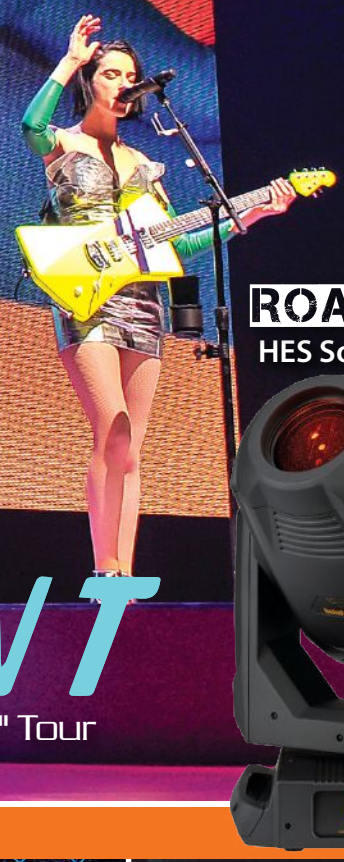
PLSN
www.plsn.com
Vol. 19.02
March, 2018

PROJECTION, LIGHTS & STAGING NEWS

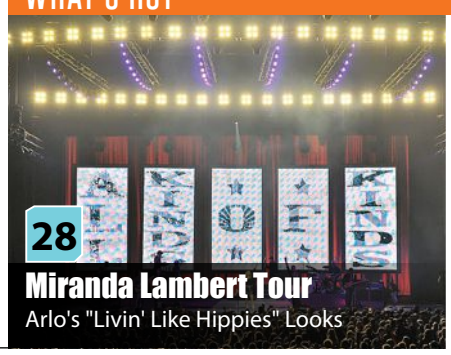
NEWS SPOTLIGHT

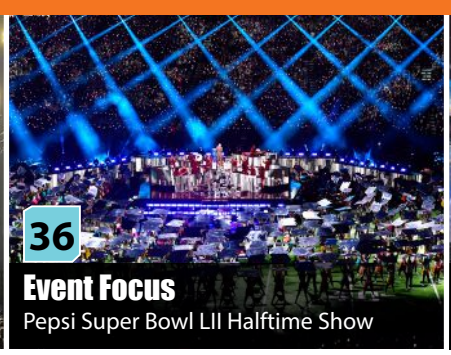
PRODUCT SPOTLIGHT

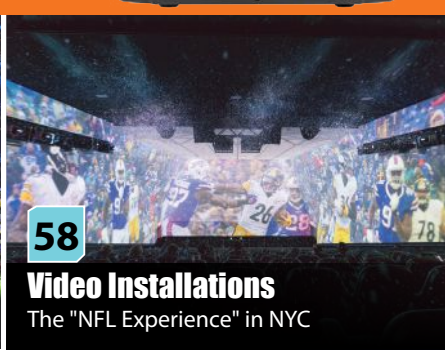
COVER IMAGE BY STEVE JENNINGS



WHAT'S HOT







LynTec RPC

By Brandon**Creel**

At a GLANCE

Flexible and Functional

LynTec continues to expand their product portfolio of web-enabled power control products. In addition to the new hardware (such as the mobile RPCM and NPAC), users should be able to benefit from the not-so-obvious new firmware update. It reveals additional features for control, monitoring, integration, reporting and overall simplified use.

LynTec RPC

PROS

Intuitive web-browser control, free mobile app control (iOS/Android), bolt-on breakers (seismic), robust construction, long life rating, multiple control methods. Flexible for system integration, panel for any application, no factory commissioning required.

CONS

Breakers "click" when changing state

FEATURES

- Motorized breakers (15A, 20A, 30A in 1/2/3 poles)
- Individual circuit control
- 12 breaker zones per panel
- Built-in web browser
- UL924 listed for emergency lighting
- Load shedding
- Sequencing
- Scheduling/astronomical timeclock

STATS

Breaker Counts	RPC/RPS: 30, 42, 66, 84; RPCM: 42
Relay Counts for RPCR	8, 16, 24, 32, 48, 64
Voltage	120/208V, 120/240V, 277/480V
Manufacturer	LynTec
More Info	lyntec.com

LynTec, a U.S.-based power and control company, is a leading manufacturer of innovative electrical power control solutions for professional audio, video, and lighting systems. They incorporate electrical protection, circuit switching, and a patent-pending controller within a single enclosure. Let us take a closer look at the product line, both hardware and software.

Hardware

The RPC, or Remote Power Controller, is an installed mains-fed remote control breaker panel. It's available in 120/208V, 120/240V or 277/480V. The RPC enclosure has three sections — one for power and circuit protection (breakers), one for isolated technical ground bus bar and power supply for the controller, and one for the controller and I/O boards.

The RPCR, or Remote Power Controller Relay, is an installed branch-fed remote control relay panel. It is available in 120/208V or 277/480V or mixed voltage, which is an advantage of using a relay panel. The RPCR enclosure has a voltage barrier to separate line voltage from low-voltage wiring.

The RPCM, or Remote Power Controller Mobile, is a portable cam-lock mains-fed remote control breaker panel. Each branch circuit has current monitoring as well as each phase and neutral. There are a number of standard output connector options from 5-20 (Edison) to 19-Pin socapex to L5-20 (120V twistlock) and L6-20 (208V twistlock) receptacles. If you have a need for something custom, they can build to order.

The NPAC, or Networkable Power Automation Center, is a portable branch-fed rack mount relay pack; it's available in 120V or 240V. On the rear are four 20A power inputs and four duplex 5-20R or 6-20R "Edison" controlled outputs. Each unit can densely handle 80 amperes in a 2RU space.

Motorized Breakers

LynTec breaker panels utilize Square D PowerLink G3 motorized breakers that allow for remote on/off control. Just like standard breakers, they connect to the phase bus bar, bolt in place, and they have a handle to turn the breaker on/off and reset tripped events. Unique to the G3 motorized breakers is a six-pin connector that plugs into the 24VDC control bus. This signal operates a small motor inside the breaker, which turns it on/off. Remote control does not change state of the handle and can only operate the breaker when the handle is in the on position. There is also a push-in tab to manually override an off state. The breakers come with single, double, and triple poles in 15A, 20A and 30A options. Non-motorized breakers are also available. The breakers are robust and mechanically rated for 200,000 cycles under full load and 65kAIC.

Switching Relays

LynTec relay panels use Panasonic HID Lighting relays that allow for remote on/off control. Each relay must be fed from a circuit with overcurrent protection (a circuit breaker). An indicator on the front of the relay shows the on/off state and the relay state can be changed mechanically, if required. Available in single and double poles, they are rated for 30A and 20A loads, respectively. The relays are robust and mechanically rated for 60,000 cycles.

Additional Features

LynTec offers several options that might be of interest, but not required on all projects. Current monitoring on branch circuits and/or each phase and neutral is included in RPCM and an option in RPC panels. Whole panel and/or branch circuit surge protection devices are available.

When you have a need for control of loads higher than 30A, LynTec offers an external high current contractor, which can handle loads up to 150A. You can feed it from a non-motorized breaker in the panel and control it from the I/O-R card. They offer one to four contactors in a single enclosure. From the user interface, the contactors appear just like the other breakers.

Applications

LynTec's products are specifically designed and targeted for audio, video and lighting applications. Between the standard features and optional features, there is a panel that meets the needs and budget of any project requiring power control. The standard isolated ground bus bar is commonly used in audio/video systems

and sensitive computer applications like server rooms, computer labs, and data centers.

The RPC is a perfect dimming panel replacement for LED lighting systems. It is superior to a standard "breaker panel," because it offers excellent control, status, and integration. RPC panels have no fans and are convection cooled. As a matter of fact, no ventilation is even required for operation. The motorized breakers make a "click" when changing states.

New Software

Even if you are already familiar with LynTec products, there are numerous substantial improvements released in Version 2.82h. *Note: Be sure to contact LynTec for information on how to upgrade your existing panels*.

The scheduling page has been improved and now features six user-definable schedules. The astronomical time clock allows for sunrise/sunset references at your physical location. For example, you can set a zone to turn on at one hour before sunset and off at one-half hour after sunrise. The sequencing time has been expanded to allow for two user defined delay times. For example, if a device must fully boot before the next, that exact time (up to 1,000 seconds) can be selected. This is in addition to the standard 25 milliseconds to 8 minutes that are also available.

Overvoltage protection has been implemented. Previously, the under-voltage (brownout) threshold could be set. This allows for any number of circuits to be automatically shut off if the voltage drops below a specified voltage. Now, the same can be set for overvoltage, which is another measure to protect sensitive and expensive equipment. There are 12 zones per panel, and zones can span between panels. Now, entire zones can be triggered by a single DMX address.

V2.82h implements "Whole Venue Control," which allows all LynTec's RPC and NPAC products to be visible in a single user interface. This allows for all panels and products to be configured, monitored, and controlled from one user interface.

Power Down

LynTec has been best known for sequencing panels for the audio/video industry, but they have been manufacturing lighting panels since 2007. Their products, including those in this review, are ideal for all audio, video and lighting applications and can be found in any venue type from small churches, to performing art centers, and professional stadiums and arenas. LynTec has taken performance venue power control to a new level of simplicity. PLSN