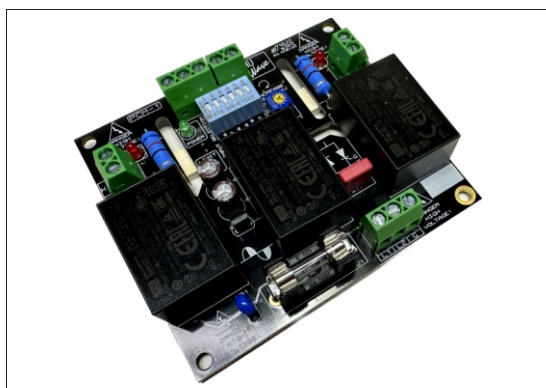


PHASE ANGLE SCR DRIVER BOARD for INDUCTIVE LOADS - PCM-1P

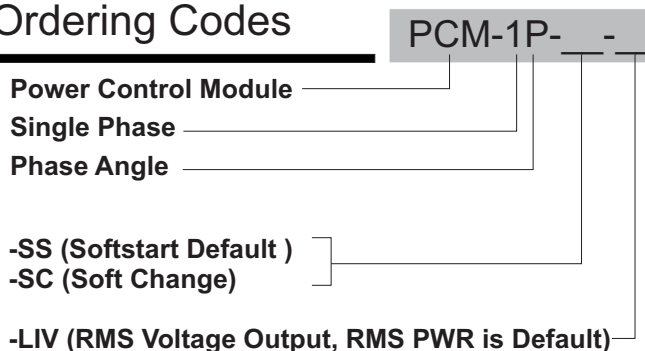


- **Back to Back SCR Driver provides DC gate drive**
- **Linear output phase angle control w/current feed back**
- **Suitable for resistive or Inductive Loads**
- **Inputs Accepts 4-20mA, 0-10V, 0-5V, Pot, PWM**
- **Configurable soft start / change for high inrush loads**
- **Automatic 50/60Hz and 120/208/240VAC operation**
- **Adjustable voltage and current limit**
- **LED power and output indicators**

Product Description

The microprocessor based PCM-1P provides true linear phase angle of SCRs for resistive and inductive loads. The output power is proportional to the command input which can be dip switch selected from several industry standard inputs. The high current gate drive is suitable for large SCRs.

Ordering Codes



Input Specifications

Power Supply	100-265 VAC, 50mA max
Frequency Range	47-63Hz
Command Inputs	4-20mA, 0-20mA, 0-5V, 1-5V, 0-10V, 2-10V, Pot, PWM (TTL Level)
External Potentiometer Resistance	1K - 25KOhm
Command Input Impedance	10K (0-10V), 250 Ohms (4-20mA), 100K (0-5V)
Current Transformer Input Range	0-200mAAC Full Scale
Command to Mains / SCR Isolation	2500Vrms

Output Specifications

SCR Drive Output	Initial pulse peak current of ~1.6A w/rise time of ~200nS, maintain current of ~160mA; See the SCR gate drive profile.
Response Time	<50mS
Linearity	2%

Output Specifications(cont.)

Soft Start / Change Period	0.5, 1, 4 seconds (select via dip switch)
Voltage Limit Adjustment Range	0-100% of max.Line voltage

Thermal Specifications

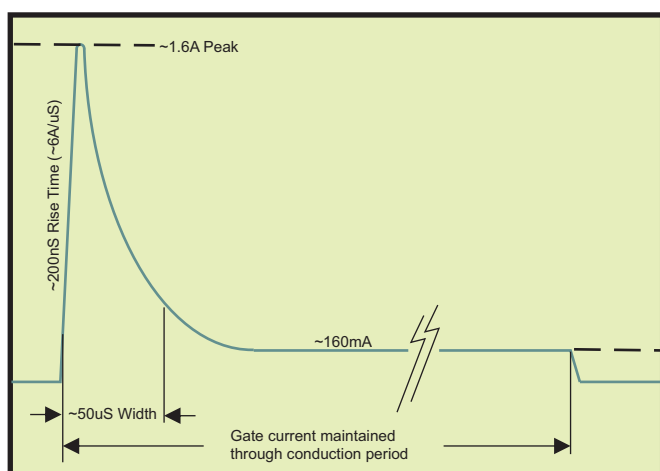
Operating Temperature Range	0 to 50 degC
Storage Temperature Range	-40 to 100 degC

Dip Switch Selections

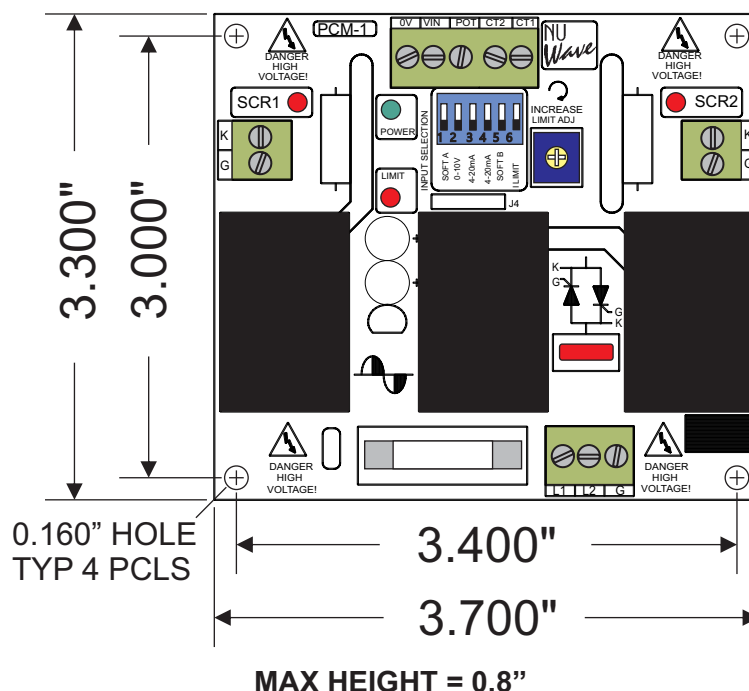
Command Input	2	3	4
0-5V (Default)	OFF	OFF	OFF
Potentiometer	OFF	OFF	OFF
0-10V	ON	OFF	OFF
4-20mA	OFF	ON	ON
1-5V	OFF	OFF	ON
2-10V	ON	OFF	ON

Feature	1	5	6
Soft Start / Soft Change OFF	OFF	OFF	
Soft Start / Soft Change 0.5 sec	ON	OFF	
Soft Start / Soft Change 1 sec	OFF	ON	
Soft Start / Soft Change 4 sec	ON	ON	
Voltage Limit			OFF
Current Limit			ON

Gate Drive Profile



Dimensions



Safety Information

Responsibility for determining the suitability of this product for use in any application rests solely with the purchaser, OEM, and/or end user. The complete system involving this component must be tested and validated by the OEM against all applicable standards (UL, cUL, CE, NEC, etc.).



WARNING: FIRE HAZARD!! Even quality electronic components CAN FAIL WITH LOCKED OUTPUTS KEEPING FULL POWER APPLIED! Purchaser/OEM/end user must provide INDEPENDENT (redundant) OVER TEMPERATURE SHUTDOWN DEVICE to remove power if safe temperatures are exceeded.



WARNING: HIGH VOLTAGE!! This control board operates at hazardous voltages that can cause serious injury or death. It must be installed in a grounded enclosure by a qualified electrician in compliance with applicable codes. Provide a safety interlock on the enclosure door to remove power before access.

LIMITED WARRANTY

NuWave Technologies, Inc. ("NuWave") warrants this product to be free from defects in workmanship and materials for a period of **one (1) year** from the date of original purchase. NuWave's sole obligation under this warranty shall be, at its option, to repair or replace any product proven defective during the warranty period.

- This warranty is void if the product shows evidence of tampering, misuse, misapplication, or exposure to excessive heat, moisture, or corrosion.
- Components subject to normal wear (including relays and other consumables) are excluded.
- This product contains no user-serviceable parts. Return to the factory for evaluation.

EXCEPT AS EXPRESSLY PROVIDED ABOVE, NUWAVE MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

LIMITATION OF LIABILITY: In no event shall NuWave be liable for consequential, incidental, special, or indirect damages of any kind, including but not limited to property damage, loss of profits, or loss of use. NuWave's total liability under any legal theory shall not exceed the purchase price paid for the product giving rise to the claim.

Disclaimer: Specifications and descriptions in this document are subject to change without notice. Performance characteristics are typical values and may vary depending on application conditions.

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