XTOB, XTOT Overload Relays

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Thermal Overload Relays

Product Description

The *XT* line of IEC motor thermal overload relays provides an efficient motor protection solution, available up to 630A. XTOB units can be directly mounted to the contactor or mounted separately.

Features and Benefits

- Direct connect up to 250A
- Stand alone and CT type up to 630A
- Large thermal overcurrent range
- Test button
- Manual/automatic selectable reset
- NO-NC auxiliary as standard
- Class 10A (to 250A)
- Class 30 (CT type)

Standards and Certifications

- IEC EN 60947
- CE approved
- UL
- CSA
- ATEX
- RoHS

Notes

Short-circuit protection: Observe the maximum permissible fuse of the contactor with direct device mounting. See MN03402001E for more information on overload relays for Frames B–G.

Trip Class: 10A

Suitable for protection of EEx e-motors. EC prototype test certificate available upon request.

See manuals MN03402001E and MN03407001E, **Page V5-T1-135**.

Instructional Leaflets

Pub51221	XTOB, D Frame overload relays (inside of packaging)
Pub51222	XTOB, B–C Frame overload relays (inside of packaging)

Catalog Number Selection

XT IEC Overload Relays

XT OB P16 B C1 S

Device Type
XT = ***XT*** line of IEC control

Type	
OB	= Bimetallic overload relay
OT	= Current transformer overload relay

Overload Release	
Frame B	
P16	= 0.1–0.16A
P24	= 0.16–0.24A
P40	= 0.24–0.4A
P60	= 0.4–0.6A
001	= 0.6–1A
1P6	= 1.0–1.6A
2P4	= 1.6–2.4A
004	= 2.4–4A
006	= 4–6A
010	= 6–10A
012	= 9–12A
016	= 12–16A
Frame C	
P16	= 0.1–0.16A
P24	= 0.16–0.24A
P40	= 0.24–0.4A
P60	= 0.4–0.6A
001	= 0.6–1A
1P6	= 1.0–1.6A
2P4	= 1.6–2.4A
004	= 2.4–4A
006	= 4–6A
010	= 6–10A
016	= 12–16A
024	= 16–24A
032	= 24–32A
Frame D	
010	= 6–10A
016	= 12–16A
024	= 16–24A
040	= 24–40A
057	= 40–57A
065	= 50–65A
075	= 65–75A
Frame F	
035	= 25–35A
050	= 35–50A
070	= 50–70A
100	= 70–100A
Frame G	
035	= 25–35A
050	= 35–50A
070	= 50–70A
100	= 70–100A
125	= 95–125A
150	= 120–150A
175	= 145–175A
Frame H	
070	= 50–70A
100	= 70–100A
125	= 95–125A
160	= 120–160A
220	= 160–220A
250	= 200–250A
Frame L	
070	= 50–70A
100	= 70–100A
125	= 95–125A
160	= 120–160A
220	= 160–220A
250	= 200–250A
300	= 200–300A
Frame M	
063	= 42–63A
090	= 60–90A
125	= 85–125A
160	= 110–160A
240	= 160–240A
290	= 190–290A
400	= 170–400A
540	= 360–540A
Frame N	
063	= 42–63A
090	= 60–90A
125	= 85–125A
160	= 110–160A
240	= 160–240A
290	= 190–290A
400	= 170–400A
540	= 360–540A
630	= 420–630A

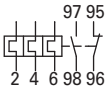
Frame Size Designation
B = 45 mm
C = 45 mm
D = 55 mm
G = 90 mm
L = 140 mm
Blank = XTOT only

Trip Class	
C1	= Class 10A (XTOB)
C3	= Class 30 (XTOT)

Mounting	
Blank	= Direct to contactor
S	= Separate mount

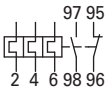
Frame D

Overload Relay, Direct Mount—Frame D

Overload Releases, I_r	Contact Sequence	Contact Configuration	For Use with Contactor Amp Range	Short-Circuit Protection (A) Fuse Type 1 Coordination, gG/gL	Type 2 Coordination, gG/gL	Maximum Circuit Breaker	CEC/NEC Fuse	Catalog Number
6–10		1NO-1NC	40–72A	50	25	25	25	**XTOB010DC1**
10–16		1NO-1NC	40–72A	63	35	25	25	**XTOB016DC1**
16–24		1NO-1NC	40–72A	63	50	30	25	**XTOB024DC1**
24–40		1NO-1NC	40–72A	125	63	125	125	**XTOB040DC1**
40–57		1NO-1NC	50–72A	160	80	150	150	**XTOB057DC1**
50–65		1NO-1NC	65–72A	160	100	150	200	**XTOB065DC1**
65–75		1NO-1NC	72A	200	125	150	200	**XTOB075DC1**

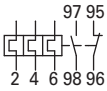
Frames F–G

Overload Relay, Direct Mount—Frames F–G

Overload Releases, I_r	Contact Sequence	Contact Configuration	For Use with Contactor Amp Range	Short-Circuit Protection (A) Fuse Type 1 Coordination, gG/gL	Type 2 Coordination, gG/gL	Maximum Circuit Breaker	CEC/NEC Fuse	Catalog Number
25–35		1NO-1NC	80–170A	125	100	125	125	**XTOB035GC1**
35–50		1NO-1NC	80–170A	160	125	150	200	**XTOB050GC1**
50–70		1NO-1NC	80–170A	250	160	150	200	**XTOB070GC1**
70–100		1NO-1NC	80–170A	315	200	400	400	**XTOB100GC1**
95–125		1NO-1NC	80–170A	315	200	500	400	**XTOB125GC1**
120–150		1NO-1NC	80–170A	315	200	600	600	**XTOB150GC1**
145–175		1NO-1NC	150–170A	315	200	600	600	**XTOB175GC1**

Frames F–G

Overload Relay, Separate Mount—Frames F–G

Overload Releases, I_r	Contact Sequence	Contact Configuration	For Use with Contactor Amp Range	Short-Circuit Protection (A) Fuse Type 1 Coordination, gG/gL	Type 2 Coordination, gG/gL	Maximum Circuit Breaker	CEC/NEC Fuse	Catalog Number
25–35		1NO-1NC	80–170A	125	100	125	125	**XTOB035GC1S**
35–50		1NO-1NC	80–170A	160	125	150	200	**XTOB050GC1S**
50–70		1NO-1NC	80–170A	250	160	150	200	**XTOB070GC1S**
70–100		1NO-1NC	80–170A	315	200	400	400	**XTOB100GC1S**
95–125		1NO-1NC	80–170A	315	250	500	400	**XTOB125GC1S**
120–150		1NO-1NC	80–170A	315	250	600	600	**XTOB150GC1S**
145–175		1NO-1NC	150–170A	315	250	600	600	**XTOB175GC1S**

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- Test button
- Manual/automatic selectable reset
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Standards and Certifications

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Notes

Short-circuit protection: Observe the maximum permissible fuse of the contactor with direct device mounting. See MN03402001E for more information on overload relays for Frames B–G.

Trip Class: 10A

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100	= 70–100A
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035	= 25–35A
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070	= 50–70A
100	= 70–100A
125	= 95–125A
150	= 120–150A
175	= 145–175A
Frame H	
070	= 50–70A
100	= 70–100A
125	= 95–125A
160	= 120–160A
220	= 160–220A
250	= 200–250A
Frame L	
070	= 50–70A
100	= 70–100A
125	= 95–125A
160	= 120–160A
220	= 160–220A
250	= 200–250A
300	= 200–300A
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240	= 160–240A
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Blank = XTOT only

Trip Class	
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Mounting	
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Frame D

Overload Relay, Direct Mount—Frame D

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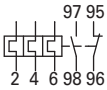
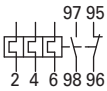
6–10		1NO-1NC	40–72A	50	25	25	25	**XTOB010DC1**
10–16		1NO-1NC	40–72A	63	35	25	25	**XTOB016DC1**
16–24		1NO-1NC	40–72A	63	50	30	25	**XTOB024DC1**
24–40		1NO-1NC	40–72A	125	63	125	125	**XTOB040DC1**
40–57		1NO-1NC	50–72A	160	80	150	150	**XTOB057DC1**
50–65		1NO-1NC	65–72A	160	100	150	200	**XTOB065DC1**
65–75		1NO-1NC	72A	200	125	150	200	**XTOB075DC1**

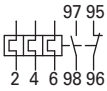
Frames F–G

Overload Relay, Direct Mount—Frames F–G

Overload Releases, I_r	Contact Sequence	Contact Configuration	For Use with Contactor Amp Range	Short-Circuit Protection (A) Fuse Type 1 Coordination, gG/gL	Type 2 Coordination, gG/gL	Maximum Circuit Breaker	CEC/NEC Fuse	Catalog Number
25–35		1NO-1NC	80–170A	125	100	125	125	**XTOB035GC1**
35–50		1NO-1NC	80–170A	160	125	150	200	**XTOB050GC1**
50–70		1NO-1NC	80–170A	250	160	150	200	**XTOB070GC1**
70–100		1NO-1NC	80–170A	315	200	400	400	**XTOB100GC1**
95–125		1NO-1NC	80–170A	315	200	500	400	**XTOB125GC1**
120–150		1NO-1NC	80–170A	315	200	600	600	**XTOB150GC1**
145–175		1NO-1NC	150–170A	315	200	600	600	**XTOB175GC1**

Frames F–G

Overload Relay, Separate Mount—Frames F–G

Overload Releases, I_r	Contact Sequence	Contact Configuration	For Use with Contactor Amp Range	Short-Circuit Protection (A) Fuse Type 1 Coordination, gG/gL	Type 2 Coordination, gG/gL	Maximum Circuit Breaker	CEC/NEC Fuse	Catalog Number
25–35		1NO-1NC	80–170A	125	100	125	125	**XTOB035GC1S**
35–50		1NO-1NC	80–170A	160	125	150	200	**XTOB050GC1S**
50–70		1NO-1NC	80–170A	250	160	150	200	**XTOB070GC1S**
70–100		1NO-1NC	80–170A	315	200	400	400	**XTOB100GC1S**
95–125		1NO-1NC	80–170A	315	250	500	400	**XTOB125GC1S**
120–150		1NO-1NC	80–170A	315	250	600	600	**XTOB150GC1S**
145–175		1NO-1NC	150–170A	315	250	600	600	**XTOB175GC1S**