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**Contactor XTCD**



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**Contactor XTCD**

1

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**Thermal overload relay XTOD**

2

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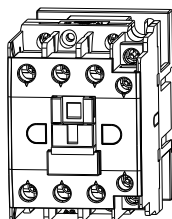
**Thermal overload relay XTOD**





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.

**Contactor XTCD**



<b>1.1 System overview</b>	<b>1</b>
Contactors XTCD .....	<b>2</b>
<b>1.2 Contactors</b>	
Basic devices XTCD .....	<b>3</b>
Auxiliary contact modules .....	<b>5</b>
<b>1.3 Accessories</b>	
Contactors XTCD .....	<b>5</b>
<b>1.4 Actuating voltages</b>	
Contactors XTCD .....	<b>8</b>
<b>1.5 Characteristic curves</b>	
Contactors XTCD .....	<b>10</b>
<b>1.6 Technical data</b>	
Contactors XTCD.....	<b>14</b>
Auxiliary contact modules .....	<b>18</b>
<b>1.7 Dimensions</b>	
Contactors XTCD .....	<b>19</b>

**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

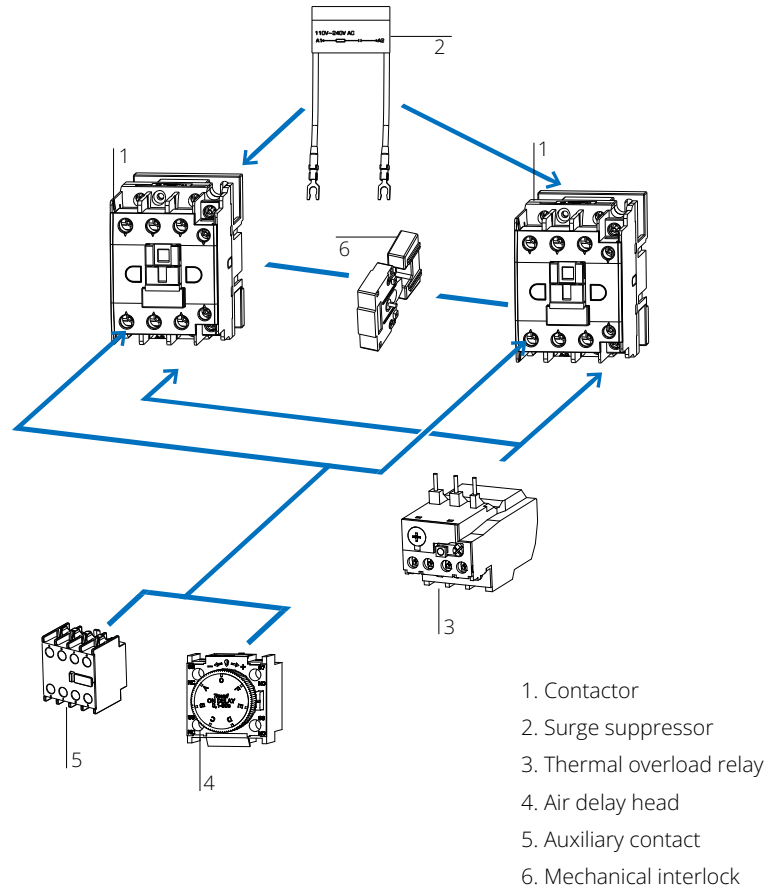
**Standards and Certifications**

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


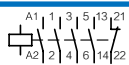



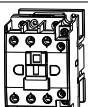

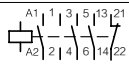

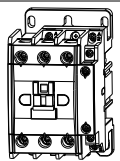


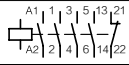
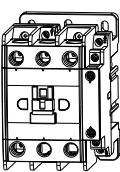


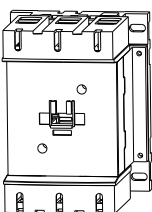
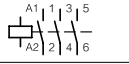
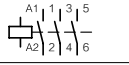

# 1.1

## Contactors XTCD System overview

### 1 System overview



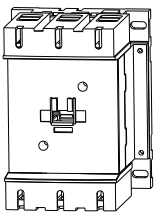
Contactors

Connection type	Rated operational current AC-3(A) 380/400V	Max rated power of 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.	Actuating voltage 220V 50 Hz
		220/230V	380/400V	660/690V		N/O= Normally open	N/C= Normally closed				
	Screw terminals	6A	1.5	2.2	3	20	1	1		XTCD...-XHL... Auxiliary contacts	<b>XTCD6-11(220V50/60Hz)</b> CMD00504
	Screw terminals	9A	2.2	4	5.5	20	1	1		XTCD...-TDM Air delay heads	<b>XTCD9-11(220V50/60Hz)</b> CMD00512
	Screw terminals	12A	3	5.5	7.5	20	1	1		XTCD...-TDB... Air delay heads	<b>XTCD12-11(220V50/60Hz)</b> CMD00520
	Screw terminals	18A	4	7.5	9	32	1	1			<b>XTCD18-11(220V50/60Hz)</b> CMD00528
	Screw terminals	25A	5.5	11	15	40	1	1			<b>XTCD25-11(220V50/60Hz)</b> CMD00536
	Screw terminals	32A	7.5	15	18.5	50	1	1			<b>XTCD32-11(220V50/60Hz)</b> CMD00544
	Screw terminals	38A	9	18.5	18.5	50	1	1			<b>XTCD38-11(220V50/60Hz)</b> CMD00552
	Screw terminals	40A	11	18.5	30	60	1	1			<b>XTCD40-11(220V50/60Hz)</b> CMD00560
	Screw terminals	50A	15	22	33	80	1	1			<b>XTCD50-11(220V50/60Hz)</b> CMD00568
	Screw terminals	65A	18.5	30	37	80	1	1			<b>XTCD65-11(220V50/60Hz)</b> CMD00576
	Screw terminals	80A	22	37	45	125	1	1			<b>XTCD80-11(220V50/60Hz)</b> CMD00584
	Screw terminals	95A	22	45	55	125	1	1			<b>XTCD95-11(220V50/60Hz)</b> CMD00592
	Screw terminals	115A	30	55	-	200	0	0			<b>XTCD115(220V50Hz)</b> CMD00600
	Screw terminals	150A	40	75	-	200	0	0			<b>XTCD150(220V50Hz)</b> CMD00616
	Screw terminals	170A	55	90	-	200	0	0			<b>XTCD170(220V50Hz)</b> CMD00632

# 1.2

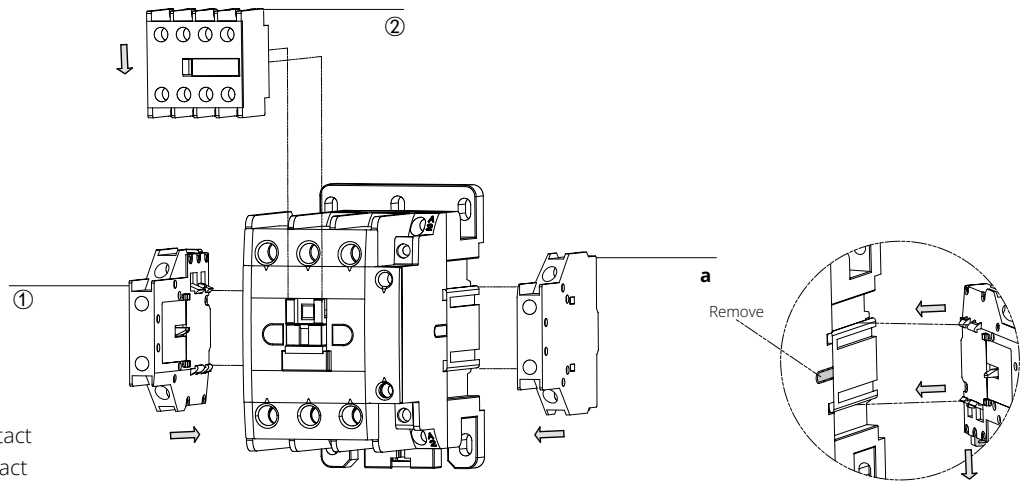
## Contactors XTCD Basic device

### Contactors

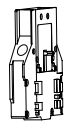


Connection type	Rated operational current AC-3(A) 380/400V	Max rated power of 3-phase motors AC-3 kW			Conventional thermal current $\leq 60^{\circ}\text{C}$ $I_{th}=I_e$ (A)	Contact		Contact No.	Can be combined with accessories	AC coil
		220/230V	380/400V	660/690V		N/O= Normally open N/C= Normally closed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

Auxiliary contact modules



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



XTCD95-XHI11-S  
XTCD170-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	<b>XTCD95-XHI11-S</b> CMD00644	1 piece
	Screw terminals	2-pole	10	1NO 1NC		XTCD115~ XTCD170	<b>XTCD170-XHI11-S</b> CMD00645	1 piece
 Auxiliary contact, top mounting	Screw terminals	2-pole	10	2NO		XTCD6-11 XTCD9-11	<b>XTCD170-XHI20</b> CMD00646	1 piece
	Screw terminals	2-pole	10	2NC		XTCD12-11 XTCD18-11 XTCD25-11	<b>XTCD170-XHI02</b> CMD00647	1 piece
	Screw terminals	2-pole	10	1NO 1NC		XTCD32-11 XTCD38-11 XTCD40-11	<b>XTCD170-XHI11</b> CMD00648	1 piece
 Auxiliary contact, top mounting	Screw terminals	4-pole	10	4NO		XTCD50-11 XTCD65-11	<b>XTCD170-XHI40</b> CMD00649	1 piece
	Screw terminals	4-pole	10	3NO 1NC		XTCD80-11 XTCD95-11	<b>XTCD170-XHI31</b> CMD00650	1 piece
	Screw terminals	4-pole	10	2NO 2NC		XTCD115 XTCD150 XTCD170	<b>XTCD170-XHI22</b> CMD00651	1 piece
	Screw terminals	4-pole	10	1NO 3NC			<b>XTCD170-XHI13</b> CMD00652	1 piece
	Screw terminals	4-pole	10	4NC			<b>XTCD170-XHI04</b> CMD00653	1 piece
	Screw terminals	4-pole	10					

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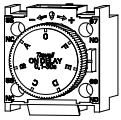
### Surge suppressors

Surge suppressor

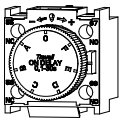


Voltage V	For use with	Contact No.	Part No. Article No.	Standard package
24-48V	XTCD6-11 XTCD9-11		<b>XTCD38-SA(24-48VAC)</b> CMD00666	1 piece
110-230V	XTCD12-11 XTCD18-11		<b>XTCD38-SA(110-230VAC)</b> CMD00667	1 piece
380-440V	XTCD25-11 XTCD32-11 XTCD38-11		<b>XTCD38-SA(380-400VAC)</b> CMD00668	1 piece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

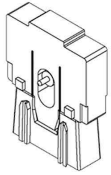
### Air delay heads



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



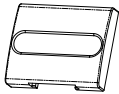
**Mechanical interlocks**



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

**Anti-dust covers**

Anti-dust covers



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

## 1 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
		1	2	220/230V	380/400V	415/440V	500V	660V	690V
XTCD180***	179	2	2	55	95	100	110	110	240A
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
110V(50/60Hz)	<b>XTCD180I22E2</b> 90000040152452	<b>XTCD225J22E2</b> 90000040152459	<b>XTCD300J22E2</b> 90000040152466	<b>XTCD400K22E2</b> 90000040152473	<b>XTCD500K22E2</b> 90000040152480
220V(50/60Hz)	<b>XTCD180I22A0</b> 90000040152447	<b>XTCD225J22A0</b> 90000040152454	<b>XTCD300J22A0</b> 90000040152461	<b>XTCD400K22A0</b> 90000040152468	<b>XTCD500K22A0</b> 90000040152475
380V(50/60Hz)	<b>XTCD180I22AR</b> 90000040152448	<b>XTCD225J22AR</b> 90000040152455	<b>XTCD300J22AR</b> 90000040152462	<b>XTCD400K22AR</b> 90000040152469	<b>XTCD500K22AR</b> 90000040152476
440V(50/60Hz)	<b>XTCD180I22DQ</b> 90000040152451	<b>XTCD225J22DQ</b> 90000040152458	<b>XTCD300J22DQ</b> 90000040152465	-	-

XTCD180-500A Auxiliary contact

	Rated insulation voltage Ui V	Rated operating voltage Ue V	Continuous power-on current Ith (AC/DC) A	Rated operating current Ie(A)								Operating frequency Operation/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	<b>XTCD300-XHI11</b> 90000040152511	660	660	10/2.5	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	<b>XTCD500-XHI04</b> CMD00721	660	660	10/2.5	6	3	1.9	1.5	1.4	1.2	0.55	0.27	1200	100	500	4NC	XTCD400-500A
	<b>XTCD500-XHI13</b> CMD00722	660	660	10/2.5	6	3	1.9	1.5	1.4	1.2	0.55	0.27	1200	100	500	1NO 3NC	XTCD400-500A
	<b>XTCD500-XHI22</b> 90000040152512	660	660	10/2.5	6	3	1.9	1.5	1.4	1.2	0.55	0.27	1200	100	500	2NO 2NC	XTCD400-500A
	<b>XTCD500-XHI31</b> CMD00723	660	660	10/2.5	6	3	1.9	1.5	1.4	1.2	0.55	0.27	1200	100	500	3NO 1NC	XTCD400-500A
	<b>XTCD500-XHI40</b> CMD00724	660	660	10/2.5	6	3	1.9	1.5	1.4	1.2	0.55	0.27	1200	100	500	4NO	XTCD400-500A

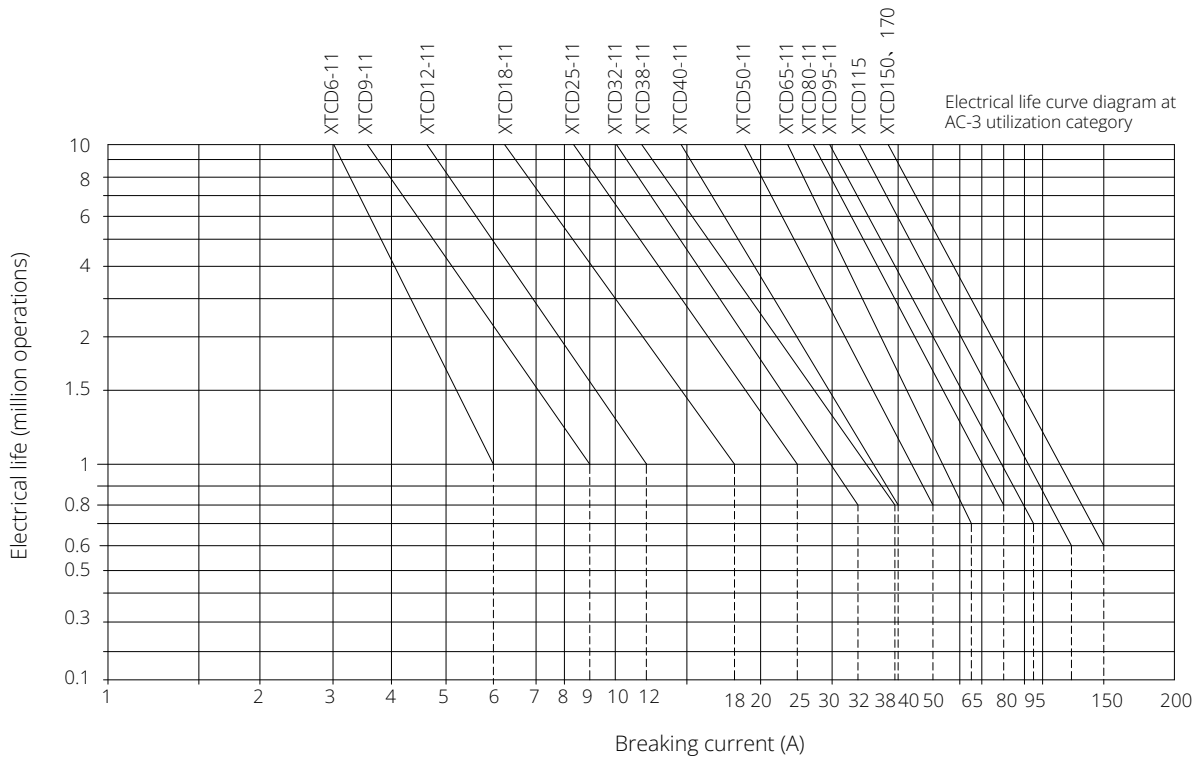
Other accessories

Part No.	Article No.	Description	Contactor for use with
XTCD300-XMV	90000040152511	Mechanical interlock	XTCD180, 225, 300
XTCD180-XHB	90000040152512	Anti-dust cover	XTCD180
XTCD300-XHB	90000040152513	Anti-dust cover	XTCD225, 300
XTCD500-XHB	90000040152514	Anti-dust cover	XTCD400, 500

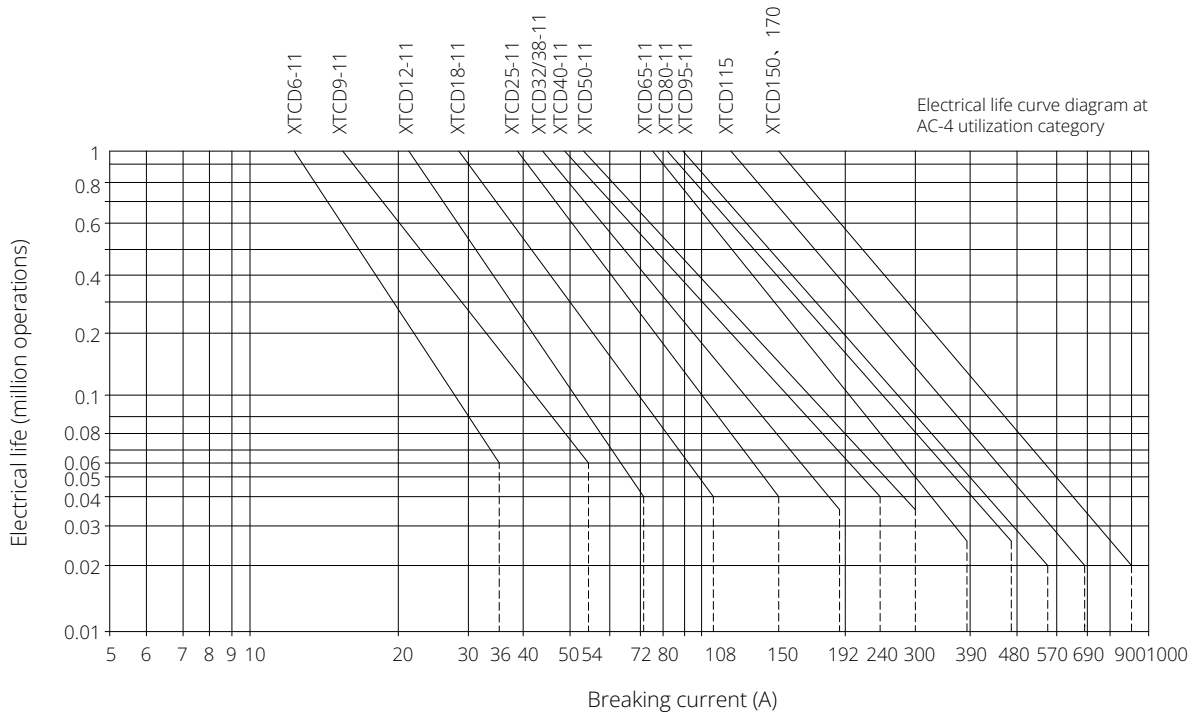
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## Contactors XTCD XTCD 6-170A Electrical life diagrams

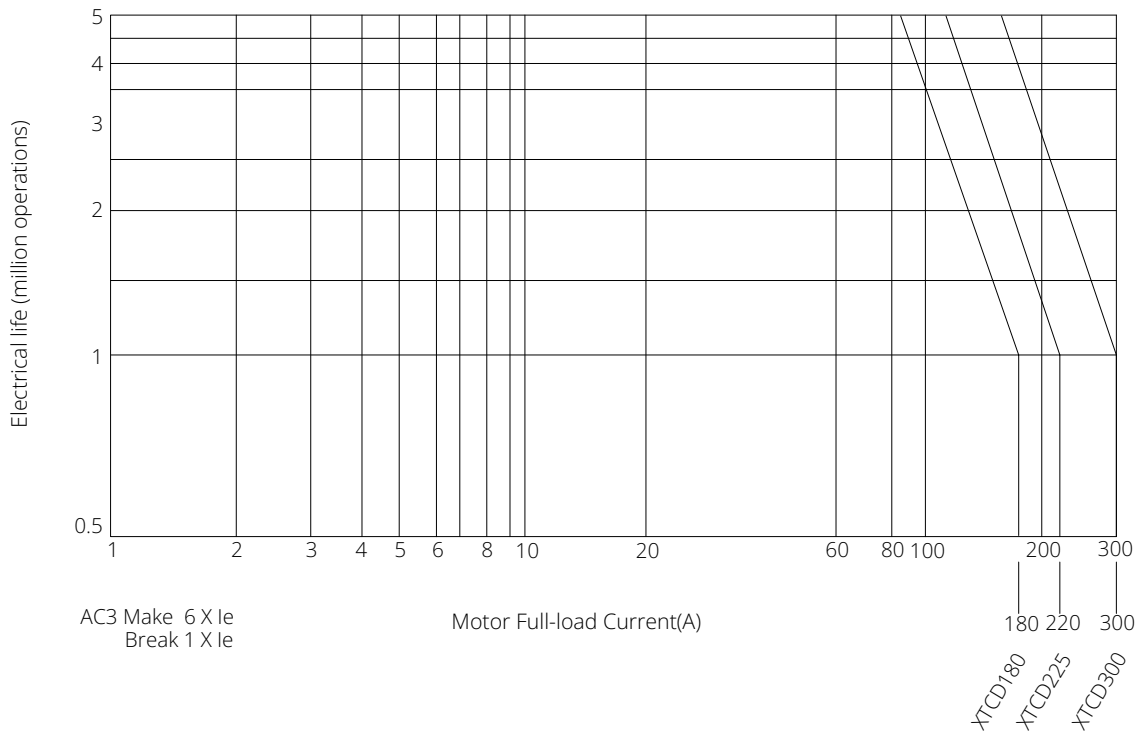
### 1 AC-3 (Ue 380V)



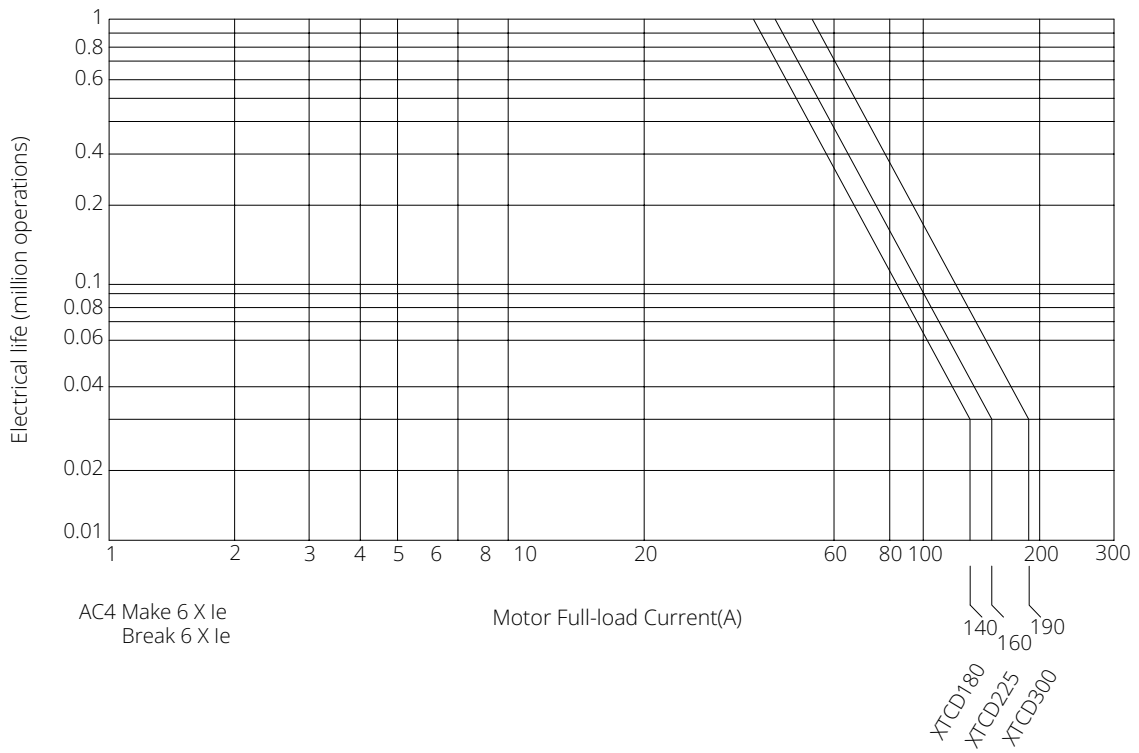
### AC-4 (Ue 380V)



AC3 (U<sub>e</sub> 400V)



AC4 (U<sub>e</sub> 400V)



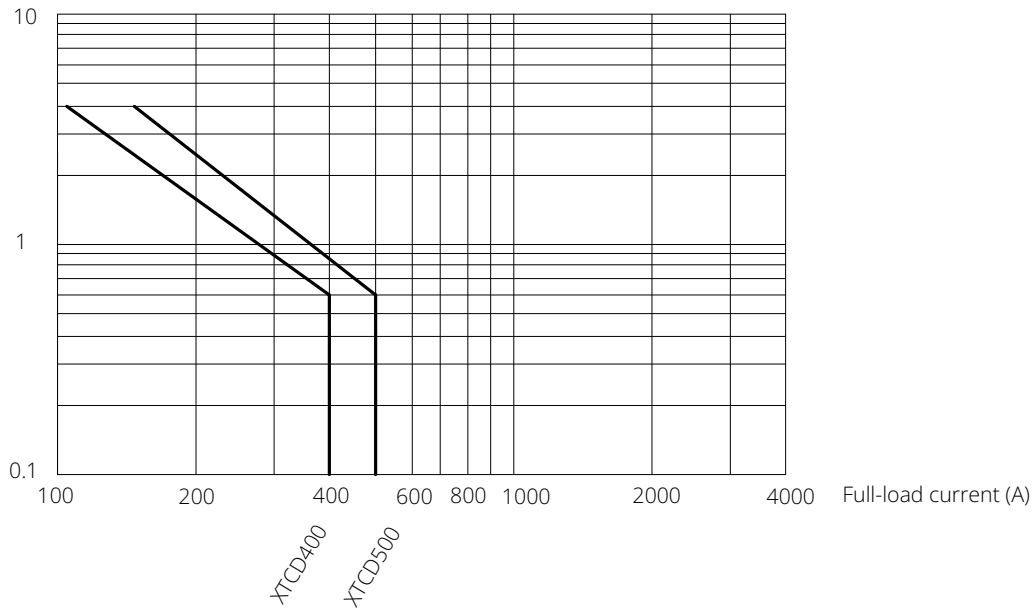
# 1.5

## Contactors XTCD XTCD 400-500A Electrical life diagrams

1

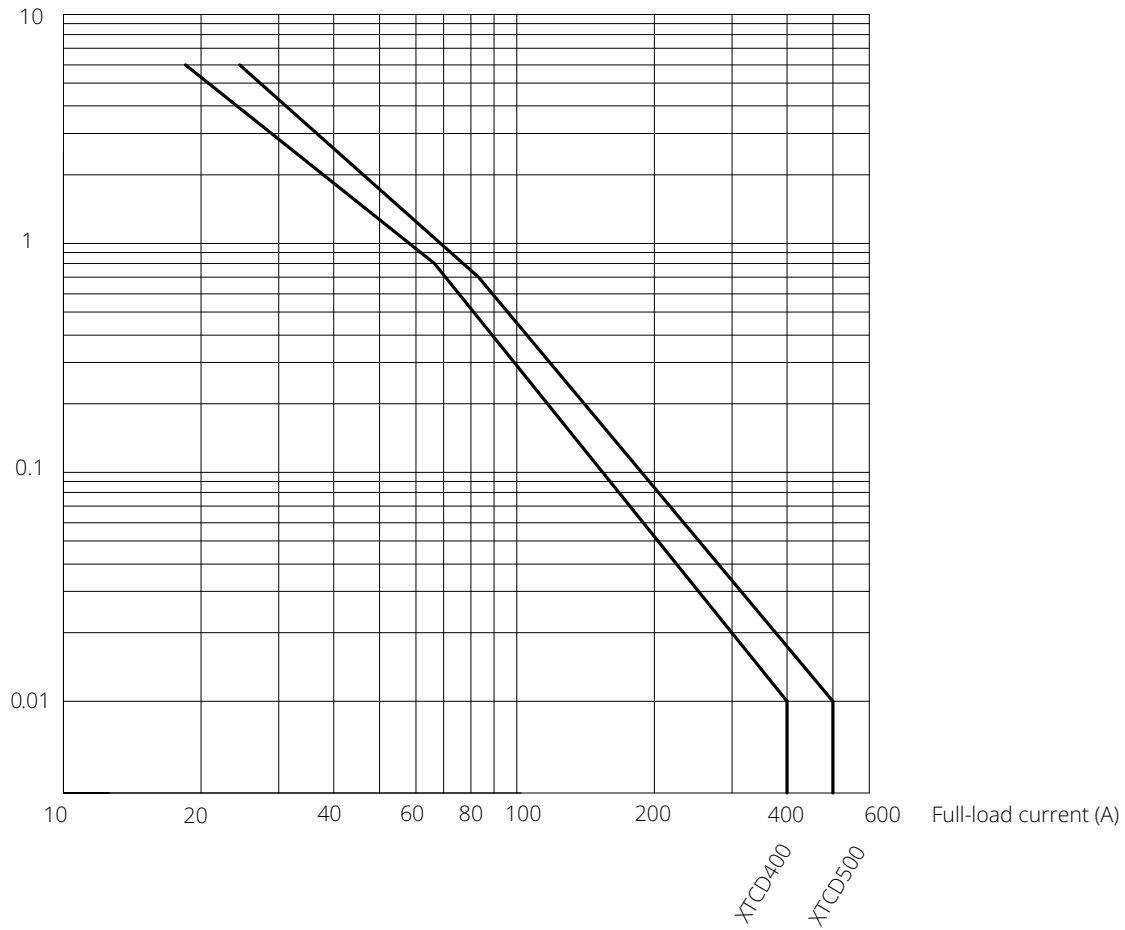
### AC3 (U<sub>e</sub> 400V)

Million operations



AC4 (U<sub>e</sub> 400V)

Million operations



## 1 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	80	80
	AC-4	$\times 10^4$	6	6	4	4	4	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

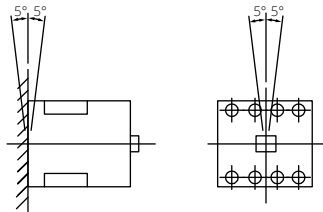
Climatic proofing	Damp heat, constant, to IEC60068-2-78 Damp heat, cyclic, to IEC60068-2-30							
-------------------	--	--	--	--	--	--	--	--

**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 <sup>2</sup>	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 <sup>2</sup>	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
	Straight	$\Phi 6$	$\Phi 6$	$\Phi 6$	$\Phi 6$	$\Phi 6$	$\Phi 6$	$\Phi 6$
	Rocket mm	-	-	-	-	-	-	-

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
600	600	600	600	600	600	600	600
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	-	-	-

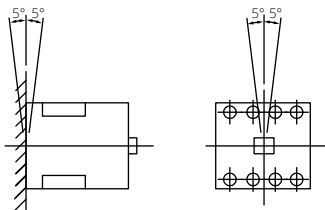
Damp heat, constant, to IEC60068-2-78

Damp heat, cyclic, to IEC60068-2-30

-25°C ~ +60°C

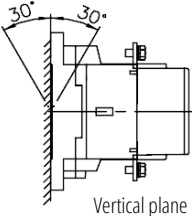
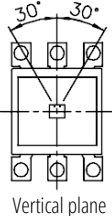
-40°C ~ +70°C

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

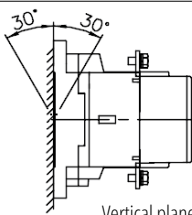
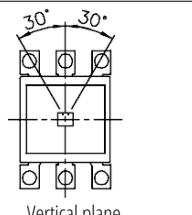


1*(2.5-25)	1*(2.5-25)	1*(2.5-25)	1*(4-50)	1*(4-50)	1*(16-95)	1*(16-95)	1*(16-95)
2*(2.5-16)	2*(2.5-16)	2*(2.5-16)	2*(4-25)	2*(4-25)	2*(16-70)	2*(16-70)	2*(16-70)
1*(2.5-25)	1*(2.5-25)	1*(2.5-25)	1*(4-50)	1*(4-50)	1*(10-95)	1*(10-95)	1*(10-95)
2*(2.5-16)	2*(2.5-16)	2*(2.5-16)	2*(4-25)	2*(4-25)	2*(10-70)	2*(10-70)	2*(10-70)
85%-110%U <sub>s</sub>							
20%-75%U <sub>s</sub> AC							
190-220	190-220	190-220	190-220	19-220	300	300	300
28	28	28	28.7	28.7	30	30	30
-	-	-	-	-	-	-	-
Φ8	Φ8	Φ8	Φ8	Φ8	-	-	-
-	-	-	4	4	4	4	4
3.5	3.5	3.5	4	4	6	6	6

## 1 Technical data

Type	XTCD180			XTCD225			XTCD300			
<b>Main contacts</b>										
Rated insulation voltage (U <sub>i</sub> )	1000			1000			1000			
Continuous power-on current (I <sub>th</sub> )	240			260			350			
Rated current / Rated capacity (I <sub>e</sub> /P)	AC-3 IEC60947-4-1 GB14048.4			AC-3 IEC60947-4-1 GB14048.4			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 (I <sub>e</sub> /P)	UL 60947-4-1			UL 60947-4-1			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	
<b>Auxiliary contacts</b>										
Rated insulation voltage (U <sub>i</sub> )	690			690			690			
Continuous power-on voltage (I <sub>th</sub> )	10/2.5			10/2.5			10/2.5			
Rated current (I <sub>e</sub> )	AC-15 IEC 60947-5-1 GB 14048.5			AC-15 IEC 60947-5-1 GB 14048.5			AC-15 IEC 60947-5-1 GB 14048.5			
120V	6			6			6			
240V	3			3			3			
380V	1.9			1.9			1.9			
<b>Coil capacity</b>										
Inrush (VA)	700			1050			1050			
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 <sup>Ⓐ</sup>	3A2a2b, (Max 4a4b)			3A2a2b, (Max 4a4b)			3A2a2b, (Max 4a4b)			
Weight (Kg)	4.1			6.7			6.7			
Mounting position	 Vertical plane			 Vertical plane						

**Note:** <sup>Ⓐ</sup>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		
<b>Main contacts</b>						
Rated insulation voltage (U <sub>i</sub> )	1000			1000		
Continuous power-on current (I <sub>th</sub> )	500			700		
Rated current / Rated capacity (I <sub>e</sub> /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 (I <sub>e</sub> /P)	UL 60947-4-1					
1-phase						
120V	-	-	-	-	-	-
230V	-	-	-	-	-	-
3-phase						
200/280V	-	-	-	-	-	-
240V	-	-	-	-	-	-
480V	-	-	-	-	-	-
600V	-	-	-	-	-	-
<b>Auxiliary contacts</b>						
Rated insulation voltage (U <sub>i</sub> )	690			690		
Continuous power-on voltage (I <sub>th</sub> )	10/2.5			10/2.5		
Rated current (I <sub>e</sub> )	AC-15 IEC 60947-5-1 GB 14048.5					
120V	6			6		
240V	3			3		
380V	1.9			1.9		
<b>Coil capacity</b>						
Inrush (VA)	1100			1100		
Sealed (VA)	30			30		
Power consumption (W)	8-12			8-12		
Operating frequency	OPS/hn	1200		OPS/hn		1200
Lifespan, electrical	Mio. OPS	50		Mio. OPS		50
Lifespan, mechanical	Mio. OPS	500		Mio. OPS		500
Contact structure <sup>①</sup>	3A2a2b <sup>②</sup>			3A2a2b <sup>②</sup>		
Weight (Kg)	10.8			10.8		
Mounting position	 Vertical plane			 Vertical plane		

**Note:** <sup>①</sup>A for Normal Open main contact, B for Normal Closed main contact; a for Normal Open auxiliary contact, B for Normal Closed auxiliary contact.  
<sup>②</sup>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

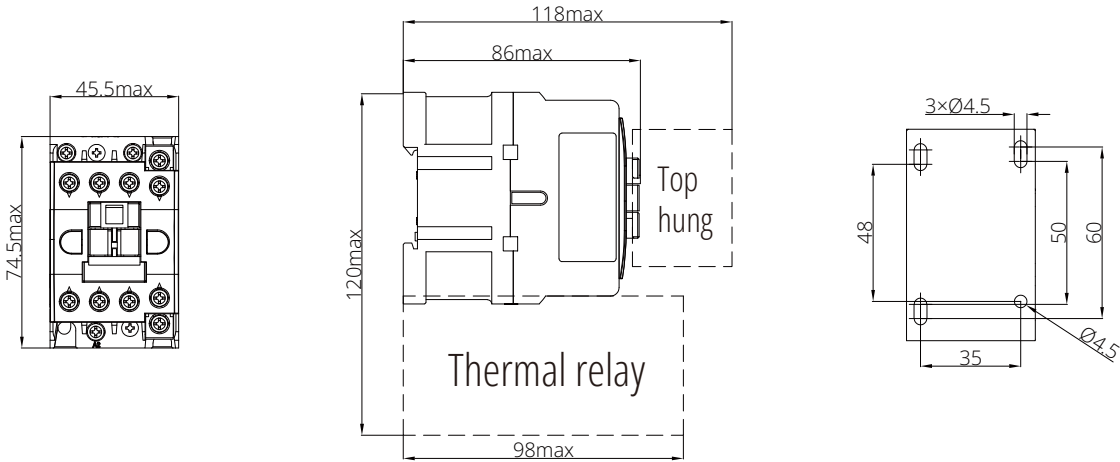
## Contactors XTCD Technical data of auxiliary contact modules

### 1 Auxiliary contact modules

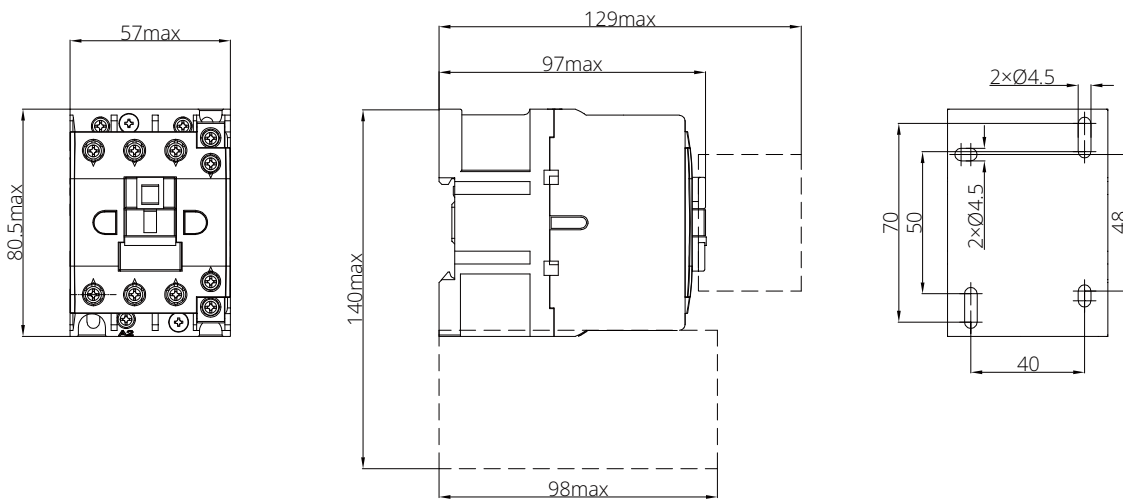
			<b>XTCD...XHI...</b>
Rated impulse withstand voltage	$U_{imp}$	VAC	6000
Overvoltage category/degree of pollution			III/3
Rated insulation voltage	$U_i$	VAC	660
Conventional thermal current	$I_{th}$	A	10
Rated operational voltage	$U_e$	VAC	VAC: 220V 380V
Rated operational current			
<b>AC-15</b>			
220V	$I_e$	A	1.63
380V	$I_e$	A	0.95
<b>DC-13</b>			
110V	$I_e$	A	0.3
220V	$I_e$	A	0.15

**Contactor dimension diagrams (mm)**

XTCD6-18 Dimension diagram



XTCD25-38 Dimension diagram

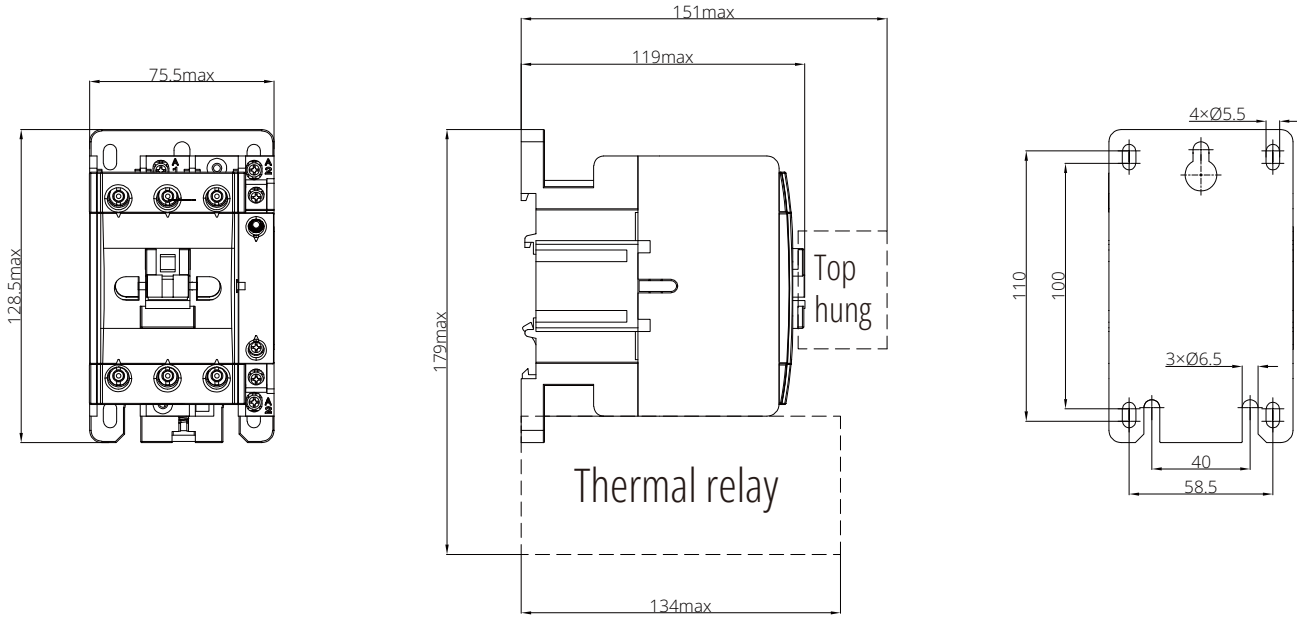


# 1.7

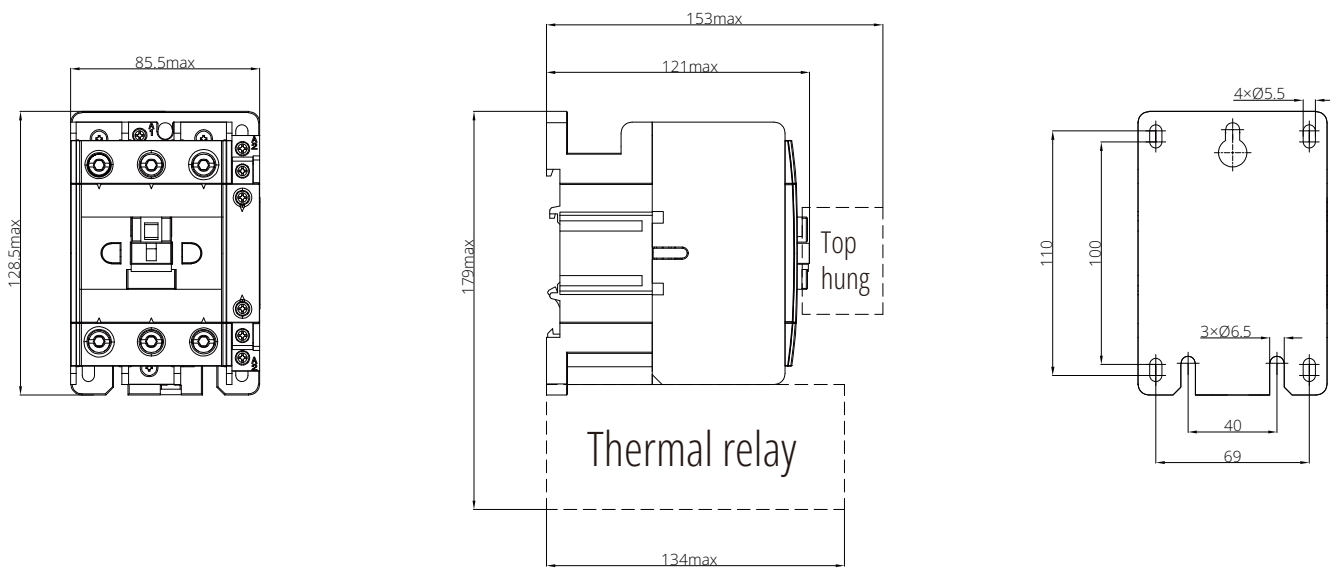
## Contactors XTCD Dimensions

### 1 Contactor dimension diagrams (mm)

XTCD40-65 Dimension diagram



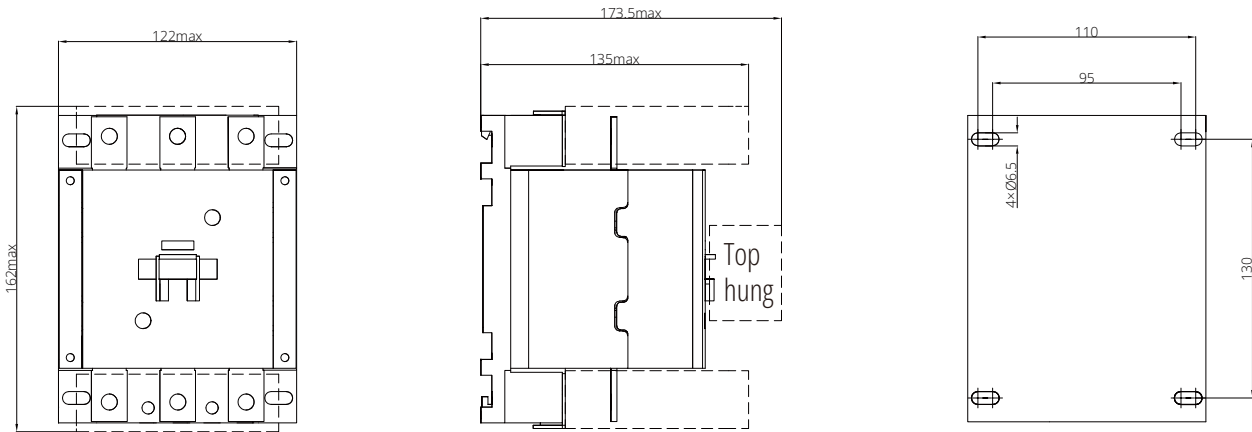
XTCD80-95 Dimension diagram



**Contactor dimension diagrams (mm)**

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

1

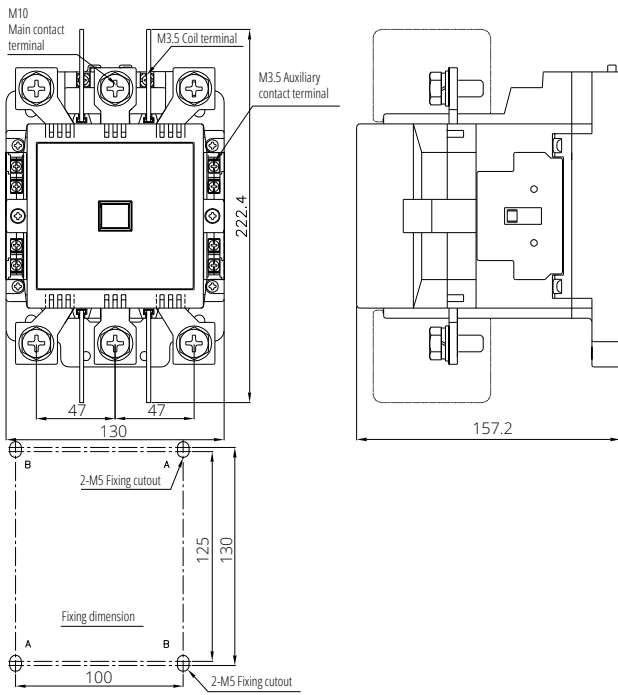


# 1.7

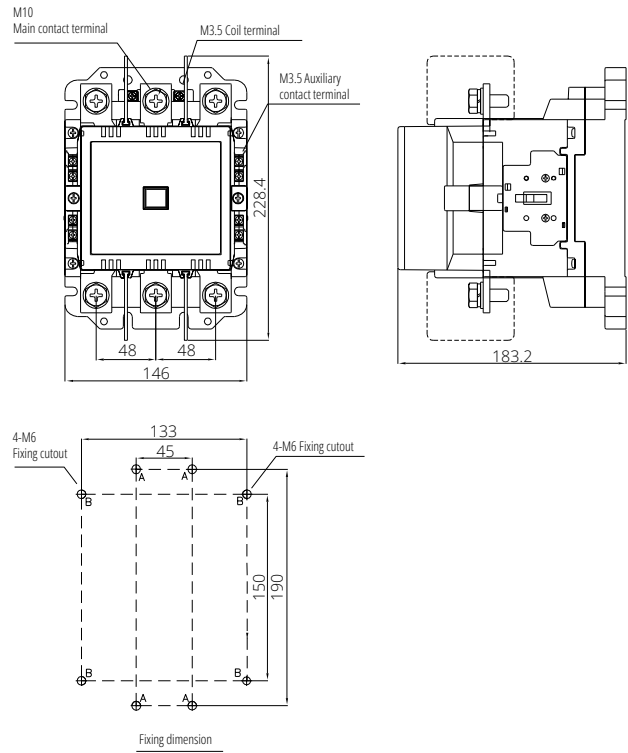
## Contactor XTCD Technical data

### 1 Contactor dimension diagrams (mm)

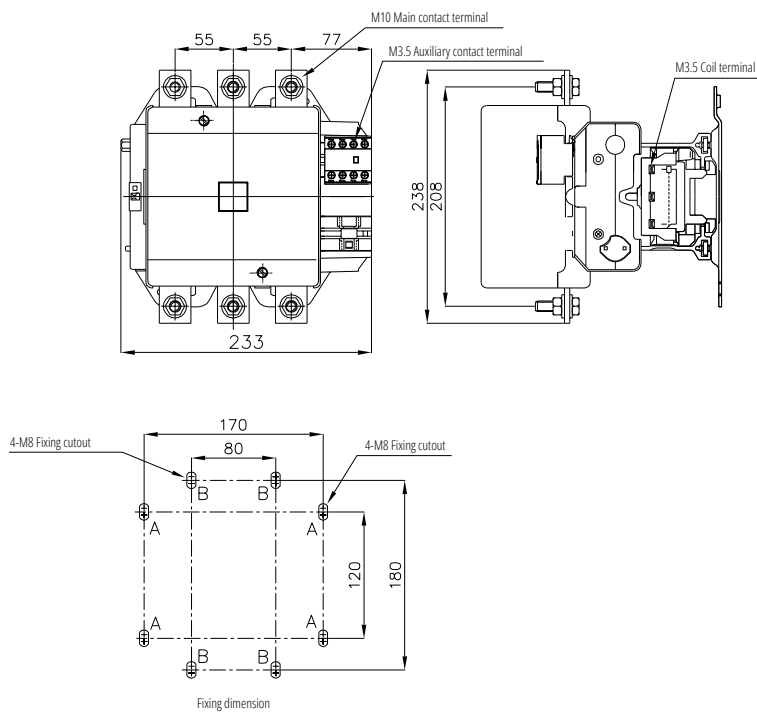
XTCD 180 Dimension diagram



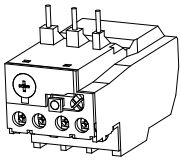
XTCD 225 / 300 Dimension diagram



XTCD 400 / 500 Dimension diagram



**Thermal overload relays XTOD**



<b>2.1 System overview</b>		
Thermal overload relays XTOD .....		<b>23</b>
<b>2.2 Thermal overload relays</b>		
Thermal overload relays XTOD .....		<b>24</b>
Accessory .....		<b>26</b>
<b>2.3 Engineering data</b>		
Thermal overload relays XTOD .....		<b>27</b>
<b>2.4 Technical data</b>		
Thermal overload relays XTOD .....		<b>28</b>
<b>2.5 Dimensions</b>		
Thermal overload relays XTOD .....		<b>29</b>

**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

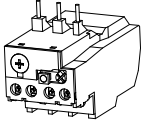
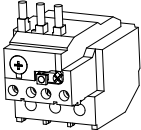
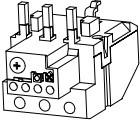
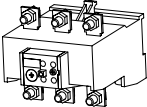
**Standards and Certifications**

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

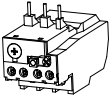














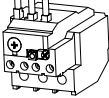


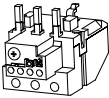







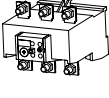








**System overview**

**Thermal overload relays**

Setting range (A)  
(Note the maximum current of contactor)

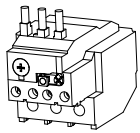
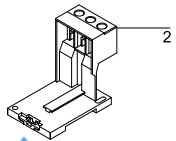
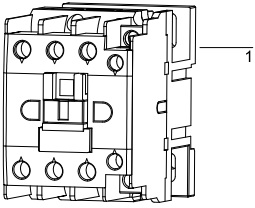
	<b>XTCD6-11-38-11</b>	<b>XTCD25-11-38-11</b>	<b>XTCD40-11-95-11</b>	<b>XTCD115-170</b>
<b>XTOD18...</b> 0.1-25A				
<b>XTOD38...</b> 23-40A				
<b>XTOD95...</b> 37-93A				
<b>XTOD170...</b> 55-180A				

### Thermal overload relays

Mounting method	Setting range of overload releases I <sub>r</sub> (A)	Contact No.	Auxiliary contact		For use with	Part No. Article No.	Standard package	
			N/O=Normally open	N/C=Normally closed				
	Direct mounting	0.1-0.16A		1 NO	1 NC	XTCD6-11 XTCD9-11	<b>XTOD18-0.16</b> CMD00687	1 件
	Direct mounting	0.16-0.25A		1 NO	1 NC	XTCD12-11 XTCD18-11	<b>XTOD18-0.25</b> CMD00688	1 件
	Direct mounting	0.25-0.4A		1 NO	1 NC	XTCD25-11 XTCD32-11	<b>XTOD18-0.4</b> CMD00689	1 件
	Direct mounting	0.4-0.63A		1 NO	1 NC	XTCD38-11	<b>XTOD18-0.63</b> CMD00690	1 件
	Direct mounting	0.63-1.0A		1 NO	1 NC		<b>XTOD18-1</b> CMD00691	1 件
	Direct mounting	1.0-1.6A		1 NO	1 NC		<b>XTOD18-1.6</b> CMD00692	1 件
	Direct mounting	1.6-2.5A		1 NO	1 NC		<b>XTOD18-2.5</b> CMD00693	1 件
	Direct mounting	2.5-4.0		1 NO	1 NC		<b>XTOD18-4</b> CMD00694	1 件
	Direct mounting	4-6A		1 NO	1 NC		<b>XTOD18-6</b> CMD00695	1 件
	Direct mounting	5.5-8A		1 NO	1 NC		<b>XTOD18-8</b> CMD00696	1 件
	Direct mounting	7-10A		1 NO	1 NC		<b>XTOD18-10</b> CMD00697	1 件
	Direct mounting	9-13A		1 NO	1 NC		<b>XTOD18-13</b> CMD00698	1 件
	Direct mounting	12-18A		1 NO	1 NC		<b>XTOD18-18</b> CMD00699	1 件
	Direct mounting	17-25A		1 NO	1 NC		<b>XTOD18-25</b> CMD00700	1 件
	Direct mounting	23-32A		1 NO	1 NC		<b>XTOD38-32</b> CMD00701	1 件
	Direct mounting	30-40A		1 NO	1 NC		<b>XTOD38-40</b> CMD00702	1 件
	Direct mounting	23-32A		1 NO	1 NC	XTCD40-11 XTCD50-11	<b>XTOD95-32</b> CMD00703	1 件
	Direct mounting	30-40A		1 NO	1 NC	XTCD65-11 XTCD80-11	<b>XTOD95-40</b> CMD00704	1 件
	Direct mounting	37-50A		1 NO	1 NC	XTCD95-11	<b>XTOD95-50</b> CMD00705	1 件
	Direct mounting	48-65A		1 NO	1 NC		<b>XTOD95-65</b> CMD00706	1 件
	Direct mounting	55-70A		1 NO	1 NC		<b>XTOD95-70</b> CMD00707	1 件
	Direct mounting	63-80A		1 NO	1 NC		<b>XTOD95-80</b> CMD00708	1 件
	Direct mounting	80-93A		1 NO	1 NC		<b>XTOD95-93</b> CMD00709	1 件
	Separate mounting	55-80A		1 NO	1 NC	XTCD115 XTCD150	<b>XTOD170-80</b> CMD00710	1 件
	Separate mounting	63-90A		1 NO	1 NC	XTCD170	<b>XTOD170-90</b> CMD00711	1 件
	Separate mounting	80-110A		1 NO	1 NC		<b>XTOD170-110</b> CMD00712	1 件
	Separate mounting	90-120A		1 NO	1 NC		<b>XTOD170-120</b> CMD00713	1 件
	Separate mounting	110-135A		1 NO	1 NC		<b>XTOD170-135</b> CMD00714	1 件
	Separate mounting	120-150A		1 NO	1 NC		<b>XTOD170-150</b> CMD00715	1 件
	Separate mounting	135-160A		1 NO	1 NC		<b>XTOD170-160</b> CMD00716	1 件
	Separate mounting	150-180A		1 NO	1 NC		<b>XTOD170-180</b> CMD00717	1 件

**Note:**

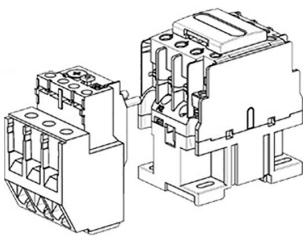
Separate mounting



**Page**

- 1 Contactor → 3
- 2 Mounting adapter → 20

Fit to the contactor directly



**Page**

- 1 Contactor → 3

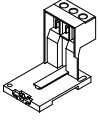
# 2.2

## Thermal overload relays XTOD Accessory

Mounting adapter

### Accessory

2



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

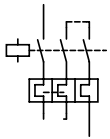
Can be snapped fitted on a DIN rail to IEC/EN60715 standard or can be screw fitted.

**Engineering data**

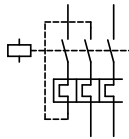
Items	XTOD
Phase-loss sensitivity	•
Temperature compensation	•
Auxiliary contact N/O+N/C	•
Test / Release button	•
Reset button, manual/auto	•
Separate mounting	•

**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/T 14048.4			
Climate proofing		Damp heat, constant, to IEC60068-2-78 Damp heat, cyclic, to IEC60068-2-30			
<b>Ambient temperature</b>					
Operational	°C	-25°C ~ +60°C			
Storage	°C	-40°C ~ +70°C			
Weight	kg	0.15	0.22	0.48	1.00

### Main circuit

			XTOD18...	XTOD38...	XTOD95...	XTOD170...
Rated impulse withstand voltage	$U_{imp}$	VAC	8000	8000	8000	8000
Overvoltage category/pollution degree			III/3	III/3	III/3	III/3
<b>Rated insulation voltage</b>						
AC	$U_i$	VAC	660	660	660	690
Rated operational voltage	$U_e$	VAC	660	660	660	660
Set range of Overload release		A	0.1-25	23-40	23-93	55-180
<b>Wiring capacity</b>						
Solid/stranded conductor		mm <sup>2</sup>	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

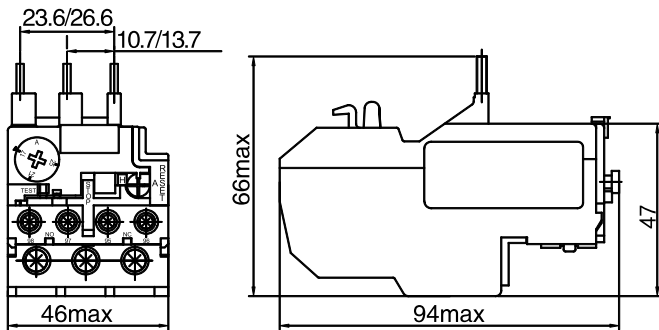
### Auxiliary and control circuit

			XTOD18...	XTOD38...	XTOD95...	XTOD170...
Rated impulse withstand voltage	$U_{imp}$	V	6000	6000	6000	6000
Overvoltage category/pollution degree			III/3	III/3	III/3	III/3
<b>Wiring capacity</b>						
Solid/stranded conductor		mm <sup>2</sup>	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	$U_i$	VAC	500	500	500	380
Rated thermal current	$I_{th}$	A	6	6	6	6
Rated operational current						
<b>AC-15</b>						
220V	$I_e$	A	1.64	1.64	1.64	0.45
380V	$I_e$	A	0.95	0.95	0.95	0.26
<b>DC-13</b>						
110V	$I_e$	A	0.3	0.3	0.3	0.27
220V	$I_e$	A	0.15	0.15	0.15	0.14

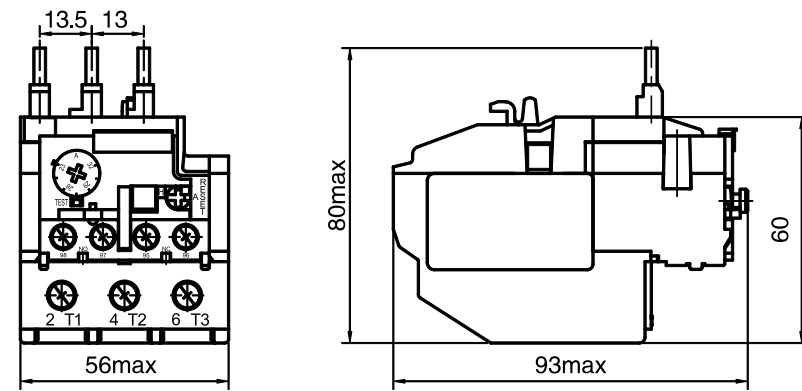
Dimensions in mm

**XTOD series thermal overload relays**

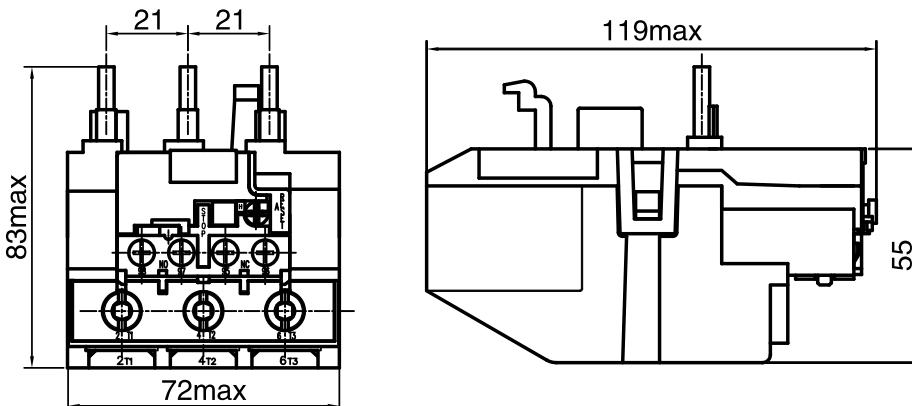
XTOD18...



XTOD38...



XTOD95...



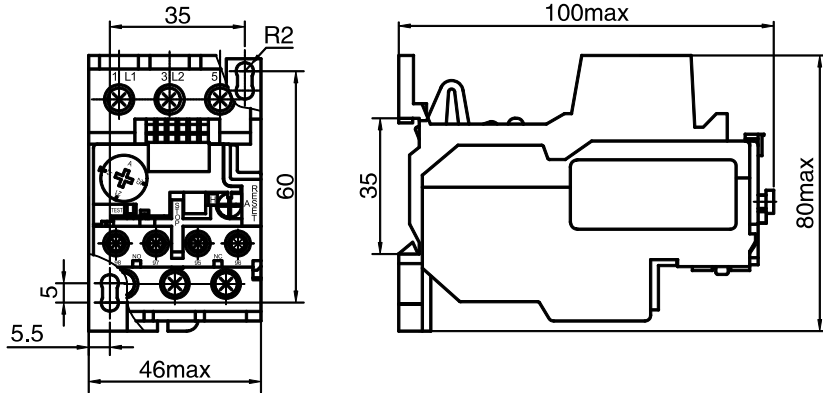
# 2.5 Thermal overload relays XTOD

## Dimensions

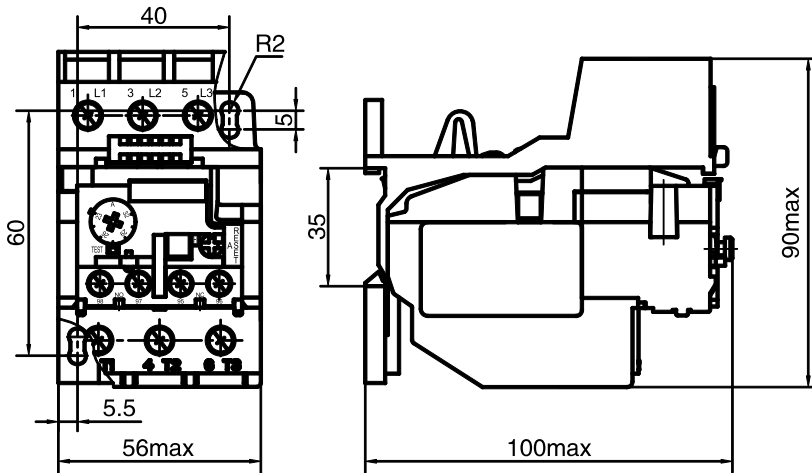
Dimensions in mm

### 2 XTOD series thermal overload relays

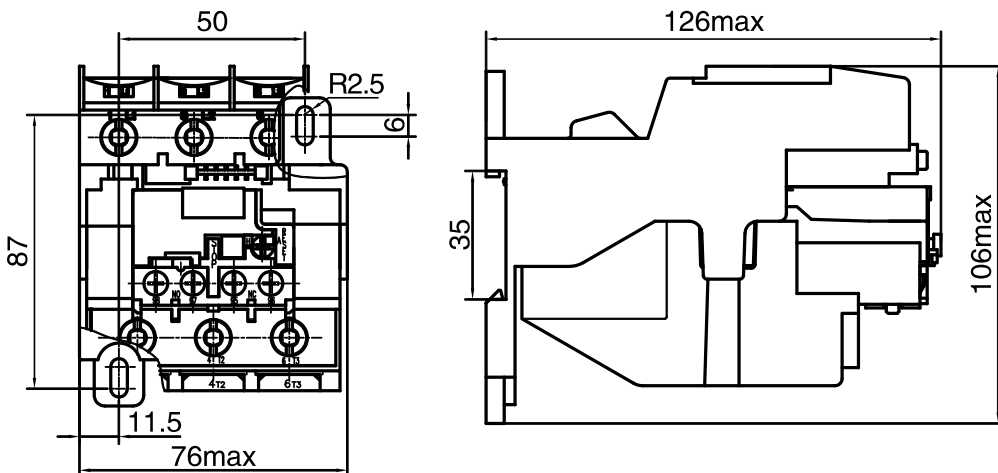
XTOD18-BS separate mounting



XTOD38-BS separate mounting



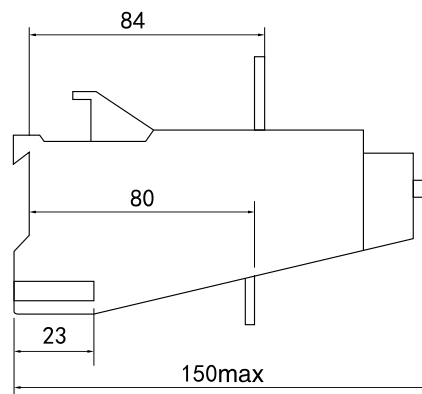
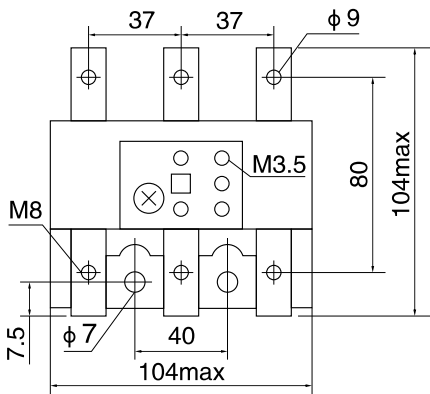
XTOD95-BS separate mounting



Dimensions in mm

**XTOD series thermal overload relays**

XTOD170...



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Founded in 1911, Eaton has continuously evolved to meet the changing and expanding needs of our stakeholders. With revenues of nearly \$25 billion in 2024, the company serves customers in more than 160 countries. Eaton entered the Chinese market in 1993 and has grown significantly since then. In 2004, Eaton moved its Asia-Pacific headquarters from Hong Kong to Shanghai. Today, Eaton has nearly 8,000 employees and 19 manufacturing facilities in China.

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