ETC® Unison® 277V Rack Enclosure

Unison Dimming Series

General Information

ETC’s Unison DRd Series Rack Enclosures are the workhorses behind the scenes, supporting two processor options and a variety of dimming, switching and option modules. DRd Rack Enclosures are trusted for their reliability and versatility.

Applications

- Churches
- Hotels
- Convention Centers
- Theatres
- Schools
- Restaurants

Features

- All-On – clearly marked switch allows for all loads to be turned on to full, without the need for a control processor
- HighFault – protection from power spikes and surges with short circuit current ratings from 22,000 amps, up to 65,000 amps
- Regulation – monitoring and adjustment of incoming line voltage with min and max scale voltages
- Bypass – UL924-listed emergency lighting bypass input with load shedding
- Hold Last Look – dimming engine holds the last output during any loss of control
- QuickBoot – dimming engine boot time of less than 4 seconds
- HiRes Dimming – support for 16 bit DMX and over 65,000 steps of dimming
- Electronic Low Voltage Dimming – reverse phase dimming control for electronic low-voltage transformers when used with the AELV module

Ordering Information

277 Volt DRd Rack Enclosures

<table>
<thead>
<tr>
<th>MODEL</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRd6-12-277</td>
<td>6 module rack enclosure (12 circuits)</td>
</tr>
<tr>
<td>DRd12-24-277</td>
<td>12 module rack enclosure (24 circuits)</td>
</tr>
<tr>
<td>DRd12-48-277*</td>
<td>(2) 12 module rack enclosures (48 circuits)</td>
</tr>
</tbody>
</table>

*In 48 channel configurations, (2) 12 module racks are cross-bussed using AX series main lug or main breaker enclosures.

277V – Auxiliary Enclosures

<table>
<thead>
<tr>
<th>MODEL</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>AX6-MCB-3-100</td>
<td>Auxiliary Rack with 100A Main Breaker for DRd6 - 3Ø, 4W</td>
</tr>
<tr>
<td>AX12-MCB-3-200</td>
<td>Auxiliary Rack with 200A Main Breaker for DRd12 - 3Ø, 4W</td>
</tr>
<tr>
<td>AX12X-MCB-3-400</td>
<td>Auxiliary Rack with 400A Main Breaker for (2) DRd12 - 3Ø, 4W</td>
</tr>
<tr>
<td>AX12X-ML-3-400</td>
<td>Auxiliary Rack with Main Lugs for (2) DRd12 - 3Ø, 4W</td>
</tr>
</tbody>
</table>

DRd Options and Accessories

<table>
<thead>
<tr>
<th>MODEL</th>
<th>DESCRIPTION</th>
</tr>
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<tbody>
<tr>
<td>DRd-FLO</td>
<td>DRd 0-10V LED/ Fluorescent Control Option</td>
</tr>
<tr>
<td>DRd-DALI</td>
<td>DRd DALI Control Option</td>
</tr>
<tr>
<td>DRd-PED</td>
<td>DRd Floor Mount Pedestal</td>
</tr>
<tr>
<td>U-RTO</td>
<td>Unison RideThru Option</td>
</tr>
<tr>
<td>U-BPO</td>
<td>Unison BatteryPack Option</td>
</tr>
</tbody>
</table>
**SPECIFICATIONS**

**GENERAL**
- DRd rack enclosures available in two sizes. DRd6 with support for 6 modules and up to 12 circuits and DRd12 with up to 12 modules and 24 circuits
- Full 8 year Warranty

**FUNCTIONAL**
- High density dimming for incandescent, fluorescent, neon, cold cathode, electronic and magnetic low voltage transformer load types
- Ability to cross bus and control two rack enclosures using one control processor
- 16 bit DMX input
- Designed for reliable continuous operation

**MECHANICAL**
- Welded 18-gauge formed steel construction
- Surface or floor stand mount
- Hinged, lockable full-height door with electrostatic air filter
- Fine-textured, scratch resistant, epoxy paint
- Integral low voltage fan
- Modular control electronics

**ELECTRICAL**
- 277 Volt, 3 phase systems – Available in 100/120 and 240 Volt UL, 230 Volt CE configurations
- Voltage tolerance ± 10%
- Operating frequency: 50-60Hz.
- DRd6/DRd12 Rack Enclosures fault current protection:
  - 22,000A Short Circuit Current Rating (SCCR)
  - 65,000A SCCR when installed using AX Auxiliary Rack with Main Breaker
- Main lugs accept maximum 250 MCM wire
- Load terminals accept maximum #6 AWG wire
- AX Racks equipped with breakers sized for maximum load capacity
  - Lower rated trip plug options available
- UL and cUL LISTED

**THERMAL**
- Ambient room temperature: 0-40°C / 32-104°F
- Ambient humidity: 10-90% non-condensing

**ACCESSORIES AND OPTIONS**

**CONTROL PROCESSORS**
- SmartLink® Architectural Control Processor (S-ACP)
- Paradigm® Architectural Control Processor (P-ACP)

**STATION POWER OPTIONS**
- SmartLink Station Power Module (S-SPM)
  - Provides Echelon® LinkPower for up to 16 SmartLink stations
  - Allows for up to 1640 feet (500 meters) of station bus wiring
- Paradigm Station Power Module (P-SPM)
  - Provides Echelon LinkPower for up to 32 Unison stations
  - Provides 24V auxiliary power for interface and touchscreen stations
  - Allows for up to 1640 feet (500 meters) of station bus wiring

**UNISON DIMMER MODULES**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>DESCRIPTION</th>
</tr>
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<tbody>
<tr>
<td>AD15</td>
<td>Dual 15A (277V) Dimmer Module</td>
</tr>
<tr>
<td>AD15F</td>
<td>Single 15A (277V) 3-wire Dimmer Module</td>
</tr>
<tr>
<td>AR15</td>
<td>Dual15A (277V) Relay Module</td>
</tr>
<tr>
<td>ACC15</td>
<td>Dual 15A (277V) Constant Current Module</td>
</tr>
<tr>
<td>AD20</td>
<td>Dual 20A (277V) Dimmer Module</td>
</tr>
<tr>
<td>AD20F</td>
<td>Single 20A (277V) 3-wire Dimmer Module</td>
</tr>
<tr>
<td>AR20</td>
<td>Dual 20A (277V) Relay Module</td>
</tr>
<tr>
<td>ACC20</td>
<td>Dual 20A (120V) Constant Current Module</td>
</tr>
<tr>
<td>AELV5</td>
<td>Dual 5A (277V) Electronic Low Voltage Dimmer Module</td>
</tr>
<tr>
<td>AFM</td>
<td>Air Flow Module</td>
</tr>
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</table>

**ACCESSORIES**
- Unison RideThru Option (URTO)
  - Short term power back-up of control electronics for at least 10 seconds
  - Automatically engages when power is lost
  - Recharges during normal power operation
- Unison Battery Pack Option (UBPO)
  - Long term power back-up of control electronics for at least 90 minutes
  - Automatically engages when power is lost
  - Recharges during normal power operation
- 0-10V (4-wire) control option (DRd-FLO)*
  - 0-10 Volt (sink) driver and ballast control
  - Up to 24 outputs
  - 400mA per channel
- DALI Ballast option (DRd-DALI)*
  - Support for 24 loops of DALI control in broadcast mode
  - Up to 64 ballasts per output
  - External DALI power supply required (by others)
- Unison DRd Pedestal (DRd-PED)
  - Floor-mount pedestal for Unison DRd dimming enclosures

*Option module required, either (1) DRd-DALI or (1) DRd-FLO may be used in each DRd enclosure
**Product Dimensions**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>HEIGHT</th>
<th>WIDTH</th>
<th>DEPTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRd6-12-277</td>
<td>21.9</td>
<td>17.0</td>
<td>9.60</td>
</tr>
<tr>
<td>DRd12-24-277</td>
<td>31.0</td>
<td>17.0</td>
<td>9.60</td>
</tr>
<tr>
<td>AX6</td>
<td>21.9</td>
<td>13.0</td>
<td>8.0</td>
</tr>
<tr>
<td>AX12</td>
<td>31.0</td>
<td>13.0</td>
<td>8.0</td>
</tr>
<tr>
<td>AX12X</td>
<td>31.0</td>
<td>13.0</td>
<td>8.0</td>
</tr>
</tbody>
</table>

**Product Weights**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>WEIGHT</th>
<th>SHIPPING WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRd6-12-277</td>
<td>38 lbs</td>
<td>42 lbs</td>
</tr>
<tr>
<td>DRd12-24-277</td>
<td>51 lbs</td>
<td>55 lbs</td>
</tr>
<tr>
<td>AX6-MCB</td>
<td>28 lbs</td>
<td>35 lbs</td>
</tr>
<tr>
<td>AX12-MCB</td>
<td>33 lbs</td>
<td>40 lbs</td>
</tr>
<tr>
<td>AX12X-ML</td>
<td>33 lbs</td>
<td>40 lbs</td>
</tr>
<tr>
<td>AX12X-MCB</td>
<td>35 lbs</td>
<td>42 lbs</td>
</tr>
</tbody>
</table>

*Optional AX Shown

**Physical**

**Fault-**

**Fault+**

**Power**

**Link**

**Power**

**Aux**

**Error**

**DMX A**

**Power**

**DMX B**

**Ethernet**

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