

Thermal Magnetic Circuit Breaker

NSX with TMD Trip Unit

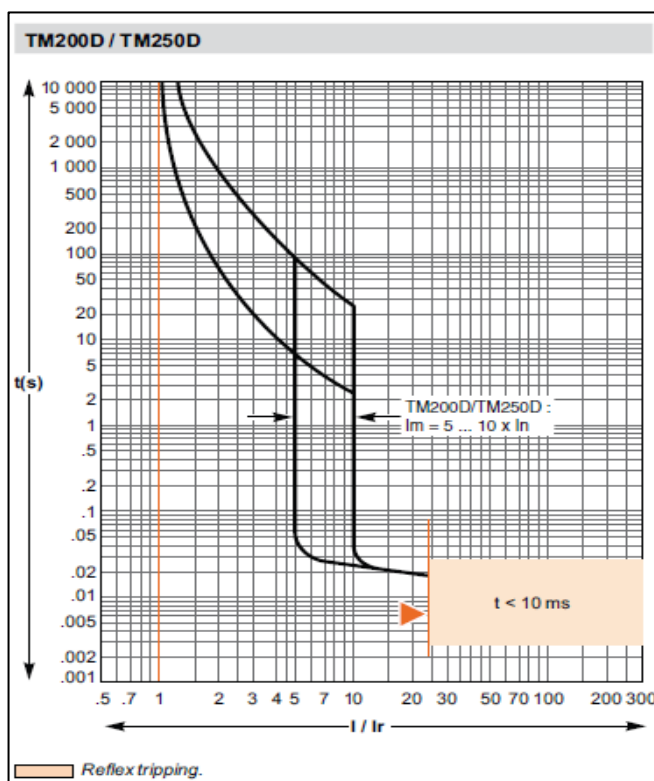
Rated Voltage to earth with Cmin (230 Vac x 0.95) = **218.5**

Catalogue Number	Long Time Setting (Ir)	Thermal Setting A	Short Time		
			Setting (Im @ 0.4s)	Current * A	Upper limit Zs (ohms)
NSX 100 - TM16D	1	16	Fixed	190	0.96
	0.9	14			
	0.8	13			
	0.7	11			
NSX 100 - TM25D	1	25	Fixed	300	0.61
	0.9	23			
	0.8	20			
	0.7	18			
NSX 100 - TM32D	1	32	Fixed	400	0.46
	0.9	29			
	0.8	26			
	0.7	22			
NSX 100 - TM40D	1	40	Fixed	500	0.36
	0.9	36			
	0.8	32			
	0.7	28			
NSX 100 - TM50D	1	50	Fixed	500	0.36
	0.9	45			
	0.8	40			
	0.7	35			
NSX 100 - TM63D	1	63	Fixed	500	0.36
	0.9	57			
	0.8	50			
	0.7	44			
NSX 100 - TM80D	1	80	Fixed	640	0.28
	0.9	72			
	0.8	64			
	0.7	56			
NSX 100 - TM100D	1	100	Fixed	800	0.23
	0.9	90			
	0.8	80			
	0.7	70			
NSX 160 - TM125D	1	125	Fixed	1,250	0.146
	0.9	113			
	0.8	100			
	0.7	88			
NSX 160 - TM160D	1	160	Fixed	1,250	0.146
	0.9	144			
	0.8	128			
	0.7	112			
NSX 250 - TM200D	1	200	10	2,000	0.091
	0.9	180	9	1,800	0.101
	0.8	160	8	1,600	0.114
	0.7	140	7	1,400	0.130
			6	1,200	0.152
NSX 250 - TM250D	1	250	5	1,000	0.182
			10	2,500	0.073
	0.9	225	9	2,250	0.081
	0.8	200	8	2,000	0.091
	0.7	175	7	1,750	0.104
			6	1,500	0.121
			5	1,250	0.146

* The short time tripping current tolerance level + - 20% this is included in the formula below represented as 1.2*

The value of Earth Loop Impedance (Zs) for a circuit breaker may be calculated by dividing the current required to trip at the required tripping time into the phase to earth voltage of the system.

$$\text{The earth fault loop impedance } Z_s \text{ (Ohms)} = \frac{\text{Rated Voltage to earth Vac}}{(\text{Device operating Current (A)} \times 1.2)}$$



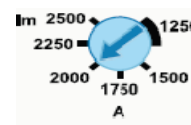
Example Trip curve 200, 250A circuit breaker



Circuit Breaker rating 250A

Long Time Settings

Current Rating = Ir x (In) Circuit Breaker Nominal Rating
Ir = 0.7, 0.8, 0.9, 1



Short Time Settings

Tripping Level = Im x (In) Circuit Breaker Nominal Rating
125 & 160A Im = fixed
200 & 250A Im = 5, 6, 7, 8, 9, 10 x (In) Nominal rating