

D Line Motor Controls

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Contactors XTCD



Contactor XTCD

1

Thermal overload relay XTOD

2

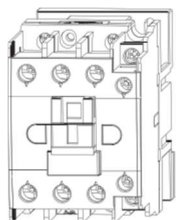
Thermal overload relays XTOD





The D line motor control product is the newest addition to Eaton's portfolio line of control components. With product specifications in line with global standards, and a capacity of up to 500A, the D line is perfect for everyday power control applications. The D line offers control relays, contactors and overload relays to match any need. Simple, but efficient control for applications including pumps, fans, compressors and more, the D line delivers reliable operation in a compact package.

Contactors XTCD



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Contactors XTCD

Product Description

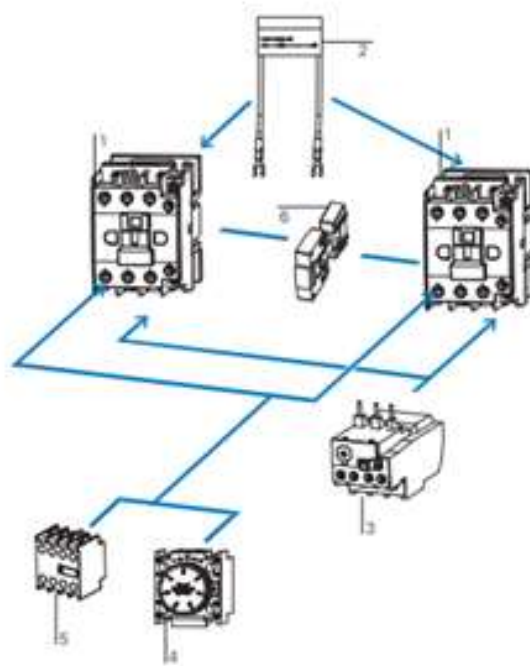
- 8 frame sizes with current ranging from 6-500A@AC-3, 400V
- Built-in auxiliary contacts for all frames
- Add-on auxiliary contacts for all frames
- Wide range of control voltages from 24-400V at 50/60Hz
- Wide selection of accessories for all frames
- DIN rail mounting or bottom panel mounting

Standards and Certifications

- GB/T 14048.4
- IEC/EN 60947-4-1
- CCC
- CE



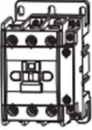
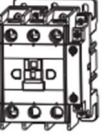
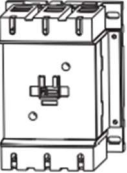
1.1 Contactors XTCD System overview

1 System overview



- 1. Contactor
- 2. Surge suppressor
- 3. Thermal overload relay
- 4. Air delay head
- 5. Auxiliary contact
- 6. Mechanical interlock

Contactors

Connection type	Rated operational current AC-3(A)	Max rated power of 3-phase motors AC-3 kW			Conventional thermal current, $\leq 60^{\circ}\text{C}$ Ith=Ie (A)	Contact		Contact No.	Can be combined with accessories	AC coil Part No. Article No.
		380/400V	220/230V	380/400V		660/690V	N/O=Normally open			
	Screw terminals	6A	1.5	2.2	3	20	1	1	XTCD...-XHI... Auxiliary contacts	XTCD6-11(220V50/60Hz) CMD00504
	Screw terminals	9A	2.2	4	5.5	20	1	1		XTCD9-11(220V50/60Hz) CMD00512
	Screw terminals	12A	3	5.5	7.5	20	1	1	XTCD...-TDM Air delay heads	XTCD12-11(220V50/60Hz) CMD00520
	Screw terminals	18A	4	7.5	9	32	1	1		XTCD18-11(220V50/60Hz) CMD00528
	Screw terminals	25A	5.5	11	15	40	1	1	XTCD...-TDB... Air delay heads	XTCD25-11(220V50/60Hz) CMD00536
	Screw terminals	32A	7.5	15	18.5	50	1	1		XTCD32-11(220V50/60Hz) CMD00544
	Screw terminals	38A	9	18.5	18.5	50	1	1		XTCD38-11(220V50/60Hz) CMD00552
	Screw terminals	40A	11	18.5	30	60	1	1		XTCD40-11(220V50/60Hz) CMD00560
	Screw terminals	50A	15	22	33	80	1	1		XTCD50-11(220V50/60Hz) CMD00568
	Screw terminals	65A	18.5	30	37	80	1	1		XTCD65-11(220V50/60Hz) CMD00576
	Screw terminals	80A	22	37	45	125	1	1		XTCD80-11(220V50/60Hz) CMD00584
	Screw terminals	95A	22	45	55	125	1	1		XTCD95-11(220V50/60Hz) CMD00592
	Screw terminals	115A	30	55	-	200	0	0		XTCD115(220V50Hz) CMD00600
	Screw terminals	150A	40	75	-	200	0	0		XTCD150(220V50Hz) CMD00616
	Screw terminals	170A	55	90	-	200	0	0		XTCD170(220V50Hz) CMD00632

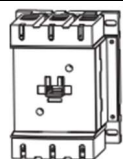
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Contactors XTCD Basic device

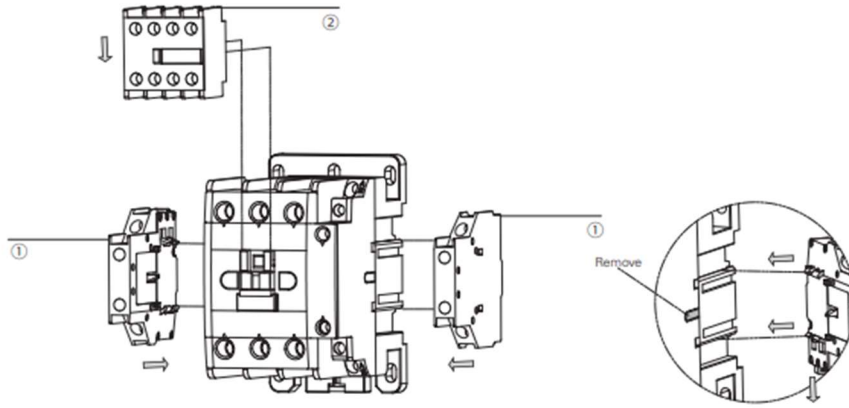
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Contactors

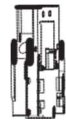


Connection type	Rated operational current AC-3(A)	Max motor rating for 3-phase motors AC-3 kW			Conventional thermal current, $\leq 60^{\circ}\text{C}$ $I_{th}=I_e$ (A)	Contact		Contact No.	Can be combined with accessories	AC coil Part No. Article No.
		380/400V	220/230V	380/400V		660/690V	N/O=Normally open			
Screw terminals	115A	30	55	-	200	0	0	XTCD...XHI... Auxiliary contacts	XTCD115(220V60Hz) CMD00608	
Screw terminals	150A	40	75	-	200	0	0	XTCD...TDM Air delay heads	XTCD150(220V60Hz) CMD00624	
Screw terminals	170A	55	90	-	200	0	0	XTCD...TDB... Air delay heads	XTCD170(220V60Hz) CMD00640	

Auxiliary contact modules



- ① Side-mounted auxiliary contact
- ② Top-mounted auxiliary contact



XTCD95-XHI11-S






XTCD170-XHI20
XTCD170-XHI02
XTCD170-XHI11




XTCD170-XHI40
XTCD170-XHI31
XTCD170-XHI22
XTCD170-XHI13
XTCD170-XHI04

XTCD6-95	2x	1x	-
	2x	-	1x
XTCD115-170	2x	1x	-
	2x	-	1x

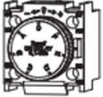
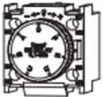
- Up to 2 side-mounted auxiliary contacts + 1 top-mounted auxiliary contact can be installed

	Connection type		Conventional thermal current, $\leq 60^\circ\text{C}$ $I_{th}=I_e$ (A)	Contact N/O=Normally open N/C=Normally closed	Contact No.	Can be combined with basic devices	Part No. Article No.	Standard package
Auxiliary contact, side mounting 	Screw terminals	2-pole	10	1NO 1NC		XTCD6-11~ XTCD95-11	XTCD95-XHI11-S CMD00644	1 piece
		2-pole	10	2NO		XTCD6-11 XTCD9-11	XTCD170-XHI20 CMD00646	1 piece
Auxiliary contact, top mounting 	Screw terminals	2-pole	10	2NC		XTCD12-11	XTCD170-XHI02 CMD00647	1 piece
		2-pole	10	1NO 1NC		XTCD18-11 XTCD25-11 XTCD32-11	XTCD170-XHI11 CMD00648	1 piece
Auxiliary contact, top mounting 	Screw terminals	4-pole	10	4NO		XTCD38-11	XTCD170-XHI40 CMD00649	1 piece
		4-pole	10	3NO 1NC		XTCD40-11	XTCD170-XHI31 CMD00650	1 piece
		4-pole	10	2NO 2NC		XTCD50-11 XTCD65-11	XTCD170-XHI22 CMD00651	1 piece
		4-pole	10	1NO 3NC		XTCD80-11 XTCD95-11	XTCD170-XHI13 CMD00652	1 piece
		4-pole	10	4NC		XTCD115 XTCD150 XTCD170	XTCD170-XHI04 CMD00653	1 piece

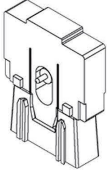
Surge suppressors

	Voltage V	For use with	Contact No.	Part No. Article No.	Standard package
Surge suppressor 	24-48V	XTCD6-11 XTCD9-11		XTCD38-SA(24-48VAC) CMD00666	1 piece
	110-230V	XTCD12-11 XTCD18-11 XTCD25-11		XTCD38-SA(110-230VAC) CMD00667	1 piece
	380-440V	XTCD32-11 XTCD38-11		XTCD38-SA(380-400VAC) CMD00668	1 piece
	24V	XTCD40-11 XTCD50-11		XTCD95-SA(24VAC) CMD00669	1 piece
	36V	XTCD65-11 XTCD80-11		XTCD95-SA(36VAC) CMD00670	1 piece
	48V	XTCD95-11		XTCD95-SA(48VAC) CMD00671	1 piece
	110V			XTCD95-SA(110VAC) CMD00672	1 piece
	220V			XTCD95-SA(220VAC) CMD00673	1 piece
	380V			XTCD95-SA(380VAC) CMD00674	1 piece


Air delay heads

	For use with	Category	Time range	Part No. Article No.	Standard package	
	XTCD6-11 XTCD9-11	Power-on delay	0.1-3S	XTCD95-TDM003 CMD00654	1 piece	
	XTCD12-11 XTCD18-11 XTCD25-11	Power-on delay	0.1-30S	XTCD95-TDM030 CMD00655	1 piece	
	XTCD32-11 XTCD38-11	Power-on delay	10-180S	XTCD95-TDM180 CMD00656	1 piece	
	XTCD40-11 XTCD50-11	Power-on delay	0.1-3S	XTCD95-TDB003 CMD00657	1 piece	
	XTCD65-11 XTCD80-11 XTCD95-11	Power-on delay	0.1-30S	XTCD95-TDB030 CMD00658	1 piece	
		Power-on delay	10-180S	XTCD95-TDB180 CMD00659	1 piece	
		XTCD115 XTCD150 XTCD170	Power-on delay	0.1-3S	XTCD170-TDM003 CMD00660	1 piece
			Power-on delay	0.1-30S	XTCD170-TDM030 CMD00661	1 piece
			Power-on delay	10-180S	XTCD170-TDM180 CMD00662	1 piece
			Power-on delay	0.1-3S	XTCD170-TDB003 CMD00663	1 piece
		Power-on delay	0.1-30S	XTCD170-TDB030 CMD00664	1 piece	
		Power-on delay	10-180S	XTCD170-TDB180 CMD00665	1 piece	

Mechanical interlocks

	For use with	Part No.	Standard
		Article No.	package
	XTCD6-11	XTCD38-MIL CMD00680	1 piece
	XTCD9-11		
	XTCD12-11		
	XTCD18-11		
	XTCD25-11		
	XTCD32-11		
	XTCD38-11		
	XTCD40-11	XTCD95-MIL CMD00682	1 piece
	XTCD50-11		
	XTCD65-11		
XTCD80-11			
XTCD95-11			
XTCD115	XTCD170-MIL CMD00683	1 piece	
XTCD150			
XTCD170			

Anti-dust covers

	For use with	Part No.	Standard
		Article No.	package
Anti-dust covers 	XTCD6-11	XTCD18-CV CMD00684	1 piece
	XTCD9-11		
	XTCD12-11		
	XTCD18-11		
	XTCD25-11	XTCD95-CV CMD00685	1 piece
	XTCD32-11		
	XTCD38-11		
	XTCD40-11		
	XTCD50-11		
	XTCD65-11		
XTCD80-11			
XTCD95-11			
XTCD115	XTCD170-CV CMD00686	1 piece	
XTCD150			
XTCD170			

Actuating voltages AC

Standard coil 50/60Hz	XTCD6-11... Article No.	XTCD9-11... Article No.	XTCD12-11... Article No.	XTCD18-11... Article No.	XTCD25-11... Article No.	XTCD32-11... Article No.	XTCD38-11... Article No.
24V	CMD00500	CMD00508	CMD00516	CMD00524	CMD00532	CMD00540	CMD00548
36V	CMD00501	CMD00509	CMD00517	CMD00525	CMD00533	CMD00541	CMD00549
48V	CMD00502	CMD00510	CMD00518	CMD00526	CMD00534	CMD00542	CMD00550
110V	CMD00503	CMD00511	CMD00519	CMD00527	CMD00535	CMD00543	CMD00551
220V	CMD00504	CMD00512	CMD00520	CMD00528	CMD00536	CMD00544	CMD00552
230V	CMD00505	CMD00513	CMD00521	CMD00529	CMD00537	CMD00545	CMD00553
380V	CMD00506	CMD00514	CMD00522	CMD00530	CMD00538	CMD00546	CMD00554
400V	CMD00507	CMD00515	CMD00523	CMD00531	CMD00539	CMD00547	CMD00555

Actuating voltages AC

Standard coil 50/60Hz	XTCD40-11... Article No.	XTCD50-11... Article No.	XTCD65-11... Article No.	XTCD80-11... Article No.	XTCD95-11... Article No.
24V	CMD00556	CMD00564	CMD00572	CMD00580	CMD00588
36V	CMD00557	CMD00565	CMD00573	CMD00581	CMD00589
48V	CMD00558	CMD00566	CMD00574	CMD00582	CMD00590
110V	CMD00559	CMD00567	CMD00575	CMD00583	CMD00591
220V	CMD00560	CMD00568	CMD00576	CMD00584	CMD00592
230V	CMD00561	CMD00569	CMD00577	CMD00585	CMD00593
380V	CMD00562	CMD00570	CMD00578	CMD00586	CMD00594
400V	CMD00563	CMD00571	CMD00579	CMD00587	CMD00595

Actuating voltages AC

Standard coil 50Hz	XTCD115... Article No.	XTCD150... Article No.	XTCD170... Article No.
24V	CMD00596	CMD00612	CMD00628
36V	CMD00597	CMD00613	CMD00629
48V	CMD00598	CMD00614	CMD00630
110V	CMD00599	CMD00615	CMD00631
220V	CMD00600	CMD00616	CMD00632
230V	CMD00601	CMD00617	CMD00633
380V	CMD00602	CMD00618	CMD00634
400V	CMD00603	CMD00619	CMD00635

Actuating voltages AC

Standard coil 60Hz	XTCD115... Article No.	XTCD150... Article No.	XTCD170... Article No.
24V	CMD00604	CMD00620	CMD00636
36V	CMD00605	CMD00621	CMD00637
48V	CMD00606	CMD00622	CMD00638
110V	CMD00607	CMD00623	CMD00639
220V	CMD00608	CMD00624	CMD00640
230V	CMD00609	CMD00625	CMD00641
380V	CMD00610	CMD00626	CMD00642
400V	CMD00611	CMD00627	CMD00643

XTCD 180-500A Contactor type selection

	Rated current AC-3 380V (A)	Auxiliary contact 		Rated 3-phase motor power (kw)						AC1 current value @40°C
				220/230V	380/400V	415/440V	500V	660V	690V	
				XTCD180***	179	2	2	55	95	
XTCD225***	225	2	2	65	120	132	132	132	260A	
XTCD300***	300	2	2	90	160	160	160	220	350A	
XTCD400***	400	2	2	110	200	220	257	300	500A	
XTCD500***	500	2	2	150	257	257	280	335	700A	

XTCD 180-500A Coil voltages and article No.

Coil voltage	180A	225A	300A	400A	500A
24V(50/60Hz)	XTCD180I22B2 90000040152449	XTCD225J22B2 90000040152456	XTCD300J22B2 90000040152463	-	-
110V(50/60Hz)	XTCD180I22E2 90000040152452	XTCD225J22E2 90000040152459	XTCD300J22E2 90000040152466	XTCD400K22E2 90000040152473	XTCD500K22E2 90000040152480
220V(50/60Hz)	XTCD180I22AO 90000040152447	XTCD225J22AO 90000040152454	XTCD300J22AO 90000040152461	XTCD400K22AO 90000040152468	XTCD500K22AO 90000040152475
380V(50/60Hz)	XTCD180I22AR 90000040152448	XTCD225J22AR 90000040152455	XTCD300J22AR 90000040152462	XTCD400K22AR 90000040152469	XTCD500K22AR 90000040152476
440V(50/60Hz)	XTCD180I22DQ 90000040152451	XTCD225J22DQ 90000040152458	XTCD300J22DQ 90000040152465	-	-
AC/DC 48-110	XTCD180I22ED 90000040152482	XTCD225J22ED 90000040152484	XTCD300J22ED 90000040152486	XTCD400K22ED 90000040152488	XTCD500K22ED 90000040152490
AC/DC 110-250	XTCD180I22AD 90000040152483	XTCD225J22AD 90000040152485	XTCD300J22AD 90000040152487	XTCD400K22AD 90000040152489	XTCD500K22AD 90000040152491

XTCD180-500A Auxiliary contact

	Rated insulation voltage Ui	Rated operating voltage Ue	Continuous power-on current Ith (AC/DC) (A)	Rated operating current								Operating frequency /h	Electrical life 10,000 operations	Mechanical life 10,000 operations	Contact NO=Normal open NC=Normal closed	Can be combined with contactor
				AC 15				DC 13								
				120V	240V	380V	480V	500V	600V	125V	250V					
Side-mounted aux. contact XTCD300-XHI11 90000040152511	660	660	10/25	6	3	1.9	1.5	1.4	1.2	0.55	0.27	1200	100	500	1NO 1NC	XTCD180~300A
Top-mounted aux. contact XTCD500-XHI04 CMD00721	660	660	10/25	6	3	1.9	1.5	1.4	1.2	0.55	0.27	1200	100	500	4NC	XTCD400~500A
XTCD500-XHI13 CMD00722	660	660	10/25	6	3	1.9	1.5	1.4	1.2	0.55	0.27	1200	100	500	1NO 3NC	XTCD400~500A
XTCD500-XHI22 90000040152512	660	660	10/25	6	3	1.9	1.5	1.4	1.2	0.55	0.27	1200	100	500	2NO 2NC	XTCD400~500A
XTCD500-XHI31 CMD00723	660	660	10/25	6	3	1.9	1.5	1.4	1.2	0.55	0.27	1200	100	500	3NO 1NC	XTCD400~500A
XTCD500-XHI40 CMD00724	660	660	10/25	6	3	1.9	1.5	1.4	1.2	0.55	0.27	1200	100	500	4NO	XTCD400~500A

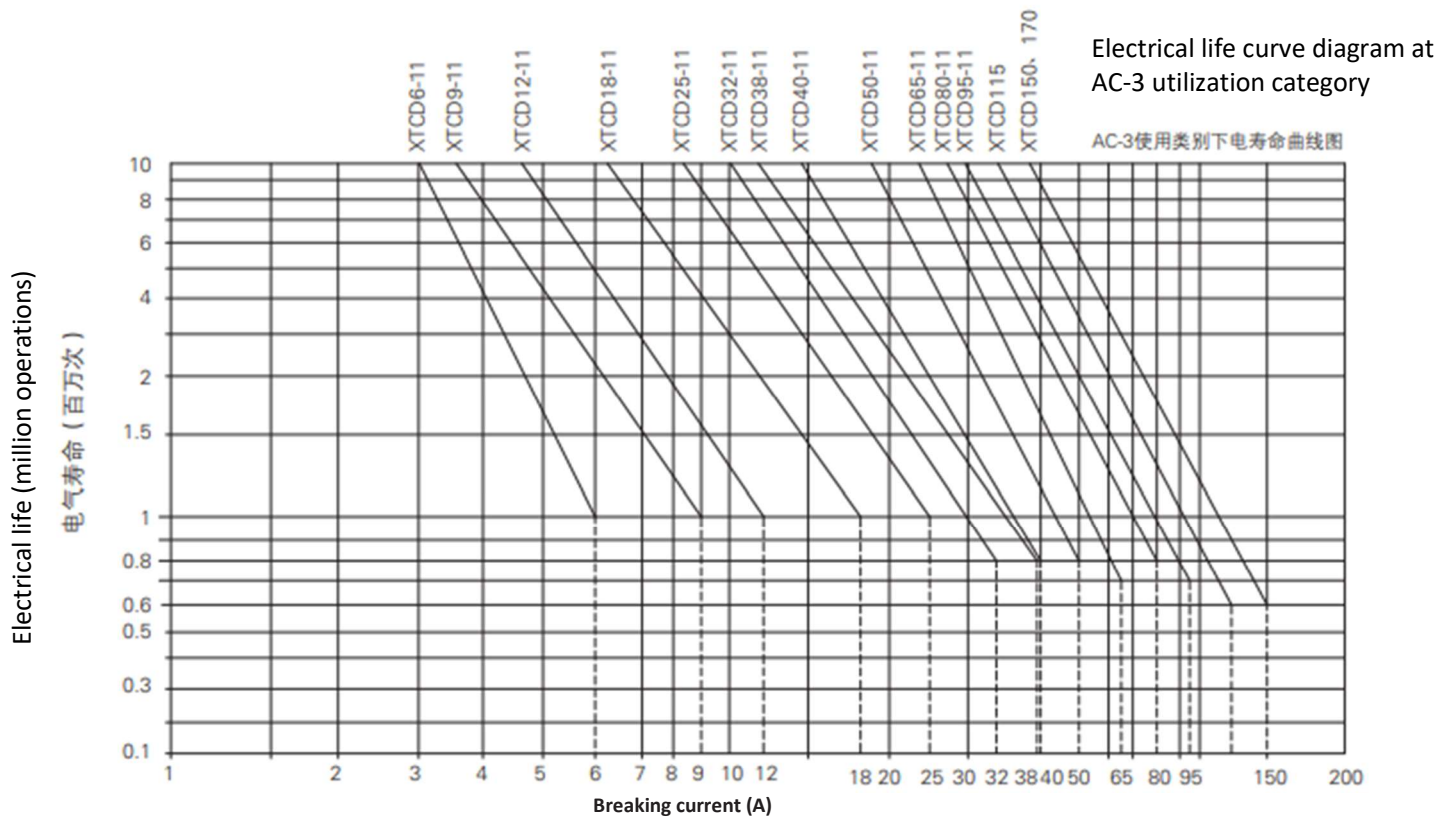
Other accessories

Part No.	Article No.	Description	Contactor for use with
XTCD300-XMV	90000040152513	Mechanical interlock	XTCD225, 300
XTCD180-XHB	90000040152514	Anti-dust cover	XTCD180
XTCD300-XHB	90000040152515	Anti-dust cover	XTCD225, 300
XTCD500-XHB	90000040152516	Anti-dust cover	XTCD400, 500

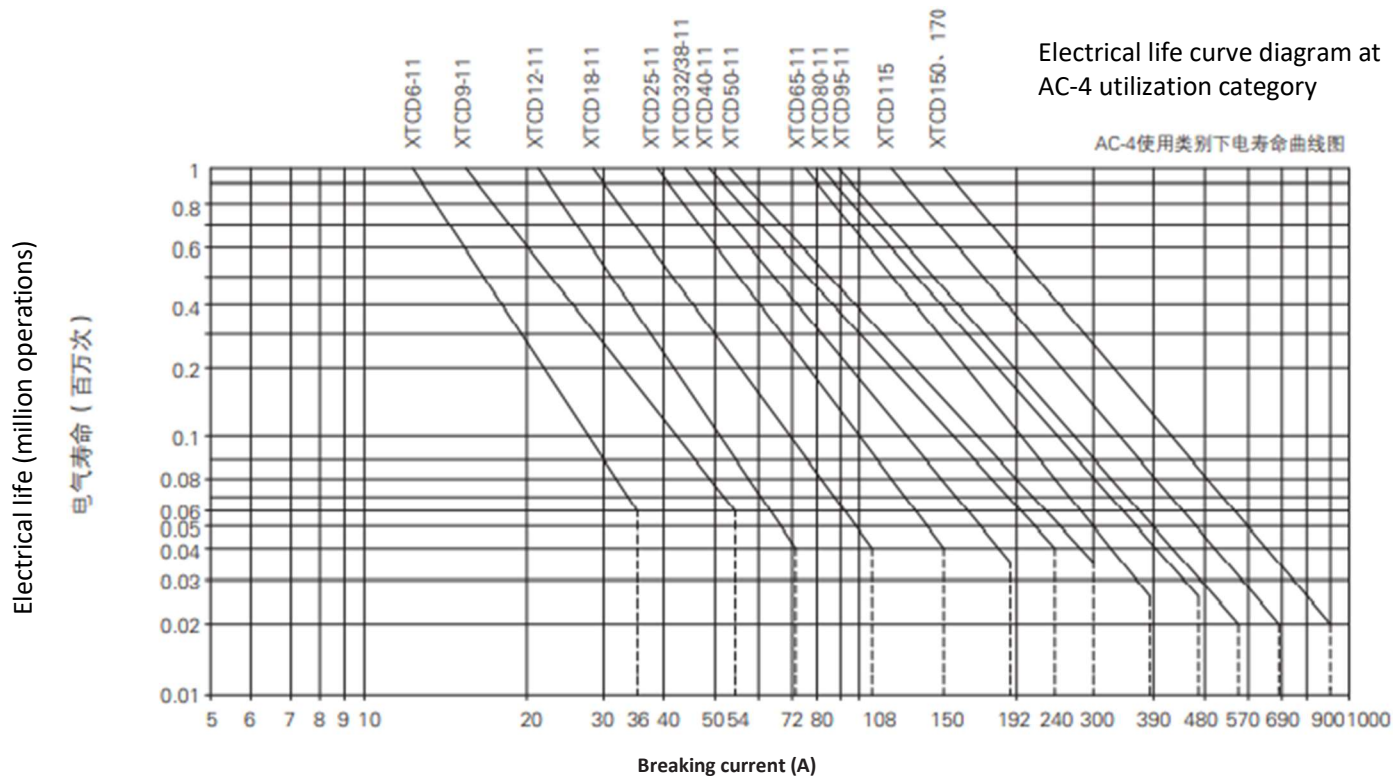
1.5 Contactors XTCD

XTCD 6-170A Electrical life diagrams

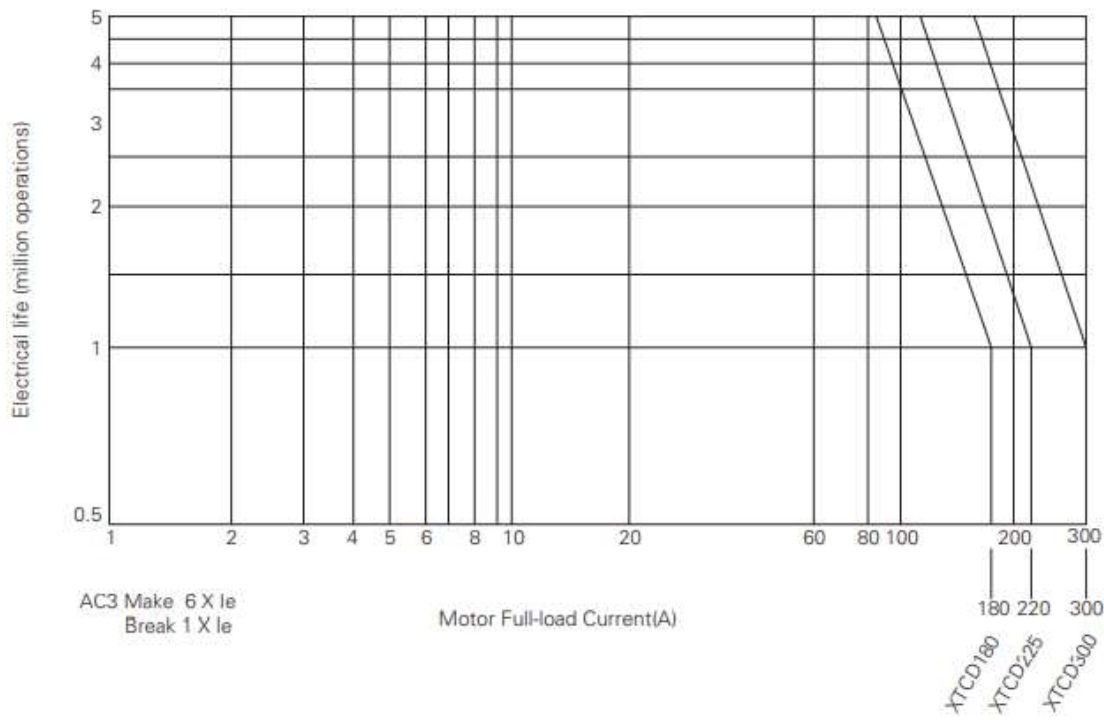
AC-3 (Ue 380V)



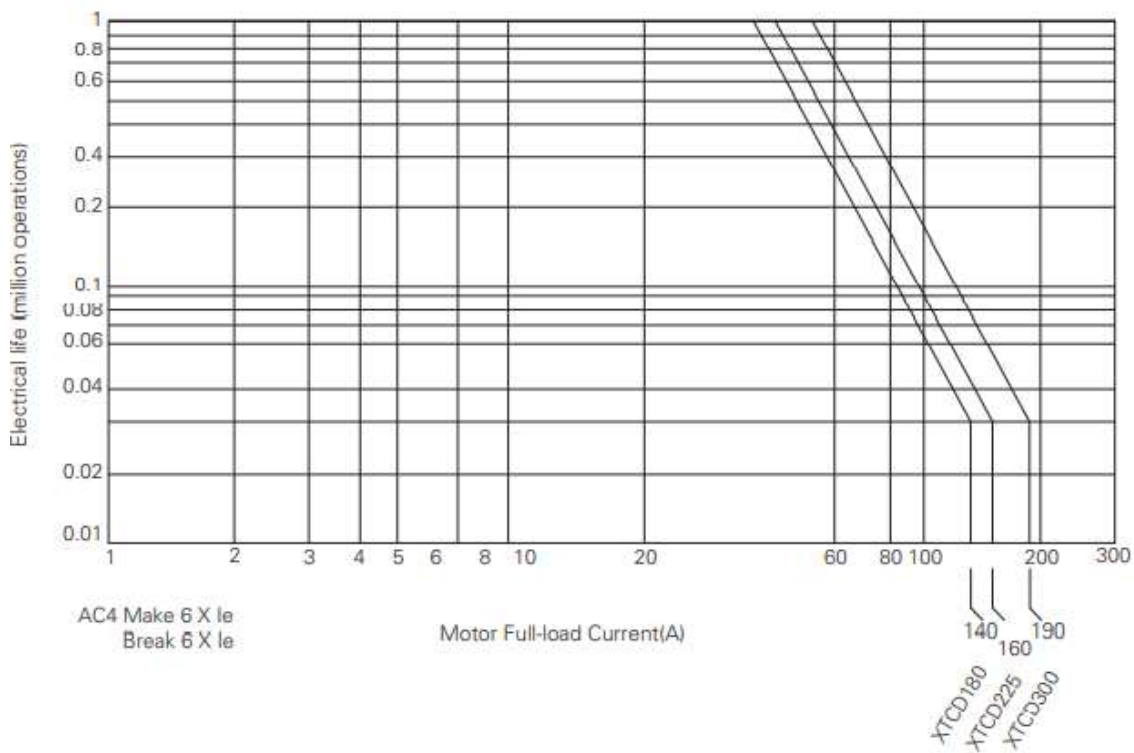
AC-4 (Ue 380V)



AC3 (U_e 400V)



AC4 (U_e 400V)

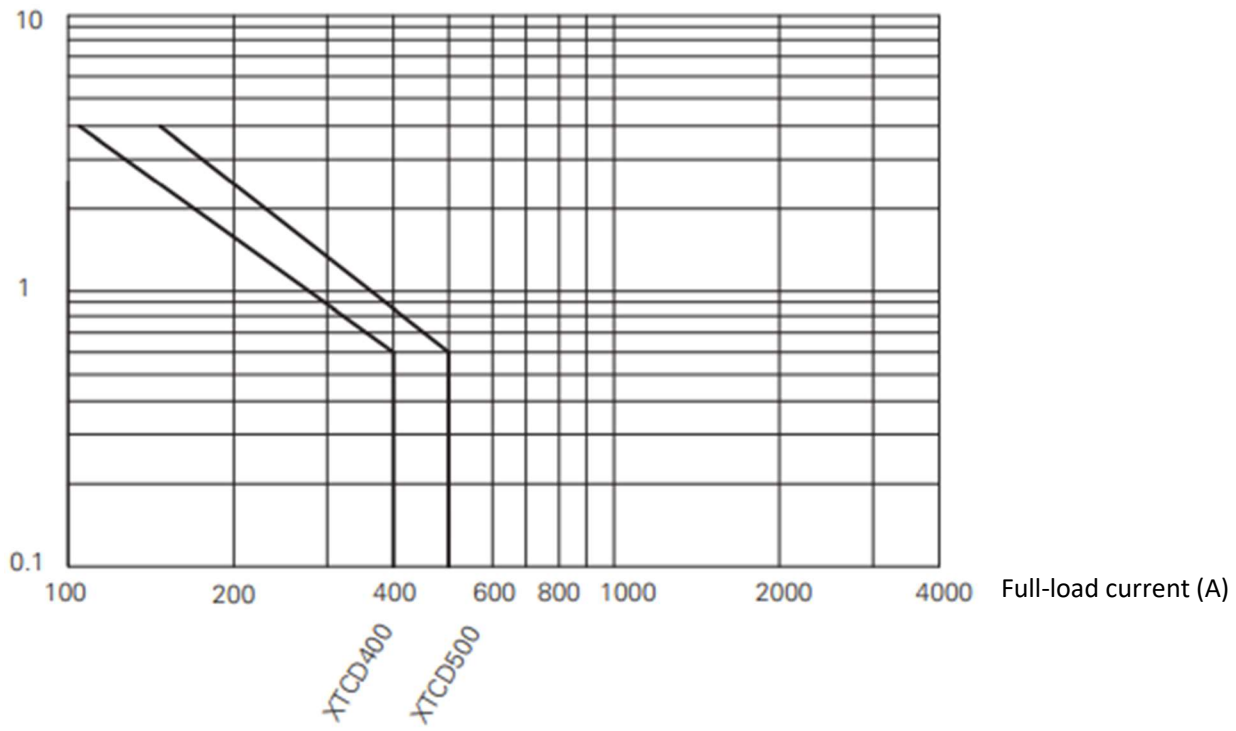


1.6 Contactors XTCD

XTCD 400-500A Electrical life diagrams

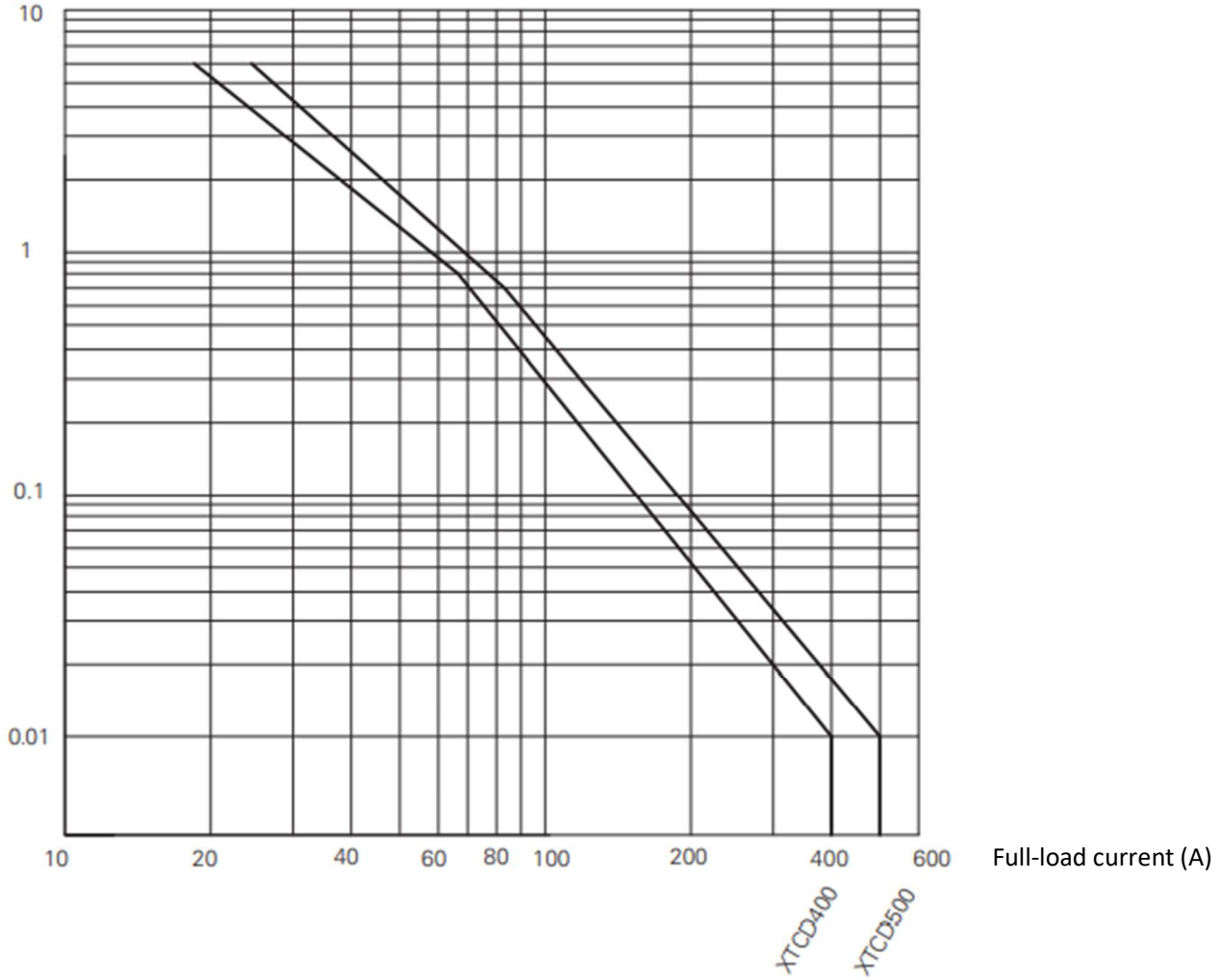
AC3 (U_e 400V)

Million operations



AC4 (U_e 400V)

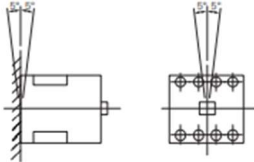
Million operations



1.6 Contactors XTCD

Technical data

General

Contactor			CD6	CD9	CD12	CD18	CD25	CD32	CD38
Standards			IEC/EN 60947-4-1, GB/T14048.4						
Rated impulse withstand voltage	U_{imp}	VAC	8000	8000	8000	8000	8000	8000	8000
Over-voltage category/degree of pollution			III/3	III/3	III/3	III/3	III/3	III/3	III/3
Insulation voltage	U_i	VAC	690	690	690	690	690	690	690
Rated operational current AC-3	220/230V	A	6	9	12	18	25	32	38
	380/400V	A	6	9	12	18	25	32	38
	660/690V	A	3.8	6.6	8.9	12	18	21	22
Controllable 3-phase squirrel cage motor power AC-3	220/230V	KW	1.5	2.2	3	4	5.5	7.5	9
	380/400V	KW	2.2	4	5.5	7.5	11	15	18.5
	660/690V	KW	3	5.5	7.5	9	15	18.5	18.5
Conventional free air thermal current	I_{th}	A	20	20	20	32	40	50	50
Lifespan, mechanical									
Million operations		$\times 10^6$	10	10	10	10	10	8	8
Operating frequency, mechanical									
Operations per hour	AC-3		1200	1200	1200	1200	1000	1000	600
	AC-4		300	300	300	300	150	150	150
Life span, electrical 380/400V	AC-3	$\times 10^4$	100	100	100	100	100	80	80
	AC-4	$\times 10^4$	6	6	4	4	4	3.5	3.5
Rated operational current AC-4	380/400V	A	2.6	3.5	5	7.7	8.5	12	14
	660/690V	A	1.0	1.5	2	3.8	4.4	7.5	8.9
Climatic proofing			Damp heat, constant, to IEC60068-2-78 Damp heat, cyclic, to IEC60068-2-30						
Ambient temperature									
Operation		°C	-25°C ~ +60°C						
Storage		°C	-40°C ~ +70°C						
Mounting position			Have the angle of $\pm 5^\circ$ with normal vertical installation plane						
									
Main circuit wiring									
Flexible conductor		mm ²	1*(1-6)	1*(1-6)	1*(1-6)	1*(1-6)	1*(1.5~10)	1*(1.5~10)	1*(1.5~10)
			2*(1~4)	2*(1~4)	2*(1~4)	2*(1~4)	2*(1.5~6)	2*(1.5~6)	2*(1.5~6)
Solid conductor		mm ²	1*(1-6)	1*(1-6)	1*(1-6)	1*(1-6)	1*(1.5~6)	1*(1.5~6)	1*(1.5~6)
			2*(1~4)	2*(1~4)	2*6	2*6	2*(1.5~6)	2*(1.5~6)	2*(1.5~6)
Actuating range	Pickup voltage	U_s	85%-110% U_s						
	Drop out voltage	U_s	20%-75% U_s AC						
Coil power consumption	Pickup	VA	50~70	50~70	50~70	50~70	50~70	50~70	50~70
	Seal	VA	7~11.4	7~11.4	7~11.4	7~11.4	7~11.4	7~11.4	7~11.4
Screwdriver	Cross	PH2	PH2	PH2	PH2	PH2	PH2	PH2	PH2
	Straight	Ø6	Ø6	Ø6	Ø6	Ø6	Ø6	Ø6	Ø6
	Rocket	-	-	-	-	-	-	-	-
Tightening torque		N.m	0.8	0.8	0.8	0.8	1.8	1.8	1.8

CD40	CD50	CD65	CD80	CD95	CD115	CD150	CD170
IEC/EN 60947-4-1, GB/T14048.4							
8000	8000	8000	8000	8000	8000	8000	8000
III/3	III/3	III/3	III/3	III/3	III/3	III/3	III/3
690	690	690	690	690	1000	1000	1000
40	50	65	80	95	115	150	170
40	50	65	80	95	115	150	170
34	39	42	49	55	-	-	-
11	15	18.5	22	22	30	40	55
18.5	22	30	37	45	55	75	90
30	33	37	45	55	-	-	-
60	80	80	125	125	200	200	200

8	8	8	6	6	6	6	6
---	---	---	---	---	---	---	---

120	120	120	120	120	120	120	120
80	80	70	80	70	60	60	60
4	3.5	2.5	2.5	2	2	2	2
18.5	24	28	37	44	-	-	-
9	12	14	17.3	21.3	-	-	-

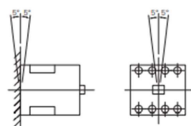
Damp heat, constant, to IEC60068-2-78

Damp heat, cyclic, to IEC60068-2-30

-25°C ~ +60°C

-40°C ~ +70°C

Have the angle of $\pm 5^\circ$ with normal vertical installation plane

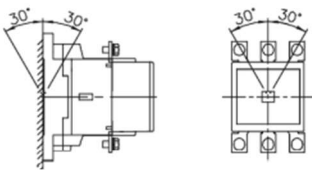


1*(2.5~25)	1*(2.5~25)	1*(2.5~25)	1*(4~50)	1*(4~50)	1*(16-95)	1*(16-95)	1*(16-95)
2*(2.5~16)	2*(2.5~16)	2*(2.5~16)	2*(4~25)	2*(4~25)	2*(16-70)	2*(16-70)	2*(16-70)
1*(2.5~25)	1*(2.5~25)	1*(2.5~25)	1*(4~50)	1*(4~50)	1*(10-95)	1*(10-95)	1*(10-95)
2*(2.5~16)	2*(2.5~16)	2*(2.5~16)	2*(4~25)	2*(4~25)	2*(10-70)	2*(10-70)	2*(10-70)
85%-110%U _s							
20%-75%U _s AC							
190~220	190~220	190~220	190~220	19~220	300	300	300
28	28	28	28.7	28.7	30	30	30
-	-	-	-	-	-	-	-
Ø 8	Ø 8	Ø 8	Ø 8	Ø8	-	-	-
-	-	-	4	4	4	4	4
3.5	3.5	3.5	4	4	6	6	6

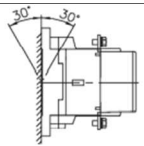
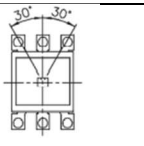
1.6 Contactors XTCD

Technical data

Technical data

Type	XTCD180			XTCD225			XTCD300			
Main contacts										
Rated insulation voltage (Ui)	1000			1000			1000			
Continuous power-on current (Ith)	240			260			350			
Rated current / Rated capacity (Ie/P)										
AC-3 IEC60947-4-1 GB14048.4										
3-phase	A	kW	Hp	A	kW	Hp	A	kW	Hp	
220/230V	182	55	75	225	65	85	300	90	120	
380/400V	179	95	125	225	120	160	300	160	220	
415/440V	178	100	136	220	132	180	300	160	220	
500V	156	110	150	190	132	180	250	160	220	
660/690V	118	110	150	140	132	180	220	220	270	
Rated current / Rated Capacity (Ie/P)										
UL 60947-4-1										
1-phase										
120V	-	-	-	-	-	-	-	-	-	
230V	-	-	-	-	-	-	-	-	-	
3-phase										
200/280V	177	-	60	221	-	75	285	-	100	
240V	192	-	75	248	-	100	312	-	125	
480V	180	-	150	240	-	200	302	-	250	
600V	144	-	150	192	-	200	242	-	250	
Auxiliary contacts										
Rated insulation voltage (Ui)	690			690			690			
Continuous power-on voltage (Ith)	10/2.5			10/2.5			10/2.5			
Rated current (Ie)										
AC-15 IEC 60947-5-1 GB 14048.5										
120V	6			6			6			
240V	3			3			3			
380V	1.9			1.9			1.9			
Coil capacity										
Inrush (VA)	700			1050			4050			
Sealed (VA)	70			70			70			
Power consumption (W)	35			15			15			
Operating frequency	OPS/hn	1200			1200			1200		
Lifespan, electrical	Mio. OPS	100			100			100		
Lifespan, mechanical	Mio. OPS	500			500			500		
Contact structure ^①	3A2a2b, (Max 4a4b)			3A2a2b, (Max 4a4b)			3A2a2b, (Max 4a4b)			
Weight (Kg)	4.1			6.7			6.7			
Mounting position										
	Vertical plane			Vertical plane						

Note: ^① A for Normal Open main contact, B for Normal Closed main contact; a for Normal Open auxiliary contact, B for Normal Closed auxiliary contact.

Type	XTCD400			XTCD500		
Main contacts						
Rated insulation voltage (Ui)	1000			1000		
Continuous power-on current (Ith)	500			700		
Rated current / Rated capacity (Ie/P)						
AC-3 IEC60947-4-1 GB14048.4						
3-phase	A	kW	Hp	A	kW	Hp
220/230V	400	110	150	500	150	205
380/400V	400	200	270	500	257	350
415/440V	400	220	300	460	257	350
500V	375	257	350	410	280	380
660/690V	330	300	410	355	335	450
Rated current / Rated capacity (Ie/P)						
UL 60947-4-1						
1-phase						
120V	-	-	-	-	-	-
230V	-	-	-	-	-	-
3-phase						
200/280V	-	-	-	-	-	-
240V	-	-	-	-	-	-
480V	-	-	-	-	-	-
600V	-	-	-	-	-	-
Auxiliary contacts						
Rated insulation voltage (Ui)	690			690		
Continuous power-on current (Ith)	10/2.5			10/2.5		
Rated current (I _a)						
AC-15 IEC 60947-5-1 GB 14048.5						
120V	6			6		
240V	3			3		
380V	1.9			1.9		
Coil capacity						
Inrush (VA)	1100			1100		
Sealed (VA)	30			30		
Power consumption (W)	8-12			8-12		
Operating frequency	OPS/hn	1200		1200		
Lifespan, electrical	Mio. OPS	50		50		
Lifespan, mechanical	Mio. OPS	500		500		
Contact structure ^①	3A2a2b ^②			3A2a2b ^②		
Weight (Kg)	10.8			10.8		
Mounting position						
	Vertical plane			Vertical plane		

Note:

- ① A for Normal Open main contact, B for Normal Closed main contact; a for Normal Open auxiliary contact, B for Normal Closed auxiliary contact.
 ② 2a2b is supplied as standard. Refer to the auxiliary contact table if additional auxiliary contacts are required (only one contact can be equipped)

1.6 Contactors XTCD

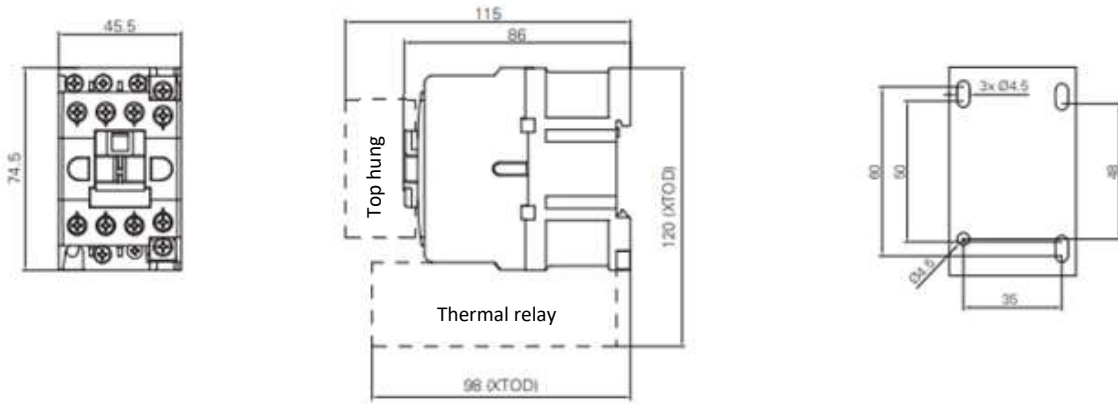
Technical data of auxiliary contact modules

Auxiliary contact modules

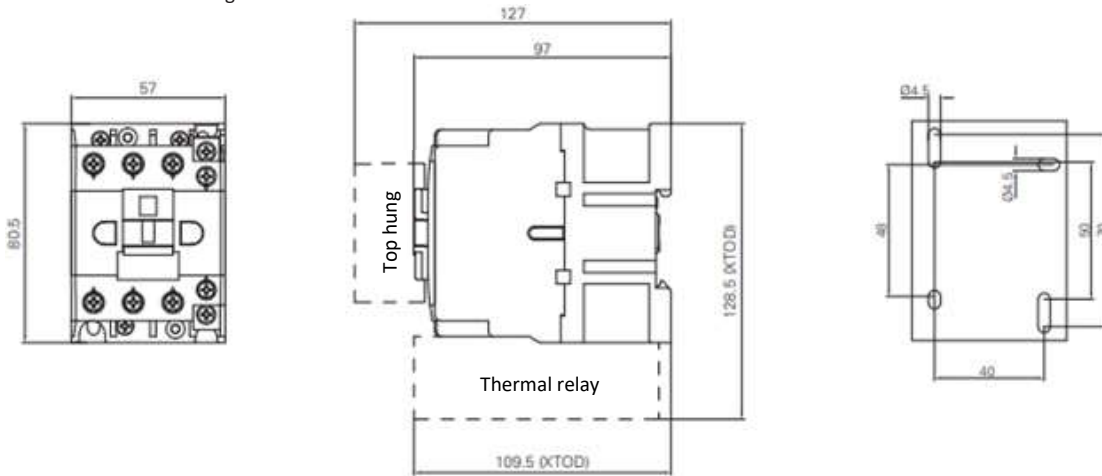
			XTCD...-XHI...
Rated impulse withstand voltage	U _{imp}	VAC	6000
Overvoltage category/degree of pollution			III/3
Rated insulation voltage	U _i	VAC	660
Conventional thermal current	I _{th}	A	10
Rated operational voltage	U _e	VAC	VAC:220V, 380V
Rated operational current			
AC-15			
220V	I _e	A	1.63
380V	I _e	A	0.95
DC-13			
110V	I _e	A	0.3
220V	I _e	A	0.15

Contactor dimension diagrams (mm)

XTCD6-18 Dimension diagram



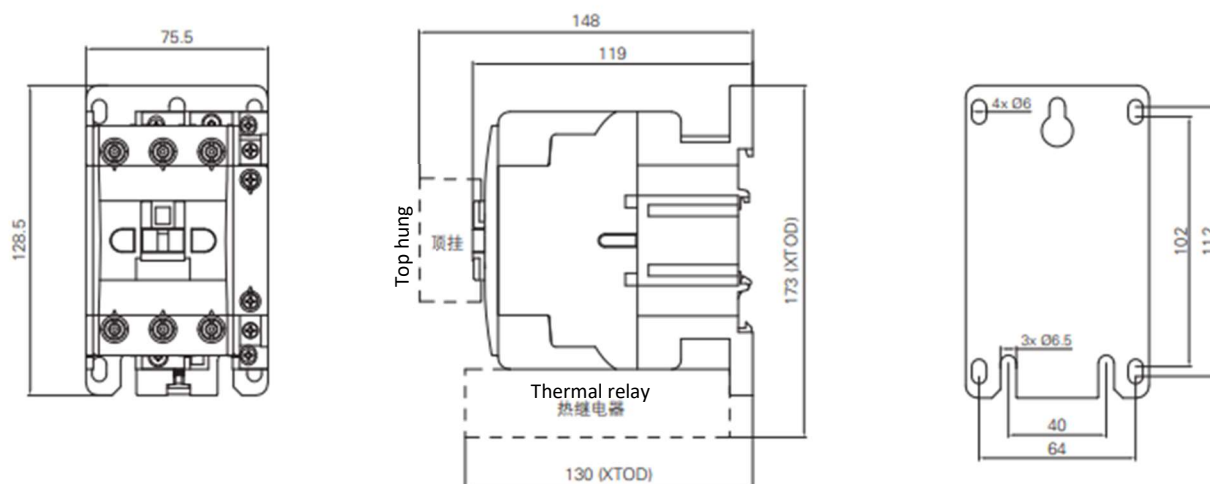
XTCD25-38 Dimension diagram



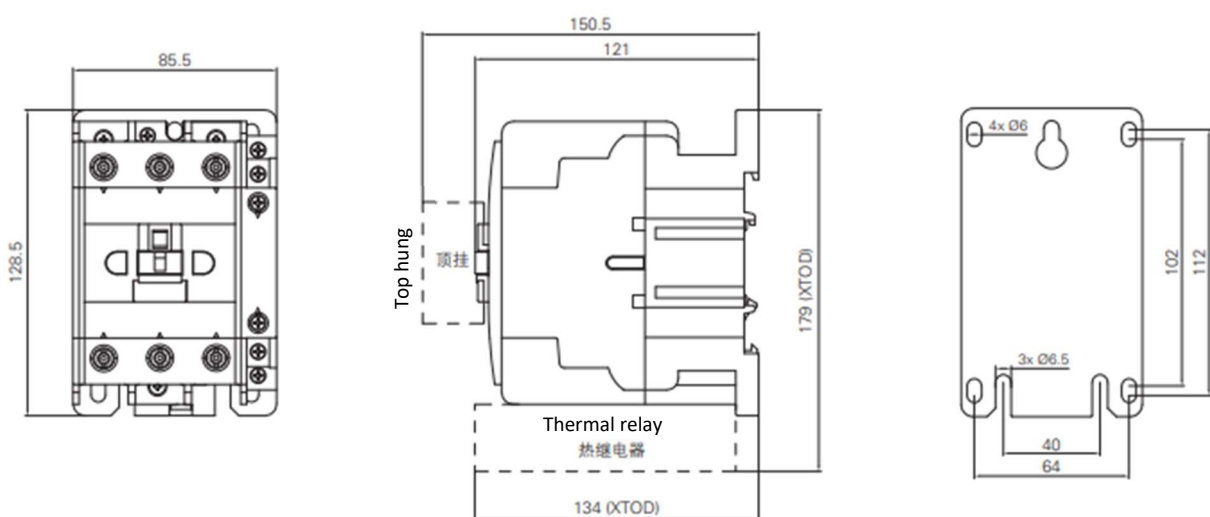
1.7 Contactors XTCD Dimensions

Contactor dimension diagrams (mm)

XTCD40-65 Dimension diagram

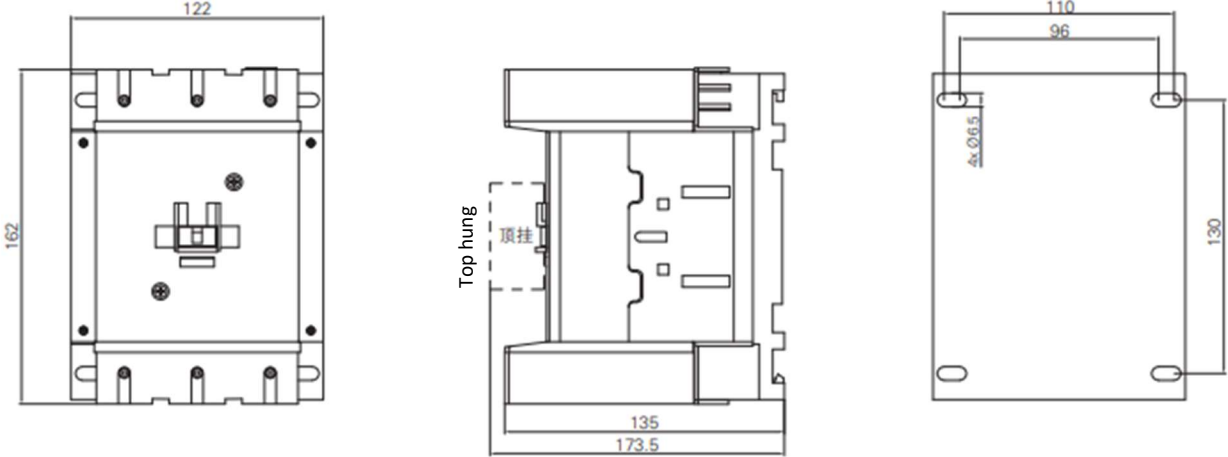


XTCD80-95 Dimension diagram



Contactor dimension diagrams (mm)

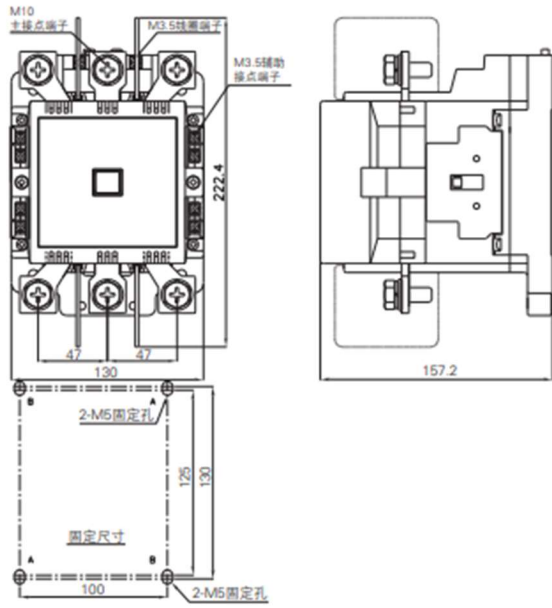
XTCD115-170 Dimension diagram (XTCD115~170 thermal relay can only be mounted separately. Plug-in mounting is not allowed)



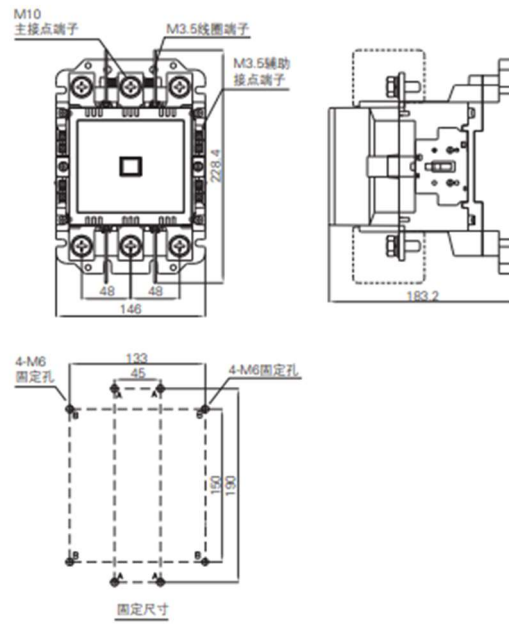
1.7 Contactors XTCD Dimensions

Contactor dimension diagrams (mm)

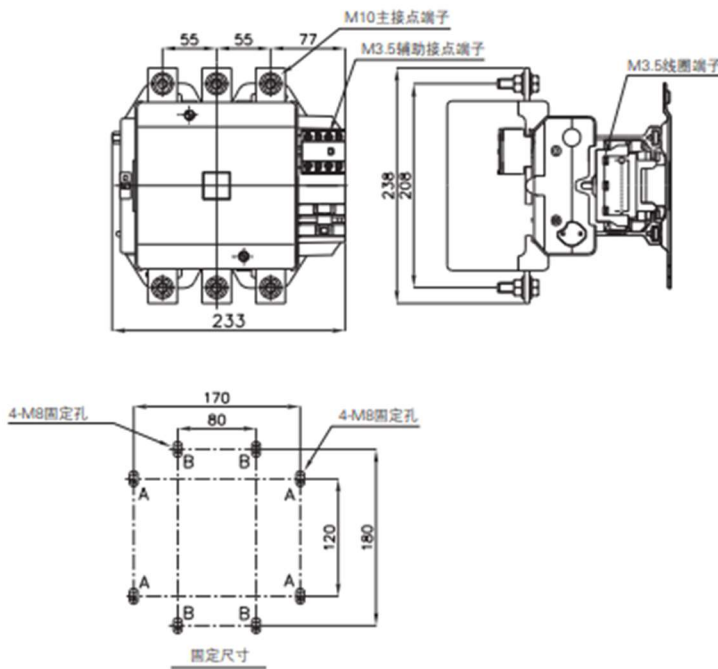
XTCD 180 Dimension diagram



XTCD 225 / 300 Dimensions diagram

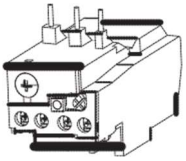


XTCD 400 / 500 Dimension diagram



主接点端子: Main contact terminal
 线圈端子: coil terminal
 辅助接点端子: auxiliary contact terminal
 固定孔: fixing cutout
 固定尺寸: fixing dimension

Thermal overload relay XTOD



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Thermal overload relays XTOD

Product Description

- 4 frames with current ranges up to 80A
- Built-in 1NO & 1NC auxiliary contact
- Phase-loss protection
- Selectable auto/manual reset
- Direct or separate mounting

Standards and Certifications

- GB/T 14048.4
- IEC/EN 60947
- CCC
- CE

System overview

Thermal overload relays

Setting range (A)

(Note the maximum current of contactor)

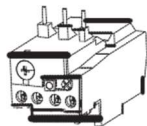
XTCD6-11~38-11

XTCD25-11~38-11

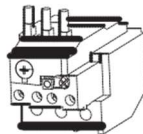
XTCD40-11~95-11

XTCD115~170

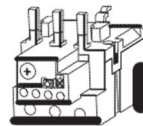
XTOD18...
0.1-25A



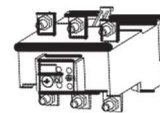
XTOD38...
23-40A



XTOD95...
37~93A







XTOD170...
55~180A



2.2

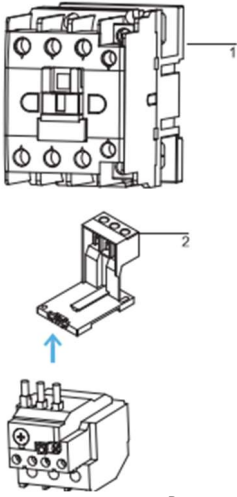
Thermal overload relays XTOD Thermal overload relays

Thermal overload relays

	Mounting method	Setting range of overload releases I_r (A)	Contact No.	Auxiliary contact	For use with	Part No. Article No.	Standard package
XTOD18... 	Direct mounting	0.1-0.16A	1NO	1NC	XTCD6-11	XTOD18-0.16 CMD00687	1 piece
	Direct mounting	0.16-0.25A	1NO	1NC	XTCD9-11 XTCD12-11 XTCD18-11	XTOD18-0.25 CMD00688	1 piece
	Direct mounting	0.25-0.4A	1NO	1NC	XTCD25-11	XTOD18-0.4 CMD00689	1 piece
	Direct mounting	0.4-0.63A	1NO	1NC	XTCD32-11 XTCD38-11	XTOD18-0.63 CMD00690	1 piece
	Direct mounting	0.63-1.0A	1NO	1NC		XTOD18-1 CMD00691	1 piece
	Direct mounting	1.0-1.6A	1NO	1NC		XTOD18-1.6 CMD00692	1 piece
	Direct mounting	1.6-2.5A	1NO	1NC		XTOD18-2.5 CMD00693	1 piece
	Direct mounting	2.5-4.0	1NO	1NC		XTOD18-4 CMD00694	1 piece
	Direct mounting	4-6A	1NO	1NC		XTOD18-6 CMD00695	1 piece
	Direct mounting	5.5-8A	1NO	1NC		XTOD18-8 CMD00696	1 piece
	Direct mounting	7-10A	1NO	1NC		XTOD18-10 CMD00697	1 piece
	Direct mounting	9-13A	1NO	1NC		XTOD18-13 CMD00698	1 piece
	Direct mounting	12-18A	1NO	1NC		XTOD18-18 CMD00699	1 piece
XTOD38... 	Direct mounting	23-32A	1NO	1NC		XTOD18-25 CMD00700	1 piece
	Direct mounting	30-40A	1NO	1NC		XTOD38-32 CMD00701 XTOD38-40 CMD00702	1 piece
XTOD95... 	Direct mounting	23-32A	1NO	1NC	XTCD40-11	XTOD95-32 CMD00703	1 piece
	Direct mounting	30-40A	1NO	1NC	XTCD50-11 XTCD65-11	XTOD95-40 CMD00704	1 piece
	Direct mounting	37-50A	1NO	1NC	XTCD80-11 XTCD95-11	XTOD95-50 CMD00705	1 piece
	Direct mounting	48-65A	1NO	1NC		TOD95-65 CMD00706	1 piece
	Direct mounting	55-70A	1NO	1NC		TOD95-70 CMD00707	1 piece
	Direct mounting	63-80A	1NO	1NC		XTOD95-80 CMD00708	1 piece
	Direct mounting	80-93A	1NO	1NC		XTOD95-93 CMD00709	1 piece
XTOD170... 	Separate mounting	55-80A	1NO	1NC	XTCD115	XTOD170-80 CMD00710	1 piece
	Separate mounting	63-90A	1NO	1NC	XTCD150 XTCD170	XTOD170-90 CMD00711	1 piece
	Separate mounting	80-110	1NO	1NC	XTCD115 XTCD150 XTCD170	TOD170-110 CMD00712	1 piece
	Separate mounting	90-120A	1NO	1NC		XTOD170-120 CMD00713	1 piece
	Separate mounting	110-135A	1NO	1NC		XTOD170-135 CMD00714	1 piece
	Separate mounting	120-150A	1NO	1NC		XTOD170-150 CMD00715	1 piece
	Separate mounting	135-160A	1NO	1NC		XTOD170-160 CMD00716	1 piece
	Separate mounting	150-180A	1NO	1NC		XTOD170-180 CMD00717	1 piece

Note:

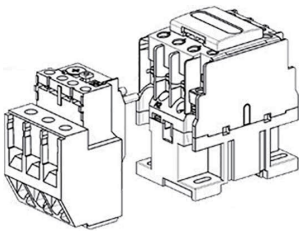
Separate mounting



Page

- 1. Contactor → 3
- 2. Mounting adapter → 20

Fit to the contactor directly

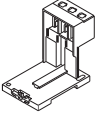


Page

- 1. Contactor → 3

2.2 Thermal overload relays XTOD Accessory

Mounting adapter



Accessory

	For use with	Part No. Article No.	Standard package
For separate mounting	XTOD18...	XTOD18-BS CMD00718	1 piece
	XTOD38...	XTOD38-BS CMD00719	1 piece
	XTOD95...	XTOD95-BS CMD00720	1 piece

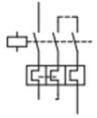
Can be snapped fitted on a DIN rail to IEC/EN60715 standard or can be screw fitted.

Engineering data

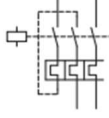
Items	XTOD
Phase-loss sensitivity	●
Temperature compensation	●
Auxiliary contact N/O+N/C	●
Test / Release button	●
Reset button, manual/auto	●
Separate mounting	●

Phase-loss protection:

1-pole



2-pole



2.4 Thermal overload relays XTOD

Technical data

General

		XTOD18...	XTOD38...	XTOD95...	XTOD170...
Standard		IEC/EN 60947, GB 14048.4			
Climate proofing		Damp heat, constant, to IEC60068-2-78 Damp heat, cyclic, to IEC60068-2-30			
Ambient temperature					
Operational	°C	-25 ~ +60			
Storage	°C	-40 ~ +70			
Weight	kg	0.15	0.22	0.48	1.00

Main circuit

			XTOD18...	XTOD38...	XTOD95...	XTOD170...
Rated impulse withstand voltage	Uimp	VAC	8000	8000	8000	8000
Overvoltage category/pollution degree		VAC	III/3	III/3	III/3	III/3
Rated insulation voltage						
AC	Ui	VAC	660	660	660	690
Rated operational voltage	Ue	VAC	660	660	660	660
Set range of Overload release		A	0.1-25	23-40	23-93	55-180
Wiring capacity						
Solid/stranded conductor		Mm2	1-4	4-10	4-35	35-95
Terminal screw			M4	M4	M10	M8
Tightening torque		Nm	1.2	1.2	4.0	6.0

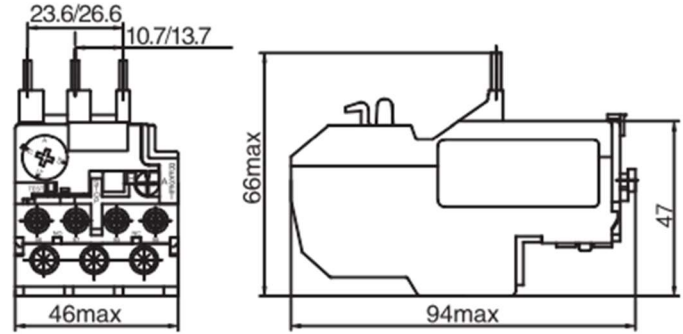
Auxiliary and control circuit

			XTOD18...	XTOD38...	XTOD95...	XTOD170...
Rated impulse withstand voltage	Uimp	V	6000	6000	6000	6000
Overvoltage category/pollution degree			III/3	III/3	III/3	III/3
Wiring capacity						
Solid/stranded conductor		Mm2	1 × (0.75-2.5) 2 × (0.75-2.5)	1 × (0.75-2.5) 2 × (0.75-2.5)	1 × (0.75-2.5) 2 × (0.75-2.5)	1 × (0.75-2.5) 2 × (0.75-2.5)
Terminal screw			M3.5	M3.5	M3.5	M3.5
Tightening torque		Nm	0.8	0.8	0.8	0.8
Rated insulation voltage	Ui	VAC	500	500	500	380
Rated thermal current	Ith	A	6	6	6	6
Rated operational current						
AC-15						
220V	Ie	A	1.64	1.64	1.64	0.45
380V	Ie	A	0.95	0.95	0.95	0.26
DC-13						
110V	Ie	A	0.3	0.3	0.3	0.27
220V	Ie	A	0.15	0.15	0.15	0.14

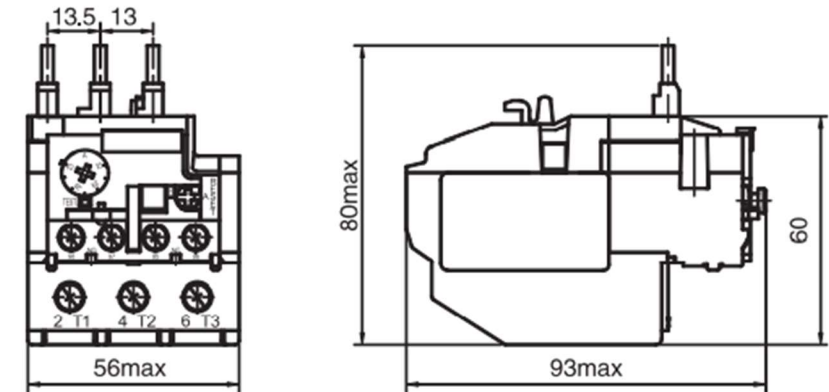
Dimensions in mm

XTOD series thermal overload relays

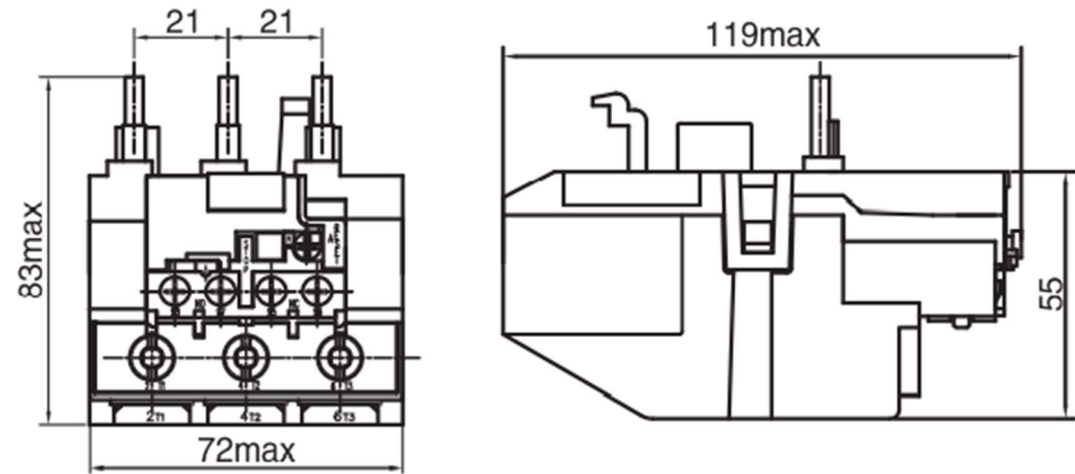
XTOD18...



XTOD38...



XTOD95...



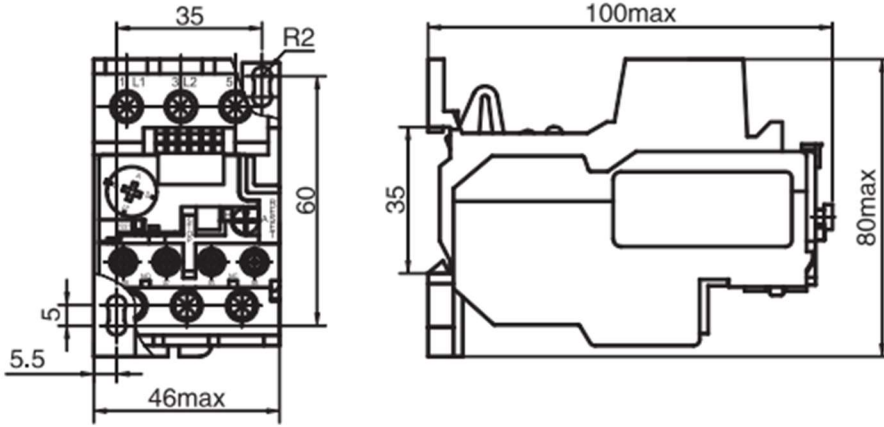
2.5 Thermal overload relays XTOD Dimensions

Dimensions in mm

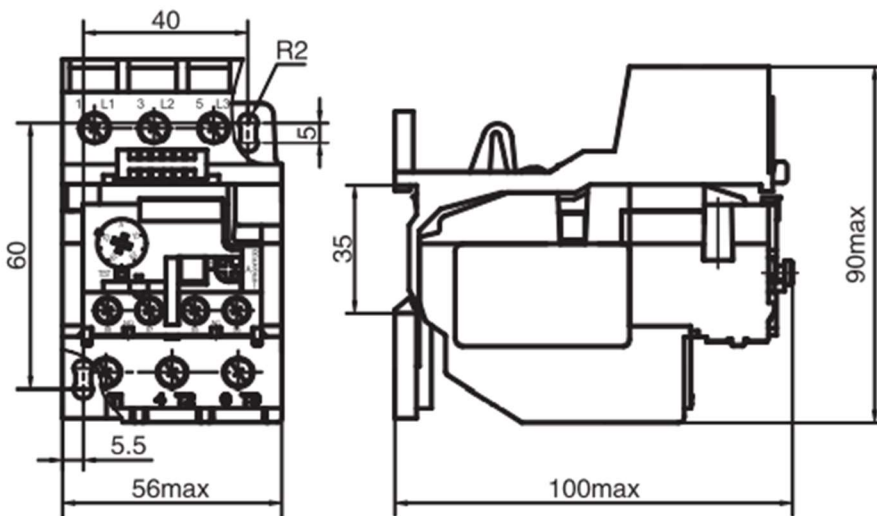
XTOD series thermal overload relays

2

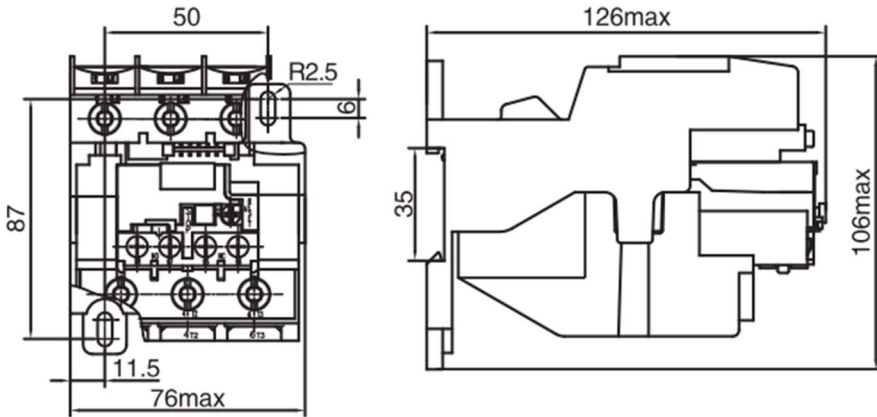
XTOD18-BS separate mounting



XTOD38-BS separate mounting

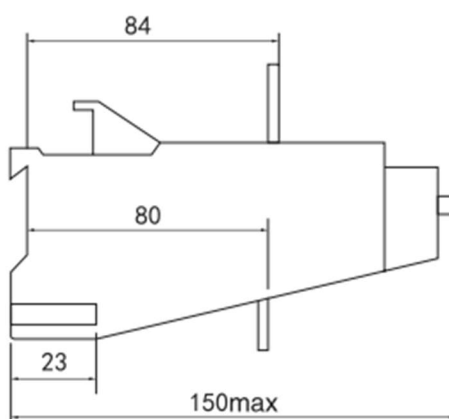
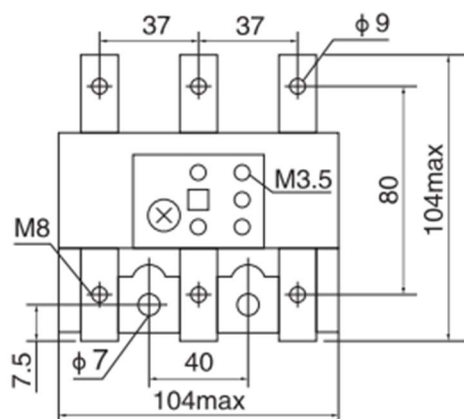


XTOD95-BS separate mounting



Dimensions in mm
XTOD series thermal overload relay

XTOD170...





Eaton is an intelligent power management company dedicated to improving the quality of life and protecting the environment for people everywhere. We are guided by our commitment to do business right, to operate sustainably and to help our customers manage power - today and well into the future. By capitalizing on the global growth trends of electrification and digitalization, we're accelerating the planet's transition to renewable energy, helping to solve the world's most urgent power management challenges, and doing what's best for our stakeholders and all of society.

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