VERTIV™

NetXtend™

DC Power System
for Telecom Power

OUTDOOR UNIT (ODU)

Enabling Tomorrow's

CRITICAL EDGE INFRASTRUCTURE

We helped some of the largest names in the industry bring new capacity online faster and at a lower cost when search and social media increased demand for storage and computing.

Protecting your critical technologies takes more than just great software and equipment. It takes a level of experience that only comes from years of finding solutions when the industry needed them most. We were the first to protect mainframes with precision cooling systems.

And now as challenges and demands grow, we continue to find better ways to help you strengthen your most vital applications. Formerly the Network Power business of Vertiv, we've brought together the most trusted and experienced names in critical infrastructure.

We were the first to introduce an integrated enclosure system to distributed networks.

Complemented by a network of nearly 250 service centers worldwide. It's a combination of experience and resources that allow us to better adapt to what's needed, anticipate what's next and continue to find solutions in ways other companies simply can't.

Our portfolio spans power, thermal and infrastructure management products, software and solutions.

NetXtend™ OUTDOOR UNIT (ODU)

FEATURES

- Integrated power supply: an integrated centralized power supply solution consisting of power supply system, temperature control system, environment monitoring system, battery backup system.
- Multi-capacity power supply configuration:with an embedded high-frequency switching power supply system as the standard equipment and the power capacity can be upto 500A.
- Large space for flexible application: the user equipment and battery chamber can share the same space, which can be flexibly adjusted according to user demands.
- Highly reliable temperature control system: the system integrated various temperature control units including heat exchanger, air conditioner and heater and can be flexibly configured according to on-site environment. The temperature in the cabinet can beadjusted in an intelligent way.
- High protection class (IP55) design, adaptingto long-term outdoor use.
- The cap of the cabinet adopts a bevel design, eliminating accumulation of rain waterand snow; the base adopts an extensional design, facilitating system installation and maintenance.
- Comprehensive environment monitoring system applications: the system performs monitoring and alarm uploading for the power supply system, temperature control unit and all environmental variables and provides various environment variable detection data to meet the practical use requirements of the user.
- Integrate different communication interfaces including RS232/485 and TCP/IP, etc. and realize system alarm uploading and remote monitoring.

OUTSIDE PLANT

Vertiv outside plant enclosures (OSP) are designed and manufactured exclusively for housing BTS, radio equipments, Telecom power equipments & battery banks. Enclosures are integrated with appropriate thermal management system, suitable for outdoor application. These enclosures are customized as per the customer requirements, considering efficient space management in mind.

Space management within such enclosures are generally depends on various factors such as customer's usable space requirement, rating of DC Power system, rating of battery bank used in the system, etc. Depending on the heat load inside of the enclosure, desired environment protection class & desired temperature within enclosure, suitable thermal management solutions are offered along with these enclosures. Fan filter solution, air conditioner system & heat exchanger system are some of the solutions which can be provided along with outdoor enclosure.

THERMAL MANAGEMENT

- Fan Filter
- Heat Exchanger
- AC Unit

ACCESSORIES

- Utility Socket: 5/15 A, 240V AC
- DC operated service light
- Smoke detector
- Door open Alarm
- Fan fail alarm

APPLICATIONS

- Construction of integrated outdoor base station
- Construction of outdoor macro station
- Construction of single cabinet and large capacity outdoor base station
- Indoor to outdoor BTS project
- Network expansion project city, highway, stadium
- Smart city projects

NetXtend™ OUTDOOR UNIT (ODU)

FEATURES

- Material: GI Sheet & Powder coated.
- IP55 protection class complying to IEC 60529
- Designed for housing DC power system of 48V.
- Battery space to accommodate battery string.
- Space for 19"equipment mounting
- Multi Point locking arrangement.
- Cable entries through IP55 protected cable glands.
- Roof tapering in order to prevent water accumulation
- Mounting arrangement : Pole mount / wall mount / Base mounting

FAN FILTER BASED OUTSIDE PLANT

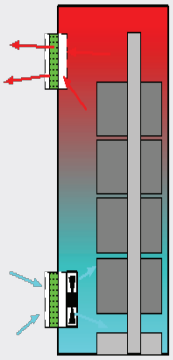
Available Unit Size : W x D x H (mm) Pole Mount		
300 x 500 x 550	375 x 600 x 600	375 x 550 x 455
450 x 550 x 600	550 x 600 x 600	600 x 600 x 800
Base Mount		
600 x 700 x 1400	700 x 700 x 2000	800 x 700 x 2100
900 x 700 x 1400	900 x 700 x 1600	900 x 700 x 1800
900 x 800 x 2300	900 x 1300 x 2000	1050 x 800 x 2250
1400 x 700 x 2000	1700 x 1000 x 1900	2050 x 750 x 2200

* Customization in size possible as per application

THERMAL MANAGEMENT

Force Ventilation through filter

- The air enters the enclosure from front bottom of door, through dust proof filter (G3 / G4 grade) and is taken out through DC Fans from top rear / sides.
- The filter used is easily removable for cleaning by blower, water or vacuum cleaner
- The numbers of fans are decided on various factors like fan CFM, Heat load, ambient temperature & desire delta T.



ACCESSORIES

- Utility Socket: 5A, 240V AC
- DC operated service light
- EM Lock (Optional)
- Smoke Alarm
- Fan fail alarm
- Door open Alarm

NetXtend™ OUTDOOR UNIT (ODU)

FEATURES

- Material: GI Sheet & Powder coated.
- IP55 protection class complying to IEC 60529
- Designed for housing BTS & Telecom equipment
- Multi Point locking arrangement.
- Cable entries through cable glands or Roxtec comseal
- Input & Output distribution
- Roof tapering in order to prevent water accumulation
- Mounting arrangement : Base mounting

HEAT EXCHANGER BASED OUTSIDE PLANT

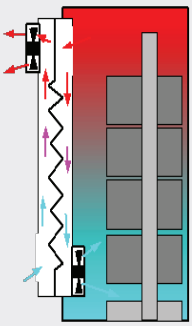
Available Range	
140 W / K	225 W / K
Available Unit Size : W x D x H (mm)	
800 x 800 x 1500	900 x 700 x 1600
900 x 800 x 2000	900 x 900 x 2400

* Customization possible as per application

THERMAL MANAGEMENT

Heat exchanger

- It has two different air circuits, internal and external. The internal air circuit extracts the heat from internal equipments from top section (Hot air in) and pass on to aluminium core. This core is then cooled by external air circuit. There is only transfer of heat through core, and thus external air does not enters into the system.
- It gives full protection against dust and water.
- Cooling capacity: 140W/K , 225W/K



ACCESSORIES

- Utility Socket: 5A, 240V AC
- DC operated service light
- HP/LP Alarm
- Smoke alarm
- Fan fail alarm
- Door open Alarm

NetXtend™ OUTDOOR UNIT (ODU)

DC AIR CONDITIONING BASED OUTSIDE PLANT

FEATURES

- Material: GI Sheet & Powder coated and thermally insulated
- IP55 protection class complying to IEC 60529
- Multi Point locking arrangement.
- Cable entries through cable IP65 protected glands
- Provided with lifting & Grouting arrangement
- Roof tapering in order to prevent water accumulation
- Complete access from front door

Available Range

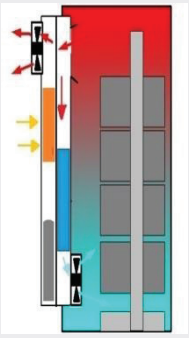
Available Unit Size : W x D x H (mm)				
400W	700W	1000W	1500W	2000W
700 x 600 x 900		700 x 700 x 1600		900 x 800 x 2300
900 x 800 x 2250		900 x 800 x 1400		

* Customization in size possible as per application

THERMAL MANAGEMENT

DC Aircon Cooling

- 48V DC based Air conditioner, active cooling unit provides controlled room temperature.
- The Air conditioner has a controller which intelligently control the operation.
- The cabinet construction for Active cooling is double skin with Insulation. It offers complete protection against dust and rain, as outside air does not come in contact with internal equipments.



ACCESSORIES

- Utility Socket: 5A, 240V AC
- DC operated service light
- HP/LP Alarm
- Smoke alarm
- Fan fail alarm
- Door open Alarm

FEATURES

- Construction Material: GI Sheet & Powder coated.
- Variable fan speed control – saves energy, reduces noise and extends filter life
- Emergency cooling during AC power failure
- Gravity damper - Zeropower consumption
- Inlet unit equipped with gravity louvers, to make possible to close during AC is running
- Outlet unit equipped with gravity damper when FCU is running. Closes due to gravity when FCU is running
- Inside & outside temperatures sensing compatibility

FREE COOLING UNIT

ENP's Free Cooling Unitsare tailor made solution - designed and manufactured exclusively to manage the heat load generated by telecom equipments within telecom shelter. FCU can be used as a standalone unit or in combination with existing air conditioning unit in telecom shelter.

Technical Specifications :

SR. NO.	PARTICULARS	UNITS	SPECIFICATION
A	GENERAL INFORMATION		
1	Construction Material		Galvanised Iron sheet with Powder coating
2	Dimension (WXDXH)	mm	500 x 553 x 510
3	Air discharge		Front Discharge
4	Air flow	CFM/CMH	1200 / 2033
5	Cooling capacity	KW	At ΔT 3°C = 1.8
			At ΔT 5°C = 3.0
			At ΔT 8°C = 4.8
B	FAN		
1	Fan Type		EC Backward curved impeller
2	No of fans/unit	Nos	1
3	Fan control	RPM	Variable speed
4	Air flow	CFM	1500
5	Power	Watt	208 (at zero static pressure)
6	Volts	V+/-%	48VDC
C	FILTERS		
1	Type		Non woven, synthetic media sandwiched between two layers of high density polyethylene mesh
2	Filtration efficiency/rating	% / Micron size	90 % down to 10 micron
D	CONTROLLER		
1	Type		Microprocessor Based, suitable to interlink with AC unit
2	Operating voltage	V DC	48
3	Nos. of Potential free contact available for external communication		2
4	Ambient air temperature sensor		Provided
5	Room air temperature sensor		Provided
6	Room air humidity sensor		Provided
7	Display		4 digits , 7 segment

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