



Unison Dimmers

Unison dimming, from ETC – flexible, modular dimming for architectural and entertainment applications.

Unison's low-profile racks fit snugly into tight corners, saving space and looking good. Unison dimmers cover all your needs – Unison controls most load types, including low voltage and fluorescent lighting.

Unison saves you money – installation is simple and quick, and systems up to 48 dimmers can wire from a single supply.

Best of all, the Unison rack can be the nerve center of your architectural control system, using a wide range of completely modular plug-in control electronics options.

Unison – the flexible dimming solution.

Features:

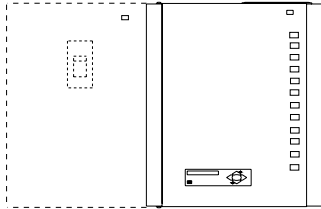
- 230V CE
- 6 and 12 module variations
- DMX512 input and output
- Drives most incandescent, low voltage, neon, cold cathode and fluorescent lighting loads
- Easy installation, set-up and operation
- Configures via integral control module with 2–line–by–20 character LCD
- Optional architectural processor with 3.5–inch floppy disk drive
- High quality ETC dimmer modules
- Main input circuit breaker option
- Single phase option
- Emergency power bypass option



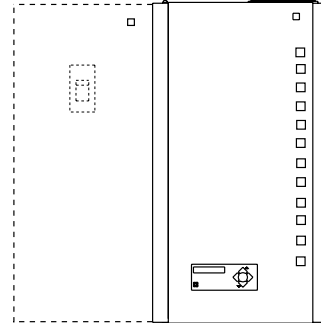
UNISON Dimming Rack



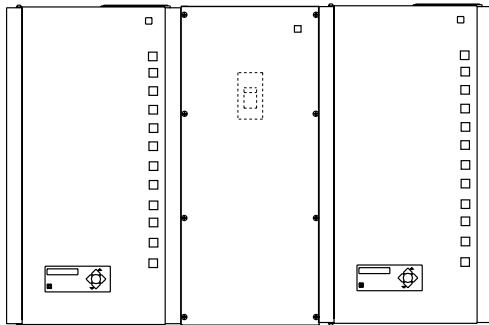
Unison Dimming Racks



DR6
Six module dimmer rack with optional AX6 main breaker rack.



DR12
Twelve module dimming rack with optional AX12 main breaker rack



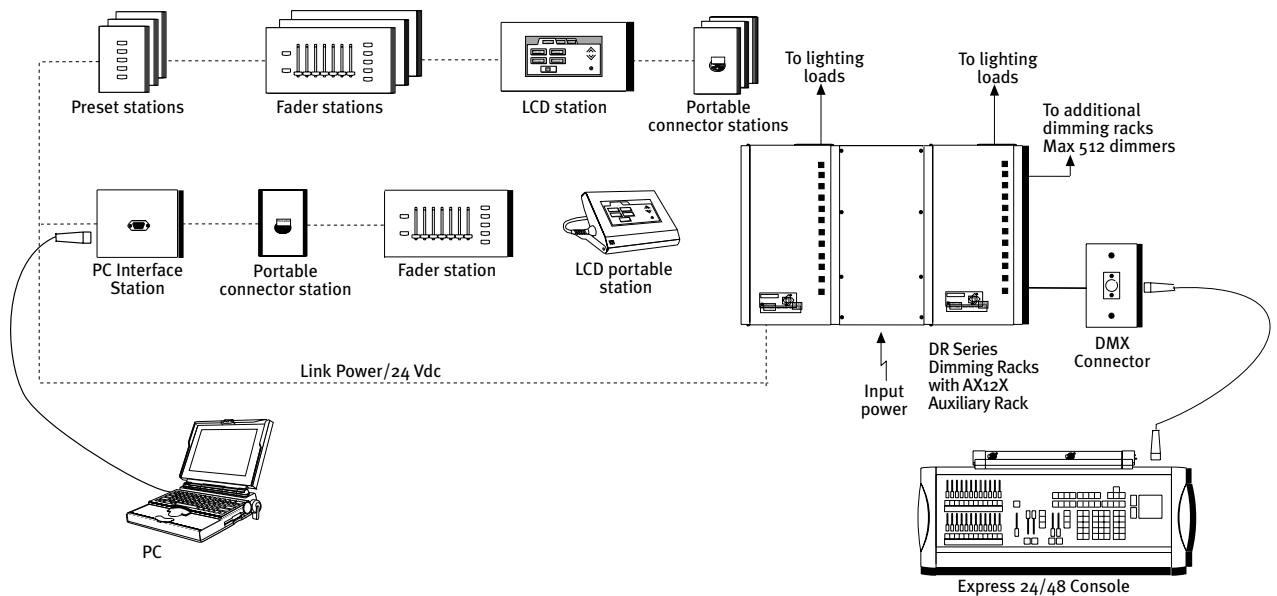
(2) DR12/AX12
Two twelve module racks with Main Breaker or Main Lug auxiliary rack.

DIMENSIONS (MM)/(Kg)					
	H	W	D	Kg	Clearance above rack
DR6	560	432	240	11	304
DR12	790	432	240	20	304
AX6	560	330	240	17	304
AX12	790	330	240	30	304

Note: See Unison CE Dimming and Control Specification guide for rack installation clearance details



Typical Unison Dimming Riser



Ordering Information

Please contact your local ETC Dealer for detailed ordering information.

DIMMING RACK OPTIONS	
ARCH	Architectural Option Board provides Link power, Auxiliary control wiring and DMX out termination. Required for all systems using Unison stations.
BYP	BYP Bypass Option Board senses loss of normal power and automatically brings all rack lights to full brightness. Bypass option requires "normal/emergency" feed which is HOT at all times. Transfer from Normal to Emergency power is UPSTREAM of dimming rack. (By others).
FLO	FLO Fluorescent Option Board provides 24, 0-10 volt signals to control 4-wire electronic fluorescent dimming ballasts. Maximum 75 1,2 or 3 lamp ballasts per signal. Dimmer in non-dim mode required for switched leg.
STD	STD Floor Mounting Stand provides optional mounting configuration.
IPH6/CE	Single Phase Strap Kit modifies standard rack to accept 1 phase 2 wire input for DR6 rack
IPH12/CE	Single Phase Strap Kit modifies standard rack to accept 1 phase 2 wire input for DR12 rack



Specifications

General

Available with six or twelve dimmer module spaces and one control module space
 CE Marked
 Ambient temperature: 0-40°C
 Ambient humidity: 30-90% non-condensing

Mechanical

Constructed of 1.2mm formed steel panels with a hinged, lockable full-height door containing an integral electrostatic air filter
 Opening in rack door allows limited access to the control module face panel
 Fine textured, scratch-resistant, powder-based epoxy paint
 Top, bottom, and side knockouts for cable entry
 Single low-noise fan to maintain the temperature of all components at proper operating levels with dimmers under full load, provided the ambient temperature does not exceed 40°C
 Individual over-temperature shutdown of only the affected dimmer module
 With modules removed, racks provide clear front access to all load, neutral and control wire terminations
 Support any combination of rack option cards designed to provide additional rack features. Rack option cards include:
 ARCH - provides termination for Unison network control stations. Required for all systems using Unison architectural control.
 FLO - provides termination for 4 wire low voltage electronic fluorescent dimming ballasts. FLO shall provide 24 0 - 10Vdc outputs.
 BYP - senses loss of normal power and bypasses control module to drive all load circuits in dimmer rack to full

Optional floor mounting stand available for DR12 rack.
 AX series auxiliary racks for Main Circuit Breaker and cross bussing applications
 Single Phase Strap Kit modifies standard rack to accept 1 phase input

Electrical

Available in 230 volt, 3 phase, main lug configurations
 Completely pre-wired by the manufacturer. The contractor is required to provide input feed, load, and control wiring
 Supports the following wire terminations:
 AC power in - 3P+N+PE
 DMX512 In
 DMX512 Out (installed with ARCH option board)
 Echelon link power (installed with ARCH option board)
 Auxiliary Control Wiring (installed with ARCH option board)
 RS232 Serial
 Control wire connections terminated via factory provided connectors
 Standard rack AIC fault current protection: 10,000A at 230V
 Main feed lugs shall accept a maximum 120 mm² wire
 Load terminals shall accept a maximum 10 mm² wire

Dimming Control Modules

For use with all DR racks
 Plug-in module available with either dimming electronics only, or with dimming and architectural control system electronics
 Dimming control outputs respond to control changes in less than 25 milliseconds
 Dimmer outputs are regulated for incoming line voltages. The regulation

adjusts for both RMS voltage changes and deformations in the incoming AC waveform
 The architectural control system electronics provide multi-scene lighting control using Echelon® Link power network communications
 Nine-button membrane overlay and a two-line-by-20 character LCD
 Dimming and architectural program information are stored in flash memory, which does not require battery backup
 Access to system control menus including the status screen, backup menu, architectural menu (optional), test menu and configuration menu
 One user-programmable back up look
 Architectural variants shall be rated to drive a specified quantity of dimmers, zones, rooms, presets and wall stations. Control module specifications are:
 * Increase quantity of wall and LCD stations by adding repeaters

CONTROL MODULE SPECIFICATIONS				
	DIMMERS	ROOMS	STATIONS	LCD
CMBd	128	8	16	5*
CMEd	512	64	32*	5*

ETC Dimmer Modules

Heavy-duty, die-cast aluminum chassis finished in fine-texture, scratch-resistant gray epoxy powder coat
 Includes circuit breaker(s), toroidal filter(s), patented SCR (thyristor) modules, power and control connectors
 Each module labelled with the manufacturer's name, catalogue number and rating

Circuit breakers

fully magnetic to eliminate nuisance tripping
 Rated for tungsten loads having an inrush rating of no less than 20 times normal

current
 Rated for 100% switching duty applications
SCR (Thyristor) Assembly
 Sealed, patented assembly
 Two back-to-back SCRs per circuit
 Integral bonded heatsink
 Integral/temperature sensor
 Control LED per circuit
 4000V isolation between power and control components
 Field replaceable with screwdriver
Chokes
 High quality toroidal filters to limit objectionable harmonics, reduce lamp filament sing and limit radio frequency interference on line and load conductors
 225 – 400 microsecond filter rise times depending upon model
 Rise time measured at the worst case slew rate (about 50 percent) from 10 to 90 percent of the output waveform with the dimmer operating at full load

Power efficiency for standard dimmers shall be at least 97 percent at full load with a no-load loss of 3V RMS

Accepts hot patching of a cold incandescent load up to the full rated capacity of the dimmer without tripping

Special Modules

Air flow (blank) Modules
 Must be installed in unused dimmer module slots



Electronic Theatre Controls

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