

Unison DR6

GENERAL INFORMATION

Unison dimming, from ETC — low cost, flexible, modular dimming for architectural and theatrical lighting control applications.

- APPLICATIONS**
 - Churches
 - Hotels
 - Convention Centers
 - Theatres
 - Schools
 - Restaurants
- FEATURES**
 - Low profile rack
 - Fully pre-wired
 - Easy installation, configuration and operation
 - Scalable modular processing
 - Backlit control electronics
 - Single phase option
 - Main breaker and bypass options
 - Integral RS232 interface
 - Dry contact interface
 - Supports Dimmer Doubling™
 - Controls incandescent, fluorescent, low voltage, neon, and cold cathode load types
- GENERAL**
 - Available in 100, 120, 230 and 277 Volt systems
 - 6, 12 and 24 dual module configurations DR6-12, DR12-24, DR12-48.
 - For use with ETC-Unison dual and single density dimmer modules
 - Controls incandescent, low voltage, fluorescent, neon, and cold cathode load types
 - Ambient Temperature 32-104°F/0-40°C
 - Ambient Humidity 30-90° non-condensing
 - UL and cUL Listed, CE Marked

ORDERING INFORMATION

120 Volt - DR Racks

| Model# | Description |
|--------------|--|
| DR6-12-120 | 6 module rack - 120 Volt (12 circuits) |
| DR12-24-120 | 12 module rack - 120 Volt (24 circuits) |
| DR12-48-120* | (2) 12 module racks - 120 Volt (48 circuits) |

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

120 Volt - AX Racks

| Model# | Description |
|----------------|--|
| AX6-M-120-1 | Auxiliary Rack with 200A Main Breaker for DR6 - 1ø, 3W |
| AX6-M-120-3 | Auxiliary Rack with 100A Main Breaker for DR6 - 3ø, 4W |
| AX12-M-120-1 | Auxiliary Rack with 400A Main Breaker for DR12 - 1ø, 3W |
| AX12-M-120-3 | Auxiliary Rack with 200A Main Breaker for DR12 - 3ø, 4W* |
| AX12X-M-120-3 | Auxiliary Rack with 400A Main Breaker for (2) DR12 - 3ø, 4W* |
| AX12X-ML-120-1 | Auxiliary Rack with Cross-bus for (2) DR12 - 600A -1ø, 3W |
| AX12X-ML-120-3 | Auxiliary Rack with Main Lug for (2) DR12 - 400A - 3ø, 4W* |

*See Options/Accessories for reduced current trip plug options.

Control Modules

| Model# | Description |
|--------|--|
| CMd | Control module with dimming processor* (DMX only) |
| CMEd | Control module with dimming and station processor* |

*A (d) dimming processor is required in every rack. One (E) station processor is required in each system using Unison stations.

Options and Accessories

| Model# | Description |
|---------|--|
| ARCH | Architectural Option Board (used in all stations) |
| FLO | Fluorescent Option Board (4-wire) |
| 1PH6 | Single phase strap kit for DR6 |
| 1PH12 | Single phase strap kit for DR12 |
| BYP | Bypass Option Board (for supplemented egress lighting) |
| 100ATP | 100 Amp trip plug for AX12 MCB Rack |
| 200ATP | 200 Amp trip plug for AX12X MCB Rack |
| STD | Floor mounting stand for DR rack |
| USI-I/O | Dry contact closure 8/in-8/out |
| RS232 | RS232 interface (in) |

Compatible Dimming Modules

| Model# | Description |
|--------|---|
| L10 | Dual 10A Low Wattage Module 100V-120V 350µS |
| L10F | Dual 10A Fluorescent Low Wattage Module 100V-120V 350µS |
| D15 | Dual 15A Universal Module 100V-120V 350µS |
| D15E | Dual 15A Universal Module 100V-120V 500µS |
| D15F | Single 15A Fluorescent Module (3 wire) 100V-120V |
| R15 | Dual 15A Relay Module |
| CC15 | Dual 15A Constant Circuit |
| D20 | Dual 20A Universal Module 100V-120V 350µS |
| D20E | Dual 20A Universal Module 100V-120V 500µS |
| D20F | Single 20A Fluorescent Module (3 wire) 100V-120V |
| R20 | Dual 20A Relay Module |
| CC20 | Dual 20A Constant Circuit |
| AFM | Airflow Module |



SPECIFICATIONS

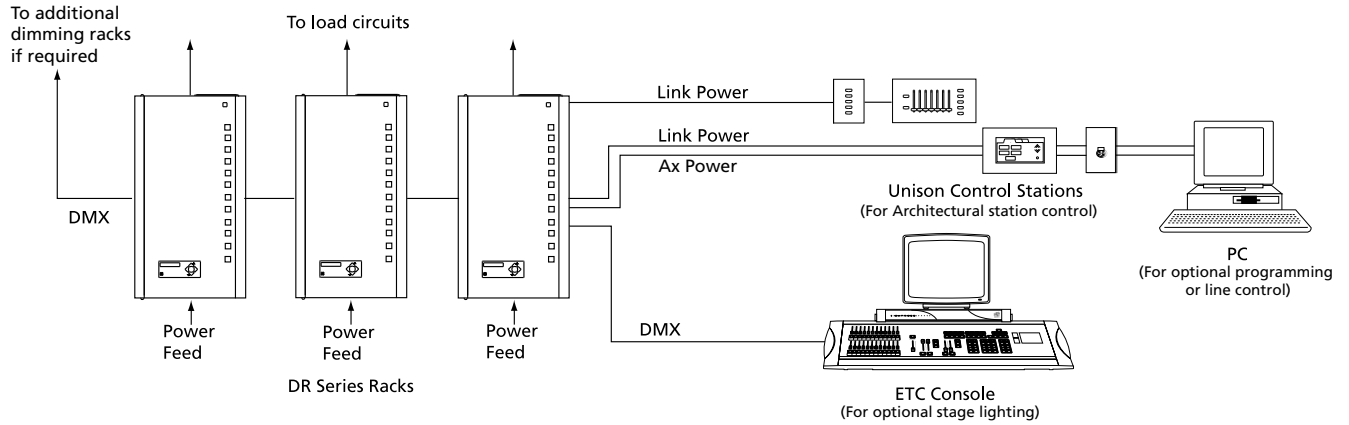
| | |
|--------------------------|---|
| MECHANICAL | <p>Welded 18-gauge formed steel construction Surface or floor mount stand Hinged, lockable full-height door with electrostatic air filter Fine textured, scratch resistant, gray epoxy paint Integral low-noise fan Modular control electronics w/ backlit 20 character LCD</p> |
| ELECTRICAL | <p>100, 120, 230, and 277 Volt, 3 phase systems – voltage range tolerance \pm 10% 1 phase option kit (120 and 230 Volt only) 50-60Hz. Operating frequency</p> <p>DR6 Rack: 10,000 AIC fault current protection at 208/120Volt, three phase 173/100Volt, three phase 14,000 AIC protection at 277/480Volt, three phase</p> <p>DR12 Rack: 22,500 AIC fault current protection at 208/120Volt, three phase 173/100Volt, three phase 65,000 AIC at 208/120Volt, three phase when installed using AX Auxilliary Rack with M option - Main Breaker</p> <p>Main lugs accept maximum 400 MCM wire (205 mm²) Load terminals accept maximum #8 AWG wire (10 mm²) AX Racks equipped with breakers sized for maximum load capacity Lower rated trip plug options available</p> |
| CONTROL MODULE | <p>Control Module (CM) houses dimming and architectural station processors. Contains a nine-button membrane overlay and a two-line by 20 character LCD for system configuration, testing and diagnostics</p> |
| DIMMING PROCESSOR | <p>Utilizes industry standard DMX-512 control protocol Data input switches for initialization and configuration Configuration stored in non-volatile flash memory</p> |

| | |
|--|---|
| ARCHITECTURAL STATION PROCESSOR | <p>Station processors accept Echelon Link Power control signals from stations and remote interfaces Link Power network utilizes polarity-independent, low-voltage Class II twisted pair wiring: Belden type 8471 (unshielded) Belden 8719 (shielded) 1500' (500m) wiring limit without the use of a repeater Repeater (REP) Option module increases wire length in increments of 1500' (500m). Configuration through Light Manager System software Station configuration and program information stored in flash memory 3.5" floppy disk drive for loading configurations Controls 512 dimmers x 512 zones with 32 stations – 4 LCDs maximum. Use Repeater Option module to increase station count in increments of 32.</p> |
| RACK OPTIONS | <p>ARCH – Architectural Option Board supports termination of Unison stations, DMX, Auxiliary power and RS232 communications. FLO – Fluorescent Option Board provides 24 outputs for control of 4-wire (0-10vdc) fluorescent ballasts (Contact factory for approved ballast manufacturers). BYP – Bypass Option Board senses loss of Normal power and drives selected loads to full bright.</p> |

Unison® 120V Dimming Racks

DR Series

UNISON DIMMING AND CONTROL RISER



INTERWIRING GUIDE

| | Dimmer Rack | External Rack | Sensor Rack | Station | LCD | Console |
|----------------------|--|--|--|--|--|--|
| | | | | | | |
| Dimmer Rack | DMX (1) Belden 9729 | DMX (1) Belden 9729 | DMX (1) Belden 9729 | LINK Power (1) Belden 8471 (1) #14 AWG* | LINK Power (1) Belden 8471 (1) #14 AWG* Ax Power (2) #16 AWG | DMX (1) Belden 9729 |
| External Rack | DMX (1) Belden 9729 | NA | DMX (1) Belden 9729 | LINK Power (1) Belden 8471 (1) #14 AWG* | LINK Power (1) Belden 8471 (1) #14 AWG* Ax Power (2) #16 AWG | DMX (1) Belden 9729 |
| Sensor Rack | DMX (1) Belden 9729 | DMX (1) Belden 9729 | DMX (1) Belden 9729 | NA | NA | DMX (1) Belden 9729 ETC Link (1) Belden 9729 (2) #16 AWG |
| Station | LINK Power (1) Belden 8471 (1) #14 AWG* | LINK Power (1) Belden 8471 (1) #14 AWG* | NA | LINK Power (1) Belden 8471 (1) #14 AWG* | LINK Power (1) Belden 8471 (1) #14 AWG* Ax Power (2) #16 AWG | NA |
| LCD | LINK Power (1) Belden 8471 (1) #14 AWG* Ax Power (2) #16 AWG | LINK Power (1) Belden 8471 (1) #14 AWG* Ax Power (2) #16 AWG | NA | LINK Power (1) Belden 8471 (1) #14 AWG* Ax Power (2) #16 AWG | LINK Power (1) Belden 8471 (1) #14 AWG* Ax Power (2) #16 AWG | NA |
| Console | DMX (1) Belden 9729 | DMX (1) Belden 9729 | DMX (1) Belden 9729 ETC Link (1) Belden 9729 (2) #16 AWG | NA | NA | NA |

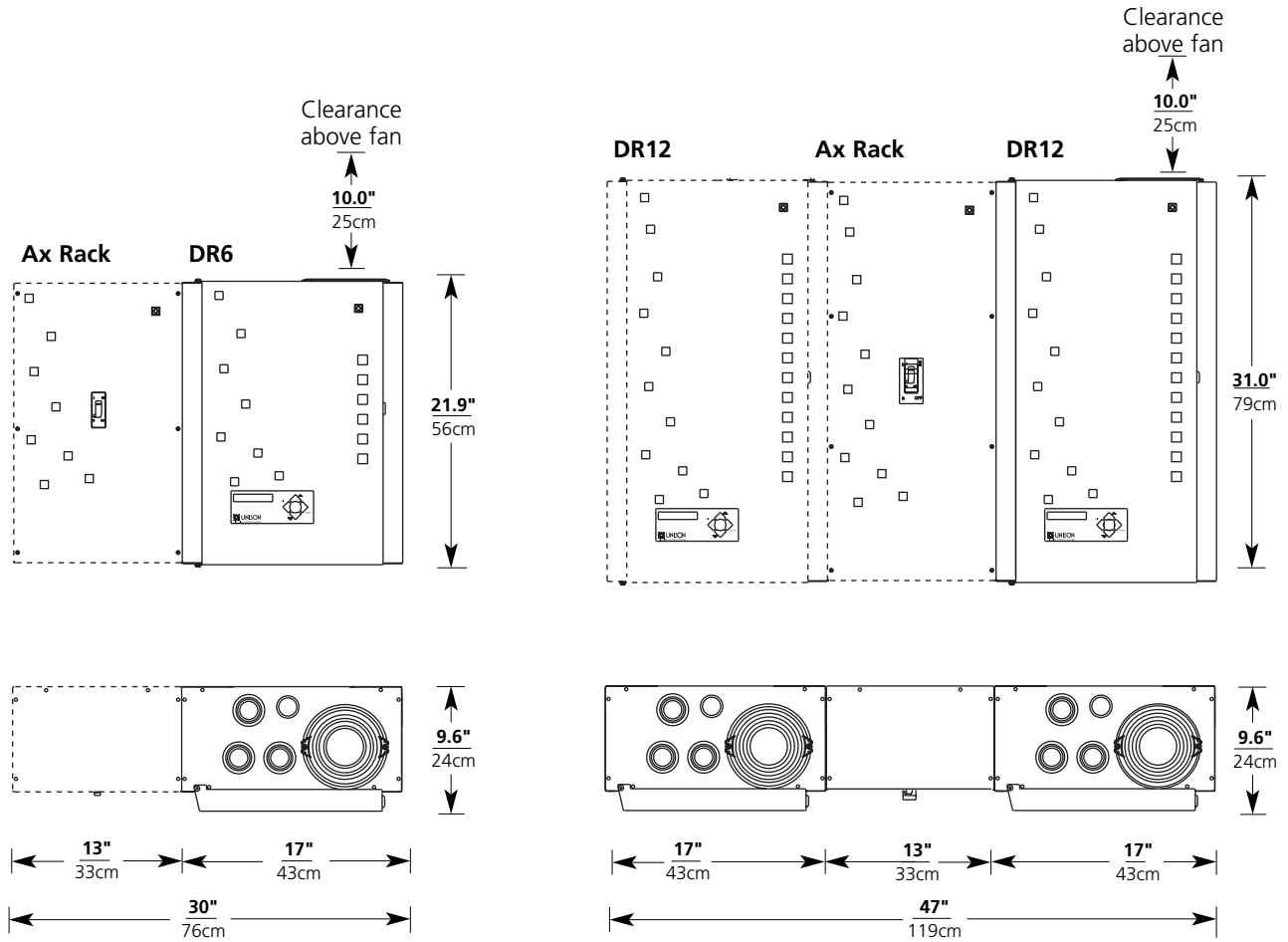
*Not required in systems with grounded metal conduit.

NA = Not Applicable

Unison® 120V Dimming Racks

DR Series

RACK DIMENSIONS



PHYSICAL

Rack Dimensions

| Model | Height | | Width | | Depth | |
|-------|--------|------|--------|------|--------|------|
| | inches | cm | inches | cm | inches | cm |
| DR6 | 21.9 | 55.6 | 17.0 | 43.1 | 9.6 | 24.4 |
| DR12 | 31.0 | 78.7 | 17.0 | 43.1 | 9.6 | 24.4 |
| AX6 | 21.9 | 55.6 | 13.0 | 33.0 | 9.6 | 24.4 |
| AX12 | 31.0 | 78.7 | 13.0 | 33.0 | 9.6 | 24.4 |
| AX12X | 31.0 | 78.7 | 13.0 | 33.0 | 9.6 | 24.4 |

Rack Weights* no modules

| Model | Weight | | Shipping Weight | |
|-------|--------|------|-----------------|------|
| | lbs | kgs | lbs | kgs |
| DR6 | 31.0 | 14.1 | 37.0 | 16.8 |
| DR12 | 42.0 | 19.1 | 49.0 | 22.2 |
| AX6 | 33.0 | 15.0 | 38.0 | 17.2 |
| AX12 | 66.0 | 29.9 | 72.0 | 32.7 |
| AX12X | 54.0 | 24.5 | 60.0 | 27.2 |

* Weights and Dimensions typical



Americas ■ 3030 Laura Lane, P.O. Box 620979, Middleton, WI 53562-0979 USA ■ Tel: +1 608 831 4116 ■ Fax: +1 608 836 1736 ■ Toll free: 866 382 2724 ■ Toll free fax: 800 555 8912

Europe ■ Unit 5, Victoria Industrial Estate, Victoria Road, London W3 6UU, UK ■ Tel: +44 (0)20 8896 1000 ■ Fax: +44 (0)20 8896 2000

Asia ■ Room 605-606, Tower III Enterprise Square, 9 Sheung Yuet Road, Kowloon Bay, Kowloon, Hong Kong ■ Tel: +852 2799 1220 ■ Fax: +852 2799 9325

Web: www.etcconnect.com ■ **Email:** (US) mail@etcconnect.com ■ (UK) mail@etc europe.com ■ (Asia) mail@etcasia.com

Copyright © 2003 ETC. All Rights Reserved. All product information and specifications subject to change. 7083L1003 Rev. C Printed in USA 04/03