

MR SERIES MEASURING RANGE



Features

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

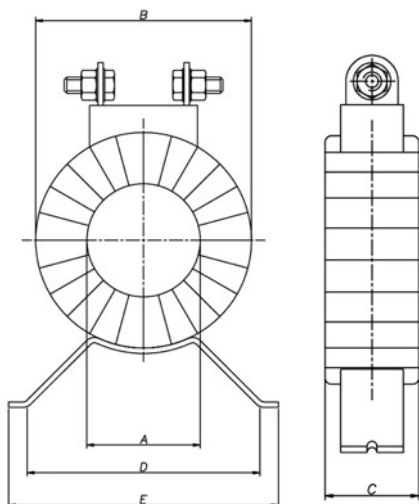
Benefits

- Long product life

Applications

- Switchgear
- Control panels
- Overload protection
- Control devices

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.

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	60 x rated primary current for 1 second current (Ith)*:
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

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

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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,
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