

SMARTMOD CUE SERIES

Concrete Enclosure



KEY FEATURES

- Walk-in concrete structure — low maintenance, high quality design
- Superior weather resistance designed to withstand wind loads up to 125 mph and beyond
- Custom exteriors — widely accepted in most municipalities and designed to blend with the environment
- Thermal management — “free cooling” utilizes patented flexible air intake hydrophobic filter vent option with two ton standby HVAC for high temperature and emergency conditions
- Sealed access hatch enables easy field installation of equipment
- Noise reduction kits available to meet any municipal requirements
- Field installable mansard and gabled style roof kits available
- Vertiv™ offers turnkey packages for custom configurations and installation needs

Versatile, low-cost SmartMod CUE enclosures protect vital electronics from extreme weather conditions at aggregation nodes throughout your telecommunications network.

Description

The SmartMod CUE Series of enclosures, constructed entirely of concrete, ensures vital electronic equipment is protected from vandalism and environmental damage. The enclosures are partially buried 42 inches into the ground, with 71.5 inches visible above ground, making it easier to comply with zoning regulations and providing more structure stability during severe weather. All units are monolithically poured to ensure there are no openings in the unit below ground.

The walls and roof are 4-inches and the floor is 7-inches of rebar-reinforced concrete. The interior walls and ceiling are insulated and covered with a non-metallic, non-reflective wall board, and the floor is finished with an industrial grade non-slip floor tiling. The SmartMod CUE comes standard with insulation (non-insulated

available upon request). All models have sealed roof hatches for easy field installation of equipment, and are less than 108 square feet, eliminating the requirement for special building permits for installation in most municipal regions. The standard exposed aggregate finish is also available in several textures, colors or brick veneers to match existing environments.

Application

The SmartMod CUE Series is designed to house and protect environmentally sensitive electronics at telecommunications sites including cellular, microwave radio, digital subscriber line (DSL), digital loop carrier (DLC) and Edge applications with virtualized network gear.



Partially Buried SmartMod CUE80 Enclosure

SmartMod CUE 60 Series

The CUE 60 model accommodates up to eight (8) 26" Equipment Bays to support the following applications:

- One DC Power Bay
- One full-sized Battery Bay
- One 23" rack for up to 2,016 Patch and Splice Fiber Panel
- Five additional Equipment Bay

The SmartMod CUE 60 is ideal for aggregating cellular or broadband equipment in telecom networks to support virtualized network gear at the EDGE.

SmartMod CUE 80 Series

The CUE 80 model accommodates up to ten (10) 26" Equipment Bays to support the following applications:

- One DC power bay
- One full-sized battery bay
- One 23" rack for up to 2,016 patch and splice fiber panel
- Seven additional equipment bay

The SmartMod CUE 80 is ideal for aggregating cellular or broadband equipment in telecom networks to support virtualized network gear at the EDGE.

Provision For Cross-Connect Cabinets

Space is provided on each side of the CUE walls for mounting stand-alone fiber or copper cross-connect cabinets. Cable entry ports are integrated on the CUE wall or can be added in the field. This space accommodates up to 10,800 pairs for CUE60 and 12,200 pairs for CUE80 of copper cross-connect using Vertiv's RLS IDC Cat5 terminal blocks housed in a separate weather-proof cabinet or customer provided Fiber Distribution Hub cabinet.

EnergyMaster™ Remote Monitoring

EnergyMaster monitoring systems offer customers a totally computerized supervision and control system managed and monitored 24x7 by a team of remote services infrastructure experts. By gathering and analyzing customer site performance and alarm data, we help customers increase network reliability and benefit from a continuous cycle of improvement in operational costs across the network.

Vertiv has developed a complete portfolio of hardware designed to collect the most important information at your site, such as alarms and analog values. This information is transmitted and managed by our remote monitoring platform supporting your SmartMod CUE, to evaluate the status of your site and speed up the resolution of any incidents that may arise. If desired, equipment can be connected directly to our remote monitoring platform, enabling all critical infrastructure at your site to be fully monitored using Vertiv's EnergyMaster remote monitoring solution.

Standard Features

Concrete Shell

- Sealed roof hatch assembly
- Exposed aggregate finish

CUE Common Equipment Kit

- Fire extinguisher
- Gas detector
- Entrance ladder
- Smoke detector
- Temperature & intrusion alarm contacts
- Emergency lighting system
- Grounding system
- Sump pump
- Comprehensive manual

CUE Commercial AC Kit

- 200-main, 100 A generator-integrated PTS (power transfer switch) system
- Thirty-two distribution positions
- Mechanical interlock
- Surge protection
- Convenience outlets

CUE HVAC (Heating Ventilation & Air Conditioning)

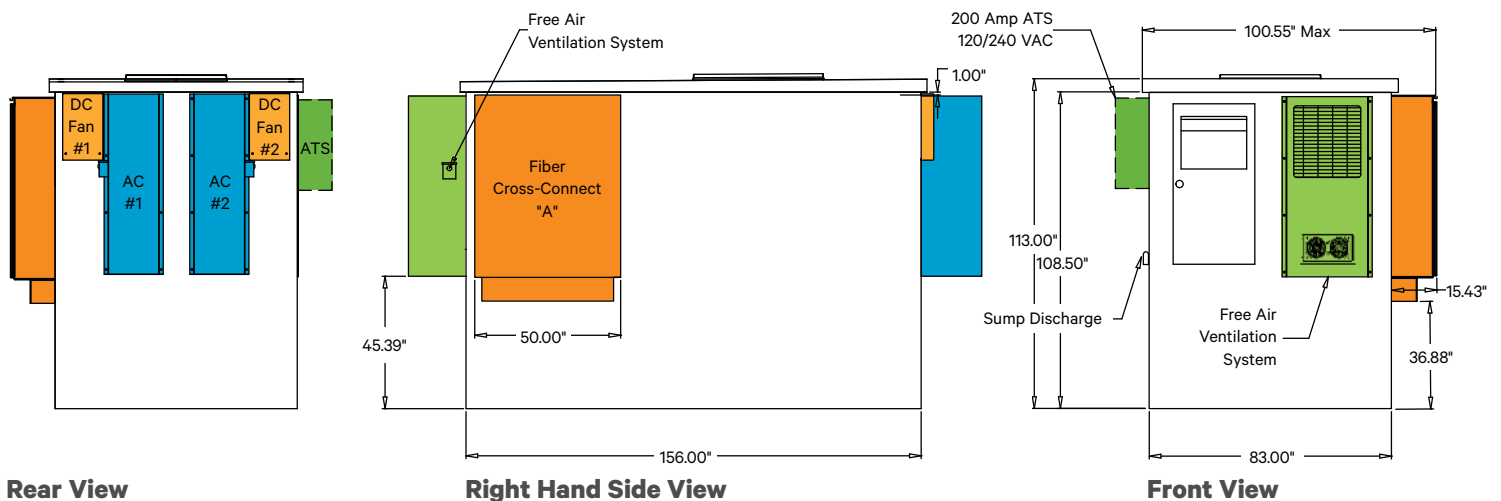
The CUE 60 and CUE 80 come standard with one HVAC system. A second HVAC can be factory or field installed.

- One 24,000 BTU HVAC system
- One fully programmable digital lead/lag controller
- No filters required
- Supports the following modes:
 - Redundancy
 - Lead/lag (for duty cycle balancing)
 - Dual capacity (up to 48,000 BTU)

CUE GORE® Vent Fresh Air Cooling System

- Compact free air cooling system with hydrophobic filter designed to control internal environment of communication shelters, compliant with GR487
- Provides better airflow and more consistent temperatures throughout the shelter
- Central controller manages air movers for the free air cooler and active wall mounted HVAC when needed, based on temperature threshold settings
- Control of up to two external climate units
- Exercise of the external climate unit every 10 days (duration: 5 minutes)
- Control of an external heater element
- Automatic shutdown in case of smoke alarm

Generic Elevation View – CUE 60



Dimensions

MODEL NUMBER	BAY COUNT	OVERALL DESCRIPTION	HEIGHT	WIDTH	DEPTH
CUE 60	6 equipment bays*	CUE 60 walk-in cabinet	113.5 in.	83 in.	156 in.
CUE 80	8 equipment bays*	CUE 80 walk-in cabinet	113.5 in.	83 in.	186 in.

*Bay count does not include battery bay, power bay, or MDF.

Ordering Information

PART NUMBER	DESCRIPTION	COLOR OPTIONS**
F787675CCXXX*	CUE 60 (6) equipment bays	Maple brown, ANSI61 gray, tan (beige), off-white
F787676CCXXX*	CUE 80 (8) equipment bays	Maple brown, ANSI61 gray, tan (beige), off-white

CUE Equipment Relay Rack options

524961/534643	23" relay rack, welded, Zone 2 rated
524913/541340	23" relay rack, welded, Zone 4 rated
520233	Heavy duty swing frame (right or left hand hinge) 23 in.
PC00438	Light duty swing frame (left hand hinge) 23 in.

CUE R399 Protection Blocks

F249024	R399 100-pair protector block – wire wrap - 25 ft. stub
F249034	R399 100-pair protector block – wire wrap - 35 ft. stub

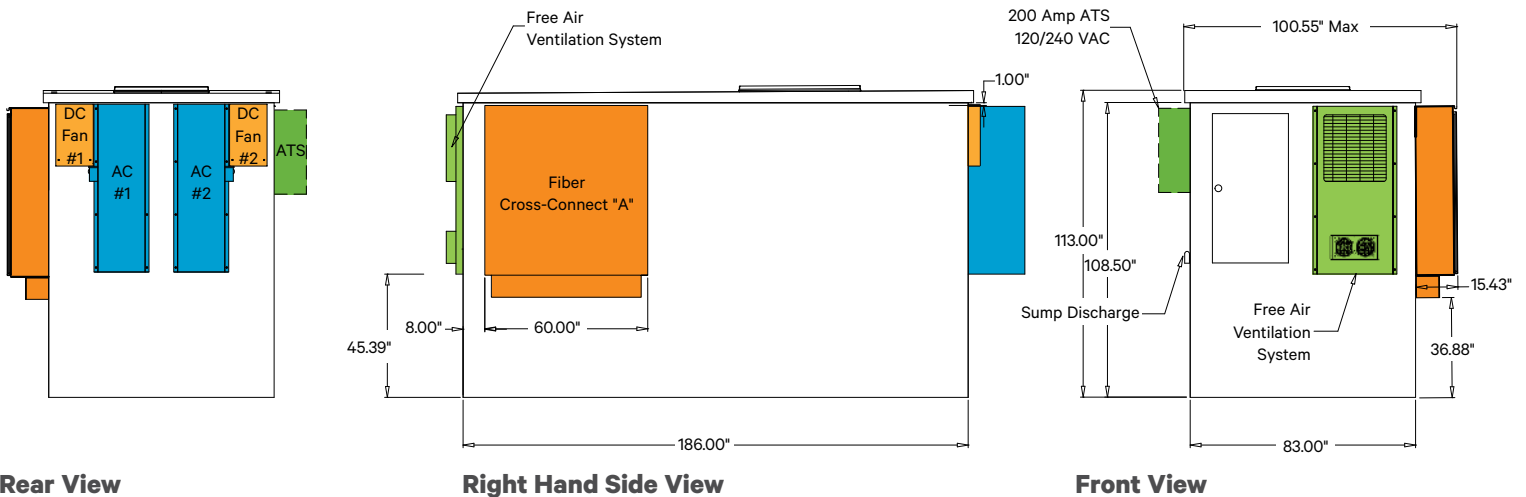
Battery & Battery Bay Options

520209	700 Ah battery tower, each with cabling and termination (size for 700 Ah front access batteries)
2379 – CDN004	510 Ah/465 Ah battery tower each with cabling and termination (size for 170 Ah front access batteries)
2411 – CDN085	100 Ah front access 48 VDC VRLA battery string
2411 – CDN121	155 Ah front access 48 VDC VRLA battery string
126111	170 Ah front access VRLA battery 12 V cell (four required to make 48 VDC string)
241264760	1600 Ah front access 100G33 GNB 48 VDC battery string
588820200	Battery rack, -48 V, 23"

*Each CUE is ordered under a single custom-configuration part number that will be assigned once final configuration and layout have been approved.

**When a color is chosen, the following items will be affected: external PTS, door, HVAC, DC ventilation system, cross-connect.

Generic Elevation View – CUE 80



Optional Features

CUE FINISH OPTIONS¹

Finish	Description
Stucco	Masonry stucco finish available in all standard colors
Standard Brick Finish #1	Williamsburg – real brick facing professionally installed
Standard Brick Finish #2	Heritage brown – real brick facing professionally installed
Standard Brick Finish #3	Centennial beige – real brick facing professionally installed
Standard Brick Finish #4	Heritage beige – real brick facing professionally installed
Standard Brick Finish #5	Antique gray – real brick facing professionally installed
Standard Brick Finish #6	Centennial slate – real brick facing professionally installed
Standard Brick Finish	Vertiv™ can match any available contractors' brick or stone

CROSS-CONNECT OPTIONS²

Model Number	Cross-Connect Capacities	
	BIX Capacity	3M MS ² Capacity ³
CUE 60	10,800	10,500
CUE 80	12,600	11,900
CRF ⁴	3,600	3,500

CUE PTS (POWER TRANSFER SWITCH) OPTIONS

PTS Options	Description
Internal PTS	200 A/100 A, 30-position load center mounted on rear wall of CUE
External PTS	200 A/100 A, 30-position load center, set flush with front surface wall of CUE to right of the door

CUE CROSS-CONNECT / SAI

Model Number	Maximum Number of Cross-Connect Modules	Connection Type ⁵	
		BIX Capacity	MS ² Capacity
CUE 60	6 (three per side)	21,600 PR (10,800 per side)	21,000 PR (10,500 per side)
CUE 80	6 (three per side)	25,200 PR (12,600 per side)	23,800 PR (11,900 per side)

DC POWER SYSTEM – NOMINAL SYSTEM VOLTAGE 120 VAC, 208 VAC, 240 VAC

Part Number	Description		
582127000	NetSure™ 721 DC power system	Bay:	2000 amps
		Shelf:	438 amps
		Distribution panel:	600 amps
M820DNA	ACU+ controller		
M830B	NCU3.0+ controller, 1 x 2 RU		
M830D	NCU3.0+ controller, 2 x 2 RU		
1R483500E	3500 Watt eSure™ rectifier		
588705000	Power shelf for rectifiers and converters		
1R482000E	2000 W eSure rectifier		

Rated Output Capacity

582136700	NetSure 502 DC power system, integrated distribution configuration 19" up to 80 A, 23" up to 120 A
582136800	NetSure 502 DC power system, bulk and external distribution configurations 19" & 23" top bulk systems up to 400 A, 19" rear bulk systems up to 365 A, 23" rear bulk systems up to 450 A, 19" & 23" externally mounted distribution panel systems up to 600 A

¹ By default, all CUE models come standard with an exposed aggregate finish. Other standard finishes are available. Likewise, custom finishes are available upon request. This must be determined at the time of order.

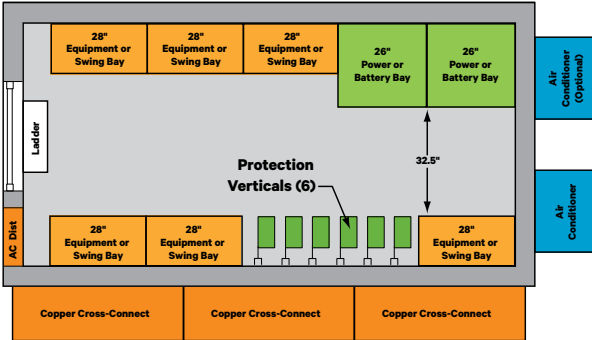
² The cross-connect options must be specified at the time of order. If a different cross-connect interface, other than BIX or 3M MS², is required, please contact the local Vertiv representative for availability and capacity.

³ The 3M MS² tower is available in either fixed or tip-out configurations.

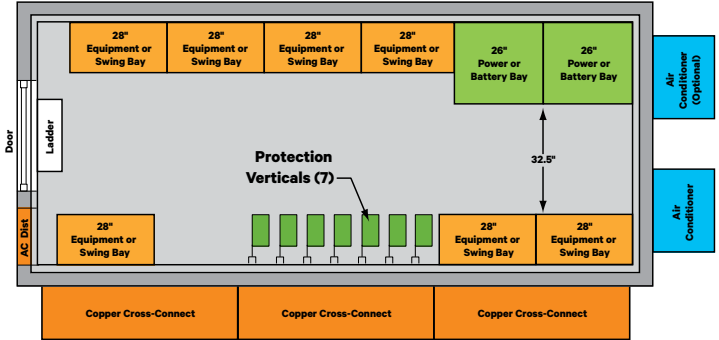
⁴ The CRF capacity may vary depending on type of splices used and configuration of cabling within the CRF.

⁵ Please contact your Vertiv representative for other connection type capacities.

Generic Layouts with Copper Distribution

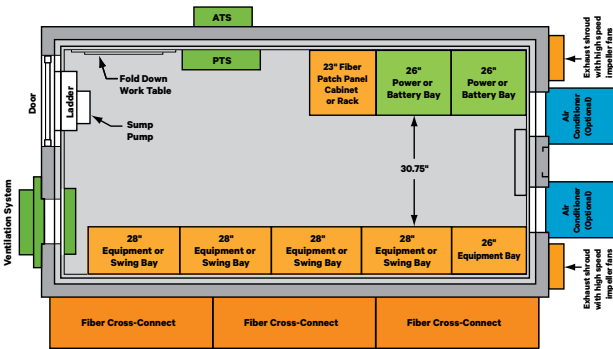


CUE 60 - Interior Layout

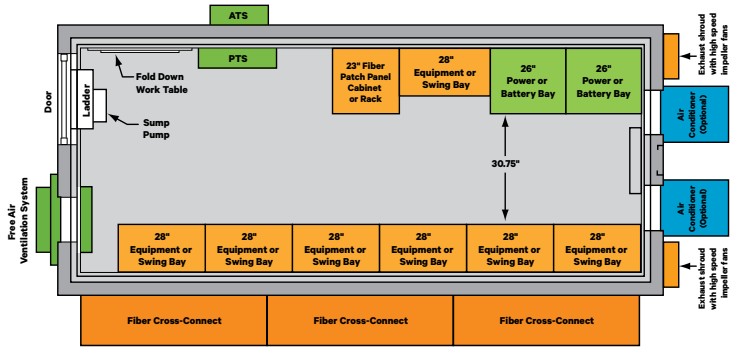


CUE 80 - Interior Layout

Generic Layouts with Fiber Distribution



CUE 60 - Interior Layout



CUE 80 - Interior Layout

To customize your solution and request more information, email EnergySystems@VertivCo.com.