

# NetSure™ 731 A41

48V DC Power System



## Key Features

- **Ultra-compact power system:** Delivers -48V, 240A DC power output in a minimal footprint- Saves a considerable amount of user space, leading to more room space for revenue generating equipments.
- **Easily adaptable in a harsh grid environment:** Supports a wide range of input voltage ,i.e. from 85-300 Vac ; enhances the battery life significantly.
- **High efficiency:** 96% efficient eSure™ rectifiers ensure optimal total cost of ownership.
- **Advanced battery management function:** Includes BLVD, temperature compensation, auto voltage regulation, reserve time prediction, and online battery test, among others to effectively prolong the battery life.
- **ECO mode function:** Embedded with an advanced energy optimization technique ensuring high efficiency at varying load levels.
- **Multiple communication interface:** Built-in communication ports such as RS 232, Dry contacts, and Ethernet, enable flexible remote controlling & monitoring.

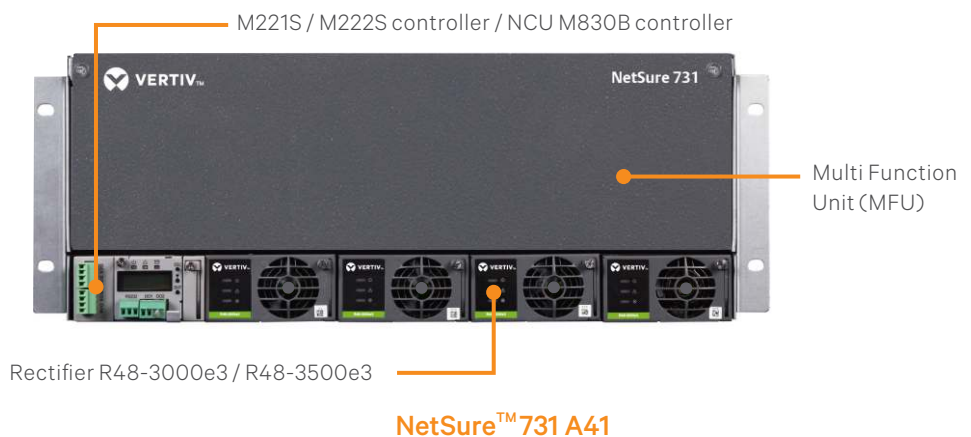
## Applications

- LTE coverage power supply
- Outdoor cabinet power supply
- Integrated FTTx access and traditional base station, equipment room power supply.

## Description

The NetSure™ 731 A41 series showcases the new platform's higher power densities, that are designed to deliver reliable and uninterruptible DC power for the telecom access applications. Up to four 3000W/3500W eSure rectifiers can be accommodated that deliver a system efficiency of greater than 95% and even enable significant energy savings at low loads in the ECO mode. The system's unmatched environmental tolerance and streamlined architecture, combined with intelligent monitoring and controls, make the industry's most reliable DC power systems even more robust.

The NetSure™ 731 A41 series has an integrated standard control unit; alternatively, an advanced unit with enhanced load management capabilities is also readily available. Remote Monitoring and software updates are available through web browsers with access via multiple gateways, resulting in rapid deployment, upgrades, and efficient service.



| NetSure™ 731 A41     |   |   |
|----------------------|---|---|
| Rectifier            | 4 x R48-3000A3 / R48-3000e3 / R48-3500e3  |   |
| Controller           | M221S / M222S / M830B   |   |
| AC distribution      | Input   | 1 x 125A / 2P                           |
|                      | Output  | 1 x 16A / 16P                           |
| Battery distribution | 2 x 125A / 1P   |   |
| DC distribution      | BLVD  | 2 x 63A / 1P, 4 x 32A / 1P, 2 x 16 / 1P |
|                      | LLVD  | 2 x 32A / 1P, 2 x 16A / 1P              |
| Lightning Protection | The AC side of the system is equipped with Class C lightning protection and the DC side is equipped with class D lightning protection |   |
| Dry Contact          | M221S / M222S: 3 alarm input, 4 alarm output<br>8 alarm output at most (optional)<br>M830B: 8 alarm input, 8 alarm output             |   |
| Optional             | Cover, temperature sensor, battery rack, dummy plate of module  |   |

Note: Customizable to support up to five rectifiers of R48-3500e3

## Rectifier

| Electric Parameters      | Description  |
|--------------------------|--|
| Model name               | R48 - 3000A3 / R48-3000e3 / R48-3500e3             |
| Input Voltage            | 85 VAC ~ 300VAC                                    |
| Power Factor             | >0.99 for 50% - 100% load                          |
| Efficiency               | R48-3000e3: 95.5% (Peck) ; R48-3500e3: 96.3%(Peak) |
| Max. Input Current       | 22A  |
| Output Voltage           | -42VDC-58VDC                                       |
| Output Current (@-48Vdc) | R48-3000A3 / R48-3000e3: 62.5A ; R48-3500e3: 72.9A |
| Nominal Voltage          | -48VDC   |
| Operating Temperature    | -40 ~ +70°C, -40~ +158°F                           |



R48-3000e3



R48-3500e3

## Controller-M221S

|                         |   |   |
|-------------------------|---|---|
| Display                 | LCD with 8 X 16 characters  |   |
| Communication Interface | RS 232, Ethernet  |   |
| Protocol                | HTTP, SNMP, YDN23   |   |
| Inputs                  | Analog  | 1 battery current, 1 bus voltage, 1 battery voltage, 2 temperatures, 4 midpoint battery voltages            |
|                         | Digital   | 2 load fuses, 4 battery fuses, 1 bi-stable contractor status, 4 user inputs (Optional, need an extra board) |
| Outputs                 | 1 LVD mono or bistable contractors, 1 LVD mono contractor, 8 user relay outputs ( Optional, need extra board) |   |



M221S

## Controller-M830B

|                         |  |   |
|-------------------------|--|---|
| Display                 | 128 x 160 Pixels TFT LCD                                 |   |
| Communication Interface | RS 232, RS 485, Ethernat, USB                            |   |
| Protocol                | Ipv4, IPv6, HTTPS, SNMP V2/V3, EEM Soc Tpe, Rsoc, Modbus |   |
| Inputs                  | Analog   | 2 battery currents, 1 load current, 1 bus voltage, 2 battery voltages, 3 temperatures, 1 fuel level sensor and much more with additional interface boards |
|                         | Digital  | 1 input for status of surge protective device auxiliary contacts, 12 load fuses, 6 battery fuses, bi-stable contractor status                             |
| Outputs                 | 3 LVD mono & bistable contractors                        |   |



M830B

## Mechanical Parameter NetSure™ 731 A41 Series

|                            |  |
|----------------------------|--|
| Structure                  | 19 inches(W), 4U(H)                      |
| Dimensions (W x D x H)(mm) | 483 x 390 x 178                          |
| Weight (kg)                | ≤25 (including rectifier and controller) |