ETC

Unison DRd UL Rack Enclosure

Unison 100–120 V / 240–277 V Dimming Series



Type(s)	
Project	
Date	
Notes	

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

- Houses of worship
- 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
- Regulation – monitoring and adjustment of incoming line voltage with min and max scale voltages
- Hold Last Look – dimming engine holds the last output during any loss of control
- QuickBoot – dimming engine boot time of less than four seconds
- HiRes Dimming – support for 16-bit DMX and over 65,000 steps of dimming

REGULATORY AND COMPLIANCE

- UL 924 Listed
- CE compliant

SPECIFICATIONS

GENERAL

- DRd rack enclosures available in two sizes: DRd6 with support for six modules and up to 12 circuits and DRd12 with support for 12 modules and up to 24 circuits
- Full eight-year warranty

FUNCTIONAL

- High-density dimming for incandescent, fluorescent, neon, cold cathode, electronic and magnetic low-voltage transformer load types
- 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

- UL Models
  - 120/208 V Three Phase, Four Wire + Ground
    - Supports Voltages down to 100/170 V Nominal
    - 120/240 V Bi-Phase, Three Wire + Ground supported using reconfigurable bus bars
  - 277/480 V Three Phase, Four Wire + Ground
    - Supports Voltages down to 240/415 V Nominal
- CE Models
  - 230/400 V Three Phase, Four Wire + Ground
- Voltage tolerance ± 10%
- Single-Pole, Neutral Disconnect or Residual Current Device (RCD) per dimmer
- Operating frequency: 50–60 Hz
- DRd6/DRd12 Rack Enclosure fault current protection:
  - 22,000 A Short Circuit Current Withstand

THERMAL

- Ambient room temperature: 0°–40°C (32°–104°F)
- Ambient humidity: 10–90% non-condensing

ORDERING INFORMATION

100-120 Volt UL DRd Rack Enclosures

MODEL	DESCRIPTION
DRd6-12-120	Six-module rack enclosure (12 circuits)
DRd12-24-120	12-module rack enclosure (24 circuits)
DRd12-48-120*	Two 12-module rack enclosures (48 circuits)

100-120 Volt – Auxiliary Enclosures

MODEL	DESCRIPTION
AX12X-MCB-3-400	Auxiliary Rack with 400 A Main Breaker for two DRd12 - 3ø, 4-wire
AX12X-ML-3-400	Auxiliary Rack with Main Lugs for two DRd12 - 3ø, 4-wire
AX12X-ML-1-600	Auxiliary Rack with Main Lugs for two DRd12 - 2ø, 3-wire

240/277 Volt DRd Rack Enclosures

MODEL	DESCRIPTION
DRd6-12-277	Six-module rack enclosure (12 circuits)
DRd12-24-277	12-module rack enclosure (24 circuits)
DRd12-48-277*	Two 12-module rack enclosures (48 circuits)

277V – Auxiliary Enclosures

MODEL	DESCRIPTION
AX12X-MCB-3-400	Auxiliary Rack with 400 A Main Breaker for two DR12 - 3ø, 4 W
AX12X-ML-3-400	Auxiliary Rack with Main Lugs for two DR12 - 3ø, 4 W

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

ACCESSORIES AND OPTIONS

CONTROL PROCESSORS

- Echo Architectural Control Processor (E-ACP)
- Paradigm Architectural Control Processor (P-ACP)

STATION POWER OPTIONS

- Echo Station Power Module (E-SPM)
  - Provides EchoConnect power for up to 16 stations and 16 power controllers or panels
  - Allows for up to 1,640 ft (500 m) of station bus wiring
- Paradigm Station Power Module (P-SPM)
  - Provides LinkConnect power for up to 32 Unison stations
  - Provides 24V auxiliary power for interface and touchscreen stations
  - Allows for up to 1,640 ft (500 m) of station bus wiring

DRd Options and Accessories

MODEL	DESCRIPTION
7183A1069	DRd 0–10 V LED/Fluorescent Control Option
7183A1070	DRd DALI Control Option
7183A1004	DRd Floor-Mount Pedestal
7180A1008	Unison RideThru Option
7180A1003	Unison Battery Pack Option

DRd Control Processor Options

MODEL	DESCRIPTION
7180A1029	Paradigm Architectural Control Processor
7186A1201	Echo Architectural Control Processor

ACCESSORIES

- Unison RideThru Option (URTO)
  - Short-term power backup 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 backup of control electronics for at least 90 minutes
  - Automatically engages when power is lost
  - Recharges during normal power operation
- 0–10 V (four-wire) control option (DRd-FLO)*
  - 0–10 V (sink) driver and ballast control
  - Up to 24 outputs
  - 400 mA 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)

*Either one DRd-DALI or one DRd-FLO option card may be used in each DRd enclosure

ACCESSORIES AND OPTIONS

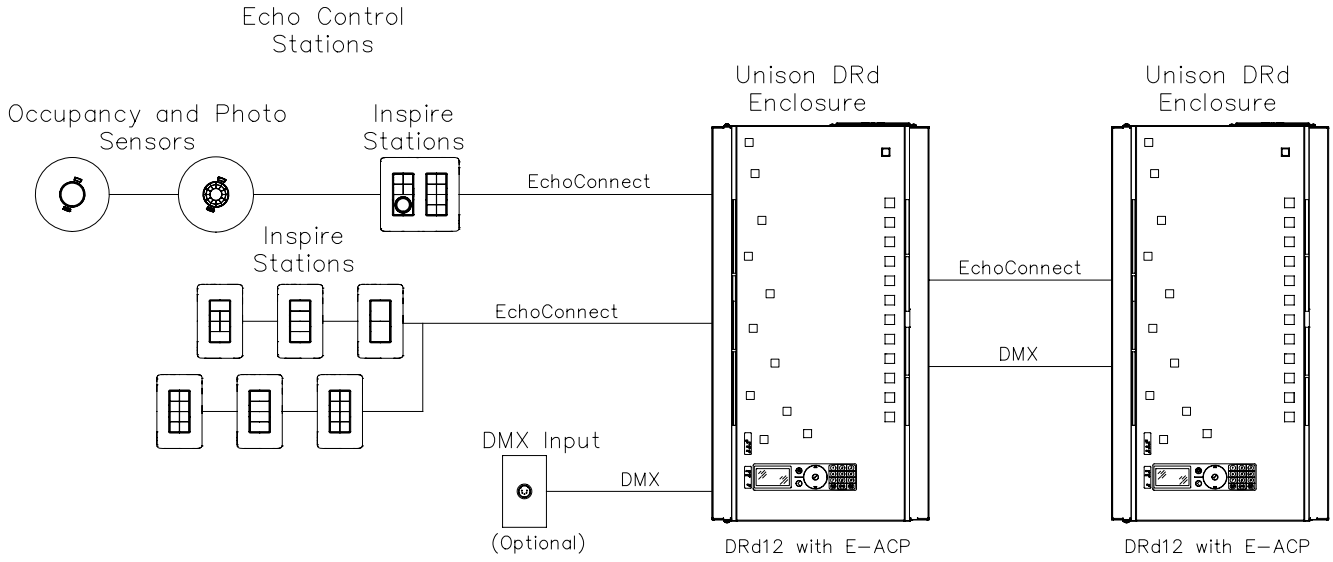
Supported 100-120V Dimmer Modules

MODEL	DESCRIPTION
LED10	Dual 1.2 kW 120 V PhaseAdept Module
D15	Dual 1.8 kW Dimmer Module (350 µs)
D15E	Dual 1.8 kW Dimmer Module (500 µs)
D15F	Single 1.8 kW Fluorescent Dimmer Module
D15FB	Single 1.8 kW Fluorescent/Battery Dimmer Module
R15	Dual 1.8 kW Relay Module
CC15	Dual 1.8 kW Constant Module
D20	Dual 2.4 kW Dimmer Module (350 µs)
D20E	Dual 2.4 kW Dimmer Module (500 µs)
D20F	Single 2.4 kW Fluorescent Dimmer Module
D20FB	Single 2.4 kW Fluorescent/Battery Dimmer Module
R20	Dual 2.4 kW Relay Module
CC20	Dual 2.4 kW Constant Module
ELV10	Dual 1.2 kW 120 V Reverse Phase Module
AFM	Air Flow Module

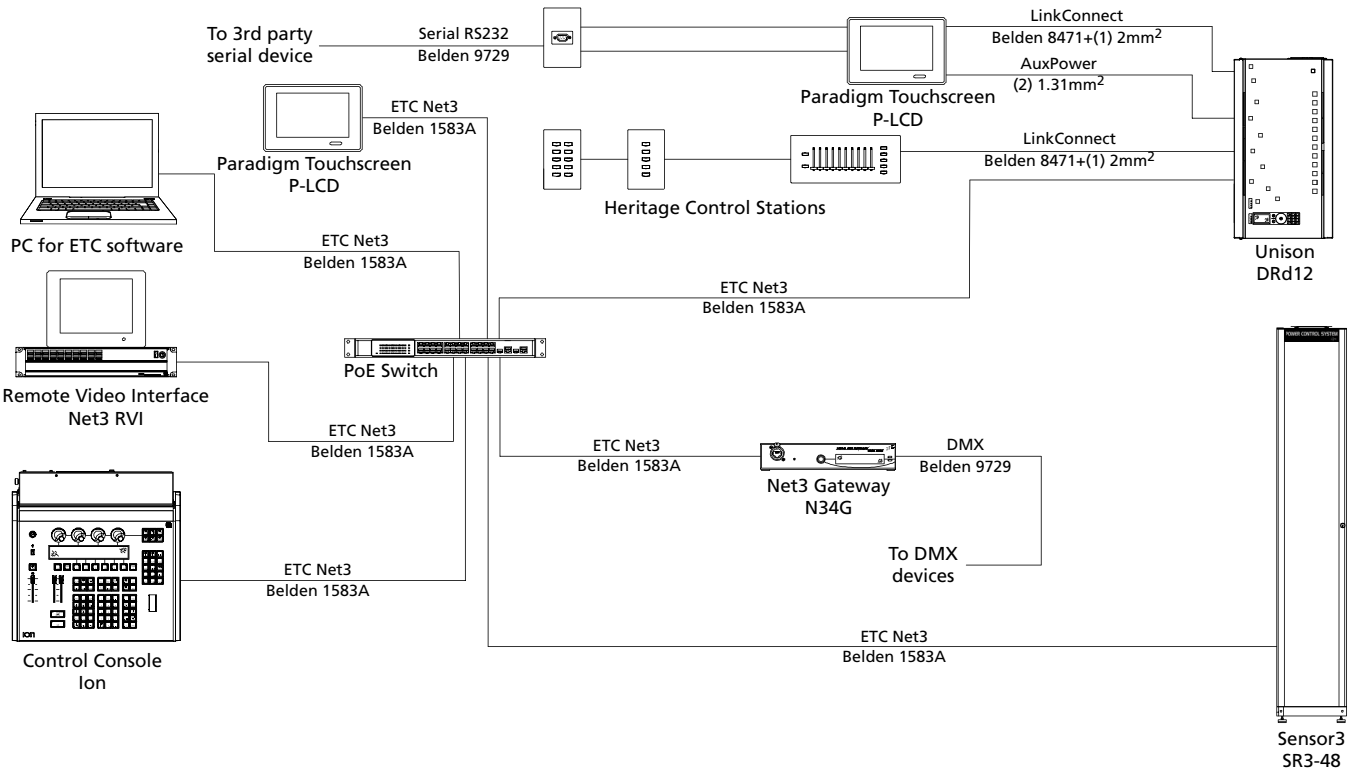
Supported 240-277V Dimmer Modules

MODEL	DESCRIPTION
ALED5	Dual 1.4 kW 277 V PhaseAdept Module
AD15	Dual 4.1 kW 277 V Dimmer Module (350 µs)
AD15F	Single 4.1 kW 277 V Fluorescent Dimmer Module
AD15FB	Single 4.1 kW 277 V Fluorescent/Battery Dimmer Module
AR15	Dual 4.1 kW 277 V Relay Module
ACC15	Dual 4.1 kW 277 V Constant Module
AD20	Dual 5.5 kW 277 V Dimmer Module (350 µs)
AD20F	Single 5.5 kW 277 V Fluorescent Dimmer Module
AD20FB	Single 5.5 kW 277 V Fluorescent/Battery Dimmer Module
AR20	Dual 5.5 kW 277 V Relay Module
ACC20	Dual 5.5 kW 277 V Constant Module
AELV5	Dual 1.4 kW 277 V Reverse Phase Module
ELED6	Dual 1.4 kW 230 V PhaseAdept Module
HD15	Dual 3.3 kW 240 V Dimmer Module (350 µs)
HD15F	Single 3.3 kW 240 V Fluorescent Dimmer Module
HR15	Dual 3.3 kW 240 V Relay Module
HCC15	Dual 3.3 kW 240 V Constant Module
HELV5	Dual 1.2 kW 240 V Reverse Phase Module
AFM	Air Flow Module

TYPICAL SYSTEM RISER – ECHO CONTROL



TYPICAL SYSTEM RISER – PARADIGM CONTROL

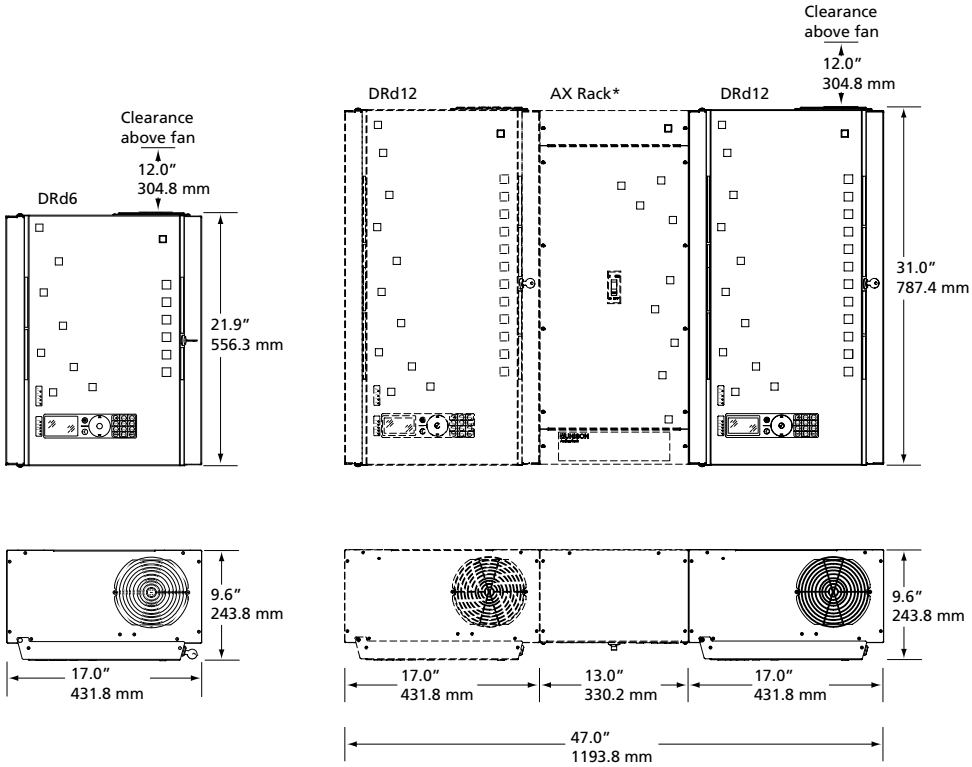


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PHYSICAL



*Optional AX Shown

DRd Dimensions*

MODEL	HEIGHT	WIDTH	DEPTH
	mm	mm	mm
DRD6-12-120, -277	557	432	244
DRD12-24-120, -277	787	432	244
AX12X-	787	330	203

*Weights and dimensions typical

DRd Weights*

MODEL	WEIGHT	SHIPPING WEIGHT
	kg	kg
DRD6-12-120, -277	17.15	19.05
DRD12-24-120, -277	23.13	24.95
AX12X-ML-	14.97	18.14
AX12X-MCB-	15.88	19.05

DRd Sound Pressure Level* (dBA)

MODEL	LOW FAN SPEED	HIGH FAN SPEED
DRd6-12-120, -277	49 dbA	54 dbA
DRD12-24-120, -277	49 dbA	54 dbA

*dBA values for each DRd enclosure measured at one meter with an ambient noise level of 36.5 dbA.

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