

# TF42 thermal overload relays

## 0.10 ... 38.0 A

### For direct coupling to AF09 ... AF38 3-pole contactors

#### Description

The TF42 thermal overload relays are economic electromechanical protection devices for the main circuit. They offer reliable protection for motors in the event of overload or phase failure. The devices have trip class 10.

The thermal overload relays are three pole relays with bimetal tripping elements. The motor current flows through the bimetal tripping elements and heats them directly and indirectly. In case of an overload (over current), the bimetal elements bent as a result of the heating. This leads to a release of the relay and a change of the contacts switching position (95-96 / 97-98).

- Manual or automatic reset selectable
- Phase loss sensitive acc. to IEC/EN 60947-4-1
- TEST and STOP function – Trip indication on the front
- Temperature compensation
- Suitable for three- and single-phase applications

#### Ordering details

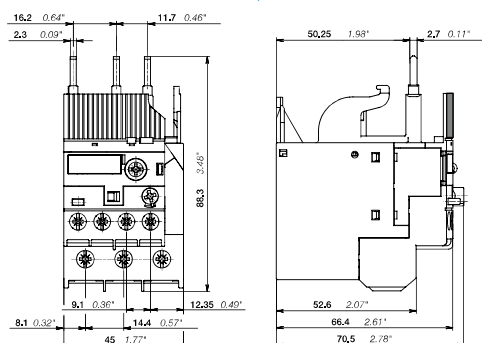
Setting range	For contactors	Trip class	Catalog number	Global reference code	Weight (1 pce) kg
<b>A</b>					
0.10 ... 0.13	AF09... AF38	10	TF42-0.13	1SAZ721201R1005	0.130
0.13 ... 0.17	AF09... AF38	10	TF42-0.17	1SAZ721201R1008	0.130
0.17 ... 0.23	AF09... AF38	10	TF42-0.23	1SAZ721201R1009	0.130
0.23 ... 0.31	AF09... AF38	10	TF42-0.31	1SAZ721201R1013	0.130
0.31 ... 0.41	AF09... AF38	10	TF42-0.41	1SAZ721201R1014	0.130
0.41 ... 0.55	AF09... AF38	10	TF42-0.55	1SAZ721201R1017	0.130
0.55 ... 0.74	AF09... AF38	10	TF42-0.74	1SAZ721201R1021	0.130
0.74 ... 1.00	AF09... AF38	10	TF42-1.0	1SAZ721201R1023	0.130
1.00 ... 1.30	AF09... AF38	10	TF42-1.3	1SAZ721201R1025	0.130
1.30 ... 1.70	AF09... AF38	10	TF42-1.7	1SAZ721201R1028	0.130
1.70 ... 2.30	AF09... AF38	10	TF42-2.3	1SAZ721201R1031	0.130
2.30 ... 3.10	AF09... AF38	10	TF42-3.1	1SAZ721201R1033	0.130
3.10 ... 4.20	AF09... AF38	10	TF42-4.2	1SAZ721201R1035	0.130
4.20 ... 5.70	AF09... AF38	10	TF42-5.7	1SAZ721201R1038	0.130
5.70 ... 7.60	AF09... AF38	10	TF42-7.6	1SAZ721201R1040	0.130
7.60 ... 10.0	AF09... AF38	10	TF42-10	1SAZ721201R1043	0.130
10.0 ... 13.0	AF09... AF38	10	TF42-13	1SAZ721201R1045	0.130
13.0 ... 16.0	AF09... AF38	10	TF42-16	1SAZ721201R1047	0.130
16.0 ... 20.0	AF09... AF38	10	TF42-20	1SAZ721201R1049	0.145
20.0 ... 24.0	AF09... AF38	10	TF42-24	1SAZ721201R1051	0.145
24.0 ... 29.0	AF09... AF38	10	TF42-29	1SAZ721201R1052	0.145
29.0 ... 35.0	AF09... AF38	10	TF42-35	1SAZ721201R1053	0.145
35.0 ... 38.0/40.0	AF09... AF38	10	TF42-38	1SAZ721201R1055	0.145

#### Ordering details accessories

For thermal overload relays	Description	Catalog number	Global reference code	Weight (1 pce) kg
<b>A</b>				
TF42	Single mounting kit	DB42	1SAZ701902R0001	0.087
TF42	Reset push button (1)	KPR-101L	1SFA616162R1014	0.027

(1) Note: for more information see catalog 1SXU000023C0202 Rev. A.

#### Main dimensions mm, inches



TF42

TF42



DB42



KPR-101L

# TF65 thermal overload relays

22.0 ... 67.0 A

For direct coupling to AF40... AF65 3-pole contactors



TF65

## Description

The TF65 thermal overload relays are economic electromechanical protection devices for the main circuit. They offer reliable protection for motors in the event of overload or phase failure. The devices have trip class 10.

The thermal overload relays are three pole relays with bimetal tripping elements. The motor current flows through the bimetal tripping elements and heats them directly and indirectly. In case of an overload (over current), the bimetal elements bent as a result of the heating. This leads to a release of the relay and a change of the contacts switching position (95-96 / 97-98).

Manual or automatic reset selectable

Phase loss sensitive acc. to IEC/EN 60947-4-1

TEST and STOP function – Trip indication on the front

Temperature compensation

Suitable for three- and single-phase applications

## Ordering details

Setting range	For contactors	Trip class	Catalog number	Global reference code	Weight (1 pce) kg
<b>A</b>					
22.0 ... 28.0	AF40 ... AF65	10	TF65-28	1SAZ811201R1001	0.456
25.0 ... 33.0	AF40 ... AF65	10	TF65-33	1SAZ811201R1002	0.456
30.0 ... 40.0	AF40 ... AF65	10	TF65-40	1SAZ811201R1003	0.456
36.0 ... 47.0	AF40 ... AF65	10	TF65-47	1SAZ811201R1004	0.456
44.0 ... 53.0	AF40 ... AF65	10	TF65-53	1SAZ811201R1005	0.456
50.0 ... 60.0	AF40 ... AF65	10	TF65-60	1SAZ811201R1006	0.466
57.0 ... 67.0	AF40 ... AF65	10	TF65-67	1SAZ811201R1007	0.466



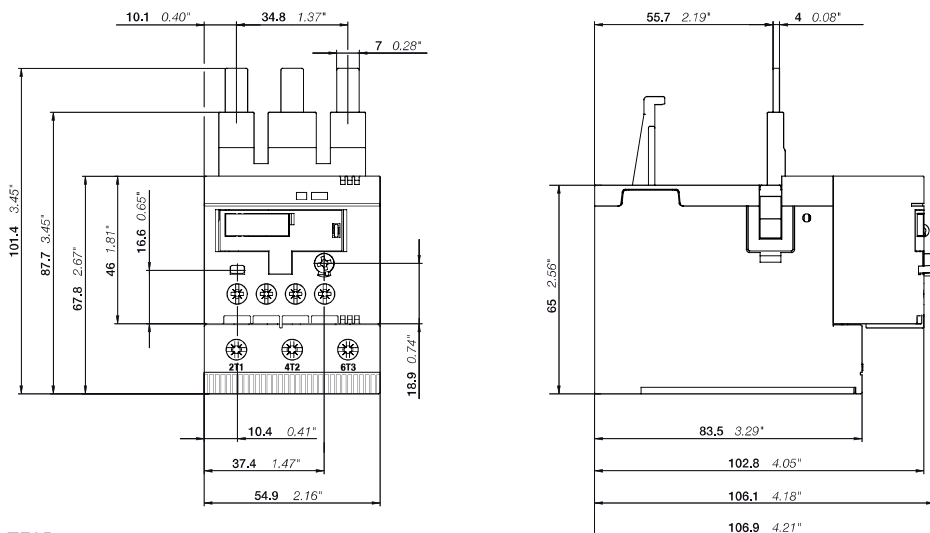
KPR-101L

## Ordering details accessories

For thermal overload relays	Description	Catalog number	Global reference code	Weight (1 pce) kg
<b>A</b>				
TF65	Reset push button (1)	KPR-101L	1SFA616162R1014	0.027

(1) Note: for more information see catalog 1SXU000023C0202 Rev. A.

## Main dimensions mm, inches



TF65

# TF96 thermal overload relays

40.0 ... 96.0 A

For direct coupling to AF80, AF96 3-pole contactors

3



TF96

## Description

The TF96 thermal overload relays are economic electromechanical protection devices for the main circuit. They offer reliable protection for motors in the event of overload or phase failure. The devices have trip class 10.

The thermal overload relays are three pole relays with bimetal tripping elements. The motor current flows through the bimetal tripping elements and heats them directly and indirectly. In case of an overload (over current), the bimetal elements bent as a result of the heating. This leads to a release of the relay and a change of the contacts switching position (95-96 / 97-98).

Manual or automatic reset selectable

Phase loss sensitive acc. to IEC/EN 60947-4-1

TEST and STOP function – Trip indication on the front

Temperature compensation

Suitable for three- and single-phase applications

## Ordering details

Setting range	For contactors	Trip class	Catalog number	Global reference code	Weight (1 pce) kg
<b>A</b>					
40.0 ... 51.0	AF80, AF96	10	TF96-51	1SAZ911201R1001	0.620
48.0 ... 60.0	AF80, AF96	10	TF96-60	1SAZ911201R1002	0.620
57.0 ... 68.0	AF80, AF96	10	TF96-68	1SAZ911201R1003	0.620
65.0 ... 78.0	AF80, AF96	10	TF96-78	1SAZ911201R1004	0.620
75.0 ... 87.0	AF80, AF96	10	TF96-87	1SAZ911201R1005	0.620
84.0 ... 96.0	AF80, AF96	10	TF96-96	1SAZ911201R1006	0.630



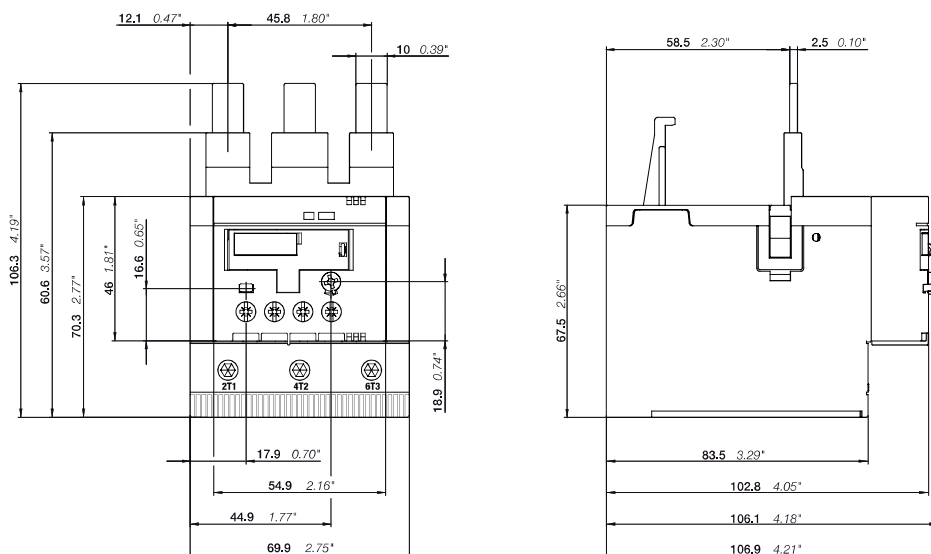
KPR-101L

## Ordering details accessories

For thermal overload relays	Description	Catalog number	Global reference code	Weight (1 pce) kg
<b>A</b>				
TF96	Reset push button (1)	KPR-101L	1SFA616162R1014	0.027

(1) Note: for more information see catalog 1SXU000023C0202 Rev. A.

## Main dimensions mm, inches



TF96

# TF140DU thermal overload relays

66 ... 142 A

For direct coupling to AF116 ... AF146 3-pole contactors



TF140DU



KPR-101L

## Description

The TF140DU thermal overload relays are economic electromechanical protection devices for the main circuit. They offer reliable protection for motors in the event of overload or phase failure. The devices have trip class 10A.

The thermal overload relays are three pole relays with bimetal tripping elements. The motor current flows through the bimetal tripping elements and heats them directly and indirectly. In case of an overload (over current), the bimetal elements bent as a result of the heating. This leads to a release of the relay and a change of the contacts switching position (95-96 / 97-98).

- Manual or automatic reset selectable
- Phase loss sensitive acc. to IEC/EN 60947-4-1
- TEST and STOP function – Trip indication on the front
- Temperature compensation
- Suitable for three- and single-phase applications

## Ordering details

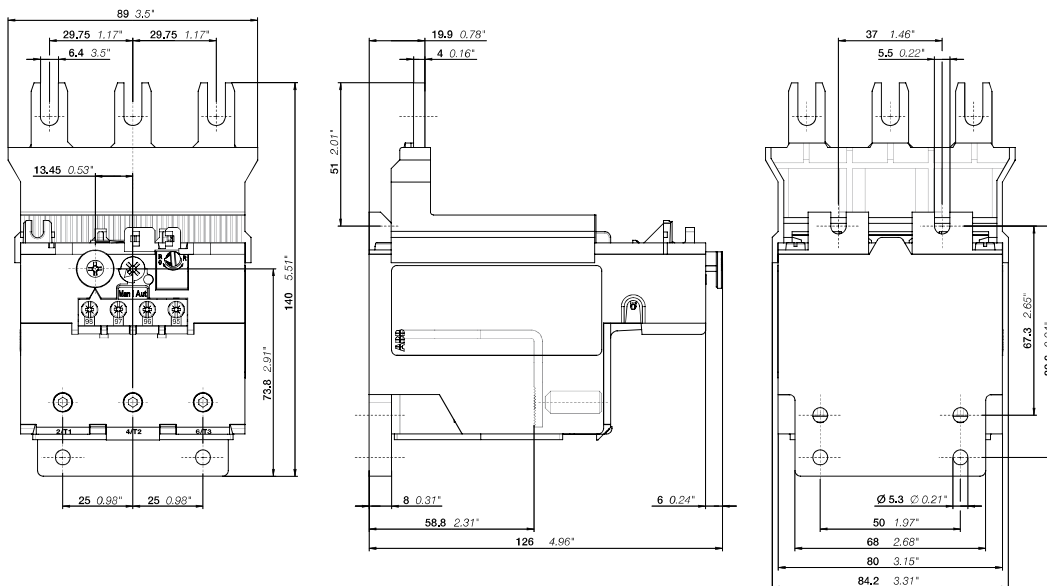
Setting range	For contactors	Trip class	Catalog number	Global reference code	Weight (1 pce) kg
A					
66 ... 90	AF116 ... AF146	10A	TF140DU-90	1SAZ431201R1001	0.820
80 ... 110	AF116 ... AF146	10A	TF140DU-110	1SAZ431201R1002	0.820
100 ... 135	AF116 ... AF146	10A	TF140DU-135	1SAZ431201R1003	0.820
110 ... 142	AF116 ... AF146	10A	TF140DU-142	1SAZ431201R1004	0.820

## Ordering details accessories

For thermal overload relays	Description	Catalog number	Global reference code	Weight (1 pce) kg
A				
TF140DU	Reset push button (1)	KPR-101L	1SFA616162R1014	0.027

(1) Note: for more information see catalog 1SXU000023C0202 Rev. A.

## Main dimensions mm, inches



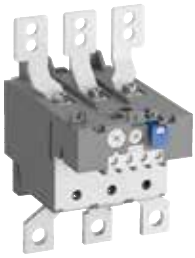
TF140DU

# TA200DU thermal overload relays

## 66 ... 200 A

### For direct coupling to AF190, AF205 3-pole contactors

3



TA200DU-200



KPR-101L

### Description

The TA200DU thermal overload relays are economic electromechanical protection devices for the main circuit. They offer reliable protection for motors in the event of overload or phase failure. The devices have trip class 10A.

The thermal overload relays are three pole relays with bimetal tripping elements. The motor current flows through the bimetal tripping elements and heats them directly and indirectly. In case of an overload (over current), the bimetal elements bent as a result of the heating. This leads to a release of the relay and a change of the contacts switching position (95-96 / 97-98).

- Manual or automatic reset selectable
- Phase loss sensitive acc. to IEC/EN 60947-4-1
- TEST and STOP function – Trip indication on the front
- Temperature compensation
- Suitable for three- and single-phase applications

### Ordering details

Setting range	For contactors	Trip class	Catalog number	Global reference code	Weight (1 pce) kg
A					
66 ... 90	AF190, AF205	10A	TA200DU90	1SAZ421201R1001	0.755
80 ... 110	AF190, AF205	10A	TA200DU110	1SAZ421201R1002	0.760
100 ... 135	AF190, AF205	10A	TA200DU135	1SAZ421201R1003	0.760
110 ... 150	AF190, AF205	10A	TA200DU150	1SAZ421201R1004	0.760
130 ... 175	AF190, AF205	10A	TA200DU175	1SAZ421201R1005	0.770
150 ... 200	AF190, AF205	10A	TA200DU200	1SAZ421201R1006	0.785

### Ordering details accessories

For thermal overload relays	Description	Catalog number	Global reference code	Weight (1 pce) kg
A				
TA200DU (1)	Terminal shroud	LT200A185	1SAZ401901R1001	0.090
TA200DU	Single mounting kit	DB200	1SAZ401110R0001	0.225
TA200DU	Mechanical lug kit, 1 conductor/phase	EHTK210	(2)	0.118
TA200DU	Reset push button (3)	KPR-101L	1SFA616162R1014	0.027

(1) Load side only.

(2) North American applications only.

(3) Note: for more information see catalog 1SXU000023C0202 Rev. A.

### Main dimensions mm, inches

