

## XTOB, XTOT Overload Relays



## 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)

## Contents

## Description

	<i>Page</i>
Relays and Timers .....	<b>V5-T1-3</b>
Miniature Controls .....	<b>V5-T1-18</b>
Contactors and Starters .....	<b>V5-T1-35</b>
XTSE Contactors .....	<b>V5-T1-128</b>
Thermal Overload Relays	
Catalog Number Selection .....	<b>V5-T1-131</b>
Product Selection .....	<b>V5-T1-132</b>
Accessories .....	<b>V5-T1-135</b>
Technical Data and Specifications .....	<b>V5-T1-138</b>
Dimensions .....	<b>V5-T1-140</b>
C440/ <b>XT</b> Electronic Overload Relay .....	<b>V5-T1-143</b>
Manual Motor Protectors .....	<b>V5-T1-159</b>
Combination Motor Controllers .....	<b>V5-T1-193</b>
<b>XT</b> Electronic Manual Motor Protector .....	<b>V5-T1-219</b>
EMS—Electronic Motor Starter .....	<b>V5-T1-232</b>
<b>XT</b> DC Contactors .....	<b>V5-T1-234</b>
Reference Data .....	<b>V5-T1-236</b>

## 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)



### Product Selection

#### Frame B

#### Overload Relay, Direct Mount—Frame B



Overload Releases, I <sub>r</sub>	Contact Sequence	Contact Configuration	For Use with Contactor Amp Range	Short-Circuit Protection (A)		Maximum Circuit Breaker	CEC/NEC Fuse	Catalog Number
				Fuse Type 1 Coordination, gG/gL	Fuse Type 2 Coordination, gG/gL			
0.1–0.16	97 95	1NO-1NC	7–15A	25	0.5	25	3	<b>XTOBP16BC1</b>
0.16–0.24		1NO-1NC	7–15A	25	1	25	3	<b>XTOBP24BC1</b>
0.24–0.4		1NO-1NC	7–15A	25	2	25	3	<b>XTOBP40BC1</b>
0.4–0.6		1NO-1NC	7–15A	25	4	25	3	<b>XTOBP60BC1</b>
0.6–1		1NO-1NC	7–15A	25	4	25	3	<b>XTOB001BC1</b>
1–1.6		1NO-1NC	7–15A	25	6	25	6	<b>XTOB1P6BC1</b>
1.6–2.4		1NO-1NC	7–15A	25	10	25	6	<b>XTOB2P4BC1</b>
2.4–4		1NO-1NC	7–15A	25	16	25	15	<b>XTOB004BC1</b>
4–6		1NO-1NC	7–15A	25	20	25	20	<b>XTOB006BC1</b>
6–10		1NO-1NC	7–15A	50	25	25	35	<b>XTOB010BC1</b>
9–12		1NO-1NC	9–15A	50	25	25	45	<b>XTOB012BC1</b>
12–16		1NO-1NC	12–15A	50	25	30	45	<b>XTOB016BC1</b>

#### Frame C

#### Overload Relay, Direct Mount—Frame C



Overload Releases, I <sub>r</sub>	Contact Sequence	Contact Configuration	For Use with Contactor Amp Range	Short-Circuit Protection (A)		Maximum Circuit Breaker	CEC/NEC Fuse	Catalog Number
				Fuse Type 1 Coordination, gG/gL	Fuse Type 2 Coordination, gG/gL			
0.1–0.16	97 95	1NO-1NC	18–32A	25	0.5	25	3	<b>XTOBP16CC1</b>
0.16–0.24		1NO-1NC	18–32A	25	1	25	3	<b>XTOBP24CC1</b>
0.24–0.4		1NO-1NC	18–32A	25	2	25	3	<b>XTOBP40CC1</b>
0.4–0.6		1NO-1NC	18–32A	25	4	25	3	<b>XTOBP60CC1</b>
0.6–1		1NO-1NC	18–32A	25	4	25	3	<b>XTOB001CC1</b>
1–1.6		1NO-1NC	18–32A	25	6	25	6	<b>XTOB1P6CC1</b>
1.6–2.4		1NO-1NC	18–32A	25	10	25	6	<b>XTOB2P4CC1</b>
2.4–4		1NO-1NC	18–32A	25	16	25	15	<b>XTOB004CC1</b>
4–6		1NO-1NC	18–32A	25	20	25	20	<b>XTOB006CC1</b>
6–10		1NO-1NC	18–32A	50	25	25	25	<b>XTOB010CC1</b>
10–16		1NO-1NC	18–32A	63	35	30	25	<b>XTOB016CC1</b>
16–24		1NO-1NC	18–32A	100	35	30	25	<b>XTOB024CC1</b>
24–32		1NO-1NC	25–32A	125	63	30	25	<b>XTOB032CC1</b>
32–38		1NO-1NC	32–38A	125	63	30	25	<b>XTOB032CC1</b>

## XTOB, XTOT Overload Relays



## 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)

## Contents

## Description

	<i>Page</i>
Relays and Timers .....	<b>V5-T1-3</b>
Miniature Controls .....	<b>V5-T1-18</b>
Contactors and Starters .....	<b>V5-T1-35</b>
XTSE Contactors .....	<b>V5-T1-128</b>
Thermal Overload Relays	
Catalog Number Selection .....	<b>V5-T1-131</b>
Product Selection .....	<b>V5-T1-132</b>
Accessories .....	<b>V5-T1-135</b>
Technical Data and Specifications .....	<b>V5-T1-138</b>
Dimensions .....	<b>V5-T1-140</b>
C440/ <b>XT</b> Electronic Overload Relay .....	<b>V5-T1-143</b>
Manual Motor Protectors .....	<b>V5-T1-159</b>
Combination Motor Controllers .....	<b>V5-T1-193</b>
<b>XT</b> Electronic Manual Motor Protector .....	<b>V5-T1-219</b>
EMS—Electronic Motor Starter .....	<b>V5-T1-232</b>
<b>XT</b> DC Contactors .....	<b>V5-T1-234</b>
Reference Data .....	<b>V5-T1-236</b>

## 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



### Product Selection

#### Frame B



#### Overload Relay, Direct Mount—Frame B

Overload Releases, I <sub>r</sub>	Contact Sequence	Contact Configuration	For Use with Contactor Amp Range	Short-Circuit Protection (A)		Maximum Circuit Breaker	CEC/NEC Fuse	Catalog Number
				Fuse Type 1 Coordination, gG/gL	Fuse Type 2 Coordination, gG/gL			
0.1–0.16	97 95	1NO-1NC	7–15A	25	0.5	25	3	<b>XTOBP16BC1</b>
0.16–0.24		1NO-1NC	7–15A	25	1	25	3	<b>XTOBP24BC1</b>
0.24–0.4	2 4 6 98 96 A2 14/ 22	1NO-1NC	7–15A	25	2	25	3	<b>XTOBP40BC1</b>
0.4–0.6		1NO-1NC	7–15A	25	4	25	3	<b>XTOBP60BC1</b>
0.6–1		1NO-1NC	7–15A	25	4	25	3	<b>XTOB001BC1</b>
1–1.6		1NO-1NC	7–15A	25	6	25	6	<b>XTOB1P6BC1</b>
1.6–2.4		1NO-1NC	7–15A	25	10	25	6	<b>XTOB2P4BC1</b>
2.4–4		1NO-1NC	7–15A	25	16	25	15	<b>XTOB004BC1</b>
4–6		1NO-1NC	7–15A	25	20	25	20	<b>XTOB006BC1</b>
6–10		1NO-1NC	7–15A	50	25	25	35	<b>XTOB010BC1</b>
9–12		1NO-1NC	9–15A	50	25	25	45	<b>XTOB012BC1</b>
12–16		1NO-1NC	12–15A	50	25	30	45	<b>XTOB016BC1</b>

#### Frame C



#### Overload Relay, Direct Mount—Frame C

Overload Releases, I <sub>r</sub>	Contact Sequence	Contact Configuration	For Use with Contactor Amp Range	Short-Circuit Protection (A)		Maximum Circuit Breaker	CEC/NEC Fuse	Catalog Number
				Fuse Type 1 Coordination, gG/gL	Fuse Type 2 Coordination, gG/gL			
0.1–0.16	97 95	1NO-1NC	18–32A	25	0.5	25	3	<b>XTOBP16CC1</b>
0.16–0.24		1NO-1NC	18–32A	25	1	25	3	<b>XTOBP24CC1</b>
0.24–0.4	2 4 6 98 96 A2 14/ 22	1NO-1NC	18–32A	25	2	25	3	<b>XTOBP40CC1</b>
0.4–0.6		1NO-1NC	18–32A	25	4	25	3	<b>XTOBP60CC1</b>
0.6–1		1NO-1NC	18–32A	25	4	25	3	<b>XTOB001CC1</b>
1–1.6		1NO-1NC	18–32A	25	6	25	6	<b>XTOB1P6CC1</b>
1.6–2.4		1NO-1NC	18–32A	25	10	25	6	<b>XTOB2P4CC1</b>
2.4–4		1NO-1NC	18–32A	25	16	25	15	<b>XTOB004CC1</b>
4–6		1NO-1NC	18–32A	25	20	25	20	<b>XTOB006CC1</b>
6–10		1NO-1NC	18–32A	50	25	25	25	<b>XTOB010CC1</b>
10–16		1NO-1NC	18–32A	63	35	30	25	<b>XTOB016CC1</b>
16–24		1NO-1NC	18–32A	100	35	30	25	<b>XTOB024CC1</b>
24–32		1NO-1NC	25–32A	125	63	30	25	<b>XTOB032CC1</b>
32–38		1NO-1NC	32–38A	125	63	30	25	<b>XTOB032CC1</b>