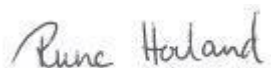


FDV – DOKUMENTASJON		Nr.: 044
		Rev.:
		Dato: 5.8.2015
Produktspesifikasjon	Termisk relé	
Produktnavn	Serie MTO for kontaktor M Serie RT1 og RT2 for kontaktor CL Serie RT3 for kontaktorCK	
Anvisning for drift	Ingen	
Vedlikehold	Produktet er vedlikeholdsritt	
Henvisninger Vedlegg	Produktkatalog, dokumentasjon, brukerveiledning og tekniske data	
Produsent	General Electric	
Importør	EFA Elektro AS, Postboks 593, 1411 Kolbotn, Norway Tlf. 66812400 e-mail: post@efa.no - www.efa.no	

EFA Elektro AS



Serviceingeniør vern og startapparater

Technical data

General

- Thermal protection against balanced overload.
- Three-pole differential (phase unbalance protection).
- Automatic ambient temperature compensation.
- Front mounted selector for choosing utilisation current.
- Reset button, 2 positions :
Manual(H) and Automatic(A) by turning the blue selector.
- Stop push button, independent of reset (red).
- Manual trip lever (tripping test).
- Tripping indicator (0-1).
- To facilitate wiring arrangements terminal 96 fits directly onto coil terminal (A2) and terminal 14/22 fits directly onto the feedback auxiliary contact.

Conformity to standards

IEC 60947-4	CEI 17-50	VDE660
UNE 115	NI C63-650	UL508
NFC63-650		

Approvals

UL	CSA	SEMKO
SETI	NEMKO	CE

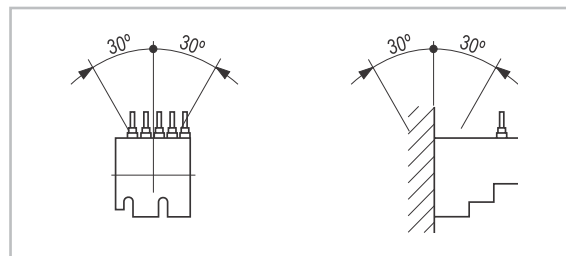
Ambient conditions

Storage temperature	-55°C to +80°C	
Operation temperature	-25°C to +60°C	
Altitude	up to 3000m	Nominal values
	from 3000 to 4000m	90%le 80%Ue
	from 4000 to 5000m	80%le 75%Ue
Degree of protection	IP20	
Protection treatment	Tropical finish	

Climatic resistance

Continuous tests 40 / 125 / 56		
Cold (72h)	Temperature	-40°C
	Relative humidity	< 50%
Dry heat (96h)	Temperature	+125°C
	Relative humidity	< 50%
Humid heat (56 days)	Temperature	+40°C
	Relative humidity	95%
Cyclical tests		
First half-cycle (12h)	Low temperature	+25°C
	Relative humidity	93%
Second half-cycle (12h)	Low temperature	+55°C
	Relative humidity	95%
Number of consecutive cycles		6

Mounting positions



Main circuit (poles)

		MT0...
Rated insulation voltage (Ui)	(V)	750
according to IEC 947		
Frequency	(Hz)	0..400
Power dissipation per pole	(W)	min. 1 / max. 2.5
Terminal capacity		
Screw M 3.5 (pozidrive head)		
safety flange		
Maximum capacity :		
Solid	(Ø mm)	2 x 2 wires
Stranded without end sleeve	(mm²)	2 wires Ø 2.5
Stranded with end sleeve		
pen (2 end sleeves)	(mm²)	2 wires Ø 0.75
pen (1 end sleeve)	(mm²)	2 wires Ø 1
		1 wires Ø 2.5
Tightening torque	(Nm)	0.8

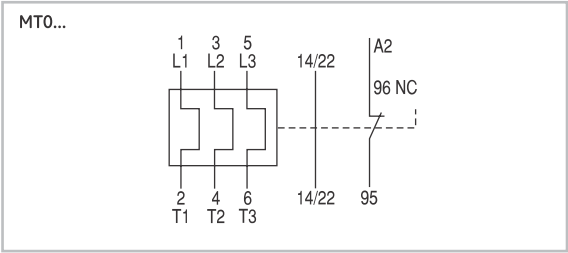
Control circuit (incorporated auxiliary contact)

		MT0...
Rated insulation voltage (Ui)	(V)	750
according to IEC 947		
Rated thermal current (Ith) $\theta \leq 60^\circ\text{C}$	(A)	10
Tripping currents		
AC-15	Ue-Ie	(V-A) 223-3, 380-2, 500-1
DC-13	Ue-Ie	(V-A) 60-0.5, 110-0.2, 220-0.1
Short-circuit protection (max.glass gL fuse - w/h welding)	(A)	6
Number and type of contacts		

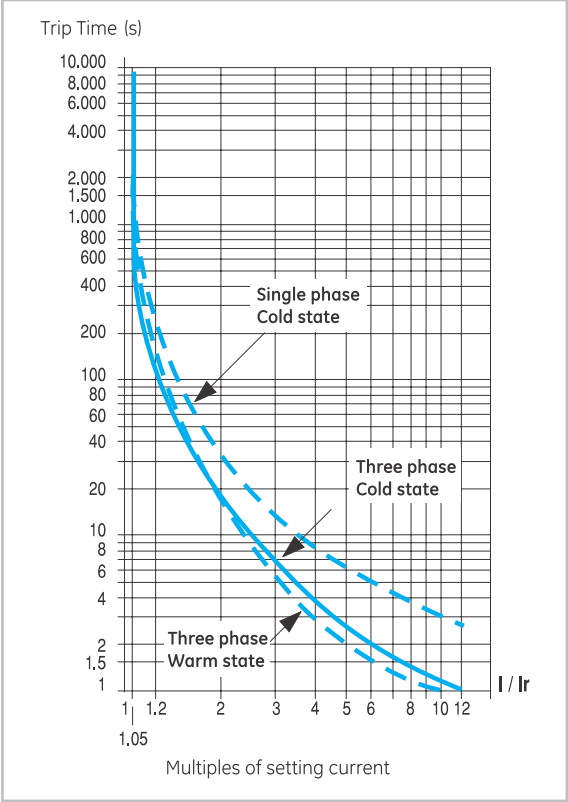
Control circuit (auxiliary contact block)

		MATV10AT
Rated insulation voltage (Ui)	(V)	750
according to IEC 947		
Rated thermal current (Ith) $\theta \leq 60^\circ\text{C}$	(A)	10
Tripping currents		
AC-15	Ue-Ie	(V-A) 223-1, 380-0.5
DC-13	Ue-Ie	(V-A) 60-0.1, 110-0.5
Short-circuit protection (max.glass gL fuse - w/h welding)	(A)	6
Number and type of contacts		

Numbering of the terminals

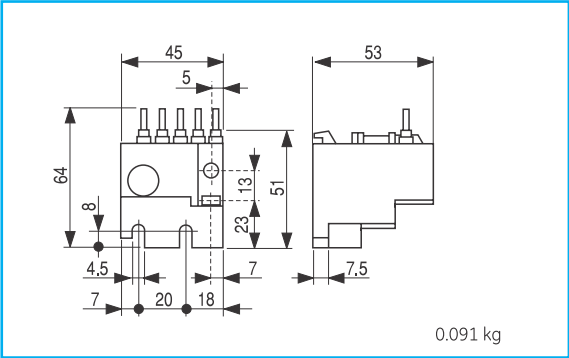


Tripping curves

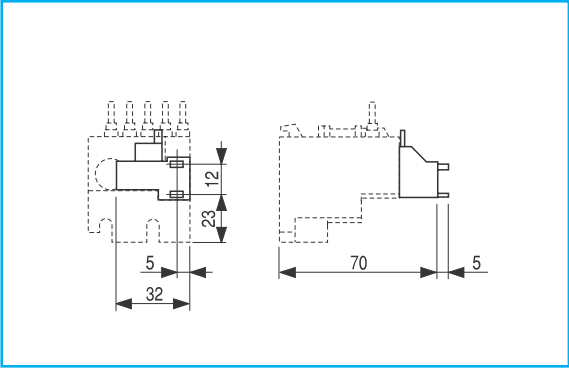


Dimensional drawings

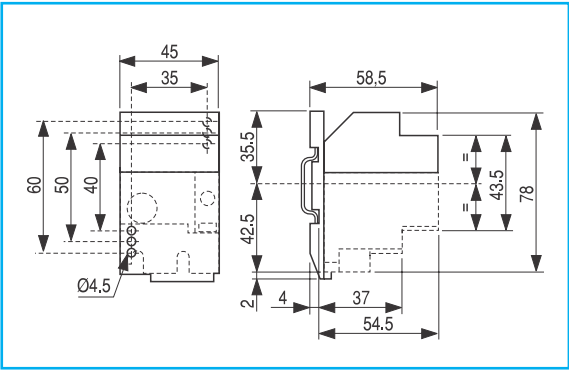
Thermal overload relay



Thermal overload relay + aux. contact block (front mounting)



Independent mounting of the thermal overload relay



Technical data

		RT1...	RT2...	RT3...	RT4.../ 4L...	RT5.../ 5L...	RT6.../ 6L...
General							
Class		10A / 20	10 / 20	10 / 20	10 / 30	10 / 30	10 / 30
Setting range	(A)	0.16 ... 40	11.5 ... 110	55 ... 190	2.5 ... 310	120 ... 700	500 ... 850
Suitable for		CL00...CL45	CL05...CL10	CK75...CK08	CL,CK	CK10...CK12	CK13
Main circuit							
Rated insulation voltage	(V)	690	1000	1000	1000	1000	1000
(IEC947-4) Ui							
Frequency limits	(Hz)	0...400	0...400	0...400	50...60	50...60	50...60
Terminal capacity							
Clamp terminal - solid	(mm ²)	16	50	120	-	-	-
Clamp terminal - flexible	(mm ²)	10	50	120	-	-	-
Flat terminal	(mm)	-	-	25 x 5	-	-	80 x 10
Passing by hole (wire) through C.T. core	(mm ²)	-	-	-	-	400	-
Passing by hole (bar) through C.T. core	(mm)	-	-	-	30 x 10	30 x 10	-
Tightening torque	(Nm)	2.5	4.5	6.5	23	31.5	-
Control circuit							
Rated insulation voltage	(V)	690					
(IEC60947-4) Ui							
Rated thermal current Ith	(A)	10					
Operation current							
AC-15 - Ue-Ie	(V - A)	110/120 - 3 ; 220/240 - 2 ; 380/415 - 1 ; 480/500 - 0.8 ; 660/690 - 0.3					
DC-13 - Ue-Ie	(V - A)	24 - 2 ; 48 - 1.4 ; 110 - 0.6 ; 250 - 0.3 ; 440 - 0.1					
Utilisation according UL and CSA		B600 - Q600					
Protective fuse type gL	(A)	10					
Terminal capacity	(mm ²)	2.5					
Tightening capacity	(Nm)	0.8					

Conformity to standards

IEC/EN 60947-4-1	NFC 63-650	NI C 63-650
IEC/EN 60947-5-1	CEI 17-50	VDE 0660
UNE 115	CSA 22.2/14	UL 508

Remote electrical reset

Power consumption		
AC	(VA)	100
DC	(W)	100

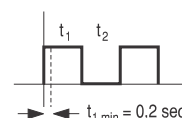
Coils not suitable for continuous operating duty

Approvals

cULus	RINA	CE
Lloyd's Register	Bureau Veritas	

Ambient conditions

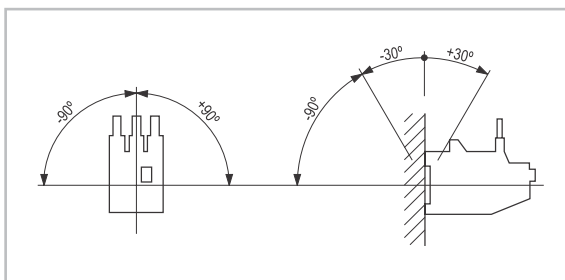
Storage temperature	-40°C to +70°C
Operation temperature (compensated)	-25°C to +60°C
Altitude	up to 3000m
	w/o any changes in characteristics
Relative humidity	98%
Protection treatment	Tropical finish



t ₁ = 1 sec.	◆	t ₂ = 30 sec.
t ₁ = 5 sec.	◆	t ₂ = 90 sec.
t ₁ = 10 sec.	◆	t ₂ = 180 sec.

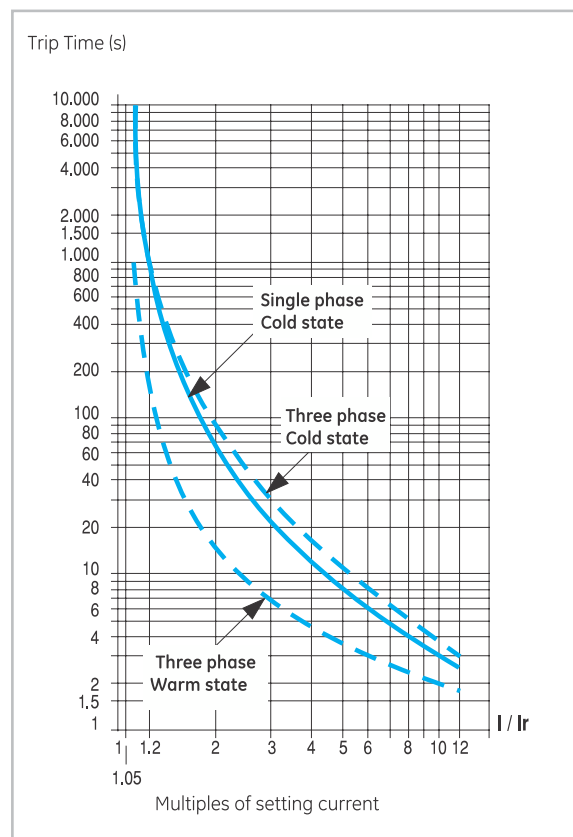
(t₁ = ON time t₂ = OFF time)

Mounting positions

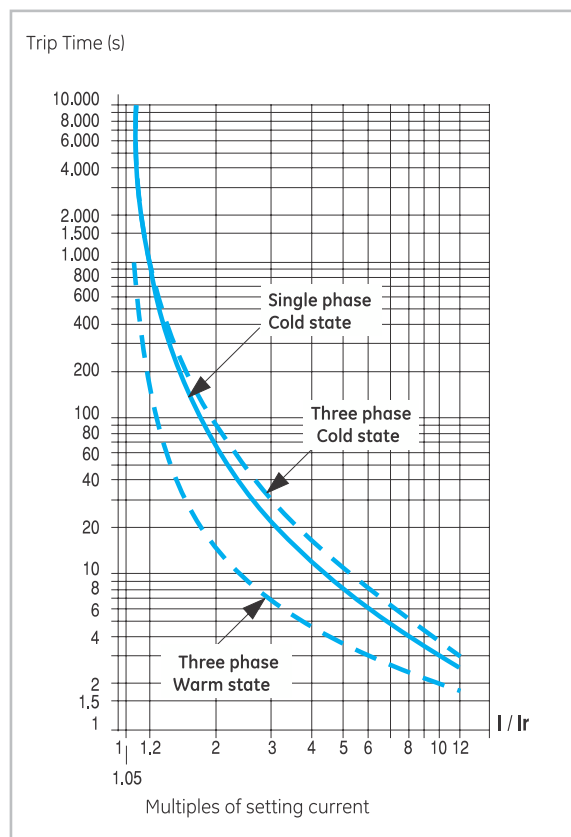


Tripping curves

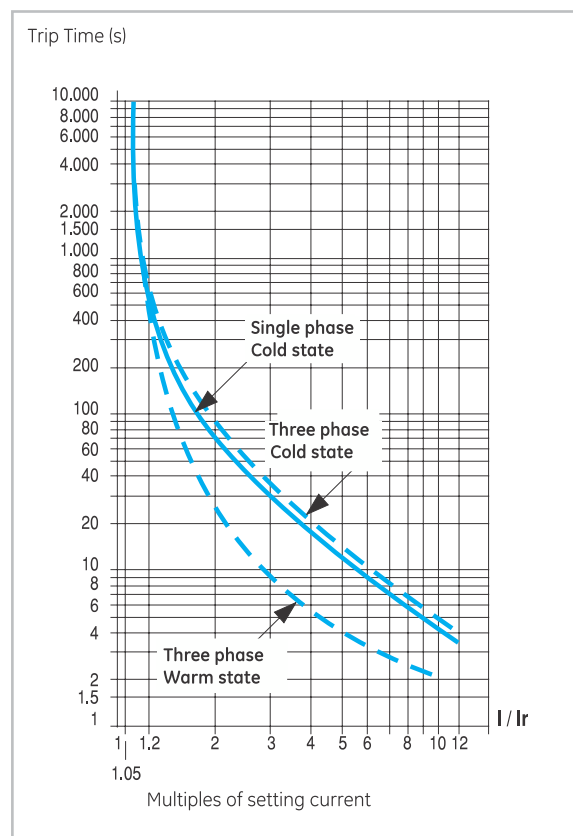
RT1 Class 10A



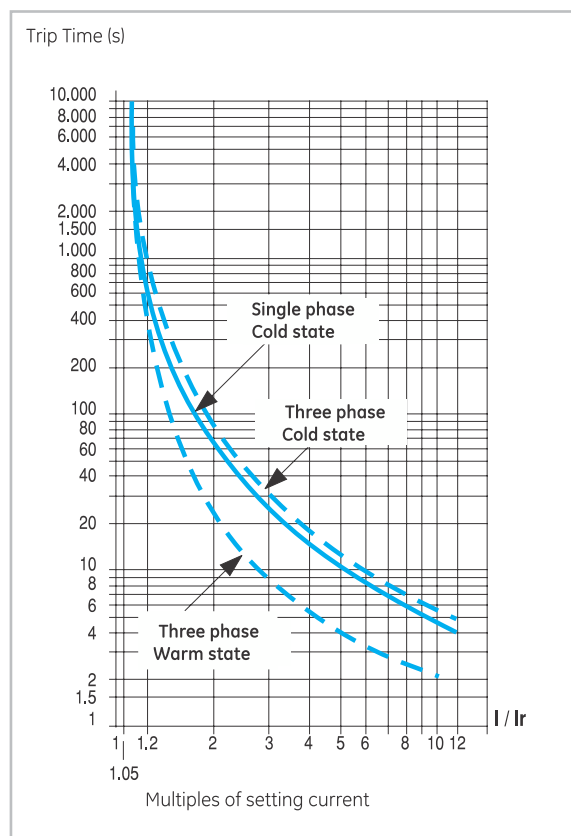
RT2 Class 10



RT12 Class 20

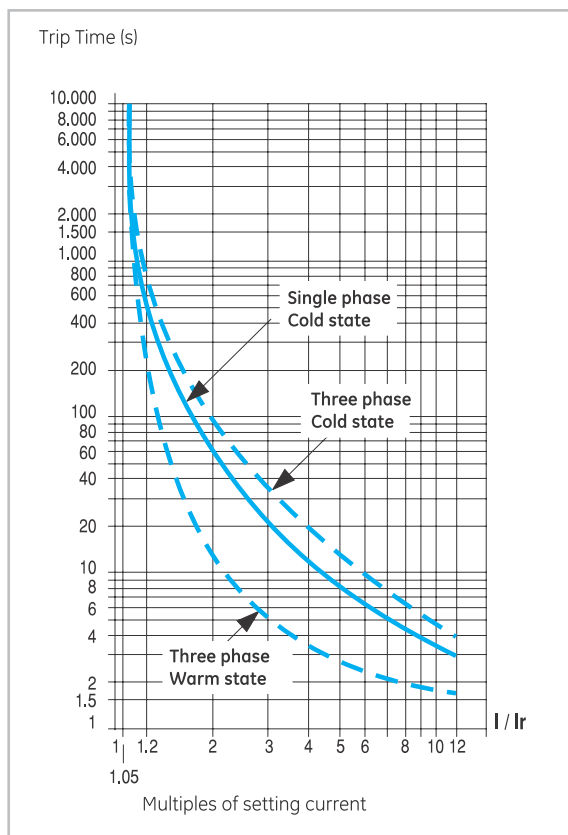


RT22 Class 20

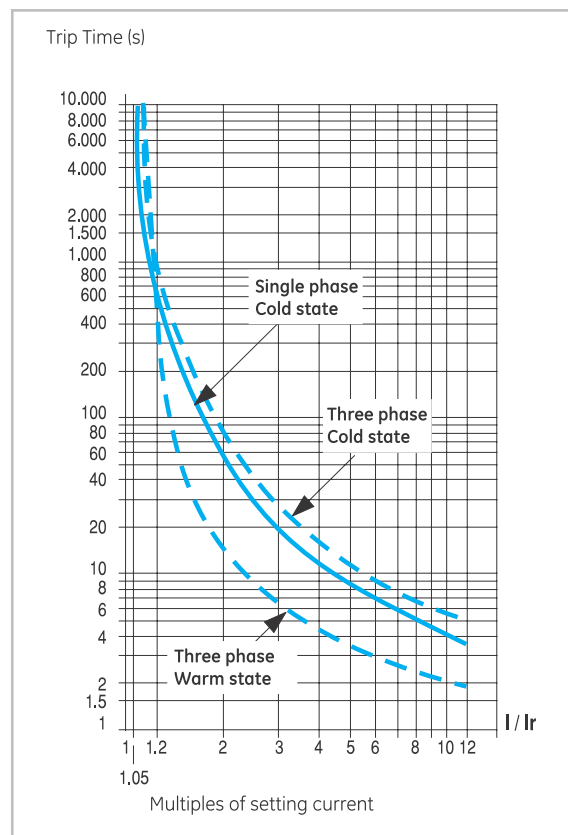


Tripping curves

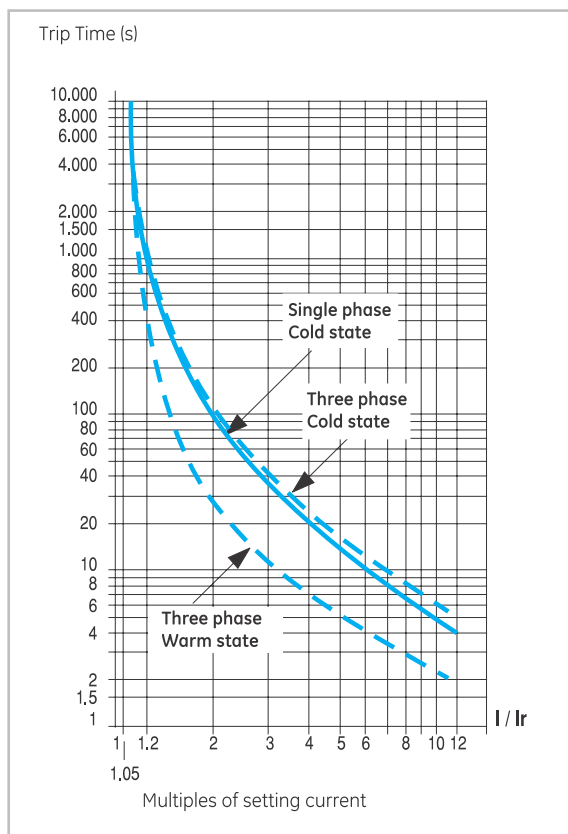
RT3 Class 10



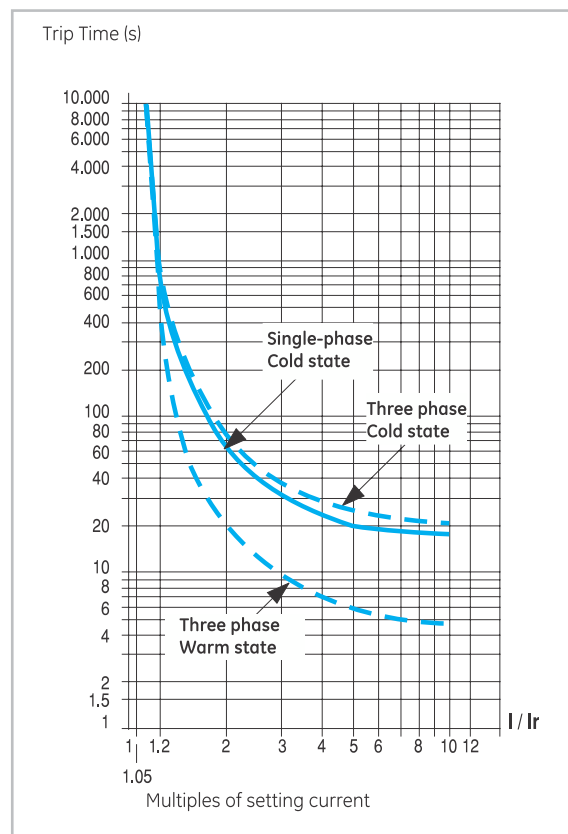
RT4 Class 10



RT32 Class 20

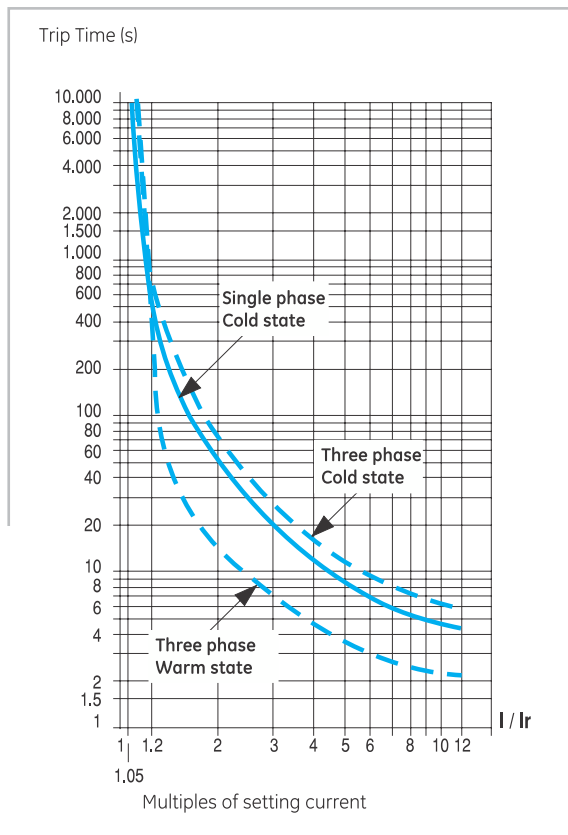


RT4L Class 30

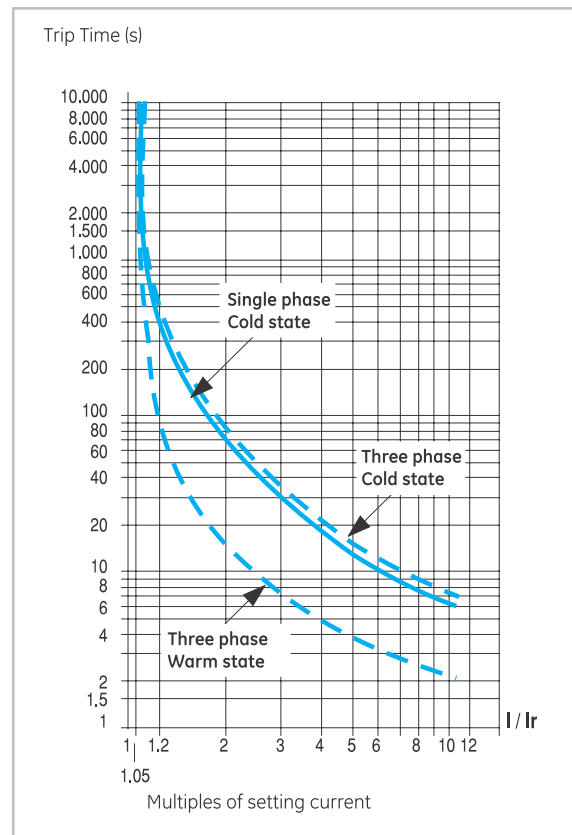


Tripping curves

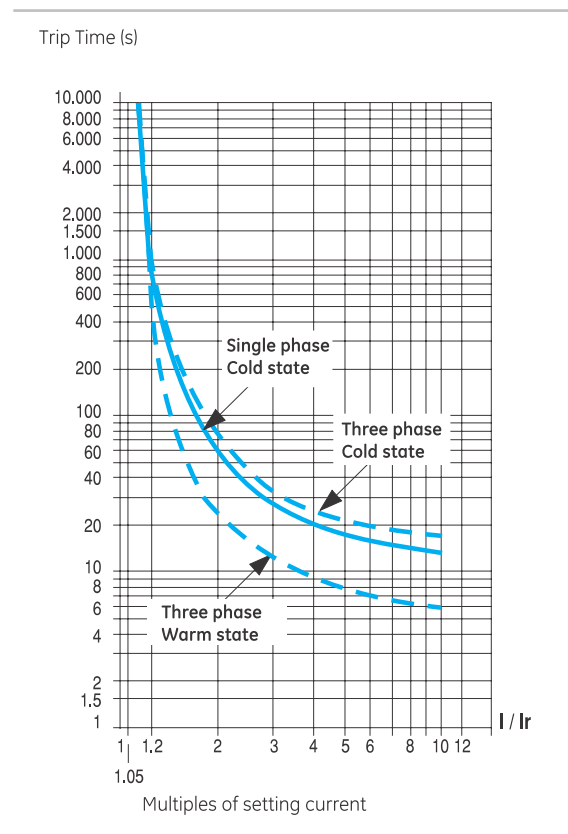
RT5 Class 10



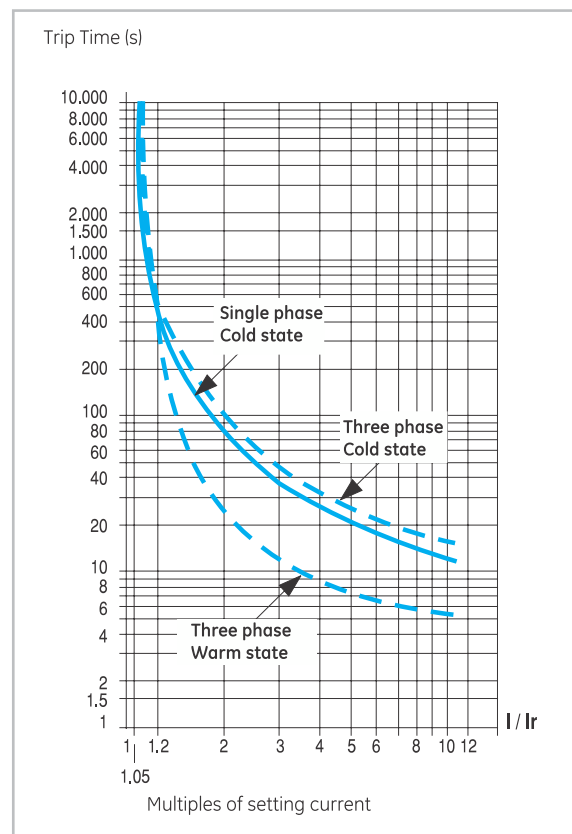
RT6 Class 10



RT5L Class 30



RT6L Class 30

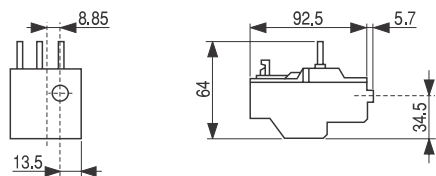


Dimensional drawings

Thermal overload relay for contactors

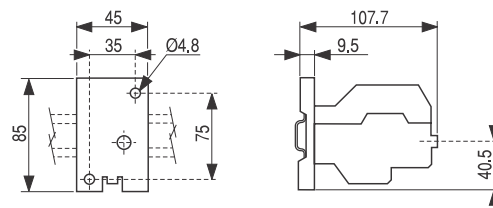
RT1 - RT12

0.190 kg



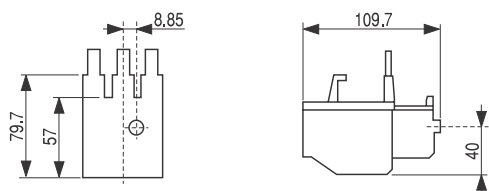
RT1 + RT XP

RT12 + RTXP



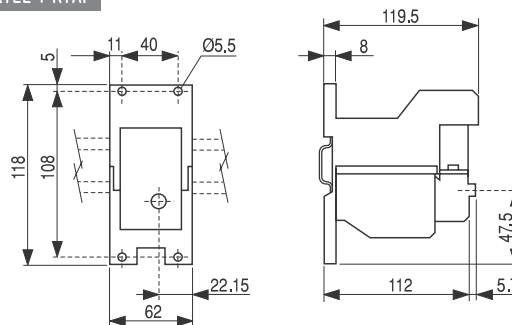
RT2 - RT22

0.400 kg



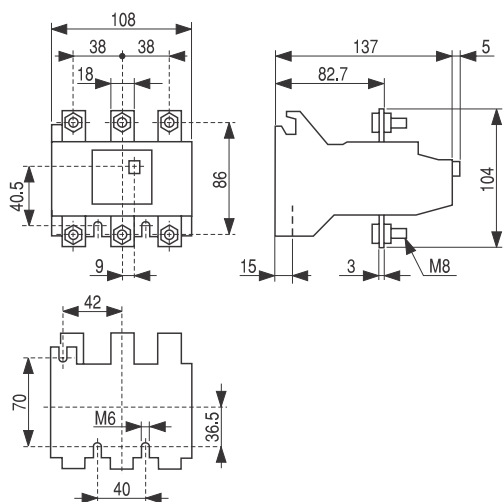
RT2 + RT XP

RT22 + RTXP



RT3 - RT32

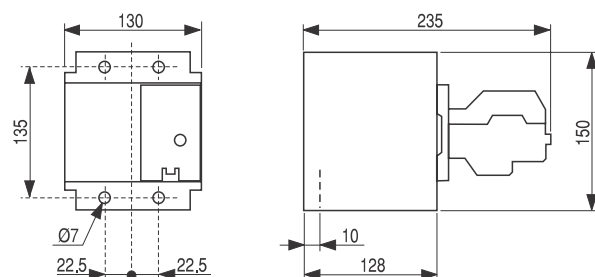
0.900 kg



Thermal overload relay for contactors

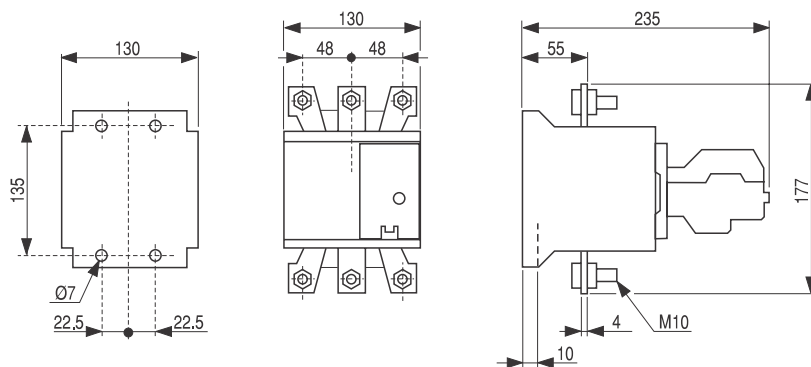
RT4LA...RT4LM

2.400 kg



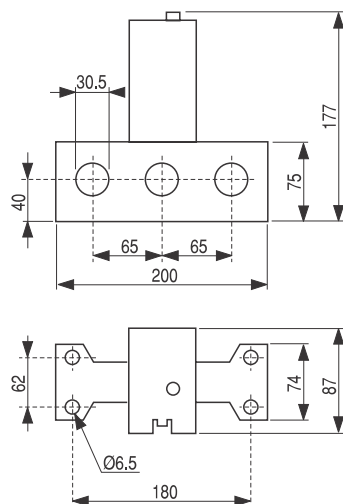
RT4/4LN...RT4/4LR

2.400 kg

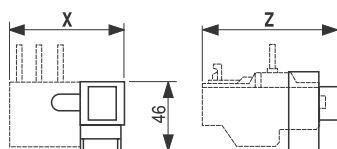


RT5 / 5L

0.875 kg



Remote electrical reset



RTXRR + ...	X	Z
RT1	75	110
RT2	84	121
RT3	108	153
RT4	150	240
RT5	200	196