## =CONDOR

## Featuring

- Forced current sharing for $\mathrm{N}+1$ redundancy
- Universal AC input
- 0.99 typical power factor
- Low ripple and noise
- DC power good and AC power fail signals
- True remote inhibit
- Monotonic turn-on and turn-off

When you need a single-output power supply, but want all the proven industry leading features of our NMX series, the SPF power supplies can't be beat. They incorporate Condor's high performance, power factor correction, low cost and reliable technology. The SPF series gives you all this and more in low-profile, compact packages that cost no more than common single-output switchers without power factor correction. -


STANDARD SPF SERIES

500 WATTS
90-264 VAC INPUT-11" x 5" x 2.5"

| MODEL | OUTPUT RATING | PWR OUT |
| :---: | :---: | :---: |
| SPF-500-12 | +12V @ 42A | 500 |
| SPF-500-15 | +15V @ 34A | 500 |
| SPF-500-24 | +24V @ 21A | 500 |
| SPF-500-28 | +28V @ 18A | 500 |
| SPF-500-48 | +48V @ 10.4A | 500 |

750 WATTS
90-264 VAC INPUT-12.92" x 5" x 2.5"

| MODEL | OUTPUT RATING | PWR OUT |
| :---: | :---: | :---: |
| SPF-750-12 | +12V @ 62A | 750 |
| SPF-750-15 | +15V @ 50A | 750 |
| SPF-750-24 | +24V @ 31A | 750 |
| SPF-750-28 | +28V @ 27A | 750 |
| SPF-750-48 | +48V @ 16A | 750 |

1000 WATTS
90-264 VAC INPUT-12" x 8" x 3.38"

| MODEL | OUTPUT RATING | PWR OUT |
| :--- | :---: | :---: |
| SPF-1000-24 | $+24 \mathrm{~V} @ 42 \mathrm{~A}$ | 1000 |
| SPF-1000-28 | $+28 \mathrm{~V} @ 36 \mathrm{~A}$ | 1000 |
| SPF-1000-48 | $+48 \mathrm{~V} @ 21 \mathrm{~A}$ | 1000 |

# 500 WATTS <br> $11^{\prime \prime} \times 5^{\prime \prime} \times 2.5$ " 

750 WATTS
1000 WATTS
12.92" $\times 5^{\prime \prime} \times 2.5^{\prime \prime}$
$12^{\prime \prime} \times 8^{\prime \prime} \times 3.38^{\prime \prime}$
SPF-1000


## SPECIFICATIONS: ALL MODELS

INPUT
AC Input: 90-264 Vac continuous range, 47 to 63 Hz .750 W units fused for 15 A .1000 W units fused for 20 A
Power Factor: 0.99 typical at full load. Meets EN61000-3-2.
Inrush: Cold start AC current is less than 50 A at 115 Vac and 100 A at 230 Vac for 500 W and 750 W models; 90 A at 115 Vac and 180 A at 230 Vac for 1000 W models. Limited by hermistor.
Brownout Protection: Continuous range units hold regulation to 85 Vac .
Holdup Time: 20 ms minimum after removal of power at full load. (See page 89.)
Efficiency: $75 \%$ typical.
AC Power Fail: Provides TLL "0" 5 ms before output voltage goes out of regulation band upon loss of power.

OUTPUT
Adjustability: User adjustable $\pm 5 \%$ minimum.
Line \& Load Reg: $\pm 1 \%$ over AC input range and 0 to $100 \%$ load change.
Ripple \& Noise: Less than $1 \% \mathrm{p}$-p or 100 mV , whichever is greater.
Remote Sense: Compensates for 250 mV total line drop. Open sense lead protection. (See Redundancy, below.)
Temperature Coefficient: $0.02 \%$ per degree C
Stability: $0.1 \%$ over 8 hours after 30 minutes warm-up.
Transient Response: Otput voltage returns to within $1 \%$ in less than $500 \mu$ s for a $50 \%$ load change. Peak transient does not exceed $5 \%$.
Overload Protection: All outputs are protected against overload and short circuit. Automatic recovery upon removal of fault.
Overvoltage Protection: Protects load against power supply induced overvoltage. Trip point is factory set so that output voltage cannot exceed $136 \%$ of nominal.
Remote Inhibit: Contact closure to the negative sense line or a TTL level "0" turns off DC output.
DC Power Good (5V Outputs): Provides a TTL "1" open collector when output is above 4.6 V nominal.
Redundancy: External OR-ing diodes and forced current sharing provide " $\mathrm{N}+1$ " capability. Remote sense (+S) compensates for additional 0.6 V diode voltage drop. When the current sharing terminal is connected between units, current sharing remains within $10 \%$ of the unit's full output current rating.
Reverse Voltage: Protected against reverse voltage up to supply current rating.
ENVIRONM ENTAL
Thermal Protection: Shuts down power supply if overheated. Automatic recovery.
Temperature Range: $0^{\circ}$ to $50^{\circ} \mathrm{C}$ at full ratings.
Safety Agencies: Most models are approved to UL1950; CSA 22.2 \#234; IEC 950 and TÜV EN60950, Cass 1 SERV., CE 72/23/EC/93/68EC (low voltage directive).
Conducted RFI: Meets FOC Part 15, Subpart J, Cass A; EN55022 Cass B; CISPR 22 Cass B.
Output Isolation: Isolated from ground 50 Vdc .
Cooling: Self cooled by internal ball-bearing fans.

## OPTIONS:

Consult factory for available options.

AC INPUT (90-264 VAC Continuous Range)

| FUNCTION | 115 VAC $^{*}$ | 230 VAC | CONNECTOR |
| :--- | :--- | :--- | :--- |
| TB1- (L) | Line | Line 1 | Barrier strip \#6-32 screws |
| TB1- (N) | Neutral | Line 2 |  |
| TB1- $(\Theta)$ | Safety Ground | Safety Ground |  |

## DC OUTPUT

| FUNCTION | MODEL | LOCATION | CONNECTOR |
| :---: | :---: | :---: | :---: |
| Output | All SPF-500 models | Terminal +V | Bus Bars \#8-32 screws 2PL |
|  |  | Terminal -V |  |
| Voltage | All SPF-750 models | Terminal +V | Bus bars \#1/4-20 screws 2PL |
|  |  | Terminal -V |  |
|  | SPF-1000-24, 28, and 48 | Terminal +V | Bus bars \#10-32 screws 2PL |
|  |  | Terminal -V |  |
|  | SPF-1000-12, and 15 | Terminal +V | Bus bars \#5/16-18 screws 2PL |
|  |  | Terminal -V |  |

## STATUS AND CONTROL

| FUNCIION | SPF-500 | SPF-750 | SPF-1000 | CONNECTOR |
| :---: | :---: | :---: | :---: | :---: |
| Remote Sense | J1-2 (+S) | J1-5 (+S) | J3-7 (+S) | $\begin{aligned} & \text { AMP MTA type } \\ & \# 640456-6 \text { (J1-500 W) } \\ & \text { or } \\ & \# 640656-3 \text { (J2-500W) } \\ & \text { or } \\ & \# 640656-6 \text { (J1-750W) } \\ & \text { or } \\ & \# 640456-8 \text { (J3-1000W) } \\ & \text { pin headers (locking) } \end{aligned}$ |
|  | J1-1 (-S) | J1-4 (-S) | J3-8 (-S) |  |
| Power Good | J1-7 | J1-3 | J3-5 |  |
| Inhibit | J1-5 | J1-2 | J3-4 |  |
| Ourrent Share | J1-6 | J1-6 | J3-6 |  |
| ACPower Fail | J1-8 | J1-1 | J3-3 |  |
| Aux. Fan Voltage | J2-1 (+12V) | NA | J3-1 (+12V) |  |
|  | J2-2 (Rtn) | NA | J3-2 (RTN) |  |
| Signal Ground | J1-10 | NA | NA |  |

