

Product Details and Certifications

Cross Reference RA Part Number: 193-TAC10 A

 Product: **193-TAC10**

Description: 193-T Thermal Overload Relay, IEC, Bimetallic, 6.0-10.0A



Representative Photo Only (actual product may vary based on configuration sections)

OVERLOAD DATA

Bulletin Number	193-IEC Overload Relay
Overload Relay Type	Biometric
Full Load Current Range (A)	6.0-10.0A

CONTACTOR DATA

Phases	3 Phase
Separate Mounting	No

CERTIFICATIONS AND APPROVALS

UL
IEC
CSA
CE

Bulletin 193-T Bimetallic Overload Relays

Thermal Overload Relays

For Use With*	Setting Range [A] ‡ §	Cat. No.
100-C09...100-C37	0.1...0.16	193-TAA16
	0.16...0.24	193-TAA24
	0.24...0.4	193-TAA40
	0.4...0.6	193-TAA60
	0.6...1.0	193-TAB10
	1.0...1.6	193-TAB16
	1.6...2.4	193-TAB24
	2.4...4	193-TAB40
	4...6	193-TAB60
	6...10	193-TAC10
100-C12...100-C37	10...16	193-TAC16
100-C23...100-C37	16...24	193-TAC24
100-C30...100-C43	18...30	193-TBC30
100-C37...100-C43	30...45	193-TBC45
100-C60...100-C85	18...30	193-TCC30
	30...45	193-TCC45
	45...60	193-TCC60
100-C72...100-C85	60...75	193-TCC75
Separate Mounting Required	70...90	193-TDC90



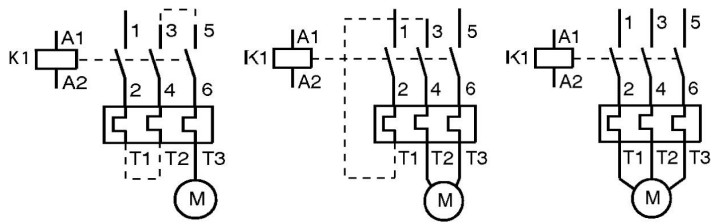
* Bulletin 193-T overload relays should not be direct mounted with DC coil contactors.

‡ To select the setting range for use in Y-Δ Starters, multiply the rated operating current of the motor by a factor of 0.58.

§ For motors with service factor of 1.15 or greater, use motor nameplate full load current. For motors with service factor of 1.0, use 90% of the motor nameplate full load current.

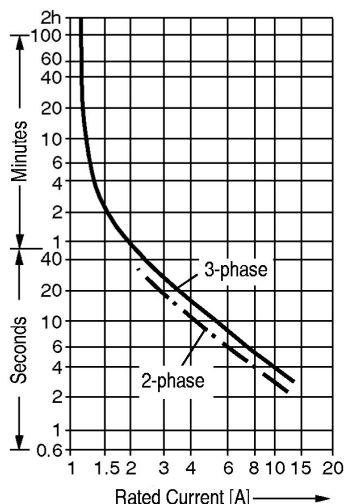
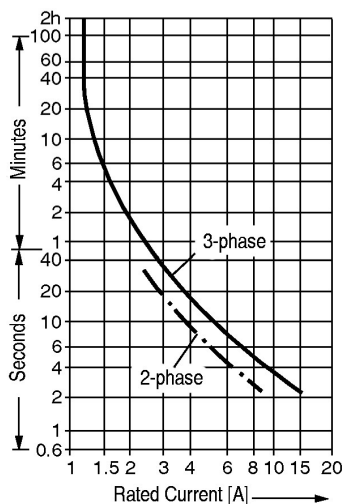
Thermal Overload Relays

Circuit Diagrams



Trip Characteristics

These trip characteristics refer to IEC 60947 and are average values from cold start at an ambient temperature of 20 °C. Trip time is pictured as a function of operating current. With the device at normal operating temperature, the trip time decreases to approximately 25% of the shown value.



Main Circuits

Cat. Nos.		193-TA...	193-TB...	193-TC...	193-TDC90
Rated isolation voltage U_i	[V]	690			1000
Rated surge withstand U_{imp}	[kV]	6			8
Rated operating voltage U_e	[V]	690			1000
Overvoltage category/pollution degree		III/3			
Safe isolation (between main circuit and auxiliary contacts per DIN, VDE 106, Part 101 and Part 101 A1)	[V]	440			
Current setting range		0.1...24	18...45	18...60 (75)	70...90
Direct load loss (for 3 current paths)					
min. value of adjustment range	[W]	2.5	3	3 (7)	16
max. value of adjustment range	[W]	6	7.5	7.5 (10)	23
Wiring cross section Type of clamp					
Terminal screws		M 4	M 6		M 8
	multi-strand conductor with ferrule	[mm ²]	2 x (1...4)	1 x 25 / 2 x (1...10)	50
	solid conductor multi-strand conductor solid or multi-strand	[mm ²]	2 x (1...6)	2 x (1... 16)	16
		[mm ²]	14... 8	14... 2	50
		[AWG]			2
Flexible bus [mm]		—	—		6 x 9 x 0.8
Recommended tightening torque	[Nm] [lb-in]	1.8 (16)	3.5 (31)		6 (54)
Pozidrive screwdriver	Size	2			—
Slotted screwdriver	[mm]	1 x 6			—
Hex-head screw	[mm]	—			4








General

Cat. Nos.		193-TA...	193-TB...	193-TC...	193-TDC90
Weight	[kg (lbs)]	0.130 (0.29)	0.210 (0.46)	0.210 (0.46)	1.300 (2.86)
Standards		IEC 60947, DIN VDE 0660			
Approvals		CE, UL Listed, CSA, PTB, RINA			
Climatic withstand		humid/warm, constant, per DIN, IEC 68, Part 2-3 humid/warm, cyclic, per DIN, IEC 68, Part 2-30			
Ambient temperature	open enclosed	-25...+50° C (-13...122° F)			
		-25...+40° C (-13...104° F)			
Temperature compensation		continual			
Shock withstand (Sin impact 10 ms)	[G]	10			
Protection class		IP00			
		IP2X when attached			
Contact protection		Finger- and back of hand proof (VDE 0106, Part 100)			

Control Circuits



Cat. Nos.		193-TA...	193-TB...	193-TC...	193-TDC90
Rated isolation voltage U_i	[V]	500			
Rated surge withstand U_{imp}	[kV]	6			
Rated operating voltage U_e	[V]	500			
Overvoltage category/pollution degree		III/3			
Rated operating current I_e					
AC-15	220...240V	[A]	1.5	1.5	
	380...415V	[A]	0.5	0.9	
	500V	[A]	0.5	0.8	
DC-13	24V	[A]	0.9	0.9	
	60V	[A]	0.75	0.75	
	110V	[A]	0.4	0.4	
	220V	[A]	0.2	0.2	
Safe isolation (between auxiliary contacts) per DIN, VDE 106, and Part 101 A1	[V]	240			
Conventional thermal current I_{th}	[A]	6			
Short circuit withstand without welding, fuse g_L	[A]	6			
Wiring cross section Type of clamp					
Terminal screw		M 3.5			
 multi-strand conductor with ferrule	[mm ²]	2 x (0.75...2.5)			
 solid conductor solid or multi-strand	[mm ²]	2 x (0.75...4)			
	[AWG]	18...14			
Recommended tightening torque	[Nm (lb-in)]	1.2 (11)			
Pozi-driv screwdriver	Size	2			
Slotted screwdriver	[mm]	1 x 6			