

EBONY MOULDED CASE CURRENT TRANSFORMERS



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

Applications

- BS EN61010-1
- 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.

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

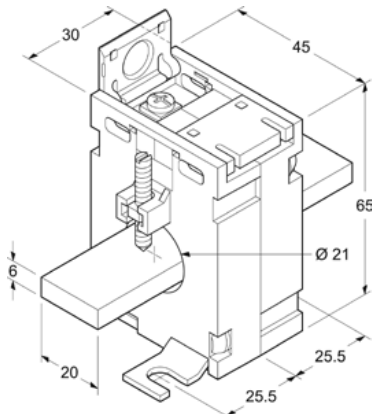
Wire section in mm ²	Loss in VA (for both wires)					
	1m	2m	4m	6m	8m	10m
1.5	0.60	1.19	2.38	3.57	4.76	5.95
2.5	0.36	0.71	1.43	2.14	2.86	3.57
4	0.22	0.45	0.89	1.34	1.79	2.23
6	0.15	0.30	0.60	0.89	1.19	1.49
10	0.09	0.18	0.36	0.54	0.71	0.89

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



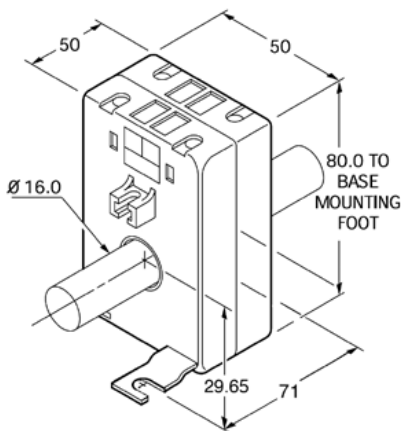
Dimensions



- Mounting feet centres 26mm x 51mm



Dimensions



- Mounting feet centres 33mm x 71mm

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

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
M50-DINCLIP	DIN-rail mounting clip for DIN-rail mounting option (2 required) (3G00501)

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

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) (3G00501)