

# NetSure 731 A41 Series Embedded High-frequency Power System



## System Features

- ☑ Highly adaptive capacity for mains grid: The system supports wide input voltage range(85~300Vac),which increase the adaptive capacity for adverse mains grid.
- ☑ High efficiency:Efficiency of high-efficiency rectifier can be up to 95.5%,system efficiency can be above 95%.
- ☑ High reliability:The system has perfect lightning protection at both AC side and DC side,and supports use with outdoor cabinet.
- ☑ Perfect battery management function: The management functions include BLVD, temperature compensation,auto voltage regulation,stepless current limiting, battery capacity calculation and on-line battery test,etc.,which efficiently prolong battery life.
- ☑ Energy conservation and environment protection: The system supports auto dormancy function and high-efficiency and common rectifier mixing function.
- ☑ Multiple communication ports: The system provides multiple communication ports like RS232, Ethernet port, dry contacts, etc., which enables flexible networking and remote monitoring.

## Introduction

NetSure 731 A41 series embedded high frequency power system is a kind of embedded communication power system of high reliability, high power density, high performance and full digitalization. It is designed by Emerson Network Power based on its years of experiences in development, production and network operation of communication power to meet the needs of efficient, green and environmental communication network construction.

## Applications

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

## System Configuration

Configuration		NetSure 731 A41-S1	NetSure 731 A41-S2
System Capacity		200A	200A
Monitoring Module		M225S	M221S/M222S
Rectifier Module		4× R48-3000A3/R48-3000e3	
AC Power Distribution	Input	1× 125A/2P	
	Output	1× 16A/1P	
Battery Connection		2× 125A/1P	
DC Power Distribution	BLVD	2× 63A/1P,4× 32A/1P,2× 16A/1P	
	LLVD	2× 32A/1P,2× 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 Contacts		M225S: 2 alarm input, 5 alarm output M221S or M222S: 3 alarm input, 4 alarm output, 8 alarm output at most (optional)	
Optional		Cover, temperature sensor, battery rack, dummy plate of module	



NetSure 731 A41-S1



NetSure 731 A41-S2

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## Rectifier

Configuration	Model
Rectifier Module	Common : R48-3000A3, High-efficiency : R48-3000e3
Electric Parameters	Description
Input Voltage	85Vac~300Vac
Max Input Current	22A
Power Factor	0.99
Efficiency	Common : >94%, High-efficiency : >95.5%
Output Voltage	-42Vdc~-58Vdc
Output Current	0~62.5A
Nominal Voltage	-48Vdc
Rated Voltage	-53.5Vdc
Working Temperature	-40℃~+70℃



R48-3000A3



R48-3000e3

## Controller

Configuration
M221S : LCD, Ethernet port, RS232 M222S: LCD, without Ethernet port, RS232 M225S: LCD, without Ethernet port, RS232
Alarm Functions
Capable of triggering audible/visual alarms for system fault and reporting the alarms to host History alarm records: M221S controller supports 200 history alarms, M222S supports 1000, M225S supports 512, and the records can be operated by using the keys M221S and M222S provide three dry contact alarm input, four dry contact alarm output, 8 alarm output at most (optional) M225S provides two dry contact alarm input, five dry contact alarm output
Battery Management Function
Automatic EQ/FC; Intelligent charge current limiting; Battery protection Battery discharge test; 10 sets of battery test data records Three discharge test modes: timing, fast, constant current
Control Function
Rectifier power on/off; Rectifier current limiting, current sharing and voltage regulating Battery EQ/FC/Test shifting; Battery protection
Remote Function
Remote communication/control/test/adjustment
Energy-saving Function (optional)
Automatic module dormancy function; High-efficiency and common rectifier mixing function



M221S



M222S



M225S

## Mechanical Parameters

Mechanical Parameters		NetSure 731 A41-S1	NetSure 731 A41-S2
Structure		19 inches(W),4U (H)	
Dimensions (mm)		483 ( W )×390 ( D )×178 ( H )	
Weight (Kg)	Subrack	≤25 (including rectifiers and controller)	
	Rectifier	≤2	
	Controller	≤1	

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