



MOTOR CONTROL IS OUR NATURE



PROFILE

Founded in 1977, Solcon Industries Ltd. is a dynamic Power Electronics Company that develops, manufactures and manages worldwide product sales all under one roof. Our motto: **'Motor control is our nature'** says it all. We are devoted to our customers, among which, are leading global brands. Our passion and motivation to provide the very best products and services is proven by our successful track record, returning and new customers.

So how do we do it?

Working with a world-class team of engineers, Solcon takes the lead in design and production of Medium and Low Voltage Soft Starters and Motor Control equipment, specializing in providing solutions for the most extreme conditions. Our product range is made to match client's specific needs and budgets, and our network of distributors are all fully trained Solcon specialists, ensuring local support for our 70,000 working installations in over 65 countries worldwide. At Solcon we use the highest quality materials in manufacturing products suitable for motors of any size and application. Our products are designed to operate flawlessly under unstable electrical network conditions and can be found above ground, under-ground, and on the seas. By utilizing advanced technology, Solcon implements design criterion that offers the utmost in long-term reliability to its prime markets; Marine, Mining, Oil & Gas, Water & Waste Water and Industry. All of our products are rigorously tested to meet the world's toughest safety standards.

At Solcon we invest in both an extensive research and development program, and recruitment of the best experts in the field to ensure we provide our customers with cutting edge solutions for today, tomorrow and well into the future.



Medium Voltage Soft Starters

HRVS-DN

HRVS-TX

Low Voltage Digital Soft Starters

RVS-DN

RVS-DX

Low Voltage Analogue Soft Starters

Solstart

Solstart Plus

RVS-AX

Thyristor Power Controller

TPS (Temperature Controller)

DC Injection Brake

Solbrake

Protection Relays

MPS - 3000

MPS - 6

TPR - 6

MIP - 6



MEDIUM VOLTAGE SOFT STARTERS

HRVS-DN



The HRVS-DN Soft Starter was developed to start motors in the most demanding applications. Advance features such as enhanced motor protection, starting curves, unique voltage measurement and many years of field proven reliability makes the HRVS-DN the best choice for starting medium voltage motors.

Solcon offers a wide range of solutions around the Soft Starter

Solcon developed unique solutions for special applications such as Multi-start, redundancy systems, and marine models.

Advantages at a glance

- Range 2300-15000V, Up to 50MW
- Heavy duty design up to 50°C ambient temperature
- Unique starting & stopping characteristics
- Advanced motor protection package
- User friendly, simple installation
- Enclosures IP31-67 and Ex
- Synchronous motor starting utilizing Solcon's unique module
- Innovative low voltage test modes
- Advanced "wireless" Electronic Potential Transformer
- Unique fiber-optic firing system
- Fault indicator for each individual thyristor
- Fully featured motor insulation circuitry
- Each and every Soft Starter is Partial Discharge tested
- Communication: Modbus, Profibus, Devicenet
- Frequency auto tracking 45-65Hz

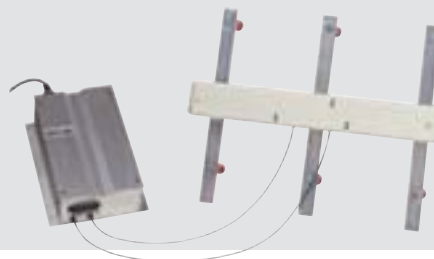


HRVS-DN (Standard Switchgear)

HRVS-DN (IP00 Kit)



Soft Starter Power Module



Electronic Potential Transformer



Control Panel

HRVS-TX

The HRVS-TX is a unique Soft-Starting solution for medium voltage transformers. The specialised algorithm in the TSR-6 Protection Relay ensures the complete elimination of the large magnetizing inrush current and dynamic shock to the transformer windings and the electrical network.

Advantages at a glance

- TSR-6 Control and protection relay
- Heavy duty design up to 60°C ambient temperature
- Advanced Protection Package
- Communication: Modbus, Profibus, Devicenet
- User friendly setup and operation
- Phase shift transformer starting-using unique technology
- Advanced “wireless” Electronic Potential Transformer
- Fault indication for each individual phase
- Wide 40-70Hz range for fluctuating frequency systems

ELIMINATING
INRUSH
CURRENT



TSR-6



HRVS-TX 800-4160



LOW VOLTAGE DIGITAL SOFT STARTERS

RVS-DN

The RVS-DN is a severe duty, advanced, highly reliable Soft Starter. Designed to operate in the most severe applications such as Marine and Mining. It offers the widest range of low voltage power, starting from 8A up to 3000A. The fourth generation, microprocessor based digital control has advanced features such as pump control, slow speed, electronic reversing and enhanced motor protection.



Advantages at a glance

- Range 8-3000A, 220-1200V (1200V up to 820A)
- Severe duty
- Robust construction
- Highly advanced starting & stopping characteristics
- Comprehensive motor protection package
- User friendly set up and operation
- Line or Inside delta connection
- Ambient operating temperature: up to 60°C
- Motor Insulation Tester
- Communication: Modbus, Profibus, Devicenet
- Thermistor input
- Analog output



RVS-DN 2700



RVS-DN 170



RVS-DN Remote Keypad (IP 54)

RVS-DX



The RVS-DX is an advanced digital, highly reliable Soft Starter. Providing advanced methods of reducing current and torque during motor starting. The RVS-DX starts the motor by supplying a slowly increasing voltage, providing a soft start and smooth acceleration, while drawing the minimum current necessary to start the motor. The RVS-DX is equipped with a digitally controlled internal bypass. The bypass closes at the end of the starting process, saving power.

Advantages at a glance

- Range 8-1100A, 220-600V (690V above 390A)
- Internal bypass for the whole range
- Pump control
- Large ,clear, two line, multilanguage digital display
- Advance starting & stopping characteristics
- Comprehensive motor protection package
- Communication: Modbus, Profibus, Devicenet
- Frequency auto tracking 45-65Hz
- User friendly set up and operation
- Line or Inside delta connection
- Analog output



RVS-DX 310



RVS-DX 105



RVS-DX 31



RVS-DX Remote Keypad (IP 54)



SOLSTART



Solstart is a miniature, two phase control, electronic Soft Starter with an internal bypass. By supplying a slowly increasing voltage, the Solstart provides a smooth soft start linear acceleration, while drawing the minimum current necessary to start the motor. A Soft Stop feature can be enabled by adjusting the setting on the Ramp-Down potentiometer. When Soft Stop is used, upon a stop signal, the motor's voltage is slowly reduced to zero.

Control voltage is not required to operate the Solstart.

Advantages at a glance

- Range 8-170A, 220-600V
- Built-in bypass
- Soft start & Soft stop
- Start / Stop with voltage free contact
- End of Acceleration contact
- Compact foot print
- DIN Rail mounting



Solstart 8A

SOLSTART PLUS

Solstart Plus is miniature two phase control electronic Soft Starter. By supplying a slowly increasing voltage, the Solstart Plus provides a soft start and smooth linear acceleration, while drawing the minimum current required to start the motor. A Soft Stop feature can be enabled with the Ramp-Down potentiometer. When in use and upon stop signal, the motor's voltage is slowly reduced to zero. The Solstart Plus incorporates a built in overload, phase loss and under voltage protection.

Advantages at a glance

- Range 31-170A, 220-600V
- Built-in motor protection
- Built-in bypass
- Two phase control
- Soft start & soft stop
- Adjustable current limiter
- End of acceleration relay
- Fault relay
- Compact foot print
- Aluminum case
- DIN Rail mounting



Solstart Plus 72

RVS-AX



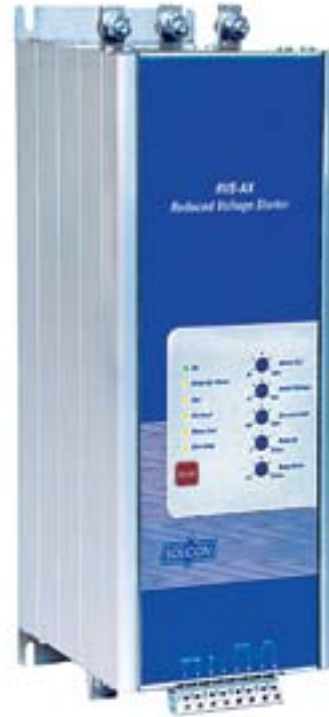
The RVS-AX is an easy to use electronic three phase control Soft Starter including an internal by pass. By supplying a slowly increasing voltage, it provides a soft start and a smooth linear acceleration, while drawing the minimum current necessary to start the motor. A Soft Stop feature can be enabled with the Ramp-Down potentiometer. Upon stop signal, the motor's voltage is slowly reduced to zero.

The RVS-AX incorporates built in motor protection.

Control voltage is not required to operate the RVS-AX.

Advantages at a glance

- Range 8-170A, 220-600V
- Built-in motor protection
- Built-in bypass (31-170A)
- Soft start & Soft stop
- Current limit
- Start / Stop with voltage free contact



RVS-AX 170



THYRISTOR POWER CONTROLLER



The TPS is an advanced Thyristor Power Controller (temperature controller). It is a heavy duty, digital, Zero-crossing and-Phase Control- Power system. Available in a wide range: 8-1400A, 230-1200V, 50/60Hz. Unique three-phase power controller unit for all types of resistive/ inductive loads (temperature control for heaters, etc.).

Advantages at a glance

- Range 8-1400A, 230-1200V
- Single and Three Phase Control
- Zero crossing & phase control (field programmable)
- Comprehensive protection package
- Communication
- Line and Inside delta connection



TPS 210-1000

DC INJECTION BRAKE



SOLBRAKE

Solbrake – Solid State Motor Brake, provides fast and smooth braking of three phase squirrel cage motors by injecting a controlled DC current to the motor windings. This induces a stationary magnetic field, which exerts a braking torque on the rotor. An intelligent sensing system turns the brake off automatically when the motor comes to a full stop.

Advantages at a glance

- Range 8-820A, 208-690V
- Reduces stopping time of high inertia loads
- Adjustable braking time
- Auto stop - DC Injection stops when the motor stops
- DIN Rail mounting
- Easy to install and simple to operate



Solbrake 10



Solbrake 17



Solbrake 390

PROTECTION RELAYS - MPS-3000, MPS-6, TPR-6, MIP-6



A Range of advanced protection relays designed to complement the HRVS-DN Soft Starter package or as stand alone Protection Relays. The complete line combines built in communication and programmable output relays.

MPS-3000

The MPS-3000 provides a comprehensive motor protection package. Monitoring three phase currents and voltage together with 10 temperature inputs it provides an ideal solution for Medium and Large Low voltage motors.

MPS-6

The MPS-6 is an advanced motor protection and control relay for protection, control, and supervision for single motors or motors operating through Motor Control Centers (MCC).

TPR-6

The TPR-6 Temperature Protection Relay is designed to protect electric motors, transformers and other systems from overheating. The TPR-6 has up to 14 temperature inputs that can be programmed to measure thermistors (PTC or NTC) and RTDs (Pt100).

MIP-6

The MIP-6 monitors the level of deterioration in motor insulation for low and medium voltage motors. It measures the motors' insulation resistance and displays the actual and average highs and lows over a predefined period of time.



MPS-3000



MPS-6



TPR-6



MIP-6

SOLCON

WATER

OIL & GAS

INDUSTRY

MINING

MARINE



Soft Starters ■ Motor Protection ■ Power Controllers

T: +972 (77) 7711130 | F: +972 (77) 7711140 | E: office@solcon.com | W: www.solcon.com

Solcon Industries Ltd. 6 Hacarmel Street, Yoqneam Industrial Park 20692, Israel