

Operating and installation conditions

Doing the setting or calculating the tripping time for a given temperature:

After having determine the corrected ratio I/I_n , the tripping time at 40 °C is defined with the tripping curves (see page E-2 to page E-3).

To obtain the right setting or the tripping time at a different temperature, the ratio I/I_n has to be corrected with the correction factor below:

Correction factor table for thermal magnetic (TM-D) NSXm to determine setting or tripping time at I_n

Rating (A) I_n	Temperature °C	10	15	20	25	30	35	40	45	50	55	60	65	70
16		1.16	1.13	1.11	1.08	1.05	1.03	1.00	0.97	0.94	0.91	0.88	0.85	0.81
25		1.13	1.11	1.09	1.07	1.05	1.02	1.00	0.98	0.95	0.93	0.90	0.88	0.85
32		1.14	1.11	1.09	1.07	1.05	1.02	1.00	0.98	0.95	0.93	0.90	0.87	0.84
40		1.15	1.12	1.10	1.08	1.05	1.03	1.00	0.97	0.95	0.92	0.89	0.86	0.83
50		1.13	1.11	1.09	1.07	1.05	1.02	1.00	0.98	0.95	0.93	0.90	0.87	0.85
63		1.14	1.12	1.10	1.07	1.05	1.02	1.00	0.97	0.95	0.92	0.89	0.86	0.83
80		1.21	1.18	1.14	1.11	1.07	1.04	1.00	0.96	0.92	0.88	0.83	0.80	0.75
100		1.18	1.16	1.12	1.10	1.06	1.04	1.00	0.96	0.94	0.90	0.87	0.83	0.80
125		1.17	1.14	1.11	1.08	1.06	1.03	1.00	0.96	0.93	0.90	0.87	0.84	0.80
160		1.17	1.15	1.12	1.09	1.06	1.03	1.00	0.97	0.93	0.90	0.87	0.83	0.79

Doing the right setting depending of the temperature:

Example: What is the setting to obtain a real I_r of 105 A, taking into account the temperature, for a Compact NSXm 125 A?

The necessary dial setting, in amperes, is shown below.

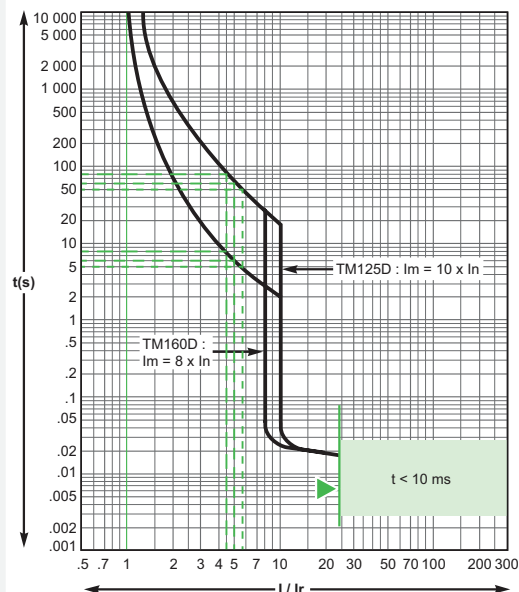
- At 40 °C, $I_r = 105 / 1 = 105$ A
- At 20 °C, $I_r = 105 / 1.11 = 95$ A
- At 60 °C, $I_r = 105 / 0.87 = 121$ A.

Calculating the tripping time at $I_r = I_n$ for a given temperature:

Example: What is the tripping time of a Compact NSXm 100A at $I_r = I_n$ for an overload of 500 A?

- At 40 °C, $I/I_r = 5$, tripping time is between 6 and 60 seconds
- At 20 °C, $I/I_r = 5 / 1.12 = 4.46$, tripping time is between 8 and 80 seconds
- At 60 °C, $I/I_r = 5 / 0.87 = 5.75$, tripping time is between 5 and 50 seconds

For $I_r = 0.7$ to $0.9 I_n$, additional correction factor need to be applied - please consult us.



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