GLOBAL OFFICE INFORMATION

FSP TECHNOLOGY INC. (Headquarters)
NO.22,Jianguo E. Rd., Taoyuan City, Taiwan, R.O.C.
TEL：+886-3-375-9888 / FAX：+886-3-375-6966 sales@fsp-group.com.tw / www.fsp-group.com

Asia

Kaohsiung Office
2-3, East 3rd Street N.E.P.Z.
P.O. Box 35-25, Kaohsiung, Taiwan
TEL : +886-7-3625611 / FAX : +886-7-3634166
protek@protek.com.tw / www.fsp-group.com

India Office
C-44, 1st Floor, Okhla Phase 1 New Delhi – 110020, India
TEL : +91-11-46527092 (Direct) /93/95
FAX : +91-11-46527094
india@fsp-group.com.tw

Japan Office
Watabishi Bldg. 7F, 5-17-17, Shinjuku,
shinjuku-ku Tokyo 160-0022, Japan
hnakai@kacjapan.co.jp

Korea Office
#709, Daewoo The-Oville Prime, 1337-22, Seocho-Dong,
Seocho-Gu, Seoul, Korea (137-860)
TEL : +82-2-571-6680, +82-2-572-6680
FAX : +82-2-525-1488(From Overseas) 0505-525-1488(In Korea)
kevin@fsp-group.co.kr, bruce@fsp-group.co.kr
www.fsp-group.co.kr

United States

Southern California Office
FSP GROUP USA CORP.
14284 Albers Way, Chino, CA 91710 U.S.A.
TEL : +1-909-606-0960 / FAX : +1-909-606-0014
info@fspgroupusa.com / www.fspgroupusa.com

North America Office
FSP North America, Inc.
33 Musick, Irvine, CA 92618, U.S.A.
TEL : +1-949-305-6703 / FAX : +1-949-305-6701
fspna@fspna.com / www.fspna.com

San Jose Office
Sparkle Power Inc.
1000 Rock Ave. San Jose, CA 95131, U.S.A.
TEL : +1-408-519-8888 / FAX : +1-408-519-9999
sparkle@sparklepower.com / www.sparklepower.com

LA Office
Sparkle Power Inc.
17071 Green Drive City of Industry, CA 91745, U.S.A.
TEL : +1-626-839-7180 / FAX : +1-626-839-3395
sparkle@sparklepower.com / www.sparklepower.com

Southern California Office
FSP PowerTek
22522 Avenida Empresa Rancho Santa Margarita, CA 92688, U.S.A.
TEL : +1-949-229-0088 / FAX : +1-949-216-1026
Info@fsppowertek.com / Sales@fsppowertek.com
www.fsppowertek.com

Northern California Office
FSP PowerTek
4231 Business Center Dr. Ste #7 Fremont, CA 94538, U.S.A.
TEL : +1-510-400-8268 / FAX : +1-510-226-6106
Info@fsppowertek.com / Sales@fsppowertek.com
www.fsppowertek.com

Silicon Valley Office
FSP International Sources
3350 Scott Blvd., Bldg. 13, Santa Clara, CA 95054, U.S.A.
TEL : +1-408-988-6616 / FAX : +1-408-988-6622
ledpower@FSPiS.com / www.fsp-group.com

South America

Brazil Office
FSP BRASIL REPRES. COMERCIAL LTDA.
Av. Marquês de São Vicente, 446, Sala 108,
Barra Funda- São Paulo-Brasil- CEP 01139-000
TEL : +55-11-3548-4192 / FAX : +55-11-3548-4193 Ext 22
brazil@fsp-group.com.tw / www.fsp-group.com

Europe

Germany Office
Fortron/Source (Europa) GmbH
Carl-Friedrich-Benz-Strasse 13, D-47877 Willich, Germany
TEL : +49- 2154-894-012-0 / FAX : +49- 2154-894-012-20
sales@fortron-source.de / www.fortron-source.de

Germany Office
Fortron/Source (Europa) GmbH
Josef-Schorer-Str. 10, D-86179 Augsburg, Germany
TEL : +49-821-809988-0 / FAX : +49-821-809988-30
Augsburg@fortron-source.de / www.fsplifestyle.com

Germany Office
FSP Power Solution GmbH
Jakobshöhe 16, D-41066 Mönchengladbach, Germany
TEL : +49-2161-495249-0 / FAX : +49-2161-495249-21
service@fsp-ps.de / www.fsp-ps.de

Hungary Office
FSP Eastern Europe Kft.
Árpád fejedelem útja 26-28, 1023 Budapest, Hungary
TEL : +36-1-631-6534
team@fsp-ee.com / www.fsp-ee.com

France Office
2, Rue du Lieutenant Dagorno, 94440 Villecresnes, France
TEL : +33-143-8687-43/65 / FAX : +33-143-8687-20
service@fsp-group.fr / www.fsplifestyle.com

U.K. Office
FSP (GB) LTD.
Unit 8, Curo Park, Frogmore, St. Albans,
Hertfordshire, AL2 2DD, United Kingdom
TEL : +44-1727-873-888 / FAX : +44-1727-873-668
sales@fspgroup.co.uk / www.fspgroup.co.uk / www.fsplifestyle.com

Russia Office (Moscow)
FSP Russia/CIS
119571 Moscow, Akademika Anokhina srt. 5/3 office 69
TEL/FAX : +7(499) 730-44-10
rusupport@fsp-power.ru / www.fsp-power.ru

Russia Office (St. Petersburg)
FSP Russia/CIS
Russia, Saint-Petersburg. Ligovskiy prospect,50.
Business center. Kor.6,office 24a
TEL : +7(812) 336-87-14
rusupport@fsp-power.ru / www.fsp-power.ru

China

Hong Kong Office
CROWN JOY INTERNATIONAL LIMITED
RM609, 6/F., Block A, Proficient IND. CTR.,
6 Wang Kwun Road, Kowloon Bay,Kowloon, HONG KONG
TEL : +852-2331-3613 / FAX : +852-2331-9162
sales@crownjoy.com.hk

Shanghai Office
YULI ELECTRONIC CO., LTD.
17F,No.461 Hongcao Rd. Software Building, Shanghai, China
上海宇力电子有限公司 上海市虹漕路461号漕河泾软件大厦17F
TEL : +86-21-5426-2808 / FAX : +86-21-5426-2818
xiaoshou@sh.fsp-group.com.tw

Wuxi Office
WUXI ZHONGHAN TECHNOLOGY CO., LTD
No.3, Xijin Road, new district, Wuxi city, China
无锡仲汉科技有限公司 江苏省无锡市新区锡锦路3号
TEL : +86-510-8532-3336 / FAX : +86-510-8532-3802
sales@sph.fsp-group.com.tw

Shenzhen Office
SHENZHEN ZHONG HAN SCIENCE &TECH.CO.LTD.
Room L-R, 19/F,Building A, Fortune Plaza,7060 Shen Nan Road,
Shenzhen, Guangdong, China
深圳市众汉科技有限公司
广东省深圳市福田区深南大道7060号财富广场A座19楼L-R室
TEL : +86-755-82933183 / FAX : +86-755-82933190
zhonghan@zkh.fsp-group.com.tw

Shenzhen Office
SHENZHEN RISESUN INDUSTRIAL CO., LTD.
Room S-Z,19/F,Building A, Fortune Plaza, 7002 Shen Nan Road,
Shenzhen, Guangdong, China
深圳市永盛宏实业有限公司
广东省深圳市福田区深南大道7002号财富广场A座19楼S-Z室
TEL : +86-755-828-79118 / FAX : +86-755-82879105
risesun@sz.fsp-group.com.tw

2013 / Ver. 2

FSP

IPC

AC / DC
DC / DC
MEDICAL
REDUNDANT

POWER
NEVER ENDS

About FSP Group

FSP Group is the 6th largest power supply vendor in the world, 4th largest in Asia.
Since established in 1993, the company has drawn together its R&D expertise, sizeable production capacity and outstanding product quality to consistently excel in this competitive marketplace.

FSP Group produces large selections of products to serve its OEM / ODM customers in LCD TV, LED Lighting, Medical, Industrial / Desktop computers and Servers. FSP Group has branch offices in more than 10 countries, 4 manufacturing facilities and about 8,500 people throughout the world.

With its broad range of products, FSP Group is uniquely positioned for strong growth on several long term trends and environment protection including green power products, higher energy-efficient conversion products, and highly electrical safety and reliable products.

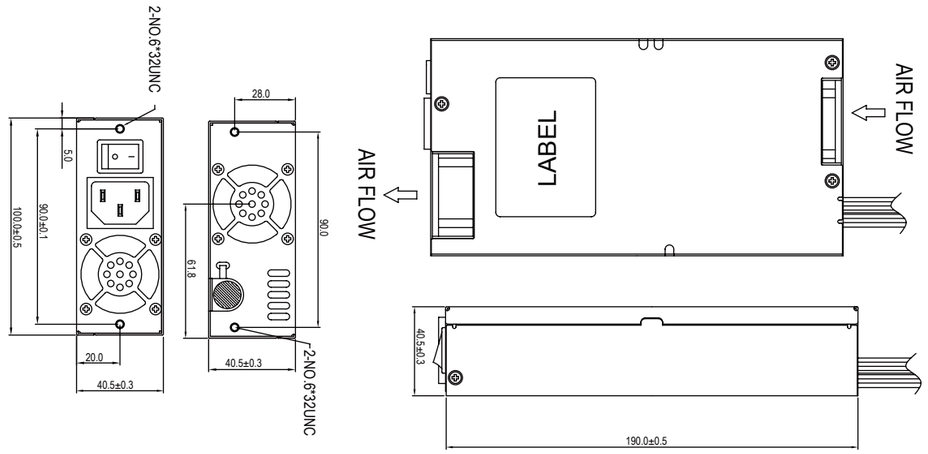
FSP Group's global presence in Taiwan, Brazil, China, Germany, Hungary, India, Japan, Korea, Russia, UK, USA also provide our OEM / ODM customers with integrated global logistic. This translates to "Door-to-Door" service and faster time-to-market for product deliveries. Please check with your highly trained professional account manager on how to take advantage of our global logistic service for your business.

Our current focus in FSP Group is to further enhance our green power products, expand market presence of FSP branded retail products, and extend our research and development effort on all our products. At FSP Group, we are not only focusing on building a bigger company, also a better one.

Energetic | **Friendly** | **Simple** | **Reliable**

250W FSP250-701UH

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 4.0Amps-rms maximum
  230V@ 2.0Amps-rms maximum

80 PLUS

E190414

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT	
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)
1	3.3V	50mV	±5%	0.5	16.0
2	5V	50mV	±5%	0.5	18.0
3	$12V_1$	120mV	±5%	1.0	16.0
4	$12V_2$	120mV	±5%	1.0	16.0
5	12V	120mV	±10%	0.0	0.8
6	-5V	100mV	±10%	0.0	0.3
7	$5V_{Sb}$	50mV	±5%	0.0	2.5

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The 12V1 and 12V2 total output shall not exceed 18A
The +3.3V and +5V total output shall not exceed 120watts.
The total output shall not exceed 250watts

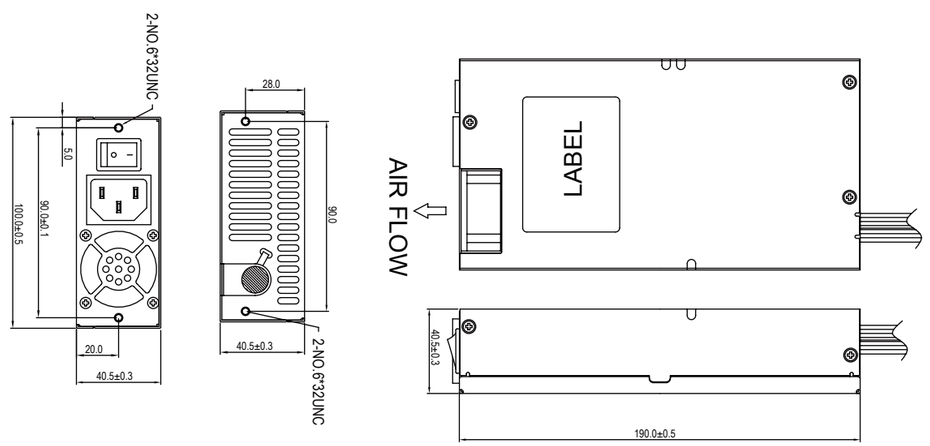
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

250W FSP250-701UJ

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 4.0Amps-rms maximum
  230V@ 2.0Amps-rms maximum

80 PLUS BRONZE

E190414

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+16Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT	
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)
1	3.3V	50mV	±5%	0.3	14.0
2	5V	50mV	±5%	0.3	16.0
3	$12V_1$	120mV	±5%	0.5	16.0
4	$12V_2$	120mV	±5%	0.5	16.0
5	-12V	120mV	±10%	0.0	0.5
6	$5V_{Sb}$	50mV	±5%	0.0	3.0
7	-5V	100mV	±10%	0.0	0.3

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The 12V1 and 12V2 total output shall not exceed 18A
The +3.3V and +5V total output shall not exceed 120watts.
The total output shall not exceed 250watts

ENVIRONMENTAL REQUIREMENTS

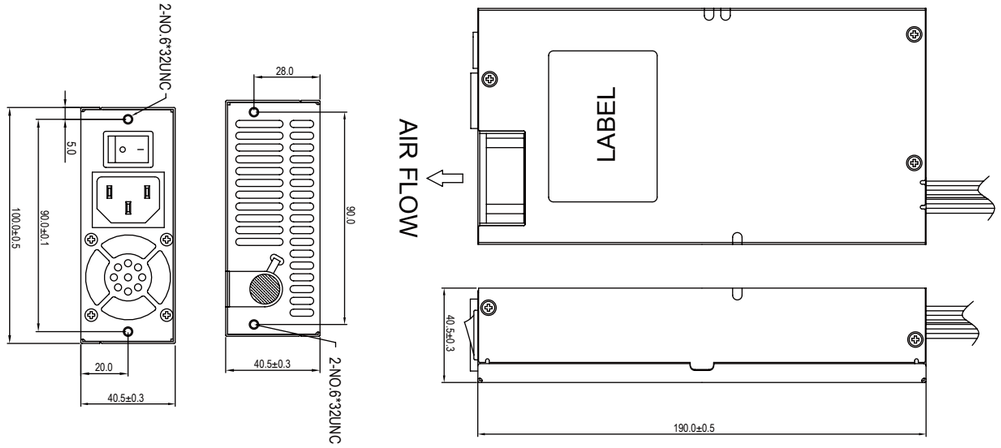
- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

1U

250W FSP250-701US

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 4.0Amps-rms maximum
  230V@ 2.0Amps-rms maximum

80 PLUS GOLD

E190414

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16mSec. Minimum@full Load
  230V/50Hz 16mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.3 Vdc minimum,+16Vdc maximum
  + 3.3Vdc output : +3.7 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	OUTPUT VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	OUT CURRENT Max(A)
1	3.3V	50mV	±5%	0.3	14.0
2	5V	50mV	±5%	0.3	16.0
3	$12V_1$	120mV	±5%	0.5	16.0
4	$12V_2$	120mV	±5%	0.5	16.0
5	-12V	120mV	±10%	0.0	0.5
6	$5V_{Sb}$	50mV	±5%	0.0	3.0
7	-5V	100mV	±10%	0.0	0.2

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 100watts.
The total output shall not exceed 250 watts
*-5V Option,

ENVIRONMENTAL REQUIREMENTS

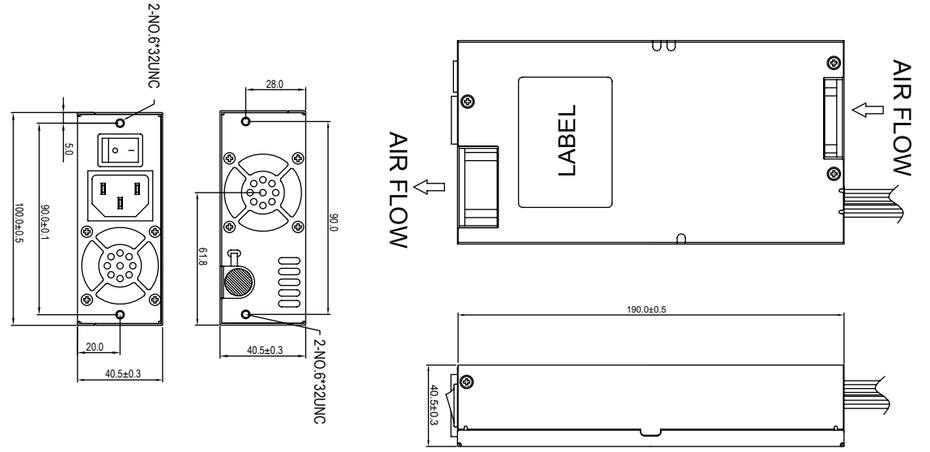
- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- OPERATING ALTITUDE :
  Comply with the requirement for 5000m certification.
- SAFETY :
  LEAKAGE CURRENT :
  The leakage current from AC to safety ground will not exceed 3.5 mA-rms at 264Vac, 50 Hz.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

1U

300W FSP300-701UH

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 5.0Amps-rms maximum
  230V@ 3.0Amps-rms maximum

80 PLUS

E190414

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	OUTPUT VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	OUT CURRENT Max(A)
1	3.3V	50mV	±5%	0.5	16.0
2	5V	50mV	±5%	0.5	18.0
3	$12V_1$	120mV	±5%	1.0	16.0
4	$12V_2$	120mV	±5%	1.0	16.0
5	-12V	120mV	±10%	0.0	0.8
6	$5V_{Sb}$	50mV	±5%	0.0	2.5
7	-5V	100mV	±10%	0.0	0.3

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The 12V1 and 12V2 total output shall not exceed 20A
The +3.3V and +5V total output shall not exceed 120watts.
The total output shall not exceed 300watts

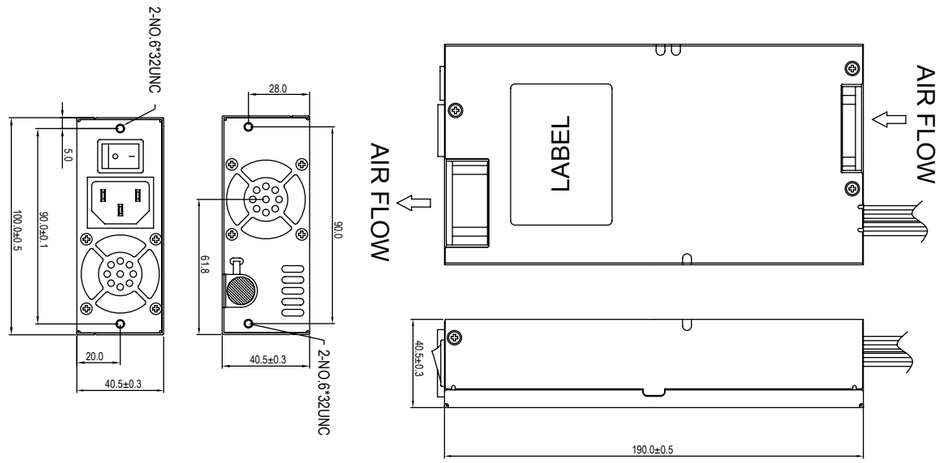
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

300W FSP300-701UJ

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 5.0Amps-rms maximum
  230V@ 2.5Amps-rms maximum

80 PLUS BRONZE

E190414

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+16Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT	
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)
1	3.3V	50mV	±5%	0.3	14.0
2	5V	50mV	±5%	0.3	16.0
3	$12V_1$	120mV	±5%	0.5	16.0
4	$12V_2$	120mV	±5%	0.5	16.0
5	-12V	120mV	±10%	0.0	0.5
6	$5V_{Sb}$	50mV	±5%	0.0	3.0
7	-5V	100mV	±10%	0.0	0.3

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 120watts.
The total output shall not exceed 300watts

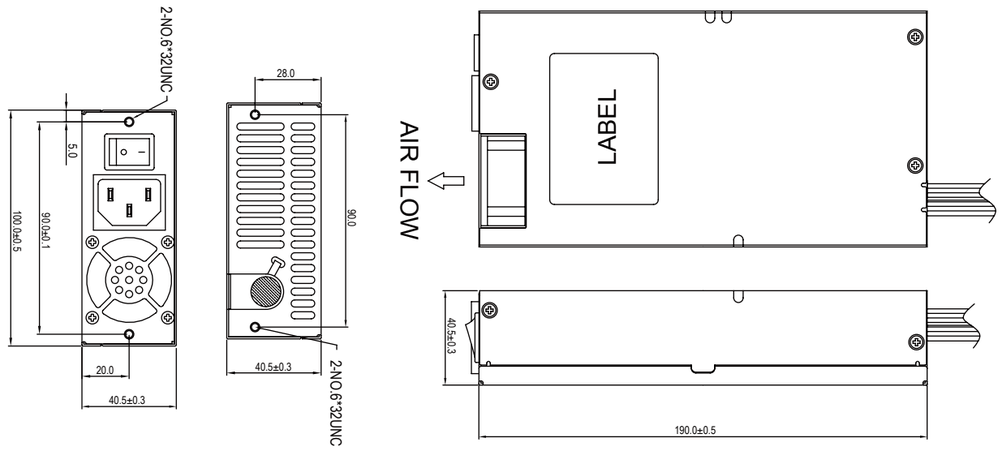
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

300W FSP300-701US

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 4.0Amps-rms maximum
  230V@ 2.0Amps-rms maximum

80 PLUS GOLD

E190414

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+16Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT	
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)
1	3.3V	50mV	±5%	0.3	14.0
2	5V	50mV	±5%	0.3	16.0
3	$12V_1$	120mV	±5%	0.5	16.0
4	$12V_2$	120mV	±5%	0.5	16.0
5	-12V	120mV	±10%	0.0	0.5
6	$5V_{Sb}$	50mV	±5%	0.0	3.0
7	-5V	100mV	±10%	0.0	0.2

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The 12V1 and 12V2 total output shall not exceed 18A
The +3.3V and +5V total output shall not exceed 120watts.
The total output shall not exceed 250watts

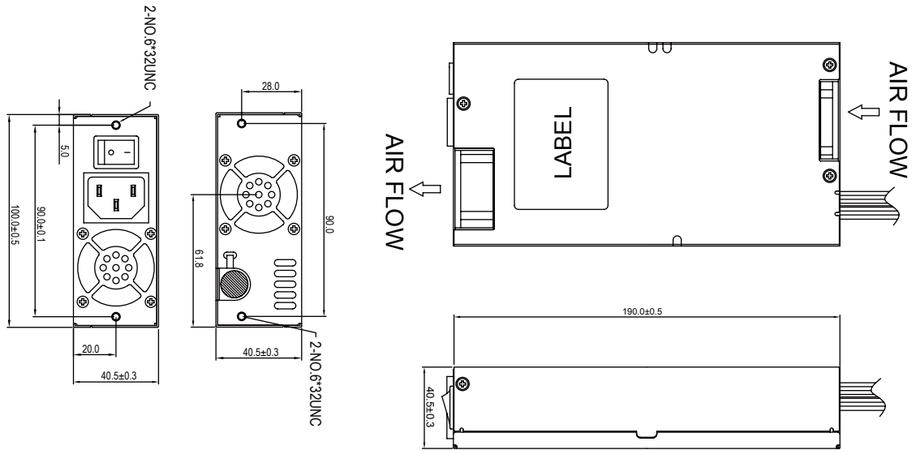
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- OPERATING ALTITUDE :
  Comply with the requirement for 5000m certification.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

350W FSP350-701UH

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 6.0Amps-rms maximum
  230V@ 3.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

E190414

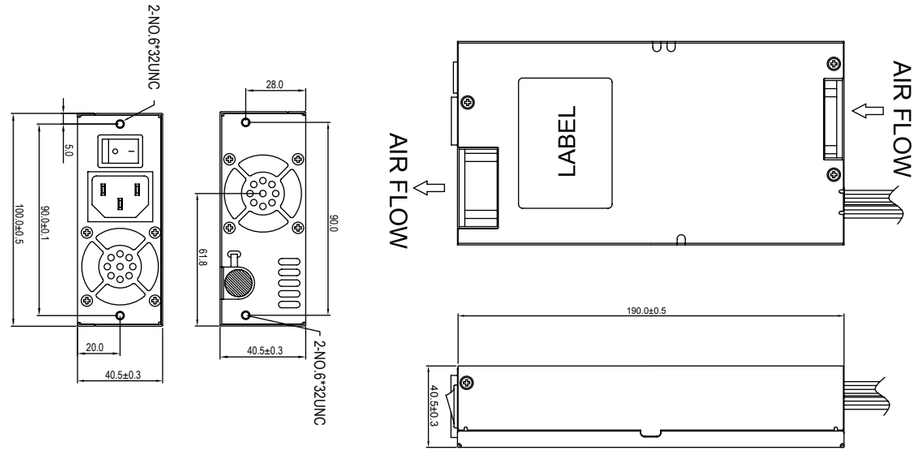
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	OUTPUT VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	OUT CURRENT Max(A)
1	3.3V	50mV	±5%	0.5	16.0
2	5V	50mV	±5%	0.5	18.0
3	$12V_1$	120mV	±5%	1.0	16.0
4	$12V_2$	120mV	±5%	1.0	16.0
5	-12V	120mV	±10%	0.0	0.8
6	$5V_{Sb}$	50mV	±5%	0.0	2.5
7	-5V	100mV	±10%	0.0	0.3

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The 12V1 and 12V2 total output shall not exceed 24A
The +3.3V and +5V total output shall not exceed 130watts.
The total output shall not exceed 350watts

350W FSP350-701UJ

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 6.3Amps-rms maximum
  230V@ 3.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+16Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

E190414

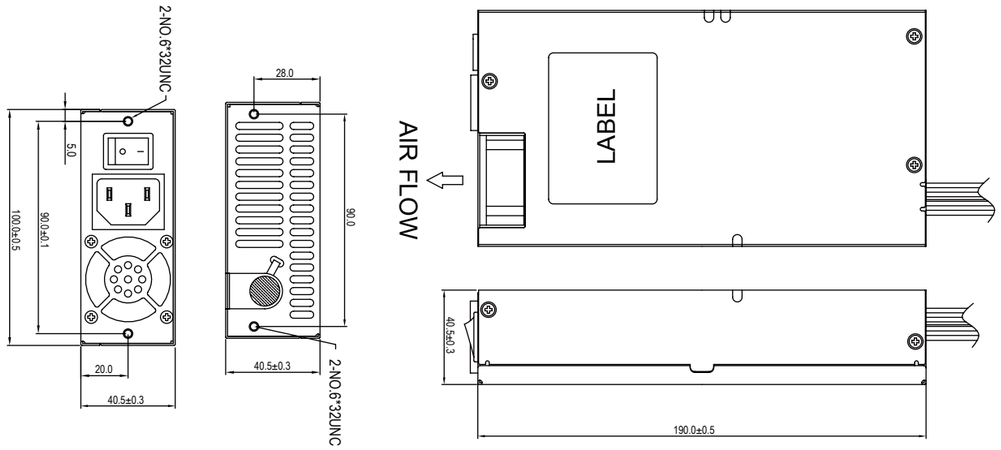
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	OUTPUT VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	OUT CURRENT Max(A)
1	3.3V	50mV	±5%	0.3	16.0
2	5V	50mV	±5%	0.3	18.0
3	$12V_1$	120mV	±5%	0.5	16.0
4	$12V_2$	120mV	±5%	0.5	16.0
5	-12V	120mV	±10%	0.0	0.5
6	$5V_{Sb}$	50mV	±5%	0.0	3.0
7	-5V	100mV	±10%	0.0	0.3

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 130watts.
The total output shall not exceed 350watts

350W FSP350-701US

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 5.0Amps-rms maximum
  230V@ 2.5Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16mSec. Minimum@full Load
  230V/50Hz 16mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+16Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- OPERATING ALTITUDE :
  Comply with the requirement for 5000m certification.
- SAFETY :
  LEAKAGE CURRENT :
  The leakage current from AC to safety ground will not exceed 3.5 mA-rms at 264Vac, 50 Hz.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

E190414

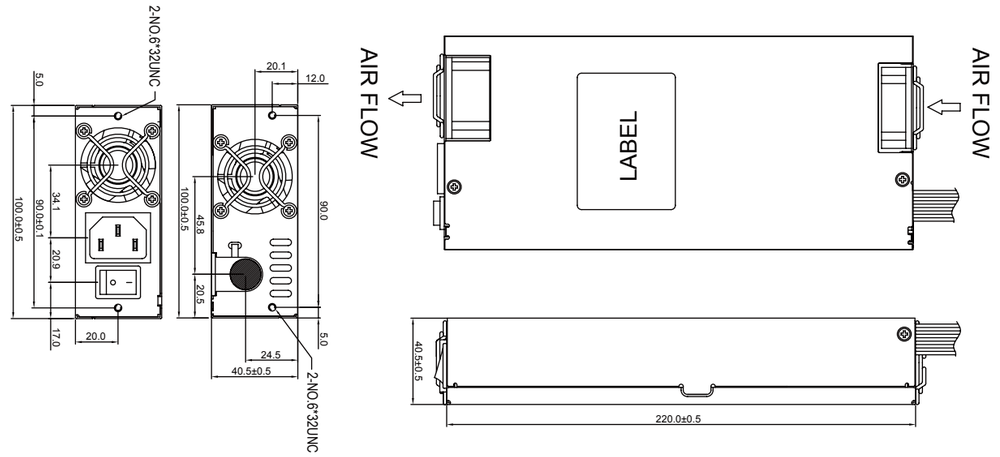
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)
1	3.3V	50mV	±5%	0.3	16.0
2	5V	50mV	±5%	0.3	16.0
3	$12V_1$	120mV	±5%	0.5	18.0
4	$12V_2$	120mV	±5%	0.5	18.0
5	-12V	120mV	±10%	0.0	0.5
6	$5V_{Sb}$	50mV	±5%	0.0	3.0
7	-5V	100mV	±10%	0.0	0.2

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 110watts.
The total output shall not exceed 350 watts
*-5V Option

400W FSP400-601UG

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 6.3Amps-rms maximum
  230V@ 3.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 20mSec. Minimum@full Load
  230V/50Hz 20mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

E190414

OUTPUT VOLTAGE AND CURRENT RATING

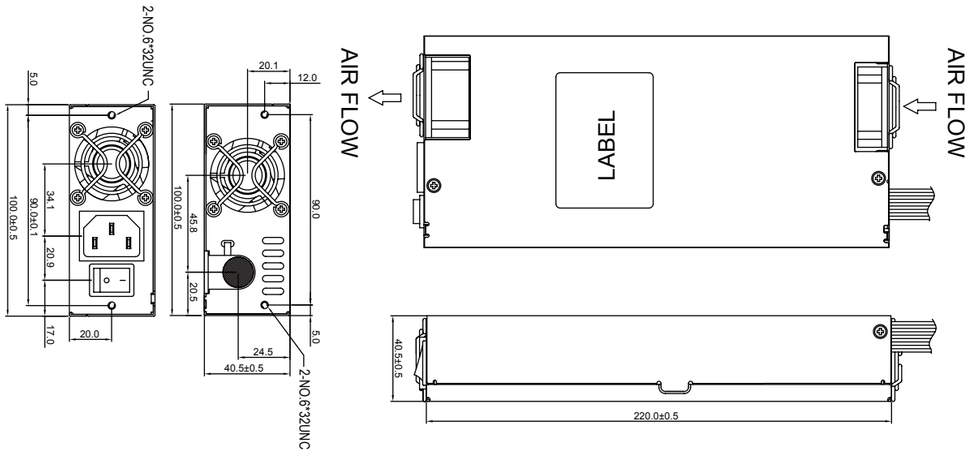
OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)
1	3.3V	50mV	±5%	0.5	20.0
2	5V	50mV	±5%	0.5	20.0
3	$12V_1$	120mV	±5%	1.5	16.0
4	$12V_2$	120mV	±5%	1.5	16.0
5	-12V	120mV	±10%	0.0	0.5
6	$5V_{Sb}$	50mV	±5%	0.0	2.5

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 150watts.
The total output shall not exceed 400watts

1U

400W FSP400-701UH

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 8.0Amps-rms maximum
  230V@ 4.0Amps-rms maximum

80 PLUS BRONZE

E190414

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16mSec. Minimum@50% Load
  230V/50Hz 16mSec. Minimum@50% Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)
1	3.3V	50mV	±5%	0.5	20.0
2	5V	50mV	±5%	1.0	20.0
3	$12V_1$	120mV	±5%	0.5	16.0
4	$12V_2$	120mV	±5%	1.0	16.0
5	$12V_3$	120mV	±5%	1.0	16.0
6	-12V	120mV	±10%	0.0	0.5
7	$5V_{Sb}$	50mV	±5%	0.0	3.0

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 120watts.
The 12V1,12V2,12V3 output shall not exceed 30A
The total output shall not exceed 400watts

ENVIRONMENTAL REQUIREMENTS

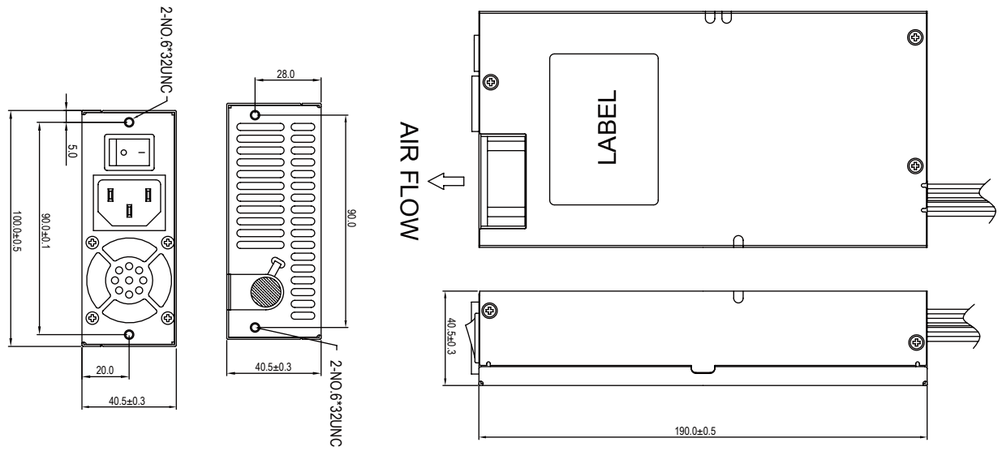
- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- OPERATING ALTITUDE :
  Comply with the requirement for 5000m certification.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

1U

400W FSP400-701US

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 6.3Amps-rms maximum
  230V@ 3.0Amps-rms maximum

80 PLUS GOLD

E190414

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16mSec. Minimum@full Load
  230V/50Hz 16mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+16Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)
1	3.3V	50mV	±5%	0.3	16.0
2	5V	50mV	±5%	0.3	16.0
3	$12V_1$	120mV	±5%	0.5	18.0
4	$12V_2$	120mV	±5%	0.5	18.0
5	-12V	120mV	±10%	0.0	0.5
6	$5V_{Sb}$	50mV	±5%	0.0	3.0
7	-5V	100mV	±10%	0.0	0.2

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 150watts.
The total output shall not exceed 400watts
*-5V Option

ENVIRONMENTAL REQUIREMENTS

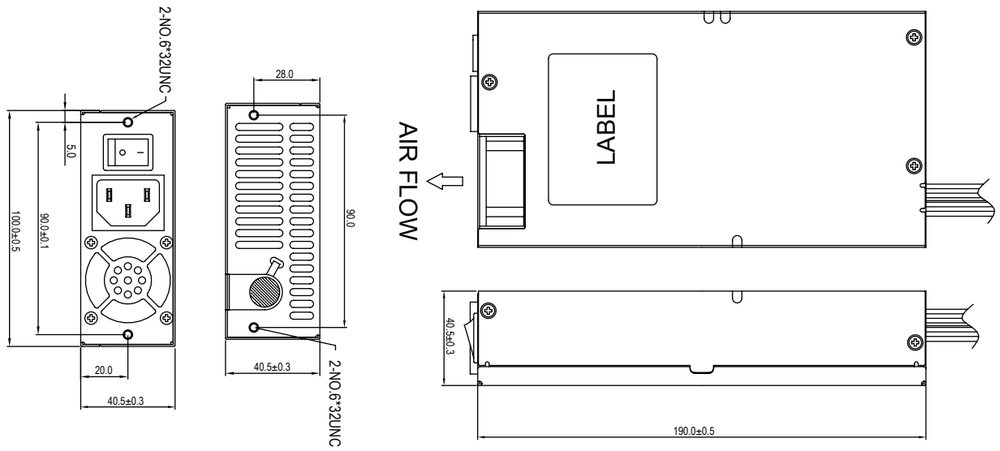
- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- OPERATING ALTITUDE :
  Comply with the requirement for 5000m certification.
- SAFETY :
  LEAKAGE CURRENT
  The leakage current from AC to safety ground will not exceed 3.5 mA-rms at 264Vac, 50 Hz.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

400W FSP400-70UDPB

NEW

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 8.0Amps-rms maximum
  230V@ 4.0Amps-rms maximum

80 PLUS PLATINUM PMBus

E190414

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16mSec. Minimum@full Load
  230V/50Hz 16mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output:+5.5 Vdc minimum, +6.82Vdc maximum
  +12Vdc output:+13.4 Vdc minimum, +15.6Vdc maximum
  +3.3Vdc output:+3.5 Vdc minimum, +4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	OUTPUT VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	OUT CURRENT Max(A)
1	3.3V	50mV	±5%	0.3	16.0
2	5V	50mV	±5%	1.0	18.0
3	$12V_1$	120mV	±5%	0.5	16.0
4	$12V_2$	120mV	±5%	1.0	16.0
5	$12V_3$	120mV	±5%	1.0	16.0
6	-12V	120mV	±10%	0.0	0.5
7	$5V_{Sb}$	50mV	±5%	0.0	3.0

*Combined 3.3V and 5V power shall not exceed 110W.
Ripple and noise measurements shall be made under all specified load conditions through a single pole low pass filter with 20MHz cutoff frequency. Outputs shall bypassed at the connector with a 0.1uF ceramic disk capacitor and a 10uF electrolytic capacitor to simulate system loading.
Maximum continuous total DC output power should not exceed 400W

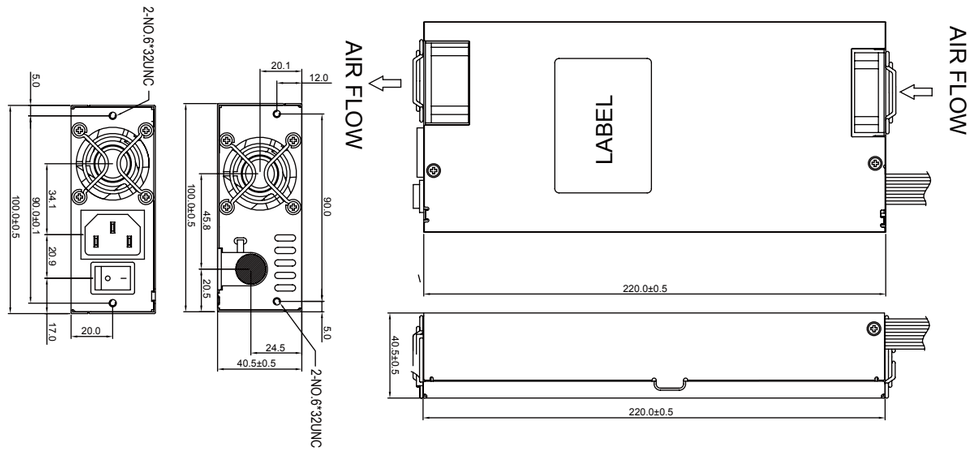
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- OPERATING ALTITUDE :
  Comply with the requirement for 5000m certification.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, 100% - output load, and nominal AC input voltage.

460W FSP460-701UG

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 8.0Amps-rms maximum
  230V@ 4.0Amps-rms maximum

80 PLUS

E190414

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 20mSec. Minimum@full Load
  230V/50Hz 20mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	OUTPUT VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	OUT CURRENT Max(A)
1	3.3V	50mV	±5%	0.5	20.0
2	5V	50mV	±5%	0.5	20.0
3	$12V_1$	120mV	±5%	1.0	16.0
4	$12V_2$	120mV	±5%	1.0	16.0
5	$12V_3$	120mV	±5%	1.0	16.0
6	-12V	120mV	±10%	0.0	0.5
7	$5V_{Sb}$	50mV	±5%	0.0	2.5

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 150watts.
The total output shall not exceed 460watts

ENVIRONMENTAL REQUIREMENTS

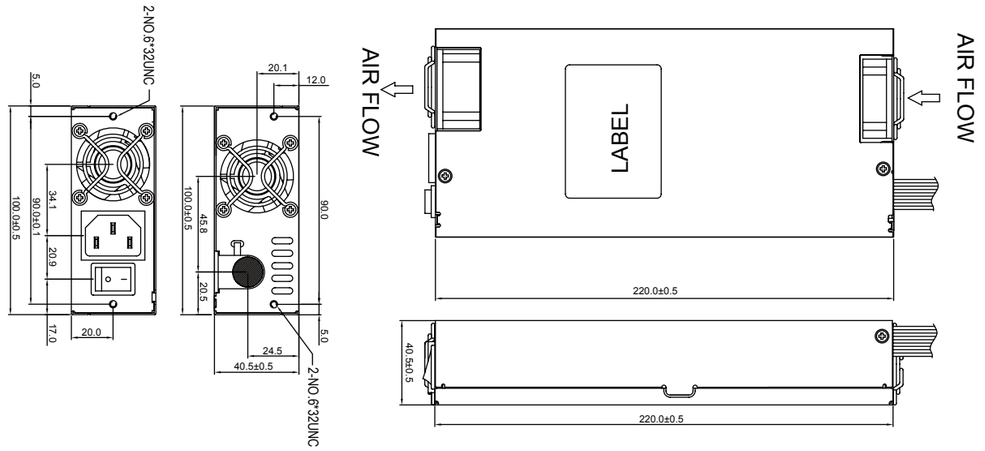
- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- OPERATING ALTITUDE :
  Comply with the requirement for 5000m certification.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

1U

460W FSP460-701UH

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 8.0Amps-rms maximum
  230V@ 4.0Amps-rms maximum

80 PLUS BRONZE

E190414

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16mSec. Minimum@50% Load
  230V/50Hz 16mSec. Minimum@50% Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT	
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)
1	3.3V	50mV	±5%	0.5	20.0
2	5V	50mV	±5%	1.0	20.0
3	$12V_1$	120mV	±5%	0.5	16.0
4	$12V_2$	120mV	±5%	1.0	16.0
5	$12V_3$	120mV	±5%	1.0	16.0
6	-12V	120mV	±10%	0.0	0.5
7	$5V_{Sb}$	50mV	±5%	0.0	3.0

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The 12V1 and 12V2 and 12V3 total output shall not exceed 35A.
The +3.3V and +5V total output shall not exceed 130watts.
The total output shall not exceed 460watts

ENVIRONMENTAL REQUIREMENTS

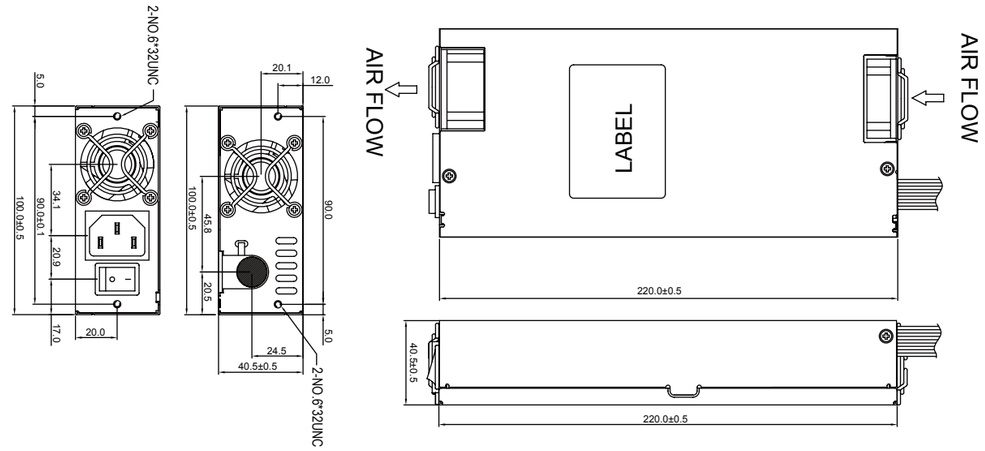
- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- OPERATING ALTITUDE :
  Comply with the requirement for 5000m certification.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

1U

500W FSP500-701UH

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 8.0Amps-rms maximum
  230V@ 4.0Amps-rms maximum

80 PLUS BRONZE

E190414

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16mSec. Minimum@full Load
  230V/50Hz 16mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT	
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)
1	3.3V	50mV	±5%	0.5	20.0
2	5V	50mV	±5%	1.0	20.0
3	$12V_1$	120mV	±5%	0.5	16.0
4	$12V_2$	120mV	±5%	1.0	16.0
5	$12V_3$	120mV	±5%	1.0	16.0
6	-12V	120mV	±10%	0.0	0.5
7	$5V_{Sb}$	50mV	±5%	0.0	3.0

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The 12V1 and 12V2 and 12V3total output shall not exceed 39A
The +3.3V and +5V total output shall not exceed 130watts.
The total output shall not exceed 500watts

ENVIRONMENTAL REQUIREMENTS

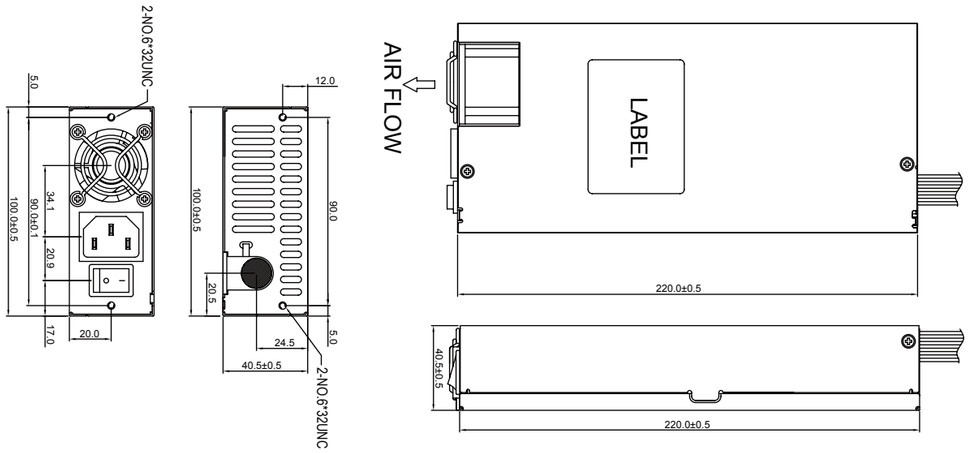
- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- OPERATING ALTITUDE :
  Comply with the requirement for 5000m certification.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

1U

500W FSP500-701UN

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 8.0Amps-rms maximum
  230V@ 4.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16mSec. Minimum@80% Load
  230V/50Hz 16mSec. Minimum@80% Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- OPERATING ALTITUDE :
  Comply with the requirement for 5000m certification.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

E190414

OUTPUT VOLTAGE AND CURRENT RATING

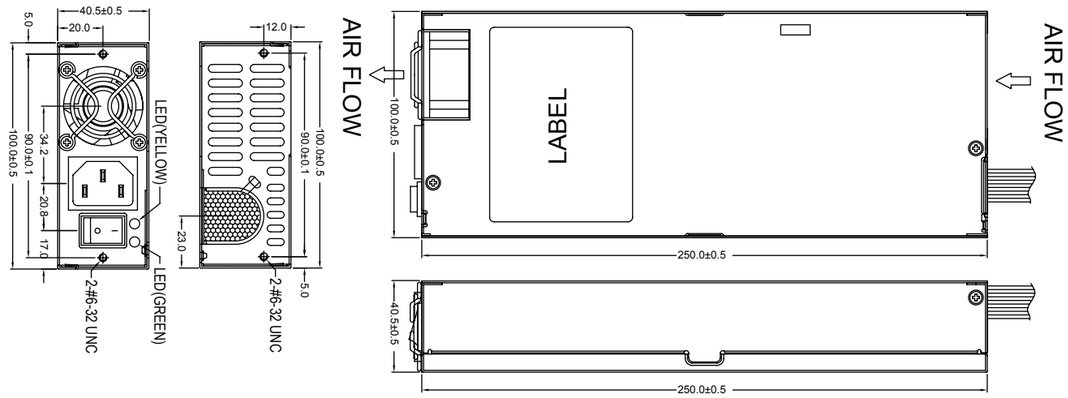
OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)
1	3.3V	50mV	±5%	0.1	20.0
2	5V	50mV	±5%	0.1	20.0
3	$12V_1$	120mV	±5%	0.1	16.0
4	$12V_2$	120mV	±5%	0.5	16.0
5	$12V_3$	120mv	±5%	0.5	16.0
6	-12V	120mV	±10%	0.0	0.5
7	$5V_{Sb}$	50mV	±5%	0.0	3.5

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 130watts.
The total output shall not exceed 500watts

1U

500W FSP500-701UP

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 8.0Amps-rms maximum
  230V@ 4.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16mSec. Minimum@75% Load
  230V/50Hz 16mSec. Minimum@75% Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- SAFETY :
  LEAKAGE CURRENT
  The leakage current from AC to safety ground will not exceed 3.5 mA-rms at 264Vac, 50 Hz.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

E190414

OUTPUT VOLTAGE AND CURRENT RATING

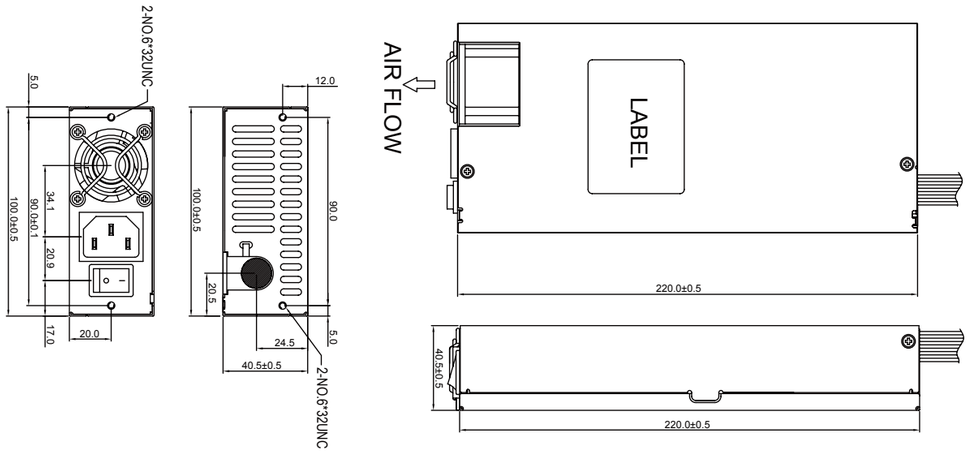
OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)
1	3.3V	50mV	±5%	0.1	20.0
2	5V	50mV	±5%	0.1	20.0
3	$12V_1$	120mV	±5%	0.5	16.0
4	$12V_2$	120mV	±5%	0.5	16.0
5	$12V_3$	120mV	±5%	0.5	16.0
6	-12V	120mV	±10%	0.0	0.5
7	$5V_{Sb}$	50mV	±5%	0.0	3.5

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 130watts.
The total output shall not exceed 500 watts

500W FSP500-70UDPB

NEW

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 8.0Amps-rms maximum
  230V@ 4.0Amps-rms maximum

80 PLUS PLATINUM

PMBus

E190414

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16mSec. Minimum@full Load
  230V/50Hz 16mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.8Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	OUTPUT VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	OUT CURRENT Max(A)
1	3.3V	50mV	±5%	0.1	20.0
2	5V	50mV	±5%	0.5	20.0
3	$12V_1$	120mV	±5%	1.0	16.0
4	$12V_2$	120mV	±5%	1.0	16.0
5	$12V_3$	120mV	±5%	0.5	16.0
6	-12V	120mV	±10%	0.0	0.5
7	$5V_{sb}$	50mV	±5%	0.0	3.0

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The 12V1 and 12V2 total output shall not exceed 18A
The +3.3V and +5V total output shall not exceed 120watts.
The total output shall not exceed 250watts

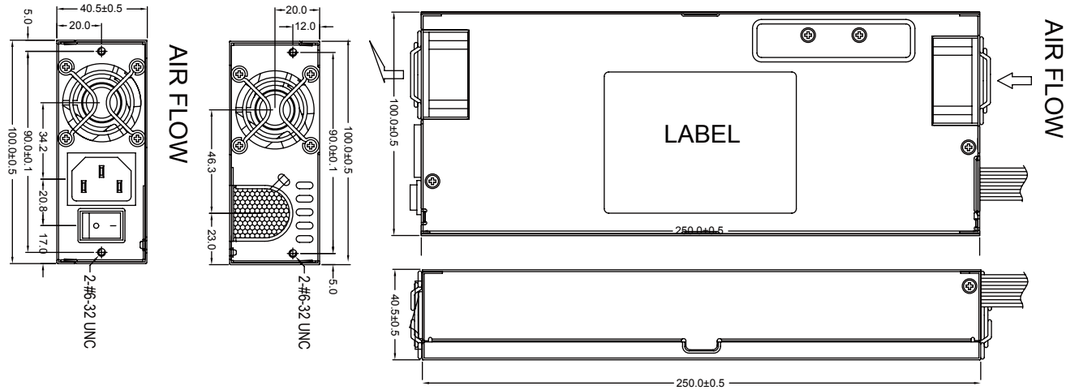
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- OPERATING ALTITUDE :
  Comply with the requirement for 5000m certification.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, 100% - output load, and nominal AC input voltage.

600W FSP600-801UK

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 8.0Amps-rms maximum
  230V@ 4.0Amps-rms maximum

80 PLUS BRONZE

E190414

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+16Vdc maximum
  + 3.3Vdc output : +3.7 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	OUTPUT VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	OUT CURRENT Max(A)
1	3.3V	50mV	±5%	0.5	24.0
2	5V	50mV	±5%	0.5	24.0
3	$12V_1$	120mV	±5%	0.5	16.0
4	$12V_2$	120mV	±5%	0.5	16.0
5	$12V_3$	120mV	±5%	0.5	16.0
6	$12V_4$	120mV	±5%	0.5	16.0
7	-12V	120mV	±10%	0.05	0.5
8	$5V_{sb}$	50mV	±5%	0.1	4.0

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 160watts.
The total output shall not exceed 600watts

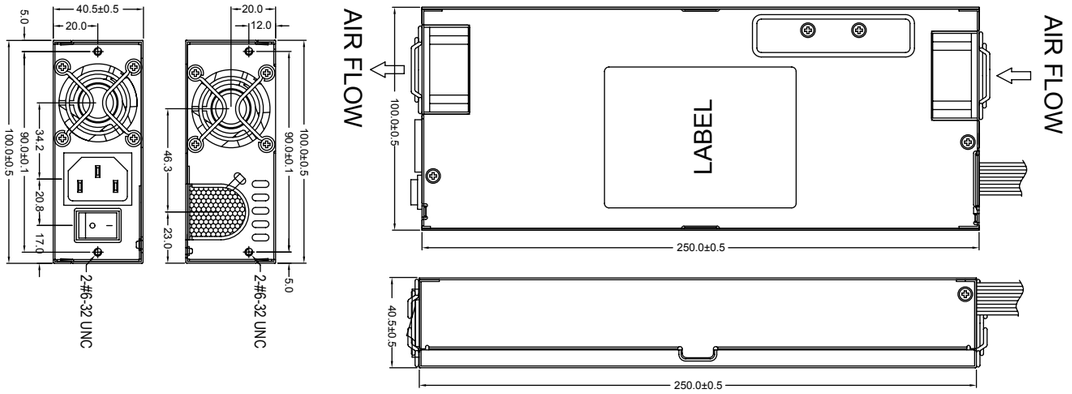
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

700W FSP700-801UK

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 10.0Amps-rms maximum
  230V@ 5.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+16Vdc maximum
  + 3.3Vdc output : +3.7 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 5-85% RH, Non-condensing
  Storage: 5-95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

E190414

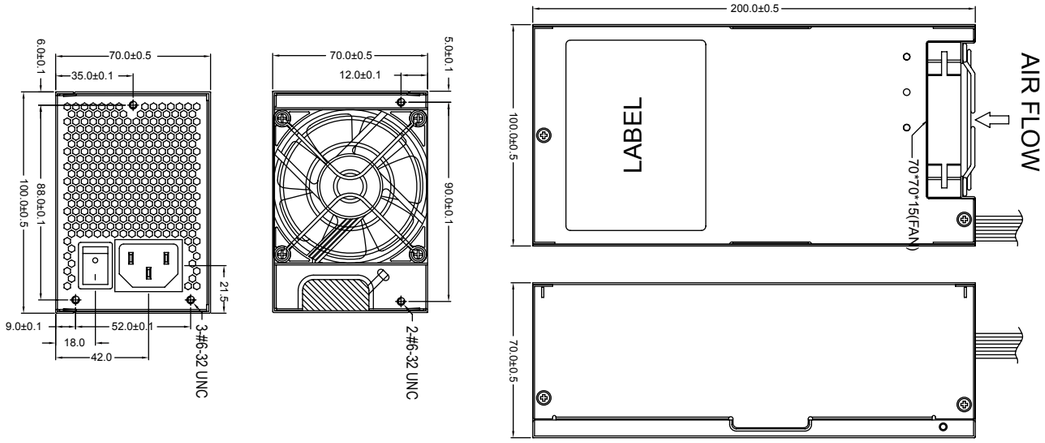
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)
1	3.3V	50mV	±5%	0.5	24.0
2	5V	50mV	±5%	0.5	30.0
3	$12V_1$	120mV	±5%	0.5	16.0
4	$12V_2$	120mV	±5%	0.5	16.0
5	$12V_3$	120mV	±5%	0.5	16.0
6	$12V_4$	120mV	±5%	0.5	16.0
7	-12V	120mV	±10%	0.05	0.5
8	$5V_{Sb}$	50mV	±5%	0.1	4.0

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 180watts.
The total output shall not exceed 700watts

300W FSP300-702UJ

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 5.0Amps-rms maximum
  230V@ 2.5Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+16Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

E190414

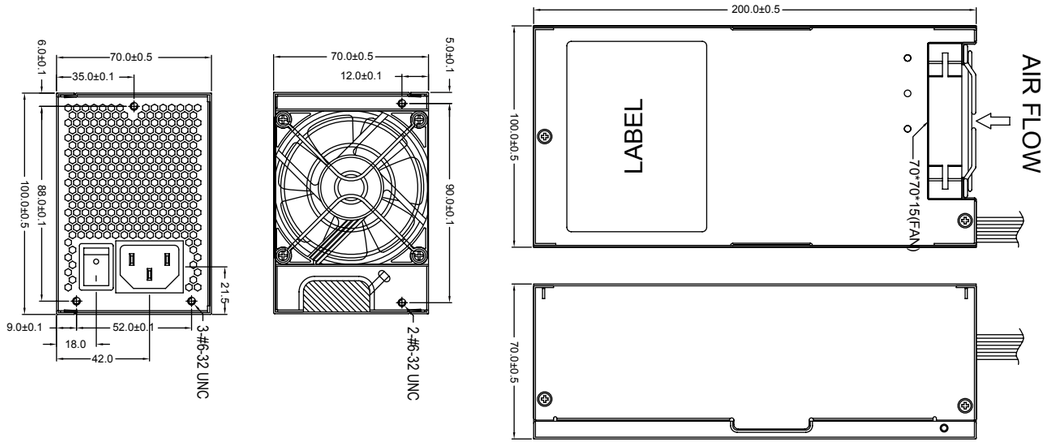
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)
1	3.3V	50mV	±5%	0.3	16.0
2	5V	50mV	±5%	0.3	16.0
3	$12V_1$	120mV	±5%	0.5	16.0
4	$12V_2$	120mV	±5%	0.5	16.0
5	-12V	120mV	±10%	0.0	0.5
6	$5V_{Sb}$	50mV	±5%	0.0	3.0
7	-5V	100mV	±10%	0.0	0.3

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 120watts.
The total output shall not exceed 300watts

300W FSP300-702US

MECHANICAL DRAWING



80 PLUS GOLD

E190414

INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 4.0Amps-rms maximum
  230V@ 2.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16mSec. Minimum@full Load
  230V/50Hz 16mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.3 Vdc minimum,+16Vdc maximum
  + 3.3Vdc output : +3.7 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- OPERATING ALTITUDE :
  Comply with the requirement for 5000m certification.
- SAFETY :
  LEAKAGE CURRENT
  The leakage current from AC to safety ground will not exceed 3.5 mA-rms at 264Vac, 50 Hz.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

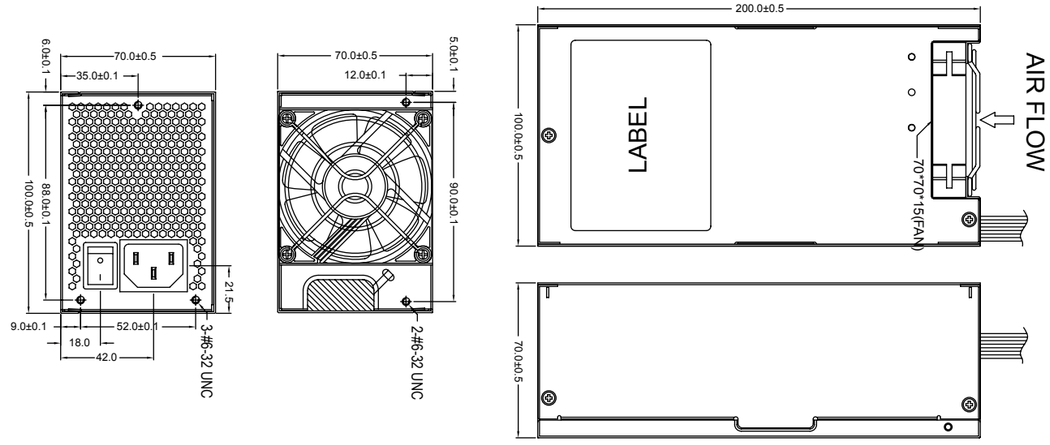
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)
1	3.3V	50mV	±5%	0.3	14.0
2	5V	50mV	±5%	0.3	16.0
3	$12V_1$	120mV	±5%	0.5	16.0
4	$12V_2$	120mV	±5%	0.5	16.0
5	-12V	120mV	±10%	0.0	0.5
6	$5V_{Sb}$	50mV	±5%	0.0	3.0
7	-5V	100mV	±10%	0.0	0.2

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 105watts.
The total output shall not exceed 300 watts
*-5V Option,

400W FSP400-702UJ

MECHANICAL DRAWING



80 PLUS BRONZE

E190414

INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 6.3Amps-rms maximum
  230V@ 3.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+16Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

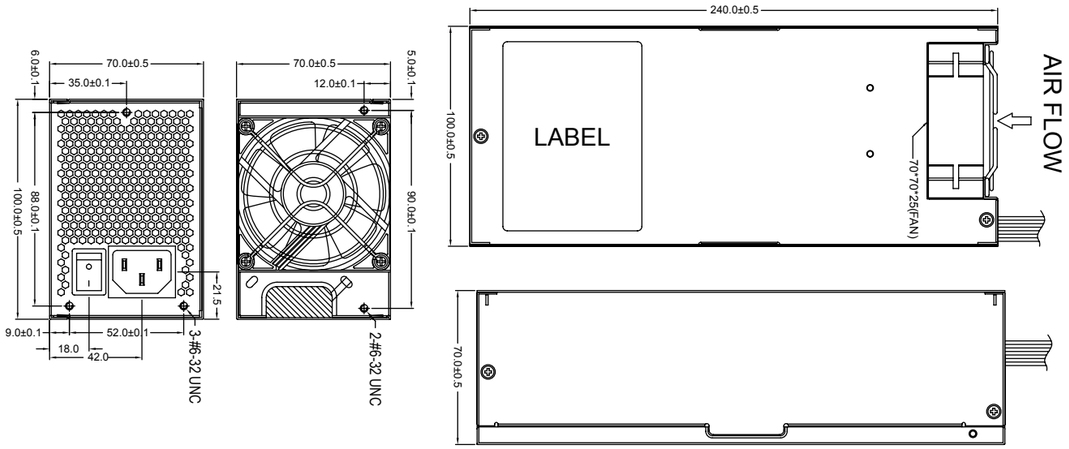
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)
1	3.3V	50mV	±5%	0.3	18.0
2	5V	50mV	±5%	0.3	20.0
3	$12V_1$	120mV	±5%	0.5	16.0
4	$12V_2$	120mV	±5%	0.5	16.0
5	-12V	120mV	±10%	0.0	0.5
6	$5V_{Sb}$	50mV	±5%	0.0	3.0
7	-5V	100mV	±10%	0.0	0.3

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 140watts.
The total output shall not exceed 400watts

400W FSP400-602UC

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 6.3Amps-rms maximum
  230V@ 3.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

E190414

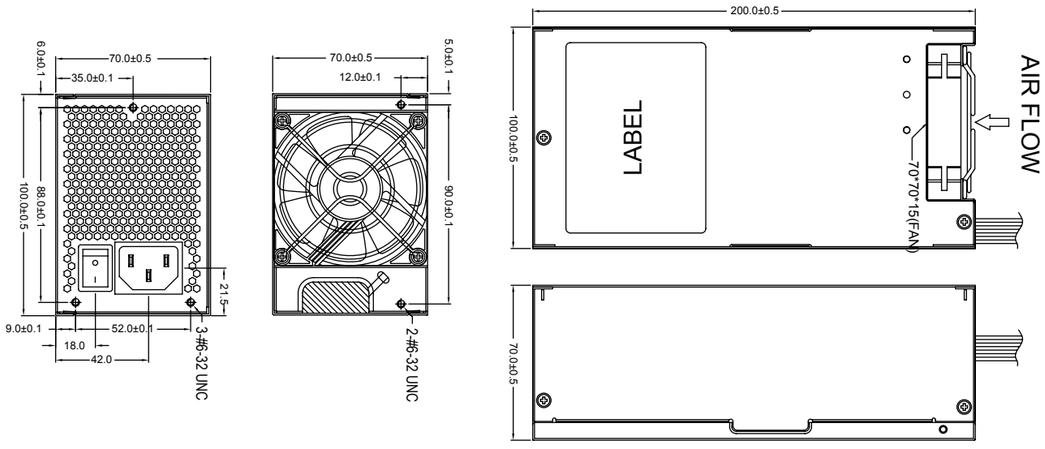
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	OUTPUT VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	OUT CURRENT Max(A)
1	3.3V	50mV	±5%	0.5	20.0
2	5V	50mV	±5%	0.5	20.0
3	$12V_1$	120mV	±5%	1.5	16.0
4	$12V_2$	120mV	±5%	1.5	16.0
5	-12V	120mV	±10%	0.0	0.5
6	$5V_{Sb}$	50mV	±5%	0.0	2.5

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 150watts.
The total output shall not exceed 400watts

400W FSP400-702US

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 6.3Amps-rms maximum
  230V@ 3.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16mSec. Minimum@full Load
  230V/50Hz 16mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+16Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- OPERATING ALTITUDE :
  Comply with the requirement for 5000m certification.
- SAFETY :
  LEAKAGE CURRENT
  The leakage current from AC to safety ground will not exceed 3.5 mA-rms at 264Vac, 50 Hz.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

E190414

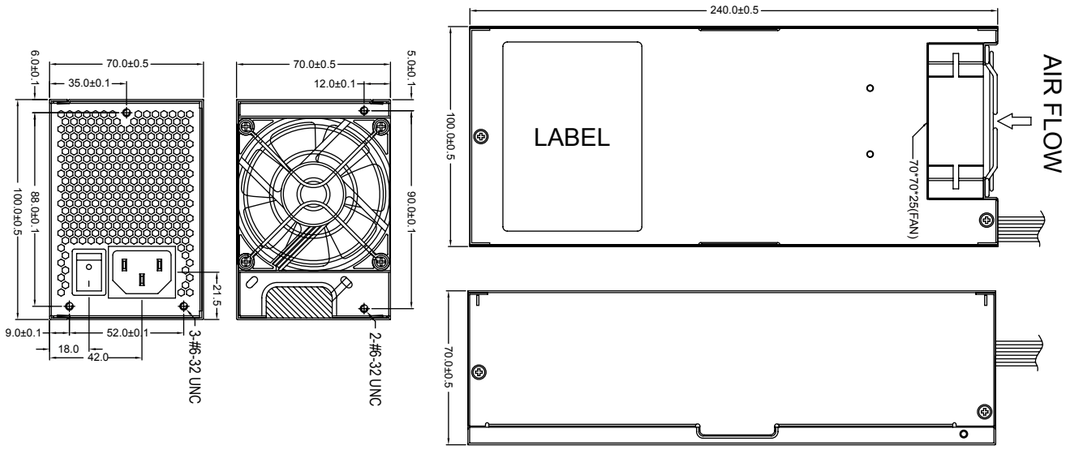
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	OUTPUT VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	OUT CURRENT Max(A)
1	3.3V	50mV	±5%	0.3	16.0
2	5V	50mV	±5%	0.3	16.0
3	$12V_1$	120mV	±5%	0.5	18.0
4	$12V_2$	120mV	±5%	0.5	18.0
5	-12V	120mV	±10%	0.0	0.5
6	$5V_{Sb}$	50mV	±5%	0.0	3.0
7	-5V	100mV	±10%	0.0	0.2

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 120watts.
The total output shall not exceed 400 watts
*-5V Option,

500W FSP500-702UC

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 10.0Amps-rms maximum
  230V@ 5.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16mSec. Minimum@full Load
  230V/50Hz 16mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

80 PLUS

E190414

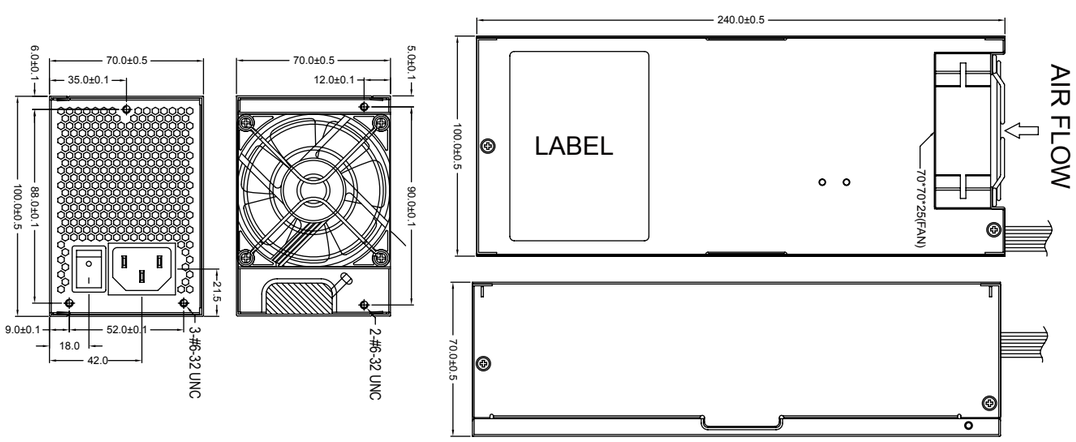
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)
1	3.3V	50mV	±5%	0.5	24.0
2	5V	50mV	±5%	0.5	20.0
3	$12V_1$	120mV	±5%	1.0	15.0
4	$12V_2$	120mV	±5%	1.0	15.0
5	$12V_3$	120mV	±5%	1.0	15.0
6	-12V	120mV	±10%	0.0	0.5
7	$5V_{Sb}$	50mV	±5%	0.0	2.5

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 150watts.
Maxmum continuous load combined 12V shall not exceed 35A
The total output shall not exceed 500watts

500W FSP500-702UH

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 8.0Amps-rms maximum
  230V@ 4.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16mSec. Minimum@full Load
  230V/50Hz 16mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- OPERATING ALTITUDE :
  Comply with the requirement for 5000m certification.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

80 PLUS BRONZE

E190414

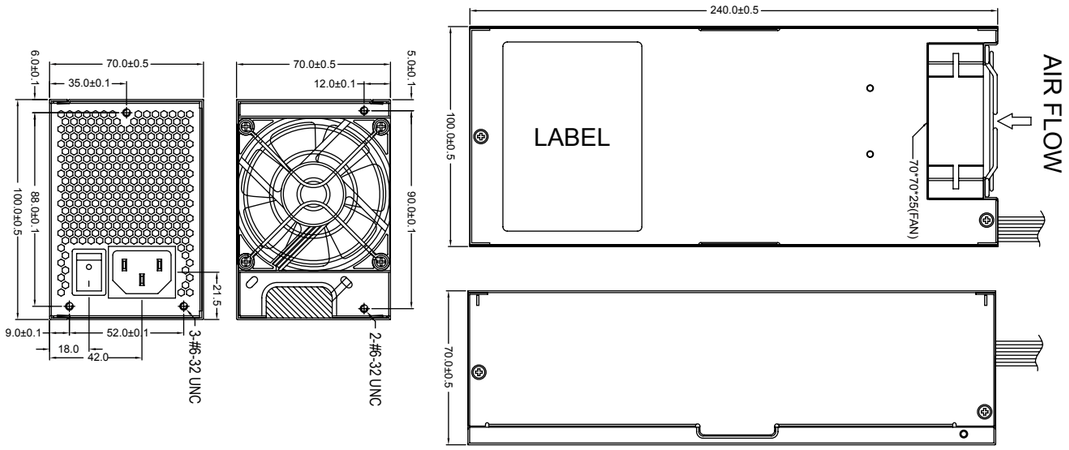
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)
1	3.3V	50mV	±5%	0.5	20.0
2	5V	50mV	±5%	1.0	20.0
3	$12V_1$	120mV	±5%	0.5	16.0
4	$12V_2$	120mV	±5%	1.0	16.0
5	$12V_3$	120mV	±5%	1.0	16.0
6	-12V	120mV	±10%	0.0	0.5
7	$5V_{Sb}$	50mV	±5%	0.0	3.0

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The 12V1 and 12V2 total output shall not exceed 18A
The +3.3V and +5V total output shall not exceed 120watts.
The total output shall not exceed 250watts

500W FSP500-702UN

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 8.0Amps-rms maximum
  230V@ 4.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16mSec. Minimum@full Load
  230V/50Hz 16mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 5-85% RH, Non-condensing
  Storage: 5-95% RH, Non-condensing
- OPERATING ALTITUDE :
  Comply with the requirement for 5000m certification.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

E190414

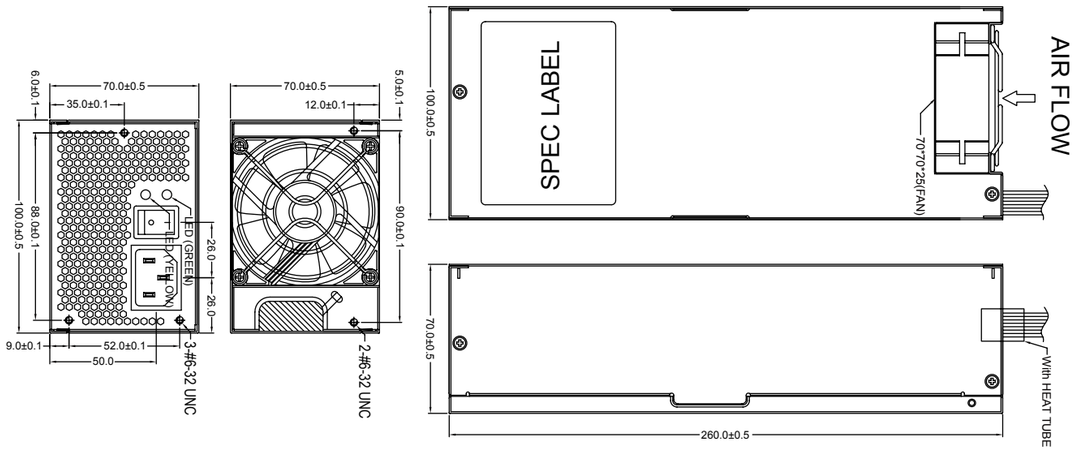
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)
1	3.3V	50mV	±5%	0.1	20.0
2	5V	50mV	±5%	0.1	20.0
3	$12V_1$	120mV	±5%	0.5	16.0
4	$12V_2$	120mV	±5%	0.5	16.0
5	$12V_3$	120mV	±5%	0.5	16.0
6	-12V	120mV	±10%	0.0	0.5
7	$5V_{Sb}$	50mV	±5%	0.0	3.5

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 130watts.
The total output shall not exceed 500watts

500W FSP500-702UP

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 8.0Amps-rms maximum
  230V@ 4.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16mSec. Minimum@75% Load
  230V/50Hz 16mSec. Minimum@75% Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- SAFETY :
  LEAKAGE CURRENT
  The leakage current from AC to safety ground will not exceed 3.5 mA-rms at 264Vac, 50 Hz.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

E190414

OUTPUT VOLTAGE AND CURRENT RATING

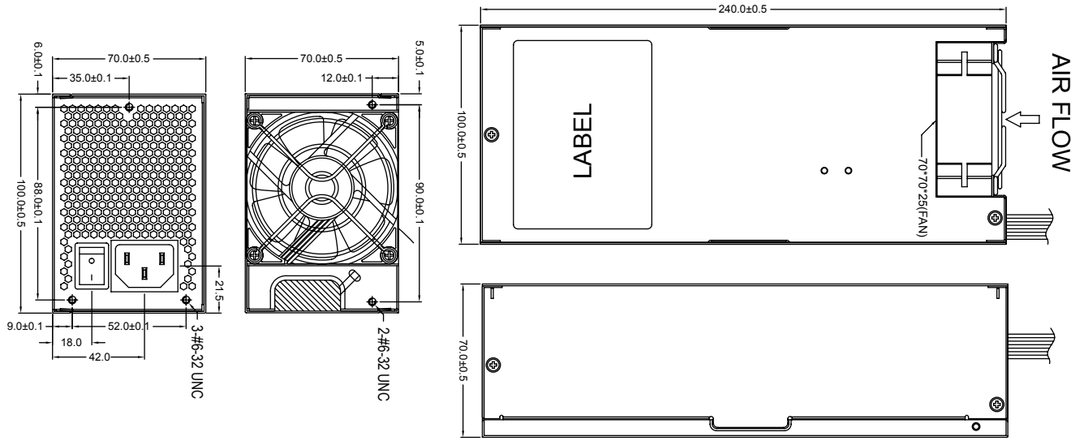
OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)
1	3.3V	50mV	±5%	0.1	20.0
2	5V	50mV	±5%	0.1	20.0
3	$12V_1$	120mV	±5%	0.5	16.0
4	$12V_2$	120mV	±5%	0.5	16.0
5	$12V_3$	120mV	±5%	0.5	16.0
6	-12V	120mV	±10%	0.0	0.5
7	$5V_{Sb}$	50mV	±5%	0.0	3.5

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 130watts.
The total output shall not exceed 500 watts

2U

600W FSP600-702UH

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 10.0Amps-rms maximum
  230V@ 5.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16mSec. Minimum@50% Load
  230V/50Hz 16mSec. Minimum@50% Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- OPERATING ALTITUDE :
  Comply with the requirement for 5000m certification.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, 75% output load, and nominal AC input voltage.

E190414

OUTPUT VOLTAGE AND CURRENT RATING

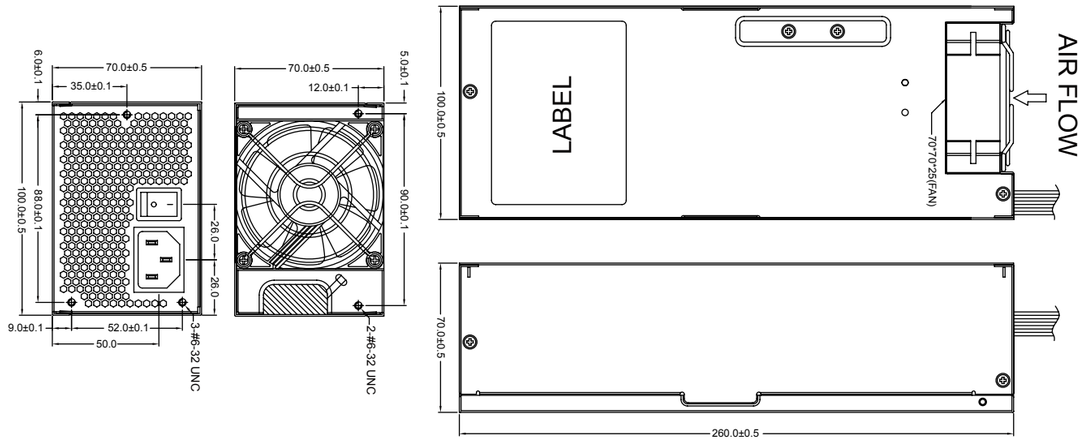
OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)
1	3.3V	50mV	±5%	1.5	25.0
2	5V	50mV	±5%	1.0	25.0
3	$12V_1$	120mV	±5%	1.0	16.0
4	$12V_2$	120mV	±5%	1.0	16.0
5	$12V_3$	120mV	±5%	1.0	16.0
6	-12V	120mV	±10%	0.0	0.5
7	$5V_{Sb}$	50mV	±5%	0.0	3.0

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The 12V1 and 12V2 ,12V3 total output shall not exceed 48A.
The +3.3V and +5V total output shall not exceed 150watts.
The total output shall not exceed 600watts

2U

700W FSP700-802UK

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 10.0Amps-rms maximum
  230V@ 5.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+16Vdc maximum
  + 3.3Vdc output : +3.7 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 5-85% RH, Non-condensing
  Storage: 5- 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

E190414

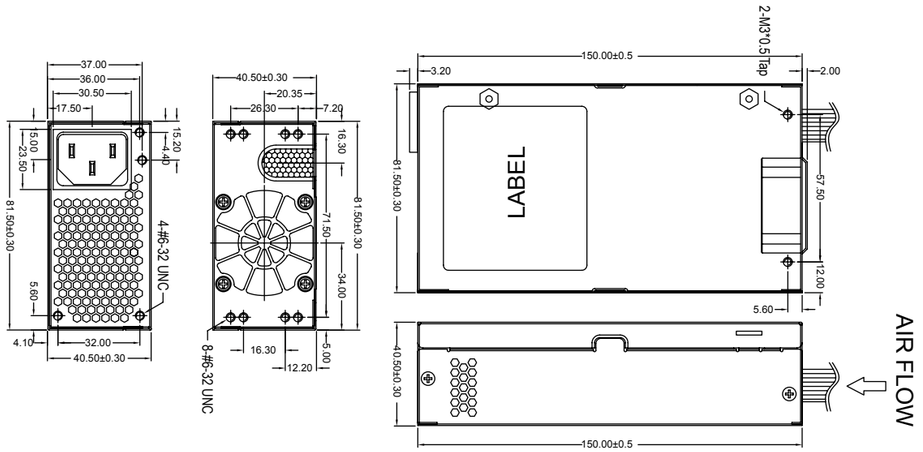
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)
1	3.3V	50mV	±5%	0.5	24.0
2	5V	50mV	±5%	0.5	30.0
3	$12V_1$	120mV	±5%	0.5	16.0
4	$12V_2$	120mV	±5%	0.5	16.0
5	$12V_3$	120mV	±5%	0.5	16.0
6	$12V_4$	120mV	±5%	0.5	16.0
7	-12V	120mV	±10%	0.05	0.5
8	$5V_{Sb}$	50mV	±5%	0.1	4.0

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 180watts.
The total output shall not exceed 700watts

100W FSP100-50LG

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 3.0Amps-rms maximum
  230V@ 1.5Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 6.5Vdc maximum
  +12Vdc output : +13.3 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.7 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

E190414

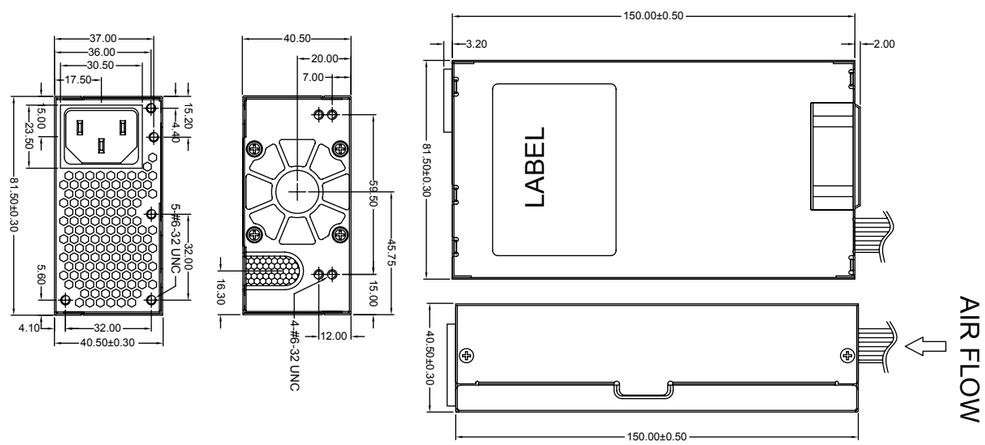
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	OUTPUT VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	OUT CURRENT Max(A)
1	3.3V	50mV	±5%	0.3	6.0
2	5V	50mV	±5%	0.3	8.0
3	12V	120mV	±5%	1.0	4.0
4	-12V	120mV	±10%	0.0	0.3
5	$5V_{Sb}$	50mV	±5%	0.0	2.0

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 50watts.
The +3.3V, +5V and +12V total output shall not exceed 86.4watts
The total output shall not exceed 100watts

150W FSP150-50LE

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 4.0Amps-rms maximum
  230V@ 2.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 6.5Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.7 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

E190414

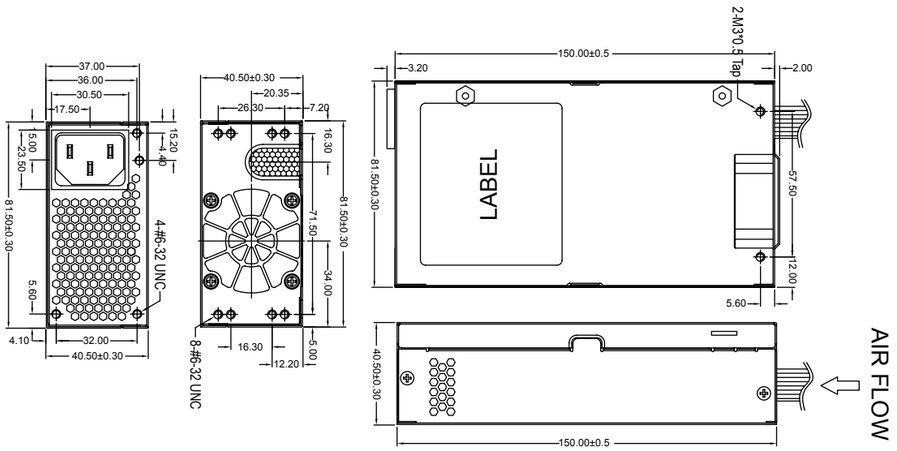
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	OUTPUT VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	OUT CURRENT Max(A)
1	3.3V	50mV	±5%	0.3	10.0
2	5V	50mV	±5%	0.3	13.0
3	12V	120mV	±5%	1.0	10.0
4	-12V	120mV	±10%	0.0	0.5
5	$5V_{Sb}$	50mV	±5%	0.0	2.0

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 85watts.
The total output shall not exceed 150watts

150W FSP150-50LG

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 3.0Amps-rms maximum
  230V@ 1.5Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 6.5Vdc maximum
  +12Vdc output : +13.3 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.7 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

E190414

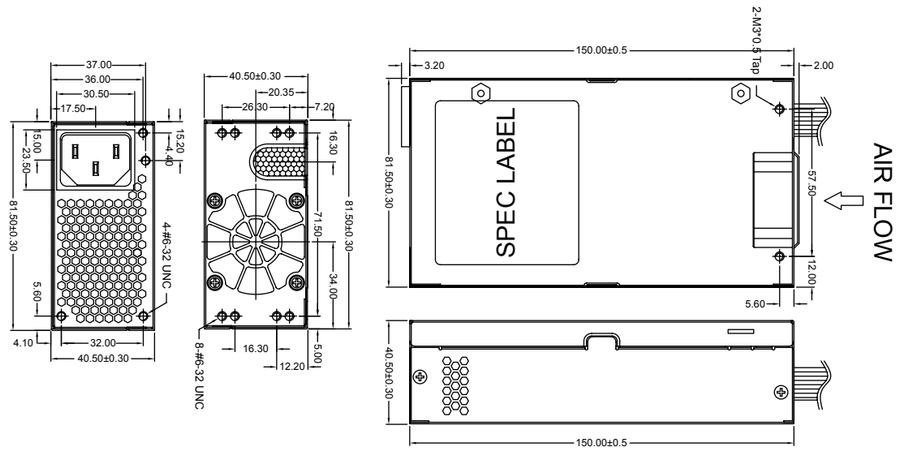
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	OUTPUT VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	OUT CURRENT Max(A)
1	3.3V	50mV	±5%	0.3	10.0
2	5V	50mV	±5%	0.3	13.0
3	12V	120mV	±5%	1.0	10.0
4	-12V	120mV	±10%	0.05	0.3
5	5VSb	50mV	±5%	0.0	2.0

* 5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 85watts.
The total output shall not exceed 150watts

150W FSP150-50LH

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 3.0Amps-rms maximum
  230V@ 1.5Amps-rms maximum

80 PLUS SILVER

E190414

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	OUTPUT VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	OUT CURRENT Max(A)
1	3.3V	50mV	±5%	0.1	10.0
2	5V	50mV	±5%	0.2	14.0
3	12V	120mV	±5%	0.6	10.0
4	-12V	120mV	±10%	0.0	0.3
5	5VSb	50mV	±5%	0.0	2.5

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16mSec. Minimum@full Load
  230V/50Hz 16mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.3 Vdc minimum,+16Vdc maximum
  + 3.3Vdc output : +3.7 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

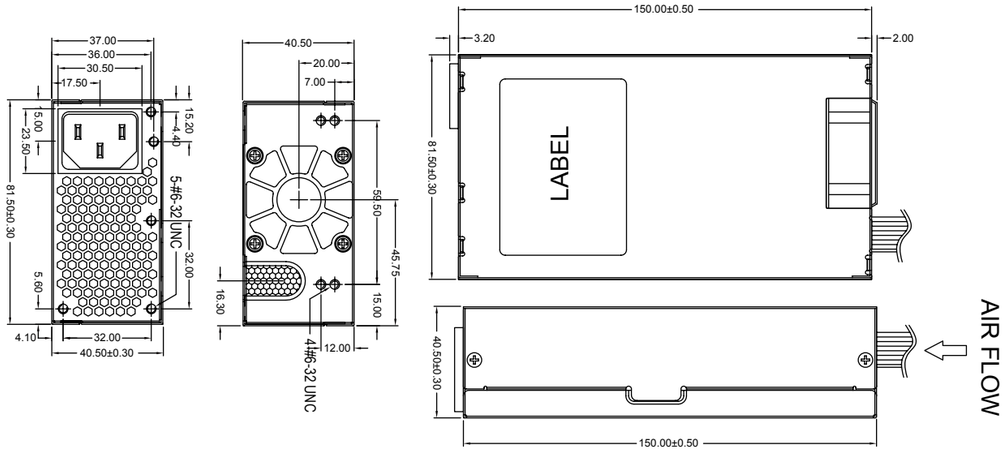
- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- SAFETY :
  LEAKAGE CURRENT
  The leakage current from AC to safety ground will not exceed 3.5 mA-rms at 264Vac, 50 Hz.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 65watts.
The total output shall not exceed 150watts

180W FSP180-50LE

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 4.0Amps-rms maximum
  230V@ 2.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 6.5Vdc maximum
  +12Vdc output : +13.3 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.7 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

E190414

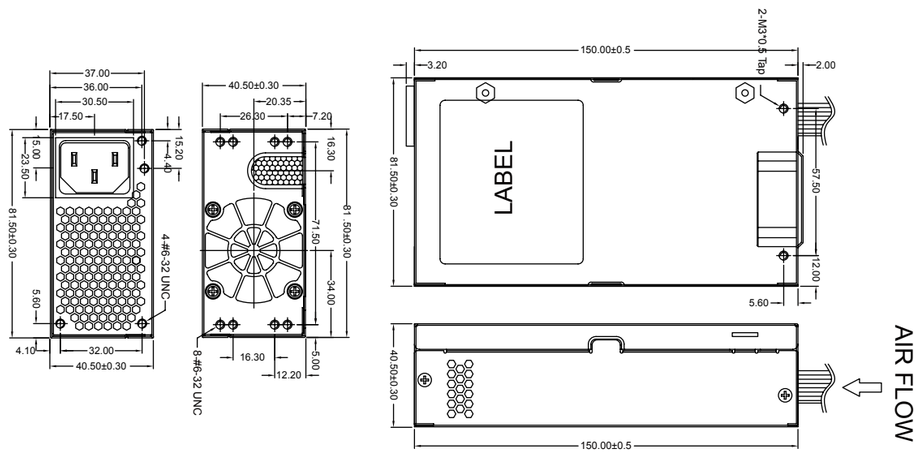
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	OUTPUT VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	OUT CURRENT Max(A)
1	3.3V	50mV	±5%	0.3	14.0
2	5V	50mV	±5%	0.3	16.0
3	12V	120mV	±5%	1.5	14.0
4	-12V	120mV	±10%	0.0	0.5
5	$5V_{sb}$	50mV	±5%	0.0	2.0

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 90watts.
The total output shall not exceed 180watts

180W FSP180-50LG

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 4.0Amps-rms maximum
  230V@ 2.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 6.5Vdc maximum
  +12Vdc output : +13.3 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.7 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

E190414

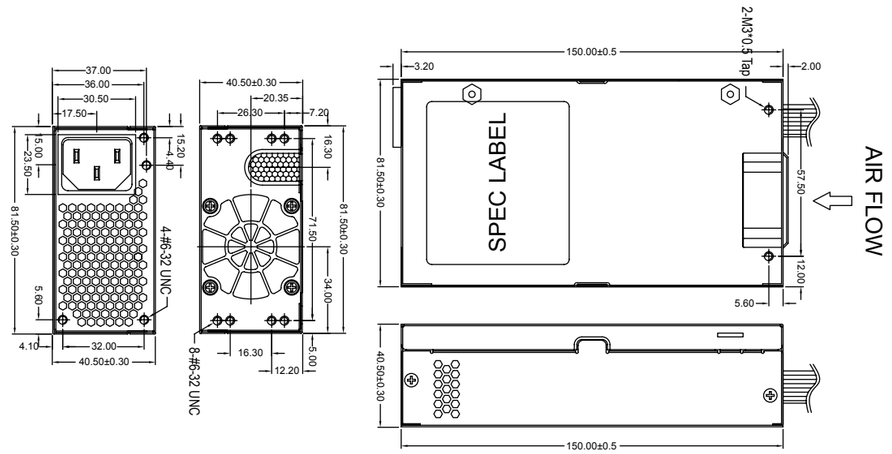
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	OUTPUT VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	OUT CURRENT Max(A)
1	3.3V	50mV	±5%	0.3	14.0
2	5V	50mV	±5%	0.3	16.0
3	12V	120mV	±5%	1.0	14.0
4	-12V	120mV	±10%	0.0	0.3
5	$5V_{sb}$	50mV	±5%	0.0	2.0

* 5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 90watts.
The total output shall not exceed 180watts

180W FSP180-50LH

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 3.0Amps-rms maximum
  230V@ 1.5Amps-rms maximum

80 PLUS SILVER

E190414

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16mSec. Minimum@full Load
  230V/50Hz 16mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.3 Vdc minimum,+166Vdc maximum
  + 3.3Vdc output : +3.7 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT	
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)
1	3.3V	50mV	±5%	0.1	10.0
2	5V	50mV	±5%	0.2	14.0
3	12V	120mV	±5%	0.6	10.0
4	-12V	120mV	±10%	0.0	0.3
5	$5V_{Sb}$	50mV	±5%	0.0	2.5

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 80watts.
The total output shall not exceed 180watts

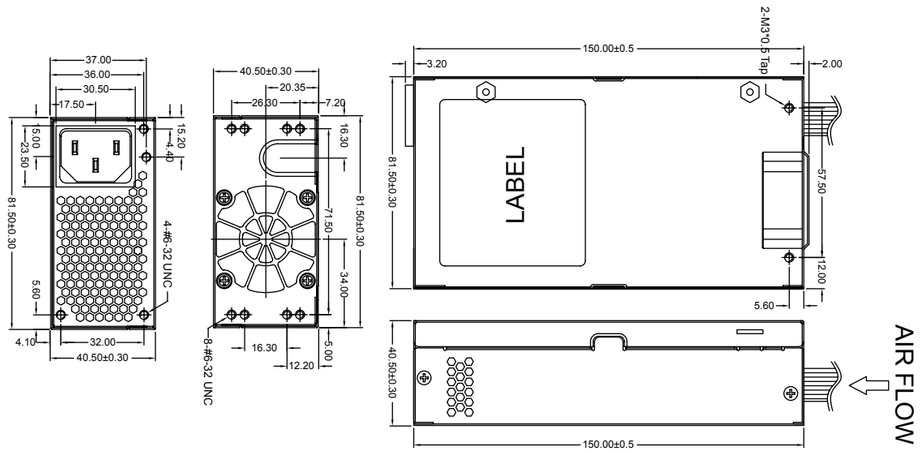
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- SAFETY :
  LEAKAGE CURRENT
  The leakage current from AC to safety ground will not exceed 3.5 mA-rms at 264Vac, 50 Hz.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

200W FSP200-50LG

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 4.0Amps-rms maximum
  230V@ 2.0Amps-rms maximum

E190414

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 6.5Vdc maximum
  +12Vdc output : +13.3 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.7 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT	
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)
1	3.3V	50mV	±5%	0.3	14.0
2	5V	50mV	±5%	0.3	16.0
3	12V	120mV	±5%	1.0	14.0
4	-12V	120mV	±10%	0.0	0.5
5	$5V_{Sb}$	50mV	±5%	0.0	2.0

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The 12V1 and 12V2 total output shall not exceed 18A
The +3.3V and +5V total output shall not exceed 120watts.
The total output shall not exceed 250watts

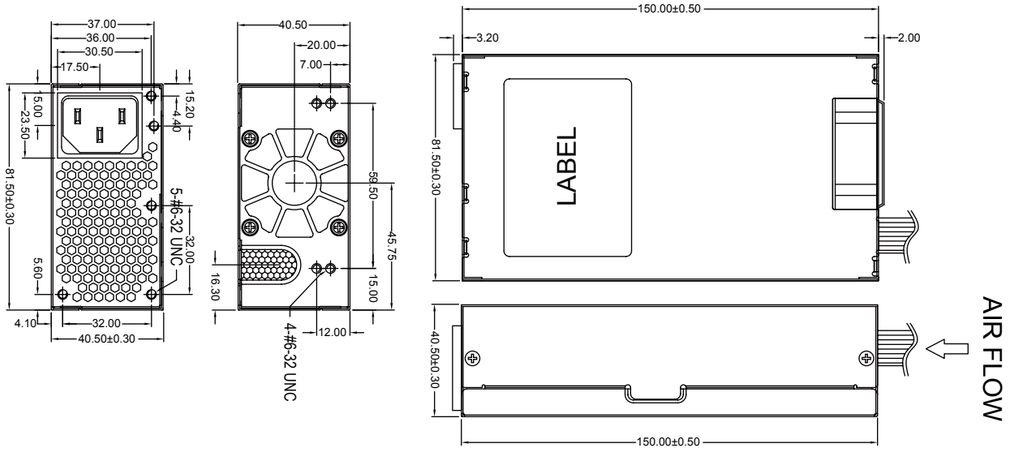
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

220W FSP220-60LE

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 5.0Amps-rms maximum
  230V@ 3.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT	
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)
1	3.3V	50mV	±5%	0.5	14.0
2	5V	50mV	±5%	0.5	16.0
3	12V1	120mV	±5%	1.0	16.0
4	12V2	120mV	±5%	1.0	10.0
5	-12V	120mV	±10%	0.0	0.8
6	5Vsb	50mV	±5%	0.0	2.5

* 5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
220W(50oC):3.3V+5V+12V1+12V2 =207W
250W(25oC):3.3V+5V+12V1+12V2 =237W
The 12V1+12V2 total output shall not exceed 17A
The +3.3V and +5V total output shall not exceed 110watts.
The total output shall not exceed 250watts

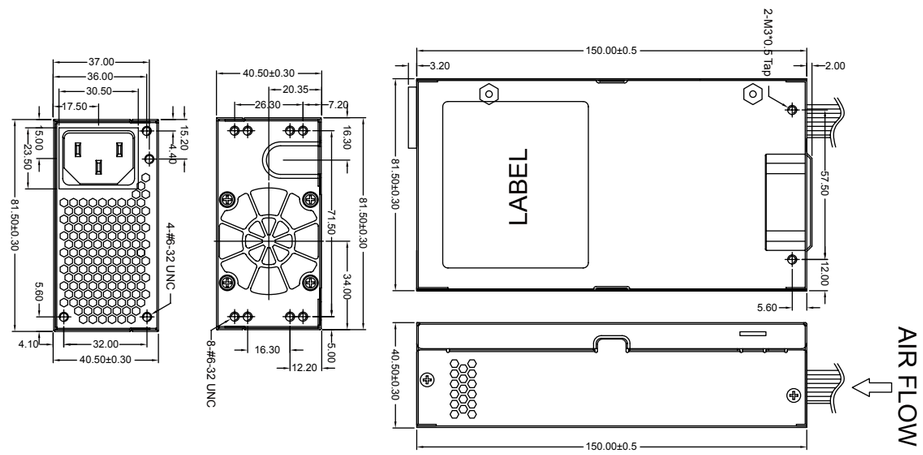
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

220W FSP220-50LH

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 4.0Amps-rms maximum
  230V@ 2.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16mSec. Minimum@full Load
  230V/50Hz 16mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.3 Vdc minimum,+16Vdc maximum
  + 3.3Vdc output : +3.7 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT		
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)	PEAK
1	3.3V	50mV	±5%	0.1	10.0	-
2	5V	50mV	±5%	0.2	14.0	-
3	12V	120mV	±5%	0.6	14.0	16.0
4	-12V	120mV	±10%	0.0	0.3	-
5	5Vsb	50mV	±5%	0.0	2.5	-

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 80watts.
The total output shall not exceed 220 watts

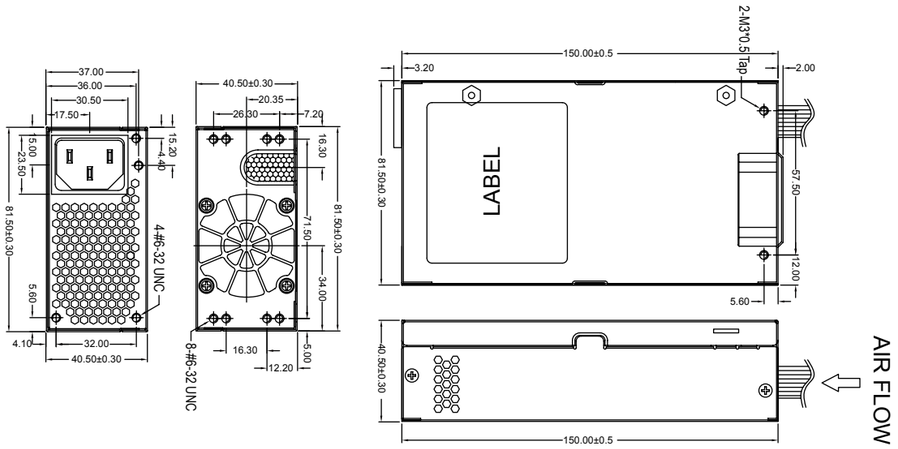
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- SAFETY :
  LEAKAGE CURRENT
  The leakage current from AC to safety ground will not exceed 3.5 mA-rms at 264Vac, 50 Hz.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

250W FSP250-60LG

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 6.0Amps-rms maximum
  230V@ 3.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16.5mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 5-90% RH, Non-condensing
  Storage: 5-95% RH, Non-condensing
- OPERATING ALTITUDE :
  Comply with the requirement for 5000m certification.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

80 PLUS BRONZE

E190414

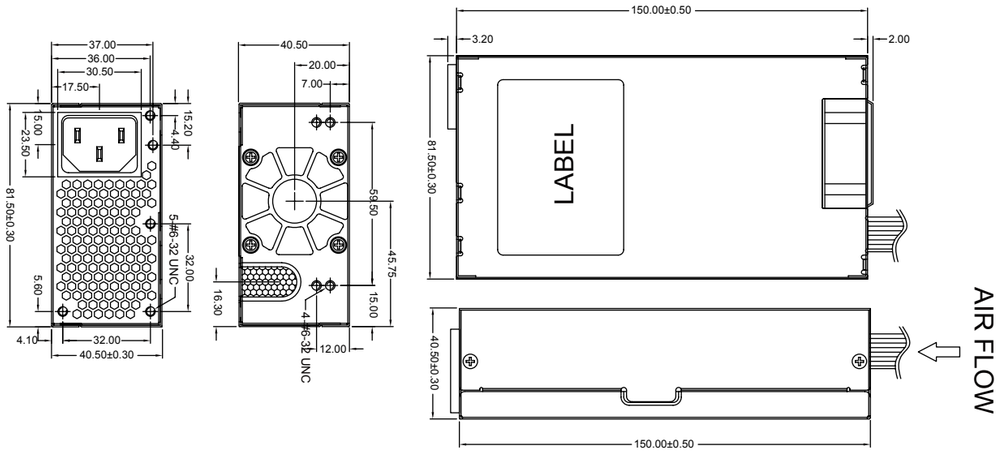
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	OUTPUT VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)
1	3.3V	50mV	±5%	0.5	14.0
2	5V	50mV	±5%	0.5	16.0
3	$12V_1$	120mV	±5%	0.5	15.0
4	$12V_2$	120mV	±5%	0.5	15.0
5	-12V	120mV	±10%	0.05	0.3
6	$5V_{Sb}$	50mV	±5%	0.0	3.0

* 5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 90watts.
The total output shall not exceed 250watts

270W FSP270-60LE

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 5.0Amps-rms maximum
  230V@ 3.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 5-90% RH, Non-condensing
  Storage: 5-95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

80 PLUS

E190414

OUTPUT VOLTAGE AND CURRENT RATING

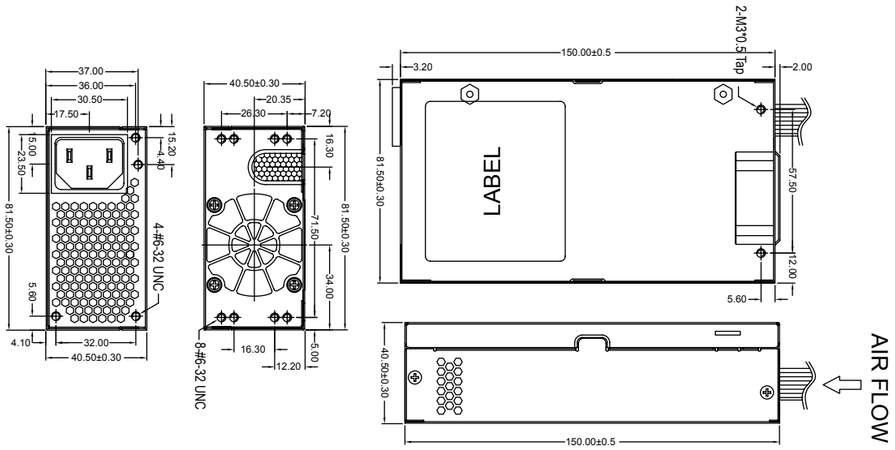
OUTPUT	OUTPUT VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)
1	3.3V	50mV	±5%	0.5	16.0
2	5V	50mV	±5%	0.5	18.0
3	$12V_1$	120mV	±5%	1.0	16.0
4	$12V_2$	120mV	±5%	1.0	10.0
5	-12V	120mV	±10%	0.0	0.8
6	$5V_{Sb}$	50mV	±5%	0.0	2.5

* 5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
270W(50oC):3.3V+5V+12V1+12V2 =247W
300W(25oC):3.3V+5V+12V1+12V2 =277W
The +3.3V and +5V total output shall not exceed 130watts.
The total output shall not exceed 270watts

FLEX

300W FSP300-60LG

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 6.0Amps-rms maximum
  230V@ 3.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16.5mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)
1	3.3V	50mV	±5%	0.5	16.0
2	5V	50mV	±5%	0.5	18.0
3	$12V_1$	120mV	±5%	0.5	15.0
4	$12V_2$	120mV	±5%	0.5	15.0
5	-12V	120mV	±10%	0.0	0.5
6	$5V_{sb}$	50mV	±5%	0.0	3.0

* 5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 130watts.
The total output shall not exceed 300watts

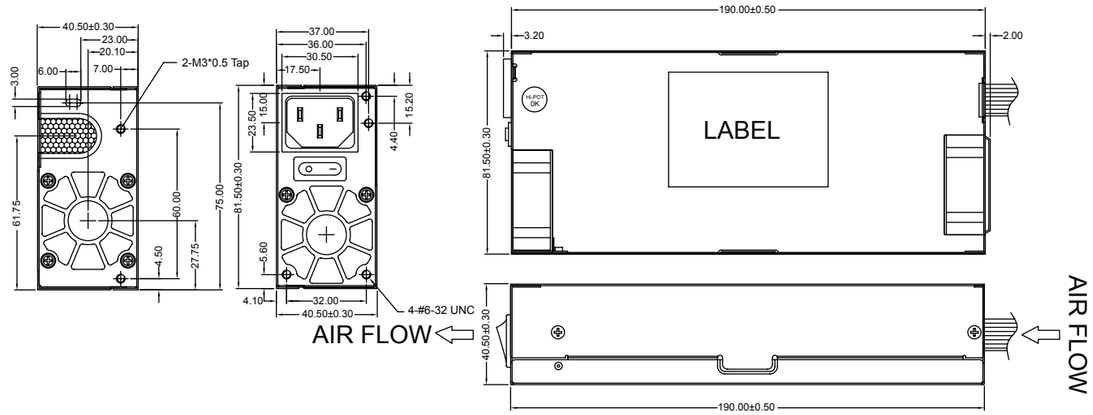
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 5-90% RH, Non-condensing
  Storage: 5-95% RH, Non-condensing
- OPERATING ALTITUDE :
  Comply with the requirement for 5000m certification.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

350W FSP350-60EVF

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 7.0Amps-rms maximum
  230V@ 3.5Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.3Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)
1	3.3V	50mV	±5%	0.1	16.0
2	5V	50mV	±5%	0.3	19.0
3	$12V_1$	120mV	±5%	1.0	16.0
4	$12V_2$	120mV	±5%	1.0	16.0
5	-12V	120mV	±10%	0.0	0.3
6	$5V_{sb}$	50mV	±5%	0.0	2.0

* 5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 105watts.
The 12V1 and 12V2 combined current shall not exceed 25A
The total output shall not exceed 350watts

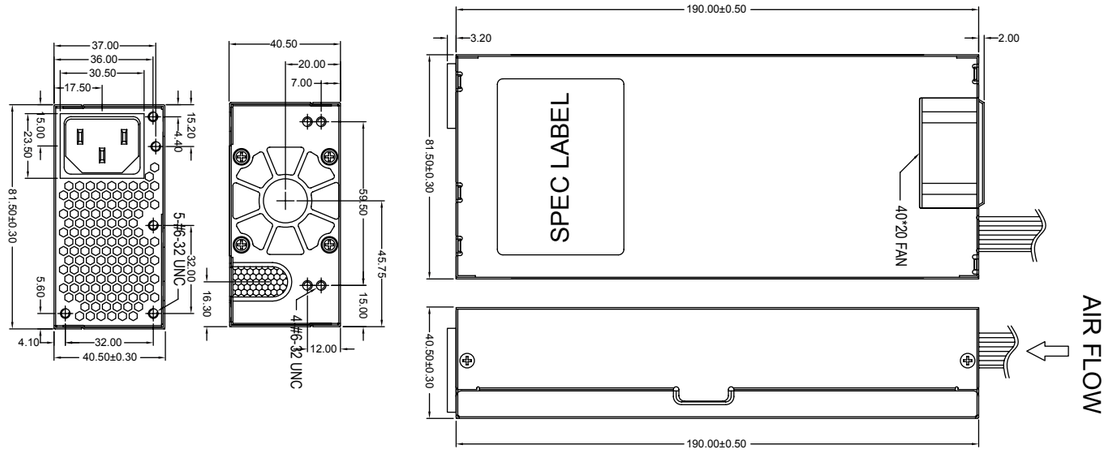
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -40 to +70°C
- HUMIDITY :
  Operating : 5-90% RH, Non-condensing
  Storage: 5-90% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

350W FSP350-70LQ

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 5.0Amps-rms maximum
  230V@ 2.5Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16mSec. Minimum@full Load
  230V/50Hz 16mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+16Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT	
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)
1	3.3V	50mV	±5%	0.3	16.0
2	5V	50mv	±5%	0.3	16.0
3	$12V_1$	120mV	±5%	0.5	18.0
4	$12V_2$	120mV	±5%	0.5	18.0
5	-12V	120mV	±10%	0.0	0.5
6	$5V_{sb}$	50mV	±5%	0.0	3.0
7	-5V	100mV	±10%	0.0	0.2

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 110watts.
The total output shall not exceed 350 watts

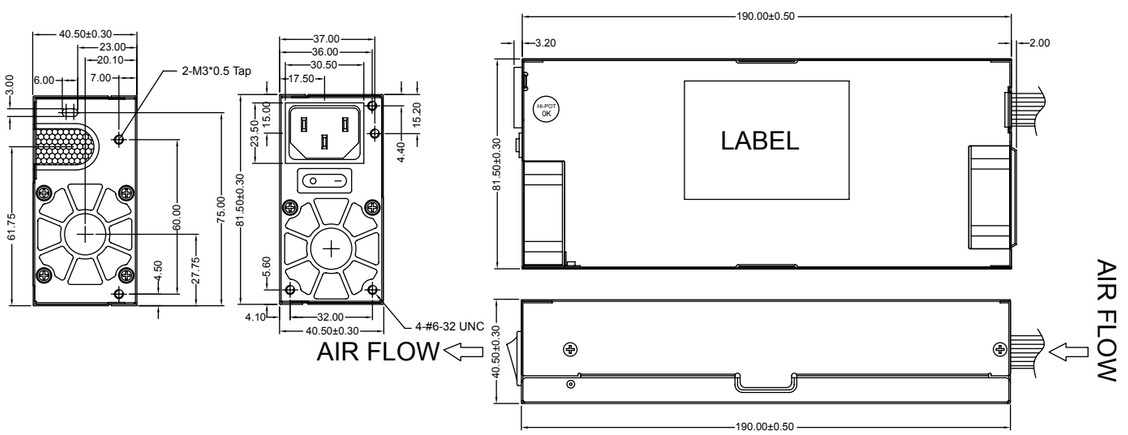
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- OPERATING ALTITUDE :
  Comply with the requirement for 5000m certification.
- SAFETY :
  LEAKAGE CURRENT
  The leakage current from AC to safety ground will not exceed 3.5 mA-rms at 264Vac, 50 Hz.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

400W FSP400-60EVF

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 7.0Amps-rms maximum
  230V@ 3.5Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.3Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT	
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)
1	3.3V	50mV	±5%	0.1	16.0
2	5V	50mV	±5%	0.3	19.0
3	$12V_1$	120mV	±5%	1.0	16.0
4	$12V_2$	120mV	±5%	1.0	16.0
5	-12V	120mV	±10%	0.0	0.3
6	$5V_{sb}$	50mV	±5%	0.0	2.0

* 5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 105watts.
The 12V1 and 12V2 combined current shall not exceed 25A
The total output shall not exceed 400watts

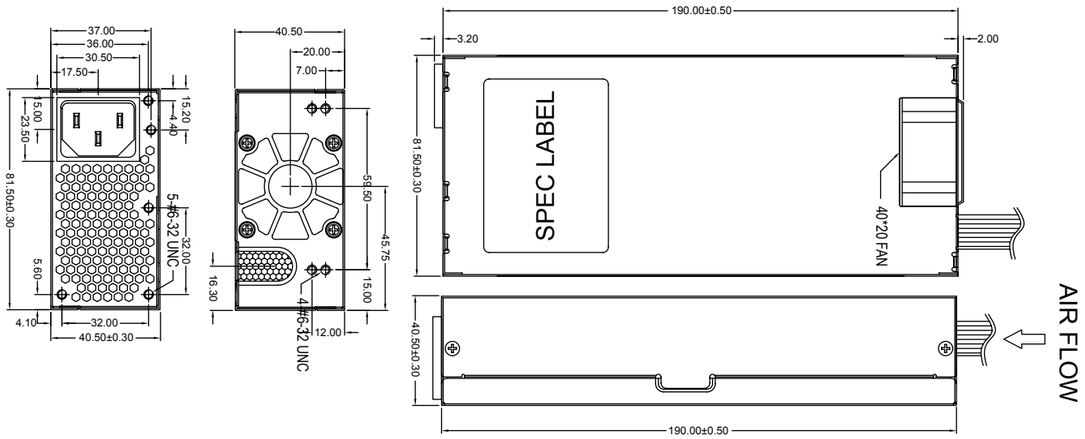
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -40 to +70°C
- HUMIDITY :
  Operating : 5-90% RH, Non-condensing
  Storage: 5-90% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

400W FSP400-70LQ

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 6.3Amps-rms maximum
  230V@ 3.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16mSec. Minimum@full Load
  230V/50Hz 16mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+16Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- OPERATING ALTITUDE :
  Comply with the requirement for 5000m certification.
- SAFETY :
  LEAKAGE CURRENT
  The leakage current from AC to safety ground will not exceed 3.5 mA-rms at 264Vac, 50 Hz.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

80 PLUS GOLD

E190414

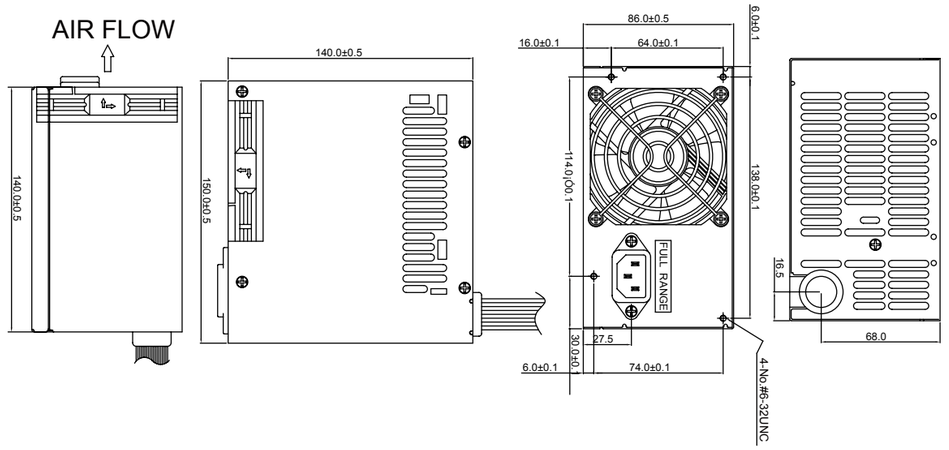
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)
1	3.3V	50mV	±5%	0.3	16.0
2	5V	50mV	±5%	0.3	16.0
3	$12V_1$	120mV	±5%	0.5	18.0
4	$12V_2$	120mV	±5%	0.5	18.0
5	-12V	120mV	±10%	0.0	0.5
6	$5V_{Sb}$	50mV	±5%	0.0	3.0
7	-5V	100mV	±10%	0.0	0.2

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 120watts.
The total output shall not exceed 400 watts

300W FSP300-40PFB

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 7.0Amps-rms maximum
  230V@ 3.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 5-95% RH, Non-condensing
  Storage: 5-95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

E190414

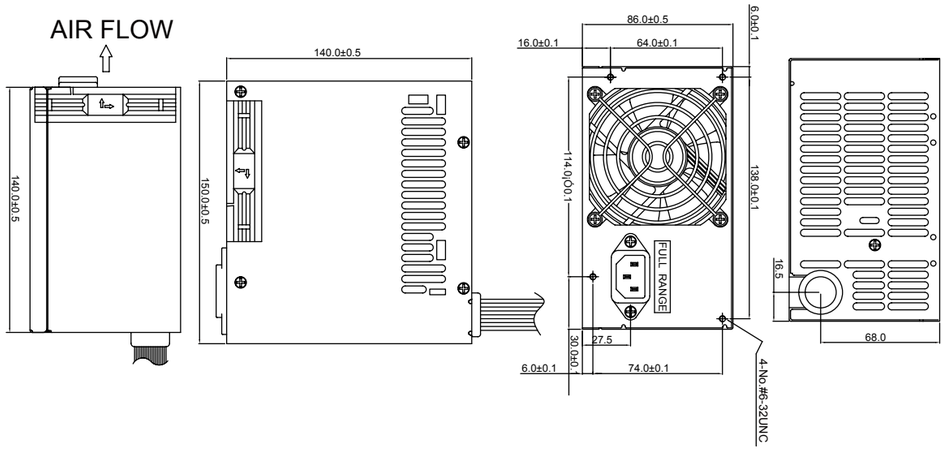
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)
1	5V	50mV	±5%	2.0	40.0
2	12V	120mV	±5%	1.0	15.0
3	-5V	50mV	±10%	0.0	0.3
4	-12V	120mV	±10%	0.0	0.8

* The +5V and +12V total output shall not exceed 290watts.
The total output shall not exceed 300watts

400W FSP400-40PFB

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 8.0Amps-rms maximum
  230V@ 4.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+16Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

E190414

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT		
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)	PEAK
1	5V	50mV	±5%	2.0	42.0	-
2	12V	120mV	±5%	1.0	15.0	18.0
3	-5V	100mV	±10%	0.0	0.3	-
4	-12V	120mV	±10%	0.0	0.8	-

*The +5V and +12V total output shall not exceed 390watts.
The total output shall not exceed 400watts

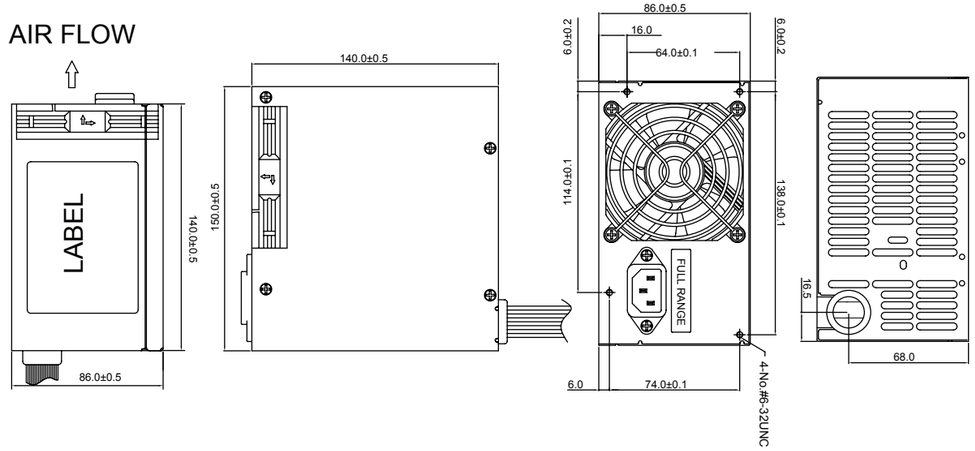
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

250W FSP250-60PFG

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 4.0Amps-rms maximum
  230V@ 2.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.74 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.76 Vdc minimum,+ 6Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

E190414

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT		
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)	PEAK
1	3.3V	50mV	±5%	0.1	19.0	-
2	5V	50mV	±5%	0.2	15.0	-
3	$12V_1$	120mV	±5%	0.1	10.0	13.0
4	$12V_2$	120mV	±5%	0.5	7.0	13.0
5	-12V	120mV	±10%	0.0	0.3	-
6	$5V_{Sb}$	50mV	±5%	0.0	2.5	3.5

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
12V2DC supports processor power requirements and must have a separate current limit and provide 13A peak current for 10ms, minimum voltage during peak is >10.8VDC.
The +3.3V and +5V total output shall not exceed 97watts.
The total output shall not exceed 250watts

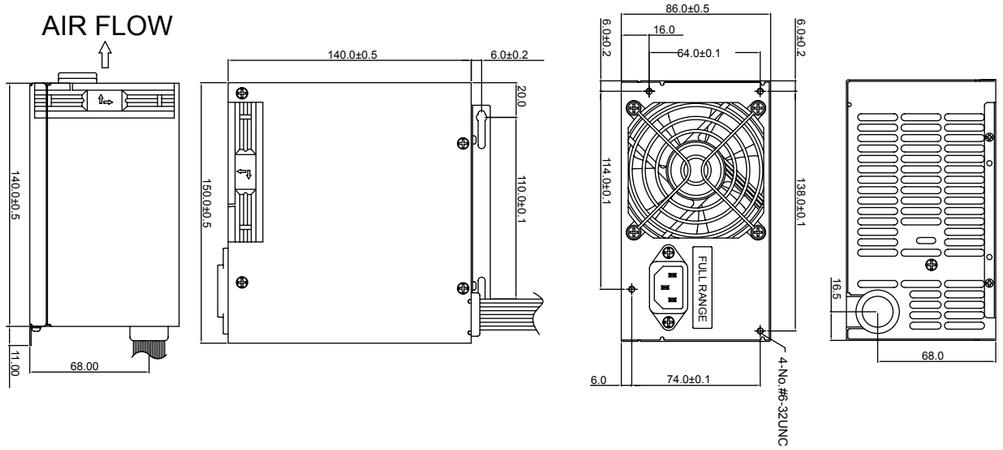
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

250W FSP250-60PFK

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 4.0Amps-rms maximum
  230V@ 2.0Amps-rms maximum

80 PLUS GOLD

E190414

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.74 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.76 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	OUTPUT VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	OUT CURRENT Max(A)
1	3.3V	50mV	±5%	0.1	15.0
2	5V	50mV	±5%	0.2	15.0
3	$12V_1$	120mV	±5%	0.1	16.0
4	$12V_2$	120mV	±5%	0.5	16.0
5	-12V	120mV	±10%	0.0	0.4
6	$5V_{Sb}$	50mV	±5%	0.0	3.0

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 90watts.
The total output shall not exceed 250 watts

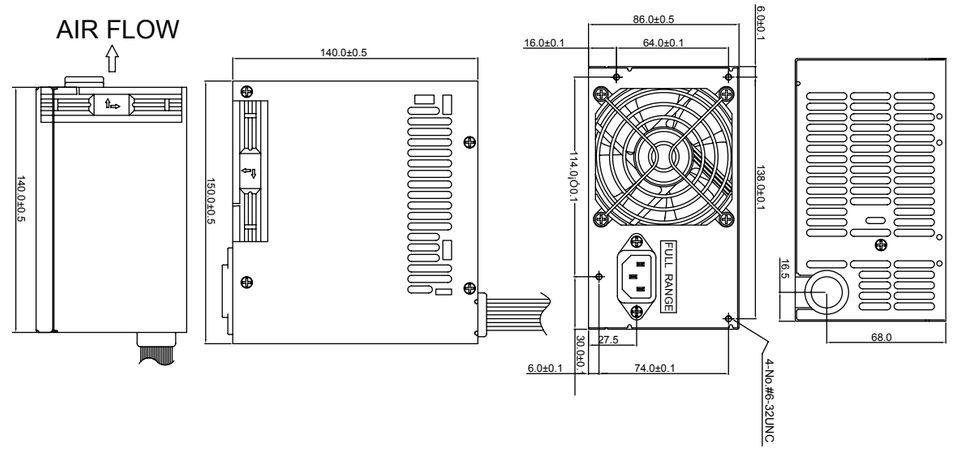
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- SAFETY :
  LEAKAGE CURRENT
  The leakage current from AC to safety ground will not exceed 3.5 mA-rms at 264Vac, 50 Hz.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

250W FSP250-70PFL

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 4.0Amps-rms maximum
  230V@ 2.0Amps-rms maximum

80 PLUS BRONZE

E190414

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 13mSec. Minimum@full Load
  230V/50Hz 13mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.3 Vdc minimum,+16Vdc maximum
  + 3.3Vdc output : +3.7 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	OUTPUT VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	OUT CURRENT Max(A)	OUT CURRENT PEAK
1	3.3V	50mV	±5%	0.3	14.0	-
2	5V	50mV	±5%	0.5	14.0	-
3	$12V_1$	120mV	±5%	0.5	17.0	-
4	$12V_2$	120mV	±5%	0.5	17.0	-
5	-12V	120mV	±10%	0.0	0.5	-
6	$5V_{Sb}$	50mV	±5%	0.1	3.0	3.5
7	-5V	100mV	±10%	0.0	0.3	-

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 90watts.
The total output shall not exceed 250 watts
*-5V Option, +5vsb peak<=10ms.

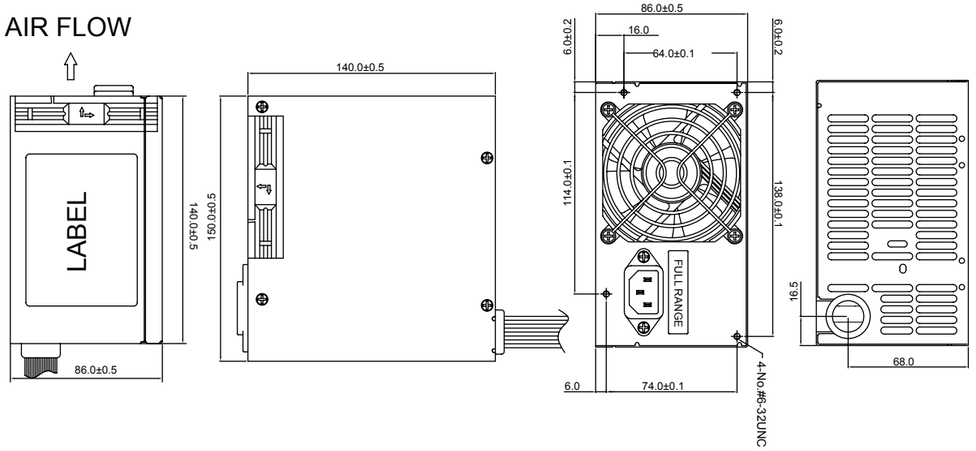
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- SAFETY :
  LEAKAGE CURRENT
  The leakage current from AC to safety ground will not exceed 3.5 mA-rms at 264Vac, 50 Hz.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

300W FSP300-60PFG

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 6.0Amps-rms maximum
  230V@ 3.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.74 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.76 Vdc minimum,+ 6Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

E190414

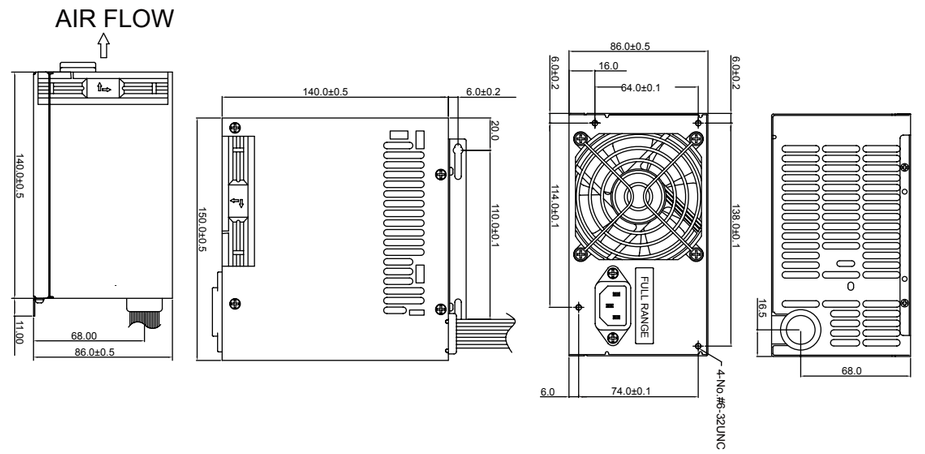
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	OUTPUT VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)	PEAK
1	3.3V	50mV	±5%	0.1	21.0	-
2	5V	50mV	±5%	0.2	15.0	-
3	$12V_1$	120mV	±5%	0.1	11.0	13.0
4	$12V_2$	120mV	±5%	0.5	8.0	13.0
5	-12V	120mV	±10%	0.0	0.3	-
6	$5V_{Sb}$	50mV	±5%	0.0	2.5	3.5

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
12V2DC supports processor power requirements and must have a separate current limit and provide 13A peak current for 10ms, minimum voltage during peak is >10.8VDC.
The +3.3V and +5V total output shall not exceed 103watts.
The total output shall not exceed 300watts

300W FSP300-70PFL

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 6.0Amps-rms maximum
  230V@ 3.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 13mSec. Minimum@full Load
  230V/50Hz 13mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.3 Vdc minimum,+16Vdc maximum
  + 3.3Vdc output : +3.7 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- SAFETY :
  LEAKAGE CURRENT
  The leakage current from AC to safety ground will not exceed 3.5 mA-rms at 264Vac, 50 Hz.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

E190414

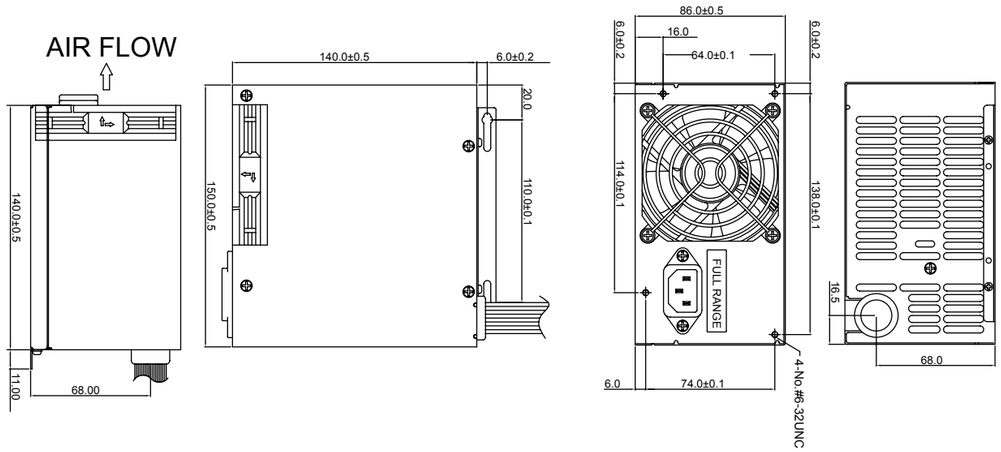
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	OUTPUT VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)	PEAK
1	3.3V	50mV	±5%	0.3	19.0	-
2	5V	50mV	±5%	0.5	16.0	-
3	$12V_1$	120mV	±5%	0.5	17.0	-
4	$12V_2$	120mV	±5%	0.5	17.0	-
5	-12V	120mV	±10%	0.0	0.5	-
6	$5V_{Sb}$	50mV	±5%	0.1	3.0	3.5
7	-5V	100mV	±10%	0.0	0.3	-

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 105watts.
The total output shall not exceed 300 watts
*-5V Option, +5vsb peak<=10ms.

300W FSP300-60PFK

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 5.0Amps-rms maximum
  230V@ 2.5Amps-rms maximum

80 PLUS GOLD

E190414

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.74 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.76 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)
1	3.3V	50mV	±5%	0.1	15.0
2	5V	50mV	±5%	0.2	15.0
3	$12V_1$	120mV	±5%	0.1	16.0
4	$12V_2$	120mV	±5%	0.5	16.0
5	-12V	120mV	±10%	0.0	0.4
6	$5V_{Sb}$	50mV	±5%	0.0	3.0

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 90watts.
The total output shall not exceed 300 watts

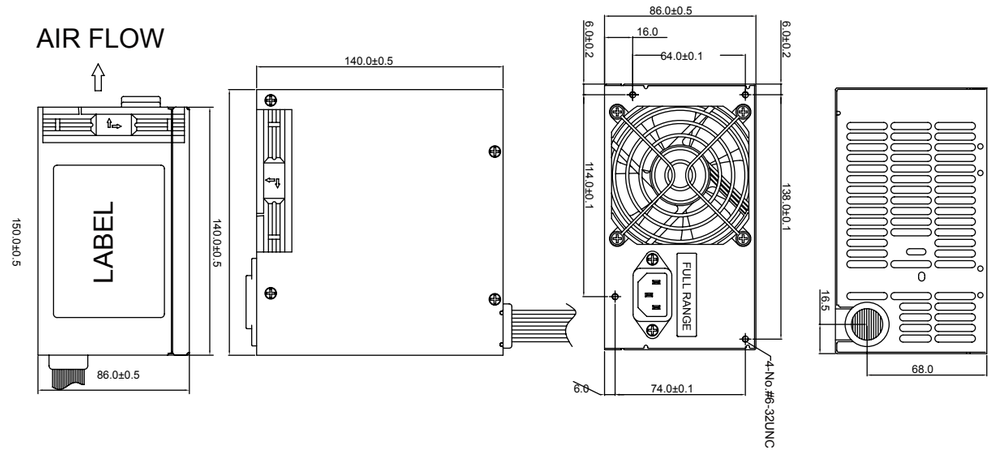
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- SAFETY :
  LEAKAGE CURRENT
  The leakage current from AC to safety ground will not exceed 3.5 mA-rms at 264Vac, 50 Hz.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

350W FSP350-60PFG

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 6.0Amps-rms maximum
  230V@ 3.0Amps-rms maximum

80 PLUS BRONZE

E190414

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)	PEAK
1	3.3V	50mV	±5%	0.1	21.0	-
2	5V	50mV	±5%	0.2	20.0	-
3	$12V_1$	120mV	±5%	0.1	16.0	-
4	$12V_2$	120mV	±5%	0.5	16.0	-
5	-12V	120mV	±10%	0.0	0.5	-
6	$5V_{Sb}$	50mV	±5%	0.0	3.0	3.5
7	-5V	50mV	±10%	0.0	0.3	-

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V, +5V and +12V1 and 12V2 total output shall not exceed 335watts
The +3.3V and +5V total output shall not exceed 130watts.
The total output shall not exceed 350watts

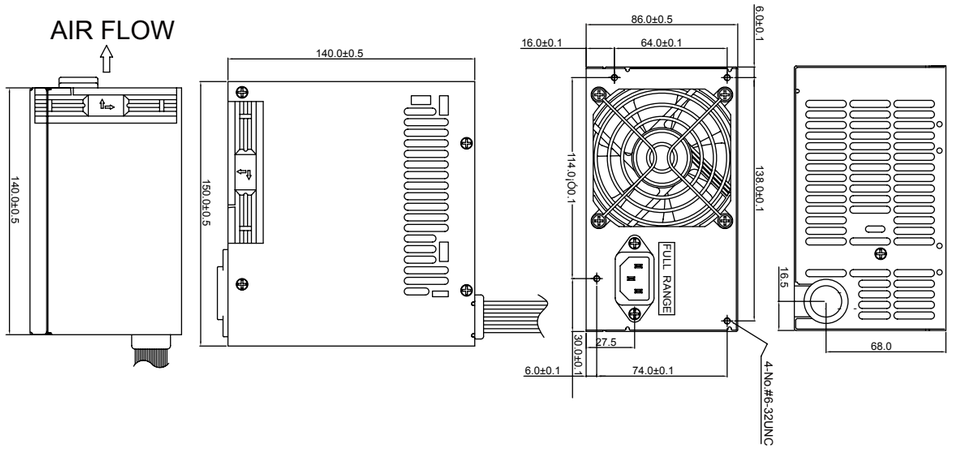
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

350W FSP350-60PFB

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 6.0Amps-rms maximum
  230V@ 3.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT		
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)	PEAK
1	3.3V	50mV	±5%	0.3	20.0	-
2	5V	50mV	±5%	0.5	20.0	-
3	$12V_1$	120mV	±5%	1.0	16.0	-
4	$12V_2$	120mV	±5%	1.0	16.0	-
5	-12V	120mV	±10%	0.0	0.5	-
6	$5V_{Sb}$	50mV	±5%	0.0	2.5	-

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 150watts.
The +3.3V and +5V and 12V1 and 12V2 total output shall not exceed 335watts.
The total output shall not exceed 350watts

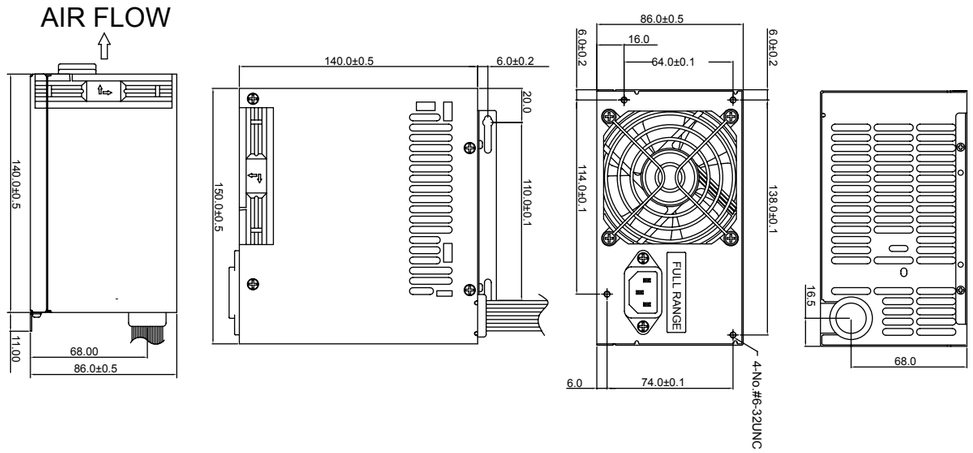
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

350W FSP350-70PFL

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 7.0Amps-rms maximum
  230V@ 3.5Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 15mSec. Minimum@full Load
  230V/50Hz 15mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.3 Vdc minimum,+16Vdc maximum
  + 3.3Vdc output : +3.7 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT		
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)	PEAK
1	3.3V	50mV	±5%	0.5	21.0	-
2	5V	50mV	±5%	0.5	16.0	-
3	$12V_1$	120mV	±5%	0.5	17.0	-
4	$12V_2$	120mV	±5%	0.5	17.0	-
5	-12V	120mV	±10%	0.0	0.5	-
6	$5V_{Sb}$	50mV	±5%	0.1	3.0	3.5
7	-5V	100mV	±10%	0.0	0.3	-

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 105watts.
The total output shall not exceed 350 watts
*-5V Option, +5vsb peak<=10ms.

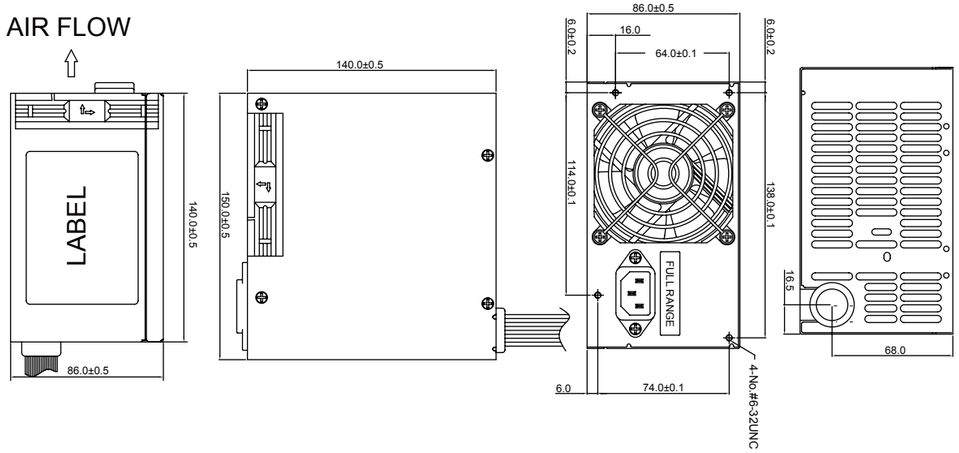
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- SAFETY :
  LEAKAGE CURRENT
  The leakage current from AC to safety ground will not exceed 3.5 mA-rms at 264Vac, 50 Hz.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

400W FSP400-60PFG

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 6.0Amps-rms maximum
  230V@ 3.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

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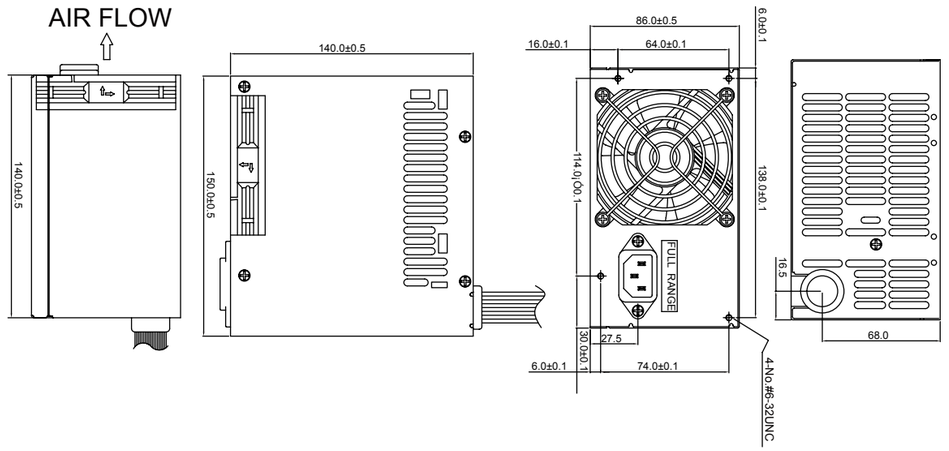
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)	PEAK
1	3.3V	50mV	±5%	0.1	21.0	-
2	5V	50mV	±5%	0.2	20.0	-
3	$12V_1$	120mV	±5%	0.1	16.0	-
4	$12V_2$	120mV	±5%	0.5	16.0	-
5	-12V	120mV	±10%	0.0	0.5	-
6	$5V_{Sb}$	50mV	±5%	0.0	3.0	3.5
7	-5V	50mV	±10%	0.0	0.3	-

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 130watts.
The total output shall not exceed 400watts

400W FSP400-60PFB

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 6.0Amps-rms maximum
  230V@ 3.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

E190414

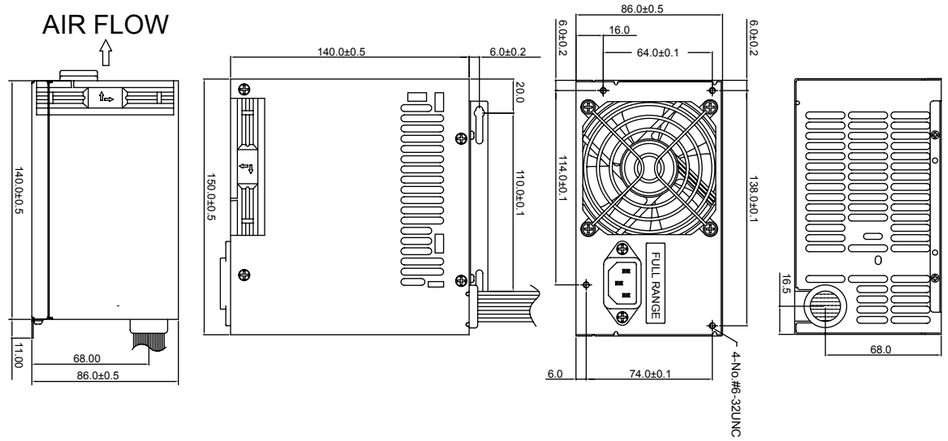
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)	PEAK
1	3.3V	50mV	±5%	0.3	20.0	-
2	5V	50mV	±5%	0.5	20.0	-
3	$12V_1$	120mV	±5%	1.0	16.0	-
4	$12V_2$	120mV	±5%	1.0	16.0	-
5	-12V	120mV	±10%	0.0	0.5	-
6	$5V_{Sb}$	50mV	±5%	0.0	2.5	-

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 150watts.
The +3.3V and +5V and 12V1 and 12V2 total output shall not exceed 385watts.
Th total output shall not exceed 400watts

400W FSP400-70PFL

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 8.0Amps-rms maximum
  230V@ 4.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 15mSec. Minimum@full Load
  230V/50Hz 15mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.3 Vdc minimum,+16Vdc maximum
  + 3.3Vdc output : +3.7 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT		
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)	PEAK
1	3.3V	50mV	±5%	0.5	21.0	-
2	5V	50mV	±5%	0.5	16.0	-
3	$12V_1$	120mV	±5%	0.5	17.0	-
4	$12V_2$	120mV	±5%	0.5	17.0	-
5	-12V	120mV	±10%	0.0	0.5	-
6	$5V_{Sb}$	50mV	±5%	0.1	3.0	3.5
7	-5V	100mV	±10%	0.0	0.3	-

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 130watts.
The total output shall not exceed 400watts

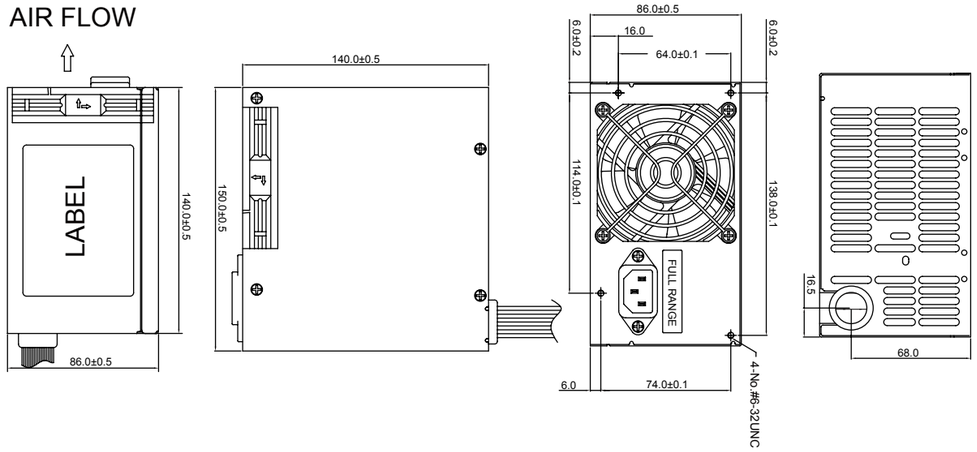
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- SAFETY :
  LEAKAGE CURRENT
  The leakage current from AC to safety ground will not exceed 3.5 mA-rms at 264Vac, 50 Hz.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

460W FSP460-60PFG

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 8.0Amps-rms maximum
  230V@ 4.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT		
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)	PEAK
1	3.3V	50mV	±5%	0.1	24.0	-
2	5V	50mV	±5%	0.2	20.0	-
3	$12V_1$	120mV	±5%	0.1	16.0	-
4	$12V_2$	120mV	±5%	0.5	16.0	-
5	-12V	120mV	±10%	0.0	0.5	-
6	$5V_{Sb}$	50mV	±5%	0.0	3.0	3.5
7	-5V	50mV	±10%	0.0	0.3	-

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 150watts.
The total output shall not exceed 460watts

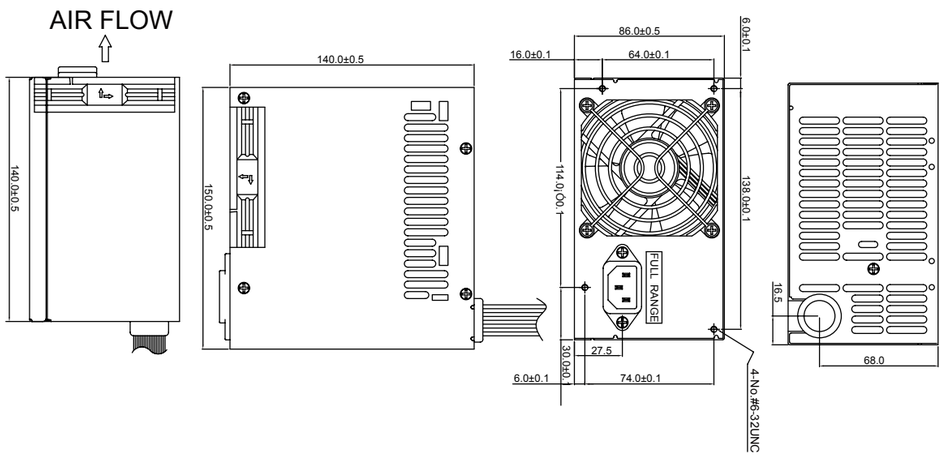
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

460W FSP460-60PFB

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 6.0Amps-rms maximum
  230V@ 3.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT		
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)	PEAK
1	3.3V	50mV	±5%	0.3	22.0	-
2	5V	50mV	±5%	0.5	20.0	-
3	$12V_1$	120mV	±5%	1.0	16.0	-
4	$12V_2$	120mV	±5%	1.0	16.0	-
5	-12V	120mV	±10%	0.0	0.5	-
6	$5V_{sb}$	50mV	±5%	0.0	2.5	-

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 150watts.
The total output shall not exceed 460watts

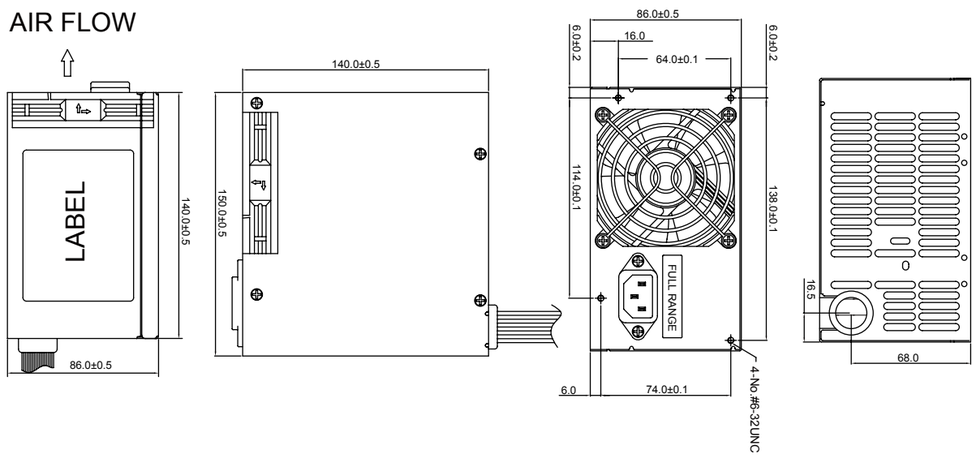
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

460W FSP460-70PFL

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 8.0Amps-rms maximum
  230V@ 4.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 10mSec. Minimum@full Load
  230V/50Hz 10mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.3 Vdc minimum,+16Vdc maximum
  + 3.3Vdc output : +3.7 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT		
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)	PEAK
1	3.3V	50mV	±5%	0.5	22.0	-
2	5V	50mV	±5%	0.5	16.0	-
3	$12V_1$	120mV	±5%	0.5	18.0	-
4	$12V_2$	120mV	±5%	0.5	18.0	-
5	-12V	120mV	±10%	0.0	0.5	-
6	$5V_{sb}$	50mV	±5%	0.1	3.0	3.5
7	-5V	100mV	±10%	0.0	0.3	-

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 120watts.
The total output shall not exceed 460 watts
*-5V Option, +5vsb peak<=10ms.

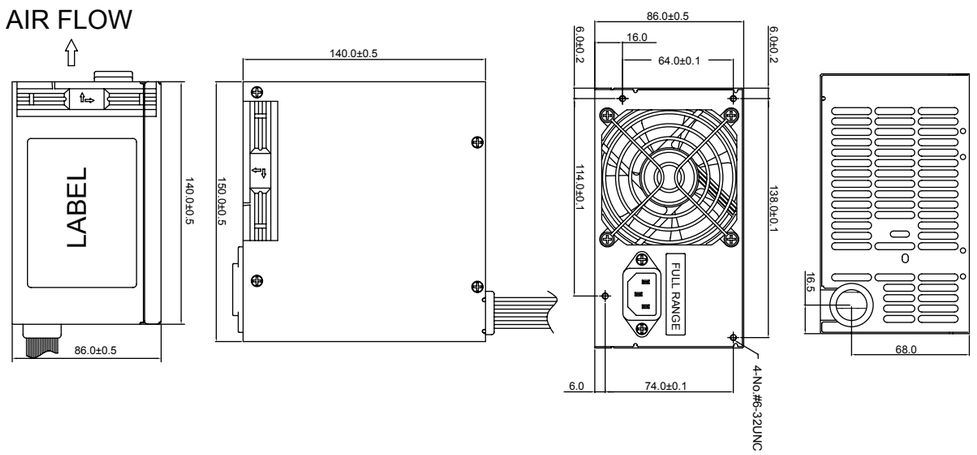
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- SAFETY :
  LEAKAGE CURRENT
  The leakage current from AC to safety ground will not exceed 3.5 mA-rms at 264Vac, 50 Hz.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

500W FSP500-60PFG

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 8.0Amps-rms maximum
  230V@ 4.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

80 PLUS BRONZE

E190414

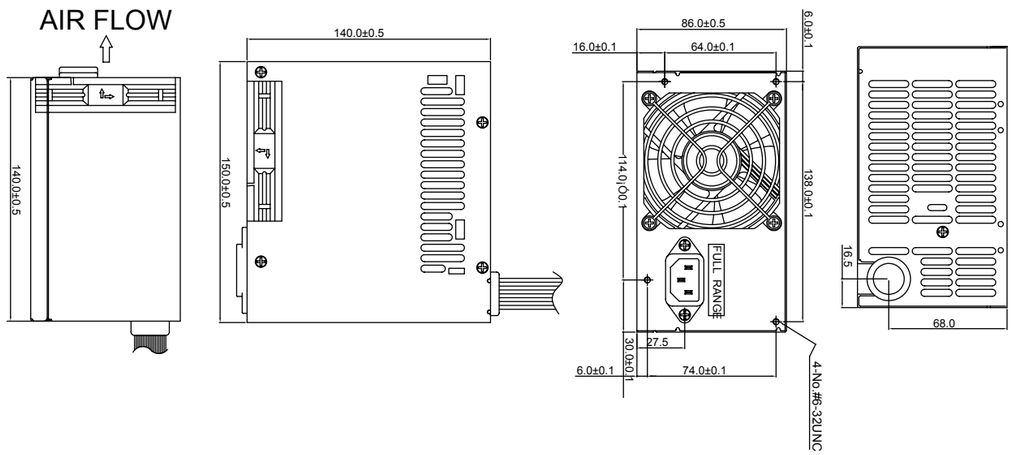
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT		
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)	PEAK
1	3.3V	50mV	±5%	0.1	24.0	-
2	5V	50mV	±5%	0.2	20.0	-
3	$12V_1$	120mV	±5%	0.1	16.0	-
4	$12V_2$	120mV	±5%	0.5	16.0	-
5	-12V	120mV	±10%	0.0	0.5	-
6	$5V_{Sb}$	50mV	±5%	0.0	3.0	3.5
7	-5V	50mV	±10%	0.0	0.3	-

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 150watts.
The total output shall not exceed 500watts

500W FSP500-60PFH

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 8.0Amps-rms maximum
  230V@ 4.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+16.5Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

80 PLUS SILVER

E190414

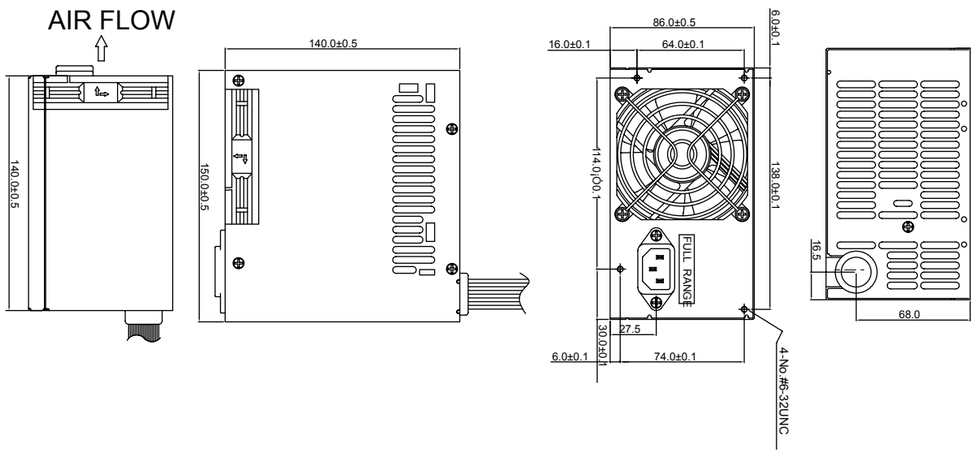
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT		
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)	PEAK
1	3.3V	50mV	±5%	0.1	24.0	-
2	5V	50mV	±5%	0.2	20.0	-
3	$12V_1$	120mV	±5%	0.1	16.0	-
4	$12V_2$	120mV	±5%	0.5	16.0	-
5	-12V	120mV	±10%	0.0	0.5	-
6	$5V_{Sb}$	50mV	±5%	0.0	3.0	3.5

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 150watts.
The total output shall not exceed 500watts

550W FSP550-60PFH

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 8.0Amps-rms maximum
  230V@ 4.0Amps-rms maximum

80 PLUS SILVER

E190414

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT		
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)	PEAK
1	3.3V	50mV	±5%	0.1	24.0	-
2	5V	50mV	±5%	0.2	20.0	-
3	$12V_1$	120mV	±5%	0.1	16.0	-
4	$12V_2$	120mV	±5%	0.5	16.0	-
5	-12V	120mV	±10%	0.0	0.5	-
6	$5V_{sb}$	50mV	±5%	0.0	3.0	3.5

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 150watts.
The total output shall not exceed 550watts

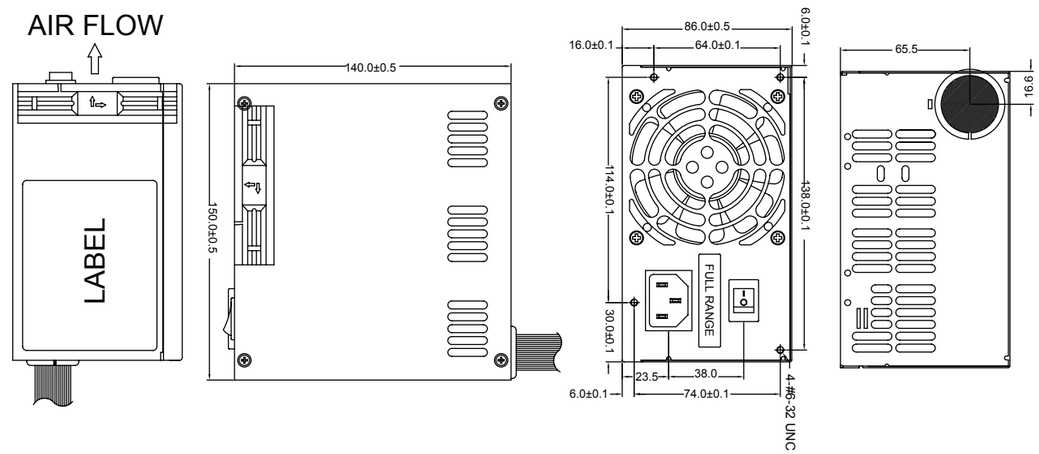
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

600W FSP600-80PSA

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 4.0Amps-rms maximum
  230V@ 2.0Amps-rms maximum

80 PLUS BRONZE

E190414

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16mSec. Minimum@full Load
  230V/50Hz 16mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 6.5Vdc maximum
  +12Vdc output : +13.3 Vdc minimum,+16.7Vdc maximum
  + 3.3Vdc output : +3.9 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT		
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)	PEAK
1	3.3V	50mV	±5%	1.5	25.0	-
2	5V	50mV	±5%	1.0	25.0	-
3	$12V_1$	120mV	±5%	1.0	16.0	-
4	$12V_2$	120mV	±5%	1.0	16.0	-
5	$12V_3$	120mV	±5%	1.0	16.0	-
6	$12V_4$	120mV	±5%	0.5	16.0	-
7	-12V	120mV	±10%	0.0	0.5	-
8	$5V_{sb}$	50mV	±5%	0.1	4.0	-

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
Maximum combined current for the 12V outputs shall be 48A
The +3.3V and +5V total output shall not exceed 150watts.
The total output shall not exceed 600watts

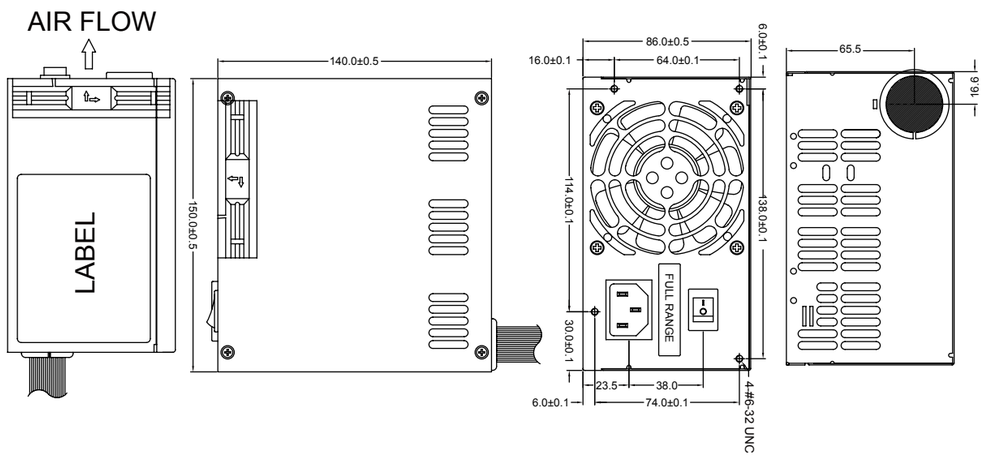
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 10-90% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

700W FSP700-80PSA

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 12.0Amps-rms maximum
  230V@ 6.0Amps-rms maximum

80 PLUS BRONZE

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16mSec. Minimum@full Load
  230V/50Hz 16mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 6.5Vdc maximum
  +12Vdc output : +13.3 Vdc minimum,+16.7Vdc maximum
  + 3.3Vdc output : +3.9 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 10-90% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

E190414

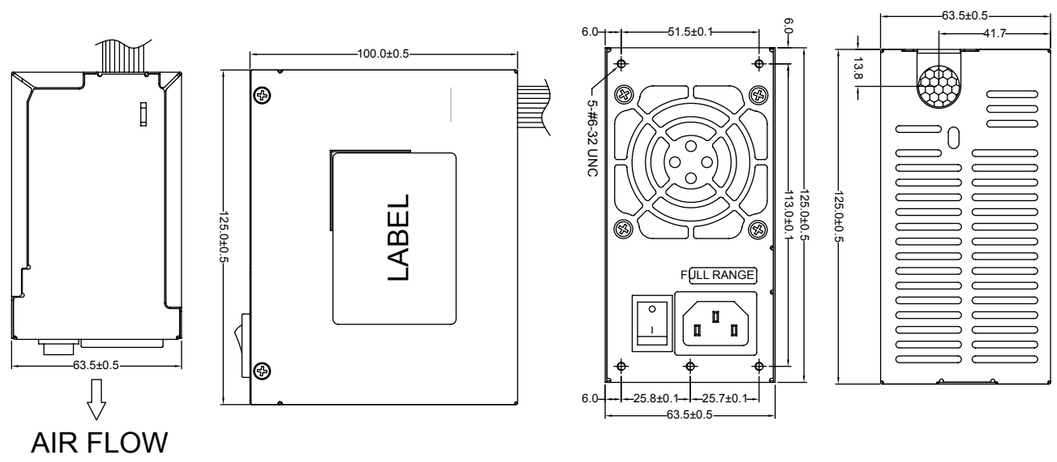
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	OUTPUT VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)	PEAK
1	3.3V	50mV	±5%	1.5	24.0	-
2	5V	50mV	±5%	1.0	30.0	-
3	$12V_1$	120mV	±5%	1.0	16.0	-
4	$12V_2$	120mV	±5%	1.0	16.0	-
5	$12V_3$	120mV	±5%	1.0	16.0	-
6	$12V_4$	120mV	±5%	0.5	16.0	-
7	-12V	120mV	±10%	0.0	0.5	-
8	$5V_{Sb}$	50mV	±5%	0.1	4.0	-

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
Maximum combined current for the 12V outputs shall be 56A.
The +3.3V and +5V total output shall not exceed 170watts.
The total output shall not exceed 700watts

200W FSP200-60PLC

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 3.0Amps-rms maximum
  230V@ 1.5Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.3 Vdc minimum,+15.5Vdc maximum
  + 3.3Vdc output : +3.7 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

E190414

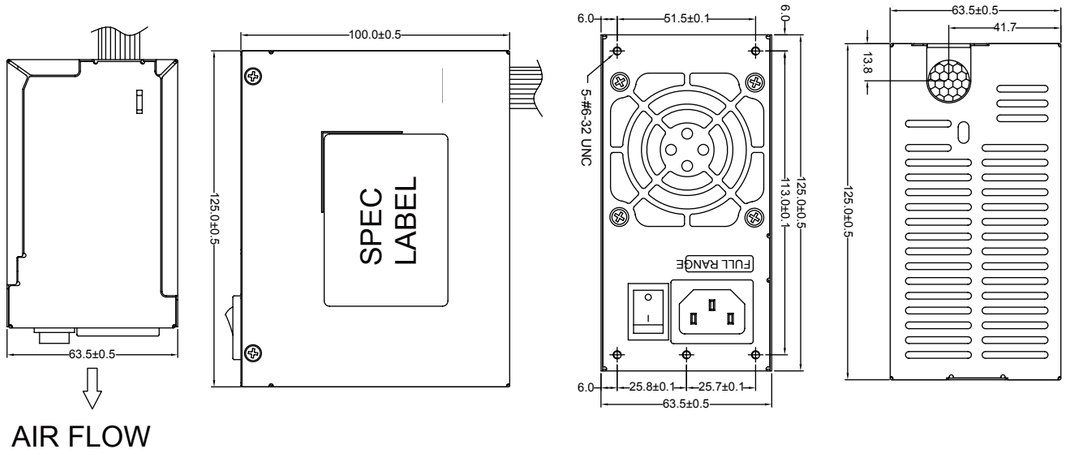
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	OUTPUT VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)
1	3.3V	50mV	±5%	0.3	12.0
2	5V	50mV	±5%	0.5	14.0
3	12V	120mV	±5%	1.0	14.0
4	-12V	120mV	±10%	0.0	0.3
5	$5V_{Sb}$	50mV	±5%	0.0	2.5
6	-5V	100mV	±10%	0.0	0.2

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 80watts.
The total output shall not exceed 200watts

250W FSP250-60PLC

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 3.0Amps-rms maximum
  230V@ 1.5Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 15mSec. Minimum@full Load
  230V/50Hz 15mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.3 Vdc minimum,+15.5Vdc maximum
  + 3.3Vdc output : +3.7 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

80 PLUS BRONZE

E190414

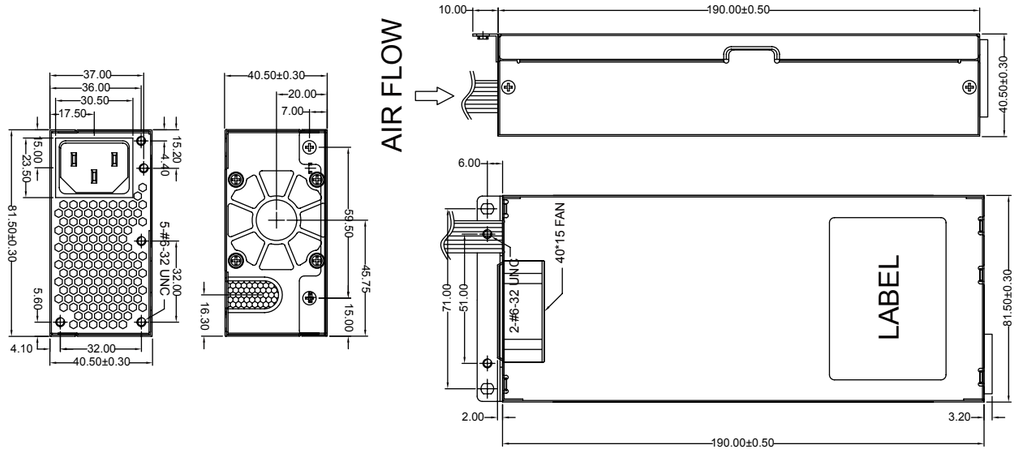
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)
1	3.3V	50mV	±5%	0.3	14.0
2	5V	50mV	±5%	0.5	17.0
3	12V	120mV	±5%	1.0	18.0
4	-12V	120mV	±10%	0.0	0.3
5	$5V_{Sb}$	50mV	±5%	0.0	2.5
6	-5V	100mV	±10%	0.0	0.2

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 90watts.
The total output shall not exceed 250watts

280W FSP280-60LB(24V)

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 5.0Amps-rms maximum
  230V@ 2.5Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.2 Vdc minimum,+15.6Vdc maximum
  +3.3Vdc output : +3.75 Vdc minimum,+ 4.8Vdc maximum
  +5VsbVdc output: +5.5 Vdc minimum, +7.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -40 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

E190414

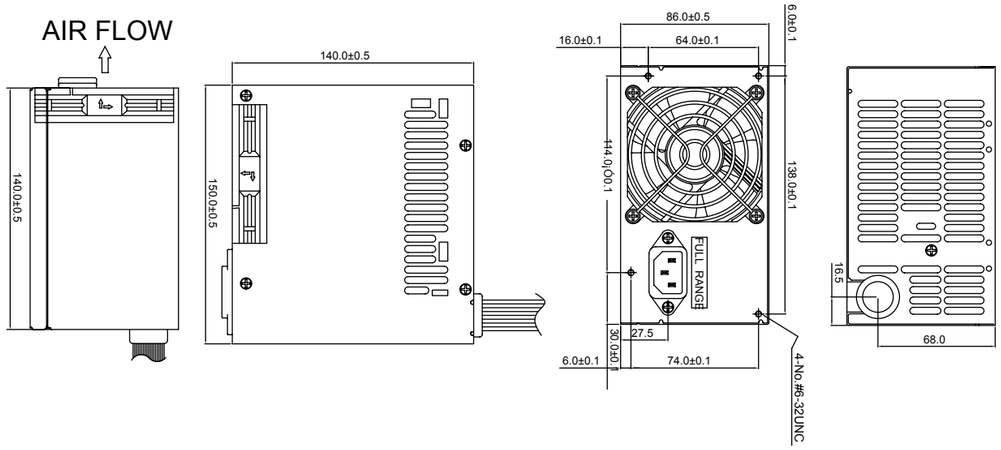
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)	SURGE LOAD1	SURGE LOAD2
1	3.3V	50mV	±5%	0.5	5.0	-	-
2	5V	50mV	±5%	0.3	16.0	-	-
3	12V	120mV	±5%	1.0	12.0	18A (500ms)	-
4	24V	200mV	-5%+7%	0.1	2.3	7A (20ms)	10.5A (1s)
5	$5V_{Sb}$	50mV	±5%	0.0	2.5	-	-
6	-12V	200mV	±10%	0.0	0.4	-	-

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 85watts.
The total output shall not exceed 280watts

350W FSP350-70PFB(24V)

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 6.0Amps-rms maximum
  230V@ 3.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 18mSec. Minimum@full Load
  230V/50Hz 18mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output: +5.5 Vdc minimum, +6.82Vdc maximum
  +12Vdc output: +13.4 Vdc minimum, +15.6Vdc maximum
  +3.3Vdc output: +3.5 Vdc minimum, +4.5Vdc maximum
  +24Vdc output: +26.4 Vdc minimum, +29Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

E190414

OUTPUT VOLTAGE AND CURRENT RATING

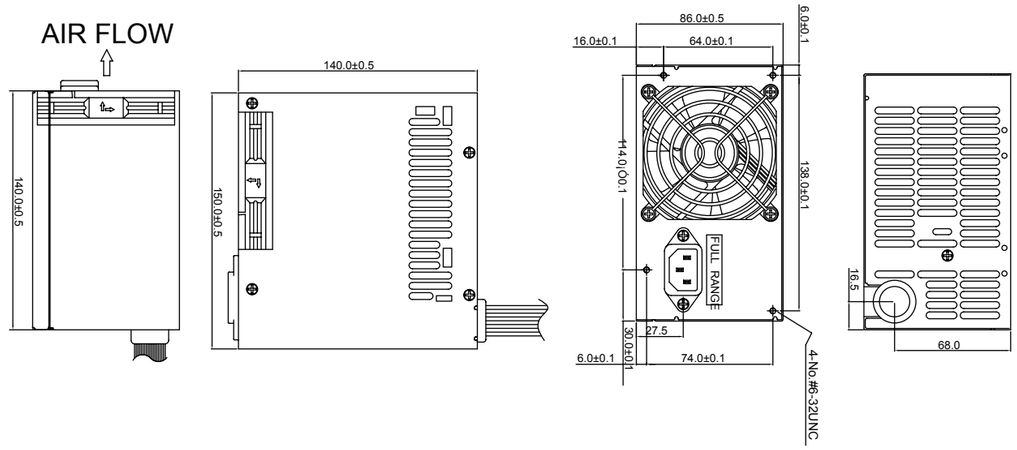
OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)
1	3.3V	50mV	±5%	0.5	10.0
2	5V	50mV	±5%	0.5	16.0
3	12V	120mV	±5%	1.0	15.0
4	24V	240mV	±5%	0.3	5.0
5	-12V	120mV	±10%	0.0	0.5
6	5Vsb	50mV	±5%	0.0	2.0
7	-5V	100mV	±10%	0.0	0.3

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V, +5V and +12V1 and 24V total output shall not exceed 335watts
The +3.3V and +5V total output shall not exceed 110watts
The total output shall not exceed 350watts

WITH 24V

400W FSP400-70PFB(24V)

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 6.0Amps-rms maximum
  230V@ 3.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 18mSec. Minimum@full Load
  230V/50Hz 18mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output: +5.5 Vdc minimum, + 6.82Vdc maximum
  +12Vdc output: +13.4 Vdc minimum, +15.6Vdc maximum
  +3.3Vdc output: +3.5 Vdc minimum, + 4.5Vdc maximum
  +5VsbVdc output: +5.5 Vdc minimum, +7.5Vdc maximum
  +24Vdc output: +26.4 Vdc minimum, + 29Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 5-95% RH, Non-condensing
  Storage: 5-95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

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OUTPUT VOLTAGE AND CURRENT RATING

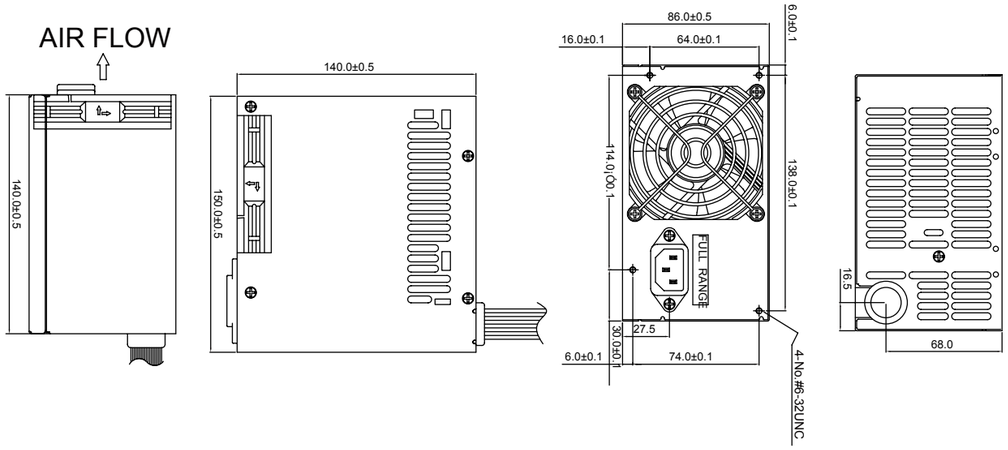
OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)
1	3.3V	50mV	±5%	0.5	10.0
2	5V	50mV	±5%	0.5	18.0
3	12V	120mV	±5%	1.0	16.0
4	24V	240mV	±5%	0.3	5.0
5	-12V	120mV	±10%	0.0	0.5
6	5Vsb	50mV	±5%	0.0	2.0
7	-5V	100mV	±10%	0.0	0.3

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V, +5V and +12V1 and 24V total output shall not exceed 385watts
The +3.3V and +5V total output shall not exceed 110watts.
The total output shall not exceed 400watts

WITH 24V

460W FSP460-70PFB(24V)

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 7.0Amps-rms maximum
  230V@ 4.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 18mSec. Minimum@full Load
  230V/50Hz 18mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output: +5.5 Vdc minimum, +6.82Vdc maximum
  +12Vdc output: +13.4 Vdc minimum, +15.6Vdc maximum
  +3.3Vdc output: +3.5 Vdc minimum, +4.5Vdc maximum
  +24Vdc output: +26.4 Vdc minimum, +29Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

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OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT	
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)
1	3.3V	50mV	±5%	0.5	10.0
2	5V	50mV	±5%	2.0	20.0
3	12V	120mV	±5%	0.2	16.0
4	24V	240mV	+5% -7%	0.2	8.0
5	-12V	120mV	±10%	0.0	0.5
6	$5V_{Sb}$	50mV	±5%	0.0	2.0
7	-5V	100mV	±10%	0.0	0.3

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V, +5V and +12V1 and 24V total output shall not exceed 445watts
The +3.3V and +5V total output shall not exceed 110watts
The total output shall not exceed 460watts

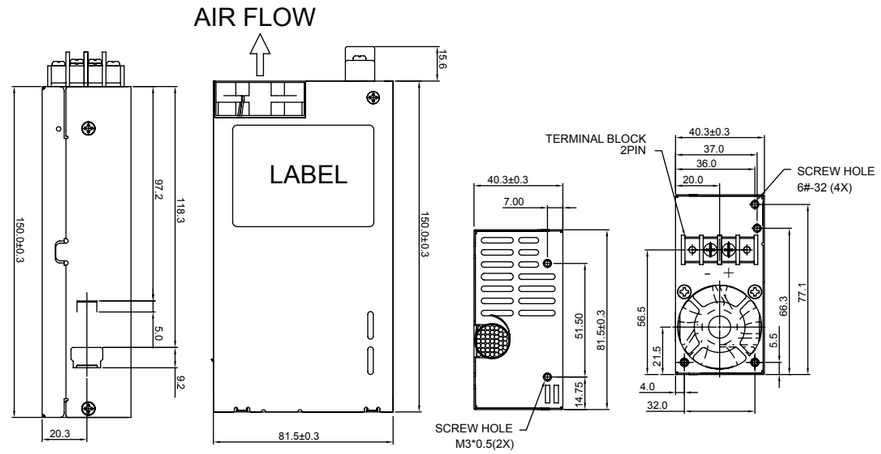
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 5-95% RH, Non-condensing
  Storage: 5-95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

200W FSP200-61DL(48V)

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : DC -36 ~ -72 Vrms
- Input Frequency : DC -48V@ 8.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Over Voltage Protection
  +5Vdc output: +5.7 Vdc minimum, + 6.5Vdc maximum
  +12Vdc output: +13.1 Vdc minimum, +14.5Vdc maximum
  +3.3Vdc output: +3.7 Vdc minimum, +4.1Vdc maximum
- Output Rise Time :
  DC input 48V 5V 20ms Maximum
  DC input 48V 3.3V 20ms Maximum
  DC input 48V 12V 20ms Maximum

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OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT	
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)
1	3.3V	50mV	±5%	0.0	12.0
2	5V	50mV	±5%	1.0	12.0
3	12V	120mV	±5%	1.0	16.0
4	-12V	120mV	±10%	0.0	0.5
5	$5V_{Sb}$	50mV	±5%	0.0	2.0

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The 12V1 and 12V2 total output shall not exceed 18A
The +3.3V and +5V total output shall not exceed 120watts.
The total output shall not exceed 250watts

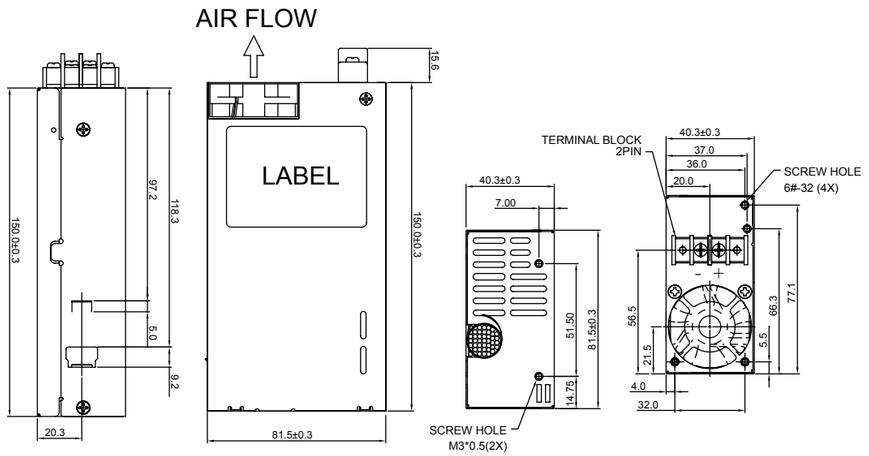
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 5-95% RH, Non-condensing
  Storage: 5-95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

200W FSP200-62DL(24V)

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : DC -18 ~ -36 Vrms
- Input Frequency : DC -24V@ 15.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Over Voltage Protection
  +5Vdc output: +5.7 Vdc minimum, +6.5Vdc maximum
  +12Vdc output: +13.1 Vdc minimum, +14.5Vdc maximum
  +3.3Vdc output: +3.7 Vdc minimum, +4.1Vdc maximum
- Output Rise Time :
  DC input -24V 5V 20ms Maximum
  DC input -24V 3.3V 20ms Maximum
  DC input -24V 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 5-95% RH, Non-condensing
  Storage: 5-95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

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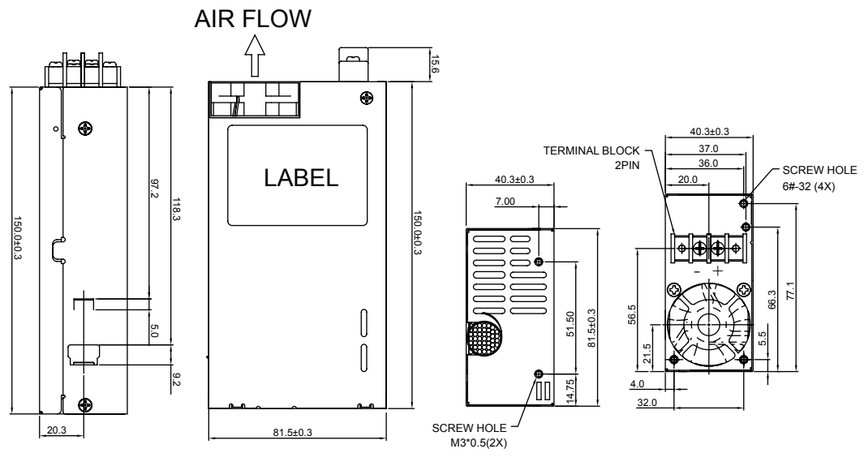
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT	
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)
1	3.3V	50mV	±5%	0.0	12.0
2	5V	50mV	±5%	1.0	12.0
3	12V	120mV	±5%	0.5	15.4
4	-12V	120mV	±10%	0.0	0.5
5	$5V_{Sb}$	50mV	±5%	0.0	2.0

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 80watts.
The total output shall not exceed 200watts

200W FSP200-63DL(12V)

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : DC -12 ~ -18 Vrms
- Input Frequency : DC -12V@ 30.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Over Voltage Protection
  +5Vdc output: +5.7Vdc minimum, + 6.5Vdc maximum
  +12Vdc output: +13.1Vdc minimum, +14.5Vdc maximum
  +3.3Vdc output: +3.7Vdc minimum, +4.1Vdc maximum
- Output Rise Time :
  DC input -12V 5V 20ms Maximum
  DC input -12V 3.3V 20ms Maximum
  DC input -12V 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 5-95% RH, Non-condensing
  Storage: 5-E190414C95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

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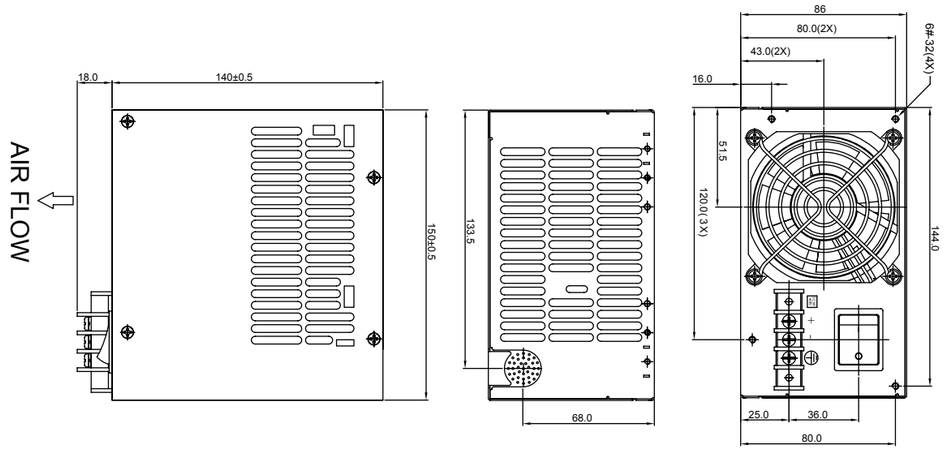
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT	
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)
1	3.3V	50mV	±5%	0.0	12.0
2	5V	50mV	±5%	1.0	12.0
3	12V	120mV	±5%	0.5	15.4
4	-12V	120mV	±10%	0.0	0.5
5	$5V_{Sb}$	50mV	±5%	0.0	2.0

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
9V≦Input ＜10V The +3.3V and +5V total output shall not exceed 80watts.
9V≦Input ＜10V The +3.3V, +5V and +12V total output shall not exceed 164watts
The total output shall not exceed 180watts
10V≦Input ＜11V The +3.3V and +5V total output shall not exceed 80watts.
10V≦Input ＜11V The +3.3V, +5V and +12V total output shall not exceed 174watts
The total output shall not exceed 190watts
11V≦Input ＜18V The +3.3V and +5V total output shall not exceed 80watts.
11V≦Input ＜18V The +3.3V, +5V and +12V total output shall not exceed 184watts
The total output shall not exceed 200watts

300W FSP300-60DL(48V)

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : DC -36 ~ -72 Vrms
- Input Frequency : DC -36V@ 15.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Over Voltage Protection
  +5Vdc output: +5.58 Vdc minimum, +6.82Vdc maximum
  +12Vdc output: +13.3 Vdc minimum, +15.6Vdc maximum
  +3.3Vdc output: +3.5 Vdc minimum, +4.5Vdc maximum
- Output Rise Time :
  DC input -48V 5V 20ms Maximum
  DC input -48V 3.3V 20ms Maximum
  DC input -48V 12V 20ms Maximum

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ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

E190414

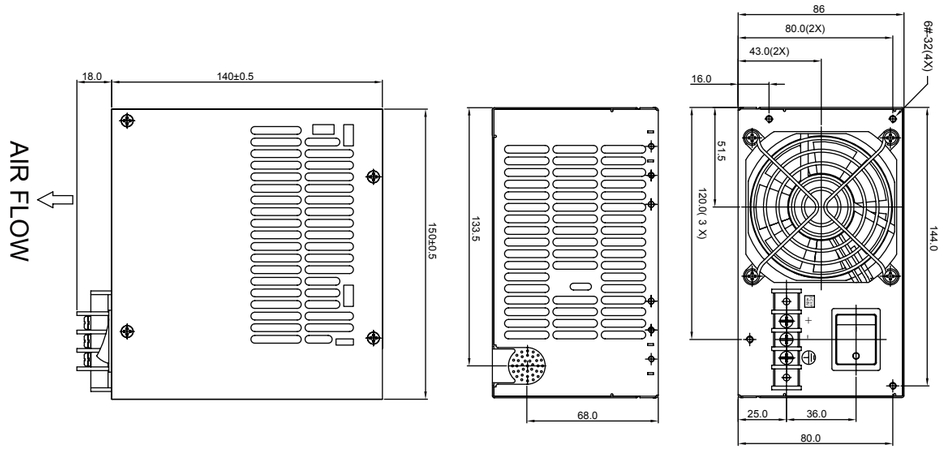
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT		
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)	PEAK
1	3.3V	50mV	±5%	0.3	28.0	-
2	5V	50mV	±5%	0.3	30.0	-
3	12V	120mV	±5%	0.2	15.0	18A
4	-12V	120mV	±5%	0.0	0.8	-
5	$5V_{Sb}$	50mV	±5%	0.0	2.0	-
6	-5V	100mV	±5%	0.0	0.3	-

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 180watts.
The +3.3V, +5V and +12V total output shall not exceed 280watts
The total output shall not exceed 300watts

400W FSP400-60DL(48V)

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : DC -36 ~ -72 Vrms
- Input Frequency : DC -36V@ 18.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Over Voltage Protection
  +5Vdc output: +5.58 Vdc minimum, + 6.82Vdc maximum
  +12Vdc output: +13.3 Vdc minimum, +15.6Vdc maximum
  +3.3Vdc output: +3.5 Vdc minimum, +4.5Vdc maximum
- Output Rise Time :
  DC input -48V 5V 20ms Maximum
  DC input -48V 3.3V 20ms Maximum
  DC input -48V 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

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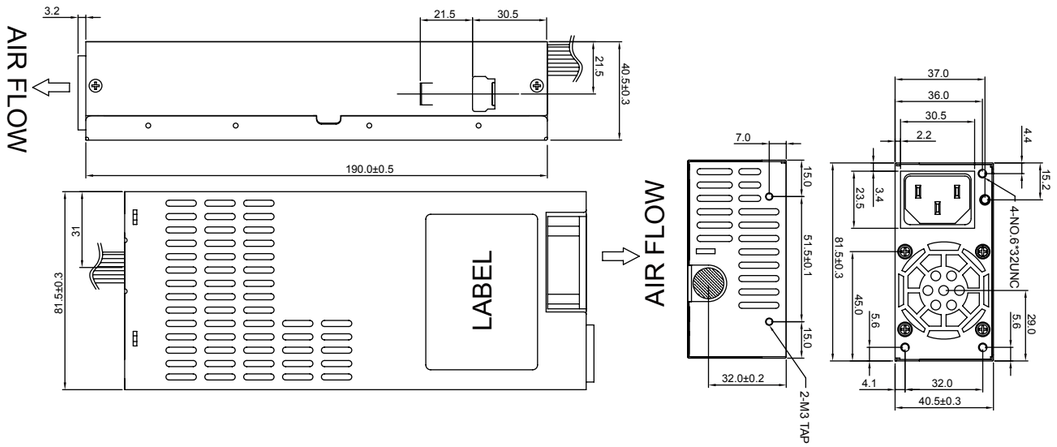
OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT		
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)	PEAK
1	3.3V	50mV	±5%	0.3	28.0	-
2	5V	50mV	±5%	0.5	40.0	-
3	12V	120mV	±5%	0.2	15.0	18A
4	-12V	120mV	±5%	0.0	0.8	-
5	$5V_{Sb}$	50mV	±5%	0.0	2.0	-
6	-5V	100mV	±5%	0.0	0.3	-

* 5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 235watts.
The +3.3V, +5V and +12V total output shall not exceed 380watts
The total output shall not exceed 400watts

180W FSP180-50MP

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 4.0Amps-rms maximum
  230V@ 2.0Amps-rms maximum

E190414

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 6.5Vdc maximum
  +12Vdc output : +13.3 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.7 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT	
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)
1	3.3V	50mV	±5%	0.3	16.8
2	5V	50mV	±5%	0.5	12.0
3	12V	120mV	±5%	1.5	12.0
4	-12V	120mV	±10%	0.0	0.8
5	$5V_{Sb}$	50mV	±5%	0.0	2.0

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 61watts.
The +3.3V,+5V and +12V total output shall not exceed161watts
The total output shall not exceed 180watts

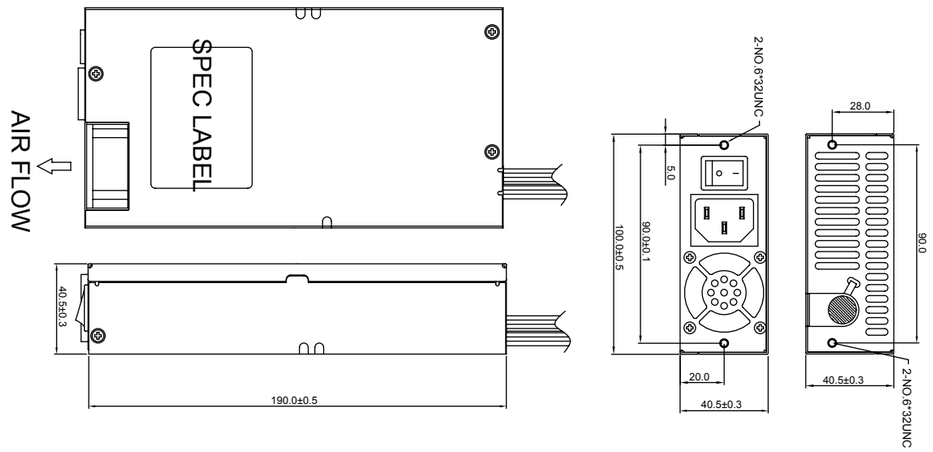
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

250W FSP250-70MU

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 4.0Amps-rms maximum
  230V@ 2.0Amps-rms maximum

80 PLUS

E190414

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.8Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT	
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)
1	3.3V	50mV	±5%	0.5	16.0
2	5V	50mV	±5%	0.5	18.0
3	$12V_1$	120mV	±5%	1.0	16.0
4	$12V_2$	120mV	±5%	1.0	16.0
5	-12V	150mV	±10%	0.0	0.5
6	$5V_{Sb}$	50mV	±5%	0.0	2.5
7	-5V	120mV	±10%	0.0	0.2

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 110watts.
The 12V1 and 12V2 total shall not exceed 17A
The +3.3V,+5V and +12V1,+12V2 total output shall not exceed 231watts
The total output shall not exceed 250watts

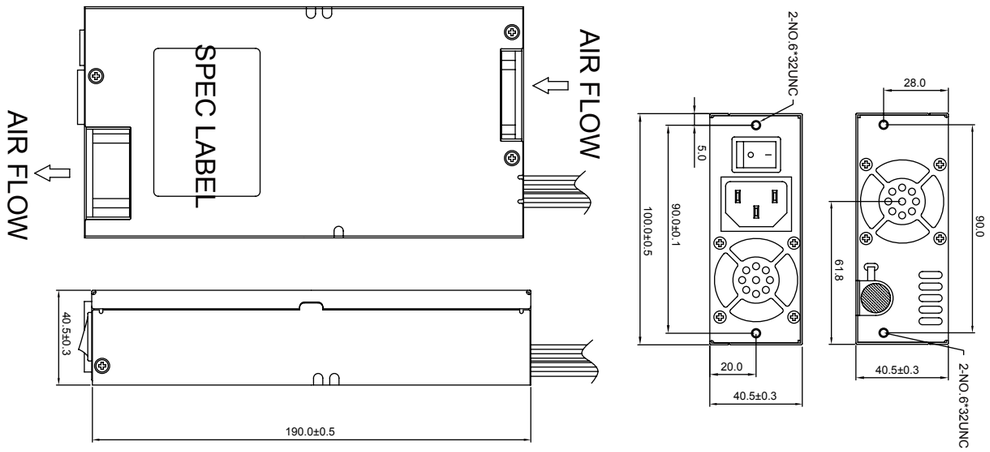
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

300W FSP300-70MU

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 5.0Amps-rms maximum
  230V@ 3.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 7Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)
1	3.3V	50mV	±5%	0.5	16.0
2	5V	50mV	±5%	0.5	18.0
3	$12V_1$	120mV	±5%	1.0	16.0
4	$12V_2$	120mV	±5%	1.0	16.0
5	-12V	150mV	±10%	0.0	0.5
6	$5V_{Sb}$	50mV	±5%	0.0	2.5
7	-5V	120mV	±10%	0.0	0.2

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 120watts.
The 12V1 and 12V2 total shall not exceed 20A
The +3.3V,+5V and +5V total output shall not exceed 281watts
The total output shall not exceed 300watts

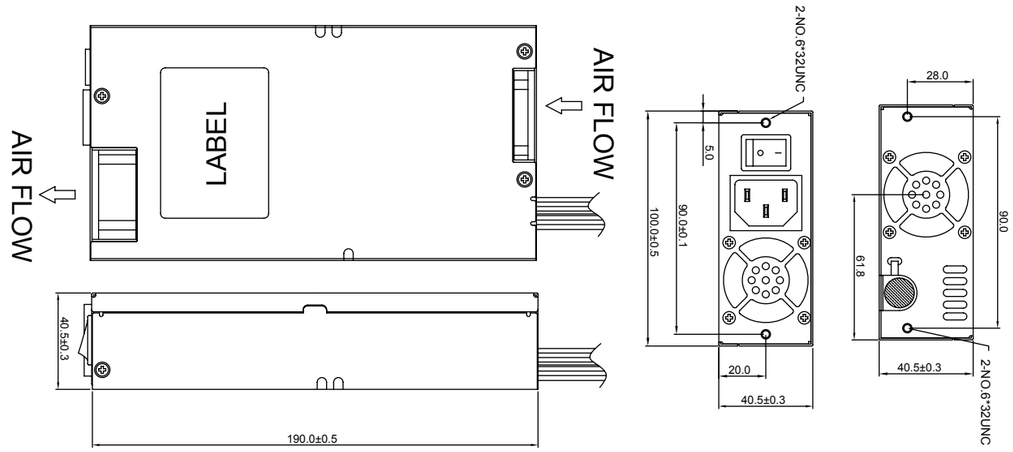
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

350W FSP350-70MU

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 6.0Amps-rms maximum
  230V@ 3.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.5 Vdc minimum,+ 6.82Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.5 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT	VOLTAGE Nominal	OUTPUT Ripple/Noise(P-P)	REGULATION LAOD	OUT CURRENT Min(A)	Max(A)
1	3.3V	50mV	±5%	0.5	16.0
2	5V	50mV	±5%	0.5	18.0
3	$12V_1$	120mV	±5%	1.0	16.0
4	$12V_2$	120mV	±5%	1.0	16.0
5	-12V	120mV	±10%	0.0	0.5
6	$5V_{Sb}$	50mV	±5%	0.0	2.5
7	-5V	100mV	±10%	0.0	0.2

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 130watts.
The 12V1 and 12V2 total shall not exceed 24A
The +3.3V,+5V and +12V1,+12V2 total output shall not exceed 331watts
The total output shall not exceed 350watts

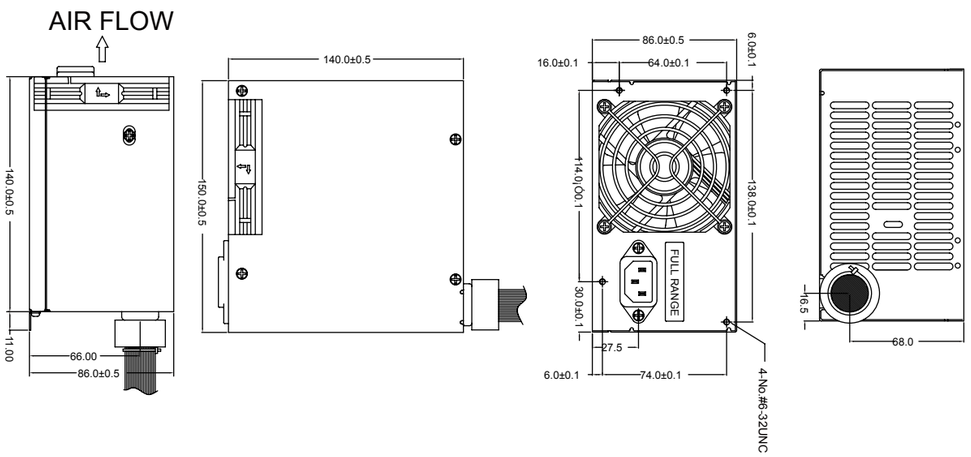
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 5-95% RH, Non-condensing
  Storage: 5-95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

300W FSP300-70MP

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 6.0Amps-rms maximum
  230V@ 3.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 20mSec. Minimum@full Load
  230V/50Hz 20mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 6.5Vdc maximum
  +12Vdc output : +13.3 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.7 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT	
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)
1	3.3V	50mV	±5%	0.5	25.0
2	5V	50mV	±5%	0.3	30.0
3	$12V_1$	120mV	±5%	1.0	17.0
4	$12V_2$	120mV	±5%	1.0	17.0
5	-12V	120mV	±10%	0.0	0.8
6	$5V_{Sb}$	50mV	±5%	0.0	2.0
7	-5V	100mV	±10%	0.0	0.3

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 150watts.
The 12V1 and 12V2 total shall not exceed 22A
The +3.3V,+5V and +5V total output shall not exceed 280watts
The total output shall not exceed 300watts

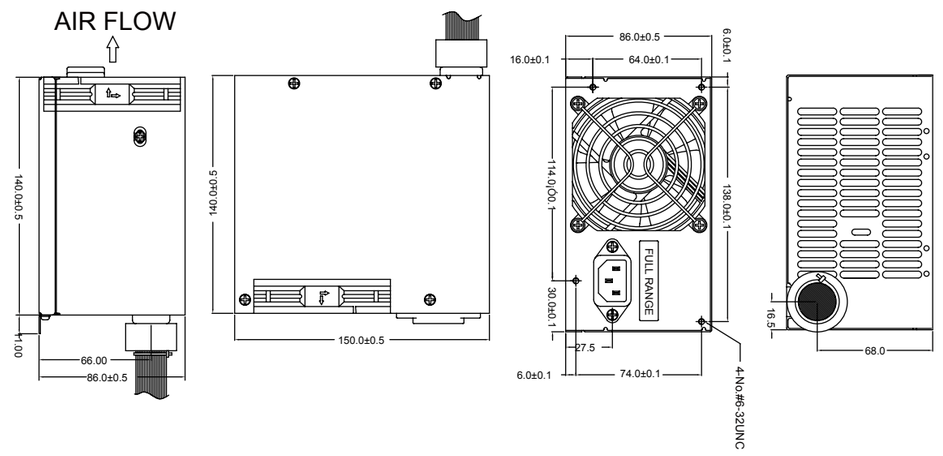
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

400W FSP400-70MP

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 8.0Amps-rms maximum
  230V@ 4.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 20mSec. Minimum@full Load
  230V/50Hz 20mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 6.5Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.7 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT	
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)
1	3.3V	50mV	±5%	0.5	30.0
2	5V	50mV	±5%	0.3	30.0
3	$12V_1$	120mV	±5%	1.0	17.0
4	$12V_2$	120mV	±5%	1.0	17.0
5	-12V	120mV	±10%	0.0	0.8
6	$5V_{Sb}$	50mV	±5%	0.0	2.0
7	-5V	100mV	±10%	0.0	0.3

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 180watts.
The +3.3V,+5V and +12V1,+12V2 total output shall not exceed 380watts
The total output shall not exceed 400watts

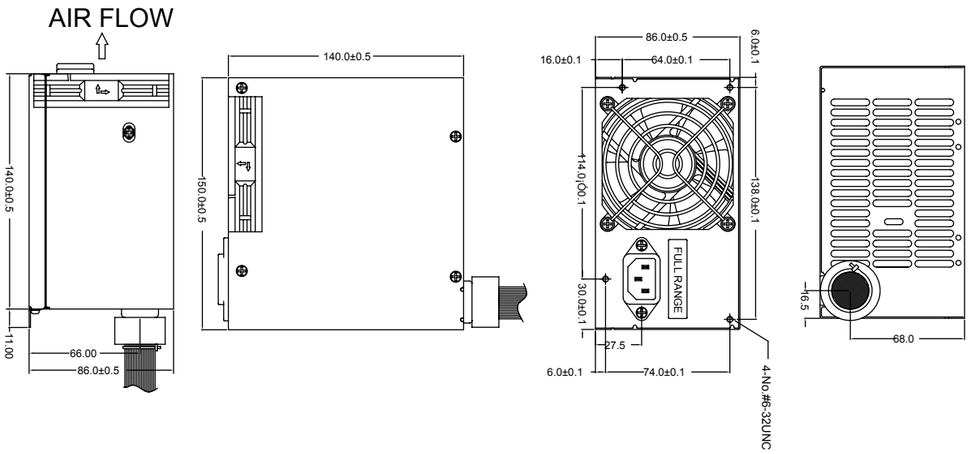
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

500W FSP500-70MP

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 10.0Amps-rms maximum
  230V@ 5.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@full Load
  230V/50Hz 17mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 6.5Vdc maximum
  +12Vdc output : +13.4 Vdc minimum,+15.6Vdc maximum
  + 3.3Vdc output : +3.7 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT	
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)
1	3.3V	50mV	±5%	0.5	30.0
2	5V	50mV	±5%	0.3	30.0
3	$12V_1$	120mV	±5%	1.0	17.0
4	$12V_2$	120mV	±5%	1.0	17.0
5	-12V	120mV	±10%	0.0	0.8
6	$5V_{Sb}$	50mV	±5%	0.0	2.0
7	-5V	100mV	±10%	0.0	0.3

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 200watts.
The +3.3V,+5V and +5V total output shall not exceed 480watts
The total output shall not exceed 500watts

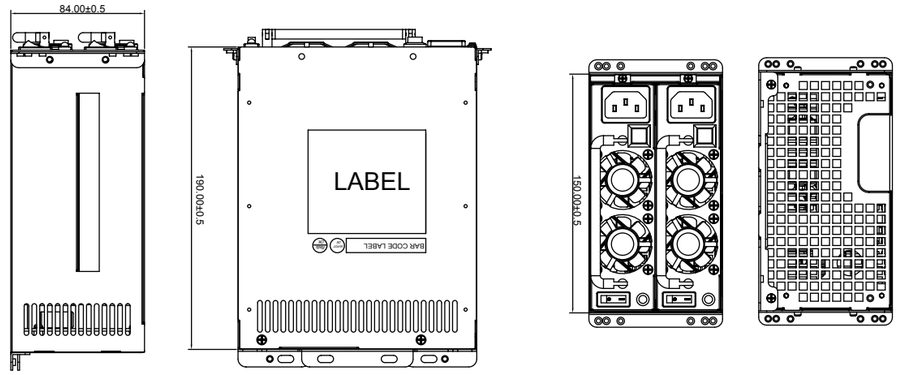
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

350W FSP350-80EVMR

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 6.0Amps-rms maximum
  230V@ 3.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@75% full Load
  230V/50Hz 17mSec. Minimum@75% full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 6.5Vdc maximum
  +12Vdc output : +13.3 Vdc minimum,+14.5Vdc maximum
  + 3.3Vdc output : +3.9 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT	
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)
1	3.3V	50mV	±5%	0.5	20.0
2	5V	50mV	±5%	0.5	20.0
3	$12V_1$	120mV	±5%	0.5	18.0
4	$12V_2$	120mV	±5%	0.5	18.0
5	$12V_3$	120mV	±5%	0.5	14.0
6	-12V	200mV	±10%	0.0	0.8
7	-5V	200mV	±10%	0.0	0.5
8	$5V_{Sb}$	50mV	±5%	0.0	2.0

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 100watts.
The combined current for the 12V outputs shall be 24A
The total output shall not exceed 350watts

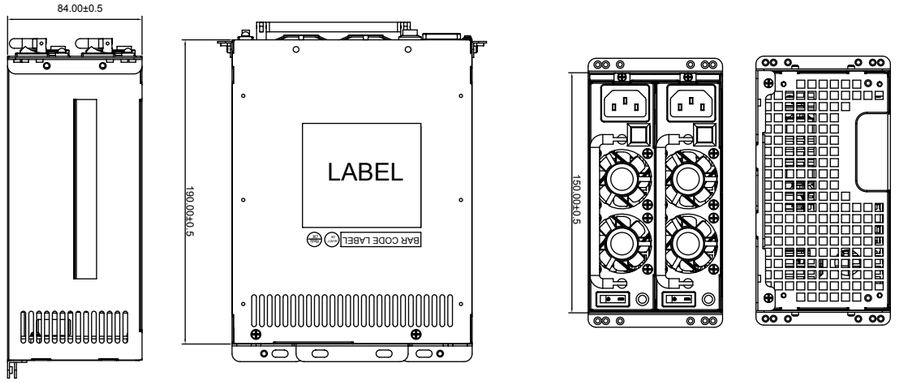
ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

450W FSP450-80EVMR

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 8.0Amps-rms maximum
  230V@ 4.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 17mSec. Minimum@75% full Load
  230V/50Hz 17mSec. Minimum@75% full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 6.5Vdc maximum
  +12Vdc output : +13.3 Vdc minimum,+14.5Vdc maximum
  + 3.3Vdc output : +3.9 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

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OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT	
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)
1	3.3V	50mV	±5%	0.5	20.0
2	5V	50mV	±5%	0.5	20.0
3	$12V_1$	120mV	±5%	0.5	18.0
4	$12V_2$	120mV	±5%	0.5	18.0
5	$12V_3$	120mV	±5%	0.5	16.0
6	-12V	200mV	±10%	0.0	0.8
7	-5V	200mV	±10%	0.0	0.5
8	$5V_{Sb}$	50mV	±5%	0.0	2.0

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The +3.3V and +5V total output shall not exceed 100watts.
The combined current for the 12V outputs shall be 35A
The total output shall not exceed 450watts

ENVIRONMENTAL REQUIREMENTS

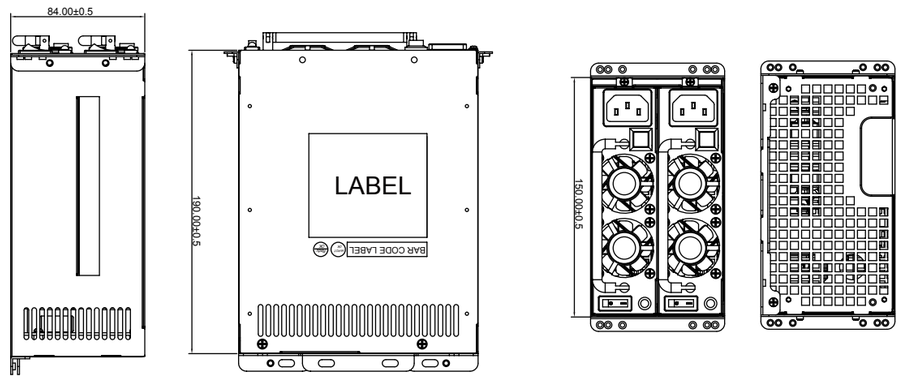
- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, 75%output load, and nominal AC input voltage.

REDUNDANT

500W FSP500-60MRA(S)

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 8.0Amps-rms maximum
  230V@ 4.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16mSec. Minimum@full Load
  230V/50Hz 16mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 6.5Vdc maximum
  +12Vdc output : +13.3 Vdc minimum,+14.5Vdc maximum
  + 3.3Vdc output : +3.9 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

E190414

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT		
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)	PEAK
1	3.3V	50mV	±5%	0.1	20.0	-
2	5V	50mV	±5%	0.1	20.0	-
3	12V	120mV	±5%	1.0	40.0	-
4	-12V	200mV	±10%	0.0	0.5	-
5	-5V	200mV	±10%	0.0	0.3	-
6	$5V_{Sb}$	50mV	±5%	0.0	3.0	-

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
Maximum combined current for the 12V outputs shall be 40A.
The +3.3V and +5V total output shall not exceed 130watts.
The total output shall not exceed 500watts
*-5V Option

ENVIRONMENTAL REQUIREMENTS

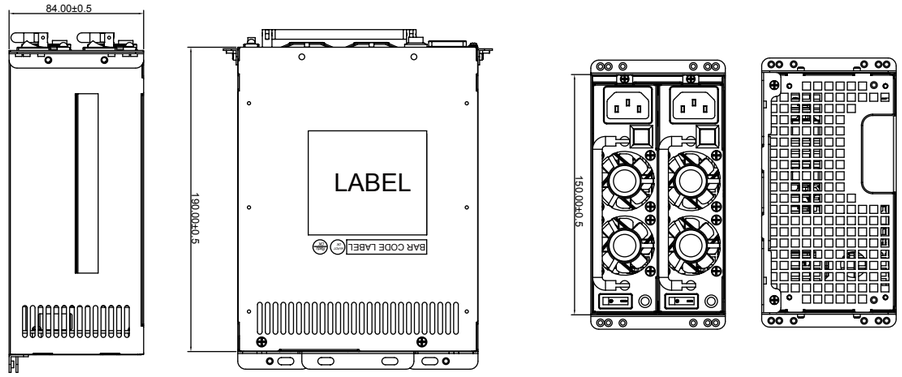
- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- OPERATING ALTITUDE :
  Comply with the requirement for 5000m certification.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, 75%output load, and nominal AC input voltage.

REDUNDANT

600W FSP600-60MRA(S)

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 10.0Amps-rms maximum
  230V@ 5.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16mSec. Minimum@80% full Load
  230V/50Hz 16mSec. Minimum@80% full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 6.5Vdc maximum
  +12Vdc output : +13.3 Vdc minimum,+16.7Vdc maximum
  + 3.3Vdc output : +3.9 Vdc minimum,+ 4.8Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

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OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT		
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)	PEAK
1	3.3V	50mV	±5%	0.1	20.0	-
2	5V	50mV	±5%	0.1	20.0	-
3	12V	120mV	±5%	1.0	49.0	-
4	-12V	200mV	±10%	0.0	0.3	-
5	-5V	200mV	±10%	0.0	0.5	-
6	$5V_{Sb}$	50mV	±5%	0.0	3.0	-

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
Maximum combined current for the 12V outputs shall be 49A.
The +3.3V and +5V total output shall not exceed 130watts.
The total output shall not exceed 600watts
*-5V Option

ENVIRONMENTAL REQUIREMENTS

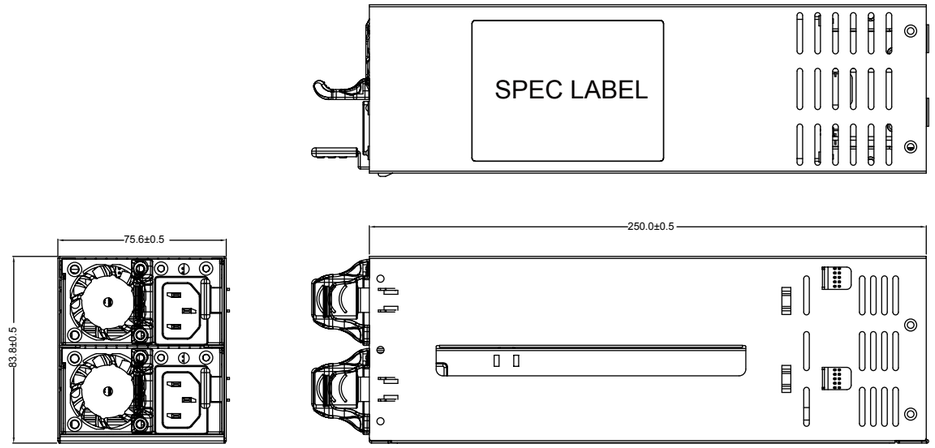
- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -20 to +80°C
- OPERATING ALTITUDE :
  Comply with the requirement for 5000m certification.

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, maximum-output load, and nominal AC input voltage.

REDUNDANT

600W FSP600-50DRS NEW

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 8.0Amps-rms maximum
  230V@ 4.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16mSec. Minimum@full Load
  230V/50Hz 16mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 6.5Vdc maximum
  +12Vdc output : +13.3 Vdc minimum,+14.5Vdc maximum
  + 3.3Vdc output : +3.9 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

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OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT		
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)	PEAK
1	3.3V	50mV	±5%	0.5	20.0	-
2	5V	50mV	±5%	0.5	20.0	-
3	12V	120mV	±5%	0.5	45.0	-
4	-12V	120mV	±10%	0.0	0.3	-
5	$5V_{Sb}$	50mV	±5%	0.0	5.0	-

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
Maximum combined current for the 12V outputs shall be 45A.
The +3.3V and +5V total output shall not exceed 140watts.
The total output shall not exceed 600watts

ENVIRONMENTAL REQUIREMENTS

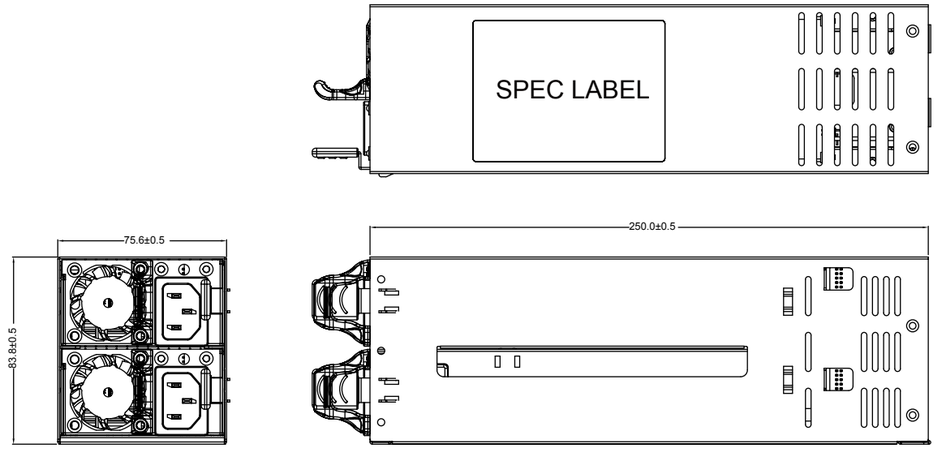
- TEMPERATURE RANGE
  Operating : 0 to +50°C

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, 70%output load, and nominal AC input voltage.

REDUNDANT

700W FSP700-50DRS

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 8.0Amps-rms maximum
  230V@ 4.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16mSec. Minimum@full Load
  230V/50Hz 16mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 6.5Vdc maximum
  +12Vdc output : +13.3 Vdc minimum,+14.5Vdc maximum
  + 3.3Vdc output : +3.9 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

E190414

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT		
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)	PEAK
1	3.3V	50mV	±5%	0.5	25.0	-
2	5V	50mV	±5%	0.5	25.0	-
3	12V	120mV	±5%	0.5	56.0	-
4	-12V	120mV	±10%	0.0	0.3	-
5	$5V_{Sb}$	50mV	±5%	0.0	5.0	-

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
Maximum combined current for the 12V outputs shall be 56A.
The +3.3V and +5V total output shall not exceed 160watts.
The total output shall not exceed 700watts

ENVIRONMENTAL REQUIREMENTS

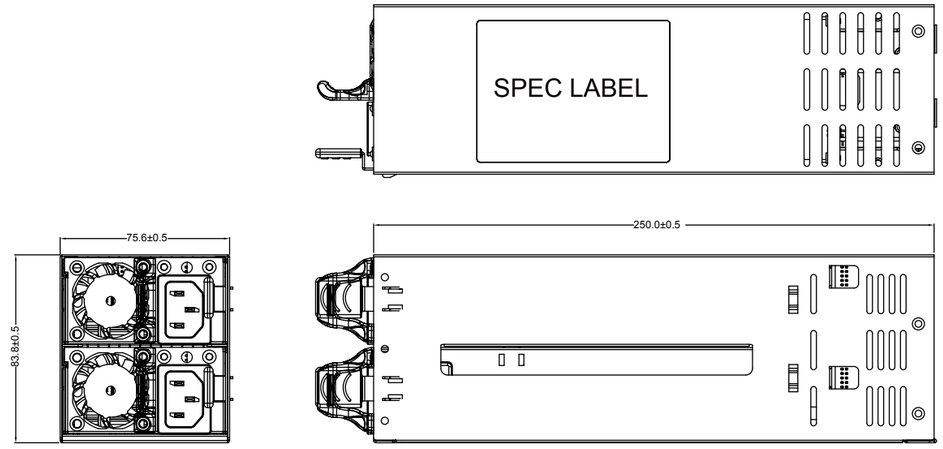
- TEMPERATURE RANGE
  Operating : 0 to +50°C

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, and 70% output load, and nominal AC input voltage.

REDUNDANT

800W FSP800-50DRS

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 10.0Amps-rms maximum
  230V@ 5.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 115V/60Hz 16mSec. Minimum@full Load
  230V/50Hz 16mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +5.7 Vdc minimum,+ 6.5Vdc maximum
  +12Vdc output : +13.3 Vdc minimum,+14.5Vdc maximum
  + 3.3Vdc output : +3.9 Vdc minimum,+ 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

E190414

OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT		
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)	PEAK
1	3.3V	50mV	±5%	0.5	25.0	-
2	5V	50mV	±5%	0.5	25.0	-
3	12V	120mV	±5%	0.5	64.0	-
4	-12V	120mV	±10%	0.0	0.3	-
5	$5V_{Sb}$	50mV	±5%	0.0	5.0	-

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
Maximum combined current for the 12V outputs shall be 56A.
The +3.3V and +5V total output shall not exceed 160watts.
The total output shall not exceed 800watts

ENVIRONMENTAL REQUIREMENTS

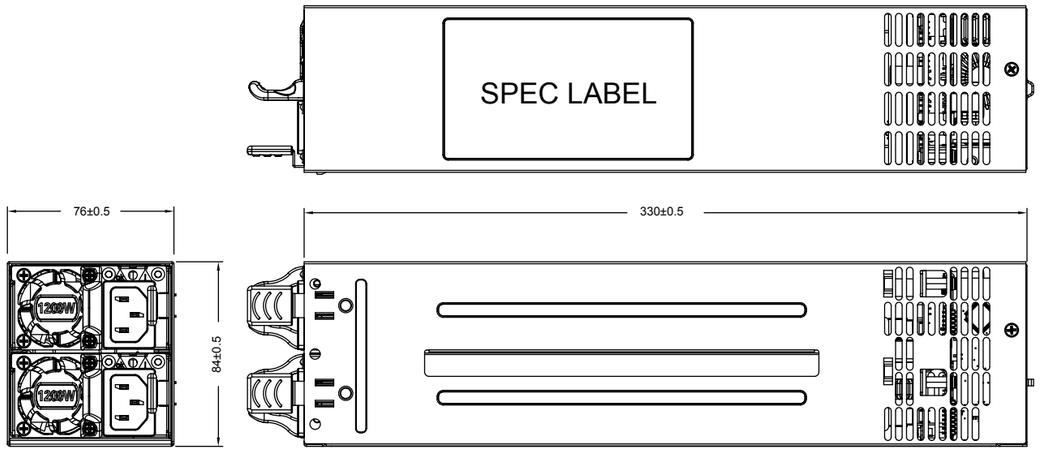
- TEMPERATURE RANGE
  Operating : 0 to +50°C

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, and 70%output load, and nominal AC input voltage.

REDUNDANT

1200W FSP1200-50DRS NEW

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 230V@ 8.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 230V/50Hz 16mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output: +5.7 Vdc minimum, + 6.5Vdc maximum
  +12Vdc output: +13.3 Vdc minimum, +14.5Vdc maximum
  +3.3Vdc output: +3.9 Vdc minimum, + 4.5Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 20ms Maximum
  115V-rms/230V-rms 12V 20ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C

- MTBF:
  The power supply have a minimum predicted MTBF(MIL-HDBK-217) of 100,000 hours of continuous operation at 25°C, and 70% output load, and nominal AC input voltage.

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OUTPUT VOLTAGE AND CURRENT RATING

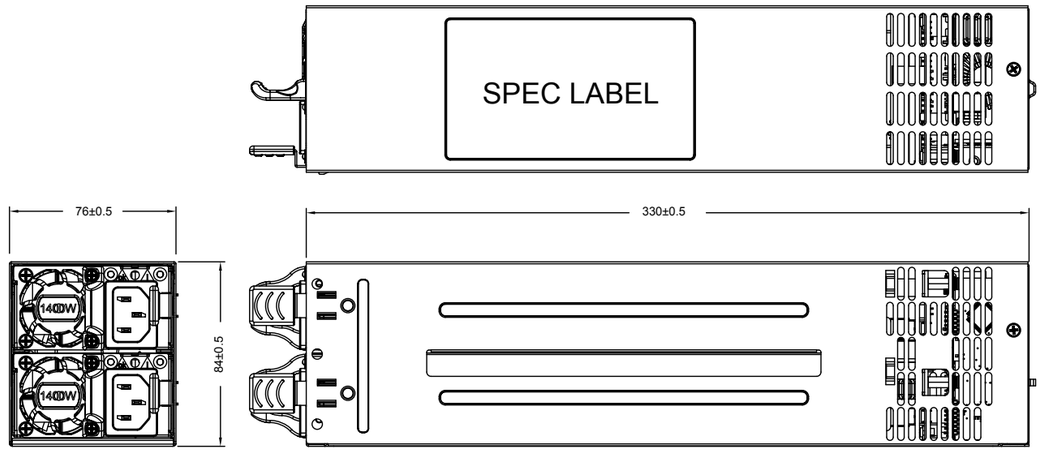
OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT		
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)	PEAK
1	3.3V	50mV	±5%	0.5	30.0	-
2	5V	50mV	±5%	0.5	30.0	-
3	12V	120mV	±5%	0.5	85.0	-
4	-12V	120mV	±10%	0.0	0.3	-
5	$5V_{sb}$	50mV	±5%	0.0	6.0	-

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
Maximum combined current for the 12V outputs shall be 56A.
The +3.3V and +5V total output shall not exceed 160watts.
The total output shall not exceed 700watts

REDUNDANT

1400W FSP1400-50DRS NEW

MECHANICAL DRAWING



INPUT ELECTRICAL SPECIFICATIONS

- Input Voltage : 90 ~ 264 Vrms
- Input Frequency : 47 ~ 63 Hz
- Input Current : 115V@ 14.0Amps-rms maximum
  230V@ 10.0Amps-rms maximum

OUTPUT ELECTRICAL SPECIFICATIONS

- Hold Up Time : 230V/50Hz 12mSec. Minimum@full Load
- Over Voltage Protection
  +5Vdc output : +4.75 Vdc minimum,+ 5.25Vdc maximum
  +12Vdc output : +11.4 Vdc minimum,+12.6Vdc maximum
  + 3.3Vdc output : +3.135 Vdc minimum,+ 3.465Vdc maximum
- Output Rise Time :
  115V-rms/230V-rms 5V 25ms Maximum

ENVIRONMENTAL REQUIREMENTS

- TEMPERATURE RANGE
  Operating : 0 to +50°C
  Storage : -40 to +70°C
- HUMIDITY :
  Operating : 85% RH, Non-condensing
  Storage: 95% RH, Non-condensing
- OPERATING ALTITUDE :
  Comply with the requirement for 5000m certification.

- MTBF:
  The power supply shall have a minimum MTBF at continuous operation of 200,000 hours calculated at 100%, according to BELL CORE TR-322 at 25°C excluding the Fan MTBF, and at least 100,000 hours including the fan MTBF.

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OUTPUT VOLTAGE AND CURRENT RATING

OUTPUT VOLTAGE		OUTPUT	REGULATION	OUT CURRENT		Output
OUTPUT	Nominal	Ripple/Noise(P-P)	LAOD	Min(A)	Max(A)	Power(W)
1	3.3V	50mV	±5%	0.0	30.0	180W
2	5V	50mV	±5%	0.0	30.0	180W
3	12V	120mV	±5%	0.5	81 for 0~140Vrms	972W for 90~140Vrms
		120mV	±5%	0.5	115 for 180~264Vrms	1380W for 180~264Vrms
4	-12V	120mV	±10%	0.0	0.3	3.6W
5	$5V_{sb}$	50mV	±5%	0.0	6.0	30W

*5V,3.3V,12V,-12V Will have the regulation to 10% when all load take off.
The 12V1 and 12V2 total output shall not exceed 18A
The +3.3V and +5V total output shall not exceed 120watts.
The total output shall not exceed 250watts

REDUNDANT