

SI-DST

Medium IGBT Soft Starter

The starting solution for motors
50MW and Larger



SOLCON
IGEL 
POWERED

Water



- » Pumps
- » Water Pumps
- » Sewage Pumps

Mining



- » Pumps
- » Conveyors
- » Compressors Fans
- » Ball Mills
- » Fans
- » Agitators
- » Rock Crushers
- » Excavators
- »And More

Process



- » Pumps
- » Conveyors
- » Compressors
- » Hydr' Power Packs
- » Mixers
- » Wood Extruders
- » Hydraulic Pumps
- »And More

Oil & Gas



- » Pumps
- » Compressors
- » Fans
- » Injection Pumps

HVAC



- » Pumps
- » Fans
- » Chillers

SolconIGEL Soft Starters are designed and manufactured to reduce the starting current & gradually increase it until it reaches its full rated speed so that the high inrush current is prevented.

Every industry and for any application, looks to install a motor that is both robust and high in efficiency. For this reason most production lines are run by three phase AC type motors. Protecting these motors while they are running with the help of specially developed equipment is essential for worry free production.

Preventing the high inrush current while starting the motor helps release the stress on the electricity network and ensures the safe run of the motor that is so vital for the smooth operation of any production line. A soft start that reduces the torque and load in the power temporarily while ensuring a smooth ramp up of the motor prevents potential damage, thus maximizing motor life span.



Space saving with streamlined design



Energy efficiency due to integrated bypass



Greater savings due to the reduction of operational costs



Wide range auto-frequency tracking



Built-in cooling system



User friendly configuration & operation

IGBT BASED Medium Voltage Soft Starter

Rated operational current: 100 to 965 A

Main voltage: 3.3kV – 13.8kV

Advantages

The **SI-DST** has many advanced features optimized for applications that require low starting current and/or a high starting torque. The cutting edge design results in significant savings in costs, energy and space while meeting high demand application requirements.

This first of its kind soft starter was designed with an integrated bypass system that uses a specialized synchronization technique that ensures little to no energy loss during operation, consequently reducing energy waste and operational costs.

The SolconIGEL brand delivers an IGBT based soft starter that solves motor speed and high torque issues during steady state operation at the time of the starting operation.

Pinnacle Of Reliability

- » Medium-level alarm functions & redundant bypass control technology
- » Experience and know-how of Solcon-IGEL group and global network

Fixed & Variable Torque

- » For variable torque and fixed torque applications
- » Option available for vector fixed torque control
- » Sensorless vector control for fixed torque applications

Low Maintenance

- » Solcon renowned air cooling
- » Touch Screen display panel gives quick and easy access to system status, statistics & parameters
- » Uncomplicated design



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

- » Input voltage - Up to 11kV 50/60Hz +10% -15
- » Power range - Up to 18MW
- » Mains starting current – 10% to 120% of motor rated current
- » Numerous number of starts
- » Starting torque - Up to 150% of motor rated torque
- » Internal synchronization system (bypass), from SI-DST to mains and back
- » Soft Start and Soft Stop
- » Multi-start capabilities
- » Integrated Data Logger and wave form capture for all major system signals including current and voltage for remote diagnostics and failure analysis

**OPTIMIZED FOR APPLICATIONS
THAT REQUIRE A LOW STARTING CURRENT
AND/OR A HIGH STARTING TORQUE.**

Options

- » Modbus
- » Profibus/Profinet
- » DeviceNet
- » Analog output
- » Multi motor soft-start/stop



Medium Voltage IGBT Soft Starter



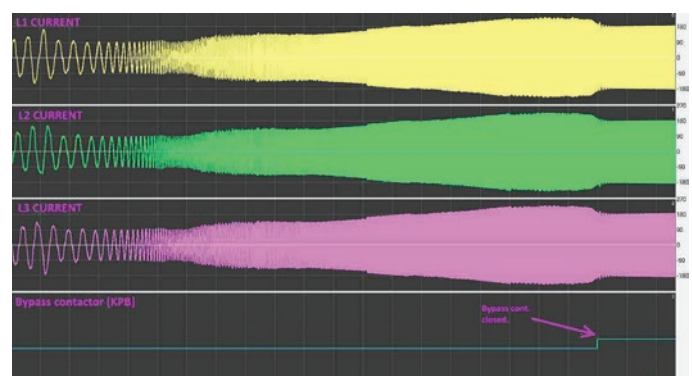
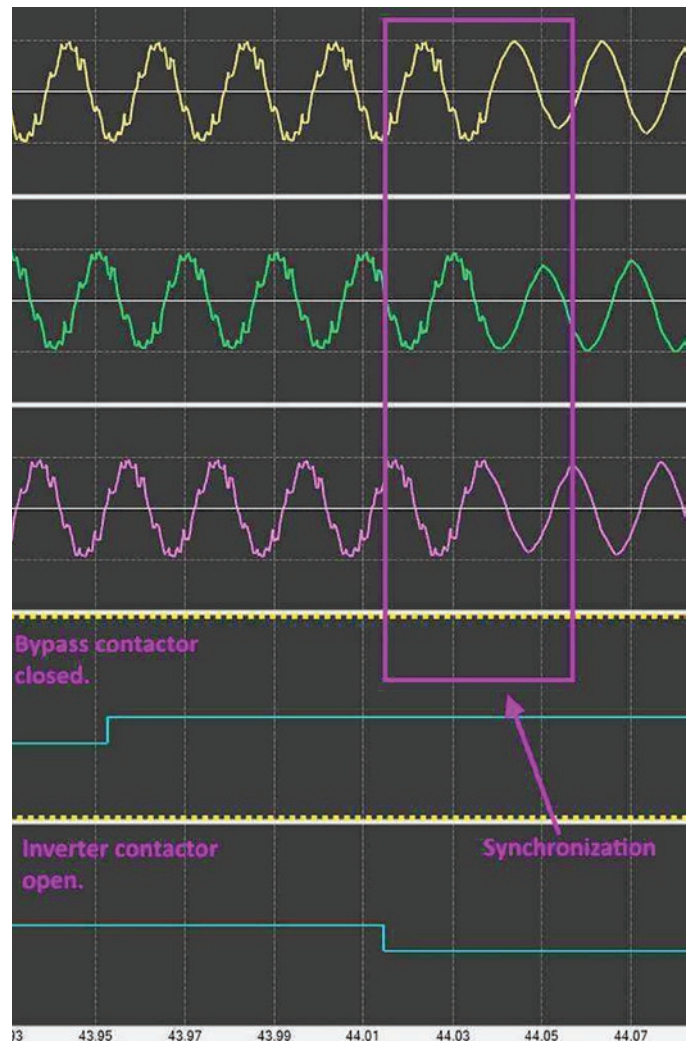
SAVING COSTS, ENERGY & SPACE WHILE MEETING TOP PERFORMANCE REQUIREMENTS

- » Reduction in operation expenses
- » Integrated bypass ensures no energy loss during operation; reducing energy waste and operational costs
- » Peak demand reduction
- » Cost saving while in bypass
- » Streamlined design translating to reduction in space requirements

REMOTE MONITORING AND OPERATION SOLUTIONS CAPABILITIES

Connectivity

- » 3 Serial ports - (rs-232c/422/485)
- » Sd card
- » Usb type a+b
- » Ethernet (lan)
- » Wireless lan
- » Data logger & spectrum analyser



SIMPLE COMPLETE SOLUTIONS COMBINED

Solcon-IGEL's IEC Type Tested Metal Enclosed switchgear range, is designed as a modular cabinet system.

The cabinet system can be tailored according to customer requirements, and can be fitted with a soft starter, protection apparatuses and / or control products allowing Solcon-IGEL to supply the full package for single and for multiple motor requirements.

IEC 62271-200
Type Tested Certified

INTERNAL ARC PROTECTION

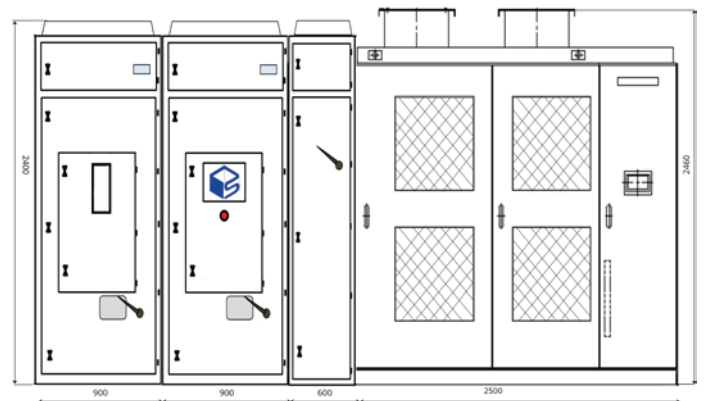
IP54 INSULATION
According to IEC Standards

SHOCK & VIBRATION PROOF
According to IEC Standards

SEISMIC STURDINESS
According to IEC Standards

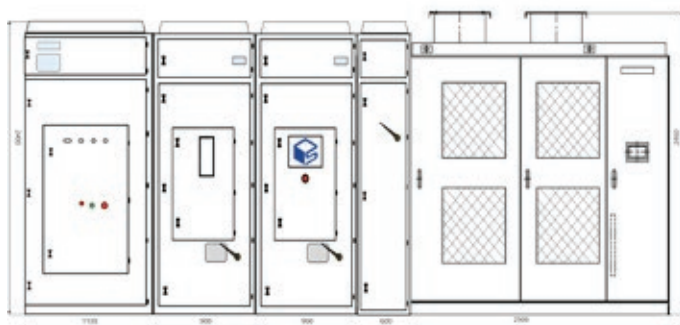
Single Motor Start

- » Typical 6.6kV layout
- » Line Reactor
- » Inverter Module
- » Incoming Feeder Cabinet
- » Motor Feeder - Protection & Control
- » Output reactor
- » Multi Start capabilities



*For illustration purposes only

Single Wires To Motor From Motor Feeder And Feeder Cabinet Only



*For illustration purposes only

Multiple Motor Start

- » Typical 11kV layout
- » Line Reactor
- » Inverter Module
- » Incoming Feeder Cabinet
- » Motor Feeder - Protection & Control
- » Additional Motor Feeders can be added according to number of Motors
- » Output reactor

DRIVESTART MODELS - ACCORDING TO YOUR NEED

MODELS | UP TO 6.6kV - Integrated Solution

kV	Rated Current	Unit Dimensions (mm)			Weight (kg)
	A	H	W	D	
3.3	150	2,300	2,020	1,320	2,000
	300				
	400				
4.16	150	2,300	3,100	1,200	3,000
	300				
6.6	150	2,300	3,100	1,200	3,000
	300				
	400				
	500	2,600	4,400	1,300	4,000
	600				
750					

* For reference purposes only.

START YOUR MOTOR SOFTLY

MODELS | UP TO 18.3MVA - Inverter Section Only

kV	Rated Capacity	Rated Current	Unit Dimensions (mm)			Weight (kg)	
	kVA	A	H	W	D	Min'	Max'
3.3	550 - 1000	93 - 178	2,495	2900	1100	4,500	5,000
	1,300 - 1,750	228 - 312	2,495	3,500	1300	6,250	6,800
	2,200 - 2,500	385 - 440	2,595	4,200	1,300	8,000	8,400
	2,850	500	2,570	4,700	1,400	9,600	
	3,600 - 3,850	635 - 675	3,110	6,900	1,600	11,300	
	5,200 - 5,500	914 - 962	3,110	7,400	1,700	13,500	13,700
4.16	700-1,250	97 - 178	2,460	2,600	1,900	3,800	4,600
	1,650-2,250	229 - 312	3,064	4,500	1,400	7,600	7,900
	2,750-3,200	382 - 440	3,064	5,400	1,500	10,000	10,200
6.6	500 - 1,100	44 - 93	2,460	2,500	1,600	2,950	3,700
	1,200 - 2,000	105 - 178	2,460	2,600	1,900	3,800	4,600
	2,250 - 3,600	197 - 312	3,064	4,800	1,400	7,100	8,000
	4,000 - 5,100	350 - 440	3,064	6,200	1,500	10,100	10,300
	5,400 - 5,700	472 - 500	3,064	6,800	1,500	11,700	11,800
	6,400 - 7,700	560 - 675	3,164	7,400	1,600	14,950	16,950
	8,250 - 11,000	722 - 962	3,164	11,100	1,600	22,500	25,500
10	500 - 1,600	29 - 93	2,460	3,400	1,700	3,700	5,000
	1,700 -3,080	98 - 178	2,783	5,400	1,300	6,000	7,150
	3,350 - 4,600	193 - 266	3,064	7,100	1,500	9,900	11,800
	5,000 - 5,400	289 - 312	3,064	7,300	1,500	11,900	13,000
	5,850 - 6,600	338 - 381	3,064	8,300	1,500	13,050	14,200
	7,000 - 8,700	404 - 500	3,064	11,400	1,500	19,650	20,400
	10,500 - 11,700	606 - 675	3,119	12,500	1,500	21,400	22,400
	13,500 - 16,500	779 - 962	3,239	14,100	1,600	25,800	28,800
11	625 - 1,750	33 - 93	2,460	3,700	1,700	4,100	5,400
	1,850 - 3,400	97 - 178	2,873	6,600	1,500	8,100	9,500
	3,750 - 6,000	197 - 312	3,064	8,100	1,500	11,400	14,000
	6,600 - 8,400	346 - 440	3,064	11,800	1,500	21,100	21,700
	8,700 - 9,500	457 - 500	3,064	13,000	1,500	22,300	22,400
	11,500 - 12,800	604 - 675	3,170	15,700	1,600	29,000	30,000
	15,000 - 18,300	787 - 962	3,290	16,700	1,700	35,500	37,500

* For reference purposes only.

Contact us for more information about a best matched solution for your requirements.

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 proven experience guarantees that either of our medium voltage IGBT based Soft-Starters SI-DST or SI-DST2 is the right choice for your application.

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



More Service

Experienced team of engineers ready for any situation



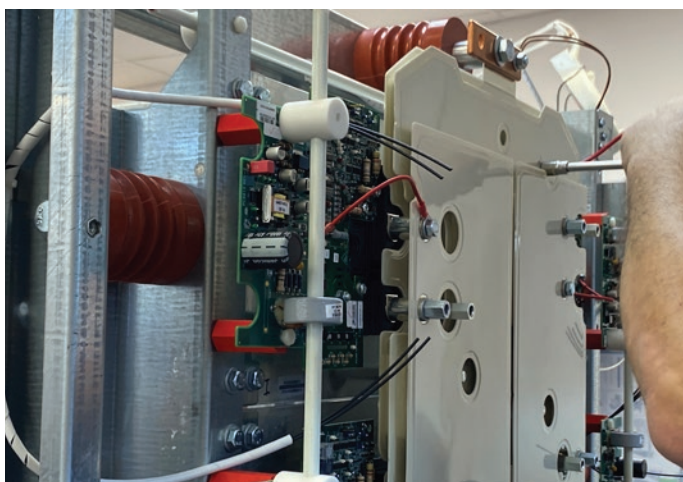
More Local

Our partners are in your neighbourhood for onsite needs



More Innovation

Holistic solutions for technology of the future



Meeting your needs across industries



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