

1200 Amps @ -48VDC

143NP



- **50 Amp Modular Switchmode Rectifiers**
- **$\pm 130V$ Converter Plant Sub-System**
- **Optional 45VA Redundant Ringing System**
- **Standard or Split Bus**
- **Remote Monitoring Capabilities**
- **Battery Temperature Compensation**
- **40 Distribution Plug-In Breaker Positions Standard**
- **Additional Distribution Breaker or Fuse Panels are Available as Options to Expand the System Beyond the Standard (40) Breaker Positions**
- **Total Front Access**
- **Digital Meter and Alarm Shelf**
- **Available in Half-Height Configuration for Mounting on top of VRLA Batteries**

Product Description

The PEC 143NP front access system is designed for ease of installation, use, and maintenance. The rectifier portion of the plant is completely modular. This gives the operator the flexibility to order the power needed today, and then grow the plant in the future by simply adding modular rectifiers and rectifier shelves.

The plant has a maximum current capacity of 1200 Amps using (24) 50 Amp rectifier modules and provides distribution and optional monitoring of $-48VDC$. It includes such features as snap-in circuit breakers, standard or split bus distribution, optional monitoring systems. All plant interfaces for the system are front accessible and the optional monitoring system is completely plug and play, including field interfaces. The main source of power for the plant is commercial AC, which is converted to DC by the modular switchmode rectifiers.

Distribution panels for 125 Amp up to 400 Amp breakers or fuses are available.

143NP Power System Specifications

Input - 220VAC

Voltage Range	176 - 254VAC, single phase
Frequency Range	47 - 63Hz
Current	Individual 20 Amp feeds or bulk 80-100 Amp feed optional

Output

Float Voltage Range	48 - 54VDC
Factory Set	54VDC
Regulation	<5% line & load at 10% to 100%
Current	Maximum of 1200 Amps
Efficiency	88 to 90% at 50 to 100% load

Noise

Voice Band	<32dBnC
Wide Band	250mV peak to peak, (bandwidth of 10Hz-100MHz)

Environmental

Storage Ambient	-40°F to +185° F (-40°C to +85°C)
Operating Ambient	
Sea Level to 4,800 ft.	32°F to 86°F (0°C to 30°C)
4,800 ft. to 7,000 ft.	32°F to 77°F (0°C to 25°C)
Humidity	< 95% non-condensing (maximum)
Heat Dissipation	1,122 BTU per hour per rectifier module

Mechanical

Height	84.0" (2133.6mm)
Width	23.0" (584.2mm)
Depth	17.81" (452.4mm)
Weight	460 lbs. (208.6kg) when equipped with 8 rectifiers, 2 rectifier shelves
Mounting	Floor mounted rack
Cooling	Fans in rectifier modules

Documentation

Product Manual	4380124PD
System Layout Drawing	J-438143NP

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Visual Indicators

Rectifier Module:	LED Description	Name	Color
	Go	GO	Green
	Equalize	EQ	Amber
	Test	TEST	Amber
	Fail	FAIL	Red
Meter and Alarm Panel:	Rectifier Fail Alarm Major	RFA_MJ	Red
	Fuse Alarm	FA	Red
	Plant Minor	PMN	Amber
	Plant Major	PMJ	Red
	Power	PWR	Green
	AC Fail	AC_FAIL	Red
	Low-Low Voltage	LLV	Red
	Low Voltage	LV	Red
	High Voltage	HV	Red
	TEST	TEST	Red
	Equalize	EQ	Amber
	Alarm Cut Off	ACO	Amber
	Low Voltage Disconnect	LVD	Red
	High Voltage Shutdown	HVS	Red
	BTC HI_TEMP	BTC_HI_TEMP	Amber
	BTC_FAIL	BTC_FAIL	Red
	Rectifier Fail Alarm Minor	RFA_MN	Amber

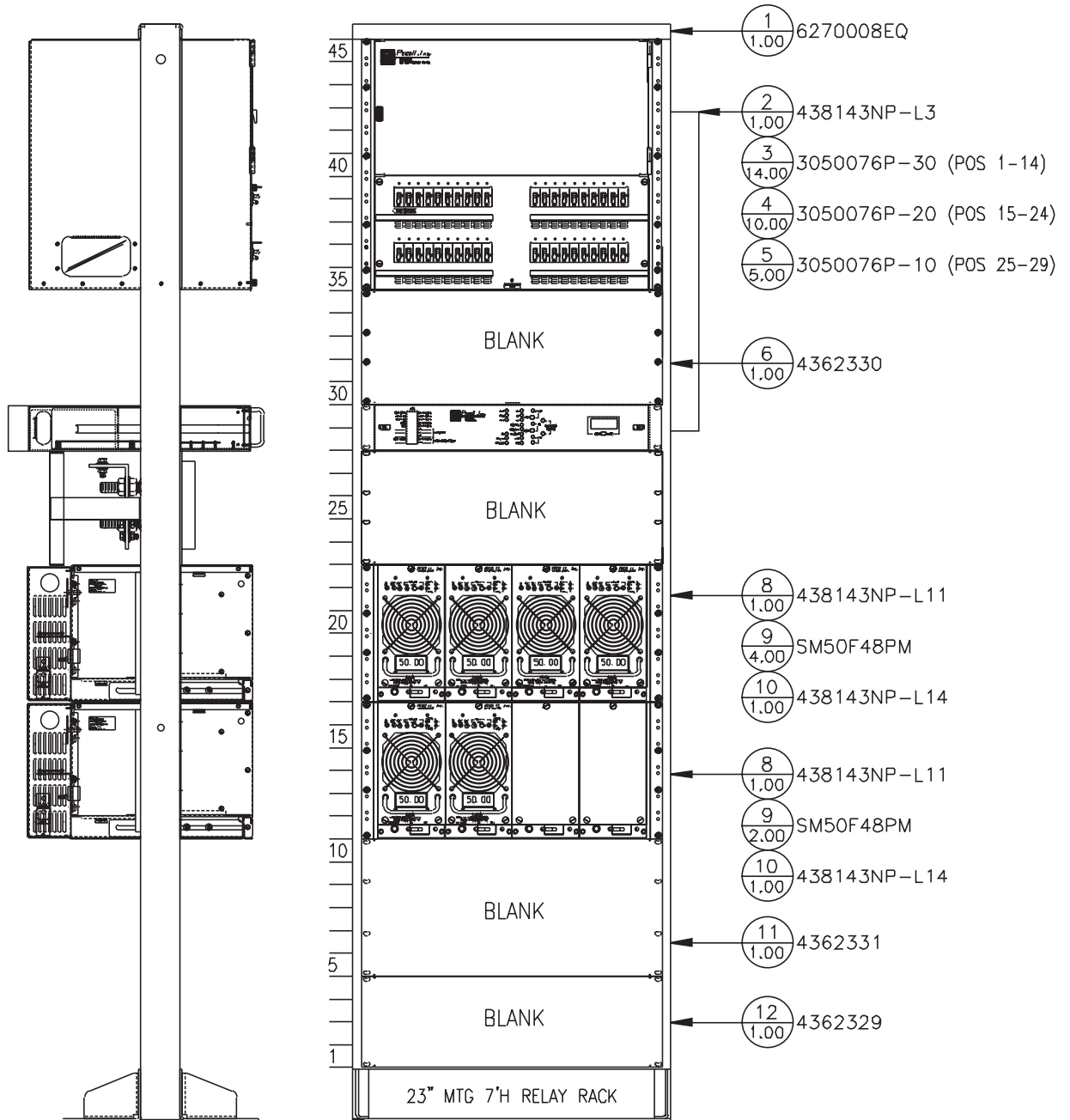
Options

List #	Description	PECO II Part Number
1	Common equipment for -48V 0-1200A plant .....	.438143NP-L1
2	Same as L1 except for split bus .....	.438143NP-L2
13	50A switchmode module .....	.SM50F48PM
40	Plug-in PicoMACS® monitor for meter panel .....	.438143NP-L40
41	PicoMACS® modem 2400 baud .....	.438PICO-L10
43	PicoMACS® software & wiring standard configuration .....	.438143NP-L43
44	Battery Temp Compensation (BTC) door assembly .....	.438143NP-L44
45	Software for L40 PicoMACS® 400A max. ....	.438143NP-L45
46	Software for L40 PicoMACS® 400A and larger plant .....	.438143NP-L46
47	Plug-in NetMACS® monitor for meter panel .....	.438143NP-L47
48	Software for L47 .....	.438143NP-L48
53 to 55	Battery string shunt kit .....	.438143NP-L53 thru -L55
56 to 58	-48V 400A battery disconnect cabinet .....	.6180323P-44N, -84N, -14N
60	45 Watt redundant ring plant .....	.438143NP-L60
61	± 130V @ .25A converter plant .....	.438143NP-L61

See J438143NP for complete list of options

Line Drawing

143NP is shown



Certifications:

