

SP Series

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Uninterruptible Power for Traffic Signal Applications



Model SP170-PDA Series

The SP170-PDA Series UPS and the Outpost™ Series batteries are designed for outdoor use and will operate in extreme temperature environments of -40°C to +74°C (-40°F to +165°F).



SP170-PDA/1250, 1250 (PLUS) or 2000

SP170-PDA Series meets or exceeds CALTRANS PDA Requirements with "On-Line" UPS Technology

SP170-PDA Series Features:

- Direct replacement for CalTrans PDA assembly and designed to meet or exceed CalTrans requirements
- Provides ON-LINE conditioned, power factor corrected power for cabinet equipment protection
- Local display of battery status, power system status, UPS system status, UPS information and event logs
- External By-pass to support ease of upgrade, hot-swap or maintenance
- Four Programmable Relays with 16 assignable status conditions to set or reset relays
- Signaling via open collector contacts, RS232 Serial or optional SNMP Adapter
- TCP/IP- communicates with other equipment for fast status notification via optional SNMP Adapter
- Can keep an intersection running for up to 8 hours or longer
- Online Technology, Full Flash modes or Assignable Relay Modes available for system flexibility
- Does not compromise existing cabinet wiring for ease of installation
- Local Keypad programmability - no laptop necessary
- SP170-PDA/1250, SP170-PDA/1250 (PLUS) and SP170-PDA/2000 models available
- Easily up-gradable, without changing chassis, by sliding out 24 Volt Power Supply or UPS module
- Self test diagnostics for UPS and battery system
- Separate 24.0 Vdc Power Supply for reliable output

Where POWER is a way of life

Uninterruptible Power for Traffic Signal Applications

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SIGNAL POWER

SP Series, Model SP170-PDA Specifications

ELECTRICAL

Input

Voltage 120 VAC +12% (135 VAC), -25% (90 VAC) (before battery use)

Frequency 48 to 62 Hz

Output AC

Voltage 120 VAC ±3%

Frequency 50 or 60 Hz

Rating:

SP170-PDA/1250 1250 VA/875 Watts

SP170-PDA/1250(+) 1,250 VA/875 Watts or 1400 watts for 10 seconds.

SP170-PDA/2000 2000 VA/1400 Watts

Total Harmonic

Distortion (THD) 3.0%Typ., 5% Max.

Dynamic Response ±4% for 100% Step Load Change
0.5 ms Recovery Time

Overload 110% for 10 sec;
200% for .05 sec

UPS Protection Input and Output Short Circuit;
Input and Output Overload;
Excessive Battery Discharge

Output DC

Voltage 24.0 VDC, ±3%

Current 0 - 5.0 amps

ENVIRONMENTAL

Operating Temp. -40°C to +74°C (-40F to +165°F)

Humidity 0% to 95% Non-condensing

Altitude Sea Level to 10,000 ft (some derating of temp. w/altitude > 6,000 ft)

MECHANICAL

Input Hardwired to Input Terminal

Outputs Hardwired to Output Terminal

CUSTOM Options

Cabinet NEMA, 332 Cabinet Style
Configurations Available; NEMA
3R Type II and Type III

Communications Optional:
SNMP Adapter

Consult Factory for other Custom options

DESIGN

Standard Features Power Factor Corrected Input;
Fully Regenerative;
True On-Line Continuous Power;
Low Distortion Sinewave Output;
Designed for Non-linear Loads;
Extended Brownout Protection;
EIA/RS232 Data Interface

Specifications Meets FCC Class A, IEEE
587/ANSI C62.41, IEC 555 @
120 VAC and NEMA Stds.

MTBF Inverter: > 100,000 hrs
System w/Bypass: 150,000 hrs
Calculated from Component Spec

Typical Recharge 48-72 hrs (more time required
Time to 85% with extended battery option)
Capacity @ Less than 20 hrs with optional
100% Load Fast Battery Charger

CONTROLS AND INDICATORS

LCD Display System Set-up and System
Status Features including, Day
and Date, System Load Level,
Battery System Status,
and Event logs.

Control Panel Power On; Cold Start; Test; and
Alarm Silence switches.

Audible Alarms Utility Interrupt; Inverter Failure;
Overload; Low Battery; Self Test

Serial Interface for Full Interactive Remote Computer
EIA 232. Optional Monitoring and Control of Most
NTCIP and TCP/IP Features Including Load Control
via Standard RJ45 (requires optional monitoring
Connector software); NTCIP and TCP/IP
Ready

Contact Closures Open Collector for Remote
("D" connector) Annunciation of Power Up,
Power Down, On Battery, Low
Battery and Alarms

Specification subject to change without prior notice.



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Model	VA/Watts	Input Current (A)	Output Current (A)	Backup Time 100% / 50% Load	Unit Weight (lbs)	Rackmount H x W x D (in)
Model SP170-PDA Series						
SP170-PDA/1250	1250/875	8.8	10.4	1.5 hrs. / 4.0 hrs.	30	7.0 x 19.0 x 16.0
SP170-PDA/1250 (PLUS)	1250/875/1400	8.8	10.4	1.5 hrs. / 4.0 hrs.	30	7.0 x 19.0 x 16.0
SP170-PDA/2000	2000/1400	14.3	20.0	1.0 hrs. / 3.5 hrs.	30	7.0 x 19.0 x 16.0

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