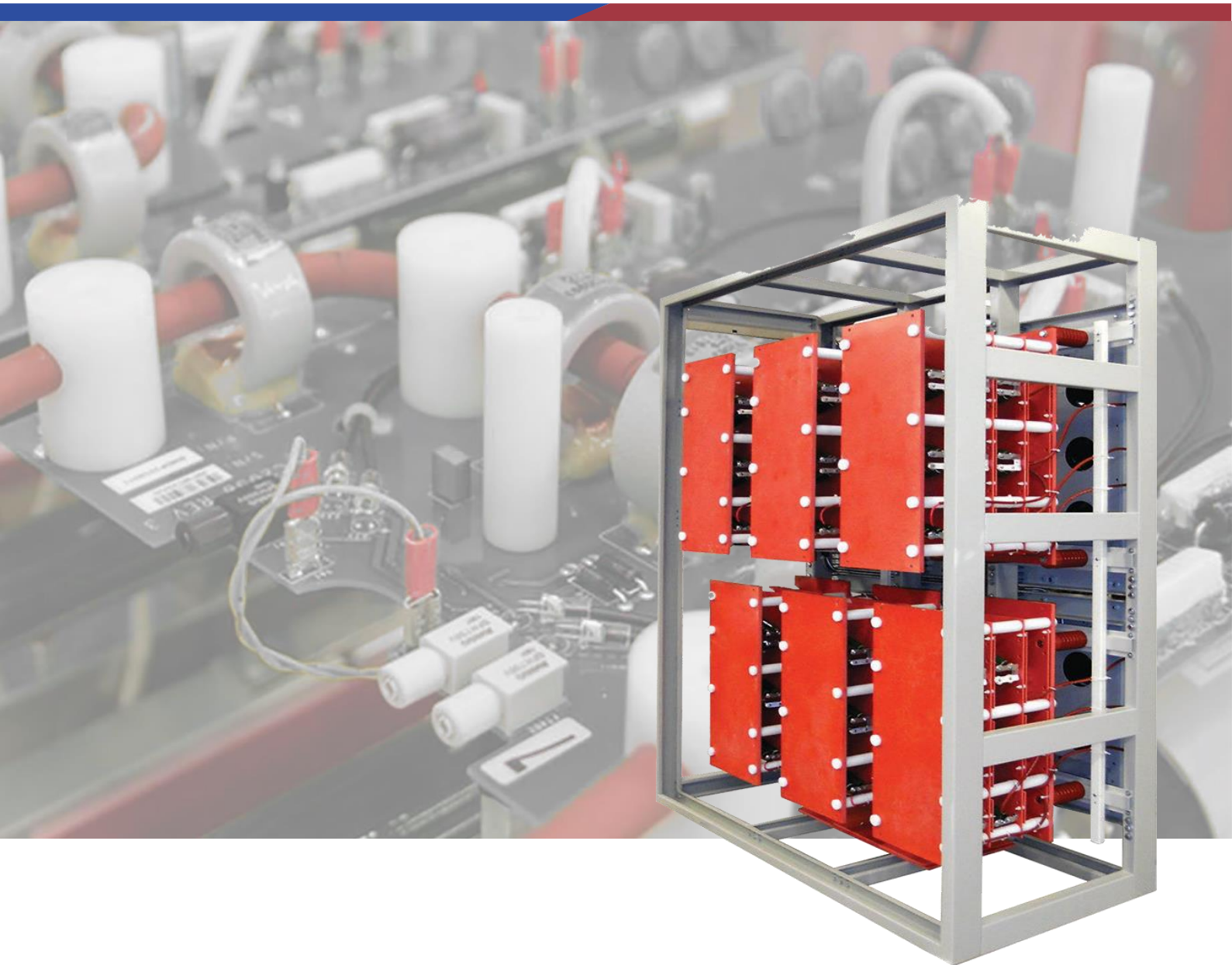


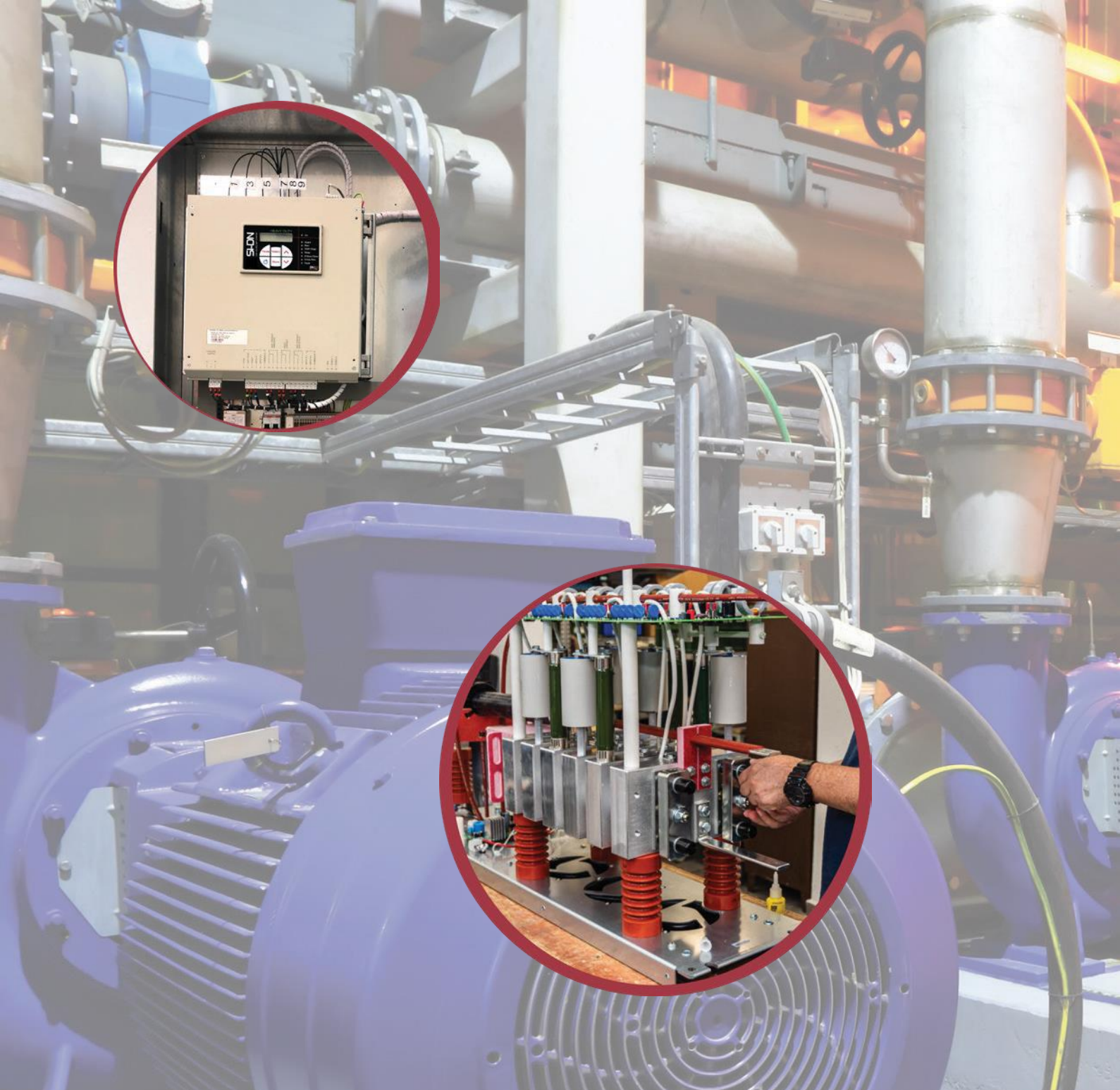
# ***SI-HDN***

## ***Medium Voltage Soft Starter***

The starting solution of choice even under the most demanding conditions



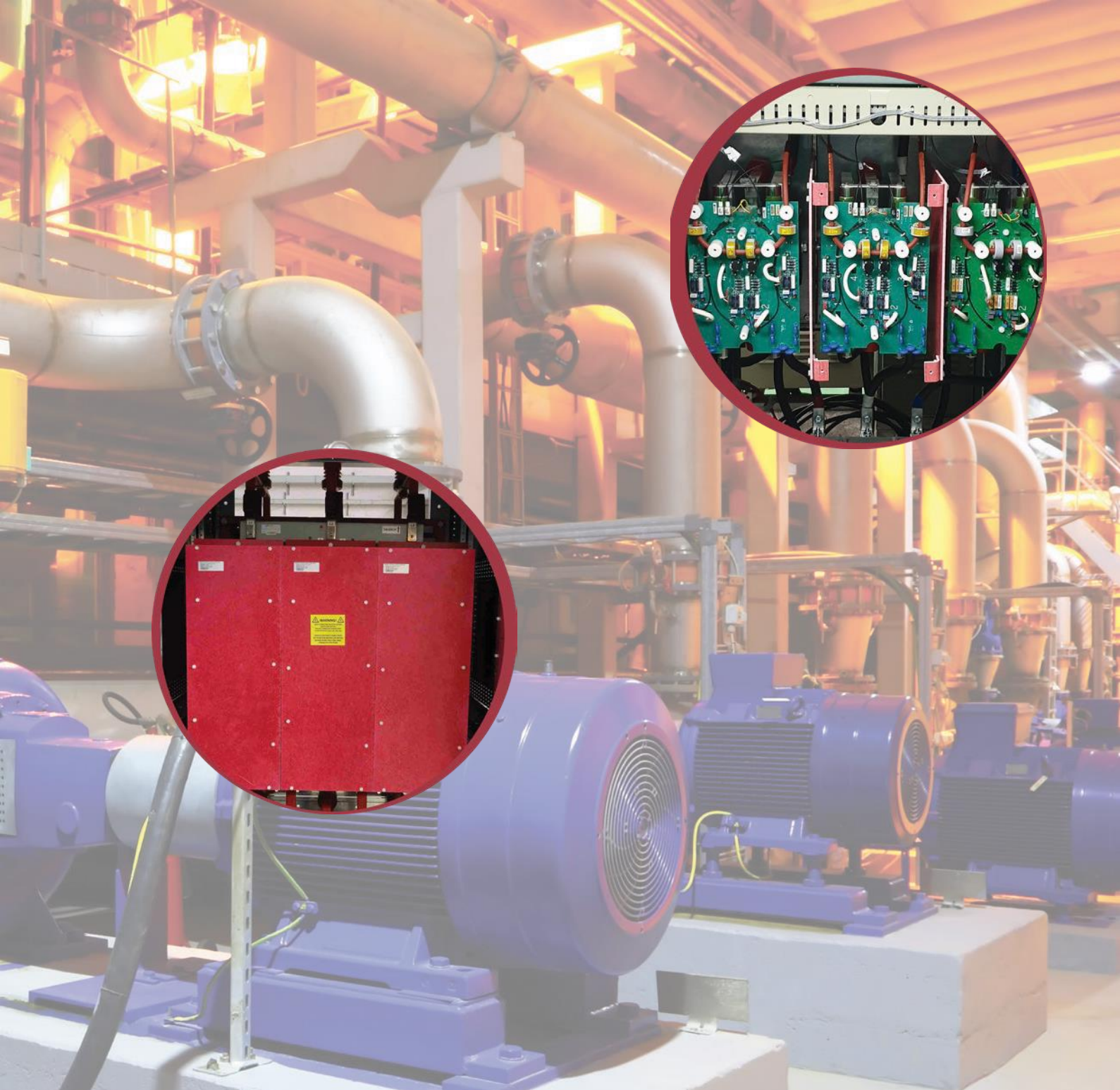
**SOLCON**  
**IGEL**  **POWERED**



The **SI-HDN** is a heavy duty medium voltage soft starter, designed for all medium voltage AC induction motors. The **SI-HDN's** sophisticated motor control technology ensures smooth acceleration and deceleration as it minimizes the effect of high in-rush current and mechanical torque shock.







# ***HEAVY DUTY Medium Voltage Soft Starter***

Rated operational current: 60 to 2,500 A

Main voltage: 2.3kV – 13.8kV

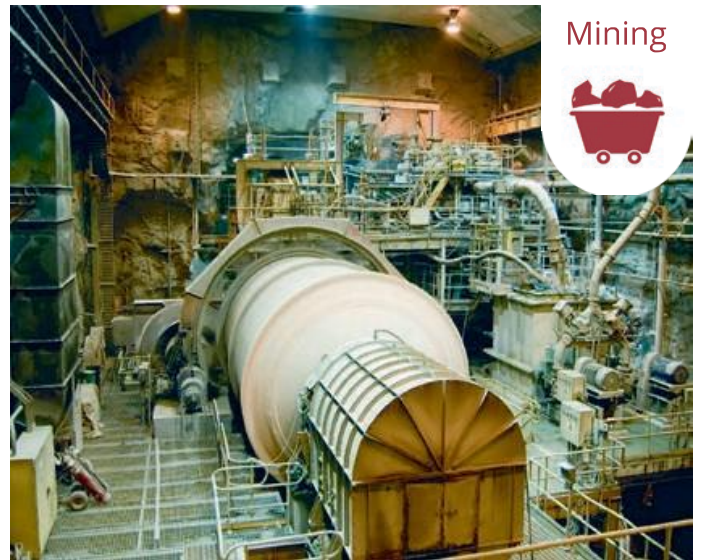




Water



- » Pumps
- » Water Pumps
- » Sewage Pumps



Mining



- » Pumps
- » Conveyors
- » Compressors
- » Fans
- » Ball Mills
- » .....And More



Process



- » Pumps
- » Conveyors
- » Compressors
- » Hydr' Power Packs
- » Mixers
- » .....And More



Marine



- » Pumps
- » Chillers
- » Thrusters
- » Propulsion Motors



Oil & Gas



- » Pumps
- » Compressors
- » Fans



HVAC



- » Pumps
- » Fans
- » Chillers



Advanced features include customizable starting curves, unique voltage and current measurements, as well as monitoring capabilities. The flexible design, enhanced motor protection and a superior global reputation make the **SI-HDN** the starting solution of choice for Medium Voltage applications even under the most demanding conditions.

The **SI-HDN's** flexible configuration is designed to meet the requirements of new applications, retrofits and OEM customization. It is available with Marine approvals and with ProGear, Solcon's fully Type Tested Arc Resistant switch-gear.

## Advantages at a glance



Full range from  
60A - 2,500A



Up to 50°C  
ambient  
temperature



Wide range  
auto-frequency  
tracking



Automatic firing  
angle triggering  
(marine, offshore  
& generator  
operation)



Unique fiber-optic  
firing system



User friendly  
configuration &  
operation



Reduces mechanical stress by providing smooth starts (and stops), thus prolonging motor life.



Minimizes the stress on transformers, power line and motor rotor/stator and reduces voltage drop.



Productivity efficiency can be greatly increased by the reduction of costs due to avoided downtime.



Lower energy costs due to the reduction in energy consumption and higher productivity with much less investment in maintenance.

## Features

- » Configurable start / stop characteristics
- » Enhanced motor protection package
- » User friendly setup and operation
- » Multi-soft start and multi-soft stop
- » Unique module synchronous motor starting
- » Pump and load control
- » Advanced Electronic Current & Potential Transformer (EPT) - utilizes fiber optics for complete isolation between low and medium voltage sections
- » Partial Discharge test (EN50178/625.1)
- » Direct Power Factor Capacitor connection
- » 45-65Hz Auto-tracking frequency range
- » Easy to conduct Low Voltage test
- » EMC compliant design and tested
- » Various communication options
- » Compact 2-phase control configuration (optional)
- » Fault recorder - real-time clock included
- » Data Logger – An integrated current and voltage wave recorder with sampling rate of up to 50kHz and advanced graphic software interface for remote waveform monitoring (optional)
- » Multi-language interface

## Integral Protections

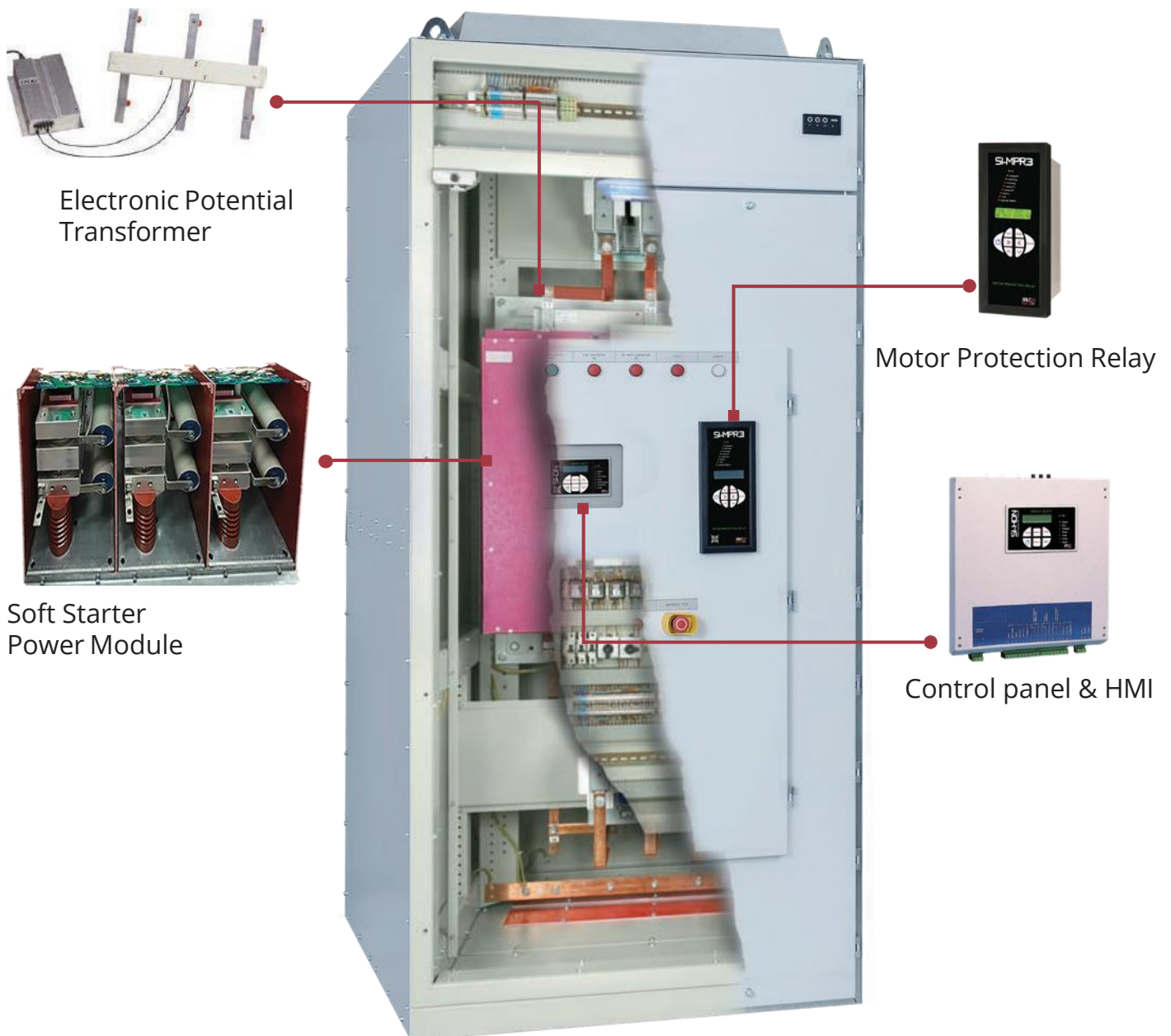
- » Bypass open
- » Under Voltage
- » Under current
- » Current unbalance
- » Phase sequence
- » Maximum start time
- » Electronic overload
- » Instantaneous over current 100-50%
- » Time over current
- » Ground fault
- » Over Voltage
- » Number of starts
- » Under/over frequency
- » External fault
- » Power ON no start
- » Thermal modeling
- » Phase loss
- » Shorted SCR
- » Over load class trip

**START YOUR MOTOR SOFTLY**

## SI-HDN - Type Tested Switchgear & IP00 Kit

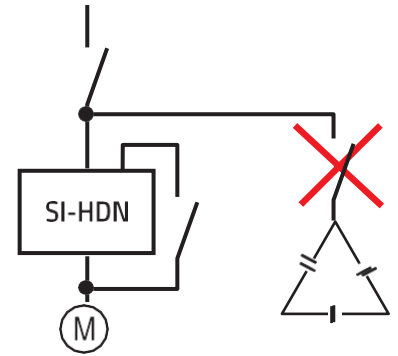
The **SI-HDN** switchgear cabinet is a fully type tested arc resistant according to **IEC 62271-200**. It adheres to the highest safety standards and provides superior protection and performance.

- » Rated: up to 12kV, 1250A
- » Internal arc test 31.5kA/1sec, 1AC:AFLR
- » Short-time withstand current 31.5kA/3sec
- » Dielectric test - Power frequency 28kV 60sec  
Impulse voltage 75kV
- » Temperature rise test
- » IP54 Protection level



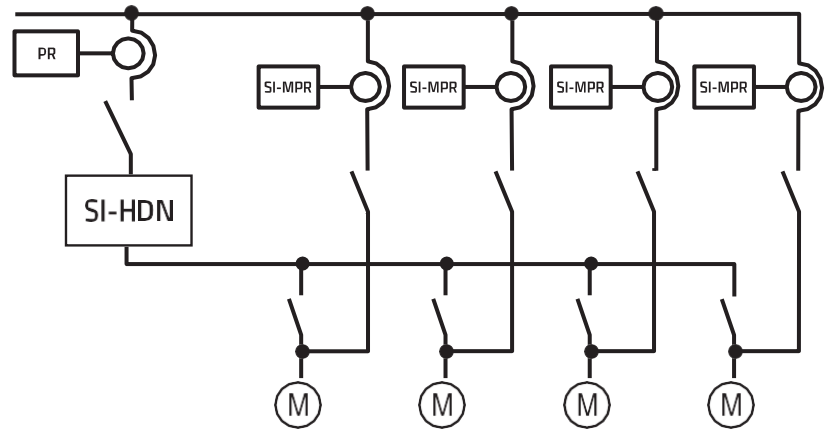
## Direct Power Factor Capacitor Connection

Power factor capacitors can be connected directly to the upstream contactor, omitting the need for additional contactor, providing stable mains (-15% + 10%) during starting.



## Multi-Motor Starting

Unique Multi-Motor program allows for more than one motor to be started with the same soft starter.



## Data Logger

## Spectrum Analysis & Diagnostics Software



The Data Logger can diagnose an array of issues including a soft starter trip due to a network fluctuation (phase loss).

Solcon-IGEL's Data Logger (SDL) is an innovative solution that delivers remote system diagnostics and maintenance for the SI-HDN and other Solcon-IGEL soft starters.

The SDL includes a multi-signal acquisition system and waveform capture software that facilitates full spectrum analysis. Available in three formats the SDL offers increasing levels of data, analysis and maintenance.







The SI-HDN is tested in accordance with:

- » EN 55011
- » EN 61000-4-2-3,4,5,6,11
- » EN 61000-6-2, UL 347
- » In cabinet environmental - IEC 60068-2

Routine tests include:

- » Visual inspection
- » Insulation test
- » Dielectric voltage-withstand
- » Light load
- » Checking of auxiliary devices
- » Checking the control equipment properties



Please consult Solcon-IGEL representative for further details.

\*Routine tests, and special tests can also be performed at any industrial site.



# Global Presence

With a network of more than 100 partners worldwide, the Solcon-IGEL brand is well represented across the globe.

As a global leader in solid state motor soft starters and control systems for applications that run across the scope of the industrial landscape we are constantly expanding our portfolio of products and services using the expertise and market knowledge that we have acquired over the years.

Solcon-IGEL's experience guarantees that our medium voltage Soft-Starter SI-HDN is the right choice for any application.

Together with our partners we assure safety, efficiency and reliability.



## More Service

Experienced team of engineers ready for any situation



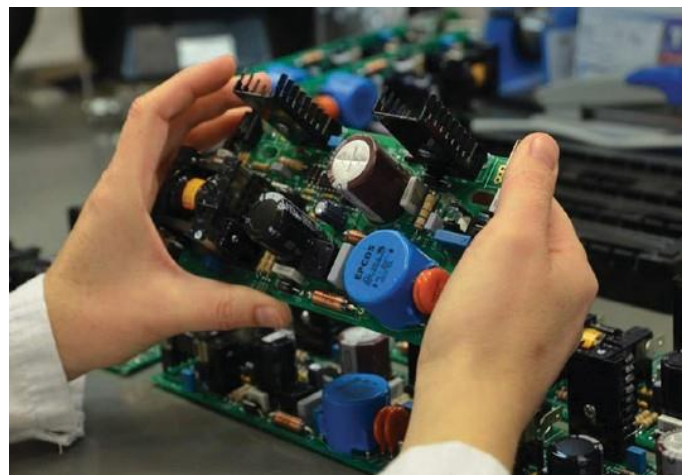
## More Local

Our partners are in your neighbourhood for onsite needs



## More Innovation

Holistic solutions for technology of the future



*Meeting your needs  
across industries*



[contact@solconigel.com](mailto:contact@solconigel.com)



[www.solconllc.com](http://www.solconllc.com)