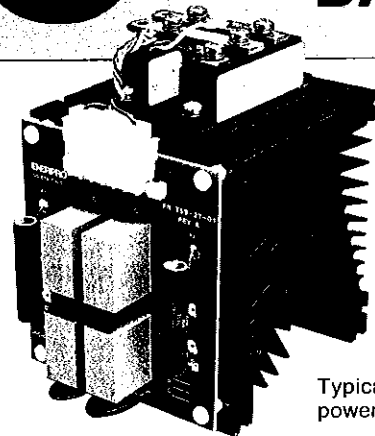


# ENERPRO

## PRODUCT DATA

### MODEL TSB CONNECTORIZED SNUBBER CIRCUIT BOARDS

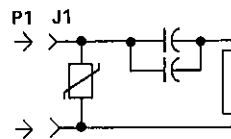


Typical installation on power module cooler

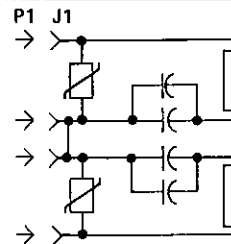
Enerpro snubber circuit boards combine R-C-MOV circuits in a family of easy to install panel mounted circuit boards. Models with one, two, three and six circuits are in production. The accessibility of these highly engineered circuit boards to the static power conversion industry reduces design time and minimizes inventory requirements.

#### APPLICATION:

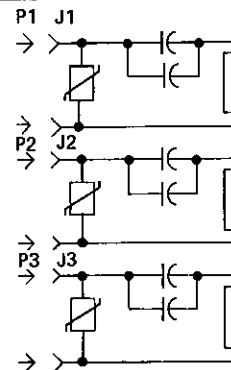
In thyristor converters or ac controllers, a high rate-of-rise in anode-to-cathode voltage, or  $dV/dt$ , occurs when a thyristor ceases conduction or when another thyristor in the circuit is gated into conduction. High peak voltage is produced when an inductive circuit connected to the thyristor is interrupted. The peak and rate-of-rise ( $dV/dt$ ) of the thyristor voltage must be limited to avoid erratic circuit operation and device damage. Connected anode to cathode, the snubber circuit resistor/capacitor limits  $dV/dt$  and the metal-oxide-varistor (MOV) limits peak voltage.



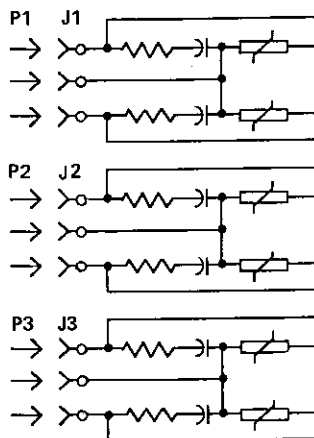
**TSB-1:** A single R-C-MOV circuit for use in AC switch applications with triacs or anti-parallel thyristors.



**TSB-2:** A two R-C-MOV circuit for use in thyristor bridge circuits or other applications where the thyristors have a common connection.



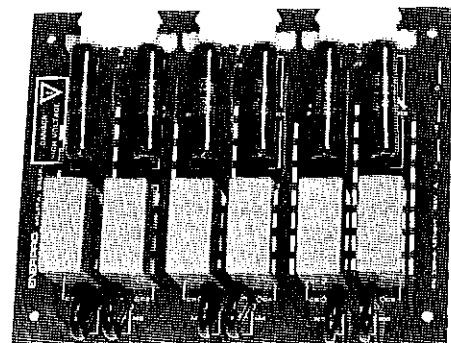
**TSB-3:** A three R-C-MOV circuit for three phase AC controllers or semiconverters.



#### TSB-6:

A six R-C-MOV circuit board. Three phase applications include:

- in-line ac controllers
- two speed motor starters
- reversing motor starters
- star converters
- six or 12 pulse bridge converters
- tap changers



SEE FEATURES ON REVERSE SIDE

## The features of the snubber board family are:

- Heavy weight G10 epoxy-glass material, .093 in. (2.36mm) thick
- Solder masked and urethane coated boards with plated through holes
- Corona-free pulse rated capacitors
- AMP Universal Mate-N-Lok™ connectors for easy changeout
- MOVs rated for 80 Joules(typical)
- Fusible traces for safe MOV operation

## PHYSICAL DESCRIPTION:

Model Number	length x width inches(mm)	mounting hole pattern inches(mm)	connectors
TSB-1.....	5.00(127) x 2.50(64)	4.53(115) x 1.90(48)	one two-position
TSB-2.....	5.00(127) x 4.50(114)	4.53(115) x 3.80(97)	one three-position
TSB-3.....	5.00(127) x 7.50(191)	4.53(115) x 6.75(171)	three two-position
TSB-6.....	6.00(152) x 7.50(191)	5.00(127) x 6.75(171)	three three-position

## Part Number Buildup: Model

