

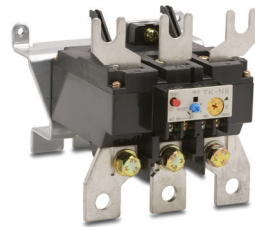
Fuji Odyssey Series 3N Overload Relays

General information

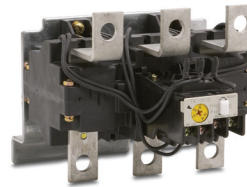
- Use with Odyssey 3N series contactors.
- Protects motor windings from burning due to overloads, locked rotor currents, or open phases.

Agency approvals:

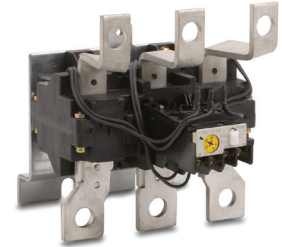
- UL listed file E42419, Standard UL 508
- cUL listed file E42419, Standard CSA C22.2 No. 14
- CE: LVD EN60947-4-1



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 |
| 3NK4QK | TK-N8 | Retired | Please consider the Fuji Electric 3NK series as comparable replacement | | | |
| 3NK4QL | TK-N8 | \$150.00 | 85 - 125 | 119mm [4.69 in] | 3NC4Qxxxx | 10A |
| 3NK4QN | TK-N8 | \$150.00 | 110 - 160 | | | |
| 3NK4QP | TK-N8 | \$150.00 | 125 - 185 | | | |
| 3NK4HL | TK-N10 | Retired | Please consider the Fuji Electric 3NK series as comparable replacement | | | |
| 3NK4HN | TK-N10 | Retired | Please consider the Fuji Electric 3NK series as comparable replacement | | | |
| 3NK4HP | TK-N10 | \$178.00 | 125 - 185 | 138mm [5.43 in] | 3NC4Hxxxx | 20 |
| 3NK4HQ | TK-N10 | \$178.00 | 160 - 240 | | | |
| 3NK5HN | TK-N12 | Retired | Please consider the Fuji Electric 3NK series as comparable replacement | | | |
| 3NK5HP | TK-N12 | Retired | Please consider the Fuji Electric 3NK series as comparable replacement | | | |
| 3NK5HQ | TK-N12 | \$294.00 | 160 - 240 | 142mm [5.59 in] | 3NC5Fxxxx, 3NC5Hxxxx | 20 |
| 3NK5HR | TK-N12 | \$294.00 | 200 - 300 | | | |
| 3NK5HS | TK-N12 | \$294.00 | 240 - 360 | | 3NC5Hxxxx | |
| 3NK5HT | TK-N12 | Retired | Please consider the Fuji Electric 3NK series as comparable replacement | | | |

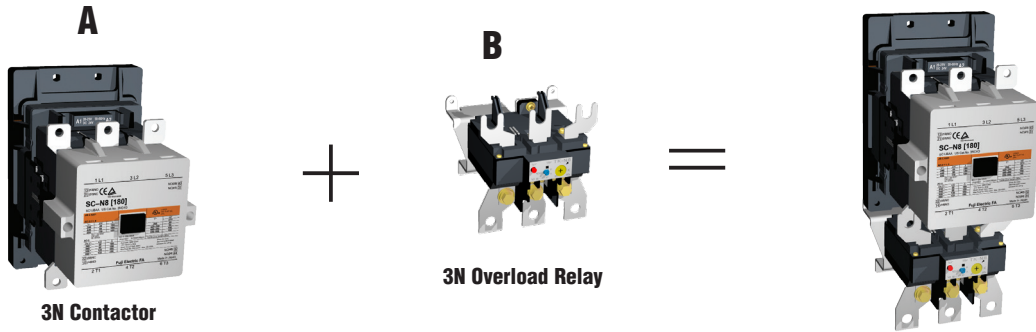
Specifications

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

Notes:
1. NEMA ICS 5-2000. For more information, refer to Control Circuit Contact Electrical Ratings, page MRC-111.

| Wire Terminal Tightening Torque Chart | | | | | |
|---------------------------------------|----------------------|---------------|------------------------------|---|---------------------------|
| Part Number | Contactor or Starter | Terminal Size | Cable Size Maximum | Applicable Max. Width for Ring Terminal | Tightening Torque |
| 3NK4Qx | 3NC4Q0 | M10 | 300MCM (152mm ²) | 36.5mm | 133-177 in.lbs., 15-20 Nm |
| 3NK4Hx | 3NC4H0 | M10 | 300MCM (152mm ²) | 36.5mm | 133-177 in.lbs., 15-20 Nm |
| 3NK5Hx | 3NC5F0 | M12 | 400MCM (203mm ²) | 44.5mm | 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 | 3NK4QN | 110 to 160 Amps |
| 75 | 192 | 3NC4H0x22 | 3NK4HQ | 160 to 240 Amps |
| 100 | 248 | 3NC5F0x22 | 3NK5HR | 200 to 300 Amps |
| 125 | 312 | 3NC5H0x22 | 3NK5HS | 240 to 360 Amps |
| 150 | 360 | 3NC5H0x22 | 3NK5HT | 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 | 3NK4QP | 125 to 185 Amps |
| 150 | 180 | 3NC4H0x22 | 3NK4HQ | 160 to 240 Amps |
| 200 | 240 | 3NC5F0x22 | 3NK5HR | 200 to 300 Amps |
| 250 | 302 | 3NC5H0x22 | 3NK5HS | 240 to 360 Amps |
| 300 | 361 | 3NC5H0x22 | 3NK5HT | 300 to 450 Amps |

Note 1: Per NEC 2005 Table 430.250

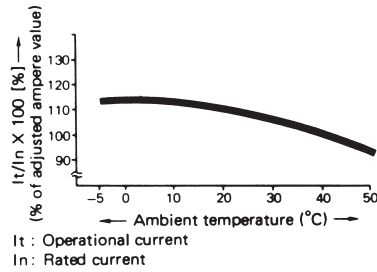
Fuji Odyssey Series 3N Overload Relays

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.

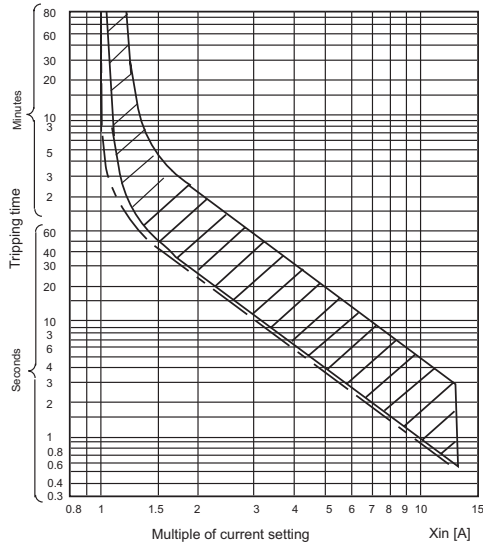
Compensation characteristics (Average value)



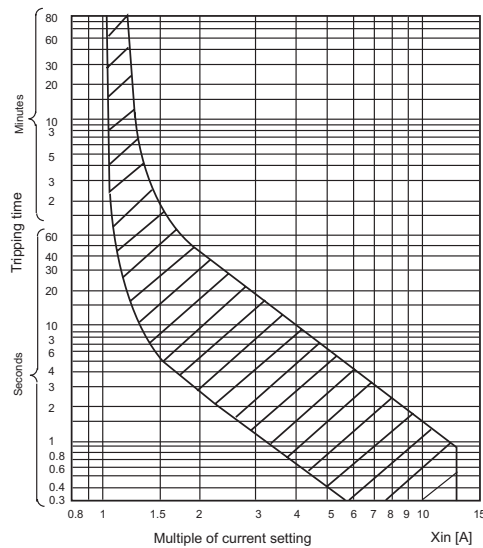
Open-phase protection

3NK4Qx

Cold start

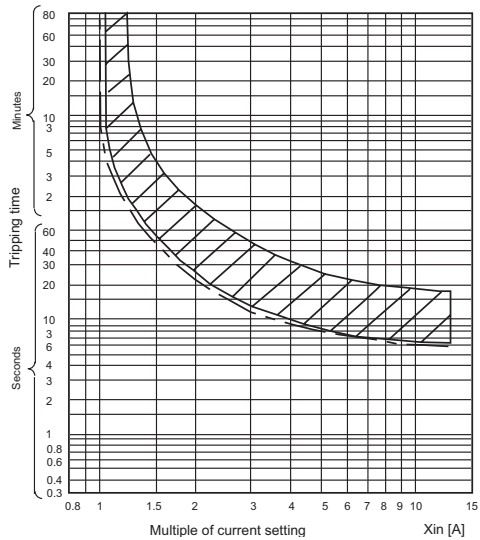


Hot start

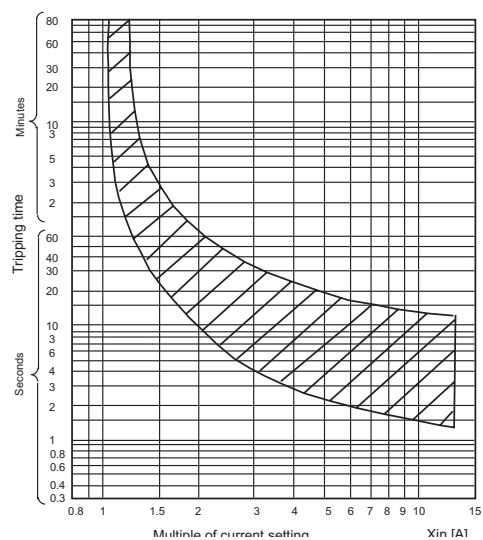


3NK4Hx, 3NK5Hx

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

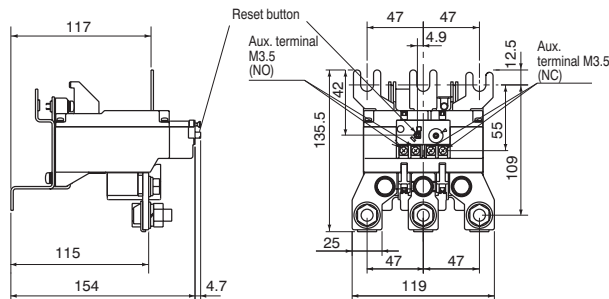


SZ-WN11T

| Odyssey Series Overload Relay Terminal Covers | | | |
|---|---------|--|--|
| Part number | Price | Description | Applicable Contactors, Overload Relays |
| SZ-WN8T | \$74.00 | Terminal cover for load side. Prevents contact with electrified contactor terminals. | 3NK4Qx overload relays |
| SZ-WN10T | \$74.00 | | 3NK4Hx overload relays |
| SZ-WN11T | \$86.00 | | 3NK5Hx overload relays |

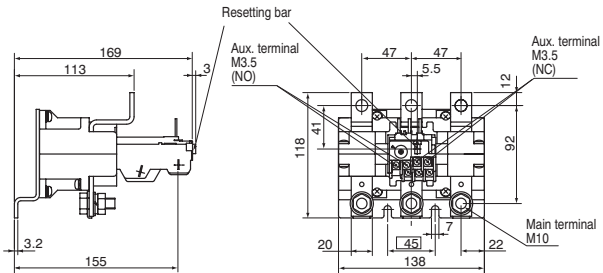
Dimensions (mm)

3NK4Qx



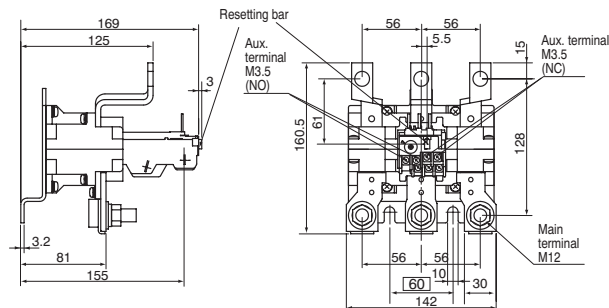
Weight: 1.2kg

3NK4Hx



Weight: 1.85kg

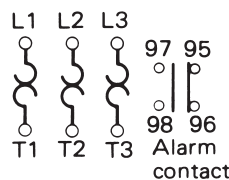
3NK5Hx



Weight: 2.3kg

Wiring diagrams

3NK4Qx



3NK4Hx, 3NK5Hx

