

# capio plus

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Brochure No. #27901A  
Printed in U.S.A.

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## Specifications Capio Plus™ IGBT Intelligent Dimmer Rack

Model Number	ILSCP24	ILSCP48
Max. Dimmers/Spaces	48 x 20 Amp circuits	96 x 20 Amp circuits
Rack Size	46"H x 14 1/4"W x 26"D 117cm x 36cm x 65cm	82"H x 14 1/4"W x 26"D 210cm x 36cm x 65cm
Rack Weight	135 lbs. (empty) / 205 lbs. (full) 60 kg (empty) / 93 kg (full)	215 lbs. (empty) / 350 lbs. (full) 91 kg (empty) / 157 kg (full)
Clearance	12" Top      2" Right 30.48cm Top      6cm Right	12" Top      2" Right 30.48cm Top      6cm Right

### Rack Features

Construction	Black textured steel, ample wiring space, feed wiring from top, bottom, or sides
Cooling	Standard 10" Fan, Optional Fan Muffler or Quiet Fan Kit
Control	Accepts Lytemode®, USITT DMX512, and Pathport® DMX Management over Ethernet protocols
Feed Options	800 Amp (ILSCP48) & 400 Amp (ILSCP24) feed lugs standard. Optional Ground Bus available. Optional Rack-to-rack Busing kits available.
Access	Locking door with integral electrostatic air-filter

### IGBT Dimmer Module Features

Intelligent	IGBT Microprocessor controlled dimmer circuit makes automatic adjustments to voltage and the flow of current, in response to fluctuations in the load/electrical service. Intelligent dimming protects property and life as it suppresses surges, protects against shorts, and extends the service life of expensive lamps.
Quiet	800µs Voltage transition time with operation in either Reverse Phase Control (RPC) or Forward Phase Control (FPC) output waveform regardless of load size. IGBT dimming circuits contain no magnetic chokes and produce no mechanical noise.
Low Harm Mode™	A patented process to control excess harmonic currents common to all phase control dimming systems. Reduces noise in electrical conduit/panel, and reduces overloading of feed neutral conductors.
Efficient	Chokeless design provides higher voltages to the lamp to maximize lamp performance, and generates less heat in the dimmer rack. Capio Plus drops only 2.5 volts or less per circuit, regardless of load size or type.
Status/Control	Dimming modules provide visual indication of dimmer status using dual color indicators. The circuit can be turned On/Off or dimmed up using the front panel buttons. Convenient for luminaire testing, focus, and setup.
Load Types	Incandescent, Magnetic or Electronic Low Voltage, Inductive, Neon, Cold Cathode, and Fluorescent.

### Modules

CP20HP	High Performance Dual 2400 watt dimming module
CP15HP	High Performance Dual 1800 watt dimming module
CP50	Single 6000 watt dimming module
CP20HDF	Single 2400 watt PowerSpec HDF dimming module
CP15HDF	Single 1800 watt PowerSpec HDF dimming module
CP20ND	Dual 2400 watt Non-Dim module
CP15ND	Dual 1800 watt Non-Dim module
CP20CC	Dual 2400 watt Constant Circuit module
CP15CC	Dual 1800 watt Constant Circuit module
CPRCM	Capio Plus Rack Control Module
ILSLMPSC	Lytemode Architectural Lighting Control Network Power Supply
CPBLANK	Blank Filler Plate



High Density Precision Engineered  
IGBT Dimmer Rack

# capio plus™



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## IGBT Technology – Silent & Reliable Performance

Lightolier® Controls is proud to offer Capio Plus™, a high density dimmer rack precision engineered for your higher performance.

As the most advanced dimmer rack system in the industry today, Capio Plus has been specifically engineered to incorporate high-performance components with the proven benefits of the Insulated Gate Bipolar Transistor (IGBT) technology, all while offering exceptionally quiet, reliable and energy efficient rack dimming at an affordable cost.

## Innovation

Capio Plus™ high-density dimmer racks offer an excellent solution for both architectural and entertainment rack dimming applications. The 24 or 48 module dimmer racks provide design flexibility in any size venue, with a variety of load types; and for larger venues multiple dimmer racks may be bused together. Capio Plus high-density dimmer racks have replaced the conventional Silicon Controlled Rectifier (SCR) inefficient inductors with a patented IGBT dimming circuit. The IGBT devices offer 800µs of rise or fall time for quiet lamp filaments within the space, and can be configured to operate in Forward Phase Control, Reverse Phase Control, or complimentary-phase pairs to reduce neutral harmonics, a potentially catastrophic problem of SCR based dimmers. This patented Low Harm™ mode is exclusive to IGBT technology. By eliminating the need for an inductor, Capio Plus dimmers operate without the familiar 'buzz' of an SCR dimmer rack, and provide higher output voltages to the load, maximizing the performance of your lamps. Therefore, less wasted energy in the dimmer rack results in less heat generated by the dimmer rack. For the ultimate in dimming performance, installation savings, energy efficiency, and reliability, combine Capio Plus dimmer racks with IGBT Bak Pak® individual dimmers, Optio™ IGBT dimming panels, Intelligent Raceway® distributed IGBT dimming products, or any IPS™ dimming system.

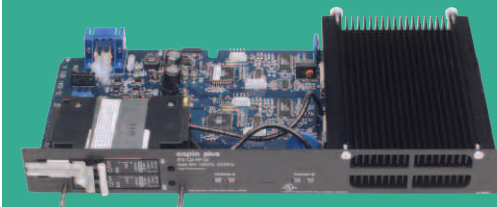


## Intelligence

As each dimming circuit features a microprocessor and Application Specific Integrated Circuit (ASIC) to drive the IGBT power device, Capio Plus™ dimmer racks are truly intelligent. This intelligence monitors the incoming voltage to each dimmer module, and compensates for power line fluctuations and interference. Regulated current and voltage provide consistent performance from lamps while minimizing premature lamp failure due to inrush currents. Capio Plus intelligence monitors the load of each dimmer circuit, sensing the size and type of load connected. When the load is inductive, such as a motor or magnetic transformer, Capio Plus dimmers automatically switch to Forward Phase Control (FPC) to prevent damage to the load. Should the load accidentally become shorted, Capio Plus dimmers can sense the short and temporarily disconnect power to that circuit, preventing dangerous arcing and the risk of shock, while protecting the dimmer circuit from damage. Capio Plus dimmers are so smart they can actually tell you when something is wrong. Dual color status LED's on the front panel of each dimmer module notify you when the output is shorted, when the dimmer module is operating warm, or even when the load has changed substantially. Capio Plus intelligence allows you to control the dimmer rack using the Lightolier Controls LYTEmode™ ILS Architectural Lighting Control protocol, USITT DMX512, or optional Pathport® DMX Management via Ethernet.

## capio plus at a glance.

- Quiet, proven IGBT technology
- Efficient "chokeless" design, only 2.5 volts insertion loss
- 800µs transition time, regardless of load size
- Low Harm™ mode reduces power line Harmonics
- IGBT dimmers produce no humming or buzzing, no mechanical resonance
- Advanced thermal management system
- Accepts Lightolier® Controls Lytemode® ILS Architectural Lighting Control protocol, USITT DMX512 protocol, and Pathport DMX Management via Ethernet
- Multiple Module types compatible with many loads: dual 2400 watt and single 6000 watt dimmer modules, HDF Fluorescent dimming modules, Non-Dim modules, and Constant Circuit modules available
- Rack features ample wiring space, and accommodates wiring from top, bottom, or sides of cabinet
- High velocity fan provides uniform cooling of all dimmer modules
- Designed for both Architectural and Theatrical applications



Dual 2.4 kW 800 µs Capio Plus Dimmer Module (shown)  
IGBT power devices  
ASIC intelligence and microprocessor per dimmer