

Compac Series NHS Rectifiers and Shelves



208Vin SINGLE OR THREE PHASE

Description

NHS rectifiers and shelves can be configured with other Compac Series distribution, controller, and temperature compensation panels. These rectifier/shelf systems are designed for use in both indoor racks and outdoor cabinets. NHS Series rectifiers are hot-swappable and provide a complete set of interface signals.

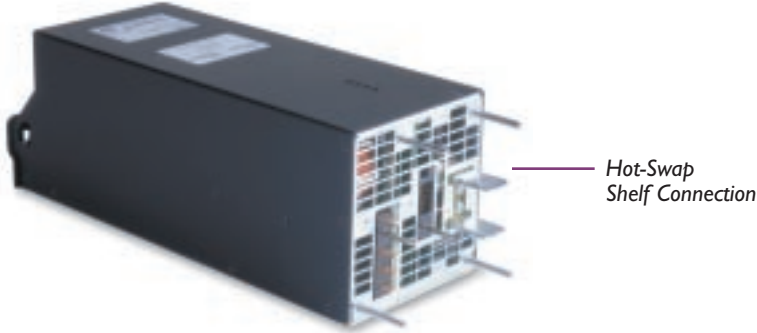
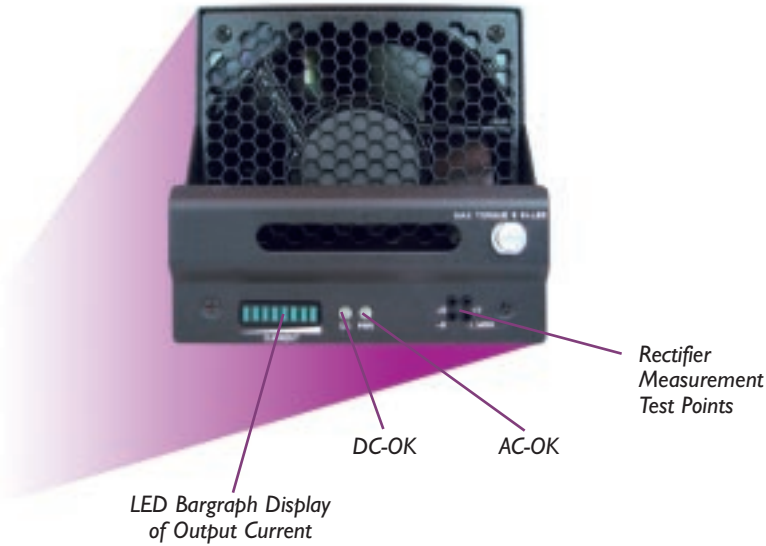
Features

- ▶ Compact 3U height.
- ▶ 24 and 48 volt rectifiers.
- ▶ 50 amp rectifier at 48V.
- ▶ 100 amp rectifier at 24V.
- ▶ 180-264 VAC single-phase or three-phase inputs.
- ▶ Hot-swappable rectifiers are true plug-and-play. No adjustments required.
- ▶ High power density (9.8W/in³).
- ▶ High reliability, >700,000 hours MTBF.
- ▶ Power Factor Correction (PFC).
- ▶ Active current sharing.
- ▶ Near unity power factor eliminates excessive input harmonic current draw, which minimizes cable and fuse/circuit breaker input sizing.
- ▶ International Standards Compliance.

Rectifier and Shelf Selection

	NPS4-S Shelf	NPS3-S Shelf	NPS3-S-I-FM Shelf	NHS24/100 Rectifier	NHS48/50 Rectifier
Output Voltage	Dependant on rectifier	Dependant on rectifier	Dependant on rectifier	25 to 29VDC (24V optional)	51 to 59VDC (48V optional)
Output Current	200A @ 48V 400A @ 24V (4 rectifiers)	150A @ 48V 300A @ 24V (3 rectifiers)	150A @ 48V 300A @ 24V (3 rectifiers)	100A	50A
Input Voltage	180-264 VAC Single Phase 60 Hz	180-264 VAC Single or Three Phase 50-60 Hz	180-264 VAC Single Phase 50-60 Hz	180-264 VAC Single Phase 50-60 Hz	180-264 VAC Single Phase 50-60 Hz
Input Current	60A @ 230V	45A @ 230V	45A @ 230V	15A @ 230V	15A @ 230V
Soft Start	See Rectifier	See Rectifier	See Rectifier	30A peak, max 5 mS	30A peak, max 5 mS
Input Breaker Rating	4 x 40A (1 per rectifier feed)	3 x 40A (1 per rectifier feed)	100A	N/A	N/A
Full Load Efficiency	N/A	N/A	N/A	86%	86%
BTU/Hr (full load)	N/A	N/A	N/A	1255	1255
Input Configuration	4 inputs 1 per rectifier max. 8 AWG wire	3 inputs 1 per rectifier max. 8 AWG wire	1 set of input studs feeds all rectifiers	N/A	N/A
Mounting	Mounting brackets recessed 4" from front of shelf	Mounting brackets recessed 4" from front of shelf	Mounting brackets flush with front of shelf	N/A	N/A
Width	21.5", mounts in 23" rack	17.5", mounts in 19" rack	17.5", mounts in 19" rack	5"	5"
Blank Panel	NHS-BP	NHS-BP	NHS-BP	N/A	N/A

Compac Series NHS Rectifiers and Shelves



Compac Series rectifiers and shelves are available in a complete Compac power plant or subassemblies for cabinet applications.

Compac Series

NHS Rectifiers and Shelves

TECHNICAL SPECIFICATIONS

ELECTRICAL SPECIFICATIONS:

AC Input Range:	180 - 264VAC - three-phase optional
Power Factor:	>0.99 (50 - 100% load)
AC Transient:	3000V, 2 Joules
Voltage Regulation:	+/- 0.4%
Transient Response:	+/- 0.4% at load variations 10-90% or 90-10%, recovery time 10 mS
Load Sharing:	5% of nominal current
Ripple:	<1% pk - pk
Radiated RFI	EN 50081-1

PROTECTION:

Overcurrent	100-105% constant current type. Automatic recovering upon removal of fault, short circuit current <110% full load.
Overvoltage	Latching high voltage shutdown @ 60VDC ±1%
Overtemperature	Rectifier will shut down if temperature reaches unsafe level, Restart is automatic

STATUS & ALARMS:

Status:	Green LED indicates input power within acceptable range Red LED indicates overvoltage shutdown or rectifier alarm
Alarms:	High voltage, low voltage, loss of AC, rectifier failure, minor and major alarm

MECHANICAL SPECIFICATIONS:

Cooling	Fan cooled
Weight	Rectifier: 12.6 lbs, NPS3 Shelf: 21 lbs, NPS4 shelf: 24 lbs
Dimensions (H x W x D)	Rectifier: 5" x 5" x 12.25" (12.7cm x 12.7cm x 31.1cm) NPS3: 3U 5.25" x 17.5" (13.3cm x 44.5cm) + mounting ears wide x 16" max. depth (40.6cm) NPS4: 3U 5.25" x 21.5" (13.3cm x 54.6cm) + mounting ears wide x 16" max. depth (40.6cm)

ENVIRONMENTAL:

Altitude Rating:	13000 ft., derate 7°C/1000 ft above 8000 feet
Audible Noise	60 dBA
Ambient Temperature	-25 to +50°C, -40°C to +85°C Storage
Humidity	0% to 95%, non-condensing

COMPLIANCE:

EMI	FCC Part 15, class A; EN55022, Level A; Bellcore GR-1089-CORE
Safety	UL 1950, CSA 22.2 #950 TUV EN60950

Note: All specifications are subject to change without notification.



www.power-one.com

Revised: 6/01 CPR601-A