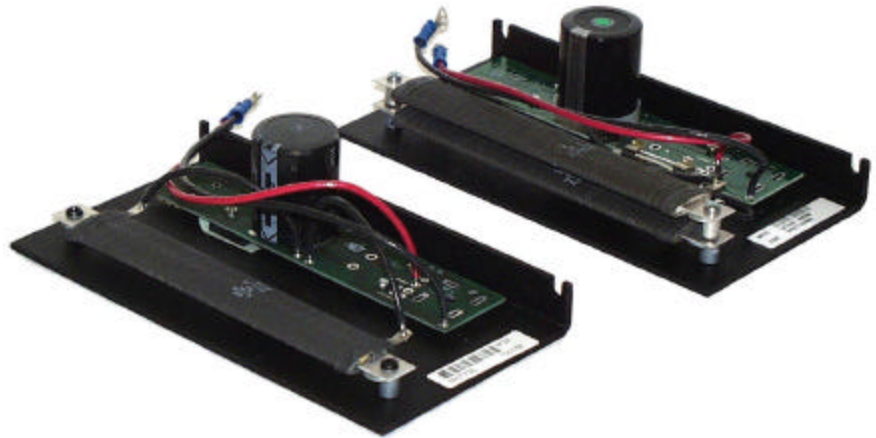


**SERIES SRST SHUNT-REGULATORS**

**Models: SRST50, SRST70, SRST80, SRST 90\*, SRST135, SRST175, SRST185, SRST380, SRST400**

**FEATURES:**

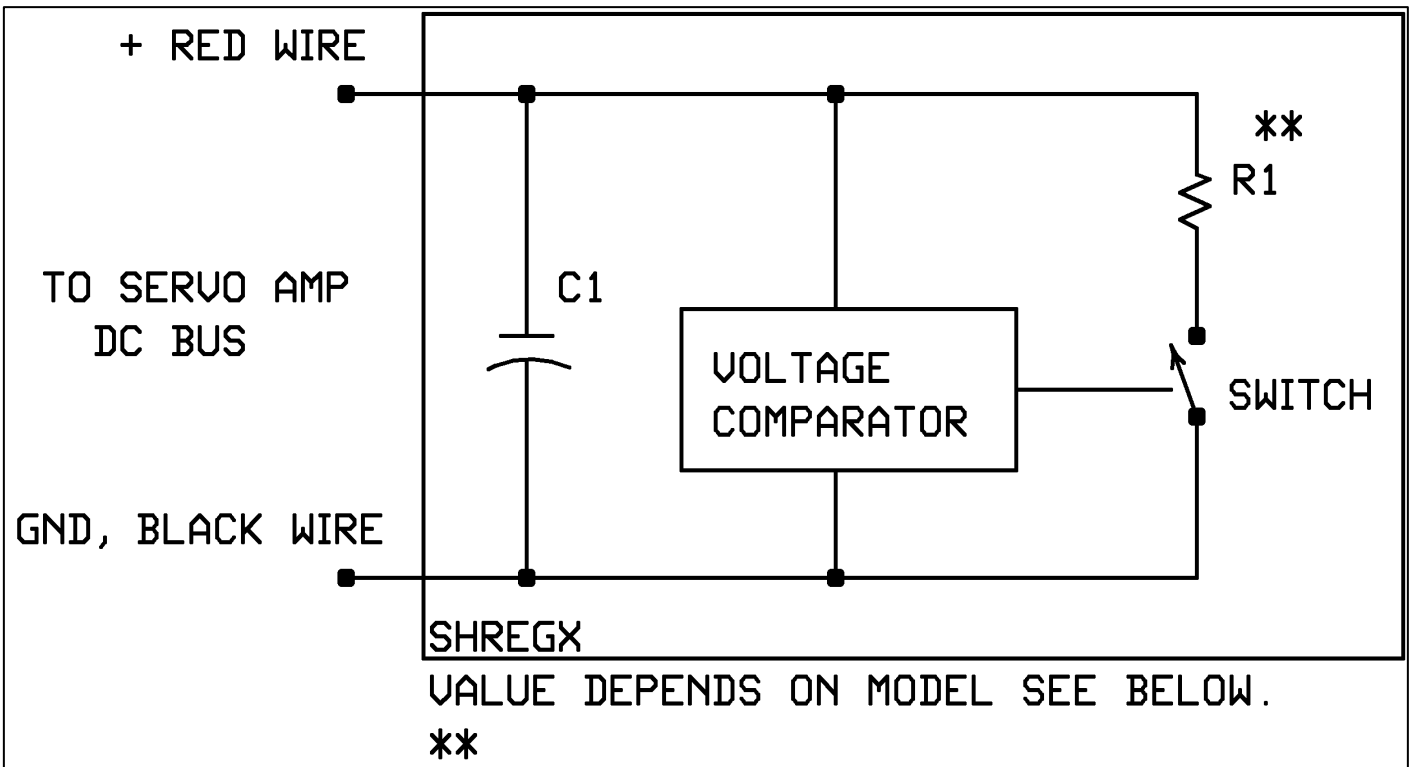
- Dissipates excess kinetic or potential energy to prevent amplifier over voltage shut down
- Small size, low cost, ease of use
- Agency approvals:



SRST175

SRST400

**BLOCK DIAGRAM:**



**DESCRIPTION:** The SRST Series shunt-regulator assemblies are designed to work with *ADVANCED MOTION CONTROL'S* four quadrant regenerative servo amplifiers. During braking most of the stored mechanical energy is fed back into the power supply, which charges the output capacitor to a higher voltage. If the charge reaches the amplifier's over-voltage shutdown point, motor control and braking will cease. To ensure smooth braking of large inertial loads the use of a shunt-regulator is recommended. Verify the need for a shunt regulator by operating the servo under the worst case braking condition. If the amplifier shuts off due to over-voltage (blinking red LED) a shunt regulator is necessary (typically during downward move or deceleration).

**OPERATION:** When the DC bus reaches the shunt voltage of the shunt-regulator assembly, the voltage comparator unit turns on the electronic switch, which connects the R1 power resistor across the DC bus. This power resistor dissipates the energy from the DC bus. After the bus voltage is reduced to less than the shunt voltage setting the resistor is disconnected from the bus. A small hysteresis loop allows time between switching. The SRST assemblies are available with standard shunt voltages of 50, 70, 80, 90, 135, 175, 185, 380 and 400 Volts.

Models SRST50, 70, 80, 90, 135, 175, 185 are designed for use with our 200 Volt amplifiers. These models have a 200VDC, 1200µ F filter capacitor in them.

Models SRST380 and SRST400 are designed for use with our 400-Volt amplifiers. These models have a 450 VDC, 330µF filter capacitor in them. Contact factory for custom trip voltages.

| SPECIFICATIONS          | FOR SHUNT VOLTAGES<br>UNDER 200 V                        | FOR SHUNT VOLTAGES<br>OVER 200 V                         |
|-------------------------|--|--|
| FUUSE                   | 3 A Motor Delay rated @ 250 VAC                          |  |
| FILTER CAPACITANCE      | 1200 µF  | 330 µF   |
| DISIPATION CAPABILITIES | 95 W   | 190 W  |
| RESISTANCE              | 5 Ω  | 20 Ω   |
| SIZE                    | 8.00 x 4.25 x 2.63** inches<br>203.2 x 108.0 x 66.7** mm | 8.00 x 4.25 x 2.13** inches<br>203.2 x 108.0 x 54.0** mm |
| WEIGHT                  | .32 lbs.<br>.14 Kg.                                      | .46 lbs.<br>.21 Kg.                                      |

\* Contact factory regarding UL recognition.

\*\* Worst-case height dimension. Height based on output voltage. See mounting dimensions for additional details.

**MOUNTING DIMENSIONS:** See page F-30.

