Clearfield ODC-100 Outdoor Cabinet

D E S C R I P T I O N

The Clearfield ODC-100 broadband enclosure has been designed with the philosophy of modularity and flexibility, while maintaining a maximum heat dissipation capability. It is designed to accommodate the smaller form factor Calix E- or B-Series products and provide all the powering, protection and cable management to serve up to 288 E-Series or 144 B-Series subscribers. The Clearfield ODC-100 supports copper loop and fiber drop broadband services.

K e y   A t t r i b u t e s

MODULARITY: Clearfield powered cabinets are designed to easily scale from a minimal configuration to the maximum capacity of the cabinet. Design consideration has been taken to enable the customer to field install and scale common options such as line protection, cooling, and cross-connect modules. The cabinet can be configured for as low as 48 lines, and the option of scaling up to the maximum capacity of 288 Combo VDSL2 lines with the Calix E7-2, or 144 lines with Calix B6-001 products.

FLEXIBILITY: The ODC-100 has been designed to accommodate a variety of standard options that are expected in remote cabinets, such as the battery base, battery warmers, integrated cross-connect, and field changeable distribution frames for copper or fiber based access. The cabinet supports the installation of third party equipment, as well as the ability to connect to the network via either copper or protected fiber uplinks.

POWER OPTIONS: The ODC-100 enables service providers to power the cabinet using standard AC power, or power it remotely using +/- 190Vdc from a remote power node or a remote power system in the CO. Line or remote network power enables service providers to easily deploy services to subscribers without dependence on the local utility, and without continued battery maintenance.

COPPER TO FIBER ACCESS MIGRATION: The ODC-100 provides an ideal platform for the migration of copper access services to fiber access infrastructure and electronics. The mount frames in the cabinet support equal concentration of copper pro-panels as fiber distribution frames. The chassis based architecture of Calix E7-2 and B6-001 provide a common infrastructure for copper (ADSL2+ and VDSL2) and fiber access (GPON or AE) service line cards.

EQUIPMENT ACCESS: The ODC-100 provides frontal and lateral doors, for front and rear access to the equipment within the cabinet. A heat exchanger is built onto the side door as a standard feature of the cabinet. The cabinet is designed to allow access to all complementary elements of a remote deployment such as the integrated cross-connect, copper or fiber cables, copper based transport units, fiber splicing and distribution modules, power and DC distribution systems, AC power and battery charge breakers, AC outlet, etc.

ADVANCED COOLING: The ODC-100 cabinet has been designed to address heat dissipation associated with the deployment of high density, high-speed services from remote terminal locations. Cooling is achieved via a door-mounted air-to-air heat exchanger that is factory installed and field-maintainable.

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WIRED CAPACITY

Copper: Up to 288 (Calix E7-2) or 144 (Calix B6-001) Combo lines, or 144 Overlay VDSL2/ADSL2+ lines

Fiber: Up to 192 subscriber fiber drops (SC connectors); 6 1 by 32 split PONs, or 144 AE fiber drops

DIMENSIONS

Local AC Power: 48 inches (height) with battery base x 24 inches (width) x 18 inches (depth)

Remote DC Power: 37 inches (height) without battery base x 24 inches (width) x 18 inches (depth)

WEIGHT

Local AC power w/single 60 Ah battery base: 156 lbs. Equipped with one 60 Ah battery string: 340 lbs

Local AC power w/dual 60 Ah battery base: 184 lbs. Equipped with two 60 Ah battery strings: 525 lbs.

Remote DC power (no battery base): 135 lbs.

COLOR

Warm gray

ENVIRONMENTAL

Ambient temperature: –40° C to +46° C (per GR-487)

COOLING

600 Watt cooling capacity with door mount heat exchanger

MOUNTING OPTIONS

Pre-Cast Pad, Pour-in-Place Template, Pole Mount, Wall Mount, Adjunct mount onto host cabinet, Vault/Raiser

POWER OPTIONS

AC Power feed: 110–240 VAC single phase, 30 Amp service with UL listed service disconnect

Low voltage DC disconnect (–42 Volts)

High power AC surge protection (Joslyn)

Remote Power feed: Twenty ±190 VDC circuits/channels

Redundant –48 VDC feeds to Calix E-/B-Series Product

AC/DC RECTIFIERS

Valere JK-Series Power System

Two 30 Amp rectifier modules, autosenses and adjusts for low and high AC input.

Low input (100–185 VAC): Max. total power output 2500 Watts; Max. total current 50 Amps (2 modules, non-redundant)

High input (185–264 VAC): Max. total power output 3000 Watts; Max. total current 60 Amps (2 modules, non-redundant)

BATTERY BACK-UP

Single or dual 60 Ah battery string

GENERATOR CONNECTOR OPTIONS

30 Amp NEMA twist lock with breaker and interlock

DC-DC REMOTE POWER SYSTEM

GE Energy (Lineage Power) CPS2500D: ±190 VDC Downstream Power Converter

10 converter modules maximum; 2 channels per converter module

25 Amp (1300 Watt) max. total capacity

HOLD-UP POWER CAPACITOR OPTION

665 W Remote Power Buffer Capacitor

COPPER PROTECTION PANELS

Standard 5-pin protection blocks— modular in 48-pair increments

Up to six 48-pair protection blocks (288 pairs total for Combo or 144 ports for Overlay)

CABLE MANAGEMENT

Copper plant OSP connectors: MS^2 and 710

Integrated cross-connect option: 150- or 300-pair

EQUIPMENT SUPPORTED

Calix: Two E5-100, three E7-2 or three B6-001 Products

FIBER MANAGEMENT OPTIONS

12-Position Fiber Splice Tray (default), upgradeable to 36 position

Support for in-cabinet GPON and Active-E fiber management: Up to 192-position fiber distribution in 48- or 96-port increments assemblies; SC connector

Fiber spool and routing facilities

Integrated Nx 1:16 or 1:32 GPON Splitters (option)

LGX based 6-position cassette for fiber splicing or termination

SAFETY

UL-60950, Standard for Safety, Issue 1, April 1, 2003

CAN/CSA-C22.2 No. 60950

EMC

FCC Part 15 Class A

ICES-003 Class A

COMPLIANCE

Telcordia, GR-63-CORE, NEBS

Telcordia, GR-487, Generic Requirements for Electronic Equipment Cabinets