

DESCRIPTION

UNIPOWER's **AGL3000** is a new generation of high density hot-swap Front-Ends for Networking and DataCom applications that utilize the 12V Bus Architecture. With a power density $>14W/in^3$ and efficiency of 87%, these "GREEN" power solutions help system designers satisfy increasing demands for reduced energy consumption, smaller size and reduced costs.

These 750 Watt Power Modules feature both Analog and PMBus communication for status and control of each power module. Front panel LED indicator and Audible alarm communicates status or fault conditions for easy identification in any environment. N+N Redundant operation is achieved with active load sharing and ORing protection circuits.

FEATURES

- ◆ Up to 87% Efficiency
- ◆ 1U High: 1.57"
- ◆ 0°C to +50°C Operation
- ◆ Universal AC Input
- ◆ >0.95 Power Factor (minimum)
- ◆ Output Voltages: 12 VDC & 5VSB
- ◆ Power Density to $>14W/in^3$
- ◆ Hot Swappable
- ◆ Integral Active Output ORing Circuit
- ◆ Class B EMI Filter
- ◆ LED Indicators
- ◆ PMBus Serial Communications
- ◆ Variable Speed Cooling Fans

TWO-YEAR WARRANTY

INTERNATIONAL STANDARDS

UL/cUL 60950-1, TUV EN 60950-1
CB IEC 60950-1, WEEE, CE Mark (LVD)



12V FRONT END MODULE

POWER	+12V _{OUT}	5V _{SB}	MODEL NO.
750W	62	3A	AGL3000

* Total power May Not Exceed 750 Watts

SPECIFICATIONS

Typical at Nominal Line, Full Load and 25°C Unless Otherwise Noted.

INPUT

Voltage Range	90-264 VAC
Power Factor	>0.95
Total Harmonic Distortion, Max	5%
Frequency	47-63Hz
Inrush Current Limiting, Max	35 / 70A Peak @ 115 / 230 VAC
EMI Filter, Conducted	FCC20780 pt 15J Curve B EN55022 Curve B
Fast Transients	EN61000-4-4
Surges	EN61000-4-5
Remote Sense Compensation	>250mV
Input Protection	Internal Fuse, 15A

OUTPUT

Current & Voltage	See Table
Output Power	750W
Ripple / Noise, max	12V = 120mV 5V = 60mV
Line Regulation	Max ±1%
Load Regulation	Max ±5%
Transient Load / Slew Rate	0.5/Aµs
Holdup Time	17msec @ 70% load
Overvoltage Protection (12V Only)	14.5V Max (Latch Off)
Current Limit	>130% (Latch Off)
Efficiency	90% (Minimum @ Full Load)

SAFETY STANDARDS UL60950-1, CSA22.2 No. 60950-1, EN60950-1

PMBus Version Compliance 1.1

STATUS INDICATORS

Normal (AC OK)	Green
Standby (Only +5VSB output)	(AC OK) Blinking Green
Power Fail	Red
Fan Fail	Blinking Red
Audible Buzzer	Fan / Power / AC Failure

ALARM SIGNALS (open drain, TTL compatible)

PS ON	Remote ON Off (LOW=ON)
PS KILL	Activates PSU (Short)
PDB ALERT	Run Fan at Max Speed (LOW)
SMB ALERT	DC OK (High = GOOD)
PDB FAULT	System Fault Shutdown (HIGH)
PGOOD	Power Good (HIGH)
PS Present	Indicates Power Module is present

ENVIRONMENTAL

Operating Temp. Range	0°C to +50°C
Output Current Derating	3%/°C, 50°C to 60°C
Storage Temp. Range	-40°C to +70°C
Humidity	20% to 90%, Non-Condensing
ESD	Bellcore GR-1089-Core and EN61000-4-2
MTBF, 25°C (MIL217F)	100,000 Hours
Cooling	Integral Ball Bearing Fans

PHYSICAL SPECIFICATIONS

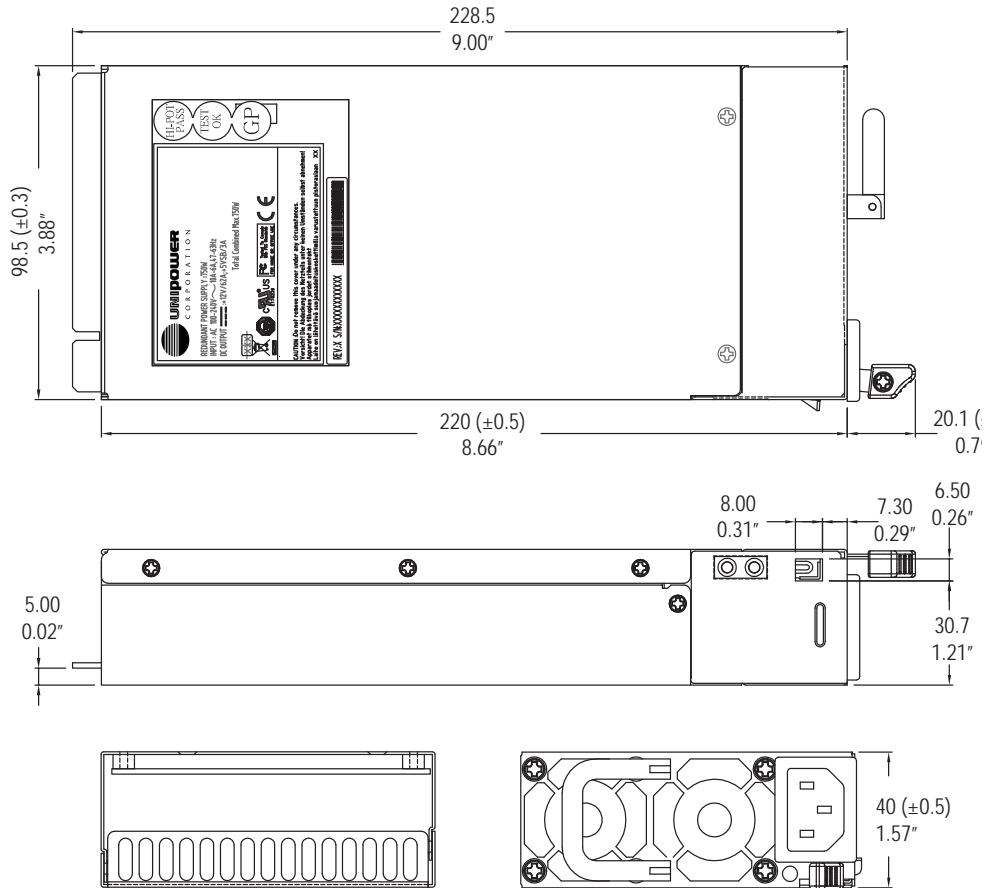
Case Material	Steel
Case Dimensions, Inches (mm)	8.66"(L) x 1.99"(W) x 1.57"(H) (220 x 50.5 x 40mm)
Weight	2.87 lbs. (1.3 kg.)

OUTLINE DRAWING

DC CONNECTOR DETAILS

Edge Connector mates with AMP 5530843 or equivalent

BOTTOM SIDE		TOP SIDE	
PS KILL	72	36	PDB FAULT
PS-ON	71	35	PGOOD
12V I-SHARE	70	34	+12V RS+
SCL	69	33	A1
SDA	68	32	A0
12V RS-	67	31	ACOK
SMB ALERT	66	30	PDB ALERT
PRESENT	65	29	V SENSE
GND	64	28	GND
GND	63	27	GND
GND	62	26	GND
GND	61	25	GND
GND	60	24	GND
GND	59	23	GND
GND	58	22	GND
GND	57	21	GND
+12V	56	20	+12V
+12V	55	19	+12V
+12V	54	18	+12V
+12V	53	17	+12V
+12V	52	16	+12V
+12V	51	15	+12V
+12V	50	14	+12V
+12V	49	13	+12V
+12V	48	12	+12V
+12V	47	11	+12V
5 VSB	46	10	5 VSB
5 VSB	45	9	5 VSB
AC-L	41	5	AC-L
AC-L	40	4	AC-L
-	39	3	-
AC-N	38	2	AC-N
AC-N	37	1	AC-N



Unit: mm
inches

INDICATORS

LED INDICATORS

Power Supply Status	Color
Normal(AC OK)	Green
Standby (AC OK)	Blinking Green
Power Fail	Red
Fan Fail	Blinking Red

PMBus SPECIFICATIONS

Command Code	Command Name	SMBus Transaction Type	Number of Data Bytes
19h	CAPABILITY	Read Byte	1
1Ah	QUERY	Read Byte	1
88h	READ_VIN(Note1)	READ WORD	2
89h	READ_IIN	READ WORD	2
8Bh	READ_VOUT	READ WORD	2
8Ch	READ_IOUT	READ WORD	2
8Dh	READ_TEMPERATURE_1	READ WORD	2
90h	READ_FAN_SPEED_1	READ WORD	2
91h	READ_FAN_SPEED_2	READ WORD	2
96h	READ_POUT	READ WORD	2
97h	READ_PIN	READ WORD	2
98h	PMBUS_REVISION	READ BYTE	1
99h	MFR_ID	R/W Block	Variable
9Ah	MFR_MODEL	R/W Block	Variable
9Bh	MFR_REVISION	R/W Block	Variable
9Eh	MFR_SERIAL	R/W Block	Variable
A0h	MFR_VIN_MIN	READ WORD	2
A1h	MFR_VIN_MAX	READ WORD	2
A7h	MFR_POUT_MAX	READ WORD	2
B0h	USER_DATA_00	READ BYTE	1

Note1: If AC Input= 90V ~ 180V PMBus sent the value of 115V
 If AC Input= 181V ~ 264V PMBus sent the value of 230V

Bit Number	Status Bit Name	Meaning
7	Reserved	Default=0
6	Reserved	Default=0
5	Reserved	Default=0
4	Reserved	Default=0
3	Reserved	Default=0
2	Module Status	Inserted=0, Not inserted=1
1	PS_ON Status	PS_OFF=0, PS_ON=1
0	AC Status	AC OK=0, AC Fail=1

PDB address A0/A1	0/0	0/1	1/0	1/1
PSU PMBUS Device	B0h	B2h	B4h	B6h