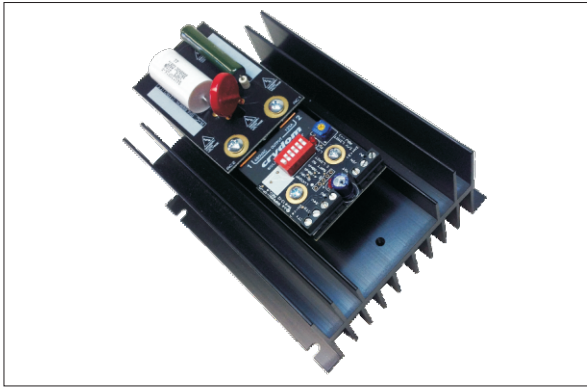


Current Limit Phase Angle SCR Power Control to 80A @ 40C 1P-CL-N Series



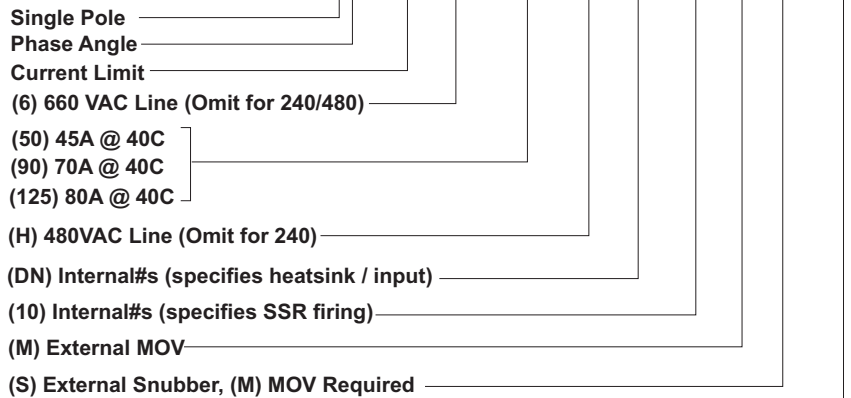
- **True linear power output phase angle control**
- **Suitable for inductive loads**
- **Small module mounts on the input terminals of an SSR**
- **Inputs of 4-20mA, 0-10V, 0-5V, Pot, PWM, etc.**
- **Adjustable Current or Voltage limit**
- **Line voltage compensation increases process stability**
- **Configurable Soft Change for sensitive loads**
- **Automatic 50/60Hz operation**
- **Single phase and three phase control**
- **LED output and current limit indicators**

Product Description

The microprocessor based 1P-CL 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-CL-X XXX X DN-10-M-S-XXX



Options:

- XSS (Softstart Time)
- XSC (Soft Change Time, default is 2 seconds)

Input Specifications

Control Card Power Supply	24VAC +/-15%, 65mA max
Frequency Range	47-63Hz
Command Inputs	4-20mA, 0-20mA, 0-5V, 1-5V, 0-10V, 2-10V, 0-135Ohm, Pot, PWM
Command Input Impedance	10K (0-10V), 250 Ohms (4-20mA), 100K (0-5V)
0-135Ohm Excitation Current	13mA
PWM Input Freq Range	10Hz - 100Khz
External Potentiometer Resistance	1-25KOhm
Current Transformer Input CT1/CT2	100mA AC = 100A (For use with 1000 Turn CT) 100mA AC max.

Output Specifications

MODEL	1P-50DN	1P-50HDN	1P-90HDN	1P-125HDN
Operating Voltage (47-63 Hz) [Vrms]	24-280	48-530	48-530	48-530
Load Current Range [Arms]	.04-45	.04-45	.04-70	.04-80
Transient Overvoltage [Vpk]	600	1200	1200	1200
Max. Surge Current, (16.6ms) [Apk]	625	625	1200	1750
Max. On-State Voltage Drop [Vpk]	1.6	1.7	1.7	1.7
Max. I ² t for fusing (8.3mS) [A ² sec]	1620	1620	6000	12,700
Max. Off-State Leakage Current [mArms]	10	10	10	10 (without snubber)
Power Factor (Min.) with Max. Load	0.5	0.5	0.5	0.5
Response Time	20mS (with soft change disabled)			
Linearity	2%			
Default Soft Change Period	2 seconds to reach 100%, Other SC times available			
Voltage Limit Adjustment Range	5-100% of max. Output voltage			
Line Voltage Compensation Range	+/-15% up to 100% output power			
Current Limit Accuracy	+/-5% of full scale (50 or 100A)			

Thermal Specifications

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

Dip Switch Selections

Command Input	3	4	5
0-5V (Default)	OFF	OFF	OFF
Potentiometer	OFF	OFF	OFF
0-10V	OFF	OFF	ON
4-20mA	ON	ON	OFF
0-20mA	OFF	ON	OFF
1-5V	ON	OFF	OFF
2-10V	ON	OFF	ON
10Hz-20KHz PWM	OFF	OFF	OFF

Feature to Enable	1	2	6
None	OFF	OFF	ON
Line Voltage Comp Enabled (default)			OFF
Soft Change		ON	
Current Limit	ON		
Voltage Limit	OFF		

Dimensions

