Industrial Power Equipment

- ENERGY SAVING
- SPACE SAVING
- MODULAR POWER PLATFORM
- MULTI-TOWER INTERCONNECTION
- FAST RESPONSE TIME
- HIGH STABILITY TO LOAD VARIATION
- RS485 SERIAL COMMUNICATION INCLUDED
- HIGH POWER FACTOR (> 0.9)
- HIGH EFFICIENCY (> 89%)
- VERY LOW CURRENT RIPPLE
- OUTPUT STABLE PARAMETERS

Q-Series switch-mode rectifiers are designed to meet all galvanic surface treatment requirements. Based on high speed IGBT technology, they provide high efficiency and performance. Compact dimensions and reduced weight versus conventional rectifiers without compromising reliability.

From a unit of 50A to 500A... ... to a powerful installation of 42,000A

American CRS Equipment
1918 Don Lee Pl.
Escondido, CA, 92029
760.489.0669
www.AmericanCRS.com
Air Cooled - IP31
Water Cooled - IP43
1 power module / reverse module
Available in all types:
DC - Direct Current / DCR - Reverse of polarity
PP - Pulsed / PPR - Pulsed with Reverse of polarity

Sizes: 50A / 100-150A / 200-250A / 300A / 400A / 500A
Available with buzzer and push button for E-coat applications

Air Cooled - IP21
Up to 3 power modules / reverse modules
Available in all types:
DC - Direct Current
DCR - Reverse of polarity
PP - Pulsed
PPR - Pulsed with Reverse of polarity

Sizes: Config 01-1 up to 550A DC / 250A DCR
Config 02-2 up to 1100A DC / 550A DCR
Config 03-3 up to 1700A DC / 1100A DCR
Available in IP52 (NEMA 12)
- Air Cooled - IP32
- Water Cooled - IP42
- Up to 9 power modules / reverse modules
- Available in all types:
  - DC - Direct Current
  - DCR - Reverse of polarity
  - PP - Pulsed
  - PPR - Pulsed with Reverse of polarity
- Up to 8000A in one tower.
  Multi-tower expansion for higher requirement
- Available in IP65 (water cooled)

Pulse Plating & Pulse Anodizing

- Available in all models Q100/Q300/Q500
- Up to 50% energy saving
- 30% less process time for the same deposit thickness
- Increase temperature of anodizing solution due to the reduction of oxidation voltage
- Reduced barrier-layer
- Pulses help avoid burned parts and improve surface uniformity
- Same rectifier can be used for anodizing and coloring
- Different programmable waveform for different process applications

American CRS Equipment
www.AmericanCRS.com
## Rectifier Options

<table>
<thead>
<tr>
<th>Communication Adapters</th>
<th>Remote Control</th>
<th>4-Line Display</th>
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<tbody>
<tr>
<td>Communication adapters for Profinet-DP, DeviceNet, Profinet, EthernetIP, Modbus/TCP networks</td>
<td>REM is a remote control unit that communicates with the rectifier</td>
<td>Simultaneous display of 4 lines of data</td>
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<tr>
<th>Analogue Interface</th>
<th>Input/Output Screw Interface</th>
</tr>
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<tbody>
<tr>
<td>ANL provides 6 digital inputs and 6 outputs and 2 analogue inputs and 2 outputs</td>
<td>Replaces the junction box, Easy installation</td>
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<th>Water Flow Sensor and Solenoid</th>
<th>CTRD02</th>
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<tr>
<td>Water cooled rectifier optional for low flow rate alarm</td>
<td>Recommended for voltage controlled processes</td>
</tr>
<tr>
<td>Features:</td>
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<tr>
<td>- adjustable Flow Sensor to assure minimum required flow rate</td>
<td>- Fast feedback loop and fully differential output feedback:</td>
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<tr>
<td>- assures minimum water flow rate</td>
<td>- Lower Current Output Ripple (especially 300 Hz)</td>
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<tr>
<td>- solenoid can be used to stop circulation of cold water when rectifier is in stand-by, thus preventing potential condensation</td>
<td>- Reduced Voltage output ripple from 10% to 3% (in voltage mode operation)</td>
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</table>

### RECTIFIER SIMULATOR
- Test the rectifier behavior without the need of a real rectifier
- Use the panel keyboard, the analog card or every one of the available communication protocols (Modbus, ASCII, Profinet-DP, DeviceNet, Profinet, EthernetIP, Modbus/TCP)