

# IEC Power Devices

## IEC Contactors Thermal Overload Relays

### C-2000

#### Overload Relays

##### Fixed Heater

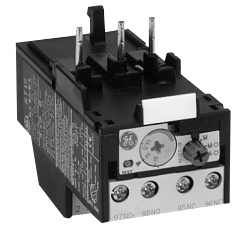
C2000 RT overload relays provide motor overload protection through fixed bimetal heaters. These relays are ambient compensated and utilize a differential mechanism for single-phase sensitivity. The trip setting is adjustable for the range listed.

Overload relays may be set for 4 different operational modes—manual reset only, automatic reset only, manual reset/stop, or automatic reset/stop. Stop is initiated by pushing the reset button which interrupts the holding circuit in the latter two listed modes.

Overload relays feature visible trip indication, reset on the upstroke, weld check, and trip test.

#### Reference Publications

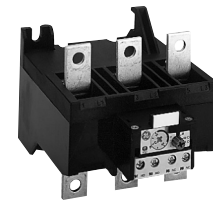
Instructions	
GEH-6237	RT1* (Class 10) Overload
DEH-040	RT12* (Class 20) Overload
GEH-6238	RT2* (Class 10) Overload
DEH-041	RT22* (Class 20) Overload
GEH-6239	RT3* (Class 10) Overload
DEH-042	RT32* (Class 20) Overload
GEH-6240	RT4* (Class 10, 30) Overload
GEH-6241	RT5* (Class 10, 30) Overload
GEH-5520	RT5 Overload Connection Kit
DEH-055	Remote Electrical Reset



RT1 Overload Relay



RT2 Overload Relay



RT3 Overload Relay



RT4 Overload Relay



RT5 Overload Relay



# IEC Power Devices

## IEC Contactors Thermal Overload Relays

### C-2000

## Section 5

### RT1 - Direct Mount Manual

Overload Relay for use with Contactors <sup>1</sup>	Current Range Amps (min-max)	Reset Type	Trip Class	Maximum Fuse Rating Amps	Maximum Circuit Breaker Rating Amps	Product Number
CL00, CL01, CL02, CL25, CL04, CL45	0.16-0.26	Manual	Class 10	1	15	RTN1B
CL00, CL01, CL02, CL25, CL04, CL45	0.25-0.41	Manual	Class 10	1	15	RTN1C
CL00, CL01, CL02, CL25, CL04, CL45	0.4-0.65	Manual	Class 10	3	15	RTN1D
CL00, CL01, CL02, CL25, CL04, CL45	0.65-1.1	Manual	Class 10	6	15	RTN1F
CL00, CL01, CL02, CL25, CL04, CL45	1-1.5	Manual	Class 10	6	15	RTN1G
CL00, CL01, CL02, CL25, CL04, CL45	1.3-1.9	Manual	Class 10	6	15	RTN1H
CL00, CL01, CL02, CL25, CL04, CL45	1.8-2.7	Manual	Class 10	10	15	RTN1J
CL00, CL01, CL02, CL25, CL04, CL45	2.5-4.1	Manual	Class 10	15	15	RTN1K
CL00, CL01, CL02, CL25, CL04, CL45	4-6.3	Manual	Class 10	20	15	RTN1L
CL00, CL01, CL02, CL25, CL04, CL45	5.5-8.5	Manual	Class 10	25	15	RTN1M
CL00, CL01, CL02, CL25, CL04, CL45	8.0-12.0	Manual	Class 10	40	30	RTN1N
CL01, CL02, CL25, CL04, CL45	10.0-16.0	Manual	Class 10	50	35	RTN1P
CL02, CL25, CL04, CL45	14.5-18	Manual	Class 10	60	40	RTN1S
CL25, CL04, CL45	17.5-22	Manual	Class 10	70	50	RTN1T
CL04, CL45	21-26	Manual	Class 10	80	60	RTN1U
CL04, CL45	25-32	Manual	Class 10	100	80	RTN1V
CL45	30-40	Manual	Class 10	100	80	RTN1W

### RT1 - Direct Mount Manual/Auto

Overload Relay for use with Contactors <sup>1</sup>	Current Range Amps (min-max)	Reset Type	Trip Class	Maximum Fuse Rating Amps	Maximum Circuit Breaker Rating Amps	Product Number
CL00, CL01, CL02, CL25, CL04, CL45	0.16-0.26	Manual/Auto w/wo stop	Class 10	1	15	RT1B
CL00, CL01, CL02, CL25, CL04, CL45	0.25-0.41	Manual/Auto w/wo stop	Class 10	1	15	RT1C
CL00, CL01, CL02, CL25, CL04, CL45	0.4-0.65	Manual/Auto w/wo stop	Class 10	3	15	RT1D
CL00, CL01, CL02, CL25, CL04, CL45	0.65-1.1	Manual/Auto w/wo stop	Class 10	6	15	RT1F
CL00, CL01, CL02, CL25, CL04, CL45	1-1.5	Manual/Auto w/wo stop	Class 10	6	15	RT1G
CL00, CL01, CL02, CL25, CL04, CL45	1.3-1.9	Manual/Auto w/wo stop	Class 10	6	15	RT1H
CL00, CL01, CL02, CL25, CL04, CL45	1.8-2.7	Manual/Auto w/wo stop	Class 10	10	15	RT1J
CL00, CL01, CL02, CL25, CL04, CL45	2.5-4.1	Manual/Auto w/wo stop	Class 10	15	15	RT1K
CL00, CL01, CL02, CL25, CL04, CL45	4-6.3	Manual/Auto w/wo stop	Class 10	20	15	RT1L
CL00, CL01, CL02, CL25, CL04, CL45	5.5-8.5	Manual/Auto w/wo stop	Class 10	25	15	RT1M
CL00, CL01, CL02, CL25, CL04, CL45	8.0-12.0	Manual/Auto w/wo stop	Class 10	40	30	RT1N
CL01, CL02, CL25, CL04, CL45	10.0-16.0	Manual/Auto w/wo stop	Class 10	50	35	RT1P
CL02, CL25, CL04, CL45	14.5-18	Manual/Auto w/wo stop	Class 10	60	40	RT1S
CL25, CL04, CL45	17.5-22	Manual/Auto w/wo stop	Class 10	70	50	RT1T
CL04, CL45	21-26	Manual/Auto w/wo stop	Class 10	80	60	RT1U
CL04, CL45	25-32	Manual/Auto w/wo stop	Class 10	100	80	RT1V
CL45	30-40	Manual/Auto w/wo stop	Class 10	100	80	RT1W
CL00, CL01, CL02, CL25, CL04, CL45	0.4-0.65	Manual/Auto w/wo stop	Class 20	3	15	RT12D
CL00, CL01, CL02, CL25, CL04, CL45	0.65-1.1	Manual/Auto w/wo stop	Class 20	6	15	RT12F
CL00, CL01, CL02, CL25, CL04, CL45	1-1.5	Manual/Auto w/wo stop	Class 20	6	15	RT12G
CL00, CL01, CL02, CL25, CL04, CL45	1.3-1.9	Manual/Auto w/wo stop	Class 20	6	15	RT12H
CL00, CL01, CL02, CL25, CL04, CL45	2.5-4.1	Manual/Auto w/wo stop	Class 20	15	15	RT12K
CL00, CL01, CL02, CL25, CL04, CL45	4-6.3	Manual/Auto w/wo stop	Class 20	20	15	RT12L
CL00, CL01, CL02, CL25, CL04, CL45	5.5-8.5	Manual/Auto w/wo stop	Class 20	25	15	RT12M
CL00, CL01, CL02, CL25, CL04, CL45	8.0-12.0	Manual/Auto w/wo stop	Class 20	40	30	RT12N
CL01, CL02, CL25, CL04, CL45	10.0-16.0	Manual/Auto w/wo stop	Class 20	50	35	RT12P
CL02, CL25, CL04, CL45	14.5-18	Manual/Auto w/wo stop	Class 20	60	40	RT12S
CL25, CL04, CL45	17.5-22	Manual/Auto w/wo stop	Class 20	70	50	RT12T
CL04, CL45	21-26	Manual/Auto w/wo stop	Class 20	80	60	RT12U
CL04, CL45	25-32	Manual/Auto w/wo stop	Class 20	100	80	RT12V
CL45	30-40	Manual/Auto w/wo stop	Class 20	100	80	RT12W

<sup>1</sup>Do not exceed contactor current rating when selecting and adjusting overload relays. For panel mount use base adapter RTXP.



# IEC Power Devices

## IEC Contactors Thermal Overload Relays

### C-2000

#### RT2 - Direct Mount Manual

Overload Relay for use with Contactors <sup>1</sup>	Current Range Amps (min-max)	Reset Type	Trip Class	Maximum Fuse Rating Amps	Maximum Circuit Breaker Rating Amps	Product Number
CL06, CL07, CL08, CL09, CL10	11.5-15	Manual	Class 10	35	25	RTN2A
CL06, CL07, CL08, CL09, CL10	14.5-19	Manual	Class 10	50	45	RTN2B
CL06, CL07, CL08, CL09, CL10	18.5-25	Manual	Class 10	70	60	RTN2C
CL06, CL07, CL08, CL09, CL10	24-32	Manual	Class 10	90	80	RTN2D
CL06, CL07, CL08, CL09, CL10	30-43	Manual	Class 10	100	100	RTN2E
CL06, CL07, CL08, CL09, CL10	42-55	Manual	Class 10	150	125	RTN2G
CL07, CL08, CL09, CL10	54-65	Manual	Class 10	175	150	RTN2H
CL08, CL09, CL10	64-82	Manual	Class 10	225	200	RTN2J
CL10	78-97	Manual	Class 10	225	225	RTN2L
CL10	90-110	Manual	Class 10	225	250	RTN2M

#### RT2 - Direct Mount Manual/Auto

Overload Relay for use with Contactors <sup>1</sup>	Current Range Amps (min-max)	Reset Type	Trip Class	Maximum Fuse Rating Amps	Maximum Circuit Breaker Rating Amps	Product Number
CL06, CL07, CL08, CL09, CL10	11.5-15	Manual/Auto w/wo stop	Class 10	35	25	RT2A
CL06, CL07, CL08, CL09, CL10	14.5-19	Manual/Auto w/wo stop	Class 10	50	45	RT2B
CL06, CL07, CL08, CL09, CL10	18.5-25	Manual/Auto w/wo stop	Class 10	70	60	RT2C
CL06, CL07, CL08, CL09, CL10	24-32	Manual/Auto w/wo stop	Class 10	90	80	RT2D
CL06, CL07, CL08, CL09, CL10	30-43	Manual/Auto w/wo stop	Class 10	100	100	RT2E
CL06, CL07, CL08, CL09, CL10	42-55	Manual/Auto w/wo stop	Class 10	150	125	RT2G
CL07, CL08, CL09, CL10	54-65	Manual/Auto w/wo stop	Class 10	175	150	RT2H
CL08, CL09, CL10	64-82	Manual/Auto w/wo stop	Class 10	225	200	RT2J
CL10	78-97	Manual/Auto w/wo stop	Class 10	225	225	RT2L
CL10	90-110	Manual/Auto w/wo stop	Class 10	225	250	RT2M
CL06, CL07, CL08, CL09, CL10	24-32	Manual/Auto w/wo stop	Class 20	90	80	RT22D
CL06, CL07, CL08, CL09, CL10	30-43	Manual/Auto w/wo stop	Class 20	100	100	RT22E
CL06, CL07, CL08, CL09, CL10	42-55	Manual/Auto w/wo stop	Class 20	150	125	RT22G
CL07, CL08, CL09, CL10	54-65	Manual/Auto w/wo stop	Class 20	175	150	RT22H
CL08, CL09, CL10	64-82	Manual/Auto w/wo stop	Class 20	225	200	RT22J
CL10	78-97	Manual/Auto w/wo stop	Class 20	225	225	RT22L
CL10	90-110	Manual/Auto w/wo stop	Class 20	225	250	RT22M

<sup>1</sup>Do not exceed contactor current rating when selecting and adjusting overload relays. For panel mount use base adapter RT2XP.



**RT3 - Direct or Panel Mount**

Overload Relay for use with Contactors <sup>1</sup>	Current Range Amps (min-max)	Reset Type	Trip Class	Maximum Fuse Rating Amps	Maximum Circuit Breaker Rating Amps	Product Number
CK75, CK08	55-80	Manual	Class 10	225	200	RTN3B
CK75, CK08	63-90	Manual	Class 10	250	225	RTN3C
CK75, CK08	90-120	Manual	Class 10	350	300	RTN3D
CK75, CK08	110-140	Manual	Class 10	400	350	RTN3E
CK08	140-190	Manual	Class 10	450	500	RTN3F
CK75, CK08	55-80	Manual/Auto	Class 10	225	200	RT3B
CK75, CK08	63-90	Manual/Auto	Class 10	250	225	RT3C
CK75, CK08	90-120	Manual/Auto	Class 10	350	300	RT3D
CK75, CK08	110-140	Manual/Auto	Class 10	400	350	RT3E
CK08	140-190	Manual/Auto	Class 10	450	500	RT3F
CK75, CK08	63-90	Manual/Auto	Class 20	250	225	RT32C
CK75, CK08	90-120	Manual/Auto	Class 20	350	300	RT32D
CK75, CK08	110-140	Manual/Auto	Class 20	400	350	RT32E
CK08	140-190	Manual/Auto	Class 20	450	500	RT32F

<sup>1</sup>Do not exceed contactor current rating when selecting and adjusting overload relays.

**RT4 - Separate Mount**

Overload Relay for use with Contactors <sup>1</sup>	Current Range Amps (min-max)	Reset Type	Trip Class	Terminal Type	Maximum Fuse Rating Amps	Maximum Circuit Breaker Rating Amps	Product Number
CK09, CK95	120-190	Manual	Class 10	Bus bar <sup>2</sup>	600	500	RTN4N
CK09, CK95	175-280	Manual	Class 10	Bus bar <sup>2</sup>	800	700	RTN4P
CK95	200-310	Manual	Class 10	Bus bar <sup>2</sup>	900	800	RTN4R
CK09, CK95	120-190	Manual/Auto	Class 10	Bus bar <sup>2</sup>	600	500	RT4N
CK09, CK95	175-280	Manual/Auto	Class 10	Bus bar <sup>2</sup>	800	700	RT4P
CK95	200-310	Manual/Auto	Class 10	Bus bar <sup>2</sup>	900	800	RT4R
CK09, CK95	45-70	Manual/Auto	Class 30	Clamp	225	175	RT4LK
CK09, CK95	60-90	Manual/Auto	Class 30	Clamp	300	225	RT4LL
CK09, CK95	80-125	Manual/Auto	Class 30	Clamp	400	350	RT4LM
CK09, CK95	120-190	Manual/Auto	Class 30	Bus bar <sup>2</sup>	600	500	RT4LN
CK09, CK95	175-280	Manual/Auto	Class 30	Bus bar <sup>2</sup>	800	700	RT4LP
CK95	200-310	Manual/Auto	Class 30	Bus bar <sup>2</sup>	900	800	RT4LR

<sup>1</sup>Do not exceed contactor current rating when selecting and adjusting overload relays.

<sup>2</sup>Can be mounted to contactor with Overload Jumpers (listed on page 5-47) and Base Plate (CKXB01) (listed on page 5-47).

**RT5 - Separate Mount<sup>2</sup>**

Overload Relay for use with Contactors <sup>1</sup>	Current Range Amps (min-max)	Reset Type	Trip Class	Maximum Fuse Rating Amps	Maximum Circuit Breaker Rating Amps	Product Number
CK10, CK11, CK12	120-190	Manual	Class 10	800	500	RTN5A
CK10, CK11, CK12	175-280	Manual	Class 10	1200	700	RTN5B <sup>3</sup>
CK10, CK11, CK12	250-400	Manual	Class 10	1200	1000	RTN5C <sup>3</sup>
CK10, CK11, CK12	315-500	Manual	Class 10	1200	1200	RTN5D <sup>3</sup>
CK11, CK12.4	30-650	Manual	Class 10	1200	1200	RTN5E <sup>3</sup>
CK10, CK11, CK12	120-190	Manual/Auto	Class 10	800	500	RT5A
CK10, CK11, CK12	175-280	Manual/Auto	Class 10	1200	700	RT5B <sup>3</sup>
CK10, CK11, CK12	250-400	Manual/Auto	Class 10	1200	1000	RT5C <sup>3</sup>
CK10, CK11, CK12	315-500	Manual/Auto	Class 10	1200	1200	RT5D <sup>3</sup>
CK11, CK12.4	30-650	Manual/Auto	Class 10	1200	1200	RT5E <sup>3</sup>
CK10, CK11, CK12	120-190	Manual/Auto	Class 30	800	500	RT5LA
CK10, CK11, CK12	175-280	Manual/Auto	Class 30	1200	700	RT5LB
CK10, CK11, CK12	250-400	Manual/Auto	Class 30	1200	1000	RT5LC
CK10, CK11, CK12	315-500	Manual/Auto	Class 30	1200	1200	RT5LD
CK11, CK12	430-650	Manual/Auto	Class 30	1200	1200	RT5LE

<sup>1</sup>Do not exceed contactor current rating when selecting and adjusting overload relays.

<sup>2</sup>Can be mounted to contactor with Overload Jumpers (listed on page 5-47).

<sup>3</sup>Maximum fuse rating of 1000 amps/maximum circuit breaker rating of 600 amps when used with CK10CE or CK11CE contactors. Use CK10BE or CK11BE with higher rated protective devices indicated. CK12BE suitable for all ratings listed.



# IEC Power Devices

## IEC Contactors Thermal Overload Relays Accessories

### C-2000

#### Remote Electrical Reset

Remote electrical resets are used in applications where the motor starter is inaccessible or in automated control systems where it is required to reset the overload relay remotely after the fault has been cleared. Electrical reset coils are rated for intermittent duty and for use with momentary contacts. Minimum time .2 sec. on for reliable operation. Maximum time 1 sec. on/30 sec. off, 5 sec. on/90 sec. off, 10 sec. on/180 sec. off. Power consumption is 100VA/100 watts.

For Use With	Voltage 50/60 Hz AC or DC	Product Number
All RT overload relays	12	RTXRRB
All RT overload relays	24	RTXRRD
All RT overload relays	48	RTXRRG
All RT overload relays	110-120	RTXRRJ
All RT overload relays	220-240	RTXRRN
All RT overload relays	380-415	RTXRRU
All RT overload relays	440-480	RTXRRX



RTXRR\_\_Remote Electrical Reset

#### Overload Base Adapter

Permits mounting of RT1 or RT2 overload on panel or DIN rail.

For Use With	Product Number
RT1	RTXP
RT2	RT2XP



RT\_\_Overload Base Adapter

#### Transparent Cover for Range Adjustment Dial

Deters tampering with dial.

For Use With	Product Number
All Overload Relays	RTX3 <sup>1</sup>

<sup>1</sup>Product number represents a quantity of 10 pieces.



RTX3 Transparent Cover

#### Locking Plug for Manual/Auto Selector

Prevents changing reset mode after installation.

For Use With	Product Number
All Overload Relays	RTXL <sup>1</sup>

<sup>1</sup>Product number represents a quantity of 10 pieces.



RTXL Locking Plug

#### Flexible Cable Reset Button

Allows manual reset of overload when overload is mounted in a special or inaccessible position. Fits standard 22.5 mm panel hole.

For Use With	Cable Length	Product Number
All Overloads	.5 meter	RTXR
All Overloads	1.0 meter	RTXRL



RTXR Flexible Cable Reset Button



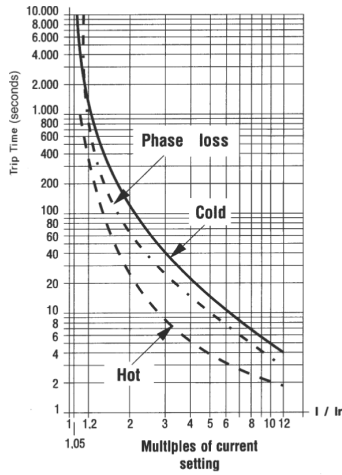
# IEC Power Devices

## IEC Contactors Thermal Overload Relays

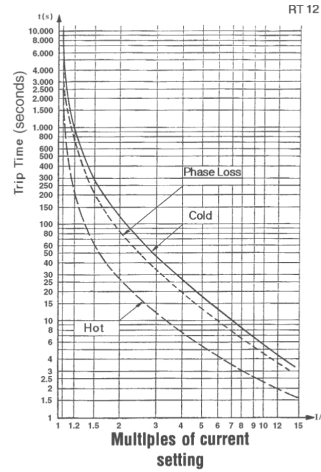
### Technical Characteristics

#### C-2000

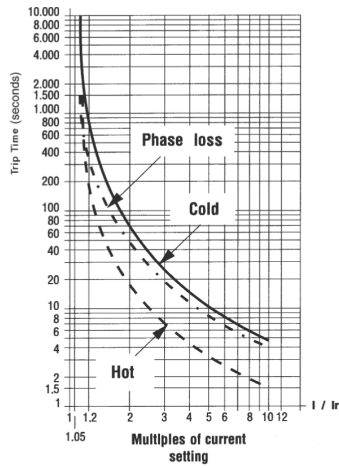
## Section 5



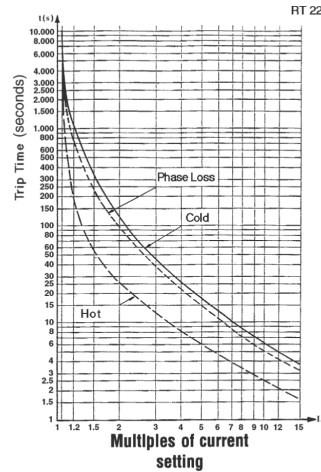
Class 10 RT1



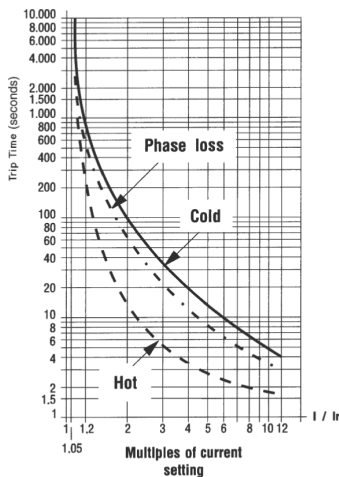
Class 20 RT12



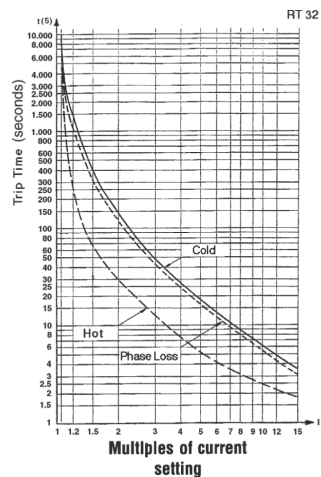
Class 10 RT2



Class 20 RT22



Class 10 RT3

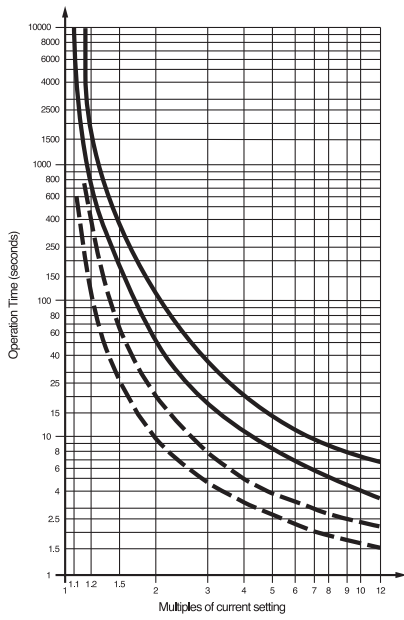


Class 20 RT32

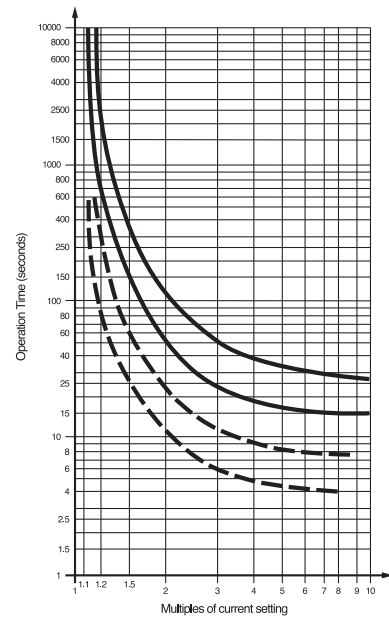


Product Number Selection Instructions: See page 5-37

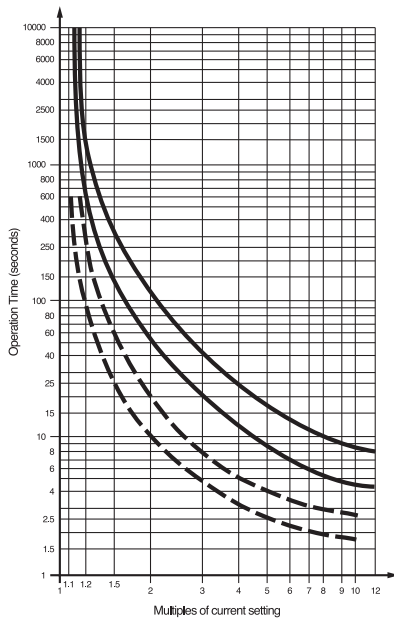
# IEC Power Devices IEC Contactors Thermal Overload Relays Technical Characteristics C-2000



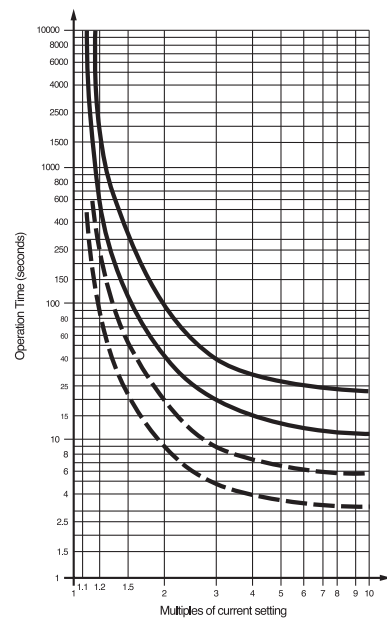
RT4



RT4L



RT5



RT5L

