



# Rectifier & SCR Assemblies

## Overview

Powerex is your source for diode and SCR rectifier assemblies in a wide range of configurations and ratings (up to 6500V, 4000A).

## Applications

- Motor controls – Low Voltage and Medium Voltage converters  
SCR power bridges for solid state starters  
SCR and diode based input rectifiers  
Crowbar systems for motor drives
- Wind power (alternative energy) – Converters available as diodes, SCRs or IGBTs
- Transportation – Traction rectifiers and auxiliary rectifiers
- Inductive heating – Input rectifiers
- Welding systems – Input rectifiers and fast recovery diodes
- Uninterruptible power supplies – SCR transfer switches and input rectifiers
- Electroplating systems – Input SCRs and output rectifiers
- Aviation – Standby power distribution, resistive heating
- Mining – SCR power bridges, solid state starters and input rectifiers
- Power distribution – SCR based transformer tap changers
- Military, hybrid vehicles and power supplies
- Solid state SCR based switches

Powerex complements its rectifier products with IGBT assemblies for inverters, converters, choppers, and full or half wave bridge units. These assemblies can also be combined to provide a system-wide solution.



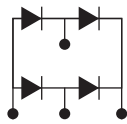
## How to Select the Proper Assembly for Your Needs

Areas to consider when selecting the proper assembly.

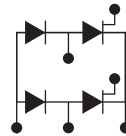
**Application:** \_\_\_\_\_

### Type of circuit:

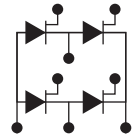
Single phase  
bridge



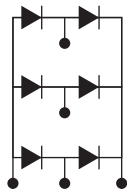
Single phase half  
controlled bridge



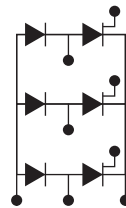
Single phase full  
controlled bridge



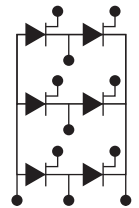
Three phase  
bridge



Three phase half  
controlled bridge



Three phase full  
controlled bridge



### Electrical parameters:

Maximum continuous output current (amps): \_\_\_\_\_

Maximum overload:

Output DC current (amps): \_\_\_\_\_

Overload duration (seconds): \_\_\_\_\_

Input voltage (volts): \_\_\_\_\_

(VAC-RMS for single phase, VAC-RMS line-to-line for three phase)

Line frequency:

50 Hz or  60 Hz Other \_\_\_\_\_ Hz

### Environmental parameters:

Maximum ambient temperature (°C): \_\_\_\_\_

Humidity (0-95% non-condensing): \_\_\_\_\_

Maximum altitude (feet above sea level): \_\_\_\_\_

With this information, Powerex engineers can design the proper assembly to fit your application needs.

For more information:

visit: <http://www.pwr.com/summary/assembly-rectifier.aspx>

email: [globalsales@pwr.com](mailto:globalsales@pwr.com)

phone: 724-925-7272, Option 3 (Applications Engineering Assistance)

