



# C21 DIMMER RACK



With a major performance upgrade for C21 dimmer racks, the new processor delivers a new level of connectivity to C21 systems. A new front panel design with integral Ethernet port, together with an integral 4 port ethernet switch makes connection simple. Two DMX512 inputs are standard with the second input available for use as an RS485 port supporting our Vision.net control system.

The new design includes innovative new technologies to improve system setup and performance. A highly accurate mains waveform detection system ensures smooth dimming regardless of the condition of the incoming power. Simplifying installation, automatic voltage sensing reads the incoming phases and automatically populates pre-determined configuration fields, while color coded connectors speed the connection of conventional control signals. Diagnostic events are instantaneous, ensuring systems run smoothly and efficiently. The rack processor, utilizing distributive processing, enhances and simplifies control for architectural and systems applications, providing reliable, secure and scalable control at a realistic cost.



# C21 DIMMER RACK

## FEATURES

- Dual 2.4kW and Single 5kW IGBT fully reporting dimmer modules with 1000ms rise time
- Dual 2.4kW SSR dimmer modules with 350ms or 500ms filter chokes
- Single 6kW and 12kW SSR dimmer modules
- Range of power thru modules available with optional reporting features
- Contactor modules available to control a wide range of loads
- IGBT and SSR modules may be mixed in the same rack
- Standard 50,000 AIC fault current rating with optional 100,000 AIC available
- Advanced Control Electronics processor features a front panel ethernet connection
- Multi Industry standard ethernet protocol support including ShowNet, Art-Net and streaming DMX over ACN (sACN).
- Built in ethernet switch to link multiple racks
- Web browser configuration
- Dual DMX512 inputs with full patching
- Vision.net architectural control
- Dual electronics with full tracking back-up available
- ETL and cETL marked

## BENEFITS

- Plug-in modular dimmer system
- Racks available for 24 and 48 modules
- Universal processor for 120V and 230V systems
- Automatic mains calibration and setup
- A highly accurate mains waveform detection system ensures smooth dimming regardless of the condition of the incoming power
- Dual processor option with full tracking back-up available
- Built-in ethernet input port to aid installation
- Wide range of ethernet protocols supported
- Integrated Vision.net architectural control
- Retrofits to existing C21 dimmer racks
- 2 year limited warranty



# C21 DIMMER RACK

## CAPACITY

<b>Full rack</b>	48 dimmer modules
<b>Half rack</b>	24 dimmer modules
<b>Supply voltage</b>	90-260V, 3 phase up to 800 amps

## MAX CURRENT (PER PHASE)

### 120V

### 230V

<b>48 module rack</b>	800A	800A
<b>24 module rack</b>	800A	400A

## ENVIRONMENT

### °C

### °F

<b>Operating temperature</b>	1-40°C ambient	°F
<b>Storage temperature</b>	-40-70°C	°F
<b>Operating humidity</b>	5-95% non-condensing	
<b>In transit hock resistance</b>	40G 10mS in any of the X, Y, Z planes	

## CONNECTIONS

<b>Busbar rating</b>	50,000 AIC standard or 100,000 AIC optional	
<b>Control circuit isolation</b>	Optical isolation between high voltage and control electronics is 2500VAC. Control inputs are opto-isolated from the processor at 2500VAC, offering double optical isolation between the controller and high power circuits	
<b>Connections</b>	Ethernet CAT5e (RJ45)	
<b>DMX12 inputs</b>	2 DMX512 inputs standard; 2nd input available f,,or use as RS485 to support the Strand Vision.net architectural control system	

## PHYSICALS

<b>Finish</b>	Black	
<b>Construction</b>	Formed steel assembly	

## DIMENSIONS (H X W X D)

### mm

### in

<b>48 module rack</b>	2032 x 623 x 660	80 x 24.5 x 26
<b>24 module rack</b>	1448 x 623 x 660	57 x 24.5 x 26

## WEIGHT

### kg

### lb

<b>48 module rack</b>	<b>Product</b>	223	491.6
	<b>Shipped</b>	296	652.5
<b>24 module rack</b>	<b>Product</b>	181	399
	<b>Shipped</b>	198	436.5



# C21 DIMMER RACK

## MARKET

### Market

120V systems

## WARRANTY & APPROBATIONS

### Warranty

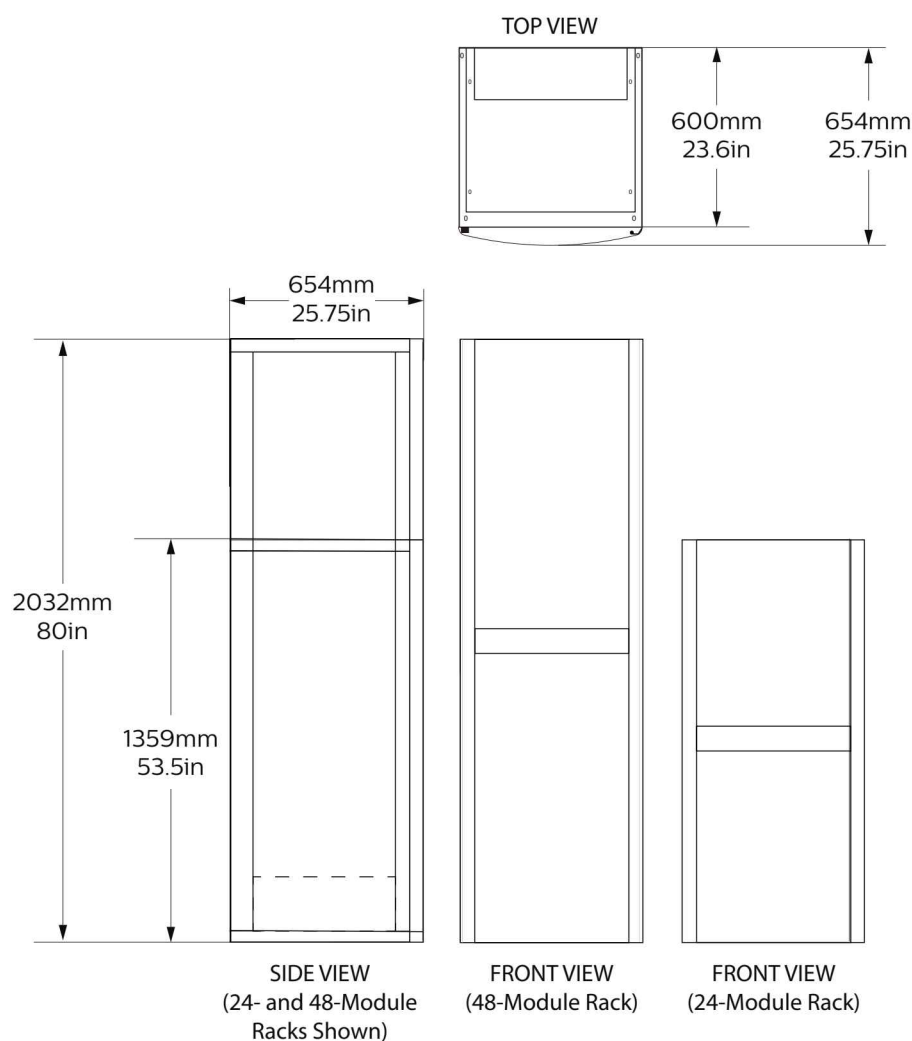
2 years

### Approvals / Listings

EMC emissions to EN50081-1, EN55014;  
EMC immunity to EN50082-1, IEC1000-2-2;  
Safety: EN60950, EN60439 Part 1  
(also part 12 BS5486);  
UL1950;  
CE marked

## NOTE

As with any SCR phase controlled dimming system, Strand Lighting always recommends the use of K-13 or better transformers (by others) to limit the propagation of triplen harmonics generated by these dimmers. Harmonic-Mitigating Transformers (zig-zag transformers) are acceptable substitutes for the K rating. Harmonic Blocking filters or harmonic suppressing systems are generally not used as they will cause unacceptable dimming performance.





# C21 DIMMER RACK

C21 RACKS - STANDARD FEED	ORDER CODE
48 module, single bottom feed	<b>75502/120</b>
48 module, single bottom feed with Amp traps	<b>75503/120</b>
24 module, single bottom feed	<b>75512/120</b>
24 module, single bottom feed with Amp traps	<b>75513/120</b>

C21 RACKS - BUSSED FEED	ORDER CODE
48 module, bussed bottom feed	<b>75504/120</b>
24 module, bussed bottom feed	<b>75514/120</b>

PROCESSOR ASSEMBLIES	ORDER CODE
Processor assembly with single electronics, c/w processor	<b>76700</b>
Processor assembly with dual electronics, c/w dual processor	<b>76701</b>
Spare processor 96 way	<b>76705</b>

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