

D Line Series Motor Controls

Start easily, protect precisely



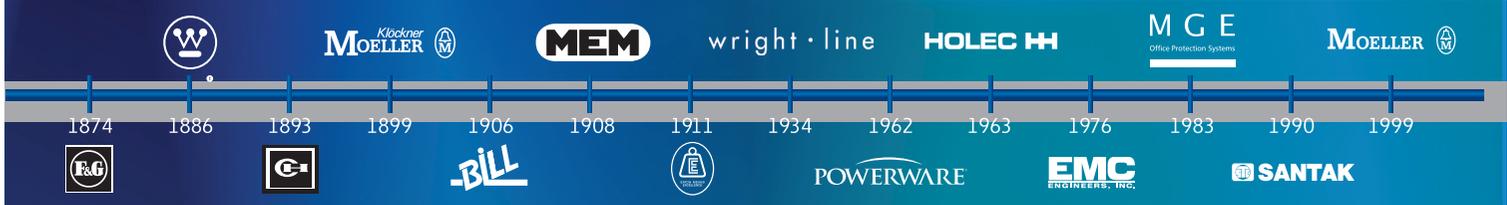
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Brand inception dates:



EAT•N
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Control relays XTRD

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Contactors XTCD



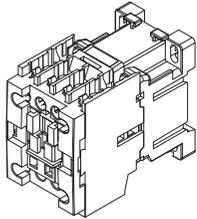
Thermal overload relays XTOD





The D Line is the newest addition to Eaton's portfolio line of control components. With global ratings and a capacity of up to 85A, D Line is perfect for everyday power control applications. The D Line offers control relays, contactors, starters and thermal overload relays to match any need. Simple, but efficient control for applications including pumps, fans, compressors and more, D Line delivers reliable operation in a compact package.

Control relays XTRD



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Control relays XTRD

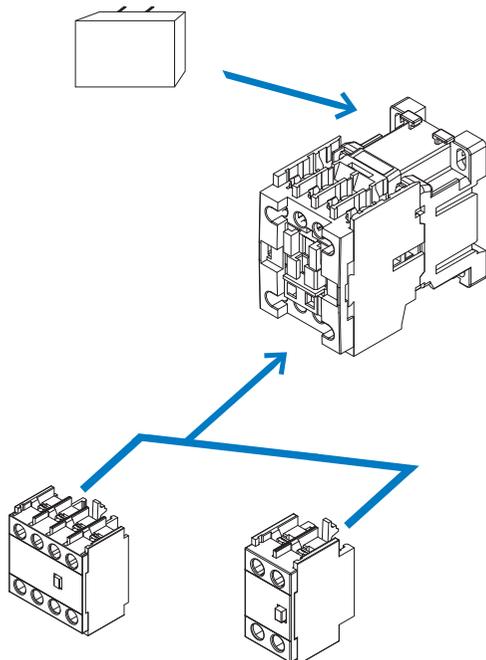
Product Description

- Varied 4-pole contact configurations
- Conventional thermal current (Ith) of 10A
- DIN-rail or panel mount

Standards and Certifications

- IEC/EN 60947
- CE
- UL/CSA
(pending for availability)

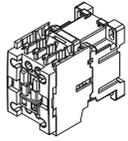
System overview



1.2

Control relays XTRD Basic devices

1 XTRD

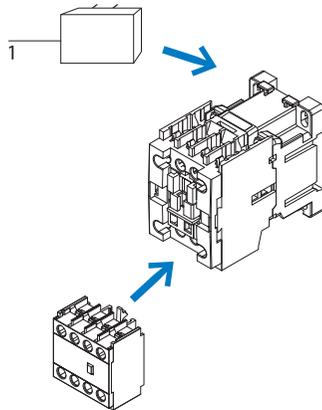


Control relays

Connection type	Contact		Rated operational current AC-15 I_e (A)		Conventional thermal current, open, 55°C I_{th} (A)	Circuit symbol	Can be combined with auxiliary contact module	AC operation	Standard package
	N/O=Normally open	N/C=Normally closed	220V	380 V				Part no.	
			230V	400 V				Actuating voltage 220V 50/60HZ	
Screw terminals	4 N/O	-	3	1.9	10		XTCDXSAG11 XTCDXFAG..	XTRD10B40AO 152304	1 piece
Screw terminals	3 N/O	1 N/C	3	1.9	10		XTCDXSAG11 XTCDXFAG..	XTRD10B31AO 152297	1 piece
Screw terminals	2 N/O	2 N/C	3	1.9	10		XTCDXSAG11 XTCDXFAG..	XTRD10B22AO 152290	1 piece
Screw terminals	1 N/O	3 N/C	3	1.9	10		XTCDXSAG11 XTCDXFAG..	XTRD10B13AO 152283	1 piece
Screw terminals	-	4 N/C	3	1.9	10		XTCDXSAG11 XTCDXFAG..	XTRD10B04AO 152736	1 piece

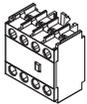
Notes

With screw terminals



Accessories	Page
1 Suppressor	→ 14
2 Auxiliary contact module	→ 3
Actuating voltages	→ 3

Auxiliary contact, top mounting



Auxiliary contact, side mounting



Auxiliary contact modules

Connection type	Conventional thermal current open, 55°C	$I_{th} = I_e$ AC-1 A	Contact	N/O=Normally open N/C=Normal closed	Circuit symbol	Can be combined with control relay	Part no. Article no.	Standard package
Screw terminals	2 pole	10	2 N/O	-		XTRD10B..	XTCDXFAG20 152430	1 piece
Screw terminals	2 pole	10	1 N/O	1 N/C		XTRD10B..	XTCDXFAG11 152431	1 piece
Screw terminals	2 pole	10	-	2 N/C		XTRD10B..	XTCDXFAG02 152432	1 piece
Screw terminals	4 pole	10	4 N/O	-		XTRD10B..	XTCDXFAG40 152433	1 piece
Screw terminals	4 pole	10	3 N/O	1 N/C		XTRD10B..	XTCDXFAG31 152434	1 piece
Screw terminals	4 pole	10	2 N/O	2 N/C		XTRD10B..	XTCDXFAG22 152435	1 piece
Screw terminals	4 pole	10	1 N/O	3 N/C		XTRD10B..	XTCDXFAG13 152436	1 piece
Screw terminals	4 pole	10	-	4 N/C		XTRD10B..	XTCDXFAG04 152437	1 piece
Screw terminals	2 pole	10	1 N/O	1 N/C		XTRD10B..	XTCDXSAG11 152438	1 piece

Actuating voltages AC

Standard coil 50/60Hz	Coil Suffix	XTRD10B40.. Article no. ¹⁾	XTRD10B31.. Article no. ¹⁾	XTRD10B22.. Article no. ¹⁾	XTRD10B13.. Article no. ¹⁾	XTRD10B04.. Article no. ¹⁾
24V	B2	152306	152299	152292	152285	151738
48V	C2	152307	152300	152293	152286	151739
110V	E2	152309	152302	152295	152288	152281
220V	A0	152304	152297	152290	152283	151736
240V	H2	152310	152303	152296	152289	152282
380V	AR	152305	152298	152291	152291	151737
440V	DQ	152308	152301	152294	152287	152280

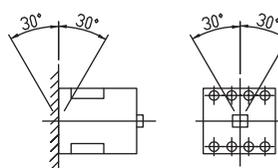
¹⁾The full part no. consists of basic type and coil suffix.

1.4 Control relays XTRD

Technical data

1 General

			XTRD	XTCDXFAG	XTCDXSAG
Standards			IEC/EN 60947, GB 14048		
Mechanical lifespan					
AC operated	Operations	x 10 ⁶	5	5	5
Maximum operating frequency					
Maximum operating frequency	Operations/h		1200	1200	1200
Climatic proofing					
			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30		
Ambient temperature					
Operation		°C	-20-55	-20-55	-20-55
Storage		°C	-40-80	-40-80	-40-80
Mounting position	Have the angle of ±30° with normal vertical installation plane				



Protection type			IP20	IP20	IP20
Weight Approximate weight		kg	0.3	0.3	0.3
Terminal capacity					
Solid		mm ²	1 x (1-6) 2 x (1-6)	1 x (1-6) 2 x (1-6)	1 x (1-6) 2 x (1-6)
Flexible with ferrule		mm ²	1 x (1-4) 2 x (1-4)	1 x (1-4) 2 x (1-4)	1 x (1-4) 2 x (1-4)
Solid or stranded		AWG			
Terminal screw			M3.5	M3.5	M3.5
Max tightening torque		Nm	0.8	0.8	0.8

Contacts

Rated impulse withstand voltage	U_{imp}	VAC	6000	6000	6000
Overvoltage category/degree of pollution			III/3	III/3	III/3
Rated insulation voltage AC	U_i	VAC	1000	690	690
Rated operational voltage	U_e	VAC	690	600	600
Rated operational current					
AC-15					
120V	I_e	A	6	6	6
220/240V	I_e	A	3	3	3
380V	I_e	A	1.9	1.9	1.9
480V	I_e	A	1.5	1.5	1.5
500V	I_e	A	1.4	1.4	1.4
600V	I_e	A	1.2	1.2	1.2
DC-13					
125V	I_e	A	0.55	0.55	0.55
250V	I_e	A	0.27	0.27	0.27
Conventional thermal current	I_{th}	A	10	10	10
Electrical lifespan					
at $U_e=230V$, AC-15, 3A	Operations	x 10 ⁶	1	1	1

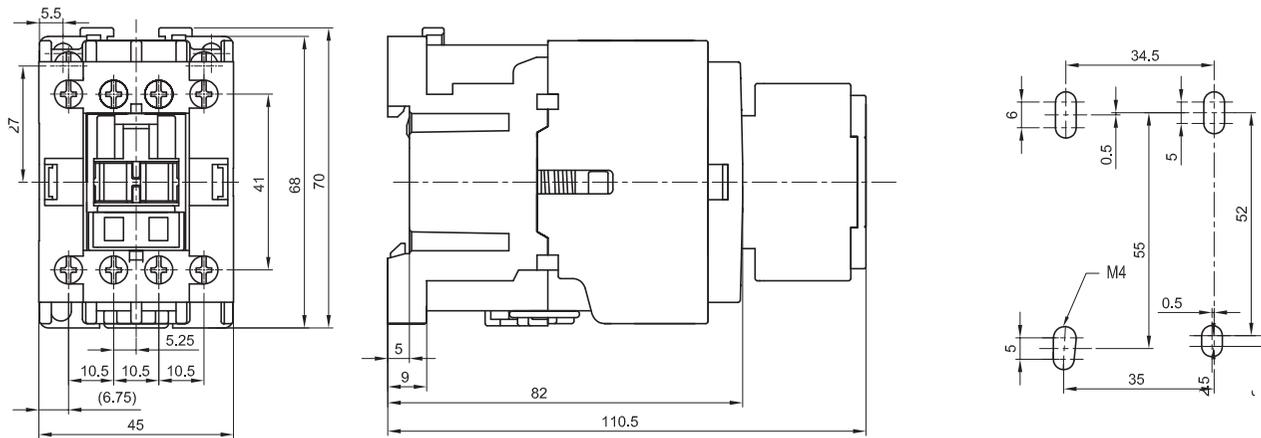
Magnet system

			XTRD	XTCDXFAG	XTCDXSAG
Voltage tolerance					
AC operated	Pick-up	$x U_c$	0.8-1.1	0.8-1.1	0.8-1.1
Power consumption					
	Pick-up	VA	70	70	70
	Sealing	VA	12	12	12
	Sealing	W	3.5	3.5	3.5
Duty factor		% DF	40	40	40

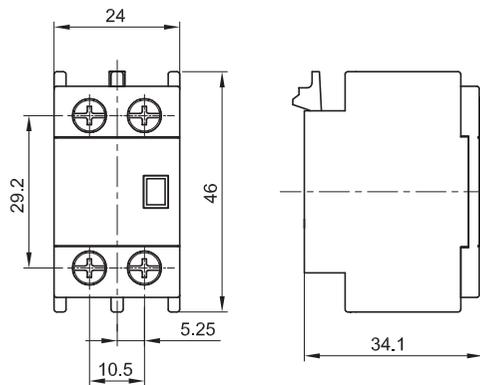
Dimensions

Control relay (with XTCDXFAG)

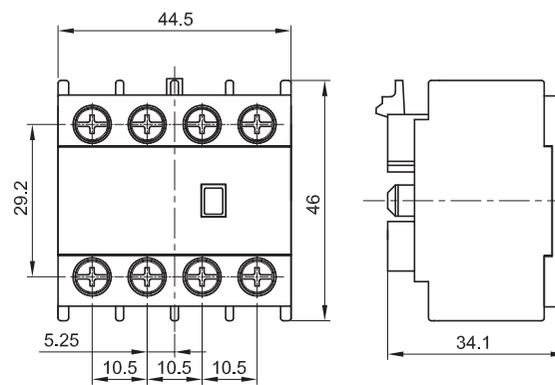
XTRD10B



Auxiliary contact module, top mounting
XTCDXFAG(2P)



Auxiliary contact module, top mounting
XTCDXFAG(4P)

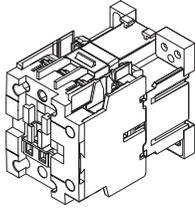


1.6

Control relays XTRD Notes

1

Contactors XTCD



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Contactors XTCD

Product Description

- 6 frame sizes with current ranges from 7-85A@ AC-3,400V
- Built-in auxiliary contacts on all frames
- Add-on auxiliary contacts for all frames
- Wide range of control voltages from 24-440V in dual frequency 50/60Hz
- Wide selection of accessories for all frames

Standards and Certifications

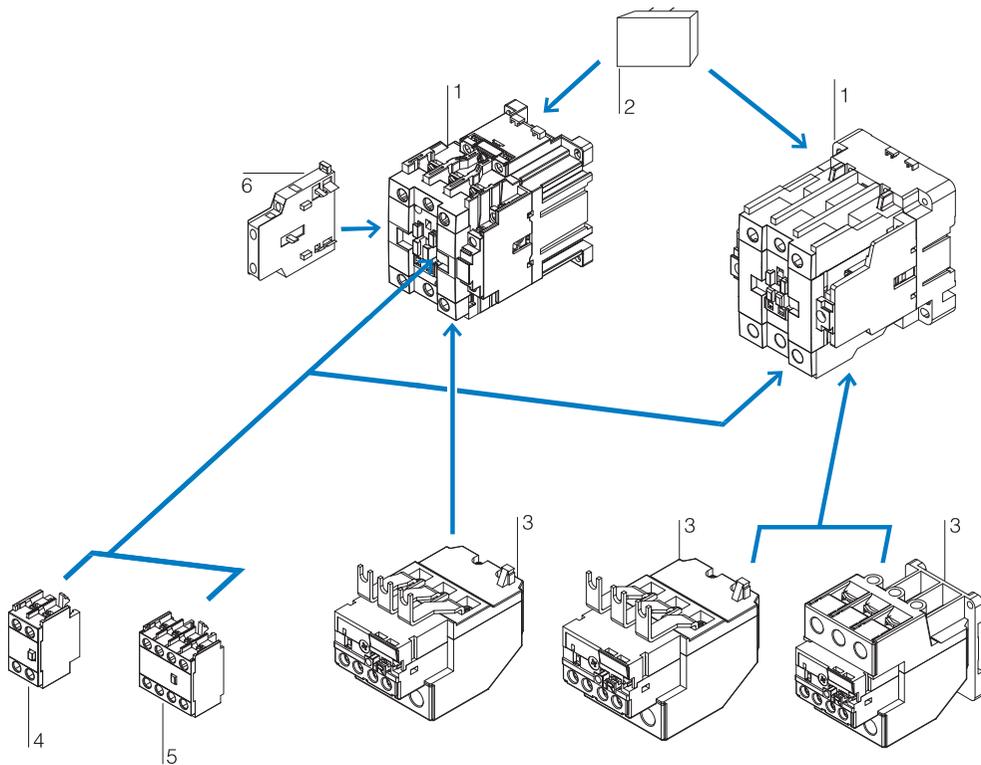
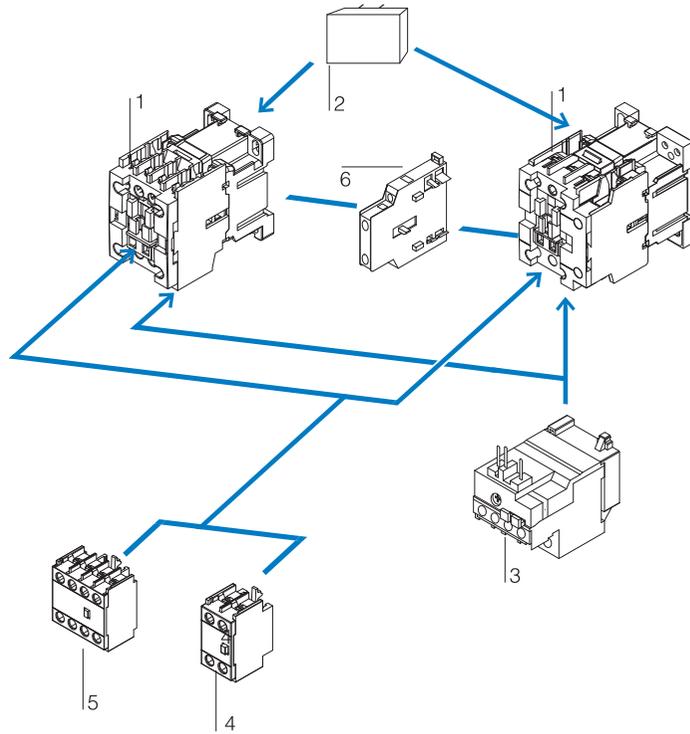
- IEC/EN 60947
- CE
- UL/CSA
(pending for availability)

2.1 Contactors XTCD

System overview

System overview

2



System overview

Contactor, to 45kW (AC-3/400V)	1	Thermal overload relay	3	Auxiliary contact module	5
Magnet system :		Direct mounting		4 pole, top mounting	
AC: 24V, 48V, 110V, 220V, 240V, 380V, 440V		Separate mounting			
		→ 27		→ 12	
→ 10					
Surge suppressor	2	Auxiliary contact module	4	Auxiliary contact module	6
RC suppressor		2 pole, top mounting		2 pole, side mounting	
Variastor suppressor					
		→ 12		→ 12	
→ 14					

2.2

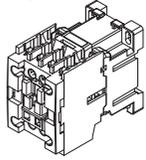
Contactors XTCD

Basic devices

XTCD

3-pole contactors

2



Can be combined with auxiliary contact module

Connection type

Rated operational current
AC-3 I_e (A)
380V 400V

Max motor rating for 3-phase motors, 50-60Hz AC-3 P KW
220V 380V 660V
230V 400V 690V

Conventional thermal current, open, 55 °C
 $I_{th} = I_e$ AC-1(A)

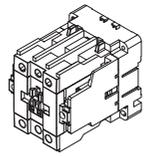
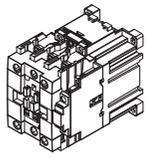
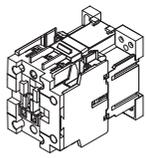
Contact
N/O=Normally open
N/C=Normal closed

Circuit symbol

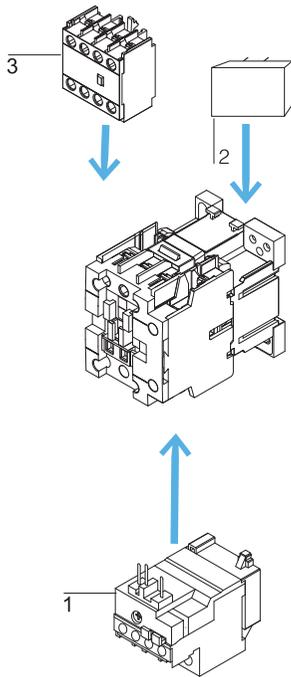
AC operation
Part no.
Article no.
Actuating voltage
220V 50/60Hz

Model	Connection type	Rated operational current AC-3 I_e (A) 380V 400V	Max motor rating for 3-phase motors, 50-60Hz AC-3 P KW 220V 380V 660V 230V 400V 690V	Conventional thermal current, open, 55 °C $I_{th} = I_e$ AC-1(A)	Contact N/O=Normally open N/C=Normal closed	Circuit symbol	AC operation Part no. Article no. Actuating voltage 220V 50/60Hz
XTCDXFAG20	Screw terminals	7	2.2 3 3.5	25	1 N/O -		XTCD007B10AO 152318
XTCDXFAG11	Screw terminals	7	2.2 3 3.5	-25	1 N/C		XTCD007B01AO 152311
XTCDXFAG02	Screw terminals	9	2.5 4 4.5	25	1 N/O -		XTCD009B10AO 152332
XTCDXFAG31	Screw terminals	9	2.5 4 4.5	-25	1 N/C		XTCD009B01AO 152325
XTCDXFAG22	Screw terminals	12	3 5.5 5.5	25	1 N/O -		XTCD012B10AO 152346
XTCDXFAG13	Screw terminals	12	3 5.5 5.5	-25	1 N/C		XTCD012B01AO 152339
XTCDXFAG04	Screw terminals	16	4 7.5 7.5	25	1 N/O -		XTCD016B10AO 152360
XTCDXSAG11	Screw terminals	16	4 7.5 7.5	-25	1 N/C		XTCD016B01AO 152353
	Screw terminals	22	5.5 11 11	32	1 N/O 1 N/C		XTCD022C11AO 152367
	Screw terminals	26	7.5 11 11	35	1 N/O 1 N/C		XTCD026C11AO 152374
	Screw terminals	32	7.5 15 18.5	50	1 N/O 1 N/C		XTCD032D11AO 152381
	Screw terminals	38	11 18.5 22	60	1 N/O 1 N/C		XTCD038E11AO 152388
	Screw terminals	40	11 20 22	60	1 N/O 1 N/C		XTCD040F11AO 152395
	Screw terminals	55	15 25 30	70	2 N/O 2 N/C		XTCD055G22AO 152402
	Screw terminals	64	18.5 30 37	80	2 N/O 2 N/C		XTCD065G22AO 152409
	Screw terminals	72	22 37 45	100	2 N/O 2 N/C		XTCD072G22AO 152416
	Screw terminals	85	25 45 45	135	2 N/O 2 N/C		XTCD085G22AO 152423

Standard package: 1piece



Notes



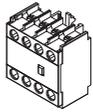
Accessories	Page
1 Overload relay	→ 28
2 Suppressor	→ 7
3 Auxiliary contact module	→ 12
Actuating voltages	→ 15
Other accessories	→ 14

2.2

Contactors XTCD Basic devices

Auxiliary contact,
top mounting

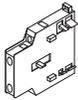
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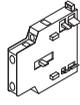
Auxiliary contact modules

Can be combined with control relay	Connection type		Conventional thermal current, open, 55 °C $I_{th} = I_e \text{ AC-1(A)}$	Contact N/O=Normally open N/C=Normal closed	Circuit symbol	Part no. Article no.	Standard package	
XTCD007 XTCD009	Screw terminals	2 pole	10	2 N/O	-		XTCDXFAG20 152430	1 piece
XTCD012 XTCD016	Screw terminals	2 pole	10	1 N/O	1 N/C		XTCDXFAG11 152431	1 piece
XTCD022 XTCD026	Screw terminals	2 pole	10	-	2 N/C		XTCDXFAG02 152432	1 piece
XTCD032 XTCD038	Screw terminals	4 pole	10	4 N/O	-		XTCDXFAG40 152433	1 piece
XTCD040 XTCD055	Screw terminals	4 pole	10	3 N/O	1 N/C		XTCDXFAG31 152434	1 piece
XTCD065 XTCD072	Screw terminals	4 pole	10	2 N/O	2 N/C		XTCDXFAG22 152435	1 piece
XTCD085	Screw terminals	4 pole	10	1 N/O	3 N/C		XTCDXFAG13 152436	1 piece
	Screw terminals	4 pole	10	-	4 N/C		XTCDXFAG04 152437	1 piece
XTCD007 XTCD009	Screw terminals	2 pole	10	1 N/O	1 N/C		XTCDXSAG11 152438	1 piece
XTCD012 XTCD016 XTCD022 XTCD026 XTCD032 XTCD038 XTCD040								

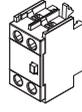
Auxiliary contact,
side mounting



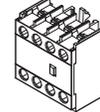
Auxiliary contact modules



XTCDXSAG11



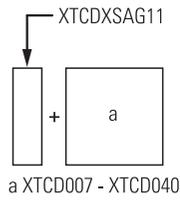
XTCDXFAG20
XTCDXFAG11
XTCDXFAG02



XTCDXFAG40
XTCDXFAG31
XTCDXFAG22
XTCDXFAG13
XTCDXFAG04

XTCD007	1x	-	-
XTCD009	-	1x	-
XTCD012	-	-	1x
XTCD016	-	-	1x
XTCD022	-	-	-
XTCD026	-	-	-
XTCD032	-	-	-
XTCD038	-	-	-
XTCD040	-	-	-
<hr/>			
XTCD055	-	1x	-
XTCD065	-	-	1x
XTCD072	-	-	-
XTCD085	-	-	-

Auxiliary contact, side mounting



2.3

Contactors XTCD Accessories

RC suppressors



2

Surge suppressors

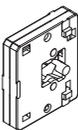
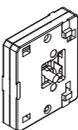
For use with	Voltage V	Circuit symbol	Part no. Article no.	Standard package	Note
XTCD007 XTCD009 XTCD012	24		XTCDXRSGB2 152441	1 piece	Note release delay
XTCD016 XTCD022 XTCD026 XTCD032 XTCD038	48		XTCDXRS GC2 152442	1 piece	Note release delay
XTCD040 XTCD055 XTCD065	110		XTCDXRS GE2 152443	1 piece	Note release delay
XTCD072 XTCD085	220-240		XTCDXRS GH2 152444	1 piece	Note release delay
	440		XTCDXRS GDQ 152445	1 piece	Note release delay
XTCD007 XTCD009 XTCD012	24		XTCDXVSGB2 152446	1 piece	Note release delay
XTCD016 XTCD022 XTCD026 XTCD032 XTCD038	48		XTCDXVSGC2 152447	1 piece	Note release delay
XTCD040 XTCD055 XTCD065	110		XTCDXVSGE2 152448	1 piece	Note release delay
XTCD072 XTCD085	220-240		XTCDXVSGH2 152449	1 piece	Note release delay
	440		XTCDXVSGDQ 152450	1 piece	Note release delay

Varistor suppressors



Mechanical interlocks

For use with	Part no. Article no.	Standard package
XTCD007 XTCD009 XTCD012 XTCD016 XTCD022 XTCD026 XTCD032	XTCDXMLD 152439	1 piece
XTCD038 XTCD040 XTCD055 XTCD065 XTCD072 XTCD085	XTCDXMLG 152440	1 piece



Spare coils

For use with	Part no. Article no.	Standard package
XTCD007 XTCD009 XTCD012 XTCD016 XTCD022 XTCD026 XTCD032	XTCDRENCOILDAO 152451	1 piece
XTCD038	XTCDRENCOILEAO 152458	1 piece
XTCD040	XTCDRENCOILFAO 152465	1 piece
XTCD055 XTCD065 XTCD072 XTCD085	XTCDRENCOILGAO 152472	1 piece

Actuating voltages AC

Standard coil 50/60Hz	Coil Suffix	XTCD007B10.. Article no. ¹⁾	XTCD007B01.. Article no. ¹⁾	XTCD009B10.. Article no. ¹⁾	XTCD009B01.. Article no. ¹⁾	XTCD012B10.. Article no. ¹⁾	XTCD012B01.. Article no. ¹⁾	XTCD016B10.. Article no. ¹⁾
24V	B2	152320	152313	152334	152327	152348	152341	152362
48V	C2	152321	152314	152335	152328	152349	152342	152363
110V	E2	152323	152316	152337	152330	152351	152344	152365
220V	A0	152318	152311	152332	152325	152346	152339	152360
240V	H2	152324	152317	152338	152331	152352	152345	152366
380V	AR	152319	152312	152333	152326	152347	152340	152361
440V	DQ	152322	152315	152336	152329	152350	152343	152364

Standard coil 50/60Hz	Coil Suffix	XTCD016B01.. Article no. ¹⁾	XTCD022C11.. Article no. ¹⁾	XTCD026C11.. Article no. ¹⁾	XTCD032D11.. Article no. ¹⁾	XTCD038E11.. Article no. ¹⁾	XTCD040F11.. Article no. ¹⁾	XTCD052G22.. Article no. ¹⁾
24V	B2	152355	152369	152376	152383	152390	152397	152404
48V	C2	152356	152370	152377	152384	152391	152398	152405
110V	E2	152358	152372	152379	152386	152393	152400	152407
220V	A0	152353	152367	152374	152381	152388	152395	152402
240V	H2	152359	152373	152380	152387	152394	152401	152408
380V	AR	152354	152368	152375	152382	152389	152396	152403
440V	DQ	152357	152371	152378	152385	152392	152399	152406

Standard coil 50/60Hz	Coil Suffix	XTCD065G22.. Article no. ¹⁾	XTCD072G22.. Article no. ¹⁾	XTCD085G22.. Article no. ¹⁾
24V	B2	152411	152418	152425
48V	C2	152412	152419	152426
110V	E2	152414	152421	152428
220V	A0	152409	152416	152423
240V	H2	152415	152422	152429
380V	AR	152410	152417	152424
440V	DQ	152413	152420	152427

¹⁾The full part no. consists of basic type and coil suffix.

2.4 Contactors XTCD

Spare coils

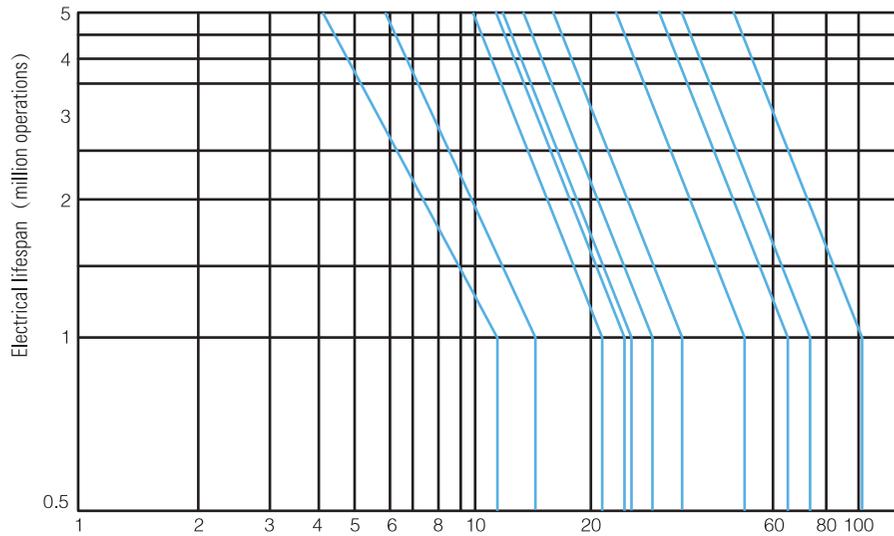
Spare coils AC

2

Standard coil 50/60Hz	Coil Suffix	XTCDRENCOILD.. Article no. ¹⁾	XTCDRENCOILE.. Article no. ¹⁾	XTCDRENCOILF.. Article no. ¹⁾	XTCDRENCOILG.. Article no. ¹⁾
24V	B2	152453	152460	152467	152474
48V	C2	152454	152461	152468	152475
110V	E2	152456	152463	152470	152477
220V	AO	152451	152458	152465	152472
240V	H2	152457	152464	152471	152478
380V	AR	152452	152459	152466	152473
440V	DQ	152455	152462	152469	152476

¹⁾The full part no. consists of basic type and coil suffix.

Normal switching duty



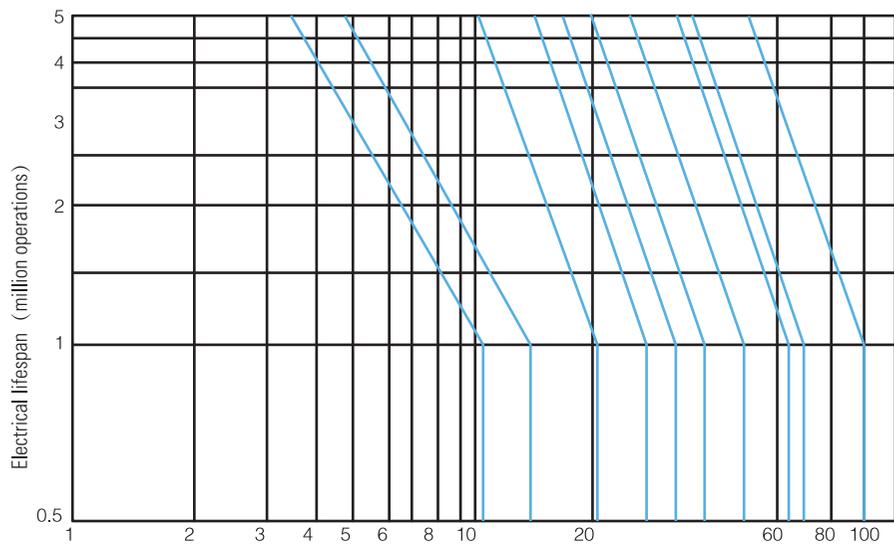
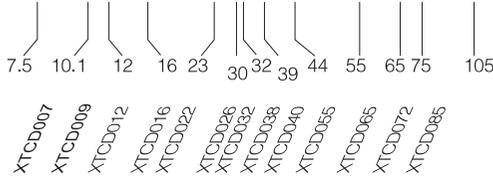
Full-load current of motor

AC 3 / 220V

Electrical characteristics

Make: Up to 6X rated current of motor

Break: 1X rated current of motor



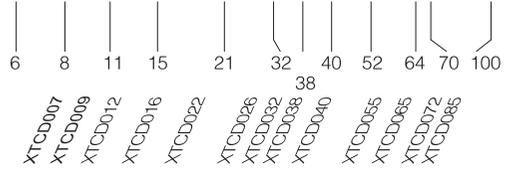
Full-load current of motor

AC 3 / 440V

Electrical characteristics

Make: Up to 6X rated current of motor

Break: 1X rated current of motor



2.6 Contactors XTCD

Technical data

General

2

XT Basic device			CD007	CD009	CD012	CD016	CD022
Standards			IEC/EN 60947, GB 14048				
Lifespan, mechanical							
AC operated	Operations	x 10 ⁶	5	5	5	5	5
Operating frequency, mechanical							
AC operated	Operations/h		1200	1200	1200	1200	1200
Climatic Proofing			Damp heat, constant, to IEC60068-2-78 Damp heat, cyclic, to IEC60068-2-30				
Ambient temperature							
Operation		°C	-20-55	-20-55	-20-55	-20-55	-20-55
Storage		°C	-40-80	-40-80	-40-80	-40-80	-40-80
Mounting position			Have the angle of ± 30° with normal vertical installation plane				
Protection type			IP20	IP20	IP20	IP20	IP20
Weight			kg	0.3	0.3	0.3	0.4
Terminal capacity of main cable							
Solid		mm ²	1 x (1.5-6) 2 x (1.5-6)	1 x (1.5-6) 2 x (1.5-6)	1 x (1.5-6) 2 x (1.5-6)	1 x (1.5-6) 2 x (1.5-6)	1 x (2.5-10) 2 x (2.5-10)
Flexible with ferrule		mm ²	1 x (1.5-4) 2 x (1.5-4)	1 x (1.5-4) 2 x (1.5-4)	1 x (1.5-4) 2 x (1.5-4)	1 x (1.5-4) 2 x (1.5-4)	1 x (2.5-6) 2 x (2.5-6)
Solid/stranded		AWG					
Terminal capacity of control circuit cable		mm ²	1	1	1	1	1
Main cable connection screws / bolts			M3.5	M3.5	M3.5	M3.5	M4
Tightening torque			Nm	0.8	0.8	0.8	1.2
Control circuit cable connection screws / bolts			M3.5	M3.5	M3.5	M3.5	M3.5
Tightening torque			Nm	0.8	0.8	0.8	0.8
Main contacts							
Rated impulse withstand voltage		U_{imp}	V AC	6000	6000	6000	6000
Overvoltage category / pollution degree			I/3	III/3	III/3	III/3	III/3
Rated insulation voltage		U_i		1000	1000	1000	1000
Rated operational voltage		U_e		690	690	690	690
Making capacity (cos φ to IEC/EN60947)		A	to 690 V	60	60	70	100
Breaking capacity (cos φ to IEC/EN60947)							
		220V/230V	A	92	92	96	128
		380V/400V	A	88	88	96	128
		500V	A	64	64	72	104
		660V/690V	A	48	48	56	80
Electrical lifespan							
		I_e AC-3 400V	x 10 ⁶ Op.	1	1	1	1
Maximum operating frequency							
		I_e AC-3 400V	Op./h	1200	1200	1200	1200

CD026	CD032	CD038	CD040	CD055	CD065	CD072	CD085
IEC/EN 60947, GB 14048							
5	5	5	5	5	5	5	5
1200	1200	1200	1200	1200	1200	1200	1200
Damp heat, constant, to IEC60068-2-78 Damp heat, cyclic, to IEC60068-2-30							
-20-55	-20-55	-20-55	-20-55	-20-55	-20-55	-20-55	-20-55
-40-80	-40-80	-40-80	-40-80	-40-80	-40-80	-40-80	-40-80
IP20	IP20	IP20	IP20	IP20	IP20	IP00	IP00
0.4	0.7	0.7	0.9	1.3	1.3	1.3	1.3
1 x (2.5-10) 2 x (2.5-10)	1 x (2.5-16) 2 x (2.5-16)	1 x (2.5-16) 2 x (2.5-16)	1 x (4-16) 2 x (4-16)	1 x (10-50) 2 x (10-50)			
1 x (2.5-6) 2 x (2.5-6)	1 x (2.5-10) 2 x (2.5-10)	1 x (2.5-10) 2 x (2.5-10)	1 x (2.5-10) 2 x (2.5-10)	1 x (6-35) 2 x (6-35)			
1	1	1	1	1	1	1	1
M4	M5	M5	M5	M6	M6	M6	M6
1.2	2.0	2.0	2.0	3.0	3.0	3.0	3.0
M3.5	M3.5	M3.5	M3.5	M3.5	M3.5	M3.5	M.5
0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
6000	6000	6000	6000	6000	6000	6000	6000
III/3	III/3	I/3	III/3	III/3	III/3	III/3	III/3
1000	1000	1000	1000	1000	1000	1000	1000
690	690	690	690	690	690	690	690
140	220	242	260	350	450	600	650
216	280	312	352	440	520	600	680
208	256	304	320	440	512	576	680
152	240	264	280	360	440	520	640
112	176	176	208	280	360	480	520
1	1	1	1	1	1	1	1
1200	1200	1200	1200	1200	1200	1200	1200

2.6

Contactors XTCD Technical data

AC voltage

2

	XT Basic device			CD007	CD009	CD012	CD016	CD022
AC-1 operation								
Conventional thermal current, open, 50-60 Hz, 3 pole	at 40 °C	I_{th}	A	25	25	25	25	35
	at 50 °C	I_{th}	A	25	25	25	25	32
	at 55 °C	I_{th}	A	25	25	25	25	32
AC-3 operation								
Rated operational current, open, 50-60 Hz, 3 pole	220/230V	I_e	A	7	9	12	16	23
	380/400V	I_e	A	7	9	12	16	22
	415V	I_e	A	7	9	11	15	21
	440V	I_e	A	7	9	11	15	21
	500V	I_e	A	7	8	9	13	19
	660/690V	I_e	A	4	5	7	10	14
Rated operational power	220/230V	P	kW	2.2	2.5	3	4	5.5
	380/400V	P	kW	3	4	5.5	7.5	11
	415V	P	kW	3	4	5.5	7.5	11
	440V	P	kW	3	4	5.5	7.5	11
	500V	P	kW	3	4	5.5	7.5	11
	660/690V	P	kW	3.5	4.5	5.5	7.5	11
Magnet systems								
Voltage tolerance								
AC operated	Pick-up		$\times U_c$	0.8-1.1	0.8-1.1	0.8-1.1	0.8-1.1	0.8-1.1
Power consumption of coil in a cold state and $1.0 \times U_c$								
	Pick-up		VA	70	70	70	70	70
	Sealing		VA	12	12	12	12	12
	Sealing		W	3.5	3.5	3.5	3.5	3.5
Duty factor			%DF	40	40	40	40	40

CD026	CD032	CD038	CD03840	CD055	CD065	CD072	CD085
40	60	60	60	70	80	100	135
35	50	60	60	70	80	100	135
35	50	60	60	70	80	100	135
27	32	39	42	55	65	75	85
26	32	38	40	55	64	72	85
21	32	38	40	52	64	72	85
21	32	38	40	52	64	70	85
19	30	33	35	45	55	65	80
14	22	24	26	35	45	60	65
7.5	7.5	11	11	15	18.5	22	25
11	15	18.5	20	25	30	37	45
11	15	22	22	25	33	40	45
11	15	22	22	30	37	40	51
11	18.5	22	22	30	37	45	55
11	18.5	22	22	30	37	45	55
0.8-1.1	0.8-1.1	0.8-1.1	0.8-1.1	0.8-1.1	0.8-1.1	0.8-1.1	0.8-1.1
70	70	215	215	280	280	280	280
12	12	27	27	32	32	32	32
3.5	3.5	6	6	6	6	6	6
40	40	40	40	40	40	40	40

2.6

Contactors XTCD Technical data of auxiliary contact modules

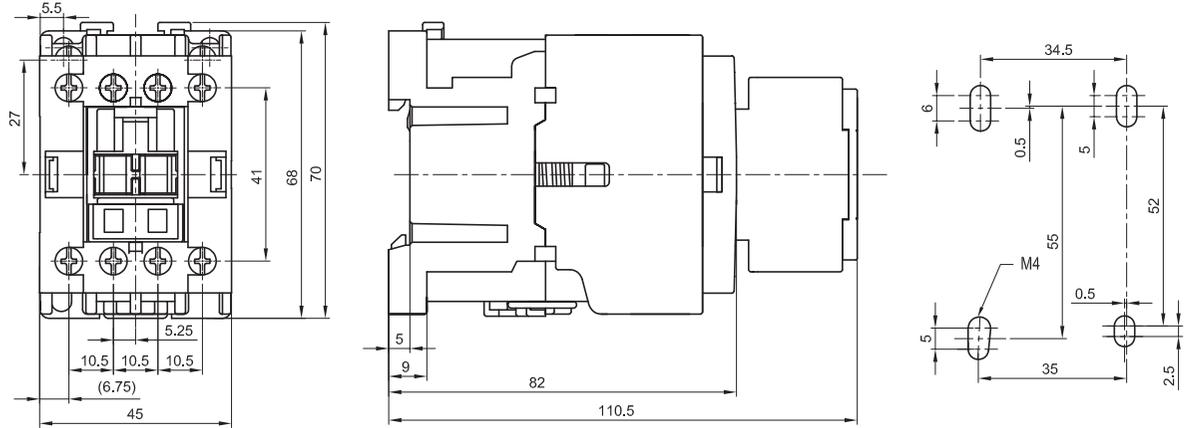
Auxiliary contact

2

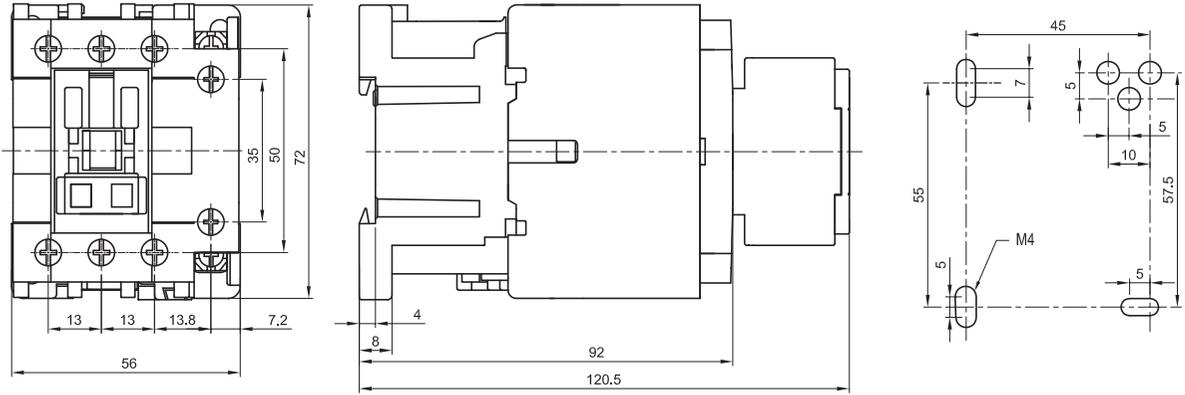
			XTCDXFAG	XTCDXSAG
Rated impulse withstand voltage	U_{imp}	VAC	6000	6000
Overvoltage category/degree of pollution			III/3	III/3
Rated insulation voltage	U_i	VAC	690	690
Rated operational voltage	U_e	VAC	600	600
Rated operational current				
AC-15				
120V	I_e	A	6	6
220/240V	I_e	A	3	3
380V	I_e	A	1.9	1.9
4800V	I_e	A	1.5	1.5
500V	I_e	A	1.4	1.4
600V	I_e	A	1.2	1.2
DC-13				
125V	I_e	A	0.55	0.55
250V	I_e	A	0.27	0.27
Conventional thermal current	I_{th}	A	10	10
Electrical lifespan				
at $U_e=230V$, AC-15, 3A	Operations	$\times 10^6$	1	1

Dimensions

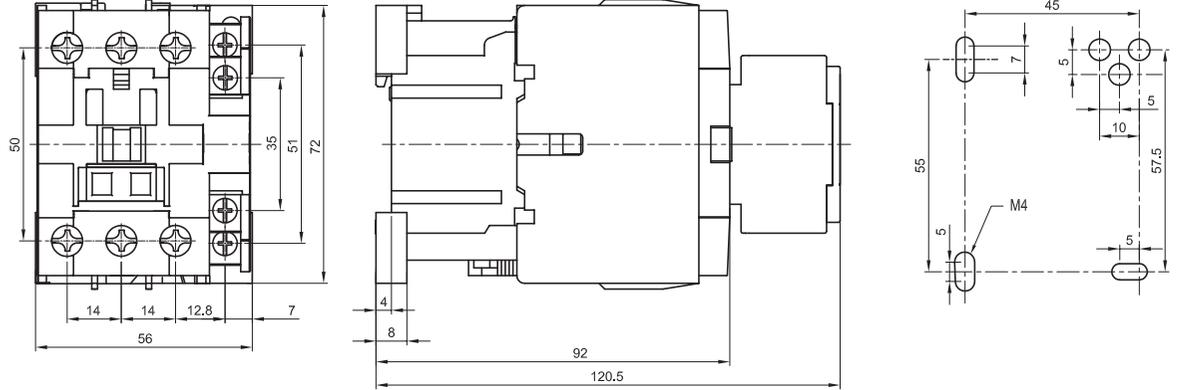
Contactor (with XTCDXFAG)
XTCD007B
XTCD009B
XTCD012B
XTCD016B



XTCD022C
XTCD026C



XTCD032D



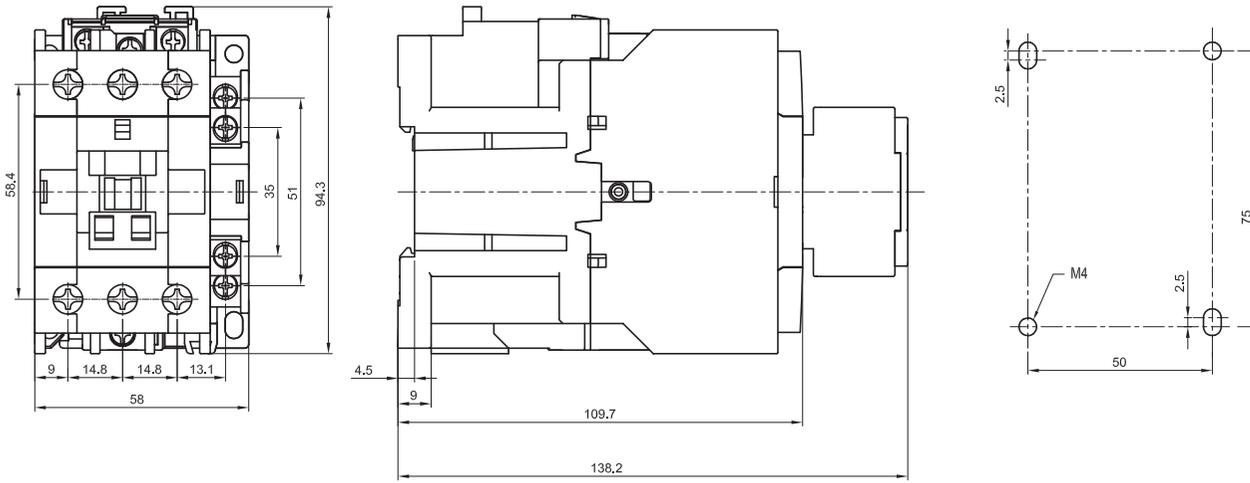
2.7 Contactors XTCD

Dimensions

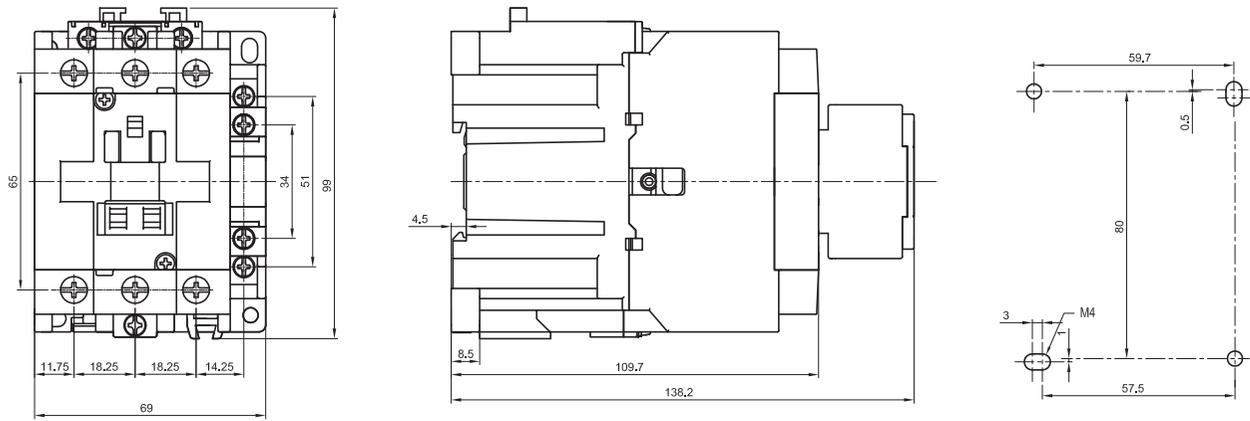
Dimensions

2

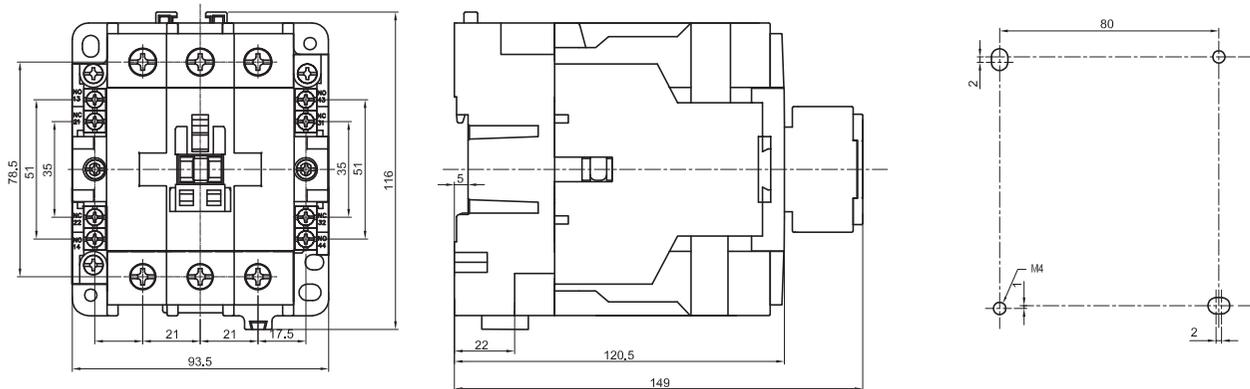
XTCD038E



XTCD040F



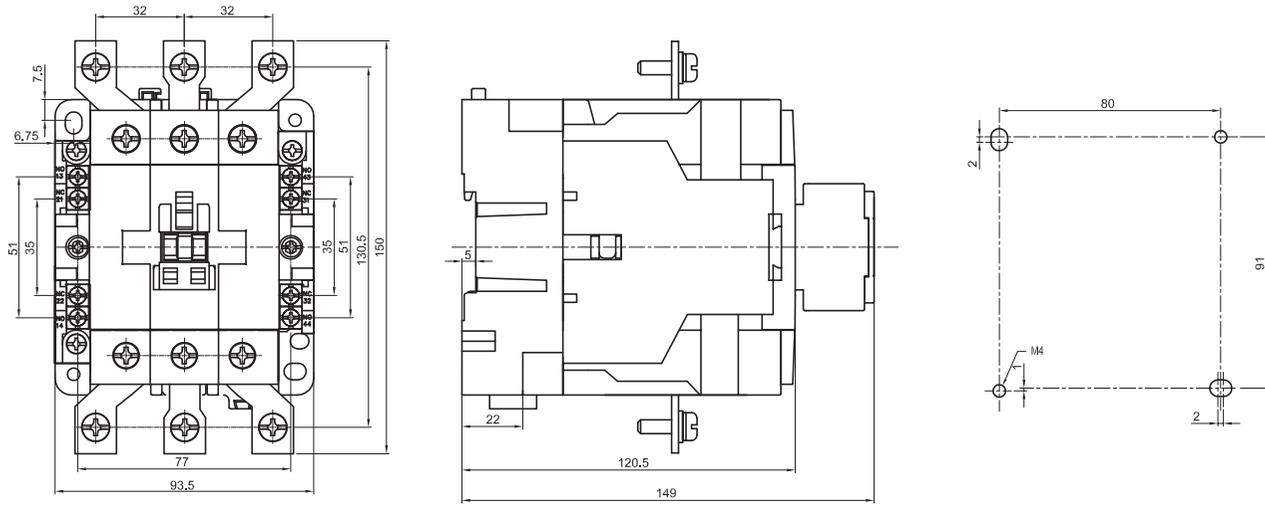
XTCD055G
XTCD065G



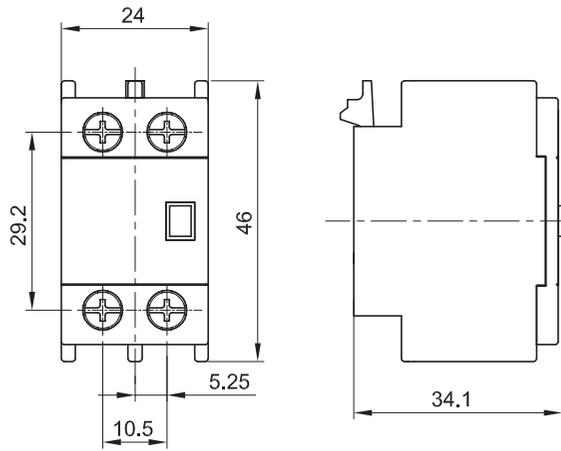
Dimensions

XTCD072G
XTCD085G

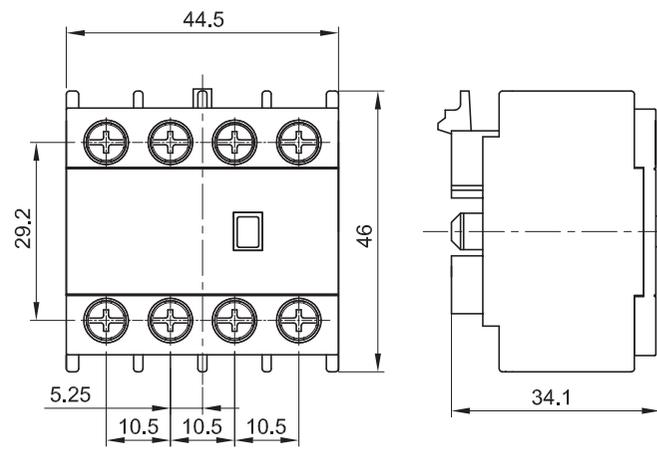
2



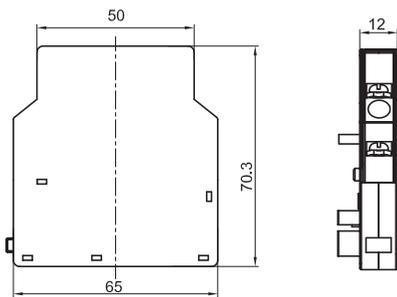
Auxiliary contact module , top mounting
XTCDXFAG(2P)



Auxiliary contact module , top mounting
XTCDXFAG(4P)



Auxiliary contact module, side mounting
XTCDXSAG

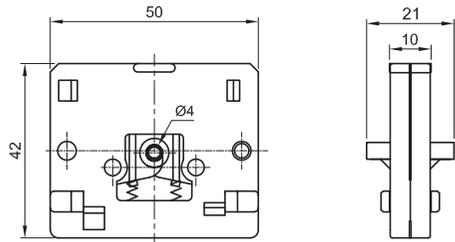


2.7 Contactors XTCD

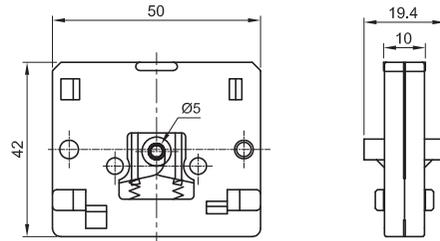
Dimensions

Dimensions

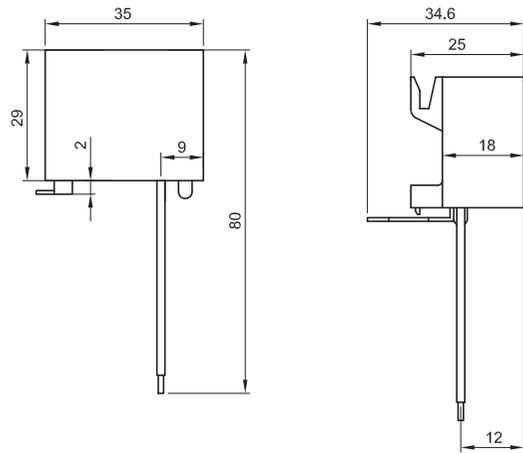
2 Mechanical interlock XTCDXMLD



Mechanical interlock XTCDXMLG



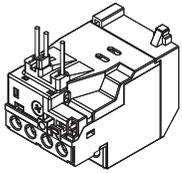
Suppressor XTCDXVSG XTCDXVRG



Thermal overload relays XTOD

Contents

Thermal overload relays XTOD



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Thermal overload relays XTOD	34
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Thermal overload relays XTOD

Product Description

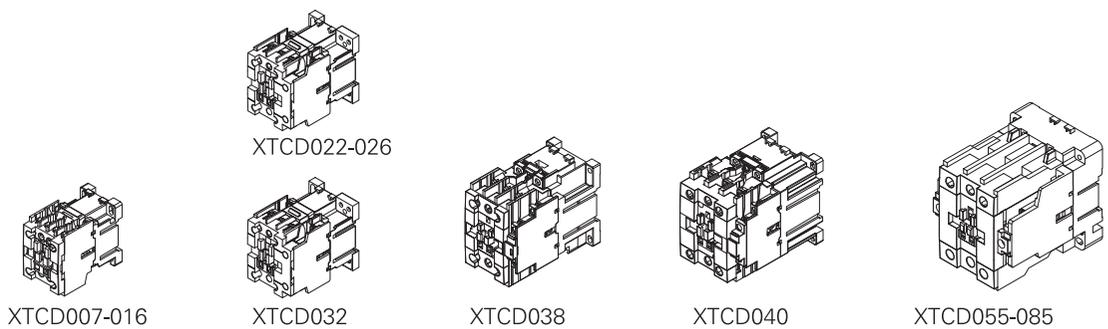
- 5 frames with current ranges up to 85A
- 1NO & 1NC auxiliary contact as standard
- Phase-loss protection available
- Selectable auto/manual reset
- Direct or panel mount

Standards and Certifications

- IEC/EN 60947
- CE
- UL/CSA (pending for availability)

System overview

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



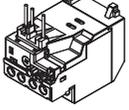
Thermal overload relays

XTOD..CC1 0.3-30	XTOD..CC1 0.3-30	XTOD..CC1 0.3-30		
XTOD..DC1 17-32		XTOD..DC1 17-32		
XTOD..EC1 17-40			XTOD..EC1 17-40	
XTOD..FC1 17-40				XTOD..FC1 17-40
XTOD..GC1 17-97				XTOD..GC1 17-97

3.2 Thermal overload relays XTOD

Thermal overload relays

XTOD..CC1

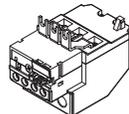


3

Thermal overload relays

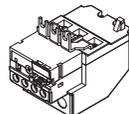
For use with		Setting range of overload releases I_r (A)	Circuit symbol	Auxiliary contact		Part no. Article no.	Standard package
				N/O =Normally open N/C =Normally closed			
XTCD007	Direct mounting	0.3~0.45		1 N/O	1 N/C	XTODP45CC1 152479	1 piece
XTCD009	Direct mounting	0.45 ~0.67		1 N/O	1 N/C	XTODP67CC1 152480	1 piece
XTCD012							
XTCD016	Direct mounting	0.67~1.0		1 N/O	1 N/C	XTOD001CC1 152481	1 piece
XTCD022	Direct mounting	1.0 ~1.5		1 N/O	1 N/C	XTOD1P5CC1 152482	1 piece
XTCD026							
XTCD032	Direct mounting	1.4 ~2.1		1 N/O	1 N/C	XTOD2P2CC1 152483	1 piece
	Direct mounting	1.8~2.7		1 N/O	1 N/C	XTOD2P7CC1 152484	1 piece
	Direct mounting	2.4~3.6		1 N/O	1 N/C	XTOD3P6CC1 152485	1 piece
	Direct mounting	3.5~5.0		1 N/O	1 N/C	XTOD005CC1 152486	1 piece
	Direct mounting	4.0~6.0		1 N/O	1 N/C	XTOD006CC1 152487	1 piece
	Direct mounting	5.5~8.5		1 N/O	1 N/C	XTOD8P5CC1 152488	1 piece
	Direct mounting	8.5~12.5		1 N/O	1 N/C	XTOD013CC1 152489	1 piece
	Direct mounting	12.5~18		1 N/O	1 N/C	XTOD018CC1 152490	1 piece
	Direct mounting	17~24		1 N/O	1 N/C	XTOD024CC1 152491	1 piece
	Direct mounting	22~30		1 N/O	1 N/C	XTOD030CC1 152492	1 piece

XTOD..DC1



XTCD022	Direct mounting	17~25		1 N/O	1 N/C	XTOD025DC1 152493	1 piece
XTCD026	Direct mounting	23~32		1 N/O	1 N/C	XTOD032DC1 152494	1 piece
XTCD032							

XTOD..EC1



XTCD038	Direct mounting	17~25		1 N/O	1 N/C	XTOD025EC1 152495	1 piece
XTCD038	Direct mounting	23~32		1 N/O	1 N/C	XTOD032EC1 152496	1 piece
XTCD038							
	Direct mounting	30~40		1 N/O	1 N/C	XTOD040EC1 152497	1 piece

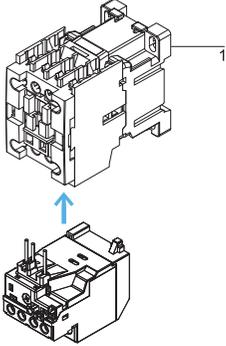
Overload release: tripping class 10A

Thermal overload relays XTOD 3.2

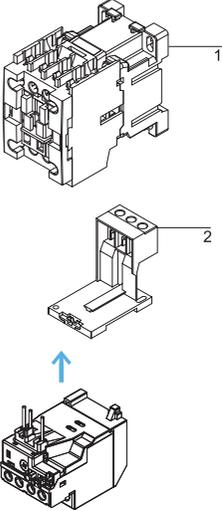
Thermal overload relays

Notes

Fit to the contactor directly

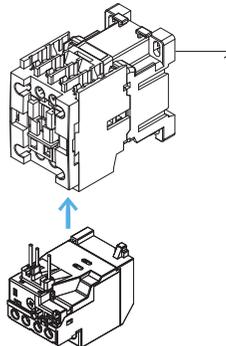


Separate Mounting



Accessories	Page
1 Contactor	→ 10
2 Mounting Adapter	→ 32

Fit to the contactor directly

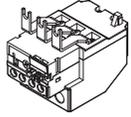


Accessory	Page
1 Contactor	→ 10

3.2 Thermal overload relays XTOD

Thermal overload relays

XTOD..FC1



3

Thermal overload relays

For use with		Setting range of overload releases I_r (A)	Circuit symbol	Auxiliary contact		Part no. Article no.	Standard package	
				N/O = Normally open N/C = Normally closed				
XTCD040	Direct mounting	17~25		1 N/O	1 N/C	XTOD025FC1 152498	1 piece	
	Direct mounting	23~32		1 N/O	1 N/C	XTOD032FC1 152499	1 piece	
	Direct mounting	30~40		1 N/O	1 N/C	XTOD040FC1 152500	1 piece	
XTOD..GC1	XTCD055	Direct mounting	17~25		1 N/O	1 N/C	XTOD025GC1 152501	1 piece
	XTCD065	Direct mounting	23~32		1 N/O	1 N/C	XTOD032GC1 152502	1 piece
	XTCD072	Direct mounting	30~40		1 N/O	1 N/C	XTOD040GC1 152503	1 piece
	XTCD085	Direct mounting	37~50		1 N/O	1 N/C	XTOD050GC1 152504	1 piece
		Direct mounting	48~65		1 N/O	1 N/C	XTOD065GC1 152505	1 piece
		Direct mounting	63~80		1 N/O	1 N/C	XTOD080GC1 152506	1 piece
		Direct mounting	77~97		1 N/O	1 N/C	XTOD097GC1 152507	1 piece
	XTOD..GC1S	XTCD025	Direct mounting	17~25		1 N/O	1 N/C	XTOD025GC1S 152508
XTCD032		Direct mounting	23~32		1 N/O	1 N/C	XTOD032GC1S 152509	1 piece
XTCD038		Direct mounting	30~40		1 N/O	1 N/C	XTOD040GC1S 152510	1 piece
XTCD040		Direct mounting	37~50		1 N/O	1 N/C	XTOD050GC1S 152511	1 piece
XTCD055		Direct mounting	48~65		1 N/O	1 N/C	XTOD065GC1S 152512	1 piece
XTCD065		Direct mounting	63~80		1 N/O	1 N/C	XTOD080GC1S 152513	1 piece
XTCD072		Direct mounting	77~97		1 N/O	1 N/C	XTOD097GC1S 152514	1 piece
XTCD085		Direct mounting						

Overload release: tripping class 10A

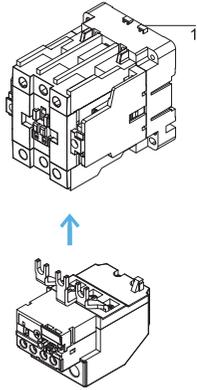
Thermal overload relays XTOD

Thermal overload relays

3.2

Notes

Fit to the contactor directly



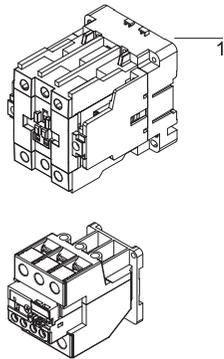
Accessory

1 Contactor

Page

→ 10

Fit to the contactor directly



Accessory

1 Contactor

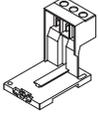
Page

→ 10

3.2 Thermal overload relays XTOD

Accessory

Panel mounting adapter



3

Accessory

	For use with	Part no. Article no.	Standard package
For separate mounting	XTOD..CC1	XTODXDINC 152515	1 piece

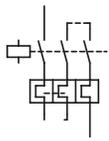
Can be snap fitted on a DIN rail to IEC/EN 60715 or can be screw fitted.

Engineering data

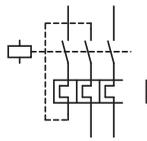
Items	XTOD
Phase-loss sensitivity	•
Temperature compensation	•
Auxiliary contact N/O+N/C	•
Test / release button	•
Reset button Manual/Auto	•
Separate mounting	•

Protection of single-phase:

1 pole

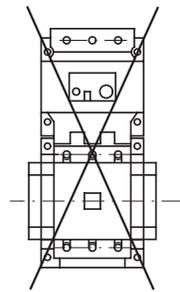


2 pole



Mounting position:

XTOD



3.4 Thermal overload relays XTOD

Technical data

General

		XTOD..CC1	XTOD..DC1	XTOD..EC1	XTOD..FC1	XTOD..GC1
Standards		IEC/EN 60947, GB 14048				
3 Climatic Proofing		Damp heat, constant, to IEC60068-2-78				
		Damp heat, cyclic, to IEC60068-2-30				
Ambient temperature						
Open	°C	-25-55	-25-55	-25-55	-25-55	-25-55
Enclosed	°C	-25-40	-25-40	-25-40	-25-40	-25-40
Temperature compensation	°C	-5-40	-5-40	-5-40	-5-40	-5-40
Mounting position		→ 3/3	→ 3/3	→ 3/3	→ 3/3	→ 3/3
Weight	kg	0.15	0.15	0.25	1.64	1.64
Protection type		IP20	IP20	IP00	IP00	IP00

Main contacts

Rated impulse withstand voltage	U_{imp}	VAC	6000	6000	6000	6000	6000
Overvoltage category/pollution degree			III/3	III/3	III/3	III/3	III/3
Rated insulation voltage							
AC	U_i	VAC	690	690	690	690	690
Rated operational voltage	U_e	VAC	600	600	600	600	600
Overload release setting range		A	0.3-30	17-32	17-40	17-40	17-97
Terminal capacity							
Solid		mm ²	1 x (1-6) 2 x (1-6)	1 x (2.5-16) 2 x (2.5-16)			
Flexible with ferrule		mm ²	1 x (1-6) 2 x (1-6)	1 x (1-6) 2 x (1-6)	1 x (1-6) 2 x (1-6)	1 x (1-6) 2 x (1-6)	1 x (1-6) 2 x (1-6)
Solid/stranded		AWG					
Terminal screw			M4	M5	M5	M5	M5
Tightening torque		Nm	1.2	2.5	2.5	2.5	2.5

Auxiliary and control circuits

Rated impulse withstand voltage	U_{imp}	V	6000	6000	6000	6000	6000
Overvoltage category/pollution degree			III/3	III/3	III/3	III/3	III/3
Terminal capacity							
Solid		mm ²	1 x (1-6) 2 x (1-6)				
Flexible with ferrule		mm ²	1 x (1-6) 2 x (1-6)				
Solid/stranded		AWG					
Terminal screw			M3.5	M3.5	M3.5	M3.5	M3.5
Tightening torque		Nm	0.8	0.8	0.8	0.8	0.8
Rated insulation voltage	U_i	VAC	690	690	690	690	690
Rated operational voltage	U_e	VAC	600	600	600	600	600
Conventional thermal current	I_{th}	A	10	10	10	10	10
Rated operational current							
AC-15							
120V	I_e	A	6	6	6	6	6
220/240V	I_e	A	3	3	3	3	3
380V	I_e	A	1.9	1.9	1.9	1.9	1.9
480V	I_e	A	1.5	1.5	1.5	1.5	1.5
500V	I_e	A	1.4	1.4	1.4	1.4	1.4
600V	I_e	A	1.2	1.2	1.2	1.2	1.2
DC-13							
125V	I_e	A	0.55	0.55	0.55	0.55	0.55
250V	I_e	A	0.27	0.27	0.27	0.27	0.27

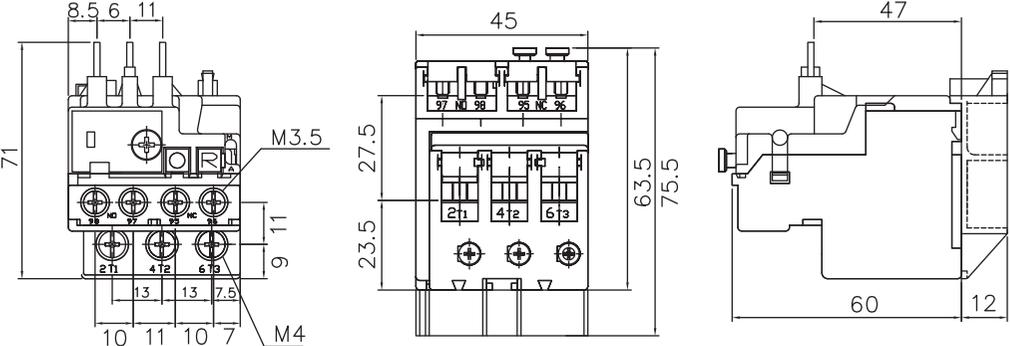
Thermal overload relays XTOD 3.5

Dimensions

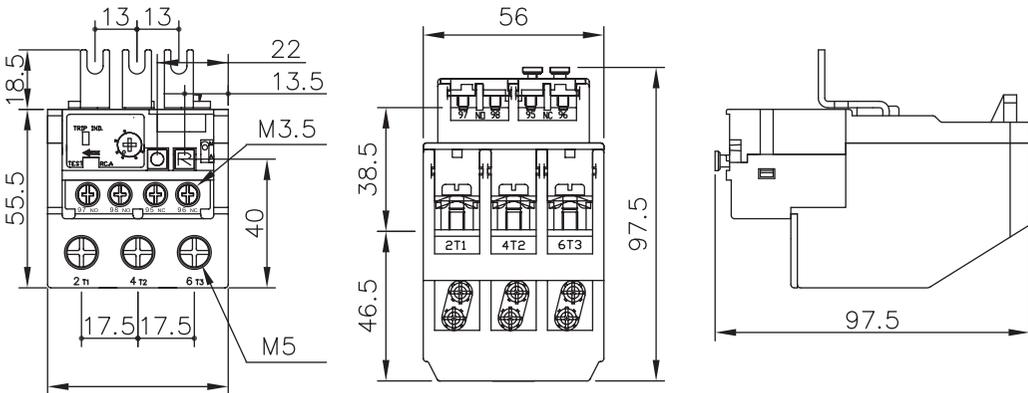
3

Dimensions

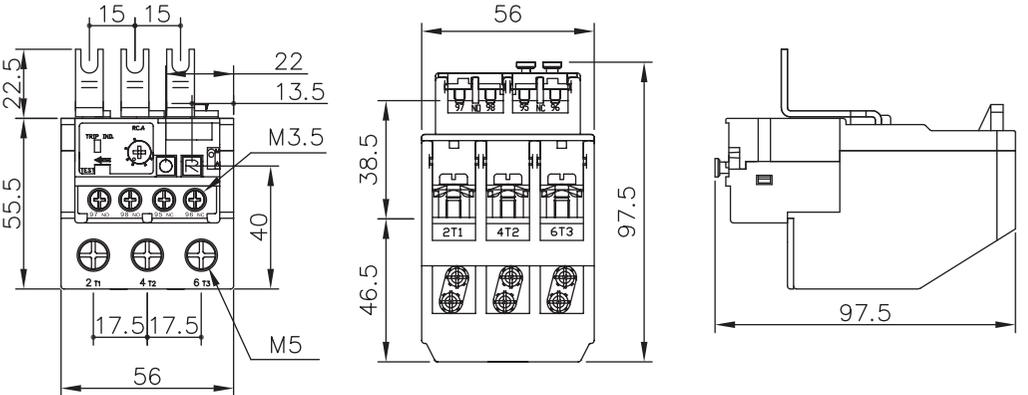
**Thermal overload relay
XTOD..CC1**



XTOD..DC1



XTOD..EC1



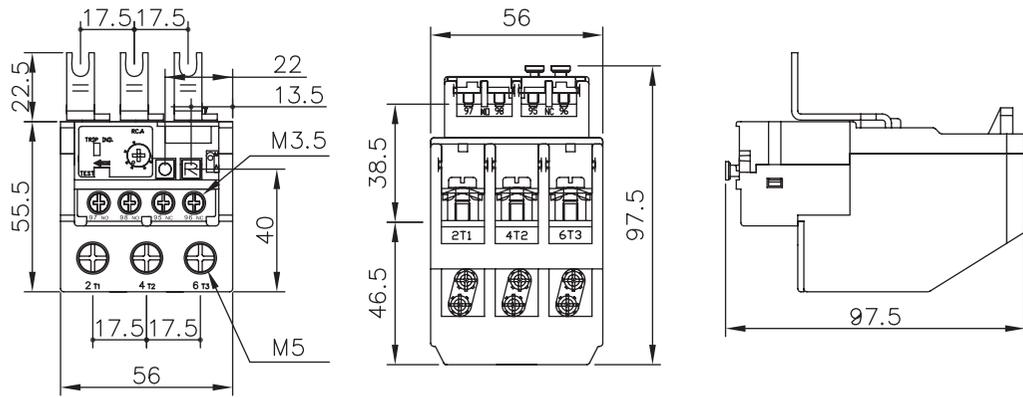
3.5 Thermal overload relays XTOD

Dimensions

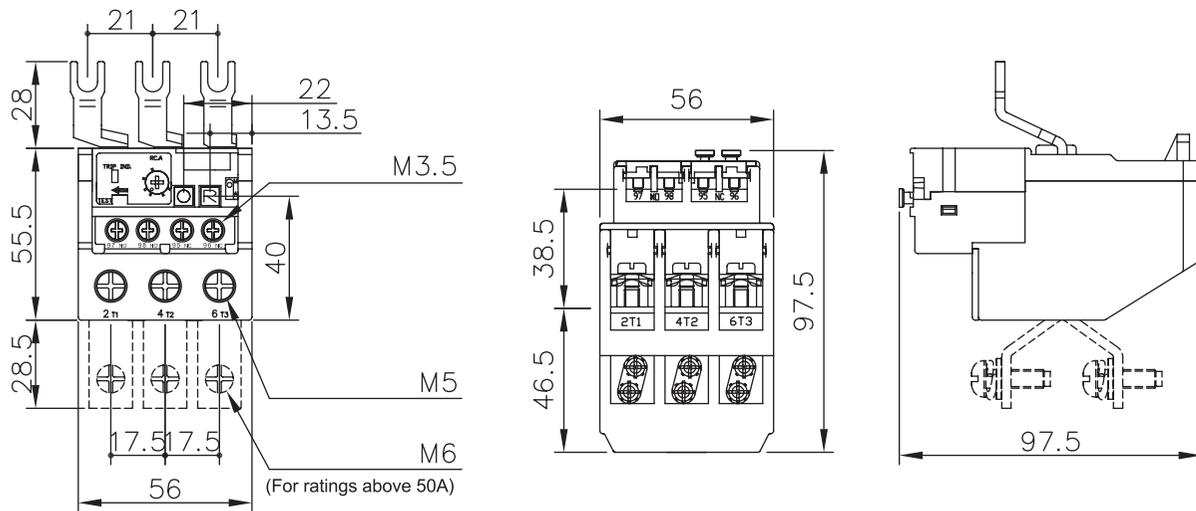
Dimensions

Thermal overload relay XTOD..FC1

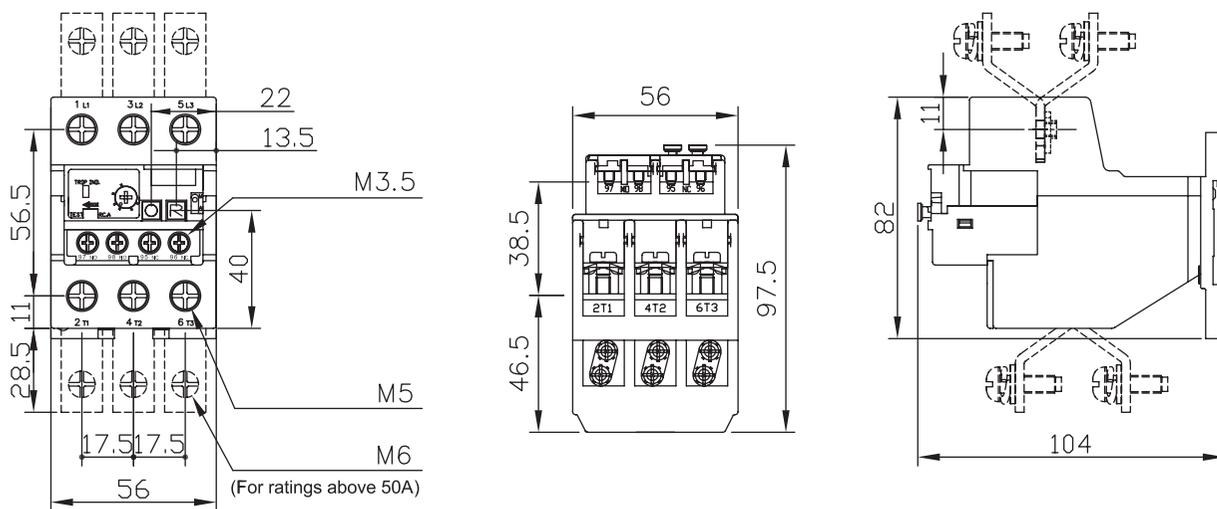
3



XTOD..GC1



XTOD..GC1S



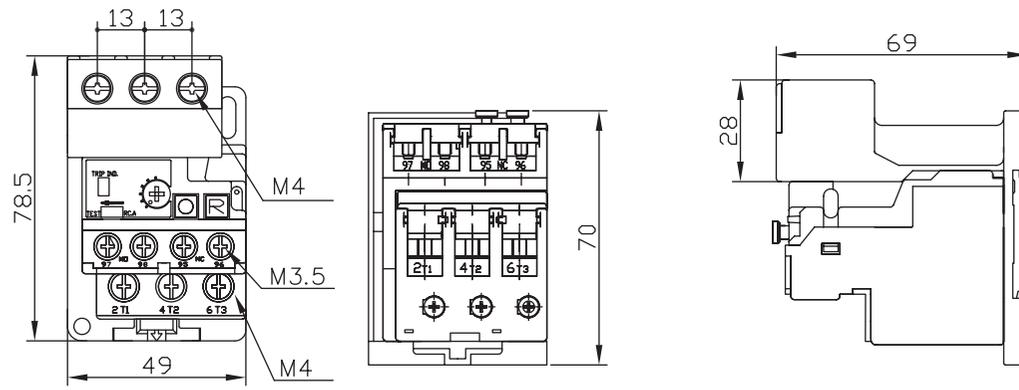
Thermal overload relays XTOD

Dimensions

3.5

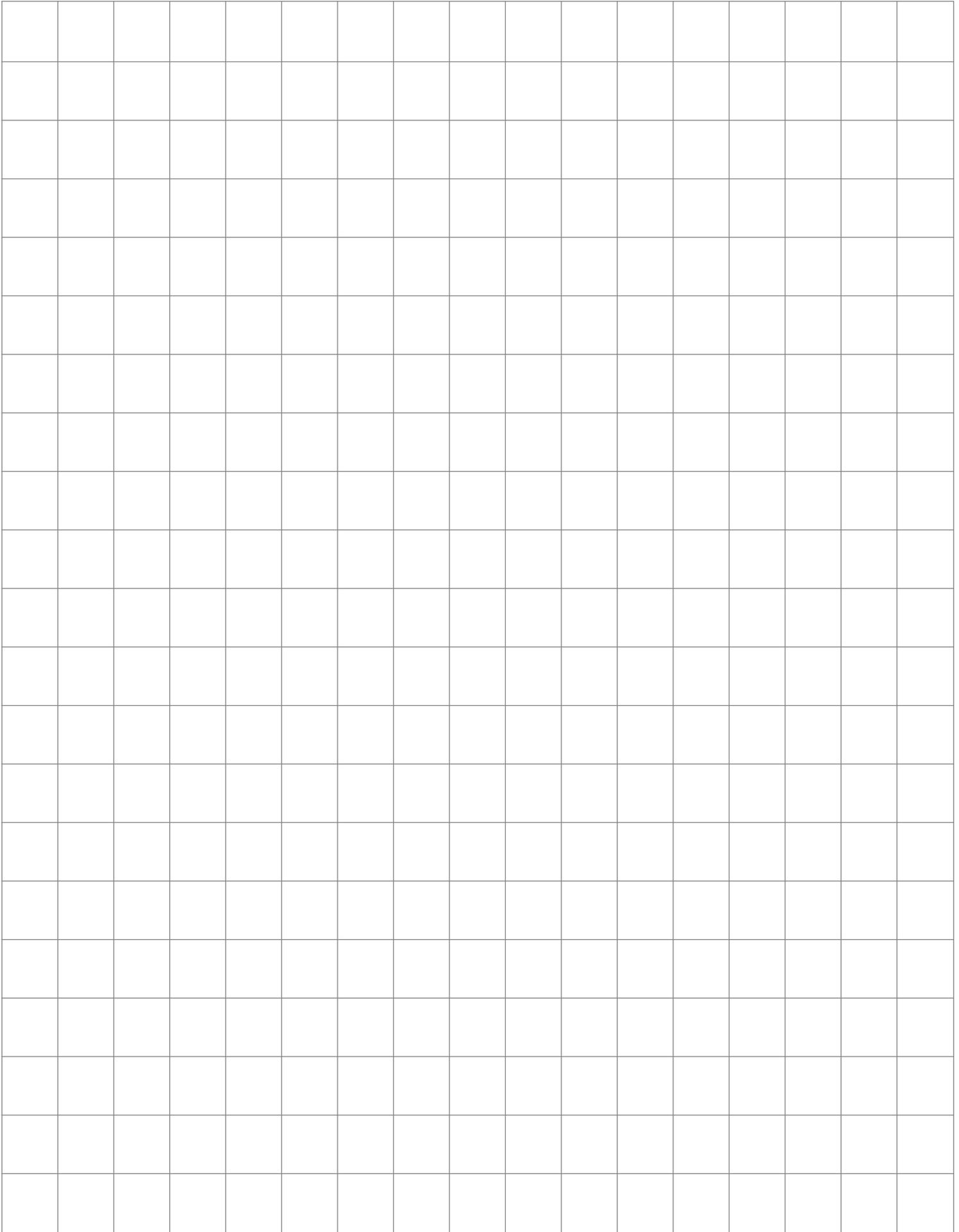
Dimensions

Thermal overload relay + mounting adapter
XTOD..CC1+XTODXDINC



3

Notes



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A winning fusion

Eaton Corporation is a diversified power management company ranked among the largest fortune 500 companies with annual revenues of \$13.7 Billion and presence in more than 150 countries worldwide. Eaton's Electrical business is a global leader in Power Distribution, Power Quality, Control, Automation Solutions and Services. Eaton's electrical solutions are a powerful combination of some of the most respected global products lines including Moeller®, Westinghouse®, Cutler-Hammer®, Holec®, MEM® MGE Office Protections Systems™ and Powerware® to meet every power management needs of the Industrial, Utility, Commercial & Residential Buildings, IT, Mission critical, Alternate Energy and OEM markets worldwide.

Eaton Power Quality Pvt. Ltd. is a 100% subsidiary of Eaton Corporation with head office at New Delhi and a network of sales & service offices spread across India providing industry leading electrical solutions to enable our customers manage electrical power more efficiently, reliably and safely.



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