



**CEDETAŞ**



**STARTING  
SOLUTIONS FOR  
MV MOTORS**

# STARTING SOLUTIONS FOR MV MOTORS

## SOFT STARTER

The Soft Starter prevents mechanical and electrical shocks by controlling the current and voltage in motors, ensuring a smooth start and stop. It is an economical and reliable solution for starting systems such as fans, pumps, mills, and compressors.

- Provides current control during start and stop, tailored to specific applications.
- Equipped with comprehensive motor protection functions.
- Designed for long-lasting, fault-free operation.
- Operates in harsh environments with ambient temperatures up to 50°C.
- Features a user-friendly interface with optional Turkish menus.
- Custom solutions available to meet specific customer and application needs, including.

SOFT STARTER + POWER FACTOR CORRECTION + FEEDER + COUPLING.

- Suitable for voltage levels from **2.3 kV to 15 kV** and power ranges up to **48,000 kW**.
- Supports Modbus, Profibus, or Modbus/TCP protocols.



## IGBT-BASED SOFT STARTER

The ISA-TS is an IGBT-based medium voltage soft starter designed to enable motors to start at rated current, making it ideal for weak networks.

- Features adjustable low starting current (10%-120%  $I_n$ ) and starting torque (up to 150%).
- Prevents mechanical and electrical shocks during operation.
- Integrated bypass ensures no energy loss during operation.
- Takes up less space in the field and is easy to install.
- Capable of starting multiple motors.
- Suitable for voltage levels from **3.3 kV to 11 kV** and power ranges up to **30,000 kW**.
- Utilizes a specialized synchronization system for the integrated bypass function.
- Allows motor operation at speeds lower than nominal and changes the direction of rotation without contactors.



## MOTOR FREQUENCY CONVERTER (VFD)

The Motor Frequency Converter (VFD) is the ideal starting and control solution for medium voltage motors requiring speed adjustment. It offers energy savings and can quickly pay for itself depending on the application.

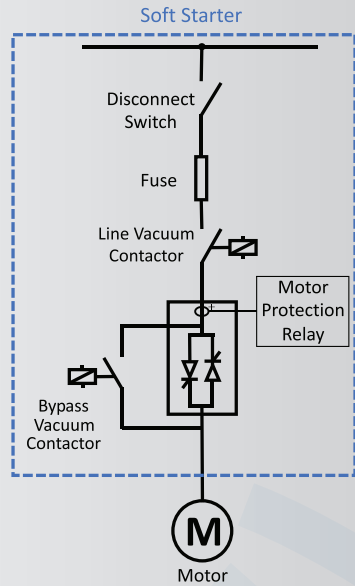
- Operates in either scalar or vector control mode.
- Does not require a special transformer or feeder for operation.
- Includes cell bypass and/or redundant cell features for easy operation and maintenance.
- Complies with IEEE 519-1992 standards, featuring low harmonic distortion without the need for input or output filters (THD < 5%, Output THDI < 3%).
- Suitable for both standard and retrofit applications.
- Designed for durability with an MTBF > 60,000 hours.
- Operates efficiently in ambient temperatures up to 50°C.
- Supports voltage levels from **2.3 kV to 11 kV** and power ranges up to **27,500 kVA**.
- Offers alternative configurations such as separate cabinets, water-cooled cabinets, and special solutions, including four-quadrant (regenerative) medium voltage applications.



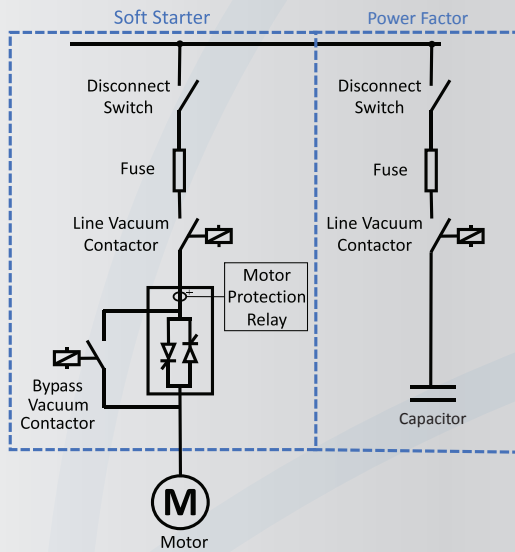
**For more detailed information about our motor starting applications, please contact us.**

# MV SOFT STARTER SOLUTIONS

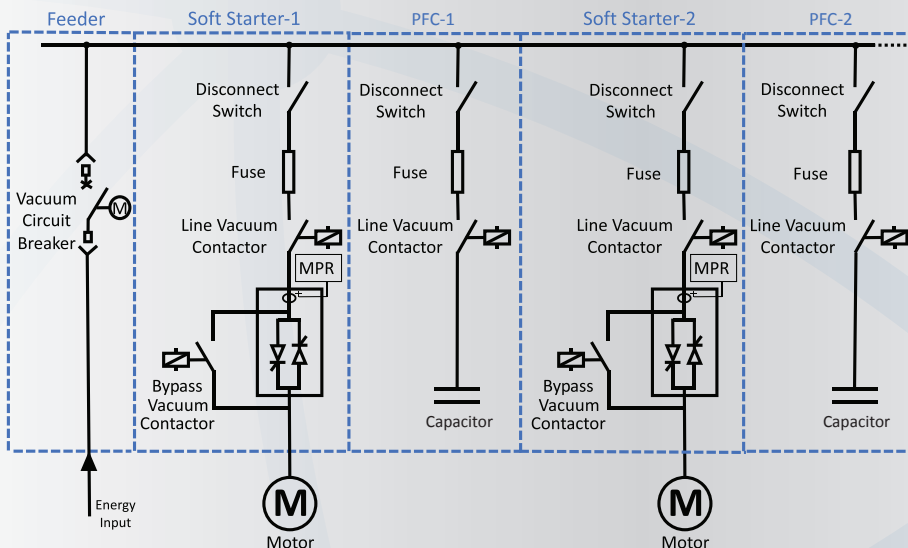
## Solution - 1 : STAND ALONE MV SOFT STARTER



## Solution - 2 : MV SOFT STARTER+POWER FACTOR CORRECTION (PFC)

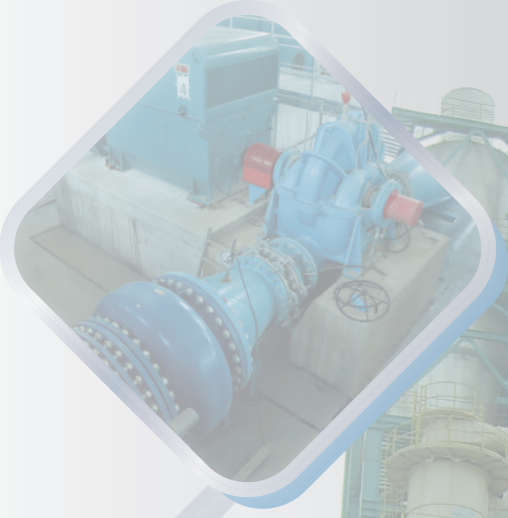


## Solution - 3 : COMMON BUSBAR SOLUTION (MV Softstarter + PFC + Feeder)





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