

# AC contactor connected to thermal relay protection



## Overview

AC contactors are typically paired with thermal overload relays. These relays contain bimetallic strips that bend when heated by excess current. Thermal overload relays are economic electromechanical protection devices for the main circuit. They allow to set up customized motor starting solutions according to individual needs. Fast Delivery on Thermal Overload Relays & Electronic Overload RelaysAn AC contactor is a switching device used to control high-power circuits, often combined with overload and short-circuit protection to ensure safe motor operation in industrial environments. Thermal overload protection must be set according to the application, see Thermal Overload. Among the many possible methods of protecting a motor, the association of a circuit breaker + contactor + thermal relay provides many advantages The combination of these devices facilitates installation work, as well as operation and maintenance, by: Protection against destruction of the motor.



## Article Content

Oct 01, 2025

Contactor & Thermal Overload Relays | RS

Shop Contactor Overload Relays at RS for Overload Protection Solutions. Fast Delivery on Thermal Overload Relays & Electronic Overload Relays.

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Thermal Overload Relays

The thermal overload relays from Schrack Technik have an additional phase failure protection, which monitors voltage in the three-phase AC live wires. The thermal overload relays from Schrack Technik

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Thermal Overload Relays

Most thermal overload relays can be mounted directly to the contactor. Thermal overload relays have three pins. They contain a thermal release - hence the name - usually a bimetal element. Direct or

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Contactors and Protection Relays

Protect your equipment from power faults with electrical contactors and relays from Schneider Electric, available for NEMA and IEC applications. Select from a

Jan 16, 2026

MECCANIXITY JR36-20 Electric Adjustable Thermal Overload Relay

MECCANIXITY JR36-20 Electric Adjustable Thermal Overload Relay 1NO 1NC AC220V/380V 0.45-0.72A Range Motor Protector Motor Overload Phase-Loss Protection for CJX2

Jun 28, 2025

Contactors, Mini Contactors, Overload Relays Presentation

These accessories are used to mount the relays separately from contactors. If a relay is combined with a unit, it can be mounted on DIN rail or panel by fixing screws.

Sep 29, 2025

Motor Contactor Basics | DigiKey

Using electromagnetic motor contactors, designers can provide extended and reliable isolation and protection of motors and their circuits.

Jun 09, 2026

How contactor controls an electric motor?

A contactor is a large relay, usually used to switch current to an electric motor or other high-power load. Large electric motors can be protected from

Feb 13, 2026

Thermal overload relays

In combination with contactors, they provide reliable protection against overloads and phase failures for motors. They allow to set up customized motor starting

Jul 01, 2025

Overload and Short-Circuit Protection Mechanism of AC

SSPD's CJX2-series AC contactors, when paired with compatible thermal overload relays, offer reliable protection with precise trip adjustment and

Feb 02, 2026

How to Wire a Three Phase Magnetic Contactor: A

The power supply lines deliver the three-phase AC voltage to the contactor, while the control circuit consists of the start and stop buttons or switches. The thermal

Sep 10, 2025

A Guide to Contactors, Contactor Functions, Wiring & More

Thermal overload relays are commonly used in conjunction with contactors to provide this protection, complying with Malaysian safety standards.

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How to Connect Contactor with Relay

Therefore, 1N4007 diodes connected in parallel across the DC relay coil are recommended for protective elimination of back EMF. An RC snubber network is suggested for AC relays (e.g., Schneider

Nov 30, 2025

Single-Phase Motor Application

TeSys Giga overload relay protects single-phase motor from thermal overload. Thermal overload protection must be set according to the application, see Thermal Overload Protection.

Jun 08, 2026

Overload relay – Principle of operation, types, connection

An overload relay (OLR) protects an electric motor against overloads and phase failures. Thermal and Electronic OLR - definition, operation and connections.

Nov 26, 2025

Himel Contactors and Thermal Overload Relays

Complementing the HDC3 contactors, the HDR3s series of thermal overload relays step into the limelight. Crafted for comprehensive protection against overload,

Jun 25, 2026

Contactors | Electromechanical Relays | Electronics

Sample Contactors Three-phase, 480 volt AC power comes into the three normally-open contacts at the top of the contactor via screw terminals labeled “L1,” “L2,”

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How to Install NXR-38 Thermal Overload Relay

Installation Steps Following these steps for proper mounting and connection of the NXR-38 Thermal Overload Relay: 1. Inspection Before

Dec 19, 2025

Basic motor protection scheme: circuit-breaker + contactor + thermal

Among the many possible methods of protecting a motor, the association of a circuit breaker + contactor + thermal relay provides many advantages. The combination of these devices

Nov 06, 2025

Single-Phase Motor Application

Overview TeSys Giga contactors and TeSys Giga overload relays can be used to control and protect single-phase asynchronous motors. TeSys Giga overload relay protects single-phase motor from

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Contactors, Mini Contactors, Overload Relays Presentation

Thermal Overload Relays Relay type Protection cover Adjustment dial Sealing the protection cover Upstream connections Circuit identification

Apr 08, 2026

## GUIDE CONTACTORS AND OVERLOAD RELAYS

All ABB contactor relays (with at least one NC contact) have been tested in accordance with IEC 60947-5-1 and have had positively driven contact elements in the basic unit or in the basic unit in

May 21, 2026

What are thermal overload relays and what motion

Image credit: ABB Electronic thermal overload relays measure current electronically, rather than relying on a heater mechanism, and so are insensitive to changes in

Apr 26, 2026

How to Wire a Three Phase Contactor: A Detailed Wiring Diagram

A typical three-phase contactor wiring diagram consists of several key components, including the main contacts, the thermal overload relay, and the control circuit.

Aug 11, 2025

A Guide on Contactor Overload Relays | RS

Explore Contactor Overload Relays: Learn their role, types, and key considerations for motor protection. A guide for tradesmen and DIY enthusiasts.

Dec 04, 2025

Thermal overload relays

Thermal overload relays. Thermal overload relays are economic electromechanical protection devices for the main circuit. They offer reliable protection for motors in

May 22, 2026

A Comprehensive Guide to Contactor Relay Wiring

Learn about the wiring diagram for a contactor relay and how to properly connect it. This article provides step-by-step instructions and illustrations to help you

Jan 06, 2026

How to Connect Contactor with Relay

The appropriate voltage specification must be confirmed first in any contactor and relay connection. Any mismatch in voltage will, at best, keep the relay or contactor from pulling in; at worst, it may damage

Feb 18, 2026

Comprehensive Guide to Overload Relays: Motor

This guide provides a detailed overview of overload relays, including their role in protecting motors from overheating, common causes of motor overload, key

## Contact Us

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