

Current Limit Phase Angle SCR Power Control to 200A @ 40C 1P-HC Series



- **True linear power output phase angle control**
- **Suitable for inductive loads to 600VAC**
- **Inputs of 4-20mA, 0-10V, 0-5V, Pot, PWM, etc.**
- **Adjustable Current or Voltage limit**
- **Line voltage compensation increases process stability**
- **Configurable Soft Change for sensitive loads**
- **Automatic 50/60Hz operation**
- **Compact heatsink w/ integral Fan and Thermal Interlock**
- **LED output and current limit indicators**

Product Description

The microprocessor based 1P-HC SCR Power Controller is a compact panel mount package that provides linear phase angle control of the load. The output power is based on the command input and the current transformer feedback. The input can be dip switch selected from seven different industry standard inputs. Specially designed external snubber networks allow reliable control of inductive loads.

Ordering Codes

1P-HC-XXX-XXX-XXX

Single Pole
Phase Angle
High Current

Fan / Driver (120) VAC
Voltage: (240) VAC

Options:

-XSS (Softstart Time)
-XSC (Soft Change Time, default is 1 seconds)

-LIV (Linear RMS Voltage Output, RMS PWR is Default)

Input Specifications

Power Supply	120 or 240VAC +/-10%, 100mA max
Frequency Range	47-63Hz
Command Inputs	4-20mA, 0-20mA, 0-5V, 1-5V, 0-10V, 2-10V, Pot, PWM
External Potentiometer Resistance	10-25KOhm
Command Input Impedance	10K (0-10V), 250 Ohms (4-20mA), 100K (0-5V)
PWM Input Frequency Range	10Hz - 15KHz
PWM Input Level	5 - 24Vp-p (Logic level or PLC PWM outputs)
Current Transformer Input Range	0-200mAAC (0-5VAC) for use with 500 to 5000T CTs
Command to Mains / SCR Isolation	2500Vrms
Default Softchange Period	1 seconds to reach 100%
Voltage Limit Adjustment Range	0-100% of max. Output voltage
Line Voltage Compensation Range	+/-15% up to 100% output power
Regulation	+/-2%

Output Specifications

Operating Voltage (47-63 Hz) [Vrms]	12-600
Load Current Range [Arms]	1-200
Transient Overvoltage [Vpk]	1300
Max. Surge Current, (8.3ms) [Apk]	2500
Max. On-State Voltage Drop [Vpk]	1.6
Max. I ² t for fusing (8.3mS) [A ² sec]	62500
Max. Off-State Leakage Current [mArms]	50

Thermal Specifications

Operating Temperature Range	0 to 50 degC, max current Ratings are for 40C
Storage Temperature Range	-40 to 100 degC

Dip Switch Selections

Command Input	1	2	4	5	6
0-5V (Default)	OFF	OFF	OFF	OFF	OFF
Potentiometer	OFF	OFF	OFF	OFF	OFF
0-10V	OFF	ON	OFF	OFF	OFF
4-20mA	OFF	OFF	OFF	ON	ON
1-5V	OFF	OFF	OFF	OFF	ON
2-10V	OFF	ON	OFF	OFF	ON
PWMF (Fast)	OFF	OFF	ON	OFF	OFF
PWMS (Slow)	ON	OFF	ON	OFF	OFF

Feature to Enable	3	7	8
None	ON		
Line Voltage Comp Enabled (default)	OFF		
Soft Start / Soft Change Enabled		ON	
Current Limit			ON

Dimensions

