

# Fuji Odyssey Series 3N Overload Relays

## General Information

- Use with Odyssey 3N series contactors.
- Protects motor windings from burning due to overloads, locked rotor currents, or open phases.

### Agency approvals:

- UL listed file E42419, Standard UL 508
- cUL listed file E42419, Standard CSA C22.2 No. 14
- CE: LVD EN60947-4-1



**3NK4QL**



**3NK4HN**



**3NK5HQ**

Odyssey Series Overload Relays						
Part Number	Fuji Type	Price	Adjustable Current Range (A)	Frame Width	Compatible Contactor	Trip Class IEC 60947-4-1
<b>3NK4QL</b>	TK-N8	\$187.00	85 - 125	119mm [4.69 in]	3NC4Qxxxx	10A
<b>3NK4QN</b>	TK-N8	\$187.00	110 - 160			
<b>3NK4QP</b>	TK-N8	\$187.00	125 - 185			
<b>3NK4HP</b>	TK-N10	\$222.00	125 - 185	138mm [5.43 in]	3NC4Hxxxx	20
<b>3NK4HQ</b>	TK-N10	\$222.00	160 - 240			
<b>3NK5HQ</b>	TK-N12	\$366.00	160 - 240	142mm [5.59 in]	3NC5Fxxxx, 3NC5Hxxxx	20
<b>3NK5HR</b>	TK-N12	\$366.00	200 - 300			
<b>3NK5HS</b>	TK-N12	\$366.00	240 - 360		3NC5Hxxxx	

## Specifications

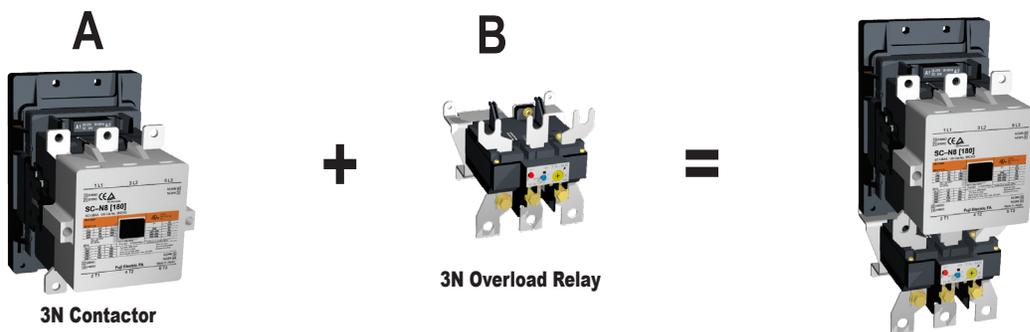
Overload Relay Alarm Contact Ratings				
AC Ratings ( note 1 )			DC Ratings ( note 1 )	
Designation	Making VA	Breaking VA	Designation	Making/Breaking VA
<b>C600</b>	1800	180	---	---

### Notes:

1. NEMA ICS 5-2000. For more information, refer to Control Circuit Contact Electrical Ratings.

Wire Terminal Tightening Torque Chart					
Part Number	Contactor or Starter	Terminal Size	Cable Size Maximum	Applicable Max. Width for Ring Terminal	Tightening Torque
<b>3NK4Qx</b>	3NC4Q0	M10	300MCM (152mm <sup>2</sup> )	36.5 mm	133-177 in.lbs., 15-20 Nm
<b>3NK4Hx</b>	3NC4H0	M10	300MCM (152mm <sup>2</sup> )	36.5 mm	133-177 in.lbs., 15-20 Nm
<b>3NK5Hx</b>	3NC5F0	M12	400MCM (203mm <sup>2</sup> )	44.5 mm	310-399 in.lbs., 35-45 Nm
	3NC5H0				

# Fuji Odyssey Series 3N Overload Relays Selection Tables



Step 1. Select an Odyssey 3N contactor from Column A based on motor voltage and horsepower.  
 Step 2. Select an Odyssey 3N overload relay from Column B to work with the contactor selected in Step 1. The motor full load current (FLA) should be within the adjustable current range of the overload relay.

## 220-240V 3-Phase Motor (60 to 150 hp)

Motor Rating		A	B	
HP	Motor Full Load Amperage (FLA) (See Note 1)	Contactor	Overload Relay	
			Part Number	Adjustable Current Range
60	154	3NC4Q0x22	<a href="#">3NK4QN</a>	110 to 160 Amps
75	192	3NC4H0x22	<a href="#">3NK4HQ</a>	160 to 240 Amps
100	248	3NC5F0x22	<a href="#">3NK5HR</a>	200 to 300 Amps
125	312	3NC5H0x22	<a href="#">3NK5HS</a>	240 to 360 Amps
150	360	3NC5H0x22	<a href="#">3NK5HT</a>	300 to 450 Amps

Note 1: Per NEC 2005 Table 430.250

## 440-480V 3-Phase Motor (125 to 300 hp)

Motor Rating		A	B	
HP	Motor Full Load Amperage (FLA) (See Note 1)	Contactor	Overload Relay	
			Part Number	Adjustable Current Range
125	156	3NC4Q0x22	<a href="#">3NK4QP</a>	125 to 185 Amps
150	180	3NC4H0x22	<a href="#">3NK4HQ</a>	160 to 240 Amps
200	240	3NC5F0x22	<a href="#">3NK5HR</a>	200 to 300 Amps
250	302	3NC5H0x22	<a href="#">3NK5HS</a>	240 to 360 Amps
300	361	3NC5H0x22	<a href="#">3NK5HT</a>	300 to 450 Amps

Note 1: Per NEC 2005 Table 430.250

# Fuji Odyssey Series 3N Overload Relays

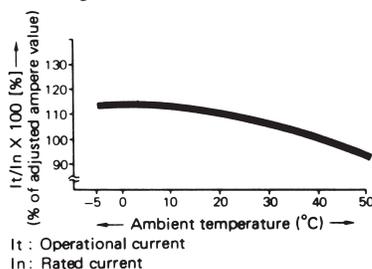
## Specifications

### Ambient temperature compensator

Overload relays are provided with an ambient temperature compensator. Their characteristics limit current value changes to approximately 10% as the ambient temperature changes between -5°C and 40°C.

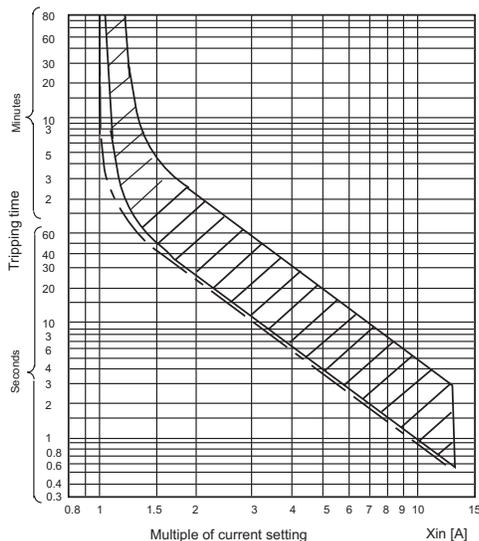
### Open-phase protection

### Compensation characteristics (Average value)

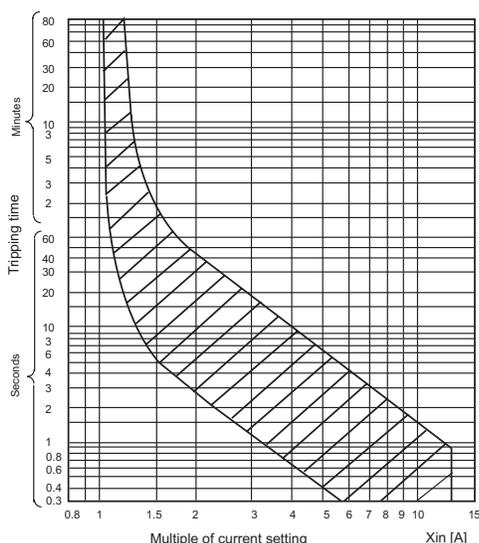


### 3NK4Qx

#### Cold start

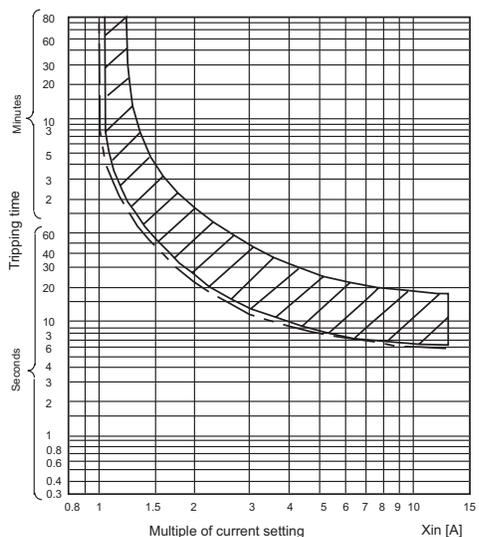


#### Hot start

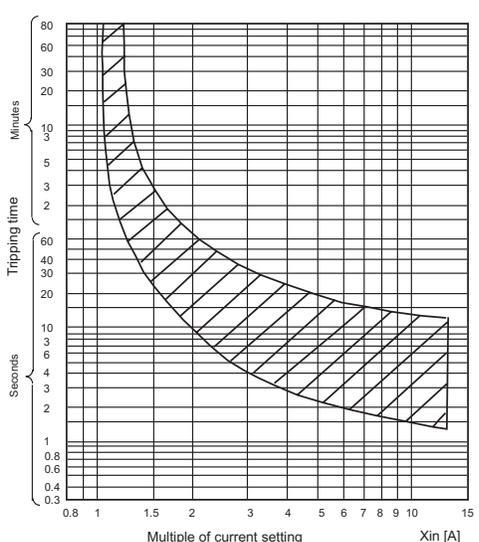


### 3NK4Hx, 3NK5Hx

#### Cold start



#### Hot start



# Fuji Odyssey Series 3N Overload Relays

## Optional Accessories

### Terminal covers

NOTE: Larger terminal covers may require some adjustment for proper fit.



**SZ-WN8T**



**SZ-WN10T**

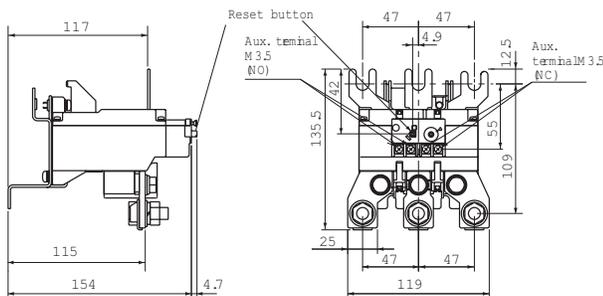


**SZ-WN11T**

Odyssey Series Overload Relay Terminal Covers			
Part number	Price	Description	Applicable Contactors, Overload Relays
<b>SZ-WN8T</b>	\$93.00	Terminal cover for load side. Prevents contact with electrified contactor terminals.	3NK4Qx overload relays
<b>SZ-WN10T</b>	\$93.00		3NK4Hx overload relays
<b>SZ-WN11T</b>	\$107.00		3NK5Hx overload relays

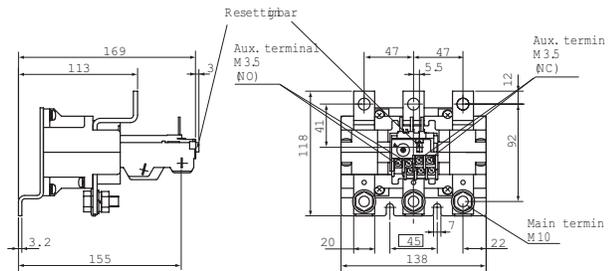
## Dimensions [mm]

3NK4Qx



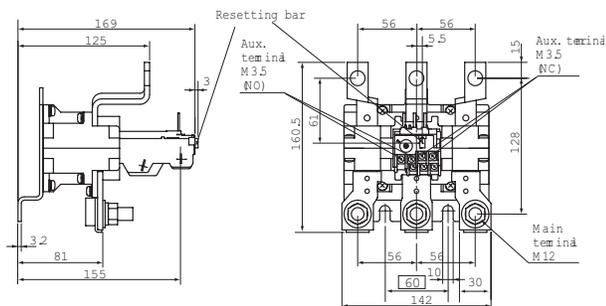
Weight: 1.2kg

3NK4Hx



Weight: 1.85kg

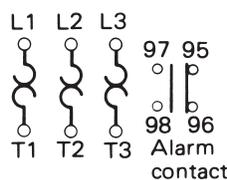
3NK5Hx



Weight: 2.3kg

## Wiring Diagrams

3NK4Qx



3NK4Hx, 3NK5Hx

