

■ Outside Plant for
Business-Critical Continuity™

NetXtend™ Flex Series *Integrated Outdoor Enclosure Solution*





Features & Benefits

- **Full flexibility and scalability** — one enclosure for various telecommunication equipment, any size within a generous height, width, and depth range
- **Integrated backup power, cooling and connectivity capabilities** — assembled and tested prior to shipment
- **Increased customization ability** — material options, configurations, cooling options, and mounting options to meet specific customer configuration needs
- **Solution standardization** — provides fewer configurations and cabinet types to specify, install and maintain
- **Regional designs** — tailored to meet individual local requirements including Telcordia GR-487, European Telecommunication Standards, IP55, UL, NEC, and other applicable industry standards
- **Global presence** — ensures consistent enclosure and product support throughout Europe, Middle East, Asia, North and South America

Standardizing on a single enclosure platform increases your network reliability, leaves less chance for errors, simplifies network expansion, and reduces the burden of stocking service parts and repairing damage to panels, doors and other enclosure components.

Drawing upon Emerson Network Power's global presence and years of experience, the NetXtend™ Flex Series is designed to ensure environmental stability for sophisticated electronic equipment, and provide years of trouble-free service wherever the outdoor enclosure is deployed.

Emerson is dedicated to providing a secure outside plant (OSP) environment for vital telecom equipment and electronics. We understand that network configurations vary from region to region and that at some time or another, all OSP equipment encounters weather

extremes, thermal and electrical issues, environmental stresses, and wear from normal usage and accidental mechanical damage. We also realize that sophisticated electronic hardware is being moved further away from the safe, environmentally controlled confines of the central office or switch site.

Now, instead of ordering and maintaining several diverse enclosures to satisfy the needs of different regions, different networks and different applications, you can take advantage of a single enclosure platform that answers all your OSP needs.



Protection against destructive weather, thermal, electrical, environmental and mechanical forces is vital to assuring the reliability and revenue-producing capability of your wireless and wireline networks

NetXtend™ Flex Series — scalable, flexible, global



NetXtend™ Flex Series
(shown with integrated heat exchanger)



NetXtend™ Flex Series



NetXtend™ Flex Series
(shown with open side chamber)

- 1 Painted Frame (Optional)
- 2 Exterior Cooling System
- 3 External Battery Base
- 4 Standard Frame

- 5 Standard Door
- 6 Swing Handle or 1/4 Turn Lock
- 7 AC Load Center (Optional)
- 8 Emerson Protection (Optional)

- 9 Side Chamber
- 10 Cable Entry
- 11 Ground Bar (Optional)



Enclosure Flexibility

While one solution will not solve every problem, our global outdoor enclosure has the flexibility to address the wide variety of issues that arise in the OSP environment. The NetXtend™ Flex Series depends upon a proven structural system, integrated mechanical components and engineered panel materials, and a sealing system that withstands rain, dust, snow and hurricane winds.

Flex Series outdoor enclosures are designed to meet Telcordia GR-487, IP55 (except battery compartments) and other regional standards including Telcordia Zone 2 and Zone 4 earthquake requirements.

This system offers unsurpassed flexibility. Height, width and depth can be customized within a very liberal range. Overall weight has been minimized to expand mounting flexibility, while still providing exceptional strength and stiffness. Repositioning of integrated equipment is also possible.

Walls, Panels & Doors

The NetXtend™ Flex system offers a variety of panels and door options to meet the physical and thermal needs of specific enclosures. When combined with the available climate control options, a NetXtend™ Flex enclosure can be configured to satisfy virtually any environmental set of conditions.

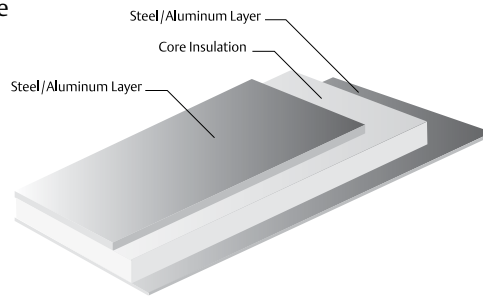
Range of Enclosure Dimensions *

	Minimum	Maximum
Height	795 mm [31.30"]	2300 mm [90.55"]
Width	380 mm [14.96"]	2300 mm [90.55"]
Depth	330 mm [12.99"]	1200 mm [47.24"]

*Regional limits may apply.

Material Fabrication Options

- **Single Wall (insulation optional)**
 - Aluminium
 - Aluzinc
- **Multilayer Wall (EMEA only)**
 - Steel / XPS / Steel
 - Aluminium / XPS / Aluminium



Roof

A pitched roof for water runoff and solar protection is optional on all single-side cabinets. A flat roof is available for cabinets with front and rear doors.

Racks and Accessories

NetXtend™ Flex enclosures can be configured for 510 mm (19") or 612 mm (23") integrated rack systems with industry standard EIA hole spacing enabling

the service provider to standardize on one configuration for deployments. Custom configured battery racks or indoor equipment racks can be mounted inside the enclosure.

Other accessory equipment, such AC distribution equipment, Transient Voltage Surge Suppression (TVSS), smoke detector, door alarm, lighting, and cable inlets can be readily integrated.

Mounting

A variety of mounting options are available for NetXtend™ Flex enclosures. Single-equipment-bay enclosures can be pad, pole, rooftop or H-frame mounted. Multiple-bay enclosures are suitable for pad mounting.

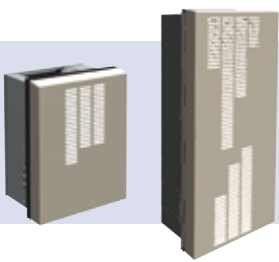
The Flex Series also offers a generic installation plinth for pad-mount installations. The plinth includes side openings for cable entrance and accessibility, and is fabricated with extra beams to support high loads.

Climate Control Solutions

Whatever climate, heat dissipation requirements or sound restrictions arise, there is a climate control solution available to keep your equipment operating within its optimum temperature range.

Options include heat exchangers, air conditioners, fan cooling, thermoelectric coolers, convection cooling and combinations of the above to meet more dynamic requirements. Climate systems

are integrated into the doors or panels. Wall material selection or insulation can also be used to maximize your climate control solution.



Heat Exchangers

Heat exchanger options are available to suit your dissipation needs and comply to local noise restrictions. These maintenance-friendly units require no refrigerant, feature low-energy consumption and, because they are DC powered, will continue to function when AC line power is lost.



Air Conditioners

Air conditioners are offered in several cooling capacities. Units are equipped with adjustable thermostat controls to maintain desired equipment temperatures. Optional integrated AC heaters are also available with each air conditioner to maintain internal enclosure temperatures during cold climate conditions.



Fans, Filters, Thermoelectric Cooling

DC-powered fans and filters offer low energy consumption, low noise levels, low operational cost, and the ability to operate when utility AC power is lost. Thermoelectric solid-state heat pump (Peltier) coolers provide cooling and heating without moving parts that tend to wear out.

Battery Choices

Battery backup assures that your wireless and wireline networks stay up and running when AC line power is lost. NetXtend™ Flex enclosures offer battery shelf and battery enclosure options to satisfy a variety of battery containment requirements.

Either internal or external battery compartments may be specified, depending on local requirements. Batteries may also be placed on shelves or racks within the equipment chamber. Shelf installations are normally sealed from the electronics compartment.





DC Power Integration



NetXtend™ Flex enclosures utilize Emerson Network Power's NetSure™ DC power technology platform to ensure the reliability of every active OSP enclosure. Emerson Network Power has been an industry leader in power solutions since 1909, with real-world, global knowledge of all types of telecom DC power needs.

Compact, modular, NetSure DC power systems provide more space for revenue-generating equipment in the enclosure

and can be configured for 19" or 23" rack mounting. They deliver constant power to meet load or recharge demand, and comply with global standards.

Units are available to provide -48V and +24V power. They operate on 120 or 220V single-phase AC power, 50 or 60 Hz, to accommodate global differences. Remote access options allow users to view, control and interact with installations where suitable communication links are available.



AC Distribution



Emerson Network Power's JuiceBox® PTS series power transfer switches are available with any active NetXtend™ Flex enclosure for primary AC surge protection. The AC load center offers 100 amp or 200 amp main service. Numerous configurations are available, utilizing switching, distribution and circuit protection components from world-class manufacturers.

The PTS can be mounted adjacent to the cabinet. It features all aluminum or galvanized construction, stainless steel hardware and a multistage powder coating for low maintenance and longer life. It meets UL3R rainproof requirements for North America.

The AC protection including main switch, surge protection and service outlet, can also be integrated into the rack system. We can provide a vast range of circuit breakers as well as automatic re-closer functionality.

Emerson Network Power provides a complete range of communications network infrastructure solutions and services built on an industry-leading reputation for quality, reliability and value

Enclosure Assembly, Integration and Testing

Emerson Network Power has the industry experience and in-house product knowledge to recommend, engineer, integrate, implement and support NetXtend™ Flex enclosures that you can confidently deploy as your network grows. When we configure a new Flex enclosure in one of our regional configuration centers, we integrate the climate control, DC power and backup, alarms, accessories and customer equipment. Prior to production, a skilled test team operates the completed enclosure in our thermal and acoustic chambers. If necessary, we modify the configuration to reduce the chance of encountering any unexpected glitches once the units are installed in the field.



The local presence of a global organization



To be profitable, your wireline and wireless networks must be properly deployed and individual sites must perform reliably, night and day. Emerson Network Power understands this and offers a wide array of global installation and support services.

Our experienced technicians will conduct site surveys of your current installations, and recommend and engineer the necessary enclosure and power solutions to accomplish your goals. We will prepare prints and other documentation and

pre-stage and configure all equipment to assure efficient installation. We will install and test enclosures and power systems prior to going on line. And we will provide post-installation maintenance contracts and emergency services to keep all systems running efficiently.

In short, you can focus on keeping your customers connected, knowing you have Emerson Network Power global service coverage, with over 150 service locations worldwide and 2,000 certified professionals with local knowledge behind you.

Emerson (NYSE: EMR), based in St. Louis, Missouri (USA), is a global leader in bringing technology and engineering together to create innovative solutions for customers through its network power, process management, industrial automation, climate technologies, and appliance and tools businesses. For more information, visit: Emerson.com.

Emerson Network Power, a business of Emerson (NYSE:EMR), is the global leader in enabling *Business-Critical Continuity*™ from grid to chip for telecommunication networks, data centers, health care and industrial facilities. Emerson Network Power provides innovative solutions and expertise in areas including AC and DC power and precision cooling systems, embedded computing and power, integrated racks and enclosures, power switching and controls, monitoring, and connectivity. All solutions are supported globally by local Emerson Network Power service technicians. For more information on Emerson Network Power's full suite of solutions specifically supporting the communications network infrastructure, including NetSpan™, NetReach™ and NetXtend™ outside plant enclosures and equipment, NetSure™ DC power systems, and turnkey services, visit: EmersonNetworkPower.com/EnergySystems.

Learn more about Emerson Network Power products and services at: EmersonNetworkPower.com.

This publication is issued to provide outline information only which (unless agreed by Emerson Network Power Energy Systems, North America, Inc. in writing) may not be used, applied or reproduced for any purpose or form part of any order or contract or be regarded as a representation relating to the products or services concerned. Emerson Network Power Energy Systems, North America, Inc. reserves the right to alter without notice the specification, design or conditions of supply of any product or service.

Emerson®, Emerson Network Power™, Business-Critical Continuity™, NetSpan™, NetReach™, NetXtend™ and NetSure™ are trademarks of Emerson Electric Co. and/or one of its subsidiaries.

**Emerson Network Power
Energy Systems, World Headquarters**
4350 Weaver Parkway, Warrenville, IL 60555 USA
Toll Free: 800-800-1280 (USA and Canada)
Telephone: 440-246-6999 **Fax:** 440-246-4876
Web: EmersonNetworkPower.com/EnergySystems

**Emerson Network Power
Energy Systems, EMEA**
SE-141 82 Stockholm, Sweden
Telephone: +46 8 721 60 00 **Fax:** +46 8 721 71 77
Web: EmersonNetworkPower.com/EnergySystems

Emerson Network Power.
The global leader in enabling *Business-Critical Continuity*™.

- | | | | |
|----------------|----------------------|------------------------------|-------------------------------|
| ■ AC Power | ■ Embedded Computing | ■ Outside Plant | ■ Racks & Integrated Cabinets |
| ■ Connectivity | ■ Embedded Power | ■ Power Switching & Controls | ■ Services |
| ■ DC Power | ■ Monitoring | ■ Precision Cooling | ■ Surge Protection |