CHAPTER 9

OUTSIDE PLANT PRODUCTS

Enclosing critical telecommunications equipment in harsh outdoor environments can be a challenge. Your system reliability depends on enclosures that stand the test of time and withstand all that Mother Nature can dish out. For more than 60 years Hoffman has designed and fabricated countless outdoor enclosures to protect communications systems from the elements, supporting reliable communication system operations.

Your needs are continually changing, and Hoffman is prepared to work with you to ensure a sound equipment protection solution. Pentair Technical Products’ Hoffman brand outside plant product lines shown here are simply platforms to be customized in partnership with you, to fit your unique needs.

Featured Products -

COMLINE® ENCLOSURES HANDLE EXTREME ENVIRONMENTS

The lightweight, corrosion-resistant aluminum enclosure provides long-lasting protection for housing electrical components in both indoor and extreme outdoor environments. Designed for rooftop or tower-mounted telecommunications applications. Suitable for networking, communication, wireless, wireline and cable applications.

FTTX CABINETS PROVIDE IDEAL FIBER OPTIC CABLE PROTECTION

Protect and manage fiber optic cable for broadband delivery in outdoor applications with FTTX Enclosures. Constructed with welded aluminum and coated with polyester powder paint, these enclosures provide long-lasting protection in extreme outdoor applications.

OPAL PAD-MOUNT DSL ENCLOSURES MANUFACTURED TO YOUR SPECIFICATIONS FOR OUTSIDE PLANT APPLICATIONS

Hoffman’s OPAL cabinets are designed to meet the demanding needs of the telecommunications industry. They are particularly suitable when bringing combined broadband voice, data and video service to a neighborhood.
Chapter Contents

COMLINE® Wall-Mount Enclosures and Accessories
- COMLINE®, Type 4X ........................................... 224
- Mounting Panel ........................................... 226
- Solar Shield Top ........................................... 226
- Rack Angles ............................................. 227
- Door Stop Kit ............................................. 227
- Handle Options ........................................... 227
- Clip Nut Package ........................................... 227
- Screw Package ............................................ 227
- Pole-Mount Kit ............................................ 227

COMLINE® OSP Wall-Mount Cabinet Packages and Accessories
- COMLINE® OSP Package, Type 4X ............................. 228
- Handle Options ........................................... 230
- Rack Angles ............................................. 230
- Vertical Pole-Mount Channel ................................ 230
- Wood Panel .................................................. 230
- Gland Plate .................................................. 230
- Plinth Base .................................................. 230
- Ground Buss .............................................. 230
- Clip Nut Package ........................................... 231
- Screw Package ............................................ 231
- Mounting Bracket Kits ..................................... 231

Fiber Optic Cabinets
- FTTX Fiber Optic Cabinet Package, Type 4X ........................ 232
- Fiber Management Spool .................................... 234
- Splitter Chassis ........................................... 234
- Fiber Optic Cabinet Pole-Mount Kit ....................... 234
- Clip Nut Package ........................................... 235
- Screw Package ............................................ 235

Custom OSP Cabinets
- OPAL Pad-Mount DSL Cabinet ................................ 236
- COMLINE® Vertical Pole-Mount Cabinet ................... 238

FTTX SPLITTER CHASSIS
FITS MOST FIBER OPTIC MODULES

OPAL PAD-MOUNT DSL CABINET

COMLINE® WALL-MOUNT ENCLOSURES
COMLINE® Wall-Mount Enclosures and Accessories

COMLINE®, Type 4X

Application
Lightweight, corrosion-resistant COMLINE® aluminum wall-mount enclosures provide long-lasting protection for housing electrical components in extreme outdoor environments. These customizable enclosures employ a foam-in-place gasket for a tight seal and are ideal for rooftop or tower-mounted telecommunications applications.

For OSP questions, quotes and assistance, email: osp@hoffmanonline.com

Features
- Foam-in-place gasket
- 1- or 3-point latching (screwdriver slot), depending on door size
- Optional door stop/wind latch holds door in place during service
- Two door/hinge styles available:
  - Easily removable door with hidden hinge and retained hinge pin. Maximum door load 50 lb. (22.7 kg)
  - Heavy-duty continuous hinge door. Maximum door load 150 lb. (68.0 kg)
- Optional solar shield top

Specifications
- Type 5052-H32 aluminum: covers are .080-in. or .100-in. thick depending on size; bodies are .080-in. thick
- Seams continuously welded and ground smooth for a finished appearance
- Bonding provision on door; ground stud on body

Finish
RAL 7035 textured light-gray polyester powder finish inside and out.

Modification and Customization
Hoffman excels at modifying and customizing products to your specifications. Contact your local Hoffman sales office or distributor for complete information.

Bulletin: DCOM

Industry Standards
UL 508A Listed; Type 3, 3R, 4, 4X, 12; File No. E61997
CSA File No. 42186: Type 3, 3R, 4, 4X, 12
NEMA/EEMAC Type 3, 3R, 4, 4X, 12
IEC 60529, IP66
Designed to meet NEBS™-Telcordia GR487, GR63, IEC 48D
Meets Type 3RX requirements
NEBS is a trademark of Telcordia

Standard Product  Hidden Hinge

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>400 x 300 x 150</th>
<th>400 x 400 x 150</th>
<th>500 x 400 x 200</th>
<th>500 x 500 x 200</th>
<th>600 x 500 x 200</th>
<th>600 x 600 x 200</th>
<th>800 x 600 x 200</th>
<th>1000 x 600 x 300</th>
<th>1200 x 900 x 300</th>
<th>1500 x 900 x 300</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Points</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Latch Points</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Door Thickness</td>
<td>.08</td>
<td>.08</td>
<td>.08</td>
<td>.08</td>
<td>.10</td>
<td>.10</td>
<td>.10</td>
<td>.10</td>
<td>.10</td>
<td>.10</td>
</tr>
<tr>
<td>Door Thickness (mm)</td>
<td>2.08</td>
<td>2.08</td>
<td>2.08</td>
<td>2.08</td>
<td>3.54</td>
<td>3.54</td>
<td>3.54</td>
<td>3.54</td>
<td>3.54</td>
<td>3.54</td>
</tr>
<tr>
<td>Std. Pkg. (lb.)</td>
<td>9.0</td>
<td>10.0</td>
<td>15.0</td>
<td>13.0</td>
<td>17.0</td>
<td>19.0</td>
<td>23.0</td>
<td>27.0</td>
<td>35.0</td>
<td>55.0</td>
</tr>
</tbody>
</table>

ECL1209030, ECL1209030CH, ECL1509030 and ECL1509030CH include vertical door stiffener. Additional door stop required to meet NEBS-Telcordia 487 door restrainer requirements.

All the above enclosures must have mounting feet installed to meet UL Type 3, UL Type 4 and UL Type 4X ratings.
### Standard Product: Continuous Hinge

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>AxBxC (mm)</th>
<th>AxBxC (in.)</th>
<th>Latch Points</th>
<th>Door Thickness (mm)</th>
<th>Door Thickness (in.)</th>
<th>Std. Pkg. (lb.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECL303015CH</td>
<td>300 x 300 x 150</td>
<td>11.80 x 11.80 x 5.90</td>
<td>1</td>
<td>.06</td>
<td>9.0</td>
<td></td>
</tr>
<tr>
<td>ECL403015CH</td>
<td>400 x 300 x 150</td>
<td>15.70 x 11.80 x 5.90</td>
<td>1</td>
<td>.08</td>
<td>10.0</td>
<td></td>
</tr>
<tr>
<td>ECL404015CH</td>
<td>400 x 400 x 150</td>
<td>15.70 x 15.70 x 5.90</td>
<td>1</td>
<td>.08</td>
<td>12.0</td>
<td></td>
</tr>
<tr>
<td>ECL404020CH</td>
<td>400 x 400 x 200</td>
<td>15.70 x 15.70 x 7.90</td>
<td>1</td>
<td>.08</td>
<td>13.0</td>
<td></td>
</tr>
<tr>
<td>ECL504020CH</td>
<td>500 x 500 x 200</td>
<td>19.70 x 15.70 x 7.90</td>
<td>1</td>
<td>.08</td>
<td>15.0</td>
<td></td>
</tr>
<tr>
<td>ECL505020CH</td>
<td>500 x 500 x 200</td>
<td>19.70 x 19.70 x 7.90</td>
<td>1</td>
<td>.08</td>
<td>17.0</td>
<td></td>
</tr>
<tr>
<td>ECL605020CH</td>
<td>600 x 500 x 200</td>
<td>23.60 x 15.70 x 7.90</td>
<td>3</td>
<td>2.5</td>
<td>19.0</td>
<td></td>
</tr>
<tr>
<td>ECL606020CH</td>
<td>600 x 600 x 200</td>
<td>23.60 x 23.60 x 7.90</td>
<td>3</td>
<td>2.5</td>
<td>23.0</td>
<td></td>
</tr>
<tr>
<td>ECL806020CH</td>
<td>800 x 600 x 200</td>
<td>31.50 x 23.60 x 7.90</td>
<td>3</td>
<td>2.5</td>
<td>27.0</td>
<td></td>
</tr>
<tr>
<td>ECL1006030CH</td>
<td>1000 x 600 x 300</td>
<td>39.40 x 23.60 x 11.80</td>
<td>3</td>
<td>2.5</td>
<td>35.0</td>
<td></td>
</tr>
<tr>
<td>ECL1209030CH</td>
<td>1200 x 900 x 300</td>
<td>47.20 x 35.40 x 11.80</td>
<td>3</td>
<td>2.5</td>
<td>55.0</td>
<td></td>
</tr>
<tr>
<td>ECL1509030CH</td>
<td>1500 x 900 x 300</td>
<td>59.10 x 35.40 x 11.80</td>
<td>3</td>
<td>2.5</td>
<td>78.0</td>
<td></td>
</tr>
</tbody>
</table>

---

**Panel ORDER SEPARATELY**

**OMIT CENTER STUD IF B<600MM**

**23.62**

---

**Subject to change without notice**

PH 763-422-2661 • FX 763-422-2588 • hoffmanonline.com

© 2010 Pentair Technical Products
Solar Shield Top

Solar Shield Top provides a vented area on top of the enclosure to absorb solar heating effects and help keep enclosure cool. Also provides a drip shield to keep liquids away from the door sealing surface. Aluminum with RAL 7035 textured light-gray finish inside and out. Maintains enclosure rating. Includes mounting hardware.

Shielding Effectiveness
Hoffman's research of the effects of solar radiation on enclosures has shown the positive benefits of utilizing shielding to decrease temperature rise. Shielding has been found to be an effective, low-cost method of reducing solar heat gain in outdoor electrical/electronic applications. Test results indicate that a top-mounted solar shield provides a 25 percent reduction in temperature rise due to solar heat load.

<table>
<thead>
<tr>
<th>Enclosure Type</th>
<th>Temperature (°F)</th>
<th>Temp. Reduction (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unshielded</td>
<td>118.6</td>
<td>—</td>
</tr>
<tr>
<td>Top shield only</td>
<td>114.0</td>
<td>25</td>
</tr>
<tr>
<td>Top and side shields</td>
<td>110.1</td>
<td>46</td>
</tr>
</tbody>
</table>

Air Temperature = 100.2°F
Enclosure color is light-gray (RAL 7035)

The results of the test show the enclosure with top and side shields to have approximately a 46% reduction in temperature compared to the unshielded enclosure. Hoffman offers top shields as an accessory for Hoffman COMLINE® Wall-Mount Enclosures. The reduction in temperature is approximately 25% with the solar shield top only.

Mounting Panel

Provides a mounting surface in the back of the COMLINE® Enclosure for surface mount components. Mill finish aluminum.

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Fits A x B</th>
<th>Height (mm)</th>
<th>Height (in.)</th>
<th>Width (mm)</th>
<th>Width (in.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP5030AL</td>
<td>300 x 300</td>
<td>226</td>
<td>8.90</td>
<td>226</td>
<td>8.90</td>
</tr>
<tr>
<td>EP6030AL</td>
<td>400 x 300</td>
<td>326</td>
<td>12.84</td>
<td>326</td>
<td>12.84</td>
</tr>
<tr>
<td>EP6040AL</td>
<td>400 x 400</td>
<td>326</td>
<td>12.84</td>
<td>326</td>
<td>12.84</td>
</tr>
<tr>
<td>EP5040AL</td>
<td>500 x 400</td>
<td>426</td>
<td>16.78</td>
<td>426</td>
<td>16.78</td>
</tr>
<tr>
<td>EP5050AL</td>
<td>500 x 500</td>
<td>426</td>
<td>16.78</td>
<td>426</td>
<td>16.78</td>
</tr>
<tr>
<td>EP6050AL</td>
<td>600 x 500</td>
<td>526</td>
<td>20.71</td>
<td>426</td>
<td>16.78</td>
</tr>
<tr>
<td>EP6060AL</td>
<td>600 x 600</td>
<td>526</td>
<td>20.71</td>
<td>526</td>
<td>20.71</td>
</tr>
<tr>
<td>EP8060AL</td>
<td>800 x 600</td>
<td>726</td>
<td>28.59</td>
<td>726</td>
<td>28.59</td>
</tr>
<tr>
<td>EP10060AL</td>
<td>1000 x 600</td>
<td>926</td>
<td>36.46</td>
<td>526</td>
<td>20.71</td>
</tr>
<tr>
<td>EP12090AL</td>
<td>1200 x 900</td>
<td>1126</td>
<td>44.33</td>
<td>826</td>
<td>32.52</td>
</tr>
<tr>
<td>EP15090AL</td>
<td>1500 x 900</td>
<td>1426</td>
<td>56.35</td>
<td>826</td>
<td>32.52</td>
</tr>
</tbody>
</table>
Rack Angles

Rack Angles allow for mounting 19-in. rack equipment in 600-mm wide enclosures. Plated 14 gauge steel with .281-in. (7-mm) diameter holes (through-hole type). Twenty M5 screws and 20 clip nuts included for mounting rack angles to enclosure and for mounting equipment to rack angles.

Bulletin: DCOMY

Door Stop Kit

Self-acting door stop kit secures doors in the open position. Mounts to top or bottom of door. Stainless steel and aluminum material. Mounting hardware included.

Bulletin: DCOMY

Handle Options

Handle Options can be padlocked for added security. Kit includes handle and mounting hardware. Install using existing enclosure cam.

Bulletin: A80, DCOMY, DWS12

Clip Nut Package

Twenty plated clip nuts fit all rack-mounting angles with .281-in. (7-mm) diameter holes (through-hole type).

Bulletin: A80, X20

Screw Package

Screws attach rack panels and rack-mounted equipment to rack-mounting angles.

Bulletin: A80, DACCY, X20

Pole-Mount Kit

Use to mount CONCEPT®, Networking and wall-mount enclosures to poles of various sizes and shapes. Simply attach the plated steel channel bar to the mounting holes at the back of the enclosure and wrap the stainless steel strap around the pole and through the bar. Kit includes two mounting channels, two straps suitable for 3-in. (76-mm) to 12-in. (300-mm) diameter pole and mounting hardware.

Bulletin: CWY

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Description</th>
<th>Fits A (mm)</th>
<th>Fits A (in.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERA196TH</td>
<td>Rack Angles</td>
<td>600</td>
<td>23.62</td>
</tr>
<tr>
<td>ERA198TH</td>
<td>Rack Angles</td>
<td>800</td>
<td>31.50</td>
</tr>
<tr>
<td>ERA1910TH</td>
<td>Rack Angles</td>
<td>1000</td>
<td>39.37</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Description</th>
<th>Pkg. Qty.</th>
<th>Fits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AN1032</td>
<td>Clip Nut 10-32</td>
<td>20</td>
<td>.281-inch diameter holes</td>
</tr>
<tr>
<td>ANM5</td>
<td>Clip Nut Metric</td>
<td>20</td>
<td>.281-inch diameter holes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AS1032</td>
<td>Screw 10-32 x 5/8 (package of 20)</td>
</tr>
<tr>
<td>AS1032250</td>
<td>Screw 10-32 x 5/8 (package of 250)</td>
</tr>
<tr>
<td>ASMS</td>
<td>M5 x 12 mm combo head, (package of 20)</td>
</tr>
</tbody>
</table>
COMLINE® OSP Package, Type 4X

Industry Standards

<table>
<thead>
<tr>
<th>UL 508A Listed; Type 3, 3R, 4, 4X, 12; File No. E61997</th>
</tr>
</thead>
</table>

CSA: Type 3, 3R, 4, 4X, 12
NEMA/EEMAC Type 3, 3R, 4, 4X, 12
EC60529, IP66

Designed to meet Telcordia NEBS™ GR-487, GR-63 and IEC 48D
EIA 310-D with 19" spacing for rack equipment
Meets BICSI TDMM, Tenth Edition, Chapter 7, Telecommunication
Enclosures (TE)
Cabinet is RoHS compliant
NEBS is a trademark of Telcordia

Application

A complete, off-the-shelf package for 19-in. rack equipment,
lightweight COMLINE® OSP Wall-Mount Cabinets are constructed of
corrosion-resistant aluminum with a foam-in-place gasket that
secures and protects sensitive equipment in outdoor applications.
For ordering information, e-mail:
OSP@hoffmanonline.com.

Features

- Solar shield helps keep enclosure interior cool when cabinet is
  installed outdoors and directs liquids away from cabinet opening;
can be removed for indoor installations
- Foam-in-place gasket provides environmental seal
- Padlocking L-Handle provides a tight, secure door seal
- Doorstop holds door in place during service for easier and faster
  maintenance
- Heavy-duty hinged door is easily removed to facilitate equipment
  installation and removal. Maximum door load 50 lb. (22.7 kg)
- Rack angles adjustable front-to-rear of cabinet
- Gland plates available with cutouts that fit Hoffman T15, T20
  and CR23 air conditioners and Hoffman XR20 and XR29 heat
  exchangers
- Radius corners on cabinet eliminate sharp edges
- Stainless steel fasteners resist corrosion to maintain professional
  appearance
- Pole mounting kits available for all sizes
- Pad mounting plinth available for 600mm deep cabinets

Specifications

- Rack angles have EIA universal standard round hole spacing
- Use clip nuts for equipment mounting
- Eighth-inch thick, depending on cabinet size
- Seams continuously welded and ground smooth for a finished
  appearance
- Body includes studs for ground bar and rear mounting studs for
  wood panel

Finish

RAL 7035 light-textured low-gloss polyester urethane powder
coating over iron-phosphate-treated surface. Custom finishes
available: consult your local Hoffman sales office.
Bulletin: DCOM

Standard Product  COMLINE Wall-Mount Enclosure Packages

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>AxBxC in.</th>
<th>AxBxC mm</th>
<th>P (in.)</th>
<th>P (mm)</th>
<th>Q (in.)</th>
<th>Q (mm)</th>
<th>Rack Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECL606050P</td>
<td>23.62 x 21.62 x 19.68</td>
<td>600 x 600 x 500</td>
<td>17.47</td>
<td>444</td>
<td>12.47</td>
<td>317</td>
<td>12</td>
</tr>
<tr>
<td>ECL906050P</td>
<td>33.43 x 23.62 x 19.68</td>
<td>900 x 600 x 500</td>
<td>30.47</td>
<td>774</td>
<td>12.47</td>
<td>317</td>
<td>18</td>
</tr>
<tr>
<td>ECL907060P</td>
<td>33.43 x 27.56 x 23.62</td>
<td>900 x 700 x 600</td>
<td>30.47</td>
<td>774</td>
<td>12.47</td>
<td>317</td>
<td>18</td>
</tr>
<tr>
<td>ECL1207060P</td>
<td>47.24 x 27.56 x 23.62</td>
<td>1200 x 700 x 600</td>
<td>30.47</td>
<td>774</td>
<td>12.47</td>
<td>317</td>
<td>25</td>
</tr>
</tbody>
</table>

Rack mount devices shown not included
COMLINE® OSP Wall-Mount Cabinet Packages and Accessories

Accessory Compatibility

<table>
<thead>
<tr>
<th>Catalog Numbers</th>
<th>ECL60060P</th>
<th>ECL90060P</th>
<th>ECL907060P</th>
<th>ECL1207060P</th>
</tr>
</thead>
<tbody>
<tr>
<td>GLAND PLATES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EGPS1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EGPS2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EGACT15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EGACT20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EGACCR23</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EGPHX20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EGPH29</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>POLE MOUNT CHANNELS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EPMC6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EPMC9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EPMC12</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLINTH BASE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EPL7060</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WOOD PANELS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EG6P60W</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ER6P60W</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ER9P700W</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E12OP700W</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RACK ANGLES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERA996S</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERA995</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERA92395S</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ERA923123S</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Subject to change without notice

PH 763-422-2661 • FX 763-422-2588 • hoffmanonline.com
© 2010 Pentair Technical Products

This document provided by Barr-Thorp Electric Co., Inc. 800-473-9123 www.barr-thorp.com
COMLINE® OSP Wall-Mount Cabinet Packages and Accessories

Rack Angles
Rack Angles are made of 12 gauge, self-grounding plated steel and are grounded to the cabinet body through the mounting bolts. Square mounting holes meet EIA standard.

*Package includes one pair.*

Bulletin: DCOMY

Vertical Pole-Mount Channel
Vertical Pole-Mount Channel facilitates pole-mounting the COMLINE® package. It includes the bracket and hardware to mount the channel to the cabinet. No drilling into cabinet required to install.

Bulletin: DCOMY

Wood Panel
Wood Panels are made of 3/4-in. plywood, pre-cut and pre-drilled to install on panel mounting studs in the rear of the cabinet.

Bulletin: DCOMY

Gland Plate
Gland Plates are made of .100-in.-thick aluminum, finished to match the cabinet. They include a factory-installed foam-in-place gasket, stainless steel hardware and grounding provision. The installed gland plate maintains the cabinet rating.

*Package includes solid gland plate.*

Bulletin: DCOMY

Plinth Base
The Plinth Base enables pad mounting and provides additional cable management space. It adds an additional 5.00-in. (127-mm) height to the cabinet. The base is made of aluminum painted RAL 7035 light gray.

Bulletin: DCOMY

Ground Buss
This copper Ground Buss provides wiring tie points within the cabinet. Mounts on studs provided on cabinet side. Tie-point spacing is 3/4-in., pair-to-pair and 5/8-in. across each pair. Ground studs are 1/4-20 x .75-in. on 3/4-in. centers.

Bulletin: DCOMY

Handle Options
Handle Options can be padlocked for added security. Kit includes handle and mounting hardware. Install using existing enclosure cam.

Bulletin: A80, DCOMY, DWS12

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Description</th>
<th>Use with Cabinet (Height x Width in mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERA190S</td>
<td>19</td>
<td>12</td>
</tr>
<tr>
<td>ERA1905S</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>ERA192395S</td>
<td>19 or 23</td>
<td>18</td>
</tr>
<tr>
<td>ERA1923125</td>
<td>19 or 23</td>
<td>25</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Description</th>
<th>Use with Cabinet</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPMC6</td>
<td>Vertical Pole-Mount Channel 600 600-mm tall</td>
<td></td>
</tr>
<tr>
<td>EPMC9</td>
<td>Vertical Pole-Mount Channel 900 900-mm tall</td>
<td></td>
</tr>
<tr>
<td>EPMC12</td>
<td>Vertical Pole-Mount Channel 1200 1200-mm tall</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Description</th>
<th>Use with Cabinet (Height x Width)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGP51</td>
<td>Solid small</td>
<td>606 x 381</td>
</tr>
<tr>
<td>EGP52</td>
<td>Solid large</td>
<td>818 x 381</td>
</tr>
<tr>
<td>EGPACT15</td>
<td>AC cutout for T15</td>
<td>506 x 381</td>
</tr>
<tr>
<td>EGPACT20</td>
<td>AC cutout for T20</td>
<td>838 x 381</td>
</tr>
<tr>
<td>EGPACCR23</td>
<td>AC cutout for CR23</td>
<td>838 x 381</td>
</tr>
<tr>
<td>EGPCHX20</td>
<td>Heat exchanger cutout for XR20</td>
<td>838 x 381</td>
</tr>
<tr>
<td>EGPCHX29</td>
<td>Heat exchanger cutout for XR29</td>
<td>838 x 381</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Description</th>
<th>Use with Cabinet (Width x Depth)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPL7060</td>
<td>Plinth base</td>
<td>700 x 600</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGBB1</td>
<td>6-position, double-lug buss</td>
</tr>
<tr>
<td>EGBB2</td>
<td>12-position, double-lug buss</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELHP</td>
<td>Padlocking L-Handle</td>
</tr>
<tr>
<td>EPL4</td>
<td>Padlocking quarter-turn with key</td>
</tr>
<tr>
<td>DL36</td>
<td>Locking wing nut with 2 keys, silver finish</td>
</tr>
<tr>
<td>PTL368</td>
<td>Keylocking wing knob, black finish</td>
</tr>
</tbody>
</table>
Clip Nut Package

Twenty plated clip nuts fit all rack-mounting angles with .281-in. (7-mm) diameter holes (through-hole type).

Bulletin: A80, X20

Screw Package

Screws attach rack panels and rack-mounted equipment to rack-mounting angles.

Bulletin: A80, DACCY, X20

Mounting Bracket Kits

Mounting Bracket Kits are available in stainless steel or composite material. Kit includes 4 brackets and mounting hardware.

Bulletin: A80

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Description</th>
<th>Pkg. Qty.</th>
<th>Fits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AN1032</td>
<td>Clip Nut 10-32</td>
<td>20</td>
<td>.281-diameter mounting holes</td>
</tr>
<tr>
<td>ANM5</td>
<td>Clip Nut M5 (Metric)</td>
<td>20</td>
<td>.281-diameter mounting holes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AS1032</td>
<td>Screw 10-32 x 5/8 (package of 20)</td>
</tr>
<tr>
<td>AS1032250</td>
<td>Screw 10-32 x 5/8 (package of 250)</td>
</tr>
<tr>
<td>ASMS</td>
<td>M5 x 12 mm combo head, (package of 20)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMFK</td>
<td>Steel</td>
</tr>
<tr>
<td>CMFKSS</td>
<td>Stainless Steel</td>
</tr>
<tr>
<td>CMTGF</td>
<td>Composite</td>
</tr>
</tbody>
</table>
**Fiber Optic Cabinets**

**FTTX Fiber Optic Cabinet Package, Type 4X**

---

**Industry Standards**

<table>
<thead>
<tr>
<th>UL 508A Listed; Type 3, 3R, 4, 4X, 12; File No. E61997</th>
</tr>
</thead>
</table>

- CSA: Type 3, 3R, 4, 4X, 12
- NEMA/EEMAC Type 3, 3R, 4, 4X, 12
- EC60529, IP66

Designed to meet Telcordia NEBS™ GR-487, GR-63 and IEC 48D EIA 310-D with 19-in. spacing for rack equipment

Cabinet is RoHS compliant

*NEBS™ is a trademark of Telcordia*

---

**Application**

Pad-mounted FTTX welded aluminum enclosures provide long-lasting protection and manage fiber optic cable for broadband delivery in outdoor applications.

**For OSP questions, quotes and assistance, email:**
osp@hoffmanonline.com

---

**Features**

- Standard pitched roof promotes water runoff
- Available with either single- or dual-access doors on front and rear for convenient access
- 3-point latching mechanisms and padlocking handles on doors provide security
- Seamless foam-in-place gasket seals doors against moisture and dust
- Wind latch mechanisms on doors control door when open for equipment maintenance
- Removable lifting lugs (2) for easy installation
- Rack angles adjustable for 19-in. or 23-in. spacing without modifications

- Use clip nuts to mount equipment
- Cabinet top insulation helps prevent the formation of condensation and reduce solar gain inside cabinet. Cabinet side insulation is optional.
- Base of cabinet has a 5.00-in. (127-mm) high aluminum mounting plinth to allow for cable alignment
- Three pyramidal boots provided at base of cabinet for sealing various sizes of cables
- All fasteners are stainless steel to maintain professional appearance in severe outdoor climate conditions
- Grounding buss bar provided

---

**Specifications**

- Manufactured from Type 5052-H32, .125-in.-thick aluminum
- Seams continuously welded and ground smooth
- Heavy gauge continuous hinge

---

**Finish**

Finish is outdoor-grade polyester powder paint. A selection of colors is available. Standard color is RAL 1015 beige. Graffiti-resistant paints are available. Contact your Hoffman Sales Office for details.

---

**Accessories**

- Fiber Management Spool, page 234
- Compact Cooling Fans, page 213
- Temperature Control Switches, page 216
- Screw Packages, page 251
- Fiber Optic Cabinet Pole-Mount Kit, page 234

**Bulletin:** DTX

---

**Standard Product**

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>AxBxC in.</th>
<th>AxBxC mm</th>
<th>Rack Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>T303020FTTX</td>
<td>50.00 x 30.00 x 20.00</td>
<td>1270 x 762 x 508</td>
<td>10</td>
<td>Single-Access</td>
</tr>
<tr>
<td>T303020FTTXDA</td>
<td>50.00 x 30.00 x 20.00</td>
<td>1270 x 762 x 508</td>
<td>22</td>
<td>Dual-Access</td>
</tr>
<tr>
<td>T303020FTTXA</td>
<td>30.00 x 30.00 x 20.00</td>
<td>762 x 762 x 508</td>
<td>10</td>
<td>Dual-Access</td>
</tr>
</tbody>
</table>
Fiber Optic Cabinets

Networking: Outside Plant Products

50 INCH TALL MODELS

30 INCH TALL MODELS

Bottom View

© 2010 Pentair Technical Products
Fiber Optic Cabinets

Fiber Management Spool
Fiber Management Spools mount inside the cabinet and help maintain proper bends when routing cable. Molded of black plastic. Includes thread-forming M5 mounting screws. Slots provided on flange for VELCRO® cable wrap.

VELCRO is a trademark of Velcro Industries B.V.
Bulletin: DTX

Splitter Chassis
The Splitter Chassis provides mounting means and support for various sizes of fiber optic splitter modules. Capacities range from three 1 x 16 modules to nine 1 x 32 modules. All models mount on a standard 19-in. rack.
Bulletin: DTX

Fiber Optic Cabinet Pole-Mount Kit
The Pole-Mount Kit installs on the rear of the single-access cabinets using the hardware provided. No drilling or tapping of the cabinet is required. Installation instructions are provided for mounting to various types of poles.
Bulletin: DTX

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Kit Includes</th>
<th>Use With</th>
</tr>
</thead>
<tbody>
<tr>
<td>T11FTTXPMK</td>
<td>Channel and hardware for attaching to cabinet</td>
<td>11U Cabinet</td>
</tr>
<tr>
<td>T23FTTXPMK</td>
<td>Channel and hardware for attaching to cabinet</td>
<td>23U Cabinet</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Connection Module Cutouts</th>
<th>Connection Module Capacity</th>
<th>Rack Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1USPLTR</td>
<td>3</td>
<td>1 x 16</td>
<td>1</td>
</tr>
<tr>
<td>T2USPLTR</td>
<td>3</td>
<td>1 x 32</td>
<td>2</td>
</tr>
<tr>
<td>T3USPLTR</td>
<td>9</td>
<td>1 x 16</td>
<td>3</td>
</tr>
<tr>
<td>T5USPLTR</td>
<td>9</td>
<td>1 x 32</td>
<td>5</td>
</tr>
</tbody>
</table>

Installation on Wood Pole
Installation on Concrete or Steel Pole
**Fiber Optic Cabinets**

**Clip Nut Package**

Twenty plated clip nuts fit all rack-mounting angles with .281-in. (7-mm) diameter holes (through-hole type).

*Bulletin: A80, X20*

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Description</th>
<th>Pkg. Qty.</th>
<th>Fits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AN1032</td>
<td>Clip Nut 10-32</td>
<td>20</td>
<td>.281-diameter mounting holes</td>
</tr>
<tr>
<td>ANM5</td>
<td>Clip Nut M5 (Metric)</td>
<td>20</td>
<td>.281-diameter mounting holes</td>
</tr>
</tbody>
</table>

**Screw Package**

Screws attach rack panels and rack-mounted equipment to rack-mounting angles.

*Bulletin: A80, DACCY, X20*

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AS1032</td>
<td>Screw 10-32 x 5/8 (package of 20)</td>
</tr>
<tr>
<td>AS1032250</td>
<td>Screw 10-32 x 5/8 (package of 250)</td>
</tr>
<tr>
<td>ASM5</td>
<td>M5 x 12 mm combo head, (package of 20)</td>
</tr>
</tbody>
</table>
OPAL Pad-Mount DSL Cabinet

These cabinets are designed and built to your specifications. Your Hoffman Sales Office will consult with you to design your cabinet, develop order numbers and place your order.

![Double-Door Cabinet]

Industry Standards
EIA 310-D
Compliant with Telcordia NEBS™ GR-487-CORE
Main and end compartment are sealed to NEMA 4X
Optional battery compartment is ventilated to NEMA 3R
UL and CSA listings are available
Cabinet is RoHS compliant

NEBS is a trademark of Telcordia.

Application
Hoffman also provides the following custom platform cabinets:
- Universal backhaul cabinets
- Battery cabinets
- Power cabinets
For OSP questions, quotes and assistance, email: osp@hoffmanonline.com

Outside plant aluminum OPAL Pad-Mount DSL Cabinets are designed to meet the demanding needs of the telecommunications industry. They are customizable and well suited for bringing combined broadband voice, data and video service into a neighborhood.

Developing the Ideal Configuration
These cabinets are designed and built to your specifications. Your Hoffman Sales Office will consult with you to design your cabinet, develop order numbers and place your order.

They can be configured for any combination of 19-in. or 23-in. rack-mount communication devices, AC power distribution, cross connection, line protection, thermal management and battery backup. Hoffman will consult with you to help design the most efficient cabinet possible. We can supply either integrated cabinet solutions, including AC power and thermal management or cabinets ready for your own integration resources to customize. Contact your local Hoffman Sales Office for assistance.

Testing Capability at Hoffman
With our comprehensive in-house testing facilities, we can provide validation of your specific product requirements, including:
- NEMA testing
- UL testing
- Seismic testing
- Vibration and shock resistance
- Thermal performance
- Fire resistance
- Wind resistance
- Paint finish
- Salt spray corrosion
- Acoustical noise
- Electromagnetic compliance
- Dust tightness
- Impact and firearms resistance

Features
- Main equipment compartment has full access doors on front and rear
- Main equipment compartment can be configured with 19-in. or 23-in. mounting rails
- End compartment can be configured for cross connection and AC power distribution
- Copper bonding bars are provided in the main and end compartments
- Rack mounting capacity from 12RU (21 in.) to 104RU (182 in.)
- Optional battery compartment fits beneath the sealed cabinet
- Removable solar shield and lifting lugs are standard
- Includes mounting provisions for fastening to a concrete or composite pad
- Cabinet can be equipped with a heat exchanger or air conditioner
- Cooling capacity from 500 W to 3,500 W
- Heating capacity to 1,500 W
- Insulation is available
- EMI/RFI shielding is available

Specifications
- Cabinet is made from .125-in.-thick, Type 5052-H32 aluminum
- Seams continuously welded and ground smooth
- Heavy gauge continuous hinges on all doors
- All fasteners are stainless steel

Finish
Finish is outdoor-grade polyester powder paint. A selection of colors is available, including Telco beige and green. Graffiti-resistant paints are available. Contact your Hoffman Sales Office for details.

Accessories
Compact Cooling Fans, page 213
Temperature Control Switches, page 216
Custom OSP Cabinets

Example DSL cabinet configurations. Your cabinet may differ.

Example Single-Door Pad-Mount DSL Configured Cabinet

Example Double Door Pad-Mount DSL Configured Cabinet

Subject to change without notice
COMLINE® Vertical Pole-Mount Cabinet

These cabinets are designed and built to your specifications. Your Hoffman Sales Office will consult with you to design your cabinet, develop order numbers and place your order.

Shown with heat exchanger and customer rack-mount devices installed

Shown with heat exchanger installed

**Industry Standards**

- EIA 310-D
- Compliant with Telcordia NEBS™ GR-487-CORE
- Equipment compartment sealed to NEMA 4X
- Optionally, compartment can be ventilated to NEMA 3R
- UL and CSA listings are available
- Cabinet is RoHS-compliant

*NEBS is a trademark of Telcordia.*

**Application**

**Hoffman also provides the following custom platform cabinets:**
- Universal backhaul cabinets
- Battery cabinets
- Power cabinets

For OSP questions, quotes and assistance, email: osp@hoffmanonline.com

COMLINE® Pole-Mount Cabinets are ideal for telecommunication industry applications. They are unique in orienting 19-in. equipment vertically, which makes them especially suitable for pole applications in which a relatively small amount of equipment must be housed in a very compact enclosure and where wind resistance is a design consideration.

**Developing the Ideal Configuration**

These cabinets are designed and built to your specifications. Your Hoffman Sales Office will consult with you to design your cabinet, develop order numbers and place your order.

Hoffman will consult with you to help design the most efficient cabinet possible. We can supply either integrated cabinet solutions, including AC power and thermal management or cabinets ready for your own integration resources to customize. Contact your local Hoffman Sales Office for assistance.

**Testing Capability at Hoffman**

With our comprehensive in-house testing facilities, we can provide validation of your specific product requirements, including:
- NEMA testing
- UL testing
- Seismic testing
- Vibration and shock resistance
- Thermal performance
- Fire resistance
- Wind resistance
- Paint finish
- Salt spray corrosion
- Acoustical noise
- Electromagnetic compliance
- Dust tightness
- Impact and firearms resistance

**Features**

- Equipment compartment can be configured with 19-in. or 23-in. mounting rails
- Rack-mounting capacity from 5U (8.75 in.) to 10U (17.50 in.)
- Equipment compartment can have full access doors on front and rear or on front only
- Pole-mounting and wall-mounting provisions are included
- Removable solar shield is standard
- A variety of door latches is available, typical solution is a padlockable L-handle
- Lifting provisions are available
- Cabinet can be equipped with a heat exchanger or air conditioner (heat exchanger is pictured)
- Cooling capacity from 40 W to 600 W
- Heating capacity to 400 W
- Insulation is available
- EMI/RFI shielding is available

**Specifications**

- Cabinet is made from Type 5052-H32 aluminum
- Seams continuously welded and ground smooth
- All fasteners are stainless steel

**Finish**

Finish is outdoor-grade polyester powder paint in a wide selection of colors. Graffiti-resistant paints are available. Contact your Hoffman Sales Office for details.
### Thermal Considerations

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>24.00 x 12.00 x 12.00</td>
<td>105</td>
<td>149</td>
<td>100</td>
<td>Yes</td>
<td>161</td>
<td>none required</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>24.00 x 12.00 x 12.00</td>
<td>105</td>
<td>149</td>
<td>100</td>
<td>No</td>
<td>169</td>
<td>HX</td>
<td>2 W/K</td>
<td>PROAIR XR20-04</td>
</tr>
<tr>
<td>24.00 x 12.00 x 12.00</td>
<td>105</td>
<td>149</td>
<td>150</td>
<td>Yes</td>
<td>158</td>
<td>HX</td>
<td>2 W/K</td>
<td>PROAIR XR20-04</td>
</tr>
<tr>
<td>24.00 x 12.00 x 12.00</td>
<td>105</td>
<td>149</td>
<td>150</td>
<td>No</td>
<td>187</td>
<td>HX</td>
<td>5 W/K</td>
<td>PROAIR XR20-04</td>
</tr>
<tr>
<td>24.00 x 12.00 x 12.00</td>
<td>105</td>
<td>149</td>
<td>200</td>
<td>Yes</td>
<td>176</td>
<td>HX</td>
<td>4 W/K</td>
<td>PROAIR XR20-04</td>
</tr>
<tr>
<td>24.00 x 12.00 x 12.00</td>
<td>105</td>
<td>149</td>
<td>200</td>
<td>No</td>
<td>204</td>
<td>HX</td>
<td>7 W/K</td>
<td>PROAIR XR20-04</td>
</tr>
<tr>
<td>24.00 x 12.00 x 12.00</td>
<td>105</td>
<td>149</td>
<td>250</td>
<td>Yes</td>
<td>194</td>
<td>HX</td>
<td>5 W/K</td>
<td>PROAIR XR20-04</td>
</tr>
<tr>
<td>24.00 x 12.00 x 12.00</td>
<td>105</td>
<td>149</td>
<td>250</td>
<td>No</td>
<td>221</td>
<td>AC</td>
<td>1500 BTU/hr.</td>
<td>T15</td>
</tr>
<tr>
<td>24.00 x 12.00 x 12.00</td>
<td>105</td>
<td>149</td>
<td>300</td>
<td>Yes</td>
<td>212</td>
<td>HX</td>
<td>7 W/K</td>
<td>PROAIR XR20-04</td>
</tr>
<tr>
<td>24.00 x 12.00 x 12.00</td>
<td>105</td>
<td>149</td>
<td>300</td>
<td>No</td>
<td>239</td>
<td>AC</td>
<td>2000 BTU/hr.</td>
<td>T20</td>
</tr>
<tr>
<td>24.00 x 12.00 x 12.00</td>
<td>105</td>
<td>149</td>
<td>350</td>
<td>Yes</td>
<td>229</td>
<td>AC</td>
<td>2000 BTU/hr.</td>
<td>T20</td>
</tr>
<tr>
<td>24.00 x 12.00 x 12.00</td>
<td>105</td>
<td>149</td>
<td>350</td>
<td>No</td>
<td>256</td>
<td>AC</td>
<td>2000 BTU/hr.</td>
<td>T20</td>
</tr>
</tbody>
</table>

Some applications require mechanical heating or cooling to maintain desired internal cabinet temperatures. The chart shows an example of the amount of cooling that might be required for a particular size cabinet with different equipment heat loads.

---

**Example DSL cabinet configurations. Your cabinet may differ.**

**Example Small COMLINE® Vertical Pole-Mount Cabinet**

---

© 2010 Pentair Technical Products