85-1600/1A | 1600/1 | 25 | 20 | 15 | 94 | 135 | 30 | 100 | 1 |
| MR-125-2000/5A | 2000/5 | 30 | 20 | 15 | 125 | 160 | 30 | 86 | 1 |
| MR-125-2500/5A | 2500/5 | 30 | 20 | 15 | 125 | 160 | 30 | 86 | - |
| MR-125-3000/5A | 3000/5 | 30 | 20 | 15 | 125 | 160 | 30 | 86 | 1 |
| MR-125-4000/5A | 4000/5 | 30 | 20 | 15 | 125 | 160 | 30 | 86 | 1 |
| MR-125-2000/1A | 2000/1 | 25 | 20 | 15 | 132 | 175 | 30 | 150 | 1.5 |
| MR-125-2500/1A | 2500/1 | 25 | 20 | 15 | 132 | 175 | 30 | 150 | 1.5 |
| MR-125-3000/1A | 3000/1 | 25 | 20 | 15 | 125 | 180 | 32 | 150 | 1.5 |
| MR-125-4000/1A | 4000/1 | 25 | 20 | 15 | 140 | 215 | 45 | 150 | 4.5 |

PR Series Protection Range

IEC60044-1/BSEN60044-1 commonly define protection current transformers in terms of composite error at an accuracy limit factor. In simple terms this means how accurate the current transformer will remain when the primary current flowing is many times higher than in normal conditions i.e. in a fault situation.

The classification of protection current transformers follows the following simple formula:



Manufacturers of protection devices will normally specify the classification for the protection current transformer intended to operate the particular protection device concerned.

In addition the classification of protection current transformers indicates accuracy class:
 5P – current transformer will have a ratio error of 1% and phase error not exceeding 60 minutes.

10P – current transformer will have a ratio error of 3% (no level of phase error specified).

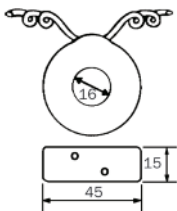
The PR series is a range of two of the most popular classifications of protection current transformers, 5P10 and 10P10. Other classifications are possible (such as 5P20 or 10P20). Please consult factory for a quotation should you require an alternative classification or a current transformer with dimensions different to those set out below.

| Part number | Ratio range | VA burden | Accuracy class | A | B | C | D | Approx. weight |
|-------------------|-------------|-----------|----------------|-----|-----|----|-----|----------------|
| PR-35-100/5A-2.5 | 100/5 | 2.5 | 10P10 | 35 | 98 | 60 | 100 | 2 |
| PR-35-100/5A-5 | 100/5 | 5 | 10P10 | 35 | 98 | 90 | 100 | 3 |
| PR-35-120/5A-2.5 | 120/5 | 2.5 | 10P10 | 35 | 98 | 55 | 100 | 2 |
| PR-35-120/5A-5 | 120/5 | 5 | 10P10 | 35 | 98 | 85 | 100 | 3 |
| PR-35-150/5A-2.5 | 150/5 | 2.5 | 5P10 & 10P10 | 35 | 98 | 50 | 100 | 1.5 |
| PR-35-150/5A-5 | 150/5 | 5 | 5P10 & 10P10 | 35 | 98 | 70 | 100 | 2.5 |
| PR-35-200/5A-2.5 | 200/5 | 2.5 | 5P10 & 10P10 | 35 | 98 | 40 | 100 | 1 |
| PR-35-200/5A-5 | 200/5 | 5 | 5P10 & 10P10 | 35 | 98 | 60 | 100 | 2 |
| PR-35-250/5A-2.5 | 250/5 | 2.5 | 5P10 & 10P10 | 35 | 98 | 35 | 100 | 1 |
| PR-35-250/5A-5 | 250/5 | 5 | 5P10 & 10P10 | 35 | 98 | 55 | 100 | 1.5 |
| PR-55-300/5A-5 | 300/5 | 5 | 5P10 & 10P10 | 55 | 98 | 75 | 100 | 1.5 |
| PR-55-300/5A-15 | 300/5 | 15 | 5P10 & 10P10 | 55 | 125 | 90 | 100 | 4 |
| PR-55-400/5A-5 | 400/5 | 5 | 5P10 & 10P10 | 55 | 98 | 60 | 100 | 1.5 |
| PR-55-400/5A-15 | 400/5 | 15 | 5P10 & 10P10 | 55 | 125 | 65 | 100 | 3 |
| PR-55-500/5A-5 | 500/5 | 5 | 5P10 & 10P10 | 55 | 98 | 55 | 100 | 1 |
| PR-55-500/5A-15 | 500/5 | 15 | 5P10 & 10P10 | 55 | 125 | 60 | 100 | 2.5 |
| PR-55-600/5A-5 | 600/5 | 5 | 5P10 & 10P10 | 55 | 98 | 50 | 100 | 1 |
| PR-55-600/5A-15 | 600/5 | 15 | 5P10 & 10P10 | 55 | 125 | 55 | 100 | 2.5 |
| PR-65-800/5A-5 | 800/5 | 5 | 5P10 & 10P10 | 65 | 110 | 40 | 100 | 1 |
| PR-65-800/5A-15 | 800/5 | 15 | 5P10 & 10P10 | 65 | 110 | 80 | 100 | 3 |
| PR-80-1000/5A-15 | 1000/5 | 15 | 5P10 & 10P10 | 80 | 125 | 70 | 100 | 2 |
| PR-80-1200/5A-15 | 1200/5 | 15 | 5P10 & 10P10 | 80 | 125 | 65 | 100 | 2.5 |
| PR-90-1500/5A-15 | 1500/5 | 15 | 5P10 & 10P10 | 90 | 140 | 55 | 100 | 2.5 |
| PR-90-1600/5A-15 | 1600/5 | 15 | 5P10 & 10P10 | 90 | 140 | 55 | 100 | 2.5 |
| PR-100-2000/5A-15 | 2000/5 | 15 | 5P10 & 10P10 | 100 | 155 | 55 | 100 | 3 |
| PR-110-2500/5A-15 | 2500/5 | 15 | 5P10 & 10P10 | 110 | 165 | 45 | 100 | 3 |
| PR-120-3000/5A-15 | 3000/5 | 15 | 5P10 & 10P10 | 120 | 180 | 45 | 150 | 3 |

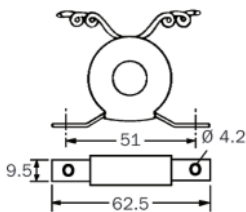
Consult factory for availability and lead time on 1A secondary for protection range. 1A current transformer dimensions may vary by up to 10%.



Ring type (P)

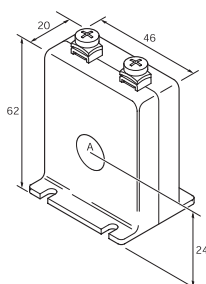


Foot mounting option (F)



Dimensions

A = 16mm transformer ratings
 Fixing centres 30mm x 30mm
 M3.5 terminal screw and clamp



Class PX Current Transformers

In some balanced protection systems where sensitivity and stability levels required are high, classes 5P10 or 10P10 may not be adequate. In these situations a Class PX current transformer will usually be specified. Class PX as defined in IEC60044-1/BSEN60044-1 allows the manufacturer of a protection device to detail more specific requirements of the current transformer so as to achieve a more sensitive protection scheme. Typically this will involve specifying the following information for the current transformer:

- 1) Turns ratio
- 2) Minimum kneepoint voltage
- 3) Maximum secondary resistance
- 4) Maximum excitation current at the rated minimum kneepoint voltage

To enquire about Class PX current transformers consult the factory with the above information together with any physical limiting dimensions and the aperture size required. If not all the above information is available, details of relay type, lead run from current transformer to relay and the fault current expected to flow through the zone protected by the current transformers will be required in order to provide a quotation.

Miniature Current Transformers

A range of Wedding ring Miniature Tape wound Current transformers whose size permits PCB mounting. Designed to convert high currents to low level electronic signals. Available in tape wound with ring or foot mounting versions or in a moulded case.

Specifications

| | |
|------------------------|-------------------|
| Primary current range: | 10A-100A |
| Secondary output: | 10mA-100mA |
| VA output: | 0.015VA-0.15VA |
| System frequency: | 50/60Hz |
| Service temperature: | 0°C to + 80°C |
| Insulation class: | BSEN60085 Class Y |
| Operating voltage: | 720V AC |
| Test voltage: | 2kV DC |
| Accuracy | |
| 20-80%: | 1.5% |
| 81-120%: | 1% |

| Part number | Ratio range | Type |
|-------------|---------------------|---|
| 773-01-P-FL | 10A-100A/10mA-100mA | Ring type, flexible lead 150mm |
| 773-02-P-FL | 10A-100A/10mA-100mA | Ring type, flexible lead 450mm |
| 773-01-F-FL | 10A-100A/10mA-100mA | Ring type, foot mounting, flexible lead 150mm |

Moulded Case (MC)

Specifications

| | |
|----------------------|-------------------|
| Service temperature: | -20°C to + 85°C |
| Insulation class: | BSEN60085 Class Y |

| Part number | Ratio range | Type |
|-------------|---------------------|--------------|
| 773-01-MC | 10A-100A/10mA-100mA | Moulded case |

SC Series Split Core Current Transformers

A range of split core current transformers that offers a cost effective and efficient method by which the current can be measured without the need to break the conductor, thereby reducing installation and commissioning time.

Specifications

| | |
|------------------------|---|
| System voltage: | 720V (0.72kV) maximum |
| Test voltage: | 3kV for 1 minute |
| System frequency: | 50/60Hz |
| Insulation class: | E |
| Overload withstand: | 1.2 times rated current continuously |
| Short circuit thermal: | 100 x rated primary for 1 second |
| Operating temperature: | -20°C to +70°C |
| Relative humidity: | 0-90% (non condensing) |
| Compliant with: | IEC/EN60044-1, BS7626 |
| Accuracy: | Class 3, 1 & 0.5 |
| Mounting hardware: | Plug-in metal feet for wall or base mounting or moulded busbar mounting |
| Rated dynamic current: | = 2.55 x I _{ht} |
| Enclosure: | Flame retardant grade classified UL 94V-O |



Features

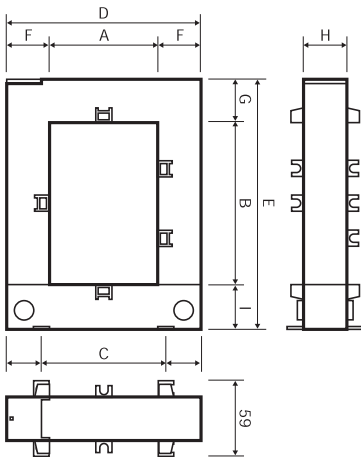
- High quality comprehensive measurements
- Available in a wide range of transformer ratings
- Accuracy up to Class 0.5
- Foot or busbar mounted

Benefits

- Faster installation
- Cost effective
- Long product life

Applications

- Switchgear
- Distribution systems
- Generator sets
- Control panels



| Model | Case 1 | Case 2 | Case 3 | Case 4 | Case 5 |
|--------------------|--------|--------|--------|--------|--------|
| A | 20 | 50 | 80 | 80 | 80 |
| B | 30 | 80 | 80 | 120 | 160 |
| C | 51 | 78 | 108 | 108 | 120 |
| D | 89 | 114 | 144 | 144 | 184 |
| E | 111 | 145 | 145 | 185 | 245 |
| F | 34 | 32 | 32 | 32 | 52 |
| G | 47 | 32 | 32 | 32 | 52 |
| H | 40 | 32 | 32 | 32 | 52 |
| I | 32 | 33 | 33 | 33 | 38 |
| Weight (Kg) | 0.75 | 0.90 | 1.05 | 1.25 | 4.30 |

Product Codes

| | Part number | Ratio | Burden VA against class index | | | Aperture (mm) |
|--------|-------------|---------|-------------------------------|------|------|---------------|
| | | | 0.5 | 1 | 3 | |
| Case 1 | SC1-100/5A | 100/5A | - | - | 1.5 | 20 x 30 |
| | SC1-150/5A | 150/5A | - | - | 2 | 20 x 30 |
| | SC1-200/5A | 200/5A | - | 1.5 | 2.5 | 20 x 30 |
| | SC1-250/5A | 250/5A | - | 2 | 4 | 20 x 30 |
| | SC1-300/5A | 300/5A | 1.5 | 4 | 6 | 20 x 30 |
| | SC1-400/5A | 400/5A | 2.5 | 6 | 10 | 20 x 30 |
| Case 2 | SC2-250/5A | 250/5A | 1 | 2 | 4 | 50 x 80 |
| | SC2-300/5A | 300/5A | 1.5 | 3 | 6 | 50 x 80 |
| | SC2-400/5A | 400/5A | 1.5 | 3 | 10 | 50 x 80 |
| | SC2-500/5A | 500/5A | 2.5 | 5 | 15 | 50 x 80 |
| | SC2-600/5A | 600/5A | 2.5 | 5 | 15 | 50 x 80 |
| | SC2-750/5A | 750/5A | 3 | 6 | 20 | 50 x 80 |
| Case 3 | SC2-800/5A | 800/5A | 3 | 7.5 | 20 | 50 x 80 |
| | SC2-1000/5A | 1000/5A | 5 | 10 | 20 | 50 x 80 |
| | SC3-250/5A | 250/5A | 1 | 2 | 4 | 80 x 80 |
| | SC3-300/5A | 300/5A | 1.5 | 3 | 6 | 80 x 80 |
| | SC3-400/5A | 400/5A | 1.5 | 3 | 10 | 80 x 80 |
| | SC3-500/5A | 500/5A | 2.5 | 5 | 15 | 80 x 80 |
| Case 4 | SC3-600/5A | 600/5A | 2.5 | 5 | 15 | 80 x 80 |
| | SC3-750/5A | 750/5A | 3 | 6 | 20 | 80 x 80 |
| | SC3-800/5A | 800/5A | 3 | 7.5 | 20 | 80 x 80 |
| | SC3-1000/5A | 1000/5A | 5 | 10 | 20 | 80 x 80 |
| | SC4-500/5A | 500/5A | - | 4 | 12.5 | 80 x 120 |
| | SC4-600/5A | 600/5A | - | 5 | 15 | 80 x 120 |
| Case 5 | SC4-750/5A | 750/5A | 2.5 | 6 | 17.5 | 80 x 120 |
| | SC4-800/5A | 800/5A | 3 | 7.5 | 20 | 80 x 120 |
| | SC4-1000/5A | 1000/5A | 5 | 10 | 20 | 80 x 120 |
| | SC4-1200/5A | 1200/5A | 6 | 12.5 | 25 | 80 x 120 |
| | SC4-1250/5A | 1250/5A | 7.5 | 15 | 30 | 80 x 120 |
| | SC4-1500/5A | 1500/5A | 8 | 17 | 30 | 80 x 120 |
| Case 5 | SC4-1600/5A | 1600/5A | 8 | 17 | 30 | 80 x 120 |
| | SC5-1000/5A | 1000/5A | 10 | 15 | 20 | 80 x 160 |
| | SC5-1250/5A | 1250/5A | 10 | 15 | 20 | 80 x 160 |
| | SC5-1500/5A | 1500/5A | 15 | 20 | 25 | 80 x 160 |
| | SC5-2000/5A | 2000/5A | 15 | 20 | 25 | 80 x 160 |
| | SC5-2500/5A | 2500/5A | 15 | 20 | 25 | 80 x 160 |
| Case 5 | SC5-3000/5A | 3000/5A | 20 | 25 | 30 | 80 x 160 |
| | SC5-4000/5A | 4000/5A | 20 | 25 | 30 | 80 x 160 |
| | SC5-5000/5A | 5000/5A | 20 | 25 | 30 | 80 x 160 |
| | SC5-6000/5A | 6000/5A | 20 | 25 | 30 | 80 x 160 |

Mini Clip

A range of miniature split core current transformers that offers a cost effective and efficient method by which the current can be measured without the need to break the conductor, each current transformer is supplied with colour coded leads of up to 3 meters for connection to the monitoring device. The MSC range of current transformers offers primary currents between 60-500A with 1 or 5A secondaries with class 1 accuracy performance. (Class 3 for 60-80A range).



Specifications

| | |
|-------------------------------|--|
| System voltage | 720V maximum |
| Test voltage | 3kV for 1 minute |
| System frequency | 50Hz or 60Hz |
| Primary ratings | 60A to 500A |
| Short circuit thermal current | 60 x rated primary current (I _{th}): for 1 sec |
| Overload withstand | 1.2 x rated current continuously |
| Rated dynamic current | = 2.55 x I _{th} |
| Secondary leads | 1A, (Length 3m), 5A (Length 1m) 2.5mm Wire |
| Enclosure | Flame retardant grade classified UL 94V-O |
| Aperture holes centres | 18mm upto 250A, 28mm from 300A - 500A |
| Operating temperature | -20°C to +70°C |
| Accuracy Class | 1, 3 |
| Compliant with | IEC/EN 60044-1 |

Features

- Cost effective moulded case
- Ratio's ranging from 60/1 to 500/5
- Fast cable clamp connection
- Multiple fixing options
- Safety plug in shorting link

Benefits

- Faster installation
- Compact size profile applications

Accessories

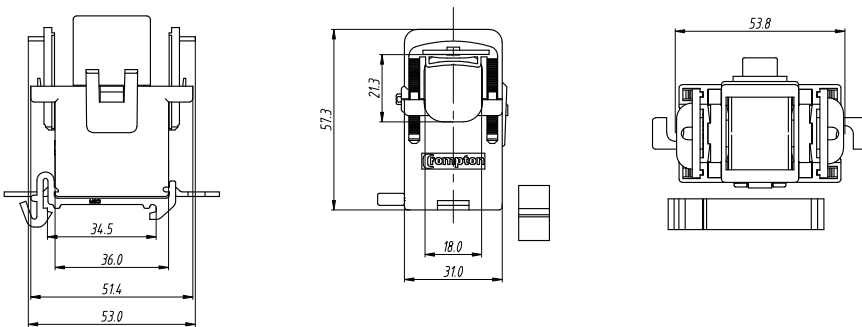


Shorting link for safe installation, (CT will not operate until removed).

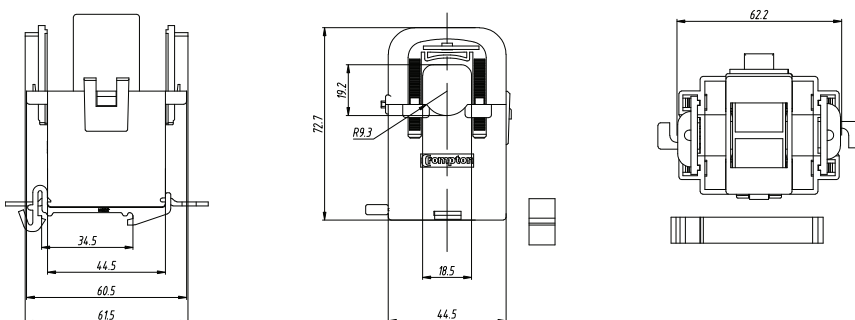


Fixing kit supplied

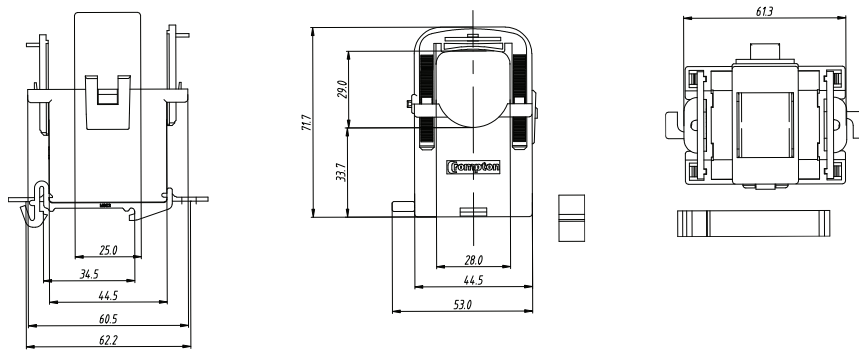
MSC1



MSC2



MSC3



Product Codes

| Part number | Ratio | Class | Burden VA | Aperture | Lead length | Case | Wire colour | Dimensions H, W, D & A |
|-------------|-------|-------|-----------|----------|-------------|--------|-----------------------|------------------------|
| MSC1-60/1 | 60/1 | 3 | 0.1 | 18mm | 3m | Size 1 | White S1 and Black S2 | 57.3, 31, 53, 18 |
| MSC1-75/1 | 75/1 | 3 | 0.1 | 18mm | 3m | Size 1 | White S1 and Black S2 | 57.3, 31, 53, 18 |
| MSC1-80/1 | 80/1 | 3 | 0.15 | 18mm | 3m | Size 1 | White S1 and Black S2 | 57.3, 31, 53, 18 |
| MSC1-100/1 | 100/1 | 1 | 0.2 | 18mm | 3m | Size 1 | White S1 and Black S2 | 57.3, 31, 53, 18 |
| MSC2-100/1 | 100/1 | 1 | 1 | 18mm | 3m | Size 2 | White S1 and Black S2 | 72.7, 44.5, 61.5, 18 |
| MSC2-100/5 | 100/5 | 1 | 1 | 18mm | 1m | Size 2 | White S1 and Black S2 | 72.7, 44.5, 61.5, 18 |
| MSC2-150/1 | 150/1 | 1 | 1 | 18mm | 3m | Size 2 | White S1 and Black S2 | 72.7, 44.5, 61.5, 18 |
| MSC2-150/5 | 150/5 | 1 | 1 | 18mm | 1m | Size 2 | White S1 and Black S2 | 72.7, 44.5, 61.5, 18 |
| MSC2-200/1 | 200/1 | 1 | 1 | 18mm | 3m | Size 2 | White S1 and Black S2 | 72.7, 44.5, 61.5, 18 |
| MSC2-200/5 | 200/5 | 1 | 1 | 18mm | 1m | Size 2 | White S1 and Black S2 | 72.7, 44.5, 61.5, 18 |
| MSC2-250/1 | 250/1 | 1 | 1 | 18mm | 3m | Size 2 | White S1 and Black S2 | 72.7, 44.5, 61.5, 18 |
| MSC2-250/5 | 250/5 | 1 | 1 | 18mm | 1m | Size 2 | White S1 and Black S2 | 72.7, 44.5, 61.5, 18 |
| MSC3-300/1 | 300/1 | 1 | 1.5 | 28mm | 3m | Size 3 | White S1 and Black S2 | 71.7, 44.5, 62.2, 28 |
| MSC3-300/5 | 300/5 | 1 | 1.5 | 28mm | 1m | Size 3 | White S1 and Black S2 | 71.7, 44.5, 62.2, 28 |
| MSC3-400/1 | 400/1 | 1 | 2.5 | 28mm | 3m | Size 3 | White S1 and Black S2 | 71.7, 44.5, 62.2, 28 |
| MSC3-400/5 | 400/5 | 1 | 2.5 | 28mm | 1m | Size 3 | White S1 and Black S2 | 71.7, 44.5, 62.2, 28 |
| MSC3-500/1 | 500/1 | 1 | 2.5 | 28mm | 3m | Size 3 | White S1 and Black S2 | 71.7, 44.5, 62.2, 28 |
| MSC3-500/5 | 500/5 | 1 | 2.5 | 28mm | 1m | Size 3 | White S1 and Black S2 | 71.7, 44.5, 62.2, 28 |

3-in-1 Current Transformers

A range of 3-in-1 current transformers combine three traditional current transformers in one moulded case. 3-in-1 current transformers can be directly installed next to a three-phase moulded case circuit breaker, thus saving installation time where fitting three standard individual current transformers would be required. The M3N1 range of current transformers offers primary currents between 60-630A with 5A secondaries with up to Class 0.5 accuracy performance.



Specifications

| | |
|--------------------------------|--|
| System voltage: | 720V maximum |
| Test voltage: | 3kV for 1 minute |
| System frequency: | 50Hz or 60Hz |
| Primary ratings: | 60A to 630A |
| Short circuit thermal current: | 60 x rated primary current (Ith): for 1 sec |
| Overload withstand: | 1.2 x rated current continuously |
| Rated dynamic current: | = 2.55 x Ith |
| Secondary terminals: | M4 screw terminals |
| Enclosure: | Flame retardant grade classified UL 94V-O |
| Aperture holes centres: | 25, 35, 45mm |
| Operating temperature: | -20°C to +85°C |
| Accuracy: | Class 0.5, 1, 3 |
| Mounting hardware: | Plug-in metal feet for wall or base mounting Busbar and DIN-rail mounting |
| Compliant with: | IEC/EN60044-1 |

Features

- Cost effective three-phase moulded case
- Ratio's ranging from 60/5 to 630/5
- Integrated wire sealable terminal cover
- Busbar, DIN-rail and metal feet mounting hardware supplied
- Combined M4 posi/slot screw

Benefits

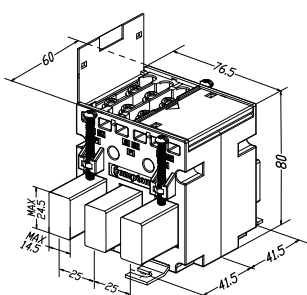
- Isolated output for safety
- Faster installation
- Compact size
- Ex-stock delivery

Applications

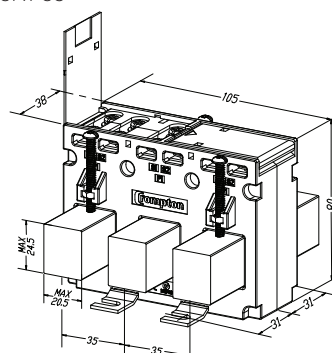
- Switchgear
- Distribution systems
- Generator sets
- Control panels

| Part number | Ratio | Burden VA against class index | | | Aperture (mm) |
|---------------|-------|-------------------------------|---------|---------|-----------------|
| | | Class 0.5 | Class 1 | Class 3 | |
| M3N1-25-60/5 | 60/5 | - | 1 | 2 | 3@14.5 x 24.5mm |
| M3N1-25-100/5 | 100/5 | - | 1.5 | 2.5 | 3@14.5 x 24.5mm |
| M3N1-25-125/5 | 125/5 | - | 1.5 | 2.5 | 3@14.5 x 24.5mm |
| M3N1-25-150/5 | 150/5 | 1.5 | 1.5 | 2.5 | 3@14.5 x 24.5mm |
| M3N1-25-160/5 | 160/5 | 1.5 | 1.5 | 2.5 | 3@14.5 x 24.5mm |
| M3N1-35-100/5 | 100/5 | - | 1.5 | 2 | 3@20.5 x 24.5mm |
| M3N1-35-125/5 | 125/5 | - | 1.5 | 2.5 | 3@20.5 x 24.5mm |
| M3N1-35-150/5 | 150/5 | - | 1.5 | 2.5 | 3@20.5 x 24.5mm |
| M3N1-35-160/5 | 160/5 | 1.5 | 1.5 | 2.5 | 3@20.5 x 24.5mm |
| M3N1-35-200/5 | 200/5 | 1.5 | 1.5 | 2.5 | 3@20.5 x 24.5mm |
| M3N1-35-250/5 | 250/5 | 1.5 | 1.5 | 2.5 | 3@20.5 x 24.5mm |
| M3N1-45-250/5 | 250/5 | 1.5 | 1.5 | 2.5 | 3@30.5 x 30.5mm |
| M3N1-45-300/5 | 300/5 | 2.5 | 2.5 | 3.75 | 3@30.5 x 30.5mm |
| M3N1-45-400/5 | 400/5 | 2.5 | 2.5 | 3.75 | 3@30.5 x 30.5mm |
| M3N1-45-500/5 | 500/5 | 2.5 | 2.5 | 3.75 | 3@30.5 x 30.5mm |
| M3N1-45-600/5 | 600/5 | 2.5 | 2.5 | 3.75 | 3@30.5 x 30.5mm |
| M3N1-45-630/5 | 630/5 | 2.5 | 2.5 | 3.75 | 3@30.5 x 30.5mm |

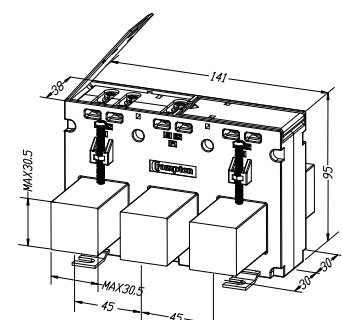
M3N1-25



M3N1-35



M3N1-45





DIN-rail Enclosure 3-in-1 Current Transformers

A range of 3-in-1 current transformers combine three traditional current transformers in one Low profile DIN-rail enclosure. 3-in-1 current transformers can be directly mounted onto a DIN-rail, thus saving installation time where fitting three standard individual current transformers would be required. The 3-in-1 range of current transformers offers primary currents between 50-250A with 5A secondaries with up to class 0.5 accuracy performance.

Features

- Cost effective three-phase moulded case
- Ratio's ranging from 50/5 to 250/5
- Two part connector for fast installation
- Complete with cable assembly

Benefits

- Long product life
- Faster installation
- Compact size

Applications

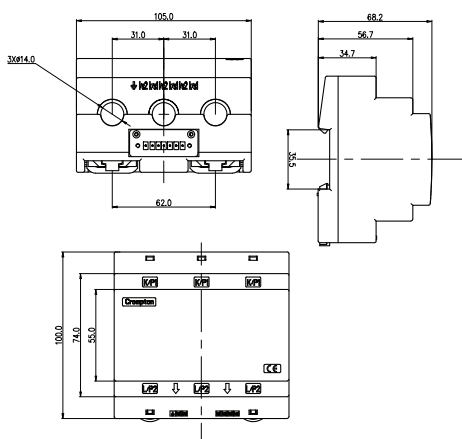
- Switchgear
- Distribution systems
- Generator sets
- Control panels

Specifications

| | | | |
|-------------------------------|--------------|--------------|---|
| System voltage | 720V maximum | Test voltage | 3kV for 1 minute |
| System frequency | | | 50Hz or 60Hz |
| Primary ratings | | | 50A to 160A |
| Short circuit thermal current | | | 60 x rated primary current (Ith): for 1 sec |
| Overload withstand | | | 1.2 x rated current continuously |
| Rated dynamic current | | | = 2.55 x Iht |
| Secondary terminals | | | 7 way screw clamp connector |
| Cable assembly | | | Open ended loom/harness CT fixed/open at meter connection, 1mm ² LSZH cable (lengths specified in part number table) |
| Enclosure | | | Flame retardant grade classified UL 94V-0 |
| Aperture holes centres | | | 31mm (cable through 13.5mm) upto 150A, 36mm (cable through 20mm) from 160-250A |
| Operating temperature | | | -20°C to +85°C |
| Accuracy Class | | | 0.5, 1, 3 |
| Compliant with | | | IEC/EN 60044-1 |

| Part number | Ratio | Class 0.5 VA | Class 1 VA | Class 3 VA | Aperture (mm) | No. of modules | Cable length (M) |
|-------------|--------|--------------|------------|------------|---------------|----------------|------------------|
| DR3N1-50/5 | 50/5A | - | 1 | 1.5 | 3@13.5 x 31 | 6 | 1 |
| DR3N1-60/5 | 60/5A | - | 1 | 1.5 | 3@13.5 x 31 | 6 | 1 |
| DR3N1-75/5 | 75/5A | - | 1.5 | 2 | 3@13.5 x 31 | 6 | 1 |
| DR3N1-80/5 | 80/5A | - | 1.5 | 2.5 | 3@13.5 x 31 | 6 | 1 |
| DR3N1-100/5 | 100/5A | 2.5 | 3 | 3.75 | 3@13.5 x 31 | 6 | 2 |
| DR3N1-125/5 | 125/5A | 2.5 | 3 | 3.75 | 3@13.5 x 31 | 6 | 2 |
| DR3N1-150/5 | 150/5A | 2.5 | 3.75 | 5 | 3@13.5 x 31 | 6 | 2 |
| DR3N1-160/5 | 160/5A | 1.5 | 2.5 | 3.75 | 3@20 x 36 | 7 | 2 |
| DR3N1-180/5 | 180/5A | 2.5 | 3 | 3.75 | 3@20 x 36 | 7 | 2 |
| DR3N1-200/5 | 200/5A | 2.5 | 3.75 | 5 | 3@20 x 36 | 7 | 2 |
| DR3N1-250/5 | 250/5A | 3.75 | 5 | 6.25 | 3@20 x 36 | 7 | 2 |

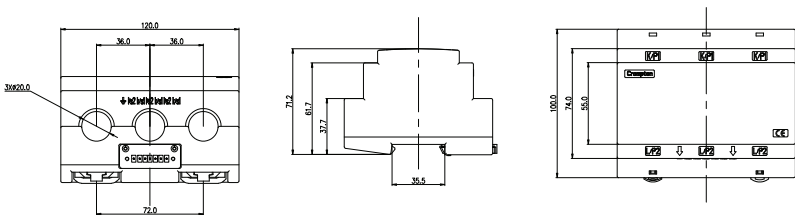
DR3N1-50/5A - 150/5A



Dimensions

| | Width | Aperture | Mounting | Number of modules (width) |
|---------------------|-------|----------|---------------|---------------------------|
| DR3N1-50/5A-150/5A | 105mm | 13.5mm | 35mm DIN-rail | 6 (31mm cable centres) |
| DR3N1-160/5A-250/5A | 120mm | 20mm | 35mm DIN-rail | 7 (36mm cable centres) |

DR3N1-160/5A - 250/5A



Ebony Moulded Case Current Transformers

The range of Crompton Instruments Ebony current transformers offers wide system current ratings, apertures, busbar and case sizes to suit every application. Manufactured to meet EN60044 the range benefits include ratio rating from 1/5 to 6000/5, accuracy up to Class 0.5, integral terminal cover for safety and multiple mounting options.

Construction

The toroidal core and secondary winding is encapsulated by a self-extinguishing polycarbonate moulded case cover providing excellent mechanical strength and electrical insulation. The material is halogen free thus reducing risk of halogen emissions in case of fire. The integral covered secondary terminals offer protection to IP20B and the enclosure is protected to IP40.

Installation Options

- Plug-in metal feet for wall or base mounting
- Plastic DIN-rail clips for DIN-rail mounting
- Moulded busbar mounting
- Primary copper busbar mounting
- Multi busbar mounting for two busbars

Specifications

| | |
|--|---|
| System voltage: | 720V maximum |
| Test voltage: | 3kV for 1 minute |
| System frequency: | 50/60Hz |
| Short circuit thermal current (I _{th})*: | 60 x rated primary current for 1 second |
| Overload withstand: | 1.2 x rated current continuously |
| Dynamic current (I _{dyn})*: | = 2.55 x I _{th} |
| Saturation coefficient: | <5 for through aperture models <10 for wound primary |
| Service temperature: | -20°C to 85°C |
| Insulation class: | Class E BS2757 IEC85 |
| Enclosure code: | IP40 |
| Integral terminal cover: | IP20B |
| Complies with: | IEC60044-1:2003 |
| Humidity: | Up to 95% RH (non condensing) |
| Secondary terminals screw clamp: | Up to 10mm ² cable |
| 'Fast On': | 6.3mm type |

Loss in copper wires between instrument and CT for 5A secondary

| 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 CT for 1A secondary

| 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 |



Features

- CT ratios from 1A to 6000A with 5A and 1A secondaries
- Accuracy up to Class 0.5
- Integral terminal cover
- High impact, flame retardant moulded case
- Busbar, DIN-rail or foot mounting options

Benefits

- Wide range of apertures and case sizes
- Reduction of high currents for ease of metering
- Long product life

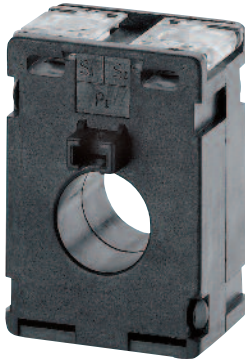
Approvals

- BSEN61010-1
- EN60044-1
- UL Recognized file no: E257877

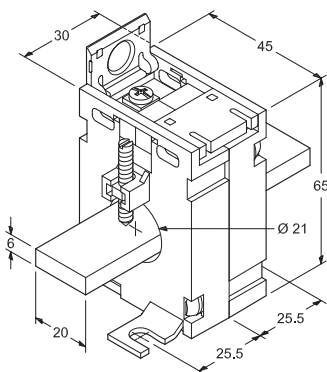
* Thermal current (I_{th}) & dynamic current (I_{dyn})

I_{th} is the highest primary current (effective value), the I_{dyn} is the highest primary current (Peak Value) that the CT can support for 1 second without damage, owing to excessive overloads with secondary short circuits.

M53Q Range



Case Size: 45mm wide x 30mm deep x 65mm high
 1.8" wide x 1.2" deep x 2.5" high
 Aperture: 20 x 6mm and 21mm diameter
 0.8" x 0.2" and 0.8" diameter
 Weight: 0.25Kg



- Mounting feet centres 26mm x 51mm

| Model type | Primary current | VA at Class 3 | VA at Class 1 |
|------------|-----------------|---------------|---------------|
| M53Q-50/5 | 50 | 1 | - |
| M53Q-60/5 | 60 | 1.25 | - |
| M53Q-75/5 | 75 | 1.5 | - |
| M53Q-80/5 | 80 | 1.25 | - |
| M53Q-100/5 | 100 | 2.5 | 1.5 |
| M53Q-125/5 | 125 | 3 | 2.5 |
| M53Q-150/5 | 150 | 3.75 | 2.5 |
| M53Q-200/5 | 200 | 5 | 3.75 |
| M53Q-250/5 | 250 | - | 5 |
| M53Q-300/5 | 300 | 7.5 | 5 |

Ordering Codes

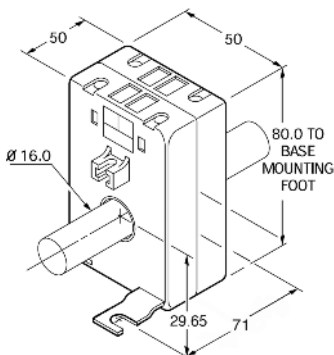
As above Change end suffix to depict required secondary.
 For example: M53Q-50/1

M30-DINCLIP DIN-rail mounting clip for DIN-rail mounting option
 (2 required)

M55E Range



Case Size: 50mm wide x 50mm deep x 80mm high
 2" wide x 2" deep x 3.1" high
 Aperture: 15 x 5mm and 16mm diameter
 0.6" x 0.2" diameter
 Weight: 0.4Kg



- Mounting feet centres 33mm x 71mm

| Model type | Primary current | VA at Class 3 | VA at Class 1 |
|------------|-----------------|---------------|---------------|
| M55E-30/5 | 30 | 1.25 | - |
| M55E-40/5 | 40 | 2.5 | - |
| M55E-50/5 | 50 | 2.5 | - |
| M55E-60/5 | 60 | 3.75 | 2.5 |
| M55E-75/5 | 75 | 5 | 3.75 |
| M55E-80/5 | 80 | 5 | 3.75 |
| M55E-100/5 | 100 | 7.5 | 5 |

Ordering Codes

As above Change end suffix to depict required secondary.
 For example: M55E-50/1

M50-DINCLIP (2 required)

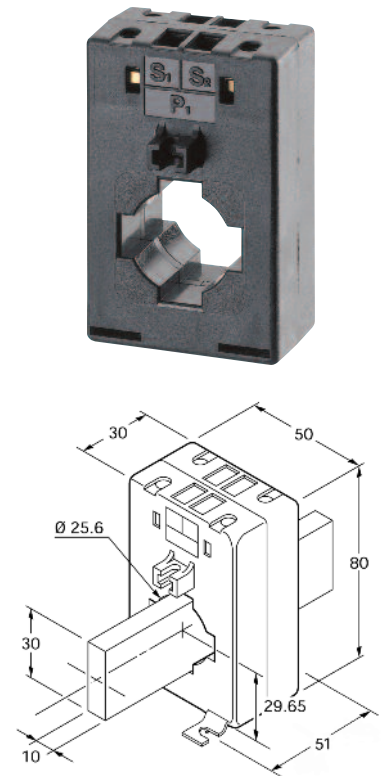
M53J Range

Case Size: 50mm wide x 30mm deep x 80mm high
 2" wide x 1.2" deep x 3.1" high
 Aperture: 30 x 10mm, 25 x 15mm and 20 x 20mm and 25mm diameter
 1.2" x 0.4", 1" x 0.6" and 0.8" x 0.8" and 1.0" diameter
 Weight: 0.22Kg

| Model type | Primary current | VA at Class 3 | VA at Class 1 |
|------------|-----------------|---------------|---------------|
| M53J-100/5 | 100 | 1.25 | - |
| M53J-125/5 | 125 | 1.25 | - |
| M53J-150/5 | 150 | 2.5 | - |
| M53J-160/5 | 160 | 2.5 | - |
| M53J-200/5 | 200 | 2.5 | 2.5 |
| M53J-250/5 | 250 | 3.75 | 2.5 |
| M53J-300/5 | 300 | 5 | 3.75 |
| M53J-400/5 | 400 | 7.5 | 3.75 |

Ordering Codes

| | |
|-------------|--|
| As above | Change end suffix to depict required secondary. For example: M53J-150/1 |
| M30-DINCLIP | DIN-rail mounting clip for DIN-rail mounting option (2 required) |



• Mounting feet centres 33mm x 51mm

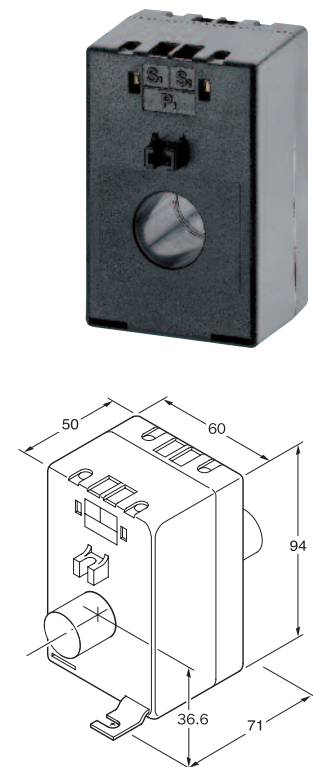
M65F Range

Case Size: 60mm wide x 50mm deep x 94mm high
 2.4" wide x 2" deep x 3.7" high
 Aperture: 20 x 10mm and 23mm diameter
 0.8" x 0.4", 0.9" diameter
 Weight: 0.4Kg

| Model type | Primary current | VA at Class 3 | VA at Class 1 | VA at Class 0.5 |
|------------|-----------------|---------------|---------------|-----------------|
| M65F-30/5 | 30 | 1.25 | - | - |
| M65F-40/5 | 40 | 2.5 | - | - |
| M65F-50/5 | 50 | 2.5 | - | - |
| M65F-60/5 | 60 | 3.75 | - | - |
| M65F-75/5 | 75 | 5 | 2.5 | - |
| M65F-80/5 | 80 | 5 | 2.5 | - |
| M65F-100/5 | 100 | 7.5 | 5 | 2.5 |
| M65F-125/5 | 125 | 7.5 | 5 | 2.5 |
| M65F-150/5 | 150 | 15 | 10 | 5 |
| M65F-200/5 | 200 | 20 | 15 | 7.5 |
| M65F-250/5 | 250 | 20 | 20 | 10 |
| M65F-300/5 | 300 | 30 | 30 | 10 |

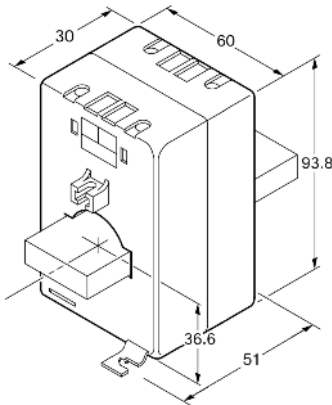
Ordering Codes

| | |
|-------------|--|
| As above | Change end suffix to depict required secondary. For example: M65F-150/1 |
| M50-DINCLIP | DIN-rail mounting clip for DIN-rail mounting option (2 required) |



• Mounting feet centres 42mm x 71mm

Consult factory for availability and lead time on 1A secondary.



- Mounting feet centres
42mm x 51mm

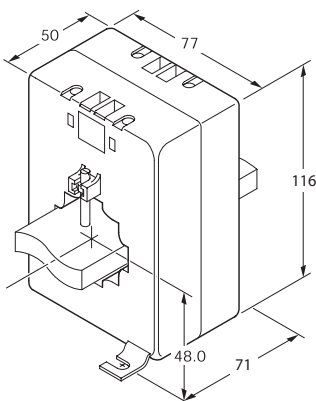
M63N Range

Case Size: 60mm wide x 30mm deep x 94mm high
 2.3" wide x 1.2" deep x 3.7" high
 Aperture: 40 x 10mm and 32mm diameter
 1.5" x 0.4" and 1.2" diameter
 Weight: 0.3Kg

| Model type | Primary current | VA at Class 3 | VA at Class 1 | VA at Class 0.5 |
|------------|-----------------|---------------|---------------|-----------------|
| M63N-200/5 | 200 | 2.5 | - | - |
| M63N-250/5 | 250 | 3.75 | 2.5 | - |
| M63N-300/5 | 300 | 5 | 3.75 | - |
| M63N-400/5 | 400 | 7.5 | 5 | - |
| M63N-500/5 | 500 | 10 | 7.5 | 3.75 |
| M63N-600/5 | 600 | 10 | 7.5 | 5 |
| M63N-750/5 | 750 | 15 | 10 | 7.5 |
| M63N-800/5 | 800 | 15 | 10 | 7.5 |

Ordering Codes

| | |
|-------------|--|
| As above | Change end suffix to depict required secondary. For example: M53J-150/1 |
| M30-DINCLIP | DIN-rail mounting clip for DIN-rail mounting option (2 required) |



- Mounting feet centres
58.5mm x 71mm

MA5G Range

Case Size: 77mm wide x 50mm deep x 116mm high
 3" wide x 2" deep x 4.5" high
 Aperture: 40 x 10mm, 30 x 30mm and 36mm diameter
 1.6" x 0.4", 1.2" x 1.2" and 1.4" diameter
 Weight: 0.6Kg

| Model type | Primary current | VA at Class 3 | VA at Class 1 | VA at Class 0.5 |
|-------------|-----------------|---------------|---------------|-----------------|
| MA5G-100/5 | 100 | 2.5 | - | - |
| MA5G-125/5 | 125 | 5 | 2.5 | - |
| MA5G-150/5 | 150 | 5 | 3.75 | - |
| MA5G-200/5 | 200 | 10 | 5 | 2.5 |
| MA5G-250/5 | 250 | 10 | 7.5 | 5 |
| MA5G-300/5 | 300 | 10 | 7.5 | 5 |
| MA5G-400/5 | 400 | 10 | 7.5 | 5 |
| MA5G-500/5 | 500 | 10 | 7.5 | 5 |
| MA5G-600/5 | 600 | 10 | 10 | 7.5 |
| MA5G-750/5 | 750 | 15 | 10 | 10 |
| MA5G-800/5 | 800 | 15 | 10 | 10 |
| MA5G-1000/5 | 1000 | 20 | 15 | 15 |

Ordering Codes

| | |
|-------------|--|
| As above | Change end suffix to depict required secondary. For example: MA5G-150/1 |
| M50-DINCLIP | DIN-rail mounting clip for DIN-rail mounting option (2 required) |

Consult factory for availability and lead time on 1A secondary.

MA5Y Range

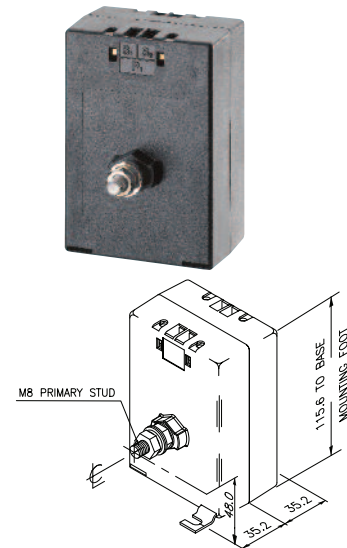
Case Size: 77mm wide x 50mm deep x 116mm high
 3" wide x 2" deep x 4.5" high
 Fixing: M8 stud primary bar
 Weight: 0.45Kg

| Model type | Primary current | VA at Class 3 | VA at Class 1 |
|------------|-----------------|---------------|---------------|
| MA5Y-1/5 | 1 | 7.5 | 5 |
| MA5Y-5/5 | 5 | 7.5 | 5 |
| MA5Y-10/5 | 10 | 7.5 | 5 |
| MA5Y-15/5 | 15 | 7.5 | 5 |
| MA5Y-20/5 | 20 | 7.5 | 5 |
| MA5Y-30/5 | 30 | 7.5 | 5 |
| MA5Y-40/5 | 40 | 7.5 | 5 |

Ordering Codes

As above Change end suffix to depict required secondary.
 For example: MA5Y-1/1

M50-DINCLIP DIN-rail mounting clip for DIN-rail mounting option (2 required)



- Mounting feet centres 58.5mm x 71mm

M93L Range

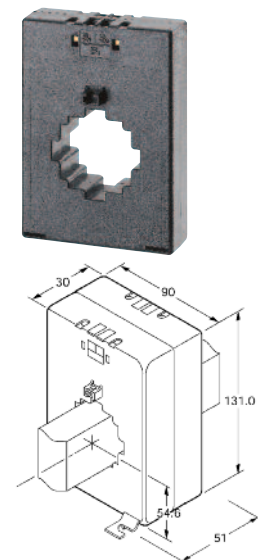
Case Size: 90mm wide x 30mm deep x 131mm high
 3.5" wide x 1.2" deep x 5.1" high
 Aperture: 50 x 10mm, 40 x 30mm and 42mm diameter
 2" x 0.4", 1.5" x 1.2" and 1.6" diameter
 Weight: 0.45Kg

| Model type | Primary current | VA at Class 3 | VA at Class 1 | VA at Class 0.5 |
|-------------|-----------------|---------------|---------------|-----------------|
| M93L-400/5 | 400 | 15 | 7.5 | 3.75 |
| M93L-500/5 | 500 | 20 | 15 | 5 |
| M93L-600/5 | 600 | 30 | 20 | 10 |
| M93L-750/5 | 750 | 20 | 15 | 7.5 |
| M93L-800/5 | 800 | 20 | 15 | 10 |
| M93L-1000/5 | 1000 | 20 | 20 | 15 |
| M93L-1200/5 | 1200 | 30 | 30 | 20 |
| M93L-1250/5 | 1250 | 30 | 30 | 20 |
| M93L-1500/5 | 1500 | 30 | 30 | 20 |
| M93L-1600/5 | 1600 | 30 | 30 | 20 |

Ordering Codes

As above Change end suffix to depict required secondary.
 For example: M93L-1000/1

M30-DINCLIP DIN-rail mounting clip for DIN-rail mounting option (2 required)



- Mounting feet centres 71.5mm x 51mm

M93R Range

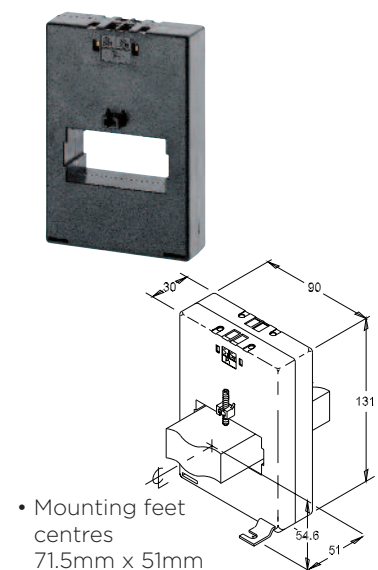
Case Size: 90mm wide x 30mm deep x 131mm high
 3.5" wide x 1.2" deep x 5.1" high
 Aperture: 64 x 12.6mm, 60 x 30mm
 2.5" x 0.5", 2.4" x 1.2"
 Weight: 0.6Kg

| Model type | Primary current | VA at Class 3 | VA at Class 1 | VA at Class 0.5 |
|------------|-----------------|---------------|---------------|-----------------|
| M93R | 800/5 | 10 | 10 | 5 |
| M93R | 1000/5 | 10 | 10 | 7.5 |
| M93R | 1200/5 | 10 | 15 | 10 |
| M93R | 1250/5 | 10 | 15 | 10 |
| M93R | 1500/5 | 10 | 20 | 15 |
| M93R | 1600/5 | 10 | 20 | 15 |
| M93R | 2000/5 | 10 | 20 | 20 |

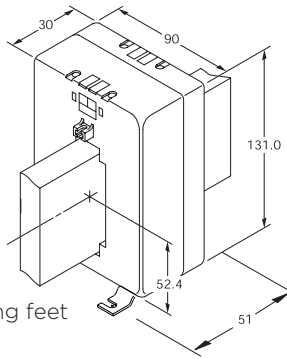
Ordering Codes

As above Change end suffix to depict required secondary.
 For example: M93R-1000/1

M30-DINCLIP DIN-rail mounting clip for DIN-rail mounting option (2 required)



- Mounting feet centres 71.5mm x 51mm



- Mounting feet centres
71.5mm x 51mm

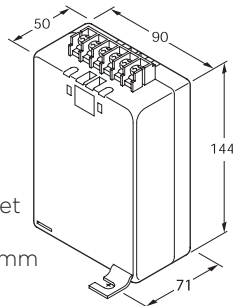
M93S Range

Case Size: 90mm wide x 30mm deep x 131mm high
 3.5" wide x 1.2" deep x 5.1" high
 Aperture: 76.5 x 19mm, 60 x 30mm
 3.0" x 0.7", 2.4" x 1.2"
 Weight: 0.7Kg

| Model type | Primary current | VA at Class 3 | VA at Class 1 | VA at Class 0.5 |
|--------------|-----------------|---------------|---------------|-----------------|
| M93S-800/5A | 800 | 10 | 10 | 5 |
| M93S-1000/5A | 1000 | 150 | 10 | 7.5 |
| M93S-1200/5A | 1200 | 20 | 15 | 10 |
| M93S-1250/5A | 1250 | 20 | 20 | 15 |
| M93S-1500/5A | 1500 | 20 | 20 | 15 |
| M93S-1600/5A | 1600 | 30 | 20 | 15 |
| M93S-2000/5 | 2000 | 30 | 20 | 15 |

Ordering Codes

As above Change end suffix to depict required secondary.
 For example: M93S-1000/1
 M30-DINCLIP DIN-rail mounting clip for DIN-rail mounting option (2 required)



- Mounting feet centres
71.5mm x 71mm

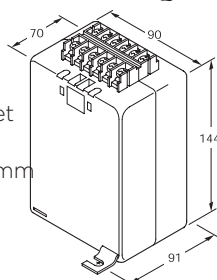
S95P Range

Case Size: 90mm wide x 50mm deep x 144mm high
 3.5" wide x 2" deep x 5.7" high
 Weight: 0.9Kg - 1.11Kg

| Model type | Primary current | VA at Class 1 |
|------------|-----------------|---------------|
| S95P-5/5 | 5 + 5 = 5 | 5 |
| S95P-5/5/5 | 5 + 5 + 5 = 5 | 5 |

Ordering Codes

As above Change end suffix to depict required secondary.
 For example: S95P-1/1
 M50-DINCLIP DIN-rail mounting clip for DIN-rail mounting option (2 required)



- Mounting feet centres
71.5mm x 91mm

S97P Range

Case Size: 90mm wide x 50mm deep x 144mm high
 3.5" wide x 2" deep x 5.7" high
 Weight: 0.9Kg - 1.11Kg

| Model type | Primary current | VA at Class 1 |
|------------------|---------------------------|---------------|
| S97P-5/5/5/5 | 5 + 5 + 5 + 5 = 5 | 5 |
| S97P-5/5/5/5/5 | 5 + 5 + 5 + 5 + 5 = 5 | 5 |
| S97P-5/5/5/5/5/5 | 5 + 5 + 5 + 5 + 5 + 5 = 5 | 5 |

Ordering Codes

As above Change end suffix to depict required secondary.
 For example: S95P-1/1

Consult factory for availability and lead time on 1A secondary.

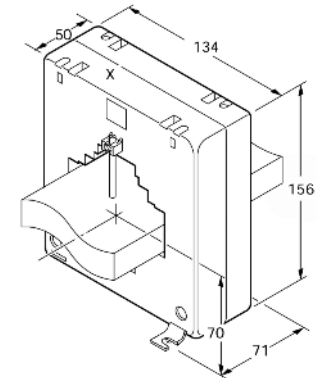
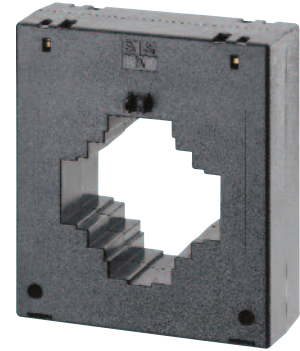
MB5D Range

Case Size: 134mm wide x 50mm deep x 156mm high
 5.2" wide x 2" deep x 6.1" high
 Aperture: 80 x 30mm, 60 x 30mm, 50 X 50mm and 63mm diameter
 3.1" x 1.2", 2.3" x 1.2", 2 x 2" and 2.4" diameter
 Weight: 0.5Kg

| Model type | Primary current | VA at Class 3 | VA at Class 1 | VA at Class 0.5 |
|-------------|-----------------|---------------|---------------|-----------------|
| MB5D-400/5 | 400 | 15 | 10 | 7.5 |
| MB5D-500/5 | 500 | 20 | 15 | 10 |
| MB5D-600/5 | 600 | 15 | 10 | 5 |
| MB5D-750/5 | 750 | 15 | 10 | 5 |
| MB5D-800/5 | 800 | 20 | 15 | 7.5 |
| MB5D-1000/5 | 1000 | 22.5 | 20 | 10 |
| MB5D-1200/5 | 1200 | 30 | 20 | 15 |
| MB5D-1250/5 | 1250 | 30 | 20 | 15 |
| MB5D-1500/5 | 1500 | 30 | 20 | 15 |
| MB5D-1600/5 | 1600 | 40 | 30 | 20 |
| MB5D-2000/5 | 2000 | 50 | 40 | 30 |

Ordering Codes

As above Change end suffix to depict required secondary.
 For example: MB5D-1600/1



- Mounting feet centres 105mm x 71mm
- Mounting hole centres 110mm x 6.6mm

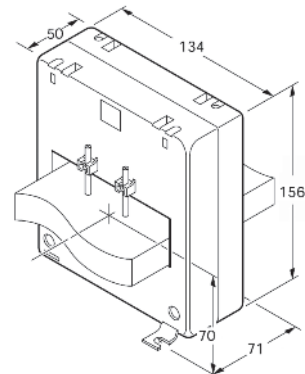
MB5Z Range

Case Size: 134mm wide x 50mm deep x 156mm high
 5.2" wide x 2" deep x 6.1" high
 Aperture: 104 x 35mm, 35mm diameter
 4" x 1.3" and 1.3" diameter
 Weight: 0.7Kg

| Model type | Primary current | VA at Class 3 | VA at Class 1 | VA at Class 0.5 |
|-------------|-----------------|---------------|---------------|-----------------|
| MB5Z-750/5 | 750 | 15 | 7.5 | 2.5 |
| MB5Z-800/5 | 800 | 20 | 10 | 2.5 |
| MB5Z-1000/5 | 1000 | 22.5 | 15 | 7.5 |
| MB5Z-1200/5 | 1200 | 30 | 20 | 10 |
| MB5Z-1250/5 | 1250 | 30 | 20 | 15 |
| MB5Z-1500/5 | 1500 | 30 | 20 | 15 |
| MB5Z-1600/5 | 1600 | 30 | 20 | 15 |
| MB5Z-2000/5 | 2000 | 30 | 20 | 15 |
| MB5Z-2400/5 | 2400 | 30 | 20 | 15 |
| MB5Z-2500/5 | 2500 | 30 | 20 | 15 |
| MB5Z-3000/5 | 3000 | 30 | 20 | 15 |
| MB5Z-4000/5 | 4000 | 30 | 20 | 15 |

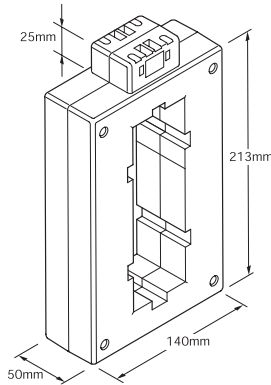
Ordering Codes

As above Change end suffix to depict required secondary.
 For example: MB5Z-1600/1



- Mounting feet centres 105mm x 71mm
- Mounting hole centres 110mm x 6.6mm

Consult factory for availability and lead time on 1A secondary.



- Hole for M6 diameter screws or busbar mounting

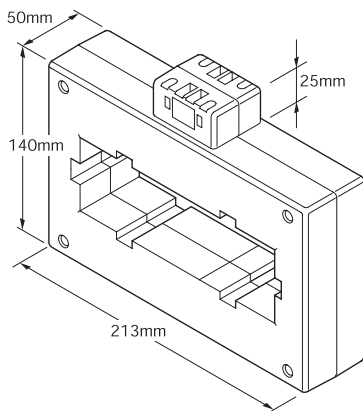
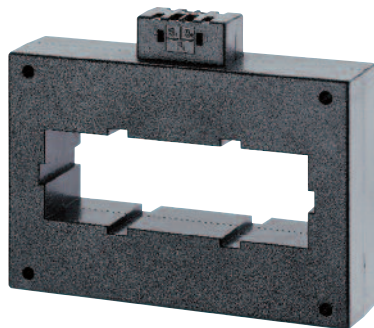
MC5T Range

Case Size: 140mm wide x 50mm deep x 238mm high
 5.5" wide x 2" deep x 9.3" high
 Aperture: 160 x 50mm
 6.3" x 2"
 Weight: +/-1.5Kg

| Model type | Primary current | VA at Class 3 | VA at Class 1 | VA at Class 0.5 |
|-------------|-----------------|---------------|---------------|-----------------|
| MC5T-1600/5 | 1600 | 45 | 30 | 20 |
| MC5T-2000/5 | 2000 | 45 | 30 | 20 |
| MC5T-2500/5 | 2500 | 60 | 45 | 30 |
| MC5T-3000/5 | 3000 | 60 | 45 | 30 |
| MC5T-3200/5 | 3200 | 60 | 45 | 30 |
| MC5T-4000/5 | 4000 | 60 | 45 | 30 |
| MC5T-5000/5 | 5000 | 60 | 45 | 30 |
| MC5T-6000/5 | 6000 | 60 | 45 | 30 |

Ordering Codes

As above Change end suffix to depict required secondary.
 For example: MC5T-1600/1



- Hole for M6 diameter screws or busbar mounting

MD5T Range

Case Size: 213mm wide x 50mm deep x 165mm high
 8.3" wide x 2" deep x 6.5" high
 Aperture: 160 x 50mm
 6.3" x 2"
 Weight: +/-1.5Kg

| Model type | Primary current | VA at Class 3 | VA at Class 1 | VA at Class 0.5 |
|-------------|-----------------|---------------|---------------|-----------------|
| MD5T-1600/5 | 1600 | 45 | 30 | 20 |
| MD5T-2000/5 | 2000 | 45 | 30 | 20 |
| MD5T-2500/5 | 2500 | 60 | 45 | 30 |
| MD5T-3000/5 | 3000 | 60 | 45 | 30 |
| MD5T-3200/5 | 3200 | 60 | 45 | 30 |
| MD5T-4000/5 | 4000 | 60 | 45 | 30 |
| MD5T-5000/5 | 5000 | 60 | 45 | 30 |
| MD5T-6000/5 | 6000 | 60 | 45 | 30 |

Ordering Codes

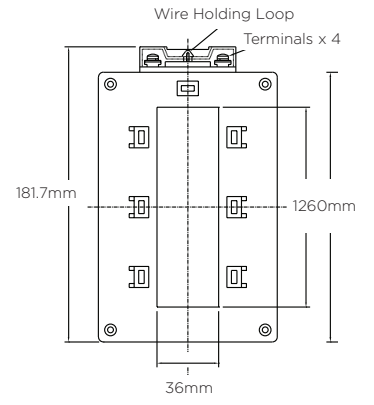
As above Change end suffix to depict required secondary.
 For example: MD5T-1600/1

Consult factory for availability and lead time on 1A secondary.

Busbar Mounting RS125

Dimensions: 110mm wide x 62mm deep x 182mm high
 Hole: 126 x 36mm
 Weight: 0.6Kg

| Ratio range | VA at Class 3 | VA at Class 1 | VA at Class 0.5 | Cat. no. | Delivery |
|-------------|---------------|---------------|-----------------|--------------|----------|
| 800/5 | - | 30 | 15 | RS125-800/5 | C |
| 1000/5 | - | 30 | 15 | RS125-1000/5 | C |
| 1200/5 | - | 30 | 15 | RS125-1200/5 | A |
| 1250/5 | - | 30 | 15 | RS125-1250/5 | A |
| 1500/5 | - | 30 | 15 | RS125-1500/5 | A |
| 1600/5 | - | 30 | 15 | RS125-1600/5 | A |
| 2000/5 | - | 30 | 15 | RS125-2000/5 | A |
| 2500/5 | - | 30 | 15 | RS125-2500/5 | A |
| 3000/5 | - | 30 | 15 | RS125-3000/5 | A |
| 3500/5 | - | 30 | 15 | RS125-3500/5 | A |
| 4000/5 | - | 30 | 15 | RS125-4000/5 | A |



Moulded Case Overview Range

| Type | MA5Y | | M53Q | | M55E | | M53J | | M65F | | M63N | | MA5G | | M93L | |
|----------------------------------|---------|---|------|---|------|---|-------|---|-------|---|-------|---|-------|---|-------|---|
| Inside diameter (mm) | | | 21 | | 16.2 | | 25 | | 23 | | 32 | | 36 | | 32 | |
| Busbar | M8 Stud | | 20x6 | | 15x5 | | 30x10 | | 20x10 | | 40x10 | | 40x10 | | 50x10 | |
| | | | | | | | 25x15 | | | | | | 30x30 | | 40x30 | |
| | | | | | | | 20x20 | | | | | | | | | |
| Dimensions (mm) | | | | | | | | | | | | | | | | |
| Height | 116 | | 65 | | 80 | | 80 | | 94 | | 94 | | 116 | | 131 | |
| Width | 77 | | 45 | | 50 | | 50 | | 60 | | 60 | | 77 | | 90 | |
| Depth | 50 | | 30 | | 50 | | 50 | | 50 | | 30 | | 50 | | 30 | |
| DIN-rail mounting | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Foot mounting | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Integrated terminal cover | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Secondary | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 |
| Primary current | | | | | | | | | | | | | | | | |
| 1 | X | X | | | | | | | | | | | | | | |
| 5 | X | X | | | | | | | | | | | | | | |
| 10 | X | X | | | | | | | | | | | | | | |
| 15 | X | X | | | | | | | | | | | | | | |
| 20 | X | X | | | X | X | | | | | | | | | | |
| 30 | X | X | | | X | X | | X | X | | | | | | | |
| 40 | X | X | | | X | X | | X | X | | | | | | | |
| 50 | | | X | X | X | X | | X | X | | | | | | | |
| 60 | | | X | X | X | X | | X | X | | | | | | | |
| 75 | | | X | X | X | X | | X | X | | | | | | | |
| 80 | | | X | X | X | | | X | X | | | | | | | |
| 100 | | | X | X | X | X | X | X | X | | | X | X | | | |
| 125 | | | X | X | | | X | X | X | | | X | X | | | |
| 150 | | | X | X | | | X | X | X | | | X | X | | | |
| 160 | | | | | | | X | | | | | | | | | |
| 200 | | | X | X | | | X | X | X | X | X | X | X | | | |
| 250 | | | X | X | | | X | X | X | X | X | X | X | | | |
| 300 | | | X | X | | | X | X | X | X | X | X | X | | | |
| 400 | | | | | | | X | | | | X | X | X | X | X | |
| 500 | | | | | | | | | | | X | X | X | X | X | |
| 600 | | | | | | | | | | | X | X | X | X | X | |
| 750 | | | | | | | | | | | X | X | X | X | X | |
| 800 | | | | | | | | | | | X | X | X | X | X | |
| 1000 | | | | | | | | | | | | X | X | X | X | |
| 1200 | | | | | | | | | | | | | | | X | |
| 1250 | | | | | | | | | | | | | | | | |
| 1500 | | | | | | | | | | | | | | | X | |
| 1600 | | | | | | | | | | | | | | | X | |
| 2000 | | | | | | | | | | | | | | | | |
| 2500 | | | | | | | | | | | | | | | | |
| 3000 | | | | | | | | | | | | | | | | |
| 3200 | | | | | | | | | | | | | | | | |
| 4000 | | | | | | | | | | | | | | | | |
| 5000 | | | | | | | | | | | | | | | | |
| 6000 | | | | | | | | | | | | | | | | |
| 5 + 5 = 5 | | | | | | | | | | | | | | | | |
| 5 + 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 + 1 = 1 | | | | | | | | | | | | | | | | |
| 1 + 1 + 1 + 1 = 1 | | | | | | | | | | | | | | | | |
| 1 + 1 + 1 + 1 + 1 = 1 | | | | | | | | | | | | | | | | |
| 1 + 1 + 1 + 1 + 1 + 1 = 1 | | | | | | | | | | | | | | | | |

Consult factory for availability and lead time on 1A secondary.

Moulded Case Overview Range

| Type | M93S | | M93R | | MB5D | | MB5Z | | MC5T | | MD5T | | S95 | | S97 | |
|----------------------------------|---------|---|---------|---|-------|---|--------|---|--------|---|--------|---|-----|---|-----|---|
| Inside diameter (mm) | | | | | 63 | | 35 | | | | | | | | | |
| Busbar | 60x30 | | 60x30 | | 80x30 | | 104x35 | | 50x160 | | 160x50 | | | | | |
| | 76.5x19 | | 64x12.6 | | 60x30 | | | | | | | | | | | |
| | | | | | 50x50 | | | | | | | | | | | |
| Dimensions (mm) | | | | | | | | | | | | | | | | |
| Height | 131 | | 131 | | 156 | | 156 | | 238 | | 165 | | 144 | | 144 | |
| Width | 90 | | 90 | | 134 | | 134 | | 140 | | 213 | | 90 | | 90 | |
| Depth | 30 | | 30 | | 50 | | 50 | | 50 | | 50 | | 50 | | 70 | |
| DIN-rail mounting | X | X | X | X | | | | | | | | | X | X | | |
| Foot mounting | X | X | X | X | X | X | X | X | | | | | X | X | X | X |
| Integrated terminal cover | X | X | X | X | X | X | X | X | X | X | X | | | | | |
| Secondary | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 | 5 | 1 |
| Primary current | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | | | | |
| 50 | | | | | | | | | | | | | | | | |
| 60 | | | | | | | | | | | | | | | | |
| 75 | | | | | | | | | | | | | | | | |
| 80 | | | | | | | | | | | | | | | | |
| 100 | | | | | | | | | | | | | | | | |
| 125 | | | | | | | | | | | | | | | | |
| 150 | | | | | | | | | | | | | | | | |
| 160 | | | | | | | | | | | | | | | | |
| 200 | | | | | | | | | | | | | | | | |
| 250 | | | | | | | | | | | | | | | | |
| 300 | | | | | | | | | | | | | | | | |
| 400 | | | | | X | X | | | | | | | | | | |
| 500 | | | | | X | X | | | | | | | | | | |
| 600 | | | | | X | X | | | | | | | | | | |
| 750 | | | | | X | X | X | X | | | | | | | | |
| 800 | X | X | X | X | X | X | X | X | | | | | | | | |
| 1000 | X | X | X | X | X | X | X | X | | | | | | | | |
| 1200 | X | X | X | X | X | X | X | X | | | | | | | | |
| 1250 | X | X | X | X | X | X | X | X | | | | | | | | |
| 1500 | X | X | X | X | X | X | X | X | | | | | | | | |
| 1600 | X | X | X | X | X | X | X | X | X | X | X | X | | | | |
| 2000 | X | X | X | X | X | X | X | X | X | X | X | X | | | | |
| 2500 | | | | | | | X | X | X | X | X | X | | | | |
| 3000 | | | | | | | X | X | X | X | X | X | | | | |
| 4000 | | | | | | | X | X | X | X | X | X | | | | |
| 5000 | | | | | | | | | X | | X | | | | | |
| 6000 | | | | | | | | | X | | X | | | | | |
| 5 + 5 = 5 | | | | | | | | | | | | | X | | | |
| 5 + 5 + 5 = 5 | | | | | | | | | | | | | X | | | |
| 5 + 5 + 5 + 5 = 5 | | | | | | | | | | | | | | | X | |
| 5 + 5 + 5 + 5 + 5 = 5 | | | | | | | | | | | | | | | X | |
| 5 + 5 + 5 + 5 + 5 + 5 = 5 | | | | | | | | | | | | | | | X | |
| 1 + 1 = 1 | | | | | | | | | | | | | | X | | |
| 1 + 1 + 1 = 1 | | | | | | | | | | | | | | X | | |
| 1 + 1 + 1 + 1 = 1 | | | | | | | | | | | | | | | | X |
| 1 + 1 + 1 + 1 + 1 = 1 | | | | | | | | | | | | | | | | X |
| 1 + 1 + 1 + 1 + 1 + 1 = 1 | | | | | | | | | | | | | | | | X |

Consult factory for availability and lead time on 1A secondary.

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