



ARCHITECTURAL AND ENGINEERING SPECIFICATION

PRODUCT: PRC-16-205

FUNCTIONAL OVERVIEW

The PRC-16-205 is a 3U-high powered rackmount cage designed to securely house and power up to 16 compatible Lightware optical, AV-over-IP extenders, or distribution amplifiers in any combination. It centrally supplies 5V DC power to all installed devices, featuring built-in protections against overloads and short circuits. Thermal management is handled by eight internal blowers continuously regulated by an integrated ambient temperature sensor. A front-panel status LED provides real-time monitoring of operational status and power supply load, ensuring reliable and organized deployment within professional AV rack environments.

ASSEMBLY AND TRANSPOSITION OPTIONS

■ Extender Installation:

- ❑ Extender brackets attach to the bottom of each extender using two M3x5 mm flat-head Phillips black screws (PH2 screwdriver required).
- ❑ Extenders connect directly to the cage's individual 12V DC power leads before insertion into the guide rails.
- ❑ Each extender assembly secures into its mounting slot using one M4x8 mm D-head Phillips unpainted screw (PH1 screwdriver required).

■ Rack Ear Mounting and Transposition:

- ❑ Rack ears can be mounted on either the front or the rear of the enclosure to support varying rack depths and cabling needs.
- ❑ Each ear features 10 mounting holes that align across 12 enclosure screw positions per side, allowing fine depth adjustment within the rack.
- ❑ Rack ears must be secured with a minimum of 4 screws per ear using M4x8 mm flat-head black Allen screws (2.5 mm / 7/64" Allen key required).
- ❑ Supported configurations include Front Installation (default for shallow racks with rear cabling), Front and Rear Installation (for deep racks needing cabling on both sides), and Rear Installation (for deep racks with front-facing cable access).

■ **Cable Guide Assembly and Transposition:**

- Includes two cable guides that can be mounted to the enclosure or rack ears in 10 different positions.
- Each cable guide must be secured with a minimum of 4 screws using M3x6 mm flat-head Phillips unpainted screws (PH1 screwdriver required).
- Cable guide length is adjustable by loosening two bottom screws, repositioning the fastening section laterally, and retightening.

POWERING

- Mains Power Source: Internal power supply powered via standard 100–240 V AC, 50/60 Hz mains through a rear IEC power cord connection (acts as the primary power disconnect device).
- Nominal Power Consumption: 200 W.
- DC Power Output Distribution: 16 built-in 5V DC output power leads dedicated to individual extender slots.
- DC Output Voltage: 5 V DC.
- Rated Current per Output Port: 2.5 A.
- Total DC Output Capacity: 40 A.
- Circuit Protections: Integrated circuitry protecting against overloads and short circuits.
- PSU Monitoring: Front-panel Status LED indicating normal operation (green) and visual warning when power supply load approaches maximum capacity (red).

GENERAL

- Dimensions:
 - With rack ears: 482.6 mm W × 319.0 mm D × 132.5 mm H (19.0" W × 12.5" D × 5.2" H)
 - Maximum depth configuration: 482.6 mm W × 454.0 mm D × 132.5 mm H (19.0" W × 17.9" D × 5.2" H)
 - Rack ear dimensions: 20.3 mm W × 235.0 mm D × 132.5 mm H (0.8" W × 9.2" D × 5.2" H)
 - Net weight (empty): 7.8 kg (17.2 lbs)
 - Weight fully loaded (16 extenders): 13.8 kg (30.4 lbs)
- Mounting Options: Standard 19-inch rack-mountable, 3U high; 1.5 mm steel enclosure with 16 modular extender slots and adjustable front/rear mounting positions.

- Electrical Safety & LVD Compatibility:
 - Safety (LVD): EN 62368-1:2020
 - Compliance: CE, UKCA
 - EMC Emission: EN 55032:2015+A1:2020
 - EMC Immunity: EN 55035:2017+A11:2020
 - RoHS: EN 63000:2018
- Supplied Accessories:
 - Rack mount cage with 2× rack ears and 2× cable guides
 - 1× IEC power cable
 - 16× Extender mounting brackets
 - 32× M3x5 mm PH flat-head black screws (for brackets)
 - 16× M4x8 mm PH D-head unpainted screws (for slot fastening)
 - 32× Cable ties
 - Safety and Warranty Info, Quick Start Guide (QSG)
 - Note: 8× M3x6 mm PH flat-head unpainted screws and 8× M4x8 mm flat-head Allen black screws are pre-assembled in the unit.
- Cooling: Active forced air cooling via 8× internal blowers continuously controlled by an integrated ambient temperature sensor; requires unobstructed front ventilation.
- Warranty Period: 3 years.

DOCUMENT REVISION HISTORY

Document	Release Date	Changes	Checked by
v1	2026-09-21	Initial version	Tamas Forgacs