

Note: Specific model may differ from photo.

## UNIVERSAL INPUT

## FEATURES

- 15 Standard desktop models
- Optional output connectors
- Optional on/off switch
- $100 \%$ burn-in
- 85 to 264 VAC universal input
- Input surge current protection
- Overvoltage protection
- Overcurrent protection
- Single, dual or triple outputs


## DESCRIPTION

The FSA30P series of AC/DC switching power supplies are for 25-30 watts of continuous output power. They are enclosed in a 94V-1 rated polyphenylene-oxide case with an IEC 320 inlet to mate with an interchangeable cord for worldwide use. All models meet CISPR 11 and FCC class B emission limits, and are comply with UL, CSA, IEC and CE requirements.

## INPUT SPECIFICATION

Input Voltage:
Input Frequency:
Input Current:
Leakage Current:

85 to 264 VAC
$47 \sim 63 \mathrm{~Hz}$
$0.80 \mathrm{~A}(\mathrm{rms})$ for 115 VAC
0.50 A (rms) for 230 VAC
0.47 mA max. @ $115 \mathrm{VAC}, 60 \mathrm{~Hz}$
0.85 mA max. @ $230 \mathrm{VAC}, 50 \mathrm{~Hz}$

FSA30P SERIES 30 WATT SWITCHING POWER SUPPLIES

## OUTPUT SPECIFICATIONS

| Output Voltage/Current: | See rating chart <br> 30 watts maximum |
| :--- | :--- |
| Total Output Power: | $1 \%$ peak to peak max. |
| Ripple and Noise: | Provided on output \#1 only; set at <br> Overvoltage Protection: <br> voltage of it's nominal output |
| Overcurrent Protection: | All outputs protected to short <br> circuit conditions |
| Temperature Coefficient: | All outputs $\pm 0.04 \% /{ }^{\circ} \mathrm{C}$ maximum <br> Max. excursion of $4 \%$ or better on <br> all models, recovering to $1 \%$ of final <br> value within $500 \mu \mathrm{~s}$ after a $25 \%$ step <br> load change |
| Transient Response: |  |

## GENERAL SPECIFICATIONS

Switching Frequency: Efficiency:

Hold-up Time:
Line Regulation:
Inrush Current:
( $25^{\circ} \mathrm{C}$ cold start)
Withstand Voltage:

MTBF: $\left(25^{\circ} \mathrm{C}\right.$ ambient) EMI Requirements:

Safety Requirements:
$30 \mathrm{kHz} \pm 5 \mathrm{kHz}$
$70 \%$ min. on single output with Vo $\geq 12 \mathrm{~V}, 65 \% \mathrm{~min}$. on the others 10 mS min. at 110 VAC $\pm 0.5 \%$ max. at full load 15 amps @ 115VAC, or 30 amps @ 230 VAC
$3,000 \mathrm{VAC}$ input to output $1,500 \mathrm{VAC}$ input to ground 500 VAC output to ground 400,000 hours min. at full load In compliance with CISPR 22 (EN 55022) Class B and FCC Class B Meets or exceeds:
(a) UL 1950
(b) CSA C22.2 No. 950
(c) IEC 950 (EN 60950)

## ENVIRONMENTAL SPECIFICATIONS

Operating Temp.: Storage Temperature: Relative Humidity: Derating:
$0^{\circ}$ to $+70^{\circ} \mathrm{C}$
$-40^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$
$5 \%$ to $95 \%$ non-condensing
Derate from $100 \%$ at $+50^{\circ} \mathrm{C}$ to linearly to $50 \%$ at $+70^{\circ} \mathrm{C}$.


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## OUTPUT VOLTAGE / CURRENT RATING CHART

| Model | Output \#1 |  |  |  | Output \#2 |  |  |  | Output \#3 |  |  |  | Max. Output |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Vnom | Imin | Imax | Tol. | Vnom | Imin | Imax | Tol. | Vnom | Imin | Imax | Tol. |  |
| FSA30P10 | 5-6V | 0A | 5.0A | 5\% | (N/A) |  |  |  | (N/A) |  |  |  | 25W |
| FSA30P10-1 | 6-8V | 0A | 4.5A | 2\% | (N/A) |  |  |  | (N/A) |  |  |  | 27W |
| FSA30P11 | $9-11 \mathrm{~V}$ | 0A | 3.3A | 2\% | (N/A) |  |  |  | (N/A) |  |  |  | 30W |
| FSA30P12 | $11-13 \mathrm{~V}$ | 0A | 2.7A | 2\% | (N/A) |  |  |  | (N/A) |  |  |  | 30W |
| FSA30P13 | 13-17V | 0A | 2.3A | 2\% | (N/A) |  |  |  | (N/A) |  |  |  | 30W |
| FSA30P13-1 | $17-21 \mathrm{~V}$ | 0A | 1.7A | 2\% | (N/A) |  |  |  | (N/A) |  |  |  | 30W |
| FSA30P14 | $21-27 \mathrm{~V}$ | 0A | 1.4A | 2\% | (N/A) |  |  |  | (N/A) |  |  |  | 30W |
| FSA30P16 | $27-33 \mathrm{~V}$ | 0A | 1.1A | 2\% | (N/A) |  |  |  | (N/A) |  |  |  | 30W |
| FSA30P17 | $33-39 \mathrm{~V}$ | 0A | 0.9A | 2\% | (N/A) |  |  |  | (N/A) |  |  |  | 30W |
| FSA30P18 | 48 V | 0A | 0.7A | 2\% | (N/A) |  |  |  | (N/A) |  |  |  | 30W |
| FSA30P23 | $+5 \mathrm{~V}$ | 0.3A | 3.0A | 5\% | +12V | 0.1A | 2.0A | 5\% | (N/A) |  |  |  | 30w |
| FSA30P24 | $+5 \mathrm{~V}$ | 0.3A | 3.0A | 5\% | +15V | 0.1A | 1.5A | 5\% | (N/A) |  |  |  | 30W |
| FSA30P25 | $+5 \mathrm{~V}$ | 0.3A | 3.0A | 5\% | $+24 \mathrm{~V}$ | 0.1A | 1.0A | 5\% | (N/A) |  |  |  | 30W |
| FSA30P31 | $+5 \mathrm{~V}$ | 0.3A | 3.0A | 5\% | +12V | 0A | 0.8A | 5\% | -12V | 0A | 0.8A | 5\% | 30W |
| FSA30P32 | $+5 \mathrm{~V}$ | 0.3A | 3.0A | 5\% | +15V | 0A | 0.8A | 5\% | -15V | 0A | 0.8A | 5\% | 30W |

Notes: (1) The output voltage of a single output model, except FMA55P18, can be adjusted by user in the stated range, or set by factory to a wanted value in the range at the request of a user when ordering.
(2) The output voltages of a multiple output model may go outside of the stated tolerance when an output load
(3) Current is out of stated limits. All models may be operated at no-load without damage.

## MECHANICAL SPECIFICATIONS



## Notes:

1. Dimensions shown in inch (mm)
2. Tolerance 0.02 (0.5) maximum
3. Weight: 700 grams approx.
4. Contact Fortron / Source for information on optional output connectors
5. To order a model with on / off switch, add suffix "S" to the model number, e.g. FSA30P10-S

## PIN CHART

| MODEL |  |  | 1 | 2 | 3 | 4 | 5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FSA30P10 | FSA30P10-1 | FSA30P11 | Return | Return | Output \# 1 | Return | Output \# 1 |
| FSA30P12 | FSA30P13 | FSA30P13-1 |  |  |  |  |  |
| FSA30P14 | FSA30P16 | FSA30P17 |  |  |  |  |  |
| FSA30P18 |  |  |  |  |  |  |  |
| FSA30P23 | FSA30P24 |  | Common | Common | Output | Common | Output |
| FSA30P25 |  |  | Return | Return | \# 1 | Return | \# 2 |
| FSA30P31 | FSA30P32 |  | Common Return | Common Return | $\begin{gathered} \text { Output } \\ \# 1 \end{gathered}$ | $\begin{gathered} \text { Output } \\ \# 3 \end{gathered}$ | $\begin{gathered} \text { Output } \\ \# 2 \end{gathered}$ |

Note: All data are subject to change without notice

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