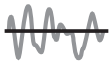


# Why Use Solid State Switching Technology?



## Long Life

Solid state relays and contactors have no moving parts. Therefore, there is no mechanical wear and tear on the output contact, ideal for repetitive applications.



## Minimum Electrical Noise

Zero voltage turn-on and zero current turn-off allows for minimum electrical disturbances generated by solid state relays and contactors.



## Shock & Vibration Resistant

Solid state switching solutions are not susceptible to erratic or unreliable operation when operating under tough environments.



## High Compatibility with Control Systems

DC controlled SSRs can be switched by digital systems such as  $\mu$ C based systems. AC controlled SSRs can be driven by limit switches and sensors carrying AC control signals.



## Position Insensitive

Suitable for mounting in either vertical or horizontal position, "dead bug" position and adjacent mounting.



## Magnetic Noise Immunity

Magnetic fields have little effect on solid state relays and contactors since, unlike electromechanical contactors, they don't use a magnetic coil to switch the load.



## Quiet Operation

Solid state switching solutions make no acoustical noise when the output contacts change state. This is highly desirable in many commercial and medical applications.



## Low Power Consumption

Solid state relays and contactors require very little input power "coil current" to switch large loads.



## Ideal for Harsh Environments

Solid state relays and contactors do not generate sparks or electric arcs and do not bounce either electrically or mechanically.



## Reduced Weight

Solid state relays and contactors are much lighter than equivalent electromechanical versions; depending on the power can be up to 70%.



## Fast Switching

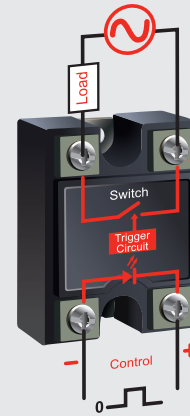
Instantaneous turn-on solid state relays and contactors respond to a control signal in less than 100  $\mu$ s.



## Reduced Energy Cost

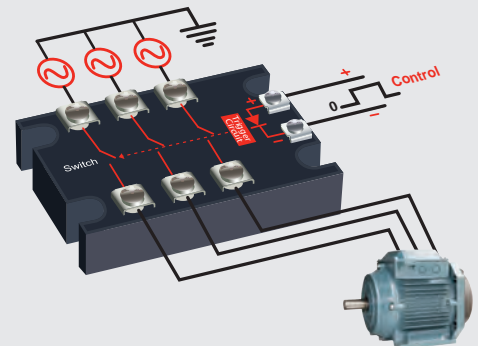
Energy savings are achieved from switching the load off when it is not required, using automation to ensure maximum system efficiency.

# What is a Solid State Relay/Contactor?



A Solid State Relay or Contactor (SSR or SSC) is an electronic component that switches Power (AC or DC current) to a load circuit and provides electrical isolation between an application's control

circuit and load circuit. It is a competitive technology to Electromechanical Relays (EMRs) and other switching technologies such as Mercury Displacement Relays (MDRs).



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# Ratings by Mounting Type\*



▼ PANEL



▼ DIN RAIL



▼ PCB



▼ PLUG-IN

## AC Output

Voltage (Volts)	Single	690	660	660	280
	Dual	660	600	280	
Current (Amps)	3 Phase	530	600	280	
	Single	150	65	40	5
	Dual	50	6	15	
	3 Phase	75	75	15	

## DC Output

Voltage (Volts)	1000	250	200	100
Current (Amps)	160	30	20	10

\*Sensata's maximum ratings per channel

# Solid State Relay Applications

There are literally thousands of individual uses for Solid State Relays. Most can be categorized into the following applications:



## Motion Control

Includes conveyor systems, solar trackers, fans, solenoid, valve control, elevators, lifts, hoists, and exercise equipment.



## Heating Control

Applications include: professional food equipment, plastic molding/extrusion machinery, HVAC&R and soldering equipment.



## Power Control

Includes power supplies, transformers, regulators, inverters, converters, UPS systems, etc. as well as any load that is not specifically for heating, lighting or motion control.



## Lighting Control

These applications are usually broken down into three categories: theatrical, warehouse and commercial. Many of the products used in this segment are custom designed.