

DriveStart

Medium Voltage IGBT Soft Starter

The starting solution for motors
50MW and Larger



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

Solcon 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 DriveStart 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 Solcon 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



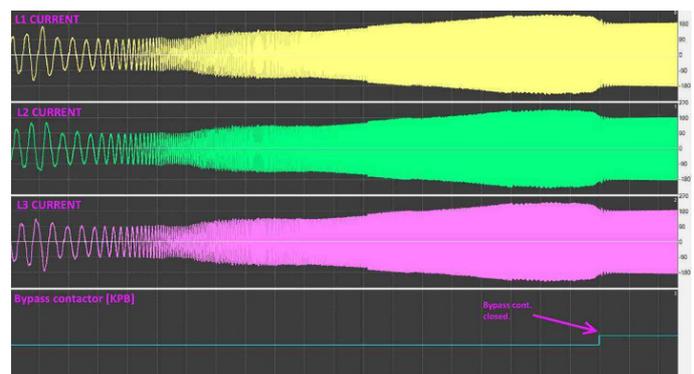
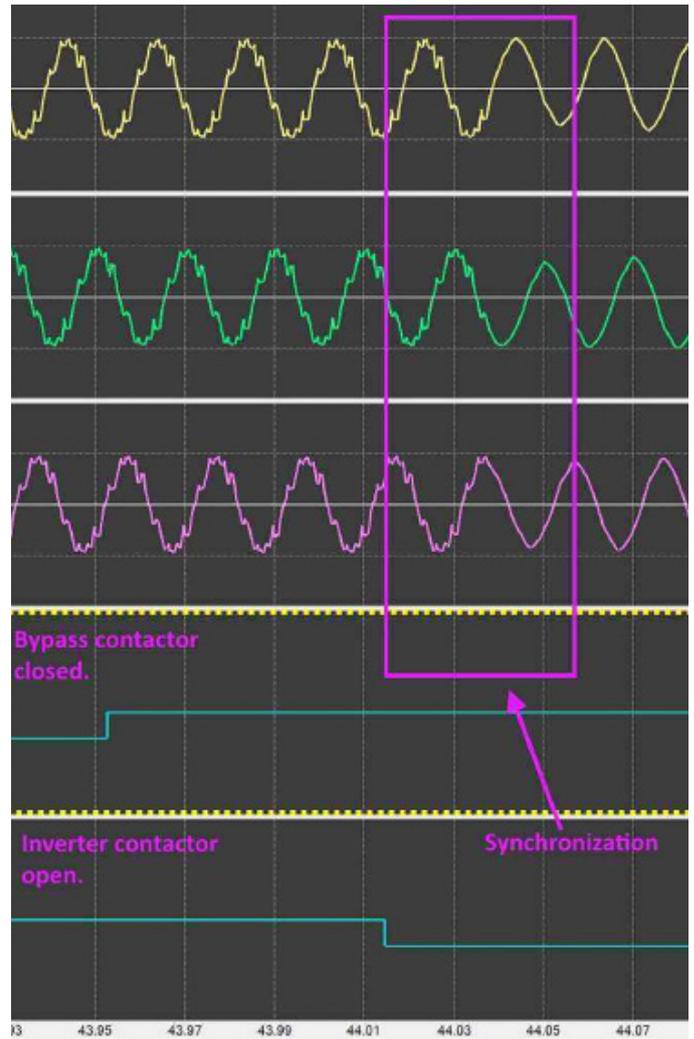
SAVING COSTS, ENERGY & SPACE WHILE MEETING TOP PERFORMANCE REQUIREMENTS

- » 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 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 to supply the full package for single and for multiple motor requirements.

Single Motor Start

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

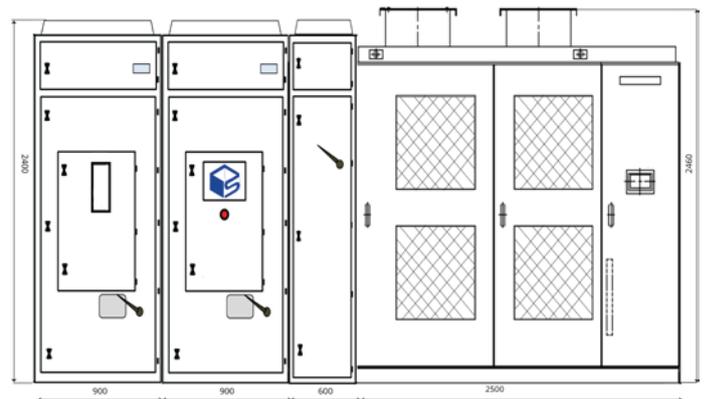
IEC 62271-200
Type Tested Certified

INTERNAL ARC PROTECTION

IP54 INSULATION
According to IEC Standards

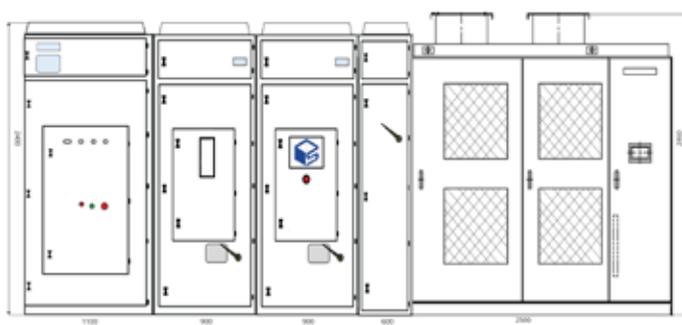
SHOCK & VIBRATION PROOF
According to IEC Standards

SEISMIC STURDINESS
According to IEC Standards



*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

Mains Voltage (kV)	Rated Current (A)	Unit Dimensions			Weight
		H	W	D	
3.3	150	91 in (2300 mm)	80 in (2020 mm)	52 in (1320 mm)	4,410 lbs (2,000 kg)
	300				
	400				
4.16	150	91 in (2300 mm)	80 in (2020 mm)	52 in (1320 mm)	4,410 lbs (2,000 kg)
	300				
6.6	150	91 in (2300 mm)	122 in (3100 mm)	47 in (1200 mm)	6,615 lbs (3,000 kg)
	300				
	400				
	500	102 in (2600 mm)	173 in (4400 mm)	47 in (1200 mm)	8,820 lbs (4,000 kg)
	600				
750					

START YOUR MOTOR SOFTLY

MODELS - DIMENSIONS | UP TO 18.3MVA - Inverter Section Only

kV	Rated Capacity (kVA)	Rated Current (A)	Unit Dimensions			Weight	
			H	W	D	Min	Max
3.3	550 - 1,000	93 - 178	98 in (2495 mm)	114 in (2900 mm)	43 in (1100 mm)	9,921 lbs (4500 kg)	11,023 lbs (5000 kg)
	1,300 - 1,750	228 - 312	98 in (2495 mm)	138 in (3500 mm)	51 in (1300 mm)	13,779 lbs (6250 kg)	14,991 lbs (6800 kg)
	2,200 - 2,500	385 - 440	102 in (2595 mm)	165 in (4200 mm)	51 in (1300 mm)	17,637 lbs (8000 kg)	18,519 lbs (8400 kg)
	2,850	500	101 in (2570 mm)	185 in (4700 mm)	55 in (1400 mm)	21,164 lbs (9600 kg)	
	3,600 - 3,850	635 - 675	122 in (3110 mm)	272 in (6900 mm)	63 in (1600 mm)	24,912 lbs (11300 kg)	
4.16	5,200 - 5,500	914-962	122 in (3110 mm)	291 in (7400 mm)	67 in (1700 mm)	29,762 lbs (13500 kg)	30,203 lbs (13700 kg)
	700 - 1,250	97 - 178	97 in (2460 mm)	102 in (2600 mm)	75 in (1900 mm)	8,378 lbs (3800 kg)	10,141 lbs (4600 kg)
	1,650 - 2,250	229 - 312	121 in (3064 mm)	177 in (4500 mm)	55 in (1400 mm)	16,755 lbs (7600 kg)	17,417 lbs (7900 kg)
6.6	2,750 - 3,200	382 - 440	121 in (3064 mm)	213 in (5400 mm)	59 in (1500 mm)	22,046 lbs (10000 kg)	22,487 lbs (10200 kg)
	500 - 1,100	44 - 93	97 in (2460 mm)	98 in (2500 mm)	63 in (1600 mm)	6,504 lbs (2950 kg)	8,157 lbs (3700 kg)
	1,200 - 2,000	105 - 178	97 in (2460 mm)	102 in (2600 mm)	75 in (1900 mm)	8,378 lbs (3800 kg)	10,141 (4600 kg)
	2,250 - 3,600	197 - 312	121 in (3064 mm)	189 in (4800 mm)	55 in (1400 mm)	15,653 lbs (7100 kg)	17,637 lbs (8000 kg)
	4,000 - 5,100	350 - 440	121 in (3064 mm)	244 in (6200 mm)	59 in (1500 mm)	22,267 lbs (10100 kg)	22,708 lbs (10300 kg)
	5,400 - 5,700	472 - 500	121 in (3064 mm)	268 in (6800 mm)	59 in (1500 mm)	25,794 lbs (11700 kg)	26,015 lbs (11800 kg)
	6,400 - 7,700	560 - 675	125 in (3164 mm)	291 in (7400 mm)	63 in (1600 mm)	32,959 lbs (14950 kg)	37,368 lbs (16950 kg)
10	8,250 - 11,000	722 - 962	125 in (3164 mm)	437 in (11,100 mm)	63 in (1600 mm)	49,604 lbs (22500 kg)	56,218 lbs (25500 kg)
	500 - 1,600	29 - 93	97 in (2460 mm)	134 in (3400 mm)	67 in (1700 mm)	8,157 lbs (3700 kg)	11,023 lbs (5000 kg)
	1,700 - 3,080	98 - 178	110 in (2783 mm)	213 in (5400 mm)	51 in (1300 mm)	13,228 lbs (6000 kg)	15,763 lbs (7150 kg)
	3,350 - 4,600	193 - 266	121 in (3064 mm)	280 in (7100 mm)	59 in (1500 mm)	21,826 lbs (9900 kg)	26,015 lbs (11800 kg)
	5,000 - 5,400	289 - 312	121 in (3064 mm)	287 in (7300 mm)	59 in (1500 mm)	26,235 lbs (11900 kg)	28,660 lbs (13000 kg)
	5,850 - 6,600	338 - 381	121 in (3064 mm)	327 in (8300 mm)	59 in (1500 mm)	28,770 lbs (13050 kg)	31,306 lbs (14200 kg)
	7,000 - 8,700	404 - 500	121 in (3064 mm)	449 in (11400 mm)	59 in (1500 mm)	43,321 lbs (19650 kg)	44,974 lbs (20400 kg)
	10,500 - 11,700	606 - 675	123 in (3119 mm)	492 in (12500 mm)	59 in (1500 mm)	47,179 lbs (21400 kg)	49,384 lbs (22400 kg)
11	13,500 - 16,500	779 - 962	128 in (3239 mm)	555 in (14100 mm)	63 in (1600 mm)	56,879 lbs (25800 kg)	63,493 lbs (28800 kg)
	625 - 1,750	33 - 93	97 in (2460 mm)	146 in (3700 mm)	67 in (1700 mm)	9,039 lbs (4100 kg)	11,905 lbs (5400 kg)
	1,850 - 3,400	97 - 178	113 in (2873 mm)	260 in (6600 mm)	59 in (1500 mm)	17,857 lbs (8100 kg)	20,944 lbs (9500 kg)
	3,750 - 6,000	197 - 312	121 in (3064 mm)	319 in (8100 mm)	59 in (1500 mm)	25,133 lbs (11400 kg)	30,865 lbs (14000 kg)
	6,600 - 8,400	346 - 440	121 in (3064 mm)	465 in (11800 mm)	59 in (1500 mm)	46,518 lbs (21100 kg)	47,840 lbs (21700 kg)
	8,700 - 9,500	457 - 500	121 in (3064 mm)	512 in (13000 mm)	59 in (1500 mm)	49,163 lbs (22300 kg)	49,384 lbs (22400 kg)
11	11,500 - 12,800	604 - 675	125 in (3170 mm)	618 in (15700 mm)	63 in (1600 mm)	63,934 lbs (29000 kg)	66,139 lbs (30000 kg)
	15,000 - 18,300	787 - 962	130 in (3290 mm)	657 in (16700 mm)	67 in (1700 mm)	78,264 lbs (35500 kg)	82,673 lbs (37500 kg)

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

MODELS - WEIGHTS | UP TO 18.3MVA - Inverter Section Only

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			Min	Max
3.3	550 - 1,000	93 - 178	9,921 lbs (4500 kg)	11,023 lbs (5000 kg)
	1,300 - 1,750	228 - 312	13,779 lbs (6250 kg)	14,991 lbs (6800 kg)
	2,200 - 2,500	385 - 440	17,637 lbs (8000 kg)	18,519 lbs (8400 kg)
	2,850	500	21,164 lbs (9600 kg)	
	3,600 - 3,850	635 - 675	24,912 lbs (11300 kg)	
	5,200 - 5,500	914-962	29,762 lbs (13500 kg)	30,203 lbs (13700 kg)
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	2,250 - 3,600	197 - 312	15,653 lbs (7100 kg)	17,637 lbs (8000 kg)
	4,000 - 5,100	350 - 440	22,267 lbs (10100 kg)	22,708 lbs (10300 kg)
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	15,000 - 18,300	787 - 962	78,264 lbs (35500 kg)	82,673 lbs (37500 kg)

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Global Presence

With a network of more than 100 partners worldwide, the Solcon 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's proven experience guarantees that our medium voltage IGBT based Soft-Starter 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



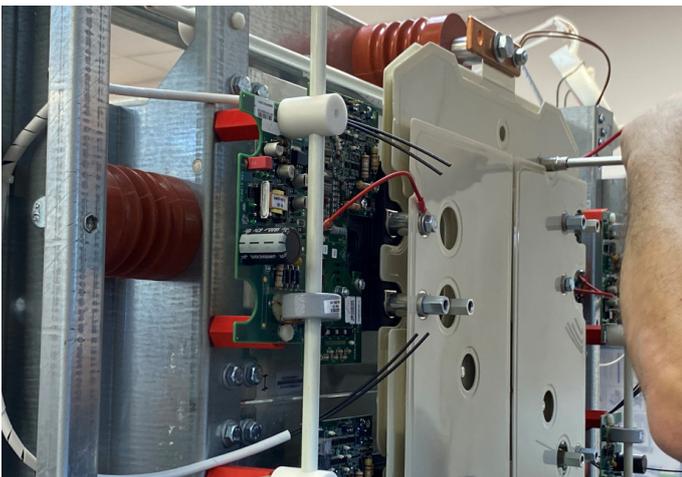
More Local

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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