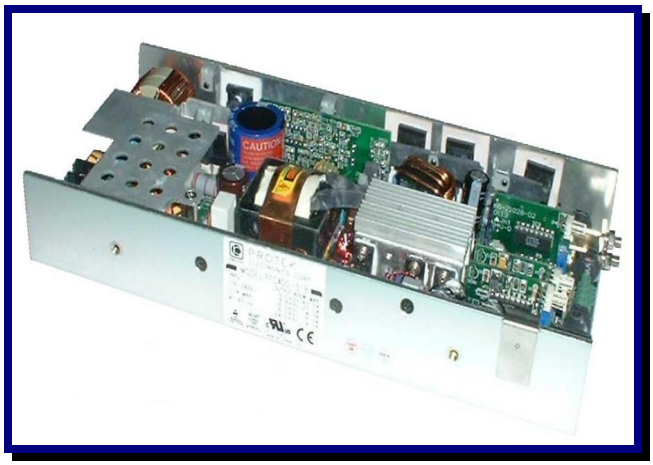

SUP400P PFC SERIES
400 WATT POWER FACTOR CORRECTED SUPPLIES

UNIVERSAL INPUT

FEATURES

- Power Factor 0.98 typical
- 90 VAC to 264 VAC universal input
- Current sharing, oring diodes and remote sense
- In compliance with EN 61000-3-2/-3 and
- EN 55024 (EN 61000-4-2/-3/-4/-5/-6/-8/-11)
- Tightly regulated DC outputs
- Overvoltage and thermal protection
- Short-circuit protection
- Power Fail Detect (PFD) signal

DESCRIPTION

The SUP400 series of AC/DC switching power supplies are capable of delivering 400 watts of continuous power and incorporate active power factor correction. Three outputs in each unit are equipped with current sharing and oring diode for redundant applications. Other features include remote sense, Power Fail Detect signal and isolated outputs. The units are constructed on a printed circuit board with a U-bracket for mechanical support and heat sinking. The series is designed for use in medium-power data networking, telecom, industrial, test and office equipment.

INPUT SPECIFICATIONS

Input Voltage:	90 to 264 VAC
Input Frequency:	47 to 63 Hz
Input Current:	7.1A (rms) for 115 VAC 3.2A (rms) for 230 VAC
Leakage Current:	0.46mA max. at 115 VAC, 60Hz 0.8mA max. at 230 VAC, 50Hz

PFD signal: TTL logic high for normal operation and TTL logic low upon loss of input power. This signal appears at least 1ms prior to +5.1V output dropping 5 % below its nominal value. This signal also provides a minimum delay of 100 ms after +5.1V is within regulation

OUTPUT SPECIFICATIONS

Output Voltage/Current:	See Rating Chart
Total Output Power:	400 watts
Ripple and Noise:	2% peak to peak max.
Overvoltage Protection:	Provided on output #1 only; set at 112-132% of its nominal output voltage
Overcurrent Protection:	All outputs protected to short circuit conditions
Temp. Coefficient:	All outputs, ± 0.04% / °C maximum
Transient Response:	Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500µs after a 25% step load change

GENERAL SPECIFICATIONS

Switching Frequency:	94KHz ± 5KHz
Power Factor:	0.98 typical
Efficiency:	70% typical
Hold-up Time:	12mS min. at 115 VAC
Line Regulation:	± 0.5% max. at full load
Inrush Current:	43A at 115 VAC, or 86A at 230 VAC, at 25° C cold start
Withstand Voltage:	3000 VAC input to output 1500 VAC input to ground 500 VAC output to ground
MTBF:	250,000 hours minimum at full load at 25° C ambient, calculated per MIL-HDBK-217F.
EMI Requirement:	In compliance with EN 55022 and FCC, conducted emissions meeting Class B and radiated emissions meeting Class A
Safety Requirements:	Meets or exceeds: (1) UL 1950 (2) CSA C22.2 No. 60950 (3) IEC 950 (EN 60950)

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature:	0° to +70° C
Storage Temperature:	-40° C to +85° C
Relative Humidity:	5% to 95% non-condensing
Derating:	Derate from 100% at +50°C linearly to 50% at +70° C
Cooling:	45.2 CFM forced air, provided by user

c US TÜV CE

E135662 R50013443 (LVD)

FORTRON/SOURCE

23181 Antonio Parkway, Rancho Santa Margarita CA 92688 U.S.A. ◆ Telephone: (949) 766-9240 ◆ Fax: (949) 766-9241
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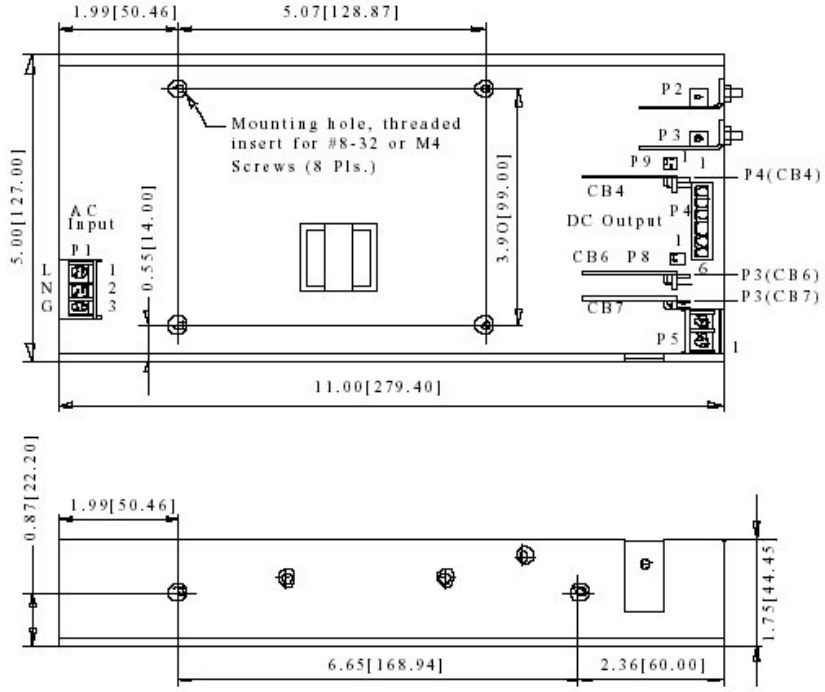
Rev. C 8-2003/DC

OUTPUT VOLTAGE/CURRENT RATING CHART

	Output #1 (2) (3)			Output #2 (2) (4)			Output #3 (2) (5)			Output #4			Output #5			Max.
Model (1)	Vnom	Imax	Tol.	Vnom	Imax	Tol.	Vnom	Imax	Tol.	Vnom	Imax	Tol.	Vnom	Imax	Tol.	Power (6)
SUP400P50B	+5.1V	40A	2%	3.3V	20A	2%	12V	9A	3%	12V	6A	4%	5V	6A	4%	400W
SUP400P51B	+5.1V	40A	2%	3.3V	20A	2%	15V	8A	3%	15V	5A	4%	24V	4A	4%	400W
SUP400P55B	+5.1V	40A	2%	3.3V	20A	2%	12V	9A	3%	12V	6A	4%	24V	4A	4%	400W
SUP400P56B	+5.1V	40A	2%	3.3V	20A	2%	15V	8A	3%	15V	5A	4%	5V	6A	4%	400W

Notes:
(1) Each output is isolated from the others and has individual return.
(2) Outputs #1, #2 and #3 are built with one-wire current sharing and oring diode for redundant connections.
(3) Output #1 requires a minimum load of 5A to support other outputs at their maximum rated loads.
(4) Output #2 requires a minimum load of 1A to be in regulation.
(5) The peak current of output #3 is limited to 12A on 12V, 9.6A on 15V.
(6) Forced air cooling of 45.2 CFM minimum is required. Suggested airflow is from the input section to the output section.

MECHANICAL SPECIFICATIONS



Notes:
1. Dimensions shown are in inch [mm].
2. Tolerance is 0.02 [0.5] maximum.
3. P1 input connector is Beau Inc. P/N 72-5-03C. Screws are #6-32 on 0.375 inch (9.53mm) centers.
4. P4 Output connector is Dinkle P/N 166-06P.
5. P8 is for DC fan rated 12V/0.25A.
6. P8 & P9 Connectors mate with Molex housing 22-01-1023 and Molex 40445 series crimp terminal.
7. Main output studs P2/P3 are with M5*0.8 screws.
8. Weight: 1.70 Kgs (3.74 Lbs.) approx.

PIN CHART

Conn. / Pin / Model	P1			P2	P3	P4						P5		P8		P9	
	1	2	3			1	2	3	4	5	6	1	2	1	2	1	2
SUP400P50 SUP400P51 SUP400P55 SUP400P56	Live	Neutral	Ground	Output #1	Output #1 Ret	Output #5	Output #5 Ret	Output #4	Output #4 Ret	Output #3	Output #3 Ret	Output #2	Output #2 Ret	Fan (+12V)	Output #1 Ret	Output #1 Ret	PFD

CB4 Sub-board (for output #1)		CB6 Sub-board (for output #3)		CB7 Sub-board (for output #2)	
P4-1	+ Sense	P3-1	+ Sense	P3-1	+ Sense
P4-2	- Sense	P3-2	- Sense	P3-2	- Sense
P4-3	Current Share	P3-3	Current Share	P3-3	Current Share

Note: All data are subject to change without notice

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