

## SPECIFICATION GUIDELINE FOR EN-SERIES ENCLOSURES

840EN (T)-4048MSS 840EN (T)-4048MSS-NS 840EN (T)-4048FK

## Full Specification General

## 84" High X 40"Wide X 48" Deep

The enclosure must be Great Lakes product model #840EN (T) 4048 Series.

The enclosure must be UL listed to UL60950-1 (Standard for Information Technology and Communications Equipment, Cabinet, Enclosure & Rack Systems.) Dimensions shall be 84" High, 40" Wide & 48" Deep. Enclosures shall be available in three configurations and with universal cage nut, 3/8" square or tapped 12-24 mounting rails

**840EN-4048SSS** will be a complete enclosure with split mesh front & rear doors, a pair of side panels, top panel & eight (8) leveling glides. Universal cage nut, 3/8" square M6 mounting rails.

**840EN-4048SSS-NS** will be a complete enclosure with split mesh front & rear doors, top panel & eight (8) leveling glides. NO side panels. Universal cage nut, 3/8" square M6 mounting rails.

**840EN-3242FK** Frame kit with eight (8) leveling glides – doors & sides not included. Universal cage nut, 3/8" square M6 mounting rails.

**840ENT-4048SSS** will be a complete enclosure with split mesh front & rear doors, a pair of side panels, top panel & eight (8) leveling glides. Mounting rails shall be tapped #12-24.

**840ENT-4048SSS-NS** will be a complete enclosure with split mesh front & rear doors, top panel & eight (8) leveling glides. NO side panels. Mounting rails shall be tapped #12-24.

**840ENT-4048FK** Frame kit with eight (8) leveling glides – doors & sides not included. Mounting rails shall be tapped #12-24.

The enclosure frame shall be constructed of cold rolled steel (CRS) utilizing a fully welded 14 Ga. steel frame design with an open box style upright and no corner post for superior strength. Shall be able to hold 2000 lbs. on leveling glides or bolted to the floor. Shall have two pair of universal cage nut, 3/8" square mounting rails that must be 19" EIA 310-E compliant. Rails shall have 45 rack mount unit (RMU) markings the complete length of the rail. RMU markings to start at bottom and count up. Part numbers with a "T" after the EN will have 12-24 tapped rails. Front rails must be fixed and the rear rails shall be infinitely adjustable front to back. Maximum rail spacing shall be 29" and be fully compatible with server mounting depth requirements. Mounting rails must have a Flexible Mounting Profile (FMP) that allows mounting of accessories that then do not interfere with the 19" EIA rack mount pattern. Each enclosure frame shall have cable management finger sections that run the full height of each mounting rail. These fingers must also be able to be mounted on the frame uprights. The top of the enclosure frame shall have large knock-outs for cable access. Bottom of the frame shall have large openings allowing ample access for large cable bundles and PDU power cords. Each rear frame post will have a set of Power Distribution Unit brackets that will allow two PDUs to be installed per side. These bracket shall be keyway mounting and be fully, vertically adjustable allowing various PDUs to be mounted. Mesh doors, split mesh doors must be made out of 16 Ga. Cold rolled steel. Side panels will be lockable and made out of .06" aluminum to reduce weight for easy removal. All parts shall be finished with a durable black textured polyester powder coat.

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 9001:2000 registered.

**Doors** The front & rear door shall be vertically split allowing for reduced aisle space while still being able to open the doors. Doors shall be finished with a durable black textured polyester powder coat.

**Side Panels** The enclosure frame must be able to accommodate locking, tool-less, lift off exterior solid side panels. The side panels should be flush against the frame. Side panels shall be made out of aluminum to reduce weight and for easy handling. Sides shall be finished with a durable black textured polyester powder coat.

**Floor Mounting** The enclosure frame shall have eight leveling glides pre-installed. Leveling glides shall be able to be adjusted using a 5/16" closed wrench or socket. There will be four (4) 5/8" diameter floor anchoring location in the bottom

**Rack Mounting** The enclosure frame shall have two pair of universal cage nut, 3/8" square mounting rails that must be 19" EIA 310-E compliant. Rails shall have 45 rack mount unit (RMU) markings the complete length of the rails. RMU markings to start at bottom and count up. Part numbers with a "T" after the EN will have 12-24 tapped rails. Front rails must be fixed and the rear rails shall be infinitely adjustable front to back. Maximum rail spacing shall be 29" and be fully compatible with server mounting depth requirements. Mounting rails must have a Flexible Mounting Profile (FMP) that allows mounting of accessories that then do not interfere with the 19" EIA rack mount pattern.

**Grounding** The enclosure frame shall have two (2) M6 x 12mm copper grounding studs one (1) located in the top and one (1) located in the bottom. The front and rear split mesh door shall have two (2) copper ground studs per door segment. One (1) at the top and one at the bottom on the hinge side. All side panels must include one (1) M6 x 12mm copper grounding stud located at the bottom of the side panel.

**Cable Management** The enclosure frame shall have twenty four (24) vertical management fingers sections. Each cable management finger section will be 7 RMU in length. Six (6) sections. 42 RMU will be installed on each of the vertical rack mount rail using the flexible mounting profile. The mounting of the cable management finger section shall not interfere with the 19" EIA rack mount pattern. The enclosure frame shall allow for the cable management to also have the optional mounting location onto the side of the frame uprights. Supplied cable management section shall be able to be mounted there or, an optional, additional kit of cable management sections shall be able to be installed at that location.

All 19" rack mount cable management ordered with the enclosures shall be installed at time of shipment.

**Cable Access** The enclosure frame shall be designed with no corner post allowing large cable bundles access from the top and or the bottom. Optional brush grommet shall be available for the top panel. Brush grommet to allow for sealed openings while still making cable access available.

**Doors** The enclosure frame shall be able to accept a mesh front door that must be able to open from either the left or right side. The rear door shall be split mesh with a three point latching system. Mesh doors shall be at least 64% open measured in useable EIA units.

**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 bracket.

**Hardware** The enclosure frame shall ship with package of fifty (50) M6 Cage nut & M6 Screws and for the frames with #12-24 tapped rails those shall ship with a package of  $50 #12-24 \times \frac{1}{2}$  screws.

**Power** The base unit frame must have the ability to mount two (2) vertical power strips mounted in each rear corner using button mounting.

**Baffle Kits** The enclosure frame shall come with a baffle kit for the 25 RMU Cisco 7018 switch. In addition enclosure frame shall be able to accept other baffle kits. Baffle kits shall be available for a range of Cisco switches that have side-to-side airflow. The baffle kits will allow air to be channeled from the right side of the switch to the left side and then exhausting out of the back. Kits shall be able to be installed without the use tools.

Manufacturer must be ISO 9001:2000 registered.

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