

# What relay protection should be used for soft starters



## Overview

Semi-conductor fuses (High speed fuses) are the only type of fuses that are fast enough to achieve a fully type 2 coordination when using a soft starter. A separate overload relay for the motor protection is always required in combination with this type of fuse. Protection relays in a soft starter panel are not just add-on devices; they are the intelligence that coordinates motor starting, fault discrimination, and equipment protection within an IEC 61439-2 assembly. If replacing the semi-conductor. Do I need to install an overload relay with the soft starter?

Schneider Electric's brand of soft starters (ATS22, ATS48). It protects the motor thermally. The soft starter is factory set to protection class 10. The IEC standard for softstarters is called IEC 60947-4-2 and softstarters built according to this standard are in most countries not subject to any other tests besides the manufacturer's responsibility. In IEC 61439-2 assemblies, the relay must be integrated so that its auxiliary supply, CT inputs, trip outputs, and, due to transients and high peak currents. This guide also covers some of the advanced.



## Article Content

### How Does a Soft Starter Work

A soft starter or motor soft starter is a control device for electric motors that allows starting and stopping in a smooth and controlled manner. Unlike full

### Protection Relays in Soft Starter Panel | LV Panel | LV Panel

Typical implementations use multifunction numerical relays for overcurrent, earth fault, phase unbalance, phase loss, locked-rotor, under/overvoltage, and thermal model protection, coordinated with the soft

### Understanding Motor Controls: Starters, Contactors,

Starters: Motor starters control the starting and stopping of electric motors while offering built-in protection features. Importance of Starters: Soft

### Everything You Need to Know About Soft Starters

Discover what a soft starter is and how it works, including the working principle of soft starters and when to use them.

### What You Need to Know: Soft Starters for Industrial Motors

What You Need to Know: Soft Starters for Industrial Motors Driving motors is one of the most fundamental automation tasks, but understanding and

What is a soft starter, and where is it used? A complete

A soft starter is an electrical device that enables a smooth start for an electric motor. Instead of supplying full voltage immediately, it will increase the voltage gradually.

### Soft Start Circuit Guide: Components, Working, and Applications

Learn how soft start circuits reduce inrush current and protect electronic devices. Discover key components, working principles, types, applications, and design tips for safer, reliable, and

### Do I need to install an overload relay with the soft starter?

It protects the motor thermally. The soft starter is factory set to protection class 10. • This protection class can be modified using tHP parameter in SEt menu. • The motor thermal state is

### What is a Soft Starter? Guide From principle to application (2025)

1. Opening: Why Should We Pay Attention to Soft Starters? A soft starter —more precisely, a motor soft starter — is, as its name implies, a device related to motor starting.

### Intelligent motor starters and line protection components

DOL & REV motorstarters SIRIUS modular system includes: contactors, motor starter protectors, overload relays and soft starters. Size and compatibility

What is soft starter and how it works?

Is an improved Soft Start available? A very recent design of soft start uses a combination of capacitive and inductive semiconductors to provide better protection capability. It can be used with

Understanding Soft Starters: A Complete Guide for

Understanding the types, benefits, applications, and selection criteria of soft starters empowers industries to make informed decisions that align with their operational

What is Soft Starter? Its Working, Diagram and Applications

Apart from the Power switches & logic circuitry, other protection components such as the circuit breaker or fuse, magnetic contactor for isolation & an OLR (Overload relay) for prevention of overcurrent is

How Motor Starters Work: Types, Benefits & Applications Explained

What is a Motor Starter? A motor starter is an electrical device used to safely start, stop, and protect an electric motor. It regulates the initial inrush current, preventing damage from high

Protecting Softstarters Against A Phase-To-Phase Fault

Question: What are recommendations to protect PCS, PF and PCEC soft starters if a motor has a phase-to-phase fault? Answer: Circuit breakers and fast acting SCR fuses, which are normally

THE SOFT STARTER GUIDE

CURRENT LIMIT Current limit is where the Soft Starter makes sure the current doesn't rise above a certain point. When the current limit is reached, the Soft Starter stops for a short time until the current

PowerPoint Presentation

Semi-conductor fuses (High speed fuses) are the only type of fuses that are fast enough to achieve a fully type 2 coordination when using a soft starter. A separate overload relay for the motor protection

An Engineering Guide to Soft Starters

Studies have shown that approximately 90% of the motors employed in industrial applications use no form of control other than simple electromechanical switching. This results in increased machine

Protection Relays in Soft Starter Panel | MCC Panels

Overview Protection relays in a soft starter panel are not just add-on devices; they are the intelligence that coordinates motor starting, fault discrimination, and equipment protection within an IEC 61439-2

An Engineering Guide to Soft Starters

Type 2 protection requires that in the event of a short circuit on the output of a soft starter the fault must be cleared without risk of injury to personnel or damage to the soft starter.

Everything You Need to Know about Soft Starters

Electric motors that use soft starters experience less mechanical stress and last longer as a result. Main Purposes of Using Soft Starters Motor

Everything You Need to Know about Soft Starters

It should be noted that soft starters are well-suited for applications where motors must operate at a fixed rotational speed. For operations requiring

What is Soft Starter? Its Working, Diagram and

Soft Starter, Its Circuit Diagram, Operation, Advantages & Applications Our industries use various kinds of machines. The induction machine is one of the

Motor Starters: Types, Ratings, and Applications

Motor starters play a critical role in industrial motor control, ensuring smooth operation, overload protection, and longevity. Whether you need a DOL

Motor Soft Starter: What Is It and How Does It Work?

A Motor Soft Starter is an essential component in industrial motor control, providing smooth motor operation while protecting equipment from

The Ultimate Guide to Soft Start Design — Neurochrome

A better soft start can be implemented by using a device that has been optimized for inrush current limiting (ICL) applications. These devices are essentially ruggedized ceramic resistors with a very

Softstarter Handbook

In addition, some softstarters are equipped with underload protection to detect pumps running dry, with kick start to start blocked pumps and with locked rotor protection to prevent damage caused by

Protection Relays in Soft Starter Panel | MCC Panels

From an IEC 60947 perspective, the relay must be matched to the motor control gear, including the contactor utilization category, overload protection class, and short-circuit protective device.

## Why Use a Soft Starting Motor for Protection | Mingch

**Best Applications for Soft Starters** A soft starting motor is not needed in every situation, but it delivers unbeatable protection and control for specific

Protection of soft starter by fuses

Randhir, From your post I presume the starter is in circuit only during running-up and then by-pass contactor cuts-in. In such a case, the soft starter is not available to protect motor while it is

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