INSTALLATION GUIDE

HS SERIES

HEAT SINKS & ASSEMBLIES

Sensata Technologies

This installation sheet includes detailed mounting instructions which apply for most Crydom HS Series Heat Sinks & Assemblies. Be sure to visit the product series' datasheet available at the Sensata website to complement this information. If you have questions or need additional information please contact Sensata Tech Support.
Please read all mounting instructions before using your HS Series Heat Sinks & Assemblies.

INSTALLATION INSTRUCTIONS

Choose one of the two mounting options according to the selected heat sink or assembly and follow the instructions.

Mounting an SSR onto a Heat Sink

- Select adequate heat sink (see thermal derating curves in product series' datasheet).
- Be sure to use a thermal pad or thermal compound (0.006 - 0.008 in layer thickness recommended) between the SSR and the selected heat sink.
- SSR mounting slots have a diameter of 0.2 in (5.0 mm). Two screws are needed to mount a single phase or dual SSR onto heat sink (See fig. 1). HS Series Heat Sinks include the necessary hardware to mount the relay(s) onto the heat sink. The number of hardware kits (HK1 or HKM1) included depends upon the number and type of SSRs possible to install on each heat sink. Recommended screw size is 8-32 (UNC standard) or M4 (metric) depending on the selected heat sinks. If you provide your own mounting screws choose screw length considering the mounting surface hole depth and SSR baseplate thickness.
- Before applying full torque tighten down both screws until they contact the baseplate. Then, tighten them to 20 lb-in (2.2 Nm).
- For optimal thermal performance heat sink fins should be oriented vertically to promote natural convection airflow. (See fig.2)
- For Panel Mounting install as shown in fig.3. Recommended screw size is 8-32 (UNC standard) or M4 (metric).
- For DIN Rail Mounting install as shown in fig.4. Vertical mounting operation is recommended.

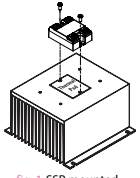

fig. 1 SSR mounted on HS053 heat sink(A)

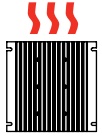

fig. 2 Maximum heat sink dissipation on natural convection

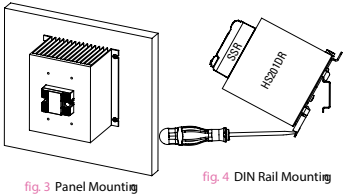

fig. 3 Panel Mounting

fig. 4 DIN Rail Mounting

Terminals

- **S1 Generation 4 SSRs**
  Screw type, touch safe. Input: 6-32, Combo Drive. Output: 8-32, Combo Drive. Maximum screw torque is 15 lb-in (1.7 Nm) on input and 20 in-lbs (2.2 Nm) on output.
- **Evolution Dual Series**
  Screw type, finger proof. Output: 8-32, Combo Drive. Maximum screw torque is 20 lb-in (2.2 Nm) on output.
- **53TP Series**
  Screw type, finger proof (IP20 only). Input: 6-32, Combo Drive, Output: 8-32, Combo Drive. For IP00 models, Input: 6-32, Combo Drive, Output: 10-32, Combo Drive. Maximum screw torque is 10 lb-in (1.1 Nm) on input and 20 lb-in (2.2 Nm) on output.
- **PM67 Series**
  Clamp cage type, finger proof. Input: M2.5, Philips Drive. Maximum screw torque 5 lb-in (0.5 Nm). Output: 8-32, Combo drive. Maximum screw torque is 20 lb-in (2.2 Nm).

Wire Size

- **S1 Generation 4 SSRs**
  Maximum wire size capacity per terminal: input AWG #12 (3.3 mm^2) x 2, output AWG #8 (8.4 mm^2) x 2. Choose wire gauge according to actual load current. For larger wire sizes use lug terminals. See compatible accessories in corresponding datasheet.
- **Evolution Dual Series**
  Maximum wire size capacity per terminal: output AWG #8 (8.4 mm2) x 2, for detail in input terminal see SSR's datasheet. Choose wire gauge according to actual load current. For larger wire sizes use lug terminals. See compatible accessories in corresponding datasheet.
- **53TP Series**
  Maximum wire size capacity per terminal: input AWG #14 (2.1 mm2), output AWG #8 (8.4 mm2). Choose wire gauge according to actual load current. For larger wire sizes use lug terminals. See compatible accessories in corresponding datasheet.
- **PM67 Series**
  Maximum wire size capacity per terminal: Input AWG #12 (3.3 mm^2), Output AWG #3 (26.67 mm^2). Choose wire gauge according to actual load current.

Important Considerations

- Be sure to use input and output voltages within operating ranges.
- LED indicates only input status. It does not represent output status.

TABLE 1. Heat Sink Compatibility							
Thermal Resistance [°C/W]	Part Number		Relay Capacity				Complementary Accessories
	Panel Mount	DIN Rail Mount	Half Puck 22.5 mm	Hockey Puck 45 mm	Large Puck 67.5 mm	Large Puck 74 mm	
5.0	-	HS501DR		1			HKM1
3.0	HS301	HS301DR		1			HK1, HK2, DRK1
2.5	-	HS259DR	1				HK8
2.5	HS251	-		1			HK1
2.0	HS202	HS202DR		2			HK1, HK2, DRK1
2.0	HS201	HS201DR		1			HK1, HK2, DRK1
1.7	HS172	-		2			HK1, HK2
1.5	HS151	HS151DR		1			HK1, HK2, DRK1
1.2	HS122	HS122DR		2			HK1, HK2, DRK1
1.0	HS103	HS103DR		3		1	HK1
1.0	HS101	-		1		1	HKM1
0.7	HS073	-	3	3	1	1	HK1
0.7	HS072	-	1	2			HK1
0.5	HS053	-	3	3	1	1	HK1
0.36	HS033	-	3	3	1	1	HK1
0.25	HS023	-	3	3	1	1	HK1

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