

FEATURES

- The power system keeps in normal operation under the voltage ranging from 260 to 530 Vac and withstands an extreme voltage input of 600 Vac
- Network monitoring: Remote monitoring is performed in real time through network interfaces, modems, and RS232 interfaces.
- Digital active current sharing: stable current equalization. The unbalance of load sharing is less than 1%. The rectifier module can work steadily independent from monitoring units and automatically equalize currents.
- Safety and reliability: full surge protection design for AC, DC, and signals
- Damage-free hot swap of rectifier modules and monitoring modules and quick and easy online maintenance
- Full front access operation and unlimited overhead and underground cabling
- Battery pole reversal protection: Protect against module explosion in case of battery pole reversal.
- Withstand transient overvoltage generated by the generator startup with no strict requirements on generator output
- Gradual increase in output current: The output current can be set to gradually increase. This minimizes the shock to loads and batteries and prolongs service life of the batteries.



NetSure™ 801 series power system is a new generation large-capacity telecommunication power system that is introduced by the Emerson Network Power company after many years of development and network operating. This power system uses digitalized dual-DSP control, active PFC, soft switch, primary clamping patented technology, and centralized cooling patented technology and is characterized by high efficiency, high power density, high reliability, ultra-low radiation, quick maintenance, and energy saving and environment friendly.

Applications

- Large- and medium-sized exchanges serving local PSTN
- Toll office
- Level-1 transport mains
- Mobile exchange and TMSC

Perfect ECO Features

- Energy saving: Dormancy and energy saving, effectively reduce the overall operating costs.
- Land saving: Integrated cabinet design, small size, full front access.
- Environment friendly: Compliant with RoHS and environmental directive of China.

SYSTEM COMPOSITION

Rectifier module	R48-5800A/ R48-5800e
Monitoring Module	M821D
Rectifier cabinet	Rack1000-7, Rack2000-7
AC distribution cabinet	PD380/400AFH-7, PD380/630AFH-7, PD380/630AFA
DC Distribution cabinet	PD48/1600DF-7, PD48/2500DF-7
Fittings	Modem, temperature compensation cable, parallel copper bar set, top cover, and side panel

ENVIRONMENTAL PARAMETER

Operating Temperature	-10°C ~ +65°C (derated when the temperature is +45°C ~ +65°C)
Relative Humidity	≤ 95% RH
Altitude	
Storage Temperature	
Relative humidity for storage	

SYSTEM PARAMETERS

Input line voltage	260 ~ 530Vac (half-load output at 260 ~ 304Vac)
Input voltage frequency	45 ~ 65 Hz
Power factor	≥ 0.99
Efficiency	≥ 93%
Output DC voltage	-42 ~ -58 Vdc
Load equalization performance	≤ ±1%

Rectifier Cabinet

CONFIGURATION OF THE RECTIFIER CABINET		QUANTITY	RACK 1000-7	RACK 2000-7
Rack 1000	Monitoring module M821D	0 or 1		
	Rectifier modules R48-5800 and R48-5800e	1 to 10		
Rack 2000	Monitoring module M821D	0 or 1		
	Rectifier modules R48-5800 and R48-5800e	1 to 10		

MODE	OUTLINE DIMENSIONS (H X W X D) (MM)	WEIGHT (KG)	REMARK
Rack 1000-7	2000×600×600	≤140	Excluding the rectifier module
Rack 2000-7	2000×600×600	≤180	Excluding the rectifier module
R48-5800, R48-5800e	88×244×372	≤8	Including the panel
M821D	44 × 88 × 212	≤2	

BASIC FEATURE	
Safety regulation	CE, CB, UL, TUV
EMC	EN55022 Class B
Protection	IP20
Reliability	MTBF > 570,000 hours

INPUT FEATURE	VALUE	DESCRIPTION
Input Voltage	260Vac-530Vac	It can be adjusted continuously.
Input voltage frequency	45Hz ~ 65Hz	
Power factor	≥ 0.99	
THD	≤ 5%	50% ~ 110% load

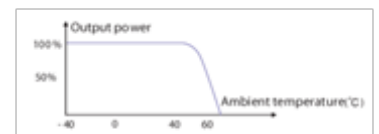
OUTPUT FEATURE	VALUE	DESCRIPTION
Output voltage	-42 VDC ~ -58 VDC	It can be adjusted continuously.
Output current	0 ~ 120.8A	
Peak-to-peak noise voltage	≤ 50 mV	0 ~ 20 MHz
Psophometrically weighted noise voltage	≤ 0.5 mV	300 ~ 3400 Hz
Maximum output power	5800 W	100A@58Vdc
Power density	13.5 W/In3	85H x 244W x 371D
Efficiency	> 93%	R48-5800
	> 96%	R48-5800e



R48-5800



R48-5800e




Relationship between output power and ambient temperature when U_{in} is larger than 304Vdc



Relationship between output power and input voltage at 45°C

Controller M821D

M821D		M821D	
Display	LCD with 4 x 16 characters		
Communication Interface	RS232, RS485, Ethernet, USB		
Protocol	HTTP, SNMP, EEM, SocTpe, Rsoc		
Input	Analog		2 battery currents, 1 load current, 1 bus voltage, 2 battery voltages, 2 temperatures
	Digital		1 input for status of SPD auxiliary contacts
Outputs	None		

AC distribution Cabinet

- Intelligent design; CPU; independent operation
- RS485 telecommunication interface that facilitates power supplies distribution, installation, and capacity expansion
- Display of local AC voltage, current, frequency, SPD status parameters in Chinese
- Audible and visual alarm reporting for local input overvoltage and under voltage, frequency anomalies, and SPD faults
- Two mains inputs that can be manually or automatically switched in a safe and reliable manner
- Emergency DC lighting for easy maintenance
- Unlimited overhead and underground cabling for system power distribution and full front access operation in a convenient, flexible and safe manner
- Safety regulations and SPD systems meet IEC standards and guarantee device and body safety.
- Meeting environmental protection requirements of China and the EU

Input and Output Power Distribution

	PD380/400AFH-7/Y1	PD380/630AFH-7/Y1	PD380/630AFA
AC input	Three-phase four-wire or three phase five-wire system	Three-phase four-wire or three phase five-wire system	Three-phase four-wire or three-phase five wire system
	Two inputs that can be manually switched	Two inputs that can be manually switched	Two inputs that can be manually switched
	Input current 400 A	Input current 630 A	Input current 630 A
AC output	Three-phase 4 x 160 A (MCCB)	Three-phase 6 x 160 A (MCCB)	Three-phase 5 x 250 A (MCCB) or three phase 5 x 100 A (MCCB)
	Three-phase 1 x 63 A (MCB)	Three-phase 1 x 63 A (MCB)	Three-phase 1 x 63 A (MCB)
	Three-phase 1 x 32 A (MCB)	Three-phase 1 x 32 A (MCB)	Three-phase 1 x 32 A (MCB)
	Single-phase 3 x 32 A (MCB)	Single-phase 3 x 32 A (MCB)	Single-phase 3 x 32 A (MCB)
	Single-phase 3 x 20 A (MCB)	Single-phase 3 x 20 A (MCB)	Single-phase 3 x 20 A (MCB)
Emergency output	100A@48Vdc	100A@48Vdc	100A@48Vdc
Remark			The color of cabinets can be customized.

Rectifier Cabinet

MODEL	OUTLINE DIMENSIONS (H X W X D) (MM)	WEIGHT (KG)
PD380/400AFH-7/Y1	2000 × 800 × 600	≤ 240
PD380/630AFH-7/Y1	2000 × 800 × 600	≤ 240
PD380/630AFA	2000 × 800 × 600	≤ 300



DC distribution Cabinet

- Intelligent design, a delivered monitoring unit, independent operation, easy power supplies distribution, and flexible installation and capacity expansion
- Display of local DC information in Chinese
- Unlimited overhead and underground cabling for system power distribution and full front access operation. Two-third space of the cabinet is available for cabling in a convenient, flexible, and safe manner.
- One-to-one display of output statuses on the local LCD for easy maintenance
- Intra- and inter-cabinet parallel for easy installation and capacity expansion
- Meeting environmental protection requirements of China and the EU

Input and Output Power Distribution

	PD48/1600DF -7/Y1	PD48/1600DF-7/Y2	PD48/2500DF-7/Y1	PD48/2500DF -7/Y2
Battery fuse	2 strings of 2 x 1000A (NT4)	2 strings of 2 x 800A (NT4)	2 strings of 2 x 1000A (NT4)	2 strings of 2 x 1000A (NT4)
DC output	6 x 500A (NT3)	12 x 400A (NT3)	8 x 630A (NT3)	16 x 500A (NT3)
	2 x 200A (NT2)	4 x 200A (NT2)	4 x 400A (NT2)	4 x 200A (NT2)
	8 x 100A (NT00)	2 x 100A (NT00)	4 x 200A (NT2)	2 x 100A (NT00)
			6 x 63A (NT00)	

Mechanical Parameters

MODEL	OUTLINE DIMENSIONS (H X W X D) (MM)	WEIGHT (KG)
PD48/1600DF-7/Y1	2000 x 800 x 600	≤ 280
PD48/1600DF-7/Y2	2000 x 800 x 600	≤ 280
PD48/2500DF-7/Y1	2000 x 800 x 600	≤ 290
PD48/2500DF-7/Y2	2000 x 800 x 600	≤ 290



VertivCo.com

© 2017 Vertiv Co. All rights reserved. Vertiv, the Vertiv logo and Netsure 801 CA7 are trademarks or registered trademarks of Vertiv Co. All other names and logos referred to are trade names, trademarks or registered trademarks of their respective owners. While every precaution has been taken to ensure accuracy and completeness herein, Vertiv Co. assumes no responsibility, and disclaims all liability, for damages resulting from use of this information or for any errors or omissions. Specifications are subject to change without notice.