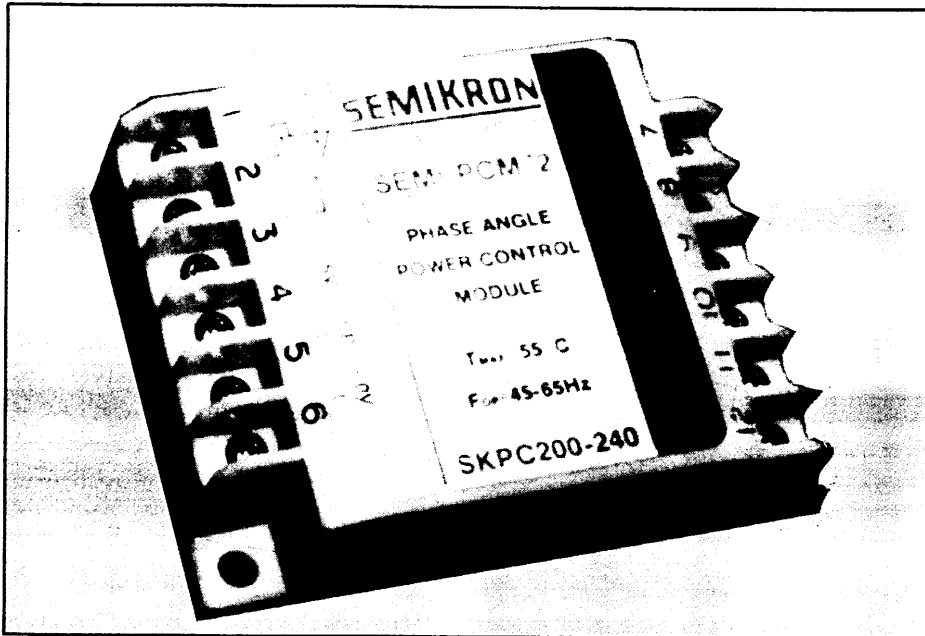


# SEMIKRON

innovation + service



SKPC 200 is one of the new generation of Semikron Power Control Modules (SEMI-PCM). The new high specification design provides an optimum level of isolated gate drive for a wide range of SCR's connected to form powerful AC to AC regulators or AC to DC Power Supplies.

The new design can be used to control most of the standard power circuits such as WIC, B2HZ and B2HK. SKPC 200 can be powered from a separate aux.power supply thus allowing the SCR power circuit to be operated on NON-STANDARD voltages.

The new design incorporates a number of very important features such as GATE STEERED firing required for highly inductive loads, un-committed OP-AMP to allow FEEDBACK control, and gate output drive SHORT CIRCUIT protected. Additionally both 50/60HZ can be accommodated and internal 5V ref. has a HIGH OUTPUT current capability ideal to power EXTERNAL control circuits.

The excellent package, which integrates an internal supply transformer, is fully compatible for mounting with SEMIPACK 1 to SEMIPACK 4 SCR modules. The input and output SCREW terminal connections are both electrically and mechanically isolated.

210-730

SKPC200  
PHASE ANGLE  
CONTROL

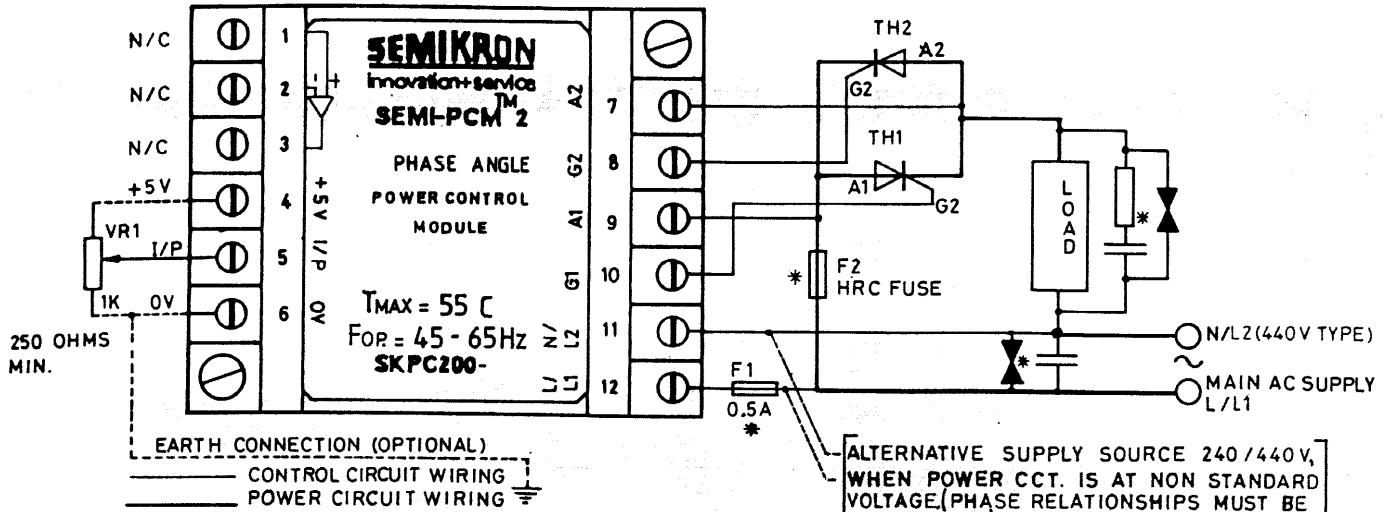
## MAIN FEATURES

- \* Fully Isolated protected input
- \* Aux.5V Supply
- \* Internal Supply TRF
- \* Conforms to UL, CSA and VDE requirements
- \* Short Circuit protected
- \* High specification

## TYPICAL APPLICATIONS

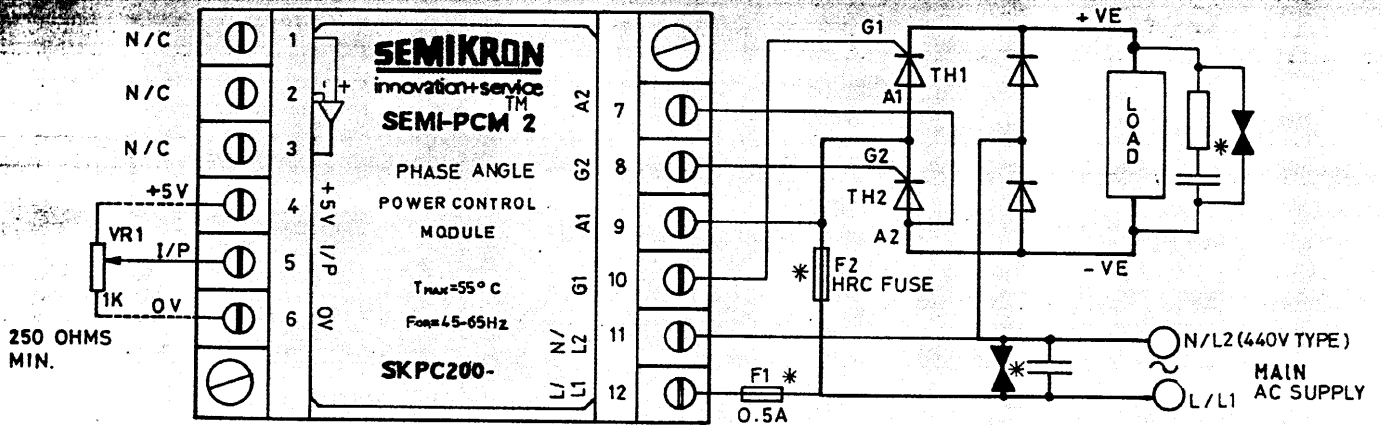
- \* Heating Loads
- \* Power Supplies
- \* High inrush current loads
- \* DC injection braking
- \* Motor Control

\* RECOMMENDED PROTECTIVE COMPONENTS APPLICABLE TO ALL CCTS, AS FOLLOWS.

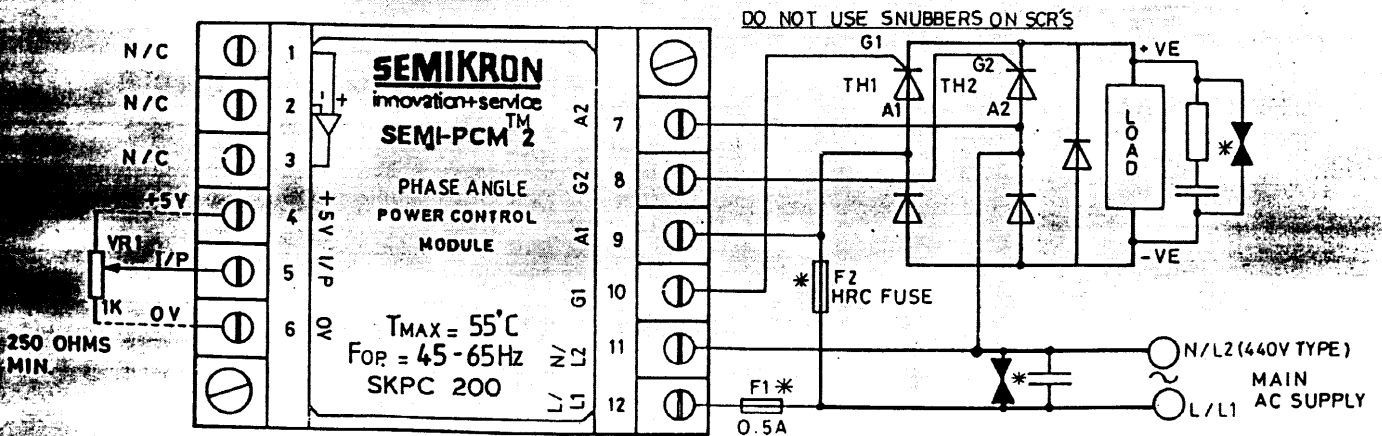


ALTERNATIVE SUPPLY SOURCE 240/440V, WHEN POWER CCT. IS AT NON STANDARD VOLTAGE, (PHASE RELATIONSHIPS MUST BE MAINTAINED)

**BASIC A.C. REGULATOR (W1C) WIRING**



**HALF CONTROLLED D.C. BRIDGE (B2HZ) WIRING**



**ALTERNATIVE HALF CONTROLLED D.C. BRIDGE (B2HKF).**

DO NOT USE SNUBBERS ON SCR'S

PRODUCT TYPES:

SKPC200 - 115  
 SKPC200 - 240  
 SKPC200 - 440

FOR VOLTAGE SUPPLY OF 115Vrms  
 FOR VOLTAGE SUPPLY OF 240Vrms  
 FOR VOLTAGE SUPPLY OF 440Vrms

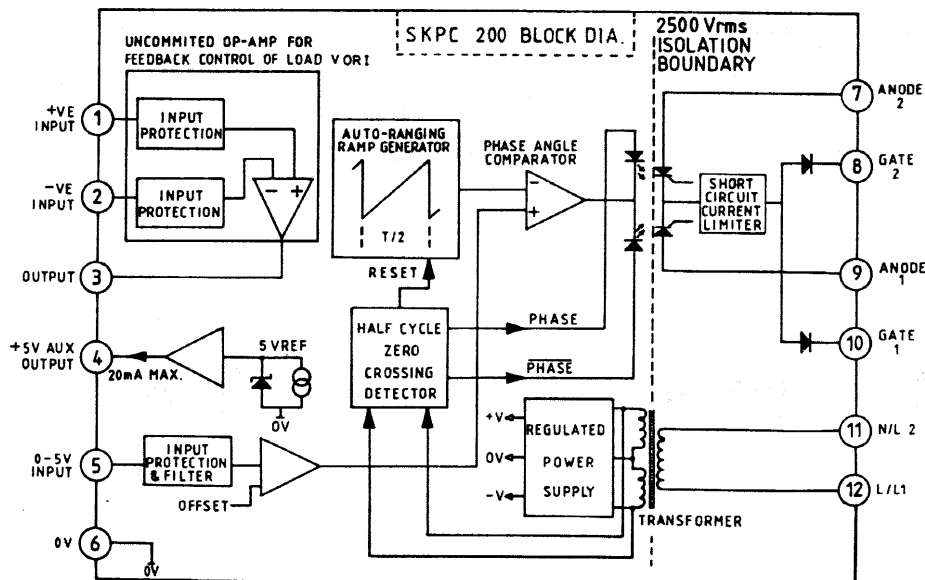
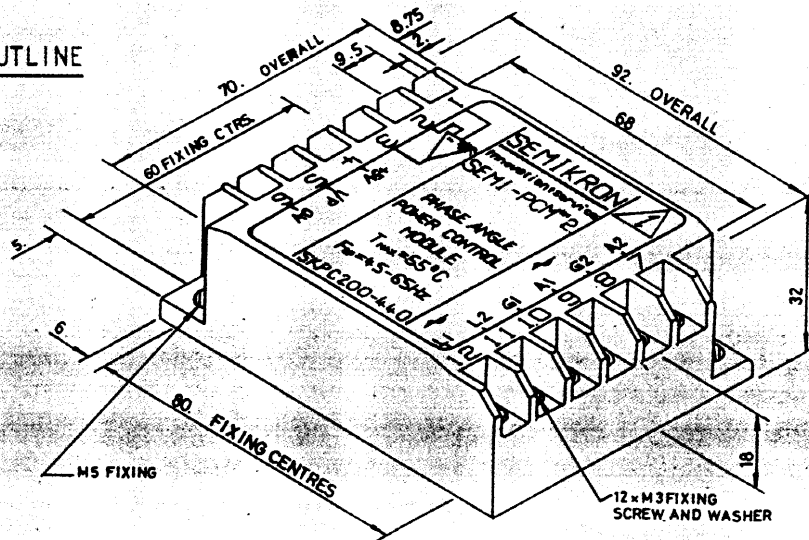
ELECTRICAL SPECIFICATIONS:

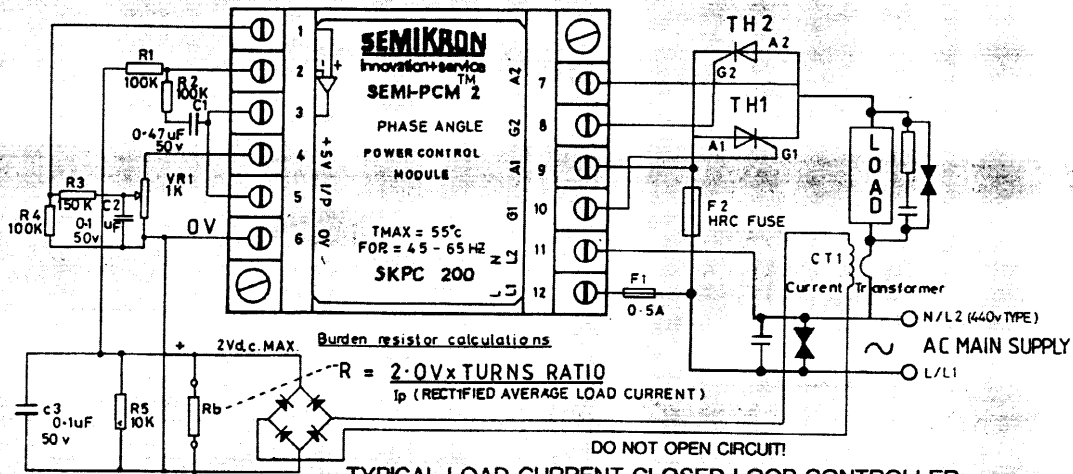
Operating Supply Voltage	Nom. + 10%, -15%
Operating Frequency	45 - 65Hz
Input Control/Impedance	0 - 5V/100K Ohm min.
Controllable Retard Angle	180 Degrees typical
Peak Gate Output Current	1.9A @ Vs = Max. @90° Angle
Gate Short Circuit Response	250 - 500mSec.
Critical Dv/Dt	500V/μS min. for 240V type 100V/μS min. for 440V type
Reference Output Aux. Voltage	5V @ 20mA min.
Uncommitted OP-AMP Input Voltage	+/- 10V Terminal 1 & 2
Uncommitted OP-AMP Output Swing	+/- 10V Terminal 3
Input/Output Isolation	2.5KV rms

MECHANICAL SPECIFICATIONS:

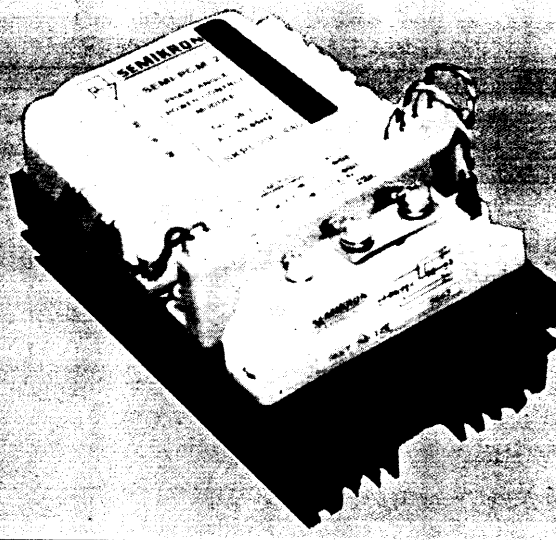
Storage Temperature	-40°C to +125°C
Operating Temperature/Humidity	0 to + 55°C/80%RH
Flame Retardance	UL94 - VO
Weight	320gms
Mounting	80mm Centres, 2Nm Torque
Hardware Supplied	2 x M5 Mounting Screws

MECHANICAL OUTLINE





(FOR VOLTAGE FEED BACK CONTROL REPLACE CT1 WITH A VOLTAGE TRANSFORMER AND CONNECT PRIMARY ACROSS THE LOAD TO ISOLATE FEEDBACK SIGNAL)  
 NOTE: ALL ABOVE EXTERNAL COMPONENTS ARE OF SUGGESTED VALUES. EXPERIMENTATION IS NECESSARY TO OPTIMISE, PARTICULARLY R2 & C1 TO SUIT DIFFERENT TIME CONSTANTS OF APPLICATIONS.



Within this SEMI-PCM range, there are a number of other Power Control Modules as follows:

- SKPC100
- SKPC150 I.C.
- SKPC300
- SKPC500
- SKPC600

- Zero Voltage or Instantaneous trigger control module to interface low level TTL/CMOS circuits with power SCR's
- A 20 pin custom Microchip for multi-channel digital phase angle control. Parallel or serial interface to micro-processors for controlling thyristors.
- Three Phase Thyristor Controller for both AC to AC or AC to DC bridge applications.
- Low cost Burst Firing Controller for heating loads
- Precision Burst Firing Controller with compensation for supply voltage variation and maximum power limit facility

The above controllers can be supplied as fully assembled Power Semiconductor assemblies - SEMISTACK (refer to photograph as above) consisting of heatsinks, fuses, snubber networks and SCR's etc. Contact our Sales Office for custom designs for specific applications.

Due to Semikron's policy of constant improvement and technical innovation, we reserve the right to make changes in these specifications at any time without notice.

**SEMIKRON**  
 innovation+service  
 4 Marshgate Drive  
 Hertford. SG13 7BQ  
 TEL: 0992 584677  
 FAX: 0992 554942  
 TLX: 81125



FM No. 09933

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [semikron](#) manufacturer:*

Other Similar products are found below :

[SKD 60/12](#) [SKKT 42B12 E](#) [SKM200GB12T4](#) [SKR 130/14](#) [SKCH 40/16](#) [SKKT 92/18E](#) [SKYPER 32 R](#) [SKKH 27/16E](#) [SKKD 380/16](#) [SKD 110/08](#) [SKD 62/12](#) [SKIIP 36NAB126V1 M20](#) [SKKD 162/20H4](#) [SKKD 380/08](#) [SKKH 72/20E H4](#) [SKKT 250/12E](#) [SKN71/02](#) [SKN 100/12](#) [SKN 100/14](#) [SKR 100/08](#) [SKIIP 24AC12T4V1 M20](#) [SKIIP 28AHB16V1 M20](#) [SKIIP 35NAB126V10 M20](#) [SKKH 570/16E](#) [SKKE 380/16](#) [SKR 130/18](#) [SKKD 26/14](#) [SKKT 570/18E](#) [SKN 130/14](#) [SKPC200-240](#) [SKPC100Z-440](#) [SK 100 WT 12](#) [SK 25 UT 12](#) [SKR70/04](#) [SKD35/16](#) [SKKT 42/08E](#) [SKCH 40/08](#) [SKD 62/18](#) [SKD 82/08](#) [SKIIP 23NAB126V1 M20](#) [SKKQ 1200/14E](#) [SKR 60F12](#) [SKR 100/04](#) [SKR 100/14](#) [SKIIP 37AC12T4V1 M20](#) [SKD 60/16](#) [SKD 62/08](#) [SKDT 60/12](#) [SKKT 106B16 E](#) [SKKD 60F17](#)