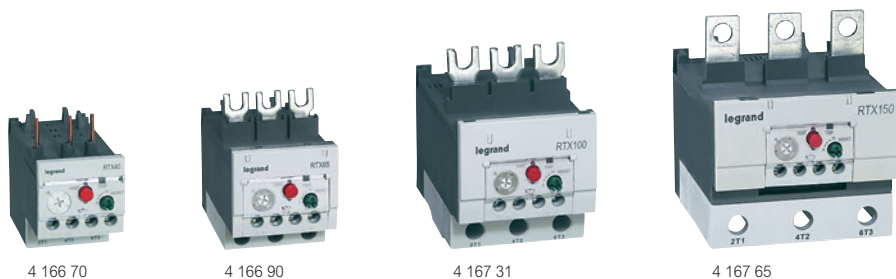


Thermal relays RTX³

for CTX³ 3-pole industrial contactors



Technical characteristics **p. 188**
 Dimensions and coordination with circuit breakers **see e-catalogue**

Thermal protection against overloads, long starting times and lasting stalling of the motor
 Differential type ensures a better protection in case of one phase failure thanks to faster tripping
 Conform to IEC 60 947-1, IEC 60 947-4-1

Pack	Cat.Nos		Thermal overload relays	
			Class 10A Integrated auxiliary contacts 1 NO + 1 NC	
			RTX³ 40	
			For CTX ³ 22 and 40 With screw terminals	
			Adjustment range	
	Type		I min. (A)	I max. (A)
	standard diff.			
1	4 166 40 4 166 60		0.1	0.16
1	4 166 41 4 166 61		0.16	0.25
1	4 166 42 4 166 62		0.25	0.4
1	4 166 43 4 166 63		0.4	0.63
1	4 166 44 4 166 64		0.63	1
1	4 166 45 4 166 65		1	1.6
1	4 166 46 4 166 66		1.6	2.5
1	4 166 47 4 166 67		2.5	4
1	4 166 48 4 166 68		4	6
1	4 166 49 4 166 69		5	8
1	4 166 50 4 166 70		6	9
1	4 166 51 4 166 71		7	10
1	4 166 52 4 166 72		9	13
1	4 166 53 4 166 73		12	18
1	4 166 54 4 166 74		16	22
1	4 166 55 4 166 75		18	25
1	4 166 56 4 166 76		22	32
1	4 166 57 4 166 77		28	40
			RTX³ 65	
			For CTX ³ 65 Standard type with screw terminals Differential type with cage terminals	
1	4 166 83 4 167 03		9	13
1	4 166 84 4 167 04		12	18
1	4 166 85 4 167 05		16	22
1	4 166 86 4 167 06		18	25
1	4 166 87 4 167 07		24	36
1	4 166 88 4 167 08		28	40
1	4 166 89 4 167 09		34	50
1	4 166 90 4 167 10		45	65



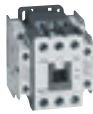














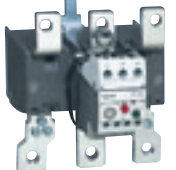
Pack	Cat. Nos		Thermal overload relays (continued)	
			Class 10A Integrated auxiliary contacts 1 NO + 1 NC	
			RTX³ 100	
			For CTX ³ 100 Standard type with screw terminals Differential type with cage terminals	
			Adjustment range	
	Type		I min. (A)	I max. (A)
	standard diff.			
1	4 167 23 4 167 43		18	25
1	4 167 24 4 167 44		24	36
1	4 167 25 4 167 45		28	40
1	4 167 26 4 167 46		34	50
1	4 167 27 4 167 47		45	65
1	4 167 28 4 167 48		54	75
1	4 167 29 4 167 49		63	85
1	4 167 30 4 167 50		70	95
1	4 167 31 4 167 51		80	100
			RTX³ 150	
			For CTX ³ 150 Standard type with screw terminals Differential type with cage terminals	
1	4 167 60 4 167 70		45	65
1	4 167 61 4 167 71		54	75
1	4 167 62 4 167 72		63	85
1	4 167 63 4 167 73		80	105
1	4 167 64 4 167 74		95	130
1	4 167 65 4 167 75		110	150
			Separate mounting units	
			To mount the relays separately from contactors, on DIN rail or panel by fixing screws	
1	4 165 91		For RTX ³ 40 up to 32 A	
1	4 165 92		For RTX ³ 40 40 A	
1	4 165 93		For RTX ³ 65 with screw terminals	
1	4 165 94		For RTX ³ 65 with cage terminals	
1	4 165 95		For RTX ³ 100 with screw terminals	
1	4 165 96		For RTX ³ 100 with cage terminals	
1	4 165 97		For RTX ³ 150 with screw terminals	
1	4 165 98		For RTX ³ 150 with cage terminals	

For dimensions and coordination
 with circuit breakers
see e-catalogue



3-pole contactors CTX³ and thermal overload relays RTX³

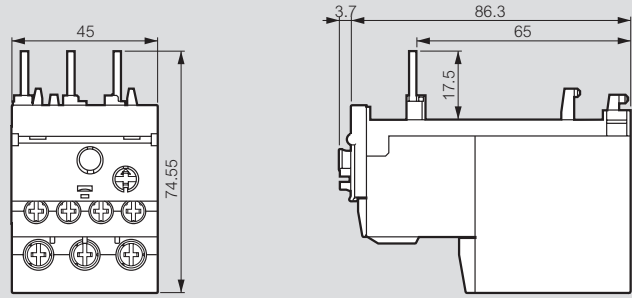
technical characteristics

																												
Contactor		CTX ³ mini				CTX ³ 22				CTX ³ 40		CTX ³ 65		CTX ³ 100			CTX ³ 150		CTX ³ 225		CTX ³ 400			CTX ³ 800				
Size		-				2				3		4		5			6		7		8			9				
Terminals type		screw				screw				screw		screw or cage		screw or cage			screw or cage		screw		screw			screw				
Rated operational voltage, U _e		690 V				690 V				690 V		690 V		690 V			690 V		690 V		690 V			690 V				
Rated insulation voltage, U _i		690 V				690 V				1000 V		1000 V		1000 V			1000 V		1000 V		1000 V			1000 V				
Rated frequency		50/60 Hz				50/60 Hz				50/60 Hz		50/60 Hz		50/60 Hz			50/60 Hz		50/60 Hz		50/60 Hz			50/60 Hz				
Rated impulse withstand voltage, U _{imp}		6 kV				6 kV				8 kV		8 kV		8 kV			8 kV		8 kV		8 kV			8 kV				
Max. operating rate in operation cycle per hour (AC-3)		1800				1800				1800		1800		1800			1200		1200		1200			1200				
Durability in millions of operations		Mechanical																										
		Electrical																										
Type		6 A	9 A	12 A	16 A	9 A	12 A	18 A	22 A	32 A	40 A	50 A	65 A	75 A	85 A	100 A	130 A	150 A	185 A	225 A	265 A	330 A	400 A	500 A	630 A	800 A		
Current and power		AC-1		Thermal current (A)																								
				20	20	20	20	25	25	40	40	50	60	70	100	110	135	160	160	210	230	275	300	350	450	580	660	900
		AC-3		200/240 V (kW)																								
				1.5	2.2	3	4	2.5	3.5	4.5	5.5	7.5	11	15	18.5	22	25	30	37	45	55	75	80	90	125	147	190	220
				(A)																								
				7	9	12	15	11	13	18	22	32	40	55	65	75	85	105	130	150	185	225	265	330	400	500	630	800
				380/440 V (kW)																								
				2.2	4	5.5	7.5	4	5.5	7.5	11	15	18.5	22	30	37	45	55	60	75	90	132	147	160	200	265	330	440
				(A)																								
				6	9	12	16	9	12	18	22	32	40	50	65	75	85	105	130	150	185	225	265	330	400	500	630	800
				500/550 V (kW)																								
				3	3.7	4	5.5	4	7.5	7.5	15	18.5	22	30	33	37	45	55	60	70	110	132	147	160	225	265	330	500
		(A)																										
		5	6	7	9	7	12	13	20	28	32	43	60	64	75	85	90	100	180	200	225	280	350	400	500	720		
		690 V (kW)																										
		3	4	4	4	4	7.5	7.5	15	18.5	22	30	33	37	45	55	55	55	110	140	160	200	250	300	400	500		
		(A)																										
		4	5	5	5	5	9	9	18	20	23	28	35	42	45	65	60	60	120	150	185	225	300	380	420	630		
		1000 V (kW)																										
		-	-	-	-	-	-	-	-	22	22	30	30	37	27	37	75	75	132	132	147	147	147	220	220	220		
		(A)																										
		-	-	-	-	-	-	-	-	17	17	23	23	28	28	28	53	53	90	90	105	105	105	280	280	280		
UL rating 50/60 Hz		Continuous current (A)																										
		20	20	20	20	25	25	40	40	50	60	70	100	110	135	160	160	210	230	275	300	350	450	580	660	900		
		Single phase																										
		1/2	1/2	1	-	0.5	0.75	1	2	2	3	3	5	5	7.5	10	10	15	15	15	-	-	-	-	-	-		
		220/240 V (HP)																										
		1	1.5	2	-	1.5	2	3	3	5	7.5	10	15	15	15	20	20	25	30	40	-	-	-	-	-	-		
		Three phase																										
		-	-	-	-	2	3	5	7.5	7.5	15	20	25	25	30	30	40	40	60	60	75	100	125	150	200	200		
		220/240 V (HP)																										
		1.5	3	3	-	3	5	7.5	10	10	15	25	30	30	40	40	40	50	60	75	100	125	150	200	300			
		440/480 V (HP)																										
		3	5	7.5	-	5	7.5	10	15	20	30	40	50	50	60	75	75	100	125	150	200	250	300	400	500			
		550/600 V (HP)																										
		3	5	7.5	-	7.5	10	15	20	25	30	50	60	60	75	75	75	75	125	150	200	250	300	400	500			
		(A)																										
		00	00	00	0	00	00	0	1	1	1	2	2	2	3	3	3	4	4	4	5	5	5	6	6	7		
NEMA size		00	00	00	0	00	00	0	1	1	1	2	2	2	3	3	3	4	4	4	5	5	5	6	6	7		
Weight and size		AC control		Weight (kg)																								
				0.17	0.17	0.17	0.17	0.34	0.34	0.34	0.34	0.4	0.4	0.9	0.9	1.6	1.6	2.4	2.4	5.4	5.4	9.2	9.2	22.4	22.4	22.4		
		DC control		Size (W x H x D) (mm)																								
				45 x 58 x 57	45 x 58 x 57	45 x 58 x 57	45 x 58 x 57	45 x 73.5 x 87.4	45 x 73.5 x 87.4	45 x 73.5 x 87.4	45 x 73.5 x 87.4	45 x 83 x 90	45 x 83 x 90	55 x 106 x 119	55 x 106 x 119	70 x 140 x 135.8	70 x 140 x 135.8	95 x 158 x 130.3	95 x 158 x 130.3	138 x 203 x 185.1	138 x 203 x 185.1	163 x 243 x 204.4	163 x 243 x 204.4	285 x 312 x 245.3	285 x 312 x 245.3	285 x 312 x 245.3		
		Weight (kg)																										
		0.23	0.23	0.23	0.23	0.41	0.41	0.41	0.41	0.6	0.6	1.2	1.2	2.6	2.6	2.4	2.4	5.4	5.4	9.2	9.2	22.4	22.4	22.4				
		Size (W x H x D) (mm)																										
		45 x 58 x 69	45 x 58 x 69	45 x 58 x 69	45 x 58 x 69	45 x 73.5 x 103.6	45 x 73.5 x 103.6	45 x 73.5 x 103.6	45 x 73.5 x 103.6	45 x 83 x 117.1	45 x 83 x 117.1	55 x 106 x 146.4	55 x 106 x 146.4	70 x 140 x 172.3	70 x 140 x 172.3	95 x 158 x 130.3	95 x 158 x 130.3	138 x 203 x 185.1	138 x 203 x 185.1	163 x 243 x 204.4	163 x 243 x 204.4	285 x 312 x 245.3	285 x 312 x 245.3	285 x 312 x 245.3				
Integrated auxiliary contacts		1 NO or 1 NC				1 NO + 1 NC				2 NO + 2 NC		2 NO + 2 NC		2 NO + 2 NC			2 NO + 2 NC		2 NO + 2 NC		2 NO + 2 NC			2 NO + 2 NC				
Add on auxiliary block		Side mounting																										
		Yes				Yes				Yes		Yes		Yes		Yes			Yes		Yes		Yes			Yes		
		Front mounting																										
		Yes				Yes				Yes		Yes		Yes		Yes			No		No		No			No		
Thermal overload relay		RTX ³ mini				RTX ³ 40				RTX ³ 40		RTX ³ 65		RTX ³ 100			RTX ³ 150		RTX ³ 225		RTX ³ 400			RTX ³ 800				
																												
Terminals type		-				screw				screw		screw		screw			screw		-		-			-				
		screw				screw				screw		cage		cage			screw		screw		screw			screw				
Rated operational voltage, U _e		690 V				690 V				690 V		690 V		690 V			690 V		690 V		690 V			690 V				
Rated insulation voltage, U _i		690 V				690 V				690 V		690 V		690 V			690 V		690 V		690 V			690 V				
Rated impulse withstand voltage, U _{imp}		6 kV				6 kV				6 kV		6 kV		6 kV			6 kV		6 kV		6 kV			6 kV				
Trip class		10 A				10 A				10 A		10 A		10 A			10 A		10 A		10 A			10 A				
Setting		0.1 to 16 A				0.1 to 40 A				0.1 to 40 A		9 to 65 A		18 to 100 A			45 to 150 A		65 to 240 A		85 to 400 A			200 to 800 A				
Weight and size		Weight (kg)																										
		0.1	0.1	0.1	0.1	0.17	0.17	0.17	0.17	0.17	0.17	0.31/0.33	0.31/0.33	0.48/0.5	0.48/0.5	0.67	0.67	2.5	2.5	2.6	2.6	11.5	11.5	11.5				
		Size (W x H x D) (mm)																										
		45 x 73 x 63	45 x 73 x 63	45 x 73 x 63	45 x 73 x 63	45 x 75 x 90	45 x 75 x 90	45 x 75 x 90	45 x 75 x 90	45 x 75 x 90	45 x 75 x 90	55 x 81 x 100	55 x 81 x 100	70 x 97 x 110	70 x 97 x 110	95 x 109 x 113	95 x 109 x 113	147 x 141 x 184	147 x 141 x 184	151 x 171 x 198	151 x 171 x 198	360 x 530 x 212	360 x 530 x 212	360 x 530 x 212				

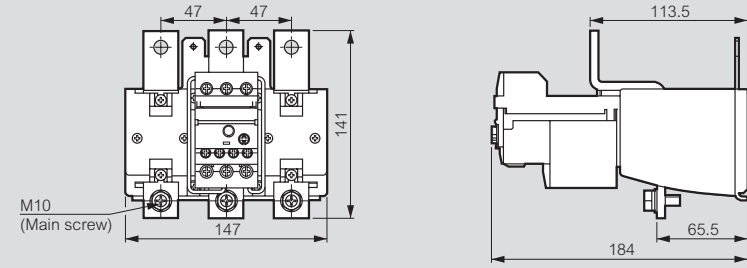
Thermal relays RTX³ - screw type terminals

dimensions

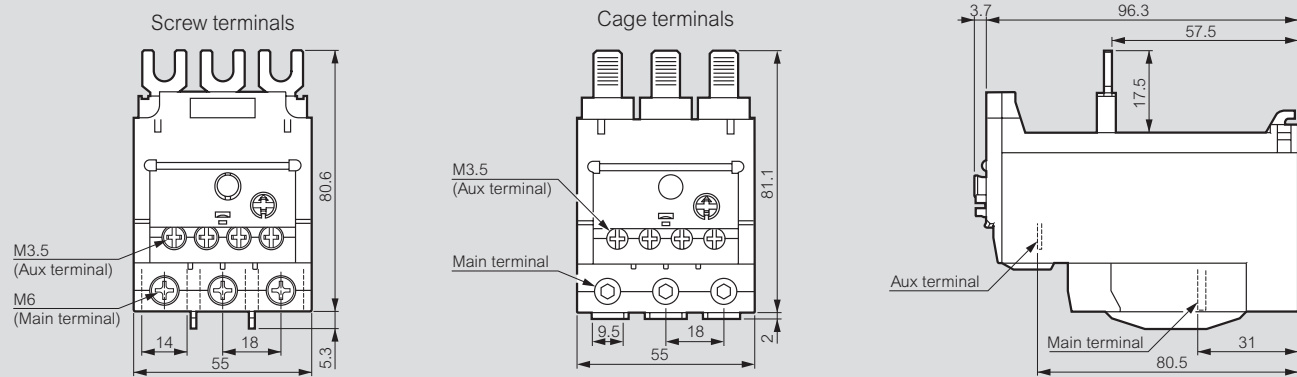
RTX³ 40



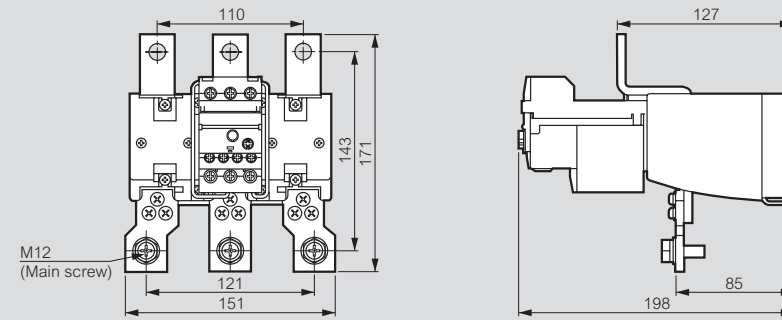
RTX³ 225



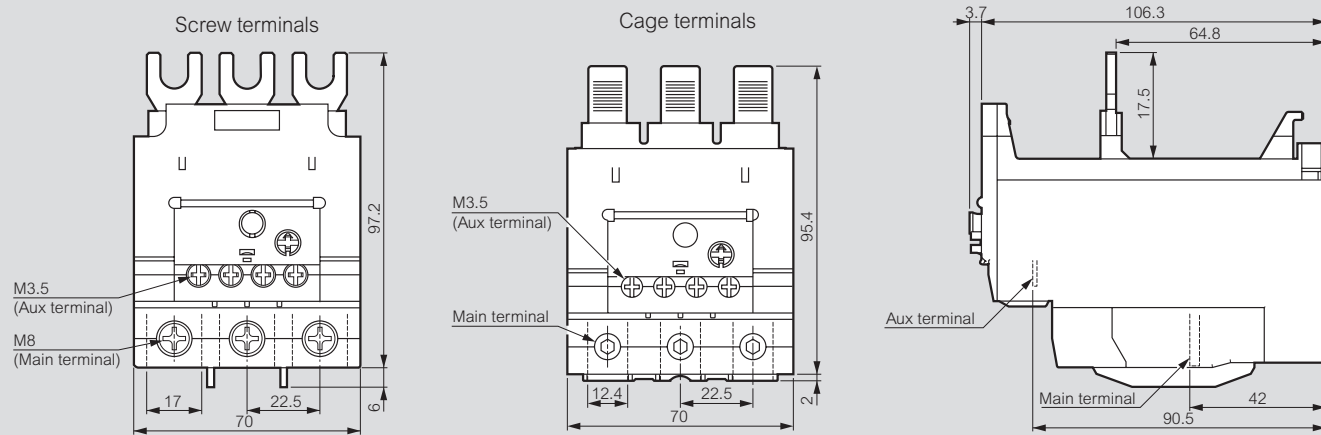
RTX³ 65



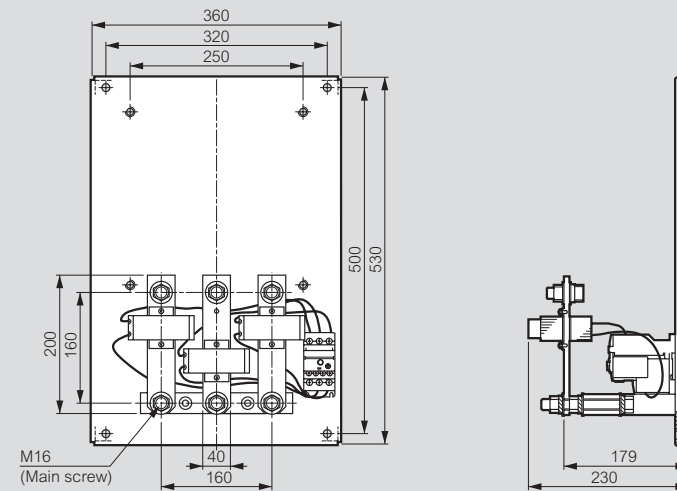
RTX³ 400



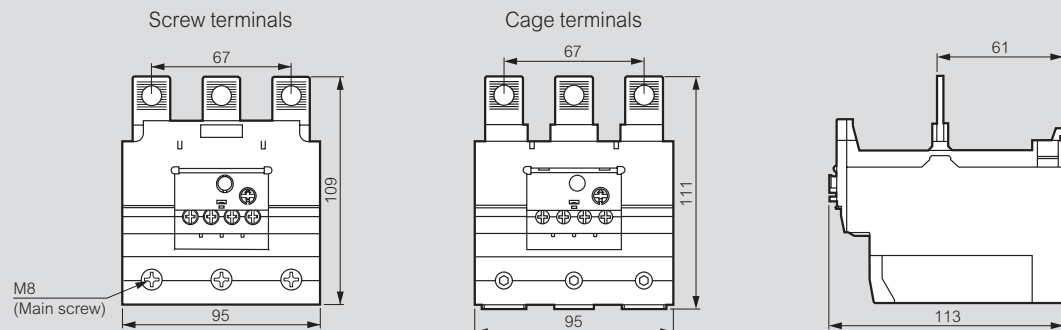
RTX³ 100



RTX³ 800



RTX³ 150

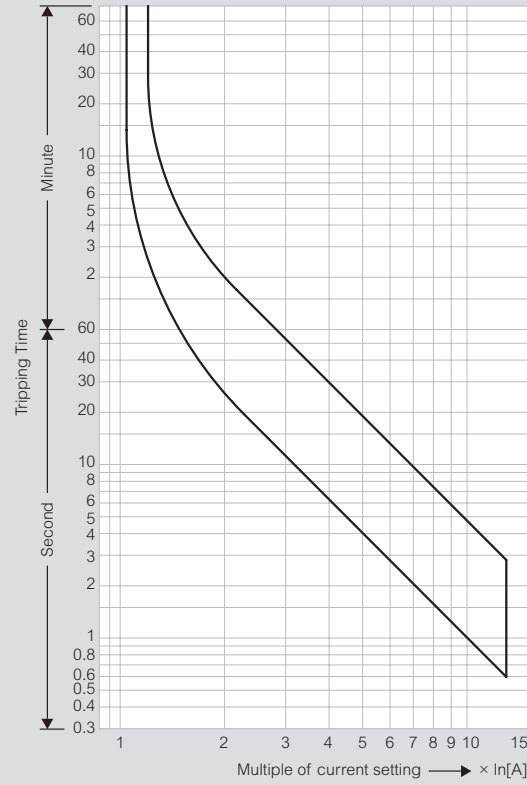


Thermal relays RTX³

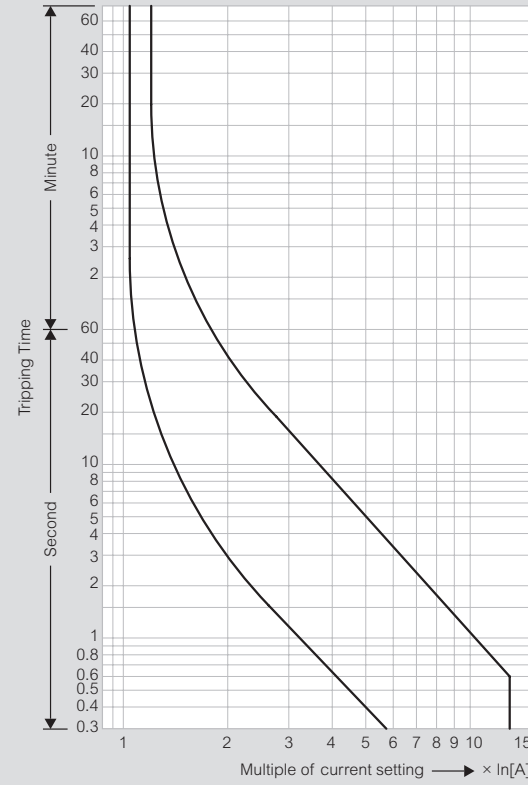
tripping curves

RTX³ 40 - class 10A

Cold starting

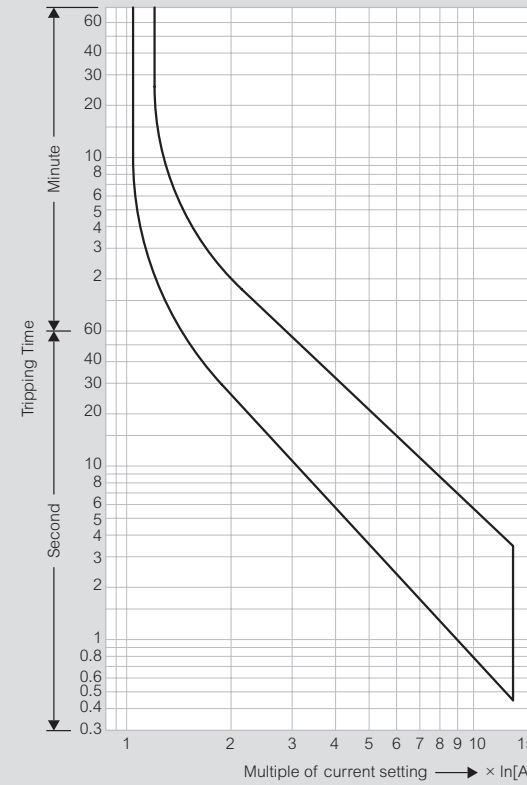


Hot starting

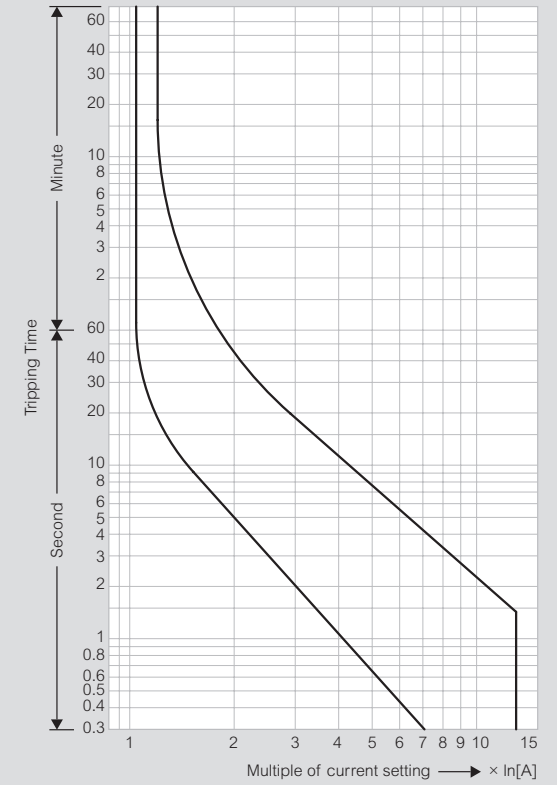


RTX³ 100 - class 10A

Cold starting

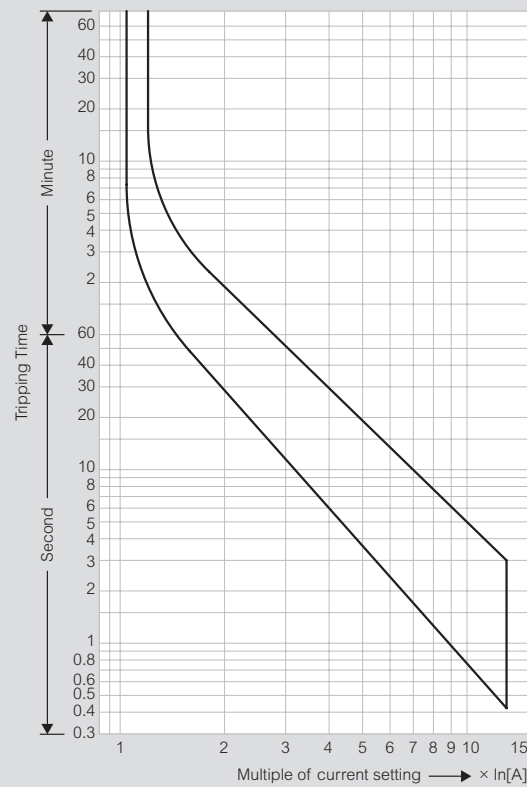


Hot starting

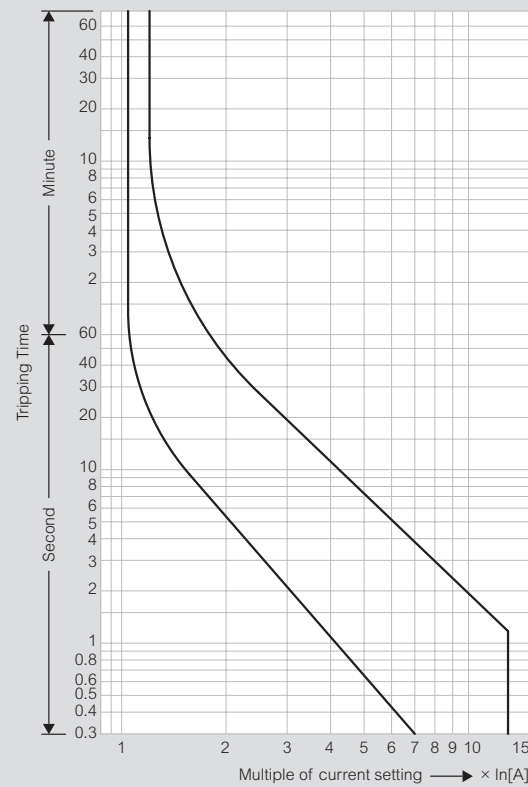


RTX³ 65 - class 10A

Cold starting

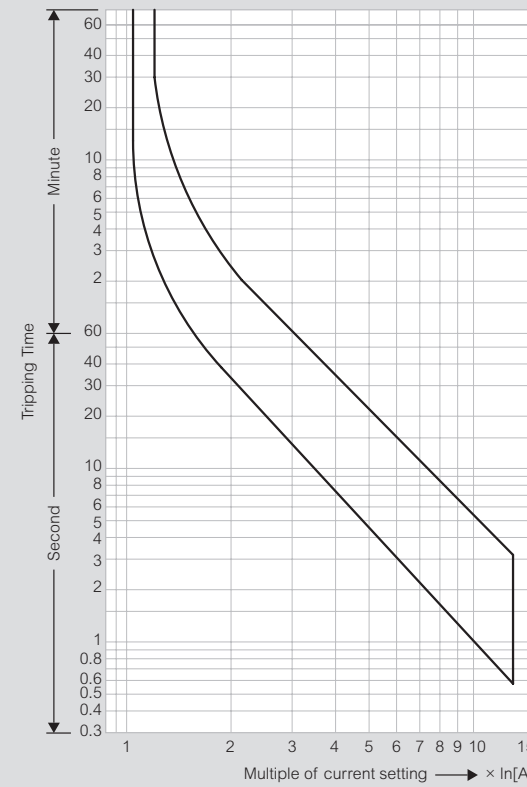


Hot starting

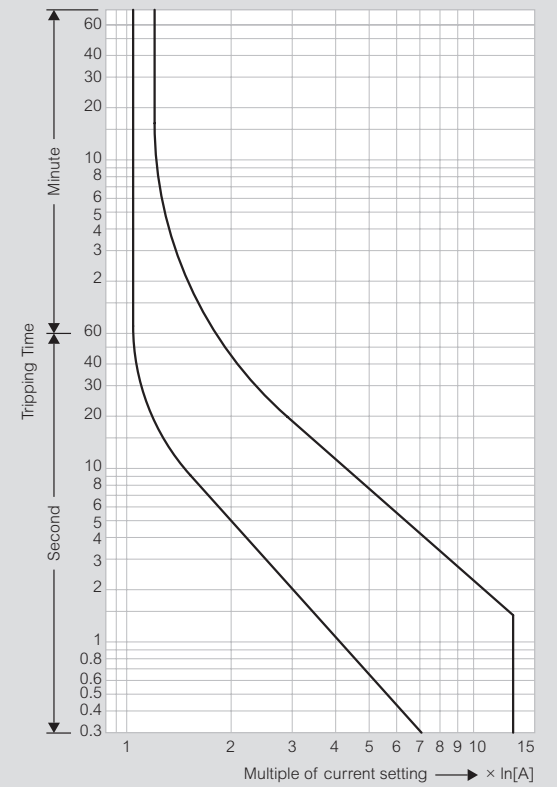


RTX³ 150 - class 10A

Cold starting



Hot starting

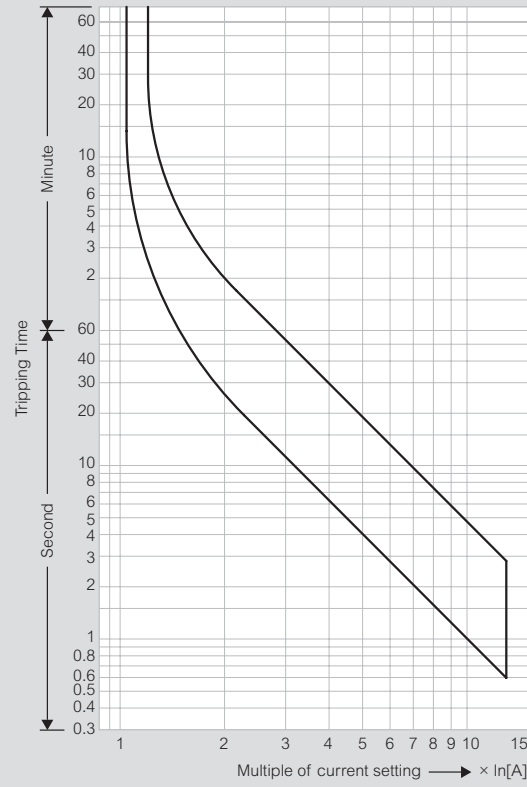


Thermal relays RTX³

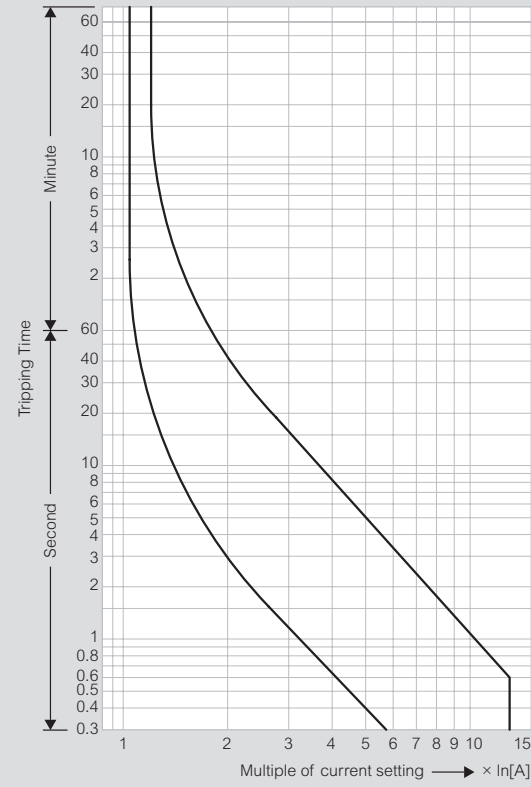
tripping curves (continued)

RTX³ 225 - class 10A

Cold starting

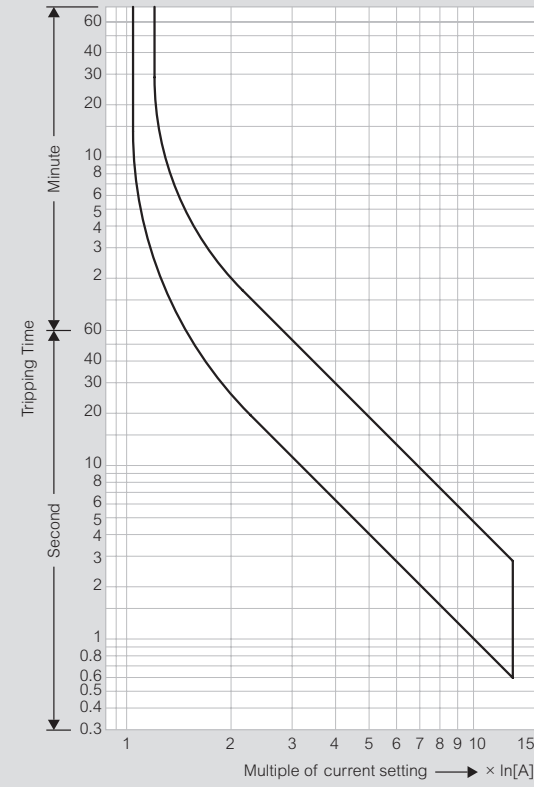


Hot starting

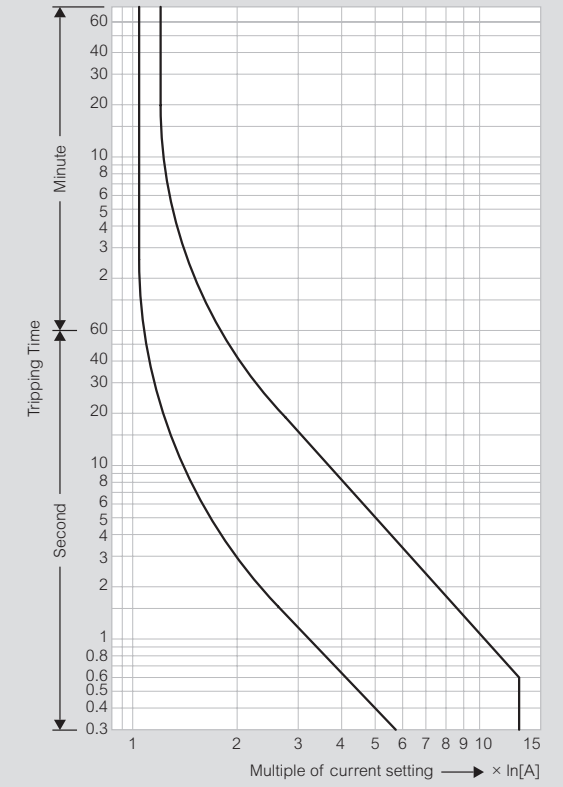


RTX³ 800 - class 10A

Cold starting

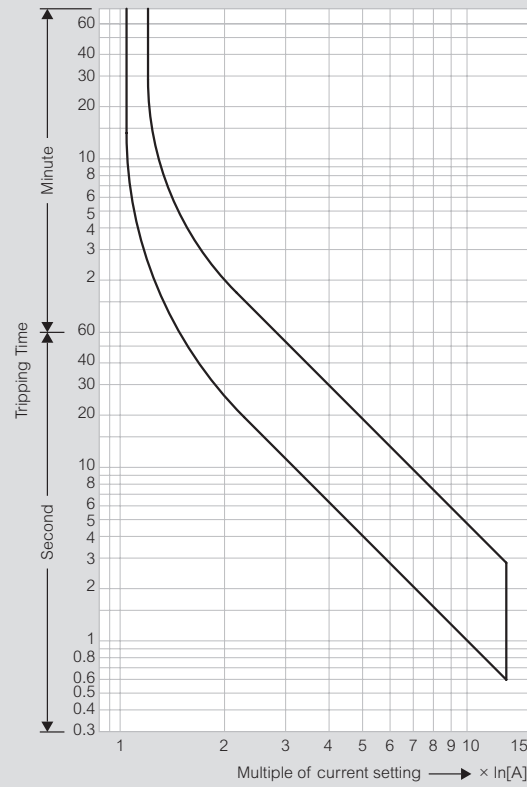


Hot starting

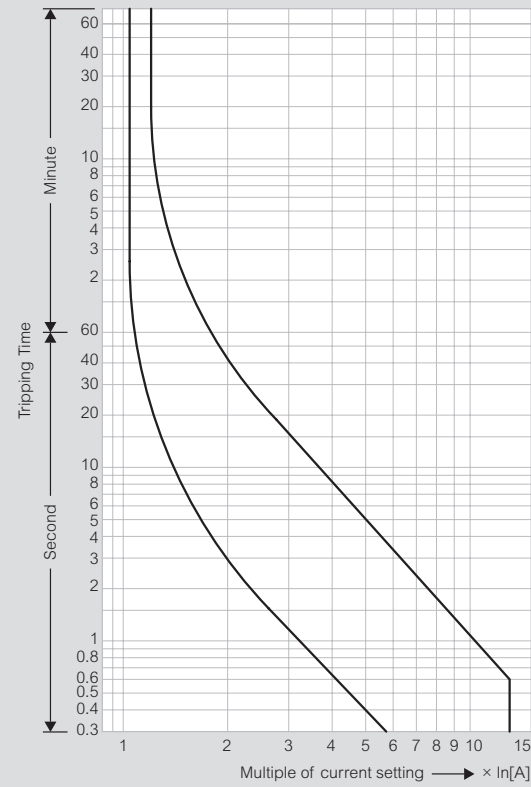


RTX³ 400 - class 10A

Cold starting



Hot starting



Thermal Overload Relays - RTX³ and Mounting units

Cat. N°(s) : 4 166 40..57/60..77/83..90/4 167 03..10/23..31/
4 167 43..51/60..65/70..75/80..84/86..95

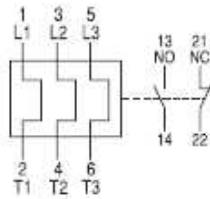


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3. Overall dimensions	1
4. Installation - Connection	2
5. General characteristics	3
6. Conformities and approvals	10
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8. Auxiliaries and accessories	18

1. DESCRIPTION - USE

They ensure the thermal protection of circuits, against overload and long starting times.

Symbol:



2. RANGE

Number of Poles:

. Triple pole (3P).

Setting range:

RTX ³ 40	0.1 to 40 [A]
RTX ³ 65	9 to 65 [A]
RTX ³ 100	18 to 100 [A]
RTX ³ 150	45 to 150 [A]
RTX ³ 225	65 to 240 [A]
RTX ³ 400	85 to 400 [A]
RTX ³ 800	200 to 800 [A]

Rated operational voltage:

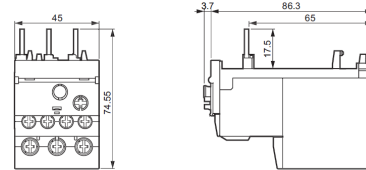
. U_e = 690 [V] for all products.

Rated frequency:

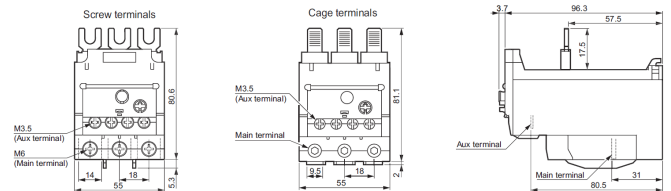
. 50 / 60 [Hz].

3. OVERALL DIMENSIONS

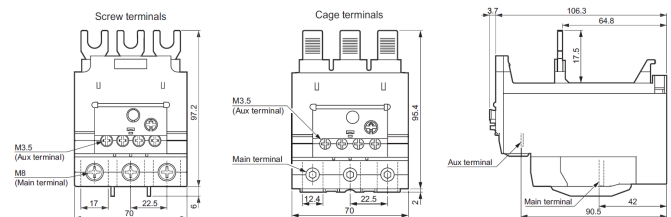
RTX³ 40:



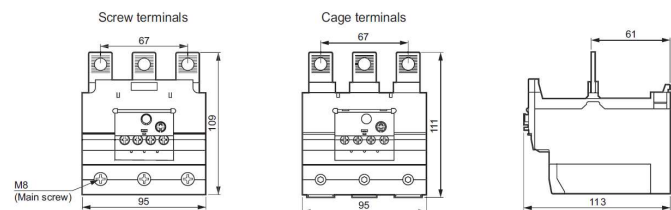
RTX³ 65:



RTX³ 100:



RTX³ 150:

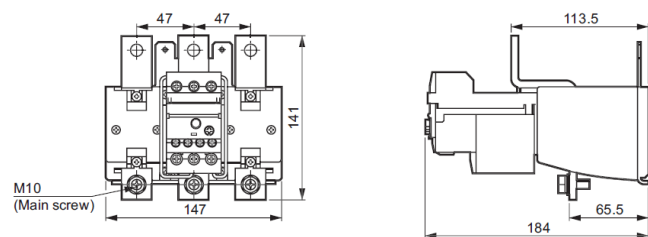


Thermal Overload Relays - RTX³ and Mounting units

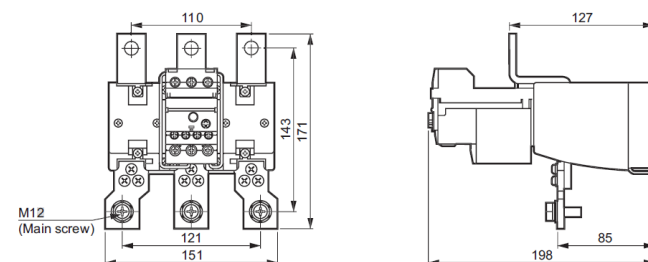
Cat. N°(s) : 4 166 40..57/60..77/83..90/4 167 03..10/23..31/
4 167 43..51/60..65/70..75/80..84/86..95

3. OVERALL DIMENSIONS (continued)

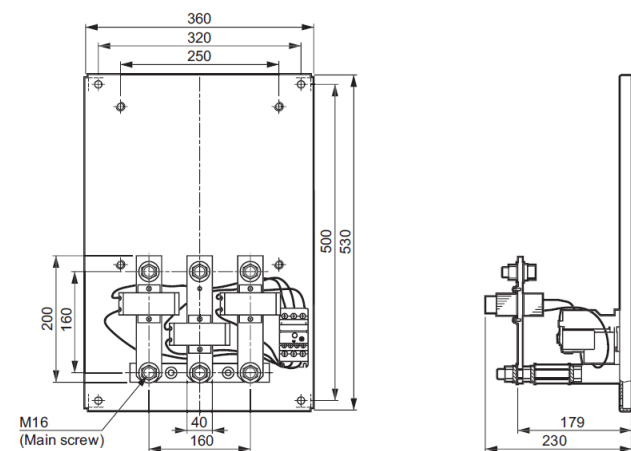
RTX³ 225:



RTX³ 400:



RTX³ 800:



4. INSTALLATION - CONNECTION

Mounting position:

- . Vertical plane.
- . Direct connection beneath CTX³ contactors.

Operating position:

- . ± 30 [°] possible, in relation to normal vertical mounting plane.

Supply:

- . Either from the top or the bottom.

4. INSTALLATION - CONNECTION (continued)

Connection : (until RTX³ 150)

- . Terminals protected against direct contact (IP20).
- . Terminals with release and captive screws.
- . Screw head : slotted and pozidriv n°2.

Tools required:

- . Pozidriv N°2 screwdriver recommended.
- . Pozidriv N°3 screwdriver for RTX³ 65 / 100 and 150.
- . Flat screwdriver $\varnothing 5$ to $\varnothing 6$ [mm] Maximum.
- . Hexagonal key (for RTX³ 65 with cage terminals).
- . Hexagonal key (for RTX³ 100 / 150 with cage terminals).
- . Flat spanner for M10 bolt (for RTX³ 225).
- . Flat spanner for M12 bolt (for RTX³ 400).
- . Flat spanner for M16 bolt (for RTX³ 800).

Thermal Overload Relays - RTX³ and Mounting units

Cat. N°(s) : 4 166 40..57/60..77/83..90/4 167 03..10/23..31/4 167 43..51/60..65/70..75/80..84/86..95

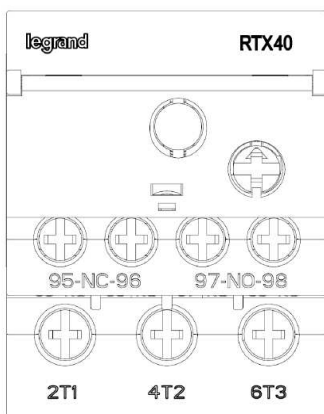
5. GENERAL CHARACTERISTICS

Front side:

. By dark grey laser or pad printing:

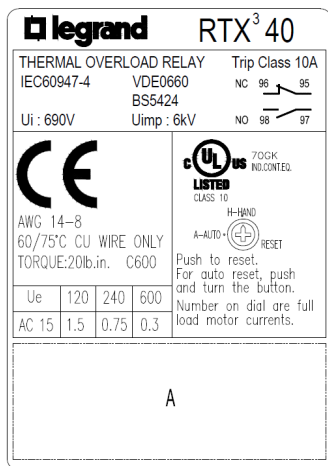
- Brand: Legrand
- Range: RTX + frame
- Rated current (in A)
- Marking power terminals

RTX³ 40: (Example of marking)



Left side:

. By identification label.



. Example area "A":

- Catalog number
- Rating
- Approval marks
- Made in
- Production date

5. GENERAL CHARACTERISTICS (continued)

Rated impulse voltage and rated insulation voltage:

Type of products	Rated impulse voltage (Uimp)	Rated insulation voltage (Ui)
RTX ³ 40	6 [kV]	Up to 690 [V]
RTX ³ 65	6 [kV]	Up to 690 [V]
RTX ³ 100	6 [kV]	Up to 690 [V]
RTX ³ 150	6 [kV]	690 [V]
RTX ³ 225	6 [kV]	690 [V]
RTX ³ 400	6 [kV]	690 [V]
RTX ³ 800	6 [kV]	690 [V]

Ambient operating temperature:

. Min. = -5°C. Max. = +40°C.

Ambient storage temperature:

. Min. = -55°C. Max. = +80°C.

Temperature compensation:

. Min. = -5°C. Max. = +40°C.

Weight:

RTX ³ 40	0.17 [kg]
RTX ³ 65	0.31/ 0.33 [kg]
RTX ³ 100	0.48 / 0.5 [kg]
RTX ³ 150	0.67 [kg]
RTX ³ 225	2.5 [kg]
RTX ³ 400	2.6 [kg]
RTX ³ 800	11.5 [kg]

Degree of protection: (In accordance with IEC 60 529 standard)

. IP20.

Flame resistance:

- . Conforming to UL = V0.
- . Conforming to IEC 695-2-1 = 960 [°C].

Shock resistance: (Conforming to IEC 68-2-7)

. 15 [gn] - 11 [ms].

Vibration resistance: (Conforming to IEC 68-2-6)

. 6 [g].

Trip class:

. Class 10A.

Functions:

- . Trip indicating.
- . Stop.
- . Test.
- . Manual / Automatic reset.

Thermal Overload Relays - RTX³ and Mounting units

Cat. N°(s) : 4 166 40..57/60..77/83..90/4 167 03..10/23..31/
4 167 43..51/60..65/70..75/80..84/86..95

5. GENERAL CHARACTERISTICS *(continued)*

Coordination:

- . Trip class 10A.
- . Terminal type: screw.

Setting range - [A]	Thermal Overload Relay - RTX ³	Contactors - CTX ³	Separate Mounting unit
0.1 to 0.16	RTX ³ 40	CTX ³ 22 CTX ³ 40	4 165 91
0.16 to 0.25			
0.25 to 0.4			
0.4 to 0.63			
0.63 to 1			
1 to 1.6			
1.6 to 2.5			
2.5 to 4			
4 to 6			
5 to 8			
6 to 9			
7 to 10			
9 to 13			
12 to 18			
16 to 22			
28 to 25			
22 to 32			
28 to 40			
			4 165 92

- . Terminal type: screw and cage.

Setting range - [A]	Thermal Overload Relay - RTX ³	Contactors - CTX ³	Separate Mounting unit
9 to 13	RTX ³ 65	CTX ³ 65	4 165 93 (Screw) 4 165 94 (Cage)
12 to 18			
16 to 22			
18 to 25			
24 to 36			
28 to 40			
34 to 50			
45 to 65			

Thermal Overload Relays - RTX³ and Mounting units

Cat. N°(s) : 4 166 40..57/60..77/83..90/4 167 03..10/23..31/
4 167 43..51/60..65/70..75/80..84/86..95

5. GENERAL CHARACTERISTICS *(continued)*

Coordination: *(continued)*

- . Trip class 10A.
- . Terminal type: screw and cage.

Setting range - [A]	Thermal Overload Relay - RTX ³	Contactor - CTX ³	Separate Mounting unit
18 to 25	RTX ³ 100	CTX ³ 100	4 165 95 (Screw) 4 165 96 (Cage)
24 to 36			
28 to 40			
34 to 50			
45 to 65			
54 to 75			
63 to 85			
70 to 95			
80 to 100			

Setting range - [A]	Thermal Overload Relay - RTX ³	Contactor - CTX ³	Separate Mounting unit
45 to 65	RTX ³ 150	CTX ³ 150	4 165 97 (Screw) 4 165 98 (Cage)
54 to 75			
63 to 85			
80 to 105			
95 to 130			
110 to 150			

- . Terminal type: screw and cage.

Setting range - [A]	Thermal Overload Relay - RTX ³	Contactor - CTX ³	Separate Mounting unit
65 to 100	RTX ³ 225	CTX ³ 225	-
85 to 125			
100 to 160			
120 to 185			
160 to 240			

Thermal Overload Relays - RTX³ and Mounting units

Cat. N°(s) : 4 166 40..57/60..77/83..90/4 167 03..10/23..31/
4 167 43..51/60..65/70..75/80..84/86..95

5. GENERAL CHARACTERISTICS *(continued)*

Coordination: *(continued)*

- . Trip class 10A.
- . Terminal type: screw.

Setting range - [A]	Thermal Overload Relay - RTX ³	Contactactor - CTX ³	Separate Mounting unit
85 to 125	RTX ³ 400	CTX ³ 400	-
100 to 160			
120 to 185			
160 to 240			
200 to 330			
260 to 400			

Setting range - [A]	Thermal Overload Relay - RTX ³	Contactactor - CTX ³	Separate Mounting unit
200 to 330	RTX ³ 800	CTX ³ 800	-
260 to 400			
400 to 630			
520 to 800			

Thermal Overload Relays - RTX³ and Mounting units

Cat. N°(s) : 4 166 40..57/60..77/83..90/4 167 03..10/23..31/
4 167 43..51/60..65/70..75/80..84/86..95

5. GENERAL CHARACTERISTICS (continued)

Coordination: Type 2

Motor		Circuit-breaker				Contactor	Thermal relay			Test	
Rated power (kW)	Rated current (A)	Type	Rated current (A)	Magnetic threshold (A)	Reference	Type	Type	Setting range (A)	Reference	Rated conditionnal short-circuit current I _q (kA)	Voltage (V)
0,37	1,10	DX ³ -MA	1,6	20	4 098 76	CTX ³ 22 9A	RTX ³ 40	1- 1,6	4 166 45/65	15	400
0,55	1,5	DX ³ -MA	1,6	20	4 098 76	CTX ³ 22 9A	RTX ³ 40	1- 1,6	4 166 45/65	15	400
0,75	1,9	DX ³ -MA	2,5	32	4 098 77	CTX ³ 22 9A	RTX ³ 40	1,6 - 2,5	4 166 46/66	15	400
1,1	2,7	DX ³ -MA	4	50	4 098 78	CTX ³ 22 9A	RTX ³ 40	2,5 - 4	4 166 47/67	15	400
1,5	3,5	DX ³ -MA	4	50	4 098 78	CTX ³ 22 9A	RTX ³ 40	2,5 - 4	4 166 47/67	15	400
2,2	5	DX ³ -MA	6,3	80	4 098 79	CTX ³ 22 9A	RTX ³ 40	4 - 6	4 166 48/68	15	400
2,5	5,7	DX ³ -MA	6,3	80	4 098 79	CTX ³ 22 9A	RTX ³ 40	4 - 6	4 166 48/68	15	400
3	6,7	DX ³ -MA	10	125	4 098 80	CTX ³ 22 12A	RTX ³ 40	5 - 8	4 166 49/69	15	400
3,7	8	DX ³ -MA	10	125	4 098 80	CTX ³ 22 12A	RTX ³ 40	6 - 9	4 166 50/70	15	400
4	8,5	DX ³ -MA	10	125	4 098 80	CTX ³ 22 12A	RTX ³ 40	7 - 10	4 166 51/71	15	400
5,5	11	DX ³ -MA	12,5	160	4 098 81	CTX ³ 22 22A	RTX ³ 40	9 - 13	4 166 52/72	15	400
6,3	13	DX ³ -MA	16	200	4 098 82	CTX ³ 22 22A	RTX ³ 40	12 - 18	4 166 53/73	15	400
7,5	15	DX ³ -MA	16	200	4 098 82	CTX ³ 22 22A	RTX ³ 40	12 - 18	4 166 53/73	15	400
10	20	DX ³ -MA	25	320	4 098 83	CTX ³ 22 22A	RTX ³ 40	16 - 22	4 166 54/74	15	400
11	22	DX ³ -MA	25	320	4 098 83	CTX ³ 22 22A	RTX ³ 40	18 - 25	4 166 55/75	15	400
12,5	25	DX ³ -MA	25	320	4 098 83	CTX ³ 40 32A	RTX ³ 40	22 - 32	4 166 56/76	15	400
15	29	DX ³ -MA	40	500	4 098 84	CTX ³ 40 32A	RTX ³ 40	22 - 32	4 166 56/76	10	400
16	31	DX ³ -MA	40	500	4 098 84	CTX ³ 40 32A	RTX ³ 40	22 - 32	4 166 56/76	10	400
18,5	35	DX ³ -MA	40	500	4 098 84	CTX ³ 40 40A	RTX ³ 40	28 - 40	4 166 57/77	10	400
20	38	DX ³ -MA	40	500	4 098 84	CTX ³ 40 40A	RTX ³ 40	28 - 40	4 166 57/77	10	400
22	41	DX ³ -MA	63	880	4 098 85	CTX ³ 65 50A	RTX ³ 65	34 - 50	4 166 89 4 167 09	10	400
25	47	DX ³ -MA	63	880	4 098 85	CTX ³ 65 50A	RTX ³ 65	34 - 50	4 166 89 4 167 09	10	400
30	57	DX ³ -MA	63	880	4 098 85	CTX ³ 65 65A	RTX ³ 65	45 - 65	4 166 90 4 167 10	10	400
31,5	59	DX ³ -MA	63	880	4 098 85	CTX ³ 65 65A	RTX ³ 65	45 - 65	4 166 90 4 167 10	10	400

Thermal Overload Relays - RTX³ and Mounting units

Cat. N°(s) : 4 166 40..57/60..77/83..90/4 167 03..10/23..31/
4 167 43..51/60..65/70..75/80..84/86..95

5. GENERAL CHARACTERISTICS *(continued)*

Coordination: Type 2 *(continued)*

Motor		Circuit-breaker				Contactor	Thermal relay			Test	
Rated power (kW)	Rated current (A)	Type	Rated current (A)	Magnetic threshold (A)	Reference	Type	Type	Setting range (A)	Reference	Conditional short-circuit current I _q (kA)	Voltage (V)
15	29	DPX ³ 160	40	400	4 200 82	CTX ³ 100 85A	RTX ³ 100	24 – 36	4 167 24/44	36	400
16	31	DPX ³ 160	40	400	4 200 82	CTX ³ 100 85A	RTX ³ 100	24 – 36	4 167 24/44	36	400
18,5	35	DPX ³ 160	40	400	4 200 82	CTX ³ 100 85A	RTX ³ 100	28 – 40	4 167 25/45	36	400
20	38	DPX ³ 160	40	400	4 200 82	CTX ³ 100 85A	RTX ³ 100	34 – 50	4 167 26/46	36	400
22	41	DPX ³ 160	63	630	4 200 83	CTX ³ 100 100A	RTX ³ 100	34 – 50	4 167 26/46	36	400
25	47	DPX ³ 160	63	630	4 200 83	CTX ³ 100 100A	RTX ³ 100	45 – 65	4 167 27/47	36	400
30	57	DPX ³ 160	63	630	4 200 83	CTX ³ 100 100A	RTX ³ 100	45 – 65	4 167 27/47	36	400
31,5	59	DPX ³ 160	63	630	4 200 83	CTX ³ 100 100A	RTX ³ 100	54 – 75	4 167 28/48	36	400
37	68	DPX ³ 160	100	1000	4 200 85	CTX ³ 150 130A	RTX ³ 150	54 – 75	4 167 61/71	36	400
40	74	DPX ³ 160	100	1000	4 200 85	CTX ³ 150 130A	RTX ³ 150	63 – 85	4 167 62/72	36	400
45	82	DPX ³ 160	100	1000	4 200 85	CTX ³ 150 130A	RTX ³ 150	63 – 85	4 167 62/72	36	400
50	92	DPX ³ 160	100	1000	4 200 85	CTX ³ 150 130A	RTX ³ 150	80 - 105	4 167 63/73	36	400
55	102	DPX ³ 160	125	1250	4 200 86	CTX ³ 150 150A	RTX ³ 150	95 - 130	4 167 64/74	36	400
63	115	DPX ³ 160	125	1250	4 200 86	CTX ³ 150 150A	RTX ³ 150	95 - 130	4 167 64/74	36	400

Thermal Overload Relays - RTX³ and Mounting units

Cat. N°(s) : 4 166 40..57/60..77/83..90/4 167 03..10/23..31/
4 167 43..51/60..65/70..75/80..84/86..95

5. GENERAL CHARACTERISTICS (continued)

Coordination: Type 2 (continued)

Motor		Circuit-breaker				Contactor	Thermal relay			Test	
Rated power (kW)	Rated current (A)	Type	Rated current (A)	Magnetic threshold (A)	Référence	Type	Type	Setting range (A)	Reference	Conditional short-circuit current I _q (kA)	Voltage (V)
15	29	DPX ³ 160	40	140 - 400	4 201 22	CTX ³ 65 50A	RTX ³ 65	24 - 36	4 166 87 4 167 07	50	400
16	31	DPX ³ 160	40	140 - 400	4 201 22	CTX ³ 65 50A	RTX ³ 65	24 - 36	4 166 87 4 167 07	50	400
18,5	35	DPX ³ 160	40	140 - 400	4 201 22	CTX ³ 65 50A	RTX ³ 65	28 - 40	4 166 88 4 167 08	50	400
20	38	DPX ³ 160	40	140 - 400	4 201 22	CTX ³ 65 50A	RTX ³ 65	34 - 50	4 166 89 4 167 09	50	400
22	41	DPX ³ 160	63	220 - 630	4 201 23	CTX ³ 65 65A	RTX ³ 65	34 - 50	4 166 89 4 167 09	50	400
25	47	DPX ³ 160	63	220 - 630	4 201 23	CTX ³ 100 85A	RTX ³ 100	34 - 50	4 167 26/46	50	400
30	57	DPX ³ 160	63	220 - 630	4 201 23	CTX ³ 100 100A	RTX ³ 100	45 - 65	4 167 27/47	50	400
31,5	59	DPX ³ 160	63	220 - 630	4 201 23	CTX ³ 100 100A	RTX ³ 100	54 - 75	4 167 28/48	50	400
37	68	DPX ³ 250	100	350 - 1000	4 206 05	CTX ³ 100 100A	RTX ³ 100	63 - 85	4 167 29/49	50	400
40	74	DPX ³ 250	100	350 - 1000	4 206 05	CTX ³ 150 130A	RTX ³ 150	63 - 85	4 167 62/72	50	400
45	82	DPX ³ 250	100	350 - 1000	4 206 05	CTX ³ 150 130A	RTX ³ 150	63 - 85	4 167 62/72	50	400
50	92	DPX ³ 250	100	350 - 1000	4 206 05	CTX ³ 150 130A	RTX ³ 150	80 - 105	4 167 63/73	50	400
55	102	DPX ³ 250	100	350 - 1000	4 206 05	CTX ³ 150 150A	RTX ³ 150	95 - 130	4 167 64/74	50	400
63	115	DPX ³ 250	160	560 - 1600	4 206 07	CTX ³ 150 150A	RTX ³ 150	95 - 130	4 167 64/74	50	400
75	137	DPX ³ 250	160	560 - 1600	4 206 07	CTX ³ 225 185A	RTX ³ 225	100 - 160	4 167 82	50	400
90	164	DPX ³ 250	250	900 - 2500	4 206 09	CTX ³ 225 185A	RTX ³ 225	120 - 185	4 167 83	50	400
110	204	DPX ³ 250	250	900 - 2500	4 206 09	CTX ³ 225 225A	RTX ³ 225	160 - 240	4 167 84	50	400
132	238	DPX ³ 250	250	900 - 2500	4 206 09	CTX ³ 400 265A	RTX ³ 400	200 - 330	4 167 90	50	400
150	262	DPX ³ 630	320	1600 - 3200	4 220 29	CTX ³ 400 330A	RTX ³ 400	200 - 330	4 167 90	50	400
160	282	DPX ³ 630	320	1600 - 3200	4 220 29	CTX ³ 400 330A	RTX ³ 400	260 - 400	4 167 91	50	400
200	350	DPX ³ 630	400	2000 - 3200	4 220 30	CTX ³ 400 400A	RTX ³ 400	260 - 400	4 167 91	50	400
220	387	DPX ³ 630	400	1600 - 3200	4 220 30	CTX ³ 400 400A	RTX ³ 400	260 - 400	4 167 91	50	400
250	440	DPX ³ 630	500	1600 - 3200	4 220 31	CTX ³ 800 630A	RTX ³ 800	400 - 630	4 167 94	50	400

Thermal Overload Relays - RTX³ and Mounting units

Cat. N°(s) : 4 166 40..57/60..77/83..90/4 167 03..10/23..31/
4 167 43..51/60..65/70..75/80..84/86..95

5. GENERAL CHARACTERISTICS *(continued)*

Coordination: Type 2 *(continued)*

Motor		Circuit-breaker				Contactor	Thermal relay			Test	
Rated power (kW)	Rated current (A)	Type	Rated current (A)	Magnetic threshold (A)	Référence	Type	Type	Setting range (A)	Reference	Conditional short-circuit current I _q (kA)	Voltage (V)
15	27	DPX ³ 160	40	140 - 400	4 201 22	CTX ³ 65 50A	RTX ³ 65	24 - 36	4 166 87 4 167 07	30	440
16	29	DPX ³ 160	40	140 - 400	4 201 22	CTX ³ 65 50A	RTX ³ 65	24 - 36	4 166 87 4 167 07	30	440
18,5	34	DPX ³ 160	40	140 - 400	4 201 22	CTX ³ 65 65A	RTX ³ 65	28 - 40	4 166 88 4 167 08	30	440
20	37	DPX ³ 160	40	140 - 400	4 201 22	CTX ³ 65 65A	RTX ³ 65	28 - 40	4 166 88 4 167 08	30	440
22	40	DPX ³ 160	40	140 - 400	4 201 23	CTX ³ 100 75A	RTX ³ 100	34 - 50	4 167 26/46	30	440
25	45	DPX ³ 160	63	220 - 630	4 201 23	CTX ³ 100 85A	RTX ³ 100	34 - 50	4 167 26/46	30	440
30	53	DPX ³ 160	63	220 - 630	4 201 23	CTX ³ 100 100A	RTX ³ 100	45 - 65	4 167 27/47	30	440
31,5	56	DPX ³ 160	63	220 - 630	4 201 23	CTX ³ 100 100A	RTX ³ 100	45 - 65	4 167 27/47	30	440
37	65	DPX ³ 250	100	350 - 1000	4 206 05	CTX ³ 100 100A	RTX ³ 100	54 - 75	4 167 28/48	50	440
40	71	DPX ³ 250	100	350 - 1000	4 206 05	CTX ³ 150 130A	RTX ³ 150	63 - 85	4 167 62/72	50	440
45	78	DPX ³ 250	100	350 - 1000	4 206 05	CTX ³ 150 130A	RTX ³ 150	63 - 85	4 167 62/72	50	440
50	88	DPX ³ 250	100	350 - 1000	4 206 05	CTX ³ 150 130A	RTX ³ 150	80 - 105	4 167 63/73	50	440
55	98	DPX ³ 250	100	350 - 1000	4 206 05	CTX ³ 150 150A	RTX ³ 150	80 - 105	4 167 63/73	50	440
63	110	DPX ³ 250	160	560 - 1600	4 206 07	CTX ³ 150 150A	RTX ³ 150	95 - 130	4 167 64/74	50	440
75	129	DPX ³ 250	160	560 - 1600	4 206 07	CTX ³ 225 185A	RTX ³ 225	100 - 160	4 167 82	50	440
90	157	DPX ³ 250	160	560 - 1600	4 206 07	CTX ³ 225 225A	RTX ³ 225	120 - 185	4 167 83	50	440
110	188	DPX ³ 250	250	900 - 2500	4 206 09	CTX ³ 400 265A	RTX ³ 400	160 - 240	4 167 89	50	440
132	218	DPX ³ 250	250	900 - 2500	4 206 09	CTX ³ 400 265A	RTX ³ 400	160 - 240	4 167 89	50	440
150	244	DPX ³ 630	320	1600 - 3200	4 220 29	CTX ³ 400 400A	RTX ³ 400	200 - 330	4 167 90	50	440
160	260	DPX ³ 630	320	1600 - 3200	4 220 29	CTX ³ 400 400A	RTX ³ 400	200 - 330	4 167 90	50	440
200	330	DPX ³ 630	400	1600 - 3200	4 220 30	CTX ³ 800 630A	RTX ³ 800	260 - 400	4 167 93	50	440
220	355	DPX ³ 630	400	1600 - 3200	4 220 30	CTX ³ 800 630A	RTX ³ 800	260 - 400	4 167 93	50	440
250	405	DPX ³ 630	500	1600 - 3200	4 220 31	CTX ³ 800 800A	RTX ³ 800	400 - 600	4 167 94	50	440

6. CONFORMITIES AND APPROVALS

Compliance to standards:

- . Standards references: IEC/EN 60 947-1, IEC/EN 60 947-4-1.
- . Certifications: CE, UL.

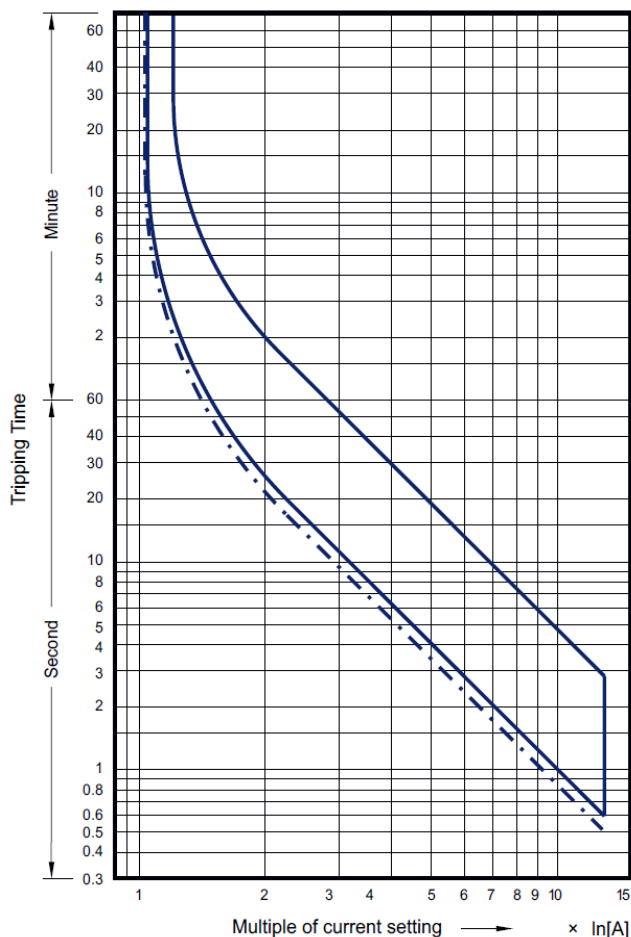
7. CURVES

Time / Current tripping curve:

RTX³ 40:

. Class 10A.

- Cold starting:



. Open phase: - - - - -

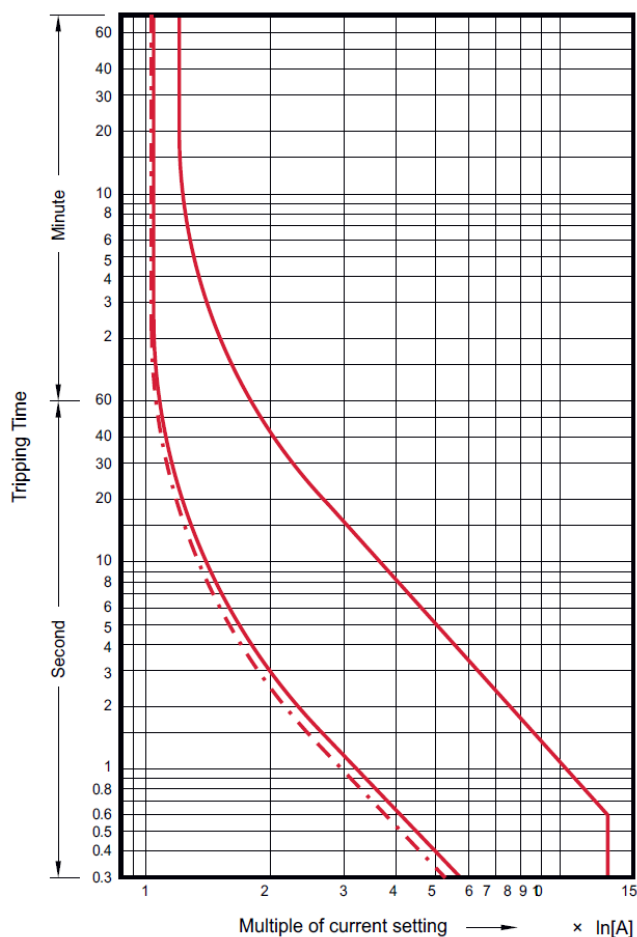
7. CURVES (continued)

Time / Current tripping curve:

RTX³ 40: (continued)

. Class 10A.

- Hot starting:



. Open phase: - - - - -

Thermal Overload Relays - RTX³ and Mounting units

Cat. N°(s) : 4 166 40..57/60..77/83..90/4 167 03..10/23..31/
4 167 43..51/60..65/70..75/80..84/86..95

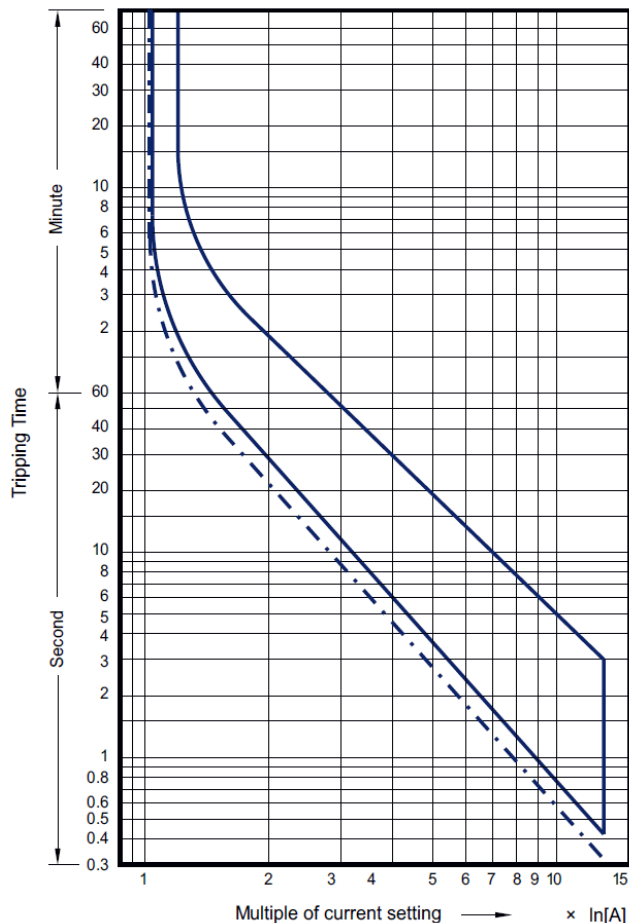
7. CURVES (continued)

Time / Current tripping curve:

RTX³ 65:

. Class 10A.

- Cold starting:



. Open phase: - - - - -

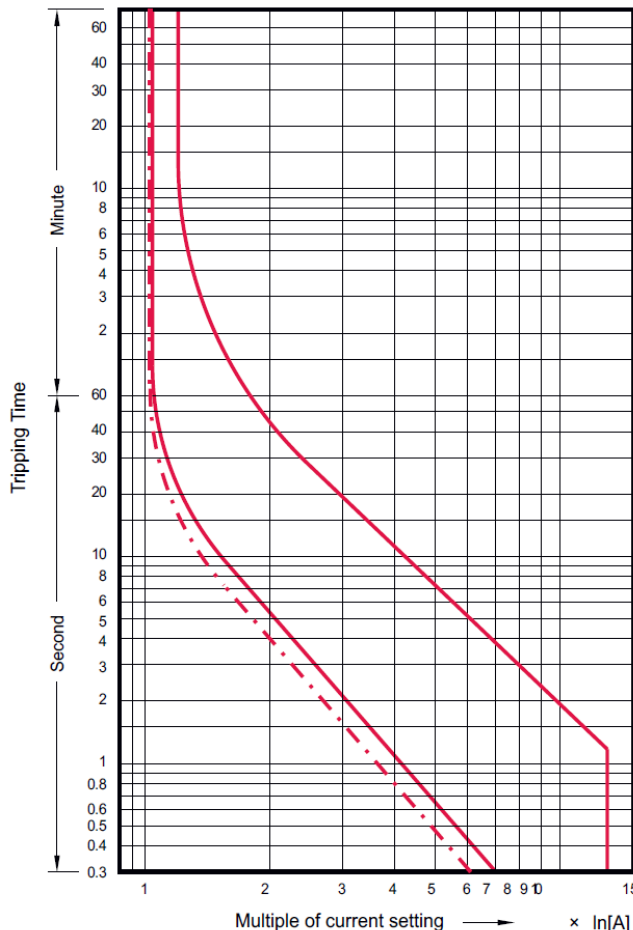
7. CURVES (continued)

Time / Current tripping curve:

RTX³ 65: (continued)

. Class 10A.

- Hot starting:



. Open phase: - - - - -

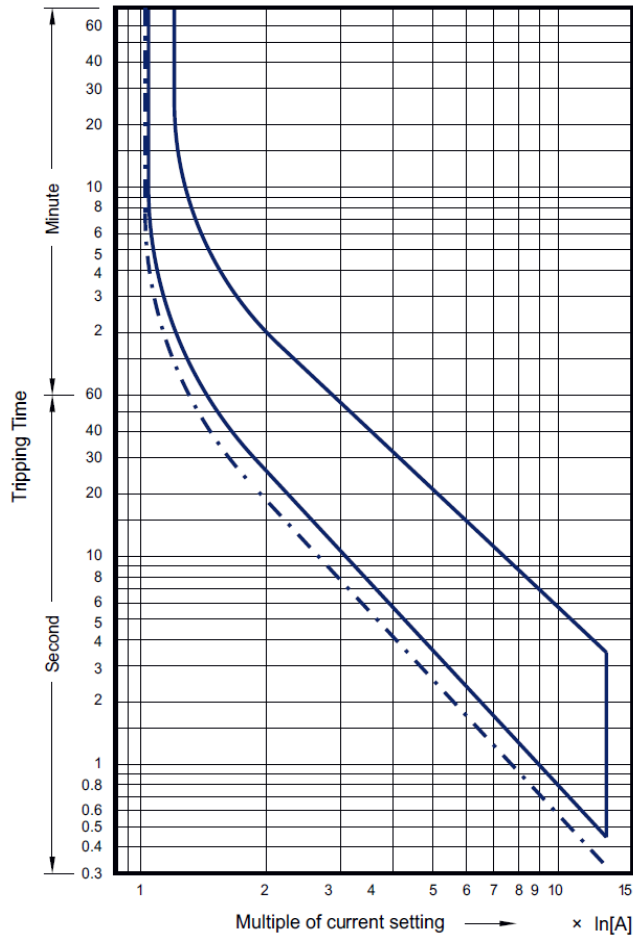
7. CURVES (continued)

Time / Current tripping curve:

RTX³ 100:

. Class 10A.

- Cold starting:



. Open phase: - - - - -

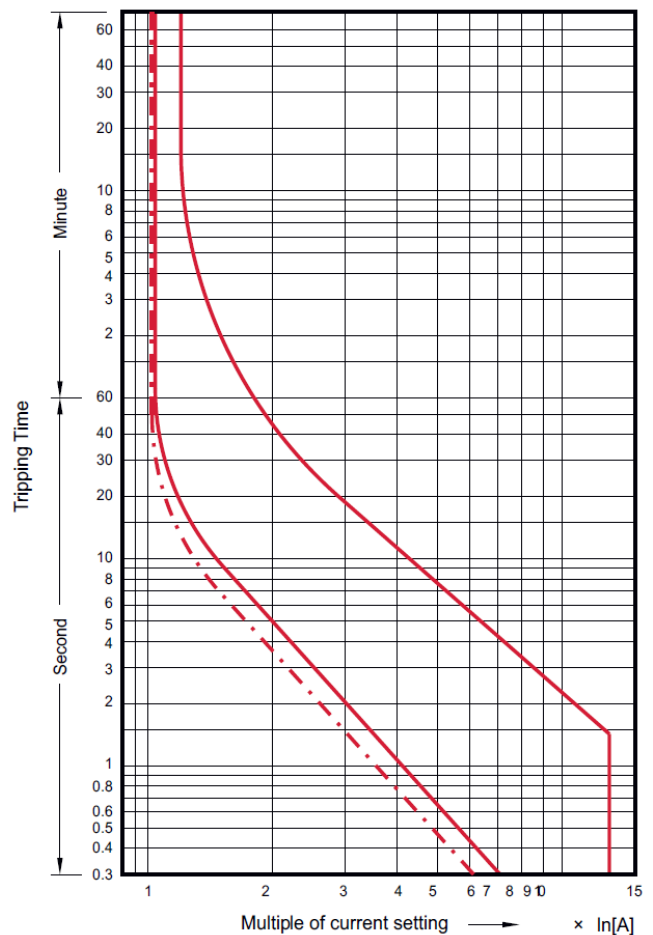
7. CURVES (continued)

Time / Current tripping curve:

RTX³ 100: (continued)

. Class 10A.

- Hot starting:



. Open phase: - - - - -

Thermal Overload Relays - RTX³ and Mounting units

Cat. N°(s) : 4 166 40..57/60..77/83..90/4 167 03..10/23..31/
4 167 43..51/60..65/70..75/80..84/86..95

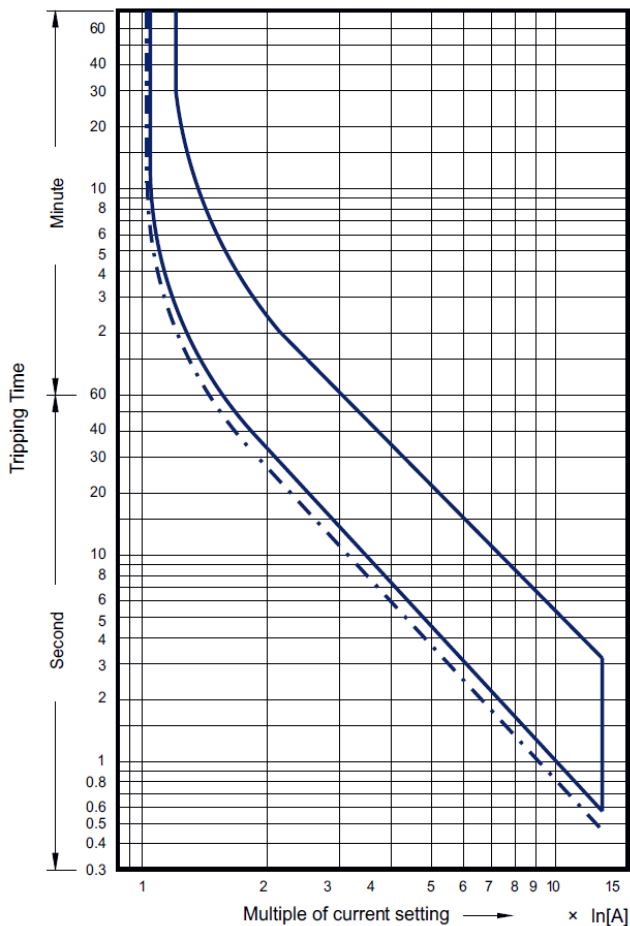
7. CURVES (continued)

Time / Current tripping curve:

RTX³ 150:

. Class 10A.

- Cold starting:



. Open phase: - - - - -

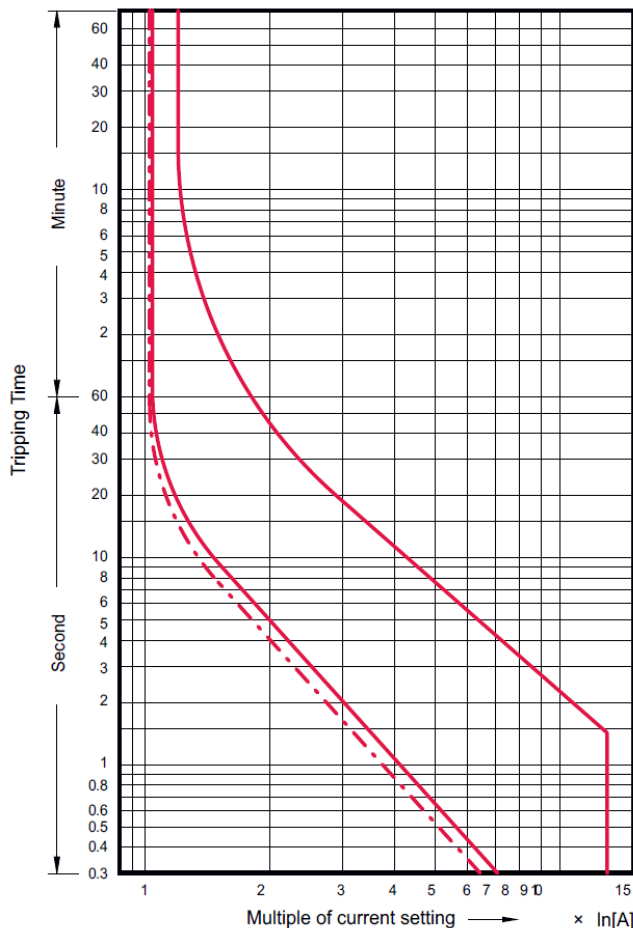
7. CURVES (continued)

Time / Current tripping curve:

RTX³ 150: (continued)

. Class 10A.

- Hot starting:



. Open phase: - - - - -

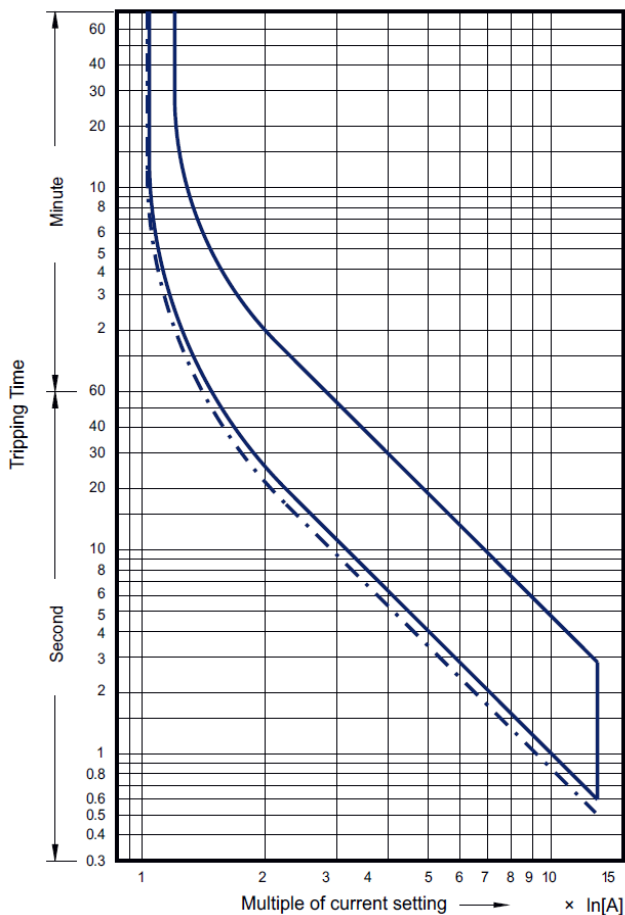
7. CURVES (continued)

Time / Current tripping curve:

RTX³ 225:

. Class 10A.

- Cold starting:



. Open phase: - - - - -

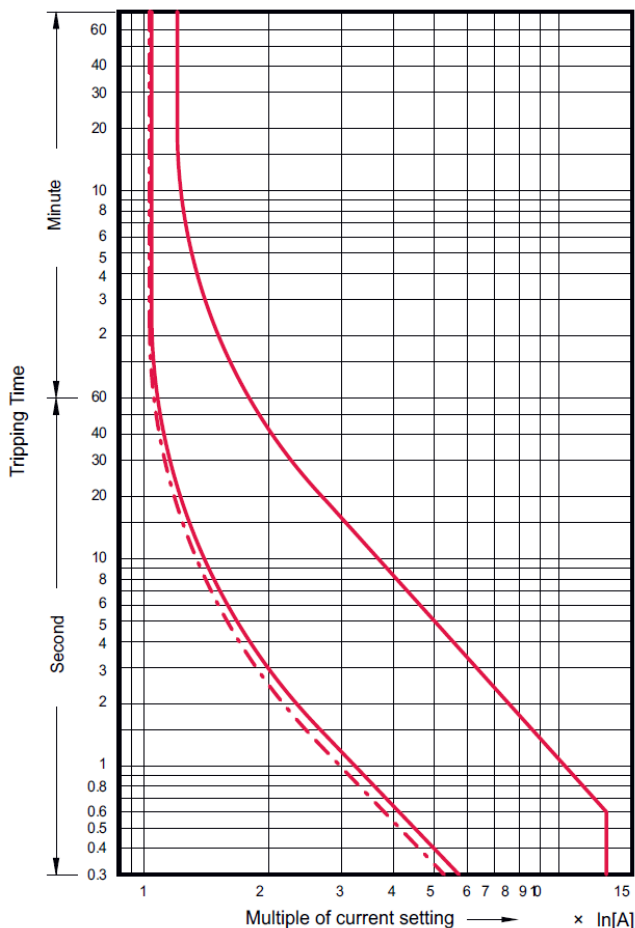
7. CURVES (continued)

Time / Current tripping curve:

RTX³ 225: (continued)

. Class 10A.

- Hot starting:



. Open phase: - - - - -

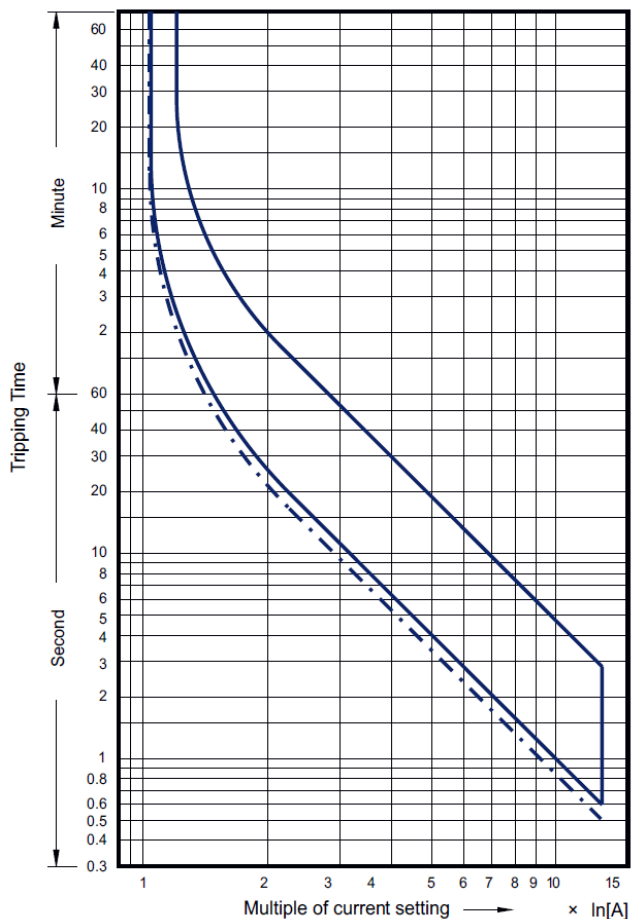
7. CURVES (continued)

Time / Current tripping curve:

RTX³ 400:

. Class 10A.

- Cold starting:



. Open phase: - - - - -

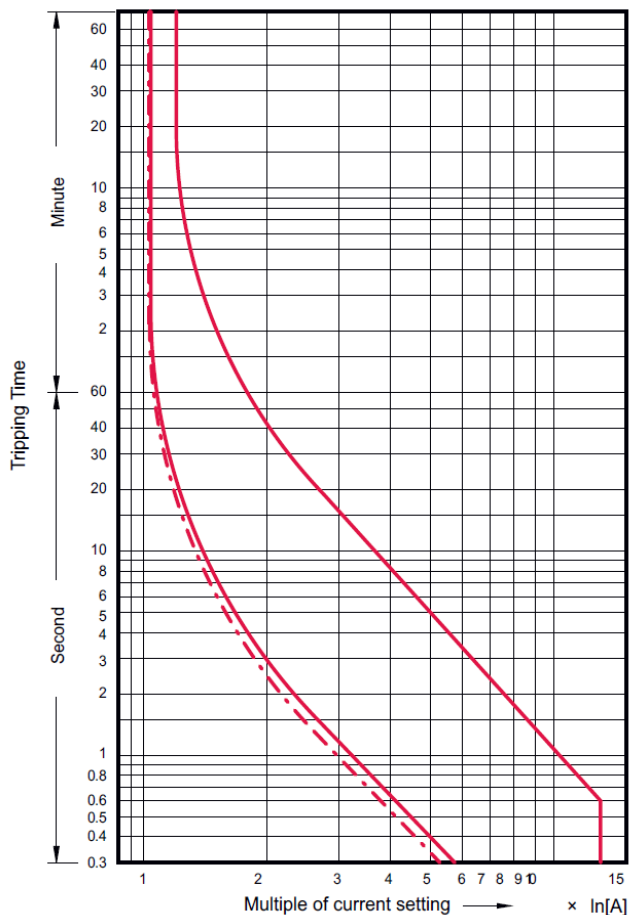
7. CURVES (continued)

Time / Current tripping curve:

RTX³ 400: (continued)

. Class 10A.

- Hot starting:



. Open phase: - - - - -

Thermal Overload Relays - RTX³ and Mounting units

Cat. N°(s) : 4 166 40..57/60..77/83..90/4 167 03..10/23..31/
4 167 43..51/60..65/70..75/80..84/86..95

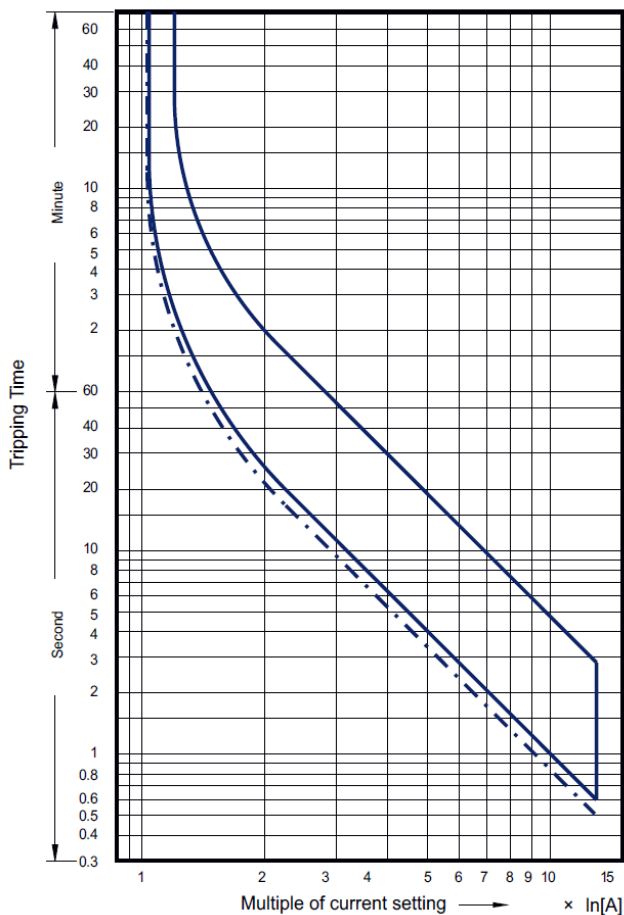
7. CURVES (continued)

Time / Current tripping curve:

RTX³ 800:

. Class 10A.

- Cold starting:



. Open phase: - - - - -

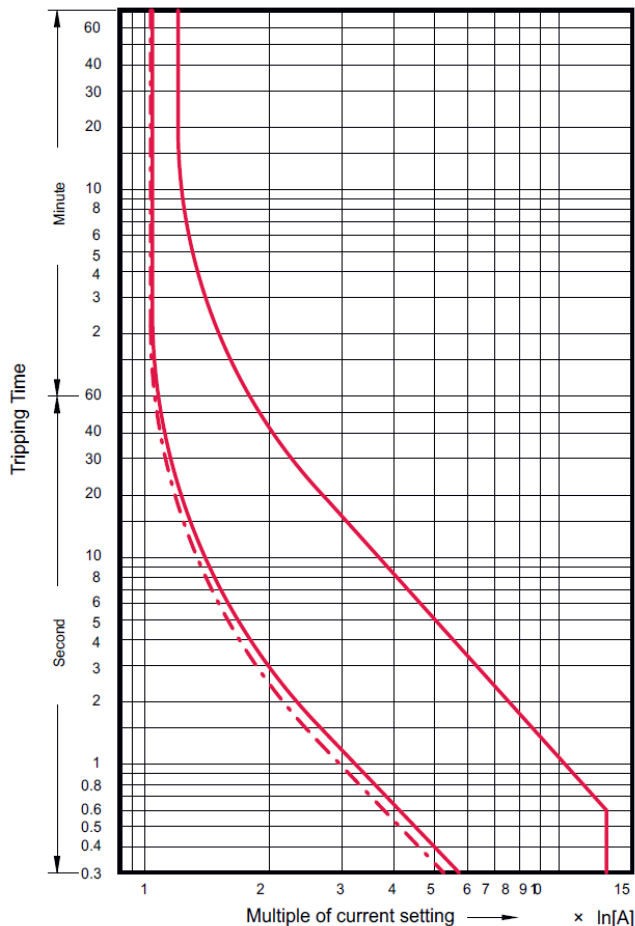
7. CURVES (continued)

Time / Current tripping curve:

RTX³ 800: (continued)

. Class 10A.

- Hot starting:



. Open phase: - - - - -

8. AUXILIARIES AND ACCESSORIES

Accessories: *(continued)*

RTX³ remote reset cable:

- . RTX³ remote reset cable L400 [mm] (cat. 4 168 92).
- . RTX³ remote reset cable L500 [mm] (cat. 4 168 93).
- . RTX³ remote reset cable L600 [mm] (cat. 4 168 94).



Separate mounting unit:

- . Separate mounting unit for RTX³ 40.(cat. 4 165 91).
- . Separate mounting unit for RTX³ 40.(cat. 4 165 92).
- . Separate mounting unit for RTX³ 65 - screw (cat. 4 165 93).
- . Separate mounting unit for RTX³ 65 - cage (cat. 4 165 94).
- . Separate mounting unit for RTX³ 100 - screw (cat. 4 165 95).
- . Separate mounting unit for RTX³ 100 - cage (cat. 4 165 96).
- . Separate mounting unit for RTX³ 150 - screw (cat. 4 165 97).
- . Separate mounting unit for RTX³ 150 - cage (cat. 4 165 98).



Installation software:

- . XL PRO³.