

Control Panels

SCR Control Panels

A full SCR control system with PID temperature control is recommended for industrial heating applications which must accommodate material flow changes and provide the highest degree of accuracy for outlet temperature control.

Standard Features:

- PID self-tuning temperature controller (adjustable process temperature, with thermocouple input)
- Three-phase, zero cross-fired, SCR power controllers
- NEMA 12 painted steel enclosure, wall mount unless otherwise noted
- Overtemperature controller (adjustable temperature limit with thermocouple input)
- Door interlock disconnect switch
- Manual reset pushbutton with built-in pilot light (red) for visual "OVERTEMPERATURE" alarm
- Selector switch – ON/OFF with built-in pilot light (green) for "POWER ON" indication
- Control power transformer
- Safety contactors
- Circuit fusing
- Ventilating fan and filter when required

Amps	No. of Circuits	Amps Per Circuit	Maximum KW		Dimensions (Inches)			Estimated Weight (lbs)
			240V/3PH	480V/3PH	Height	Width	Depth	
SCR panels with externally mounted heat sinks								
48	1	48	19	39	24	24**	8	95
70	1	70	29	58	30	24**	8	115
96	2	48	39	79	30	24**	8	125
140	2	70	58	116	42	30**	8	205
144	3	48	59	119	36	30**	8	195
210	3	70	87	174	48	36**	8	310
192	4	48	79	159	42	30**	8	225
280	4	70	116	232	60	36**	8	385
240	5	48	99	199	48	36**	8	320
350	5	70	145	290	60	36**	8	415
SCR panels with internally mounted heat sinks, fan and filter								
295	6	48	119	239	60	36	16	405
425*	9	47	175	351	60	48	16	660
590*	12	48	329	478	60	60	16	750
850*	18	47	351	703	72	72	16	1090

* These panels have double doors and 12" high floor stands.

** Additional 9" clearance required for externally mounted heat sinks which may be mounted on one or both sides of the enclosure for proper convection cooling.

SCR Power Controllers modulate the entire heater load directly, varying the heater output from 0 to 100% of the total heater KW. Working on a four second time base, the heater will be energized only for the number of AC cycles necessary to produce the exact amount of heat required. The resulting precision control and rapid response make the Heatrex Controls SCR the choice for many heating applications. For example, multi-stage discharge temperature control of a heater can produce unacceptable temperature swings, resulting in inefficient energy use. The same heater controlled by the SCR and

process temperature controller will produce stable, even heat for maximum performance and efficiency.

The SCR's power switching devices are mounted on a large finned heat sink which extends outside the heater terminal box or control panel. The conservative SCR rating and this generous heat sink insures against overheating and SCR failure.