

Up to 600 Amps @ -48VDC & Up to 160 Amps @ +24VDC 129F Series



*Coming Soon:
**Expanded
Distribution
Options***



- 129F shown equipped with:
- L9 Distribution Head
 - L47 Rectifier Shelf
 - L48 Rectifier Shelf
 - L50 Rectifiers in a quantity of 8
 - L130 AC Input Box
 - L140 Battery Tray
 - L141 Battery Tray
 - L142 Battery Tray
 - L80 Converter Shelf
 - L81 Converter Shelf
 - L88 Converters in a quantity of 8
 - L120 NEBS Equipment Frame

- **Completely Front Accessible for Installation, Operation and Maintenance**
- **Circuit Breaker or Fuse Distribution (Accepts GMT, TPC, TPW, or TPS/TLS Fuses; Plug-in Bullet Style Breakers)**
- **Full Monitoring and Alarm Capabilities, including Remote Access**
- **NEBS Compliant**

Product Description

The 129F power system from PECO II offers the benefits of a compact -48VDC @ 600 Amp power plant, plus the option of +24VDC, all in one system. Adding to this convenience is the feature of complete front accessibility. This attribute allows all system connections to be made from the front of the plant for easy installation, operation and maintenance, which is especially important in confined environments.

To achieve the 600 Amps at -48VDC output, 50 Amp switchmode rectifiers are utilized. 20 Amp converter modules are also available, giving the 129F the ability to produce up to 160 Amps @ +24VDC.

Distribution for the -48VDC includes 23 available positions; while the +24VDC distribution offers 8 positions. In each case, the distribution points can be equipped with circuit breakers (2A to 150A) or plug-in fuse disconnects (1A to 125A).

The digital controller included with the 129F system boasts 22 LED's for visual notification of alarms, as well as a two-line LCD to view plant status. In addition, 8 relays for extending alarms are included. Access to the plant is also available remotely through the optional Gateway feature, which allows the user to work more efficiently.

The 129F power system may be mounted in any rack, frame or cabinet, including PECO II's NEBS compliant offerings. Battery temperature compensation is standard, and battery management capabilities are available.

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129F Series



Specifications

Input

Voltage Range	220VAC nominal input, 176-275VAC input provides 50ADC output per rectifier, 90-132VAC input provides 25ADC output per rectifier
Frequency	45-65Hz
Current	13 Amps AC typical, 19 Amps AC maximum per rectifier

Output

Voltage Range	42 – 59.5VDC, 54.0VDC nominal for rectifier(s) / +24VDC for converter(s)
Float Voltage Range	50 – 55VDC
Equalize Setting Range	55 – 57.5VDC
Current	600 Amps maximum @ -48VDC (when 12 rectifiers are equipped) 160 Amps maximum @ +24VDC (when 8 converters are equipped)
Efficiency	92% full load

Noise

Voice Band	< 32dBnc (with battery)
Wide Band	< 100 mVrms (10 – 20MHz) / < 250 mV peak to peak (0 – 100MHz)
Acoustic	< 55dB

Environmental

Storage Ambient	-40°F to +185°F (-40°C to 85°C)
Operating Ambient	+23°F to +122°F (-5°C to +50°C)
Humidity	< 95% non-condensing
Heat Dissipation	750 BTU/hr per rectifier module at full load 315 BTU/hr per converter module at full load

Mechanical

Mounting	23" rack mount
Cooling	Front to rear fans in rectifier and converter modules

Documentation

Product Manual	4380424PD
J Drawing	438129FP



Visual Indicators and Alarms

	LED Description	Color
System:	Power Major	Red
	Power Minor	Amber
	Rectifier Major	Red
	Rectifier Minor	Amber
	Battery Monitor*	Amber
	Distribution Fuse	Red
	Distribution Current	Amber
	MMC OK	Green
	Low Low Voltage	Red
	Low Voltage	Amber
	High Voltage	Red
	Battery Fuse*	Red
	Battery Disconnect*	Red
	BTC Active	Amber
	Battery on Discharge	Red
	Load Disconnect	Red
	Total Current	Amber
	AC Fail	Amber
	Temp High/Low	Amber
	Float Mode	Green
Equalize Mode	Amber	
Limited Recharge	Amber	
Rectifier Module:	AC Input Voltage OK	Green
	DC Output Voltage OK	Green
	Rectifier Fail Alarm	Red
	Rectifier Standby Mode	Green Flashing (DC Output Voltage OK LED)
Converter Module:	DC Output OK	Green
	Fan Fail	Red
	Converter Fail Alarm	Red
	Converter load 0-50%	Green
	Converter load 51-100%	Green
Alarm Description (contact closures)	Power Major	
	Power Minor	
	Rectifier Major	
	Rectifier Minor	
	AC Fail	
	Battery on Discharge	
	High Voltage	
	Temperature	

*Optional equipment required



Options

List #	Description
L9	31 Position Front Access Split Plug-In Distribution, (23) -48VDC and (8) Secondary Voltage positions. Includes Ground Return Bus, Terminations for (3) Rectifier Shelves and the MMC Digital Controller, 11 RU High
L47	1 st rectifier shelf. Accepts up to 4 rectifiers for a 200A maximum output
L48	2 nd rectifier shelf. Accepts up to 4 rectifiers for a 200A maximum output
L49	3 rd rectifier shelf. Accepts up to 4 rectifiers for a 200A maximum output
L50	Rectifier module, -48VDC @ 50A. Input voltage = 176-264VAC
L52	Blank cover for empty rectifier position
L80	1 st converter shelf, -48VDC to +24VDC. Accepts up to 4 converters for an 80A maximum output. 3.5" (2U) high.
L81	2nd converter shelf, -48VDC to +24VDC. Accepts up to 4 converters for an 80A maximum output. 3.5" (2U) high.
L86	Converter module, -48VDC to +24VDC @ 20A
L89	Blank cover for empty converter position
L60	Ambient temperature probe for L9. Requires probe extension cable List 65-68.
L65	5' temperature probe extension kit for L60
L66	10' temperature probe extension kit for L60
L67	15' temperature probe extension kit for L60
L68	20' temperature probe extension kit for L60
L70	Low Voltage Load Disconnect (LVLVD) option
L72	Low Voltage Battery Disconnect (LVDB) option
L90	Alarm output cable. Connectorized. 25 feet in length. 25 pair, 24AWG solid.
L91	Alarm output cable. Connectorized. 50 feet in length. 25 pair, 24AWG solid.
L92	Alarm output cable. Connectorized. 100 feet in length. 25 pair, 24AWG solid.
L98	Gateway for remote communications, in addition to L9
L99	Phone modem
L100	GMT fuse holder for 5 fuses. Plugs into 2 distribution positions of either voltage.
L101	TPC fuse holder. Plugs into single distribution position of either voltage.
L102	TPW fuse holder. Plugs into 2 distribution positions of either voltage.
L103	TPS/TPL fuse holder. Plugs into single distribution position of either voltage.
L120	Front access frame assembly. 7'H x 26"W x 24"D. Meets NEBS Zone 4 requirement with up to 3 internal, 8-position battery strings
L121	Front access frame assembly. 7'H x 26"W x 24"D. Meets NEBS Zone 4 requirement with up to 4 internal, 6-position battery strings
L122	Front access frame assembly. 7'H x 26"W x 24"D. Meets NEBS Zone 4 requirement with no internal battery strings
L126	Relay rack assembly. 7'H x 26"W x 15"D. Meets NEBS Zone 4 requirement with up to 3 internal, 8-position battery strings
L127	Relay rack assembly. 7'H x 26"W x 15"D. Meets NEBS Zone 4 requirement with up to 4 internal, 6-position battery strings
L128	Relay rack assembly. 7'H x 26"W x 15"D. Meets NEBS Zone 4 requirement with no internal battery strings
L130	AC junction box for L120 – L122 (frame). Used for terminating rectifier AC inputs at the top of the plant.
L131	AC junction box for L126 – L128 (relay rack). Used for terminating rectifier AC inputs at the top of the plant.
L140	1 st battery tray (located at bottom of rack). Includes padding and alarmed mechanical/electric trip 100A CB for disconnect.
L141	2nd battery tray. Includes padding and alarmed mechanical/electric trip 100A CB for disconnect.
L142	3rd battery tray. Includes padding and alarmed mechanical/electric trip 100A CB for disconnect.
L145	Battery hold down bracket and pad