

CURRENT TRANSFORMERS FOR THERMAL RELAYS



MB



2P - 2M - 2G

- **Primary current from 1 to 600 A**
- **Insulation 0.75/4 kV**
- **Compact size**

These transformers have been designed to be associated with differential thermal relays such as LR1, LR2, or LT6 from Telemecanique for motor protection.

They have a well defined saturation curve, depending on the relay, on whether 2 or 3 CTs are fitted and on the motor starting time. Due to their compact size, they are particularly suitable for withdrawable Motor Control Centers.

They are compatible with Schneider Electric relays:

- MIU 21 - 16
- MIU 21 - 64
- MIU 22 - 16
- MIU 22 - 64

Technical data

Highest voltage for equipment	0,72 kV
Power-frequency withstand voltage	3 kV
Primary current I _{pn}	1 to 600 A
Secondary current I _{sn}	1 A
Frequency	50 or 60 Hz
Continuous thermal current	1.2 I _{pn}
Short-time thermal current I _{th}	up to 80 I _{pn} .1s
Dynamic current I _{dyn}	2.5 I _{th}
Insulation class	E
Ambient temperature	- 25°C to + 40°C
Case	Thermoplastic UL94 V0
Standards	IEC 60044 - IEC 61869 - NF C42502 VDE 0414 - BS 7626

Other characteristics on request

Highest voltage for equipment	1200 V
Power-frequency withstand voltage	6000 V
Ambient temperature	- 40°C to +70°C
Secondary current	5 A

Accessories / Options

Mounting brackets	EA type
Sealable terminal cover	Only on 1PB - RB - PB models
Tropicalization	

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Selection guide

Relay	Burden	3 CTs assembly		2 CTs assembly	
		short start	long start	short start	long start
LR1 - LR2 or similar	2 Ω	S 11	S 12	S 13	S 14
LT6		S 17	S 17	-	-

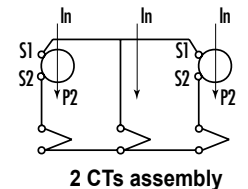
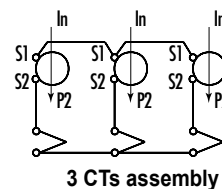
In motor from... to...(A)	Ip A	S 11		S 12		S 13		S 14		S 17	
		Type	model	Type	model	Type	model	Type	model	Type	model
0.65 - 0.90	1	S11 - 1	MB	S 12 - 1	MB	S 13 - 1	GB	S 14 - 1	MB	-	-
0.95 - 1.27	1,5	S11 - 1,5	MB	S12 - 1,5	MB	S13 - 1,5	GB	S14 - 1,5	MB	-	-
1,26 - 1,70	2	S11 - 2	MB	S12 - 2	MB	S13 - 2	GB	S14 - 2	MB	-	-
1.65 - 2.12	2,5	S11 - 2,5	MB	S12 - 2,5	MB	S13 - 2,5	GB	S14 - 2,5	MB	-	-
1.89 - 2.55	3	S11 - 3	MB	S12 - 3	MB	S13 - 3	GB	S14 - 3	MB	-	-
2.52 - 3.40	4	S11 - 4	MB	S12 - 4	MB	S13 - 4	GB	S14 - 4	MB	-	-
3.25 - 4.25	5	S11 - 5	MB	S12 - 5	MB	S13 - 5	GB	S14 - 5	MB	-	-
3.90 - 5.10	6	S11 - 6	MB	S12 - 6	MB	S13 - 6	GB	S14 - 6	MB	-	-
4.87 - 6.40	7,5	S11 - 7,5	MB	S12 - 7,5	MB	S13 - 7,5	GB	S14 - 7,5	MB	-	-
6.40 - 8.50	10	S11 - 10	MB	S12 - 10	MB	S13 - 10	GB	S14 - 10	MB	-	-
8.15 - 10.50	12,5	S11 - 12,5	MB	S12 - 12,5	MB	S13 - 12,5	GB	S14 - 12,5	MB	-	-
10.40 - 13.60	16	S11 - 16	MB	S12 - 16	MB	S13 - 16	GB	S14 - 16	MB	-	-
13 - 16	20	S11 - 20	MB	S12 - 20	MB	S13 - 20	GB	S14 - 20	MB	-	-
15.6 - 19.5	24	S11 - 24	MB	S12 - 24	MB	S13 - 24	GB	S14 - 24	MB	-	-
19.5 - 27	30	S11 - 30	MB	S12 - 30	MB	S13 - 30	GB	S14 - 30	MB	S17 - 30	GB
26 - 33	40	S11 - 40	MB	S12 - 40	MB	S13 - 40	GB	S14 - 40	MB	S17 - 40	GB
32.5 - 40	50	S11 - 50	MB	S12 - 50	1P	S13 - 50	GB	S14 - 50	MB	S17 - 50	GB
39 - 50	60	S11 - 60	MB	S12 - 60	1P	S13 - 60	GB	S14 - 60	1P	S17 - 60	GB
49 - 66	75	S11 - 75	2G	S12 - 75	1P	S13 - 75	GB	S14 - 75	1P	S17 - 75	GB
65 - 82	100	S11 - 100	2G	S12 - 100	1P	S13 - 100	2G	S14 - 100	1P	S17 - 100	2G
81 - 105	125	S11 - 125	2G	S12 - 125	1P	S13 - 125	2G	S14 - 125	1P	S17 - 125	2G
104 - 131	160	S11 - 160	2M	S12 - 160	2P	S13 - 160	2G	S14 - 160	2P	S17 - 160	2G
130 - 160	200	S11 - 200	2M	S12 - 200	2P	S13 - 200	2G	S14 - 200	2P	S17 - 200	2G
156 - 209	240	S11 - 240	2P	S12 - 240	2P	S13 - 240	2G	S14 - 240	2P	S17 - 240	2G
208 - 264	320	S11 - 320	2P	S12 - 320	2P	S13 - 320	2M	S14 - 320	2P	S17 - 320	2M
260 - 326	400	S11 - 400	2P	S12 - 400	2P	S13 - 400	2M	S14 - 400	2P	S17 - 400	2M
325 - 450	500	S11 - 500	2P	S12 - 500	2P	S13 - 500	2M	S14 - 500	2P	S17 - 500	2M
451 - 550	600	S11 - 600	2P	S12 - 600	2P	S13 - 600	2M	S14 - 600	2P	S17 - 600	2M

Dimensions

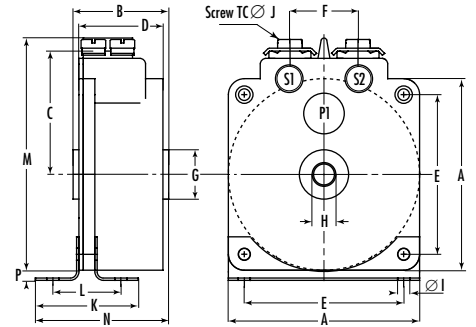
Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
1P	58	27	45	25	48	16	15	8,5	4.2	M 5	36	23	84	-	4
2P	66	26	43	23	55	25	22	12.5	4.2	M 5	36	24	80	39	3.5
2M	66	31	43	29	55	25	22	12.5	4.2	M 5	36	23	80	45	3.5
2G	66	52	43	47	55	25	22	12.5	4.2	M 5	36	23	80	64	3.5
MB	66	33	43	29	55	25	17	M 8	4.2	M 5	35	23	80	45	3.5
GB	66	52	43	47	55	25	17	M 8	4.2	M 5	35	23	80	64	3.5

Installation

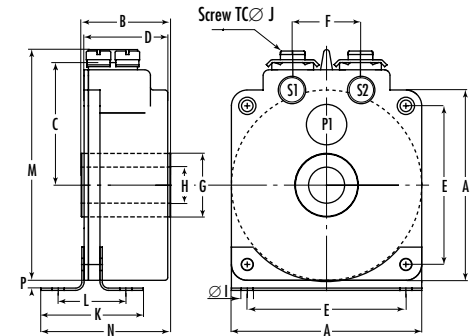
- M5 secondary terminal tightening torque = 2.5Nm
- For an efficient motor protection, it is recommended to use the 3 CTs assembly. When the rated current is above 600A, use 2 CTs: the first on a busbar with 5A secondary current which will supply power to a S11-5 or a S12-5. The thermal relay, associated to this range of CTs, can be located at any distance from the motor.



MB - GB with EA type brackets



2P - 2M - 2G with EA type brackets



1P with EA type brackets

