

## **SPECIFICATION GUIDELINE FOR ES-SERIES ENCLOSURES**

### **840ES2448**

#### **Full Specification**

##### **General**

##### **84" High X 24" Wide X 48" Deep**

The enclosure must be Great Lakes product model #840ES2448

The enclosure must UL listed to UL2416 (Standard for Audio/ Video, Information and Communication Technology Equipment Cabinet, Enclosure and Rack Systems) Dimensions shall be 84" High, 24" Wide & 48" Deep. Featuring mesh contour doors, plexiglas doors, split mesh doors, split fan doors, perimeter vented doors or solid doors, locking lift-off solid or vented side panels removable solid, vented or fan top panels. Doors, sides & tops must be 16 Ga. The enclosure shall be constructed of cold rolled steel (CRS) utilizing a fully welded steel frame design with five bends in the (4) corner posts for superior strength. Rails are able to hold 2000 lbs or 3300 lbs with the optional HD kit. Shall have two pair of universal cage nut mounting rails that must be 19" EIA 310-E compliant. Rails must be infinitely adjustable front to back. Networking of multiple enclosures must be possible through the use of tool-less hardware. Manufacturer shall ship enclosure completely assembled including accessories such as cable management, shelves, & power strips. (Assembly must be per customer's instructions if provided) Manufacturer must be ISO 9001:2008 registered.

**Floor Mounting** The base unit frame shall have four separate floor mounting locations in the bottom. Threaded studs 5/16" to accommodate set of four (4) optional plate casters, threaded 1/4"-20 hole to accommodate (4) leveling glides and 3/4"Ø floor anchoring holes. Anti-tip option is to be fully retractable.

**Rack Mounting** Mounting rails shall be 12 Ga. infinitely adjustable with 44 rack mount unit (RMU) markings the complete length of the rail. RMU markings to start at bottom and count up. Universal (M6 or #10-32) rails shall be multi-vendor server compliant. Rails shall be powder coated and have 1/4"Ø pass through holes at every RMU and with cable management tie down slots both vertical and horizontal..

**Grounding** The base unit frame must have (4) M6 x 12mm copper plated grounding studs located in bottom corners of the enclosure. All doors must include a minimum of two (2) M6 x12 mm copper plated grounding studs located at the top and bottom of the door and (1) ground wire assembly with disconnect. Each side panel must include one (1) M6 x 12mm copper plated grounding stud located at the bottom of the side panel and (1) ground wire assembly with disconnect.

**Cable Management** The base unit frame must accommodate optional vertical and horizontal cable management lacing bars which are fully adjustable in the enclosure and allow for cable bundles in excess of 5". All 19" rack mount cable management must be installed at time of shipment.

**Cable Access** The top panel shall be removable. Top cabinet frame shall have a cable knock-out in the rear that is 7"D x 16"W allowing for 112 square inches of cable access. Bottom to have four cable access openings. Middle must have a cable access opening (minimum 8.36" x 23.25" or 195 sq. in.). Rear must have a cable access opening (minimum 3.25" x 18.00" or 63 sq. in.). Rear corner posts shall have side cable knock-outs to allow for enclosure to enclosure cable pass thru. They will be 3.25" x 34.00" and two per side.

**Doors** Mesh contour door must have easy latching, lockable door handle. All other doors must fit flush with the base, have lockable handles and swing open 180°. All doors must have three field reversible hinges using only the hardware provided. All mesh doors to be at least 64% open area for good ventilation. Base unit frame must have gaskets for the door openings. The following doors must be available as options: Solid, Mesh, Smoked Plexiglas, Split Mesh, Split Fan & Split Solid.

**Side Panels** The base unit frame must be able to accommodate locking, quick release, tool-less lift off side panels. Base unit frame must have gaskets for the side panel openings. The side panels should be flush with the base unit frame when installed.

**Top Panel** Top panels shall be removable. Options shall be solid, vented, three-fan low profile assembly and single or dual ten-inch fan assemblies. Panels to accept ladder rack brackets and top cable troughs.

**Hardware** Enclosure shall ship with a package of cage nut hardware (M6 or #10-32, Cage nuts & Screws).

**Power** The base unit frame must have the ability to mount three (5) vertical power strips mounted in each rear corner using button mounting. Front corners also shall be able to accept one (1) power strip per side.

### **Quick Spec.**

840ES2448

### **84" High X 24" Wide X 48" Deep**

The enclosure must be Great Lakes product model #840ES2448 & be UL listed to UL 2416.

Enclosure frame must be fully welded and be constructed out of cold rolled steel (CRS) utilizing a fully welded steel frame design with five bends in the corner posts for superior strength and be able to hold 2000 lbs or 3300 lbs with optional HD kit. Dimensions shall be 84" High, 24" Wide, 48" Deep.

Doors must fit flush with the base and swing open 180° and be 16 Ga. CRS. All doors have three (3) field reversible hinges using only the hardware provided. Mesh doors shall be 64% open area (\*\*the mesh contour door does not fit flush).

Enclosure shall have two (2) pair of 12 Ga. universal cage nut mounting rails that are 19" EIA 310-E compliant. Rails must be infinitely adjustable and have (44) RMU markings counting from bottom up.

Enclosure frame must allow for optional leveling glides, casters, floor mounting. Enclosure shall have copper plated grounding studs on base unit doors, sides and tops.

Top panels shall be removable.

Enclosure shall have 112 sq. in. top rear cable knock out. The bottom shall have cable entry of 287 sq. in.

The base unit frame must be able to accommodate flush, gasketed, locking, quick release, tool-less lift off side panels.

Enclosure must accommodate optional vertical and horizontal cable management lacing bar that is fully adjustable in the enclosure. Rear corner post must be able to accept one (1) or two (2) vertical cable troughs.

All 19" rack mount cable management must be installed at time of shipment.

The base unit frame must have the ability to mount three (5) vertical power strips mounted in each rear corner using button mounting.

Networking of multiple enclosures must be able to be done by using tool-less hardware. Manufacturer shall ship enclosure completely assembled including accessories such as cable management, shelves, & power strips.

Enclosures shall ship with a package of cage nut hardware; M6 or #10-32 as required. by customer.

(Assembly must be per customer's instructions if provided)

Manufacturer must be ISO 9001:2000 registered.